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CRISTINA BARCINA PÉREZ

Before Civilization

A Non-Evolutionist History of Community-Making in Southwest Asia

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CHAPTER 1. INTRODUCTION

1.1. The agency of the commoners needs not be tragic

The initial aim of my research was to better understand the emergence and consolidation of kingship in southern Mesopotamia during the Early Dynastic period, in the first half of the 3rd millennium BC. What were the social changes that in a matter of centuries made many people prefer life in a city (which at the beginning of this dissertation I would have defined as an agglomeration of buildings arranged according to a planned layout, but once concluded I would describe as an agglomeration of people whose leadership has taken control of a territory and its inhabitants)? Why did an institution that had a chosen individual as its sole representative crystallize as the most desirable option over other decision-making configurations? How did the values that would explain such a development take hold? Simply put, how could people have allowed a single individual to have so many human and material resources at his command, and even accrue them for his own personal benefit or the benefit of his family and favorites? This, the way I saw it, could not simply be explained away by a religiously-based legitimating ideology that suddenly sprouts and manages to radiate such a level of persuasion upon most of a population that their values, actions and choices become self-detrimental at the end of a relatively short span of time. Yet, the gaps that prevent archaeologists and historians from understanding the sequence of events that see the first agglomerations grow in the delta of the Persian Gulf at around 3600-3500 BC until the archives of Lagash, the cemetery at Ur, and the urban development witnessed at cities like Khafajah (Tutub) present us with a landscape of burgeoning city-states a little over a thousand years later, are currently minimized or dismissed as unnecessary distractions that undermine the big narrative that heralds the birth of true complexity during this period (here and in the Nile Delta), exemplified by urbanism, territorial domination (the 'State'), and the end to the opacity of oral transmission.

In *Killing Civilization -a Reassessment of Early Urbanism and its Consequences*, Jennings argued that our adherence to a staged model of civilization distorts our understanding of the emergence of urban societies, which should be better seen as "the often-unintended by-products of rapid settlement aggregation".[1] In the case of the southern portion of 'Mesopotamia' (which was not the only area of Southwest Asia where large aggregations were taking place during the 4th millennium BC), I will argue that there were two heterogeneous urban growth processes instead of one. The first had to do with the Uruk settlement and its hinterland, however large it grew to be, and the second concerns the Susiana, plus the so-called "Uruk colonies" that were founded in the Middle to Upper Euphrates. After the climatic crisis at the end of the 4th millennium BC—which may have been aggravated by the despotic tendencies of the ruling organs of the 'meta' organizations—these aggregations were abandoned or declined/contracted. During the following centuries, the process of urbanism developed in the western arch of the Persian Gulf (the Diyala, the alluvium

[1] Jennings 2016: 7.

and the delta) with a high degree of differentiation—visible in the choices about architectural planning, mortuary arrangements, the adoption of the writing system, and settlement size—so instead of heralding the birth of 'Sumer', we should be acknowledging heterogeneity.

Furthermore, the evolutionary, step-by-step narrative encompassing the 'Uruk phenomenon' (see last section of 1.4) and the 'Early Dynastic' represents the culmination of a larger one presenting the prehistoric peoples of Southwest Asia as if predestined to achieve civilization the moment domesticated plants and animals were consistently selected for, their Neolithic households transmuted into the *domus*/*oikos*[2] of economically-driven societies. Values like flexibility and adaptation on the face of hardships, the reliance on a community where burdens and joys are shared, the creativity that brings pride to the crafts-man/woman, the sense of belonging, and the negotiated balance with the multiple Other who inhabits the sensorial and extra-sensorial world with humans have not been studied by prehistorians as much as materiality classified as techno-economic or ritual/symbolic. But we need to understand what happened before civilization if we are to understand the panoply of collective choices that would give us a picture of the region at large at 3500 or at 2500, or even at 2000 BC.[3]

While authoritarianism, once implanted, narrows down the range of available choices for the people outside decision-making institutions, the actions that would have led to its implantation should be carefully studied instead of being taken for granted. If we approach 'civilizations' as fated phenomena, we are not going to be asking the questions that need to be asked, nor observing changes—or their lack, or their speed—to detect heterogeneity, which in turn may help us understand the possible motivations that made a few choose a path that would be later emulated by some, or imposed on many. Even though 'origins' of any kind are protracted situations characterized by a dearth of archaeological—and if applicable—textual data, these periods of 'becoming'—with their presences and absences—should be of interest, and therefore investigated thoroughly. Beginnings, ends, and transitions can tell us much about collective choices. Of course, this approach would require that scholars who study the past do not regard 'collectives' as 'societies'[4] which can only be qualified as complex if hierarchical.

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[2] Hodder, throughout his work; Pollock 1999. The nomenclature in our disciplines (also in Assyriology) still betrays overwhelming Euro-centrism.

[3] It can also be argued that Southwest Asia, during the three millennia that we assign to a cultural block termed 'Ancient Mesopotamia' or the 'Ancient Near East', was never uniformly civilized. Crises, political instability, the choices of peoples preferring a pastoral lifestyle or remaining on the margins of valleys until categorized with an ethnic label by their "civilized" neighbors, the flow of integration and disintegration, present a picture of diversity that is in direct opposition of a "textbook" civilization.

[4] The term 'society' is also problematic if conceived as a structure. M. Strathern, an anthropologist who did most of her fieldwork in Papua New Guinea, explains 'dividuality' in *The gender of the gift* as follows: "We must stop thinking that at the heart of these cultures is an antinomy between 'society' and the 'individual'. (…) 'Society' is seen to be what connects individuals to one another, the relationships between them. We thus conceive of society as an ordering and classifying, and in this sense a unifying force that gathers persons who present themselves as

Therefore, due to the long enchainment of assumptions affecting the on-going narrative on the prehistory of the region and the emergence of civilization (see a summary of the matter in 1.4 below), I realized that my initial aim needed to become something more ambitious and onerous: investigating sedentism itself, exploring the way communal life anchored itself to place but was also capable of mental and physical re-location. Although such a vast diachronic aspiration was initially daunting, by focusing on the traits that show advanced social intelligence and protracted experience with organization and cooperation, a coherent evolution that is mindful of diversity has been achieved. Cooperation here is understood beyond the parameters set by 'collective action' theory, as posited by Blanton and Fargher on their study of bureaucratic states, called "corporate political economies".[5] In the introduction to this study, they defined a collective polity as a complex society in which the government provides services in exchange for the revenues provided by compliant taxpayers, and that kind of economic jargon sets the tone for the rest of the book. Blanton and Fargher offered the ultimate version of an infallible "cross-cultural method" to understand "pre-modern states". Although some of the states that made the sample came from antiquity, the majority had to come from the 16th to 19th centuries for the authors to be able to gather sufficient descriptions and raw data from ethnographic and ethnohistorical accounts. To be included in the sample, the multitiered governing apparatus of a given society had to have been a functional and endurable organization in which there was a structured pattern of authority allocated between named roles or offices within each hierarchical level of administration and across the various hierarchical levels.[6] 'Agency' and 'rationality' were explained in economic terms. Questions of inquiry were how bureaucracies responded to scalar stress, exercised effective control depending on geographical and demographic size, or were constrained by cognitive or symbolic structures/religions.

My understanding of 'cooperation' and 'collective action' is very different. It is not so much about altruism as it is about investigating advanced social intelligence, whereby communities work in a more or less organized fashion to survive or thrive, depending on the circumstances. For millennia, humans were not a species that was or aspired to be hegemonic. Ideas of land ownership—which would eventually entail the domination of all beings inhabiting a territory—would probably have been considered profoundly immoral and dangerous, if conceived. There would not have been 'commons'[7] (communal resources) to be transferred to future generations, as much as an entangled 'homescape' composed of built and natural features that were integrated into a shared historical/mythological corpus to provide a collective identity, which would have been transmitted and reinforced through daily and extraordinary practices. One of my contentions throughout this dissertation will be that there is no

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otherwise irreducibly unique (…). Far from being regarded as unique entities, Melanesian persons are as dividually as they are individually conceived. (…) While collective events do, indeed, bring together disparate persons, it is not to 'make' them into social beings. (…) **The relations at issue involve homologies and analogies rather than hierarchy**." Strathern 1988: 12f.

5 Blanton and Fargher 2008.

6 *Ibid*.: 27.

7 As formulated by Hardin 1968 (*The Tragedy of the Commons*).

segregation between 'economic' and 'religious' behavior before civilization, before territorialization. That is why I believe that the choices that some communities in the arch of the Persian Gulf made during a good portion of the 4th millennium BC were an ontological revolution that would eventually pave the way towards the privatization of communal resources.

Although reluctant to accept the usefulness of neat theoretical formulations, I am more or less inclined towards 'practice' theory, a branch that stemmed from the discontent with previous archaeological theory proposals between the twentieth and the twenty-first century. It is not my intention here to provide an extensive review on theory-conscious archaeology, from the processualism or 'New Archaeology' of the 1960s and 70s, to the post-processualism and the theoretic influences from several social sciences that postponed the first (and structuralism in anthropology). A brief summary will suffice. The first aspired to establish cross-cultural universal statements based on behavioral approaches, that is, treating a factor called 'culture' as a biological anthropologist would, something that humans as a species use to adapt to their environment. The second was more a reaction against the mechanistic and reductive interpretations of the first than a cohesive school of thought, but it spurred the formulation of other theories, some mere correctives, others more engaged with the consequences of regarding individuals as actors instead of puppets of structures or largely irrelevant in the unfolding of broad evolutionary processes. Practice theory was formulated by Pauketat in 2000 as a compendium of the major points of contention made by the post-processualists:

> Practice theory is *not* agency theory, at least not as agency theory is currently practiced! Archaeologists who advocate agency in their theories cover the full gamut of theoretical approaches (see Dobres and Robb, this volume). These archaeologists include functional-ecological processualists and Neo-Darwinian "individualists" who see the charismatic or accumulating "behaviors" or the political "strategies" of certain types of people as important "factors" in human evolution [refs.]. They also include "cognitive-processualists" who study the distributions of symbols and *chaînes opératoires*, among other things, to understand the cultural and technological constraints to social change [refs.]. Finally, there are postprocessualists, feminists, Marxists, and even some Neo-Darwinists who recognize a dynamic tension between individuals and cultural structures along with the unintended consequences of people's routinized actions [refs.].[8]

So, what, according to Pauketat, was specifically practice theory, and how did he distinguish it from the theories of those who would follow Hardin in believing self-aggrandizers will always end up taking advantage of common resources? "It is a theory of the continuous and historically contingent enactments or embodiments of people's ethos, attitudes, agendas, and dispositions".[9] Pauketat, a specialist on Cahokia—several clusters of monumental earthen structures, houses and burials in the Mississippi of current Illinois from the 11th to the 13th centuries AD—explains what he means by that definition borrowing heavily from sociologists and anthropo-

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[8] Pauketat 2000: 114. The last comment betrays the impact that Bourdieu's and Gidden's work had on postprocessual archaeologists.

[9] *Ibid*.: 115.

logists. But in practical terms, he is keen on detecting "subjective co-optation"—a fancy term to refer to reluctant submission on the part of the "commoners". Pauketat observed that the construction of the monuments happened abruptly, which would entail the arrival of newcomers, yet they were built in stages and there were enlargements and renovations. He believed that the aim seemed to have been more about bringing people together than domination, so to remain coherent, he introduced "large-scale negotiations", a vague concept. He inferred "a kind of traditional resistance" on the part of the locals because he observed "a lack of intra-regional stylistic isomorphism" (=cultural diversity).[10] Yet, Pauketat concluded that the monumental landscape created a common regional identity, despite the reluctance of the locals to follow the plans of the presumed newcomers. He was aware of this contradiction when referring to the origins of this new coordinated power: "How that authority was initially articulated is far beyond the present scope and, to large extent, beside the present point. The range of possibilities includes everything from religious movements to kin coalitions to coercive regional overlords".[11] Seventeen years later, after extensive excavations and studies had been conducted at several sites,[12] he argued for a deliberate alignment of the mounds at and near the Emerald Acropolis along specific axes, and defended a religious foundation of Cahokia.[13] The fact that the peoples building the complexes at specific locations in the Mississippi basin were the same as before—loosely interconnected semi-sedentary populations that for "historically contingent" reasons decided to embark on this kind of large-scale project, just as eventually they decided to abandon it—was not even suggested.

Pauketat and colleagues were more interested in the secondary histories of the Cahokian landscape and the importance of its cosmological values among subsequent Plains peoples' traditions. This perspective has been exploited to the maximum by Tilley and his 'phenomenology of landscape'.[14] Monumentality is not only the product of civilizations. White and Lane have recognized the importance of monumental traditions in large, low-occupation-density settled regions in all continents.[15] According to their survey, all the settlements over 1000 ha in areal extent, but for two, operated with monument construction, a fact which warrants a new way to approach sedentism and study "other types of regional cohesion than centrality".[16] The Anatolian Harran plains where Göbekli Tepe—one of the most famous archaeo-

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[10] *Ibid*.: 121.

[11] *Ibid*.: 122.

[12] An additional reflection on the Cahokian example is that a theory of practice should also be applied to archaeological practice, and that archaeologists should feel free to change or nuance their initial interpretations on a site, and their derived theory-building efforts, bravely and transparently. It stands to reason that ten, twenty, thirty years of archaeological research, undertaken to learn about a particular period in a particular region of the world, would produce unexpected outcomes and results, and even force new lines of inquiry after initial premises are proven largely or partly wrong.

[13] Pauketat, Alt and Kruchten 2017.

[14] See, most recently, Tilley 2020.

[15] White and Lane 2019, *apud* Fletcher's *On the Limits of Settlement Growth*.

[16] *Ibid*.: 172, 175f.

logical sites in the world—is located should be considered one such landscape, since there may be up to eleven sites in the region with T-shaped pillar enclosures. Their chronology, in conjunction with re-configurations and re-purposed traditions after their construction, still needs to be investigated (see Ch. 2).

In 2021 anthropologist David Graeber and archaeologist David Wengrow published *The Dawn of Everything*, a herculean effort to challenge the biases stemming from the disproportionate attention that social scientists have paid and still pay to 'inequality'. The authors cleverly show how the intellectual elites of England and France in the 18th century, when confronted with narratives describing in more or less accurate detail different political organizations to their own, and despite the impact that these books and testimonies had among many a protagonist of the Enlightenment concerning Freedom—which the authors turn into specific and basic freedoms: to move, to disobey, and to re-organize—, subsequent publications soon turned this discourse towards a more palatable debate on Property, particularly landed property, which served to justify what was considered to be politically and morally appropriate—a sign of the true progress that characterized their societies—and by approximation, any polity who had reached Empire status. By contrast, through their curated examples the authors propose that multiple societies throughout time had the ability to consciously organize themselves as they saw fit, and to make conscious decisions to change their organization if they were not satisfied with their quality of life. Tackling the ever-present subject of the 'State', Graeber and Wengrow defined three sources of political power that could help with its definition, namely control of violence, control of information, and individual charisma. Even though they equate these with 'sovereignty', 'bureaucracy', and a competitive political field—a very particular translation—, they are careful to remark that these elements belong to modern states, and that any combination of these elements giving rise to "embryonic" states deserves to be studied in its own terms.[17]

Historical evolutionism has two main manifestations among archaeologists and cognate disciplines. The first is that the emergence of some object, skill, or technology—which will be considered a feature of a sophisticated society following the repercussions, uses and transcendence that said objects, skills or technologies will end up having centuries down the line at the same location, or rather at a conventionally constituted region of the world of generous proportions (e.g. Mesopotamia, the Balkans, Mesoamerica, Indus Valley, Ancient China)—can be assigned a 'proto' or 'middle' stage on the path towards complexity. I would not call this a convention as much as a convenient artifice. The problem is that it engenders an inaccurate sense of gradualism, understood as a uniform, ordered, purpose-driven development and expansion of the "technology" in question, be it ceramics, metallurgy or the writing system.

The second is the belief that 'elites' will engender, control or expand any kind of cultural change. Elites' motivations are generally assumed to be about political power and/or privileges of the economic kind, that is, vital or exotic resource accumulation. The nature of that political power is hardly ever defined by anything other than a category from the old Service's typology (band-tribe-chiefdom-kingdom). Defining

[17] Graeber and Wengrow 2021: Ch. 10.

these categories is a different matter altogether.[18] Are tribes and chiefdoms about leadership of the whole, leadership based on gender, task or profession, seasonal leadership, clan leadership, crisis-based opportunism, territorial defense or acquisition? How is political leadership based on seniority or clan rotation supposed to be detected on the archaeological record? The fact is that there are no unambiguous criteria to identify 'polities', that is a politically controlled territory with more or less defined borders,[19] for most of the history of humankind. When territorial centralization is under way, we are best able to identify 'capitals' and 'city-states' (or micro states[20]) of fluid borders, and in the case of societies who did not adopt a writing system, symbolic statements by means of visual media or architecture continue giving information on ritual.

Perhaps out of frustration, archaeologists often assign changes in material culture to 'elites', particularly if there is not sufficient data gathered for a cultural category at the regional level for that period, or if there is much heterogeneity. It is easier to invoke 'elites' than it is to pinpoint all the factors that may have contributed to the origins, maintenance, irregular diffusion and variations of a given cultural marker. This is the main problem of a bottom-up approach. It requires patience and cautiousness, and therefore demands that the grand overarching hypothesis/model be kept waiting for confirmation in the backburner, posited as one of several scenarios. In addition, there seems to be an underlying anxiety on the part of mission directors and many specialists dealing with the distant past that one's site, one's period, and one's targeted material may not be considered complex or interesting enough by others (colleagues, scholars with kindred interests, financing institutions) without theoretical embroidery. Robb's complaint on the long duration of the Neolithic in Italy (6000-3500 BC) without much to account for as concerns discernible activities apart from "making a pot or providing food" may serve as an example to illustrate this frustration:

> The Central Mediterranean was peopled with small farming groups who lived in scattered villages and clusters of huts, relied upon basic Old World farming economy based upon growing wheat, barley, and pulses and raising cattle, sheep, goats and pigs, and carried on a constant, low-level rhythm of ritual and trade. In traditional archaeological categories, they are usually disposed of by designating them as 'tribes', with the unspoken rider that there really is very little else to say about them until they get on with something more ambitious, such as developing hierarchies.[21]

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[18] See, *inter alia*, Yoffee 2004.

[19] Renfrew defined 'polity' in his model to understand emergent states, the 'peer polity interaction sphere', as any society or community that regulates its own affairs, whether corporately, or through elders, chiefs or more hierarchical power-structures (Renfrew and Cherry 1986). In the absence of visual markers indicating sovereignty over land and people, however, or in the absence of textual records, prehistorians should focus on more realistic research goals, such as task division according to gender/age, cooperation, migration, and reactions to hardship. Among those reactions, warfare, alliances with human and non-human persons as witnessed by mortuary or symbolic increase, abandonments and resettlements, shifts in transmitted knowledge, and experimentation may be equally considered as elucidating factors.

[20] Yoffee 2004: *passim*.

[21] Robb 2010: 508.

To be fair, there are some prehistoric archaeologists who are aware of the pitfalls of evolutionism and offer specialized applications of alternative operatives to the "archaic state formation". These, however, usually revolve around the nature of exchange networks, ritual human sacrifice, competitive feasting, and Maussian competitive generosity, well-trodden theoretical paths that have become a recurrent solution for archaeologists to be able to say something impressive about early sedentists, or about societies with rich materiality and surviving architecture, considerable regional settlement density, but highly asymmetrical and difficult political definition (e.g. Moche to Tiwanaku, "Formative" Mesoamerica, Longshan to Erlitou, Niger Delta). 'Elites' are said to be political, economic, and ritual agents. Calling them 'elites' plus the adjective suffices, and hence their circumstantial motivations and the possibility of their multiple social roles can be bypassed.

1.2. An ontological outlook; a heterarchical approach

Two theoretical frameworks, one ontological, the other organizational, have provided the spinal column for the dissertation as a whole and for the last chapter, respectively. The first is based on the premise that 'animism', as described by anthropologists for the past decades, is somehow the cultural broth that defined relationships with other persons—human and non-human—since our most distant past, and even though its specifics, its ingredients—the mythological narratives, the values behind individual prestige or material worth, plus their variability and reconfiguration—will always remain opaque in the absence of textual sources, *diversified* textual sources in particular, and given that conducting anthropological field work is impossible without a time-travelling machine, I consider the exegetical analysis of *their* values of fundamental importance despite the risks. There are too many nationalistic agendas in the world right now feeding nostalgia of empire. Several political leaders still seek the support of religious leaders to portray an image that is perceived as optimal among their electorate or the citizenship at large, or to enter symbiotic alliances. Too many governments adequately preserve a selection of their heritage based on touristic (economic) and political goals. We have a responsibility to illuminate what being human has meant everywhere: all our variations, all our adaptations, at all scales, so that we are capable of imagining social life beyond the kind of warped, gigantic urbanism, atrophied rural world, and devastated wilderness that constitutes our contemporary reality. That is something that unites us all nowadays, dictatorships and democracies alike. Even within democratic systems, some individuals feel as if they lack any agency or voice, or they may confuse the balance between rights and responsibilities, formulate identity in univocal and absolute terms, perceive that economic inequality is all-encompassing and inevitable, or think that the health of ecosystems is an irrelevant concern unless it bears a direct impact on their economy. Some of these anxieties may have been felt by individuals in the past, but just as illuminating may be the comprehension and dissemination of other anxieties experienced by other societies, outside our current realm of experience.

A decade ago, Holbraad, Pedersen, and Viveiros de Castro co-authored an article that was somehow more of a manifesto of sorts, arguing for an adequate inclusion of indigenous ontologies (how they conceive of and relate to all beings in their world) in anthropological research.[22] Despite their different ethnographic experiences (the first on voodoo practices in Cuba, the second on Mongolian shamanism, the third on the Amazonian peoples), these three scholars argued that anthropology is also a political and not only an epistemological endeavor: "Anthropology is the science of the ontological self-determination of the world's peoples". They identified three different manners in which ontology and politics are correlated in the social sciences and cognate disciplines, namely:

> (1) the traditional philosophical concept of ontology, in which "politics" takes the implicit form of an injunction to discover and disseminate a **single absolute truth about how things are**; (2) the sociological critique of this and other "essentialisms," which, in skeptically debunking all ontological projects to reveal their insidiously political nature, ends up affirming the critical politics of **debunking as its own version of how things should be**; and (3) the anthropological concept of ontology as the multiplicity of forms of existence enacted in concrete practices, where politics becomes the **non-skeptical elicitation of this manifold of potentials for how things could be**—what Elizabeth Povinelli (2012), as we understand her, calls "the otherwise."

These are my endeavors here, to debunk and to elicit potentials. The ontological turn in anthropology has also had an impact on archaeology. Matter and objects, which constitute the basis of archaeology, have to be interpreted in order to reach the subjects. Those interpretations are neither neutral nor easy (see below, on 'objectivity'). For almost two decades, archaeologists have tried to "animate" materiality,[23] defend the agency of non-human persons and things,[24] and develop strategies to approach past realities as they were lived and experienced through material (not all objects—"not all stones"[25]—but some) suspected of being imbued with meaning and even life (New Materialism, post-humanism).[26] However, if, for ethical reasons, anthropologists have been concerned with the erasure of many indigenous people's voices in the recent past, and the lack of collaboration with contemporary indigenous communities when it comes to archaeological practices in the Americas and Australia—where anthropology has been part and parcel of archaeology university programs for decades—has been criticized and more or less corrected,[27] for archaeologists dealing with the distant past the challenges are no less daunting.

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22 Holbraad, Pedersen and Viveiros de Castro 2014: http://www.culanth.org/fieldsights/462-the-politics-of-ontology-anthropological-positions

23 Alberti and Bray 2009, and contributions to this volume.

24 Brown and Walker 2008, and contributions to this volume.

25 Hallowell 1960: 24, the famous reply of the Anishinaabe wise man to the question "Are all the stones we see about us here (Little Grand Rapids, Manitoba) alive?"

26 There is abundant literature on these topics. Cf. Crellin et al. 2021.

27 See Matthews and Roulette's and other contributions to Astor Aguilera and Harvey 2018. See also Tutchener et al. 2021 for the inclusion of Aboriginal communities into the assessment process of "heritage significance".

While Neo-Marxist historians posited that other peoples had been capable of imperialism, trying to put European self-centeredness into perspective,[28] and several anthropologists (and popular media catering to interested audiences) have emphasized the hierarchical nature of many cultures—in what I believe is a misguided attempt to defend the originality and complexity of non-European socio-political organization and systems of knowledge after centuries of cultural annihilation—, describing the ontologies of peoples until micro-states emerged, and beyond, as an archaeologist becomes a larger ideological minefield. Just as anthropologists have tried to avoid the *bon sauvage* perspective but still describe peoples with a different social reality to our contemporary materialistic or 'naturalistic'[29] ontology, archaeologists may legitimately do so and try to interrogate matter because—after having learnt and assimilated how people (in general) may include into their social worlds entities that biologists, physicists and chemists would classify as inert, incapable of volition or non-existent—it is a safe assumption to establish that peoples in the ahistorical past also did so, and therefore squeeze ethnographic testimonies and anthropological theory to the pulp. But the whole range of political and social organization needs to be under the scope of inquiry, not only 'inequality', or rather inequality defined in terms that—I will postulate—fit better a framework of homogenizing, institutionalizing, reductive ontologies. Moreover, as Mol has convincingly argued, it is possible to look at the potential of agency hidden in objects (the "speaking objects" of ancient Rome, written in the first person, addressing viewers or handlers) and still illuminate the objectification of slaves according to Roman law and customs.[30] So, to conclude, inequality should only be relevant to the discussions on how people lived during vast spans of time across the globe if there are additional insights to offer the reader, and appropriate contextualization. Otherwise, the thinly veiled impatient wait for inequality to finally happen—as Robb has wittingly confessed to, referring to the Italian Neolithic—will seep through. If I may be excused for making a very personal comment, I must confess that I am sick and tired of all the self-aggrandizers, prestige-seekers, elites of this and that kind, smooth operators puppeteering exchange networks, hoarded treasures and luxury items, royal-like chiefs, tiered cakes or pyramids, and my favourite, conspicuous consumption of goods, that I have had to read about for five long years. The lack of originality in many archaeologists' approaches and narratives—and not only those working on the prehistory of Southwest Asia—is flabbergasting. But, more importantly, it does not seem to be related to social justice concerns, but to prurient interests—particularly if it is believed the examined material relates to warfare or violent conflicts—or to a post-Hobbesian, fatalistic ontology, as if inequality were the unfortunate price to pay for so-called complexity.

Many complex cultures have existed that could be described as heterarchical instead of hierarchical. The term 'hierarchy' was first coined in the 6th century AD

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[28] Wolf 1982.

[29] Using Descola's category, see Ch. 3.

[30] Mol 2023, arguing against New Materialism as "object fetishism", unable to account for human inequality.

in an ecclesiastical context.[31] Hence, it was applied to describe an institution, or suggest how the institution should be managed. Throughout the history of humankind, this organizational model may be argued to have existed, even transcending institutional parameters (a hierarchy of hierarchies). But alternative organizational models may be posited as more fitting whenever rigid enforcement of rules and obligations, and exhaustive control of people in a given territory, were not achieved or intended. 'Heterarchy'—which will be applied as a flexible model to describe an organizational arrangement consisting of a pooling of resources in a nucleus surrounded by residential satellites around it in Chapter 7—may not only be applied to sociopolitical organization, but also serve to describe more subtly and accurately different dimensions of the human experience, including gender dynamics, social status, and systems of knowledge. Archaeologist Carole Crumley has defended that, while heterarchy meets three criteria that are commonly applied to social modeling,[32] it can also satisfy opponents of 'systems theory', which conflated hierarchy with order. In her own words:

> Complex thought and behavior may be found in every society, past and present. The archaeological record indicates that from earliest human societies to the present day, coupled individual creativity and collective flexibility have met with success. Thus biological diversity has a correlate in human societies: **the toleration of difference in individuals and groups increases societal choice and offers a reserve of alternative knowledge for use in problem solving, just as genetic and biological diversity increase ecosystemic resilience**. Similarly, **organizational flexibility—economic, social and political**—enables societies and organizations to adjust to changed circumstances. If we begin with the premise that the tension between competition and cooperation exists in all human societies, it then behooves us to explore the ways rules and norms preserve or deny each, and how both interact with history and changing conditions to forge institutions.[33]

To explore 'cooperation', more than 'competition', is my intention. Given the large scale of time that 'prehistory' entails, cooperation and flexibility should be more important factors to understand social intelligence in Southwest Asia than internal and extrinsic competition, which does not become visible until the first throes of civilization. When large aggregations emerged in the 4th millennium BC, these communities chose a new organizational mode that entailed a merger or fusion, and therefore collective leadership, perhaps because they were able to learn from past mistakes. If the coming together of different groups was motivated by a wish to manage and increase material and demographic growth, as well as prepare for a possible crisis, future research should explore dynamics of growth and dispersion in the study of the preceding millennia. If we keep on focusing on competitive elitism as a Deus ex-machina device, we will continue missing the most relevant conditions

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[31] It means "sacred rule" and was first used by Pseudo-Dionysius the Areopagite to describe a situation in heaven: nine choruses of angels divided into three hierarchies, and on earth, the Church.

[32] Namely, 1) How adequate is the model in relating the micro or individual level to the macro or social level?; 2) How adequate is the model in relating the conscious agency of social actors to the social structure in which they operate? 3) Can it provide an explanation for discontinuous and fundamental changes in the social system as a whole?

[33] Crumley 2005: 42.

and motivations that eventually led to the formation of large aggregations, their expansion, the creation of powerful institutions, and the active orientation of collective identity towards that decision, presented as an ability or achievement (as well as the motivations to reject that trajectory).

Using the metaphor of weaving here, which is the way I think of my methodology, the warp of this dissertation is to challenge the excessive importance that archaeological theory and practice continues to assign to property, social stratification, hierarchy, and a complexity defined according to the regular and dissimilar distribution of material resources, disregarding the ontological background of the peoples under study. The weft tries to discern communal life and values, paying attention to assemblages in context, village layouts, and some of the tangible leftovers that allow us to glimpse the intangible (i.e. their cosmology, their relationships within the community[34] and with the inhabited landscape, their emotions and ideas expressed symbolically, through iconography, plastic and ornamental material).

Concerning the second goal, I will be entering the dangerous realm of subjectivity and deliberately strive to "go native", to use an anthropologist's term.[35] 'Objectivity' has been extensively debated across several disciplines within the social sciences—including journalism, history and archaeology—for the past five decades, although debates have sometimes wandered so far into the ether that the whole purpose and sense of a discipline has been put at the stake by those adopting somewhat extreme stances (cf. *Hayden White and the History-Literature Debate*[36]). There is an increasing perception that 'objectivity' creates an illusion—by means, among other factors, of the language and terminology used and the apparent cancellation of the personal background or professional context of the narrator/scientist. Post-processual archaeologists point out that exploring cultural pasts should be an open-ended endeavor, less about "epistemological closure" than an "ontology of society"[37] (even more so, I would add, if new excavations and studies present the need for reassessment, as mentioned above). A typology of objects, a classification of images, a ranking of dead bodies, and the matching of these elements with a stereotypical

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[34] The community at the site level, since I think the 'village', not the 'household', became the main social unit (see Ch. 4). Like many other scholars, Watkins (2008) assumed that Neolithic communities ("megasites") were composed by several thousand people, an assumption which requires protracted, extensive excavations and reliable dates to be proven on a case-by-case basis. After decades-long excavations, reassessment of the building history of Çatalhöyük, East Mound, probably the largest site in the region at large during the 7th millennium BC, has led to the conclusion that the population was never beyond one thousand during the middle phase, at its peak (Kuijt and Marciniak 2024).

[35] Even aware of the criticism that my disposition may elicit. In words of Tedlock: "What seems to lie behind the belief that going native poses a serious danger to the fieldworker is the logical construction of the relationship between objectivity and subjectivity, between scientist and native, between Self and Other, and unbridgeable opposition" (1991: 71). To avoid the dichotomy, Tedlock proposed instead "human intersubjectivity", although in the case of a historian or archaeologist, that proposal is not viable.

[36] See contributions to Korhonen (ed.) 2006. Regarding New Journalism (also known as literary journalism) and its impact in US media in the 1960s and 70s, see Pauly 2014.

[37] Shanks 2008: 137.

individual to obtain a neatly tiered social hierarchy has already been tried *ad nauseam* in archaeology with tautological results. Instead of struggling to achieve 'objectivity' and obtain irrefutable proofs, I have sought comprehensiveness and the integration of data into a coherent narrative. To look into the lives and deaths of a past group of people as a whole can offer insights that would be missed if focusing only on one type of object or activity.

1.3. The importance of integration

In his influential *We have never been modern*, Latour criticized the contradictions inherent to 'modernity', better explained beyond its temporal connotations as related to the domination of man over man and man over nature, and connected it to two different sets of practices that should not be confused. "The first set of practices, by 'translation', creates mixtures between entirely new types of beings, hybrids of nature and culture".[38] This set of practices is allocated by Latour to "networks". The term 'institution' is avoided. "The second, by 'purification', creates two entirely distinct ontological zones: that of human beings on the one hand; that of nonhumans on the other." He labeled these practices as "modern critical stance". "Without the first set, the practices of purification would be fruitless or pointless. Without the second, the work of translation would be slowed down, limited, or even ruled out".[39] According to Latour, "no science can exist from the network of its practice"[40] (its actual social and technological context) and neither science nor politics can intend to represent exclusively things or subjects without falling into contradictions. But modern critique, from the Enlightenment until our days, is keen to cautiously separate material causality from the illusions of obscurantism, true science from false ideology. This aspiration, by means of translation and purification, of course, never works (or works all too well):

> You think that thunder is a divinity? The modern critique will show that it is generated by mere physical mechanisms that have no influence over the progress of human affairs. You are stuck in a traditional economy? The modern critique will show you that physical mechanisms can upset the progress of human affairs by mobilizing huge productive forces. You think that the spirits of the ancestors hold you forever hostage to their laws? The modern critique will show you that you are hostage to yourselves and that the spiritual world is your own human —too human— construction. You then think that you can do everything and develop your societies as you see fit? The modern critique will show you that the iron laws of society and economics are much more inflexible than those of your ancestors. You are indignant that the world is being mechanized? The modern critique will tell you about the creator God to whom everything belongs and who gave man everything. You are indignant that society is secular? The modern critique will show you that spirituality is thereby liberated, and that a wholly spiritual religion is far superior. You call yourself religious? The modern critique will have a hearty laugh at your expense! [41]

[38] Latour 1993: 10.

[39] *Ibid*.: 11.

[40] *Ibid*.: 24.

[41] *Ibid*.: 38.

While Latour sets out to show how we can deal with 'hybrids' or 'quasi-objects', which are "simultaneously real, discursive, and social",[42] I am more interested in highlighting the practices—the translation and purification efforts—of archaeologists and historians. What we all have in common is the study of humans in the past, in their natural, social, and discursive contexts (which we segregate), and we do it through two types of objects: materiality and the written language. The practices in our case are inverted: first comes purification, then translation.[43] Both sets of scholars separate and categorize first the objects that will presumably lead them to the final "quasi-object". The criteria used for that initial purification are not previously discussed (e.g. why is a classification according to material, size, quality, provenance, and perceived function *a priori* relevant?; why is a classification according to conventional genre, perceived sphere of practice-practitioners' status *a priori* relevant?) The objects may eventually be studied in combinations and in their context, and hence translated, but by then, there is a certain reluctance to accept hybridity. Humans of the past may have practiced economy or worship in a cultic context, or economy or worship in a utilitarian context, but this is too confusing and hinders categorization. Humans of the past may have performed several practices to know the future, but some of them are assigned to science, albeit primitive science, and some of them to magic or random belief.

Being able to deal with heterogeneity, change, and the perception of heterogeneity and change by the peoples under study should be a *desideratum*, even if a difficult one.

Assyriologists's pitfalls may be summarily illustrated by Richardson's observations on why political historians of Mesopotamian studies should "allay the *longue durée*", as well as archival histories:

> But the true poor stepchild of ancient Near Eastern history is neither the history of epochs nor the history of moments, but the middle-range, the time-span of generations. One might think this corresponds to doing "period history," which is still a fairly dowdy, handbook-type of enterprise in our fields. (…) Mesopotamian periodization is anyway much too uneven to be a good fit for the histories of generations. (…) What is missing is an attempt to write the sort of agnostic histories that evoke the challenges of the times with reference to the times of fathers and grandfathers. (…) We look to the middles of periods for paradigms; we look to their ends for changes. (…) But not only should we question the determination of political by dynastic and linguistic criteria, as we do; a productive reconception of periodicity itself is in order, one which privileges the nomenclature of problems rather than ideal types. (…) However we denominate politically meaningful spans of history, the criteria have to raise the questions and contentions to primary, denotative importance.[44]

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[42] *Ibid*.: 64.

[43] Something that Latour acknowledges at some point: "How did the modern manage to specify and cancel out the work of mediation both at once? By conceiving every hybrid as a mixture of two pure forms. (…) So these operations of analysis and synthesis always had three aspects: a preliminary purification, a divided separation, and a progressive reblending" (1993:78).

[44] Richardson 2014: 84f.

In other words, Richardson is wondering whether histories from *their* (our subjects of study) point of view could be written. What were their concerns? How did they perceive their recent pasts? How did they understand the challenges of their present? Wengrow also expresses criticism as regards the periodization of ancient Egyptian history, divided into dynastic and intermediate periods (extensible to many other area studies), and points to the interest of the latter, which—even if presenting less abundant and more contradictory sources— offer the possibility to study a range of organizational forms adopted by peoples experiencing more freedom than they had previously enjoyed.[45]

An archaeologist's analogous understanding of wrong priorities is found in Campbell and his uneasiness with the definition of a Halaf to Ubaid transitional period based on ceramics:

> Where the traditional phase-based chronologies start to fail is when they are used, not just to describe the past, but also as the means to interpret it. An alternative approach is to focus, not on seeking to define and date entities that persist through time, but to use chronology to isolate particular phenomena that have particular interpretational interest. This type of chronology can be discontinuous. (…) This type of chronology is also inherently flexible and variable. (…) In this article, the emphasis is on periods where there was rapid change in ceramic assemblages ['Halaf' period, first half of the sixth millennium BC, or longer]. It could equally be on periods that saw stability in ceramics or changes in lithic technology or changes in architecture. Obviously, if the emphasis did change, the chronology might look rather different. In some ways, this may help liberate phase-based chronologies from the spiral of ever more complex inter-regional synchronizations.[46]

Note, however, that Campbell refrains in the statements above from addressing the issue of how to interpret actual social change through variations in material culture. And when he does, he is tentative: "The chronology suggested should not be seen as independent of the interpretation of the phases of social change. Its validity is, in large part, as an interpretative device and the creation of overall chronological schemes are pushed to perhaps where they should be—as the final stage of a process of interpretation focused on how past societies functioned and interacted".[47]

This is a good warning. A very good example that illustrates the randomness of human creativity is found with the emergence and propagation of pottery, the quintessential cultural object. Vessels were first manufactured by "hunter/fisher/gatherer" communities in East Asia since ca. 16,500 BC, and in northern Africa since ca. 10,000 BC. Although there are still many uncertainties surrounding chronologies and models of adoption (diffusion/separate invention),[48] particularly considering that the neighbors after its emergence frequently did not adopt it, it is undeniable that pottery precedes agropastoralism by far. Pottery is first attested in a small area of Anatolia, the Northern Levant, and isolated points of the Fertile Crescent during the

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45 Graeber and Wengrow 2021: 380ff.

46 Campbell 2007: 108.

47 Loc. cit.

48 Cf. Hammel 2018 for an overview of the difficulties. See also contributions to Jordan and Zvelebil 2009.

first half of the 7th millennium BC,[49] preceding its adoption elsewhere in Southwest Asia/the Aegean by around four hundred years (see Fig. 1.1.). Based on the single site that has yielded sufficient material to document the whole process (Sabi Abyad), several counterintuitive (if your intuition is of the evolutionary kind) conclusions have been made: bowls and pots at the very beginning were not so coarse and included mineral temper,[50] the following ones were coarser, then came a long process of differentiation—affecting range of shapes, decoration, and associated uses (storage and proper cooking)— and the wish for some imports (high-quality burnished wares classified as 'Amuq'), followed by a decorative boom around 6200 BC, which evolved into the 'Halaf' wares.[51] In other words, it was a long process of experimentation.

As many will agree nowadays, a particular material marker, and even a particular feature/material package, does not suffice to understand the nature of social connectivity for a given set of groups for a specific span of time. Are our attempts to grasp the nature of communication and exchange in the prehistory of Southwest Asia adequate—the PPNB interaction spheres, the Halaf koiné, the Ubaid networks, the Uruk phenomenon—if we are constantly thinking in terms of materiality, or rather, technology?

Fig. 1.1. Chronological maps showing the gradual adoption of pottery in western Southwest Asia-Aegean. Reproduced from Çigdem Atakuman's presentation within the ARWA Association Highway to Science series, no. 21-Ancient DNA Studies in Archaeology I: https://www.youtube.com/watch?v=q_wubHhqdi8 1:25:55–1:26:27

[49] See Nieuwenhuyse and Campbell 2017 (178f) for a rebuttal to diffusion of ceramics from the southern Urals or from northern Africa.

[50] In words of Nieuwenhuyse and Campbell: "In a sense, the early pottery incorporated stone in its very body. After firing, the carefully smoothed or burnished pottery hardened into a new artificial material that resembled stone in texture, surface appearance, hardness and durability" (2017: 175).

[51] See Nieuwenhuyse et al. 2015; Nieuwenhuyse 2018. Stylistic analysis revealed that repetitive linear band patterns were common in serving, display wares, whereas other kinds of non-repetitive, occasionally figurative decoration were preferred for larger vessels mainly intended for private use (Nieuwenhuyse 2007). He proposed that the abrupt increase in finely painted pottery during the short period of time that separated the Transitional from the Early Halaf phase (approx. 6100-5900 BC) was to be connected to the inability by elites to keep the exclusivity on these display wares, which ended up emulated by everyone else. In a later (2013) paper he had somewhat moderated that view.

Just as domestication, pottery, metallurgy and the writing system were all socially emergent, so was the experience of sedentism itself, which gradually demanded new social strategies. As sedentism consolidated and evolved, communication and contact increased exponentially, but this may also have led to increased inflexibility, so crises would have had a big impact if communities had been experiencing higher densities and protracted internal growth. This is where our future research should be focused, following an integrative approach after decades of research.

1.4. A diachronic overview

An overview will facilitate a preliminary bird's eye view before discussion in the following chapters. When uncalibrated, post-Holocene dates across this dissertation will be given as BC, not BCE (which I consider a euphemism).

The process of sedentism and domestication (10th-7th millennium BC)

Conclusions extracted from recent research

- Connections to the land (homemaking) precede protracted building on a given location.
- The early strategies leading to morphological and genetic domestication of plants and animals are now described as cultivation and husbandry, understood to have non-linear developments, with regional variations depending on both ecological and cultural factors.
- Once more people adopt settling down in a given location, regional and even site variation as concerns construction techniques, mode of aggregation, material culture, and mortuary rituals occurs

Views that require further reflection

- The idea that these early sedentary communities were establishing large-scale networks that were essentially different from earlier ones
- The notion of 'corporate groups', a concept already discarded by anthropologists
- Archaeologists of the Pre-Pottery Neolithic in general tend to assume that during the 7th millennium BC, with the consolidation of sedentism and the improvement of architecture, people started living in family households (=family property) instead of villages

The nature of 'sedentism' itself is dealt with special sensitivity and acumen by Maher and Conkey in a collaborative work, the former a specialist in the southern Levantine Epipaleolithic, who was part of the Azraq archaeological project since 2008, and director of the excavations at Kharaneh IV (ca. 19,800-18,600 cal. BP) in Jordan, the latter a specialist in Western European Magdalenian sites, focusing here on Peyre

Blanque, a site in the Central Pyrenees (ca. 19.000 cal. BP).[52] Both sites have given evidence of protracted occupation. Maher posits Kharaneh as a site of regular aggregation for several groups. Conkey finds the proximity of the cave of Marsoulias to Peyre Blanque significant and insists that both caves and open sites were shared during the Upper Paleolithic by a group or groups inhabiting a particular landscape. Their article also challenges the view that hunter-gatherers were not interested in "home-making" strategies. They call attention to archaeologists' frequent labels to characterize the sedentism of hunter-gatherers as somewhat inferior (i.e. 'campsite', 'dwelling', 'hut', even functionalistic 'hearth'). This is important because sedentism took many forms in the history of humankind since the second wave of Anatomically Modern Humans left Africa (see Chapter 2), and what we are looking for is the material investment that a group that identifies itself as such makes on a particular location on a permanent basis. That material investment, however, signals a cosmological and emotional investment as well. A group loses flexibility but—if well-organized— profits from the safety provided by material storage and increasing human resources. Exchange networks may have been established if long-distance mobility was surrendered, but we do not know whether target expeditions were arranged. The rigid tethering to a particular location seems to have been preferentially adopted during the 8th and 7th millennium BC in the core areas of Southwest Asia, but, paradoxically, accompanying the spread of "village life" afterwards (the so-called Neolithic package), came also a period of enhanced flexibility (Ch.5).

After three decades of investigation that have witnessed the regular use of genetic analysis in archaeobotany and zoology, we can conclude that domestication was not an event or an invention, but a process (around 3,000 years). Pinpointing core and peripheries of each species conforming the "founder crops" or the "animal domesticates" package of the Neolithic has only a relative interest, and only in so far as it leads to conclusions of both opportunism and intervention on the part of the original settled groups.[53] In 2011, Weiss and Zohary included eight taxa as components of the Neolithic package: barley, einkorn, emmer, bitter vetch, chickpea, lentil, pea and flax. Even if one accepts these taxa as the main components of this "package", we have to wait until the 8th millennium BC to find statistical visibility in the archaeobotanical databases of northern Levantine sites,[54] despite early cereal domestication in this region,[55] and understand that the dispersal of the Neolithic since the late 7th millennium BC did not mean wholesale adoption of the package in new territories. Moreover, recent studies focusing on the Epipaleolithic and Pre-Pottery Neolithic A (~15-10 kya), benefiting from better techniques of retrieval and micromorphological analysis, have contributed to the realization that there is more continuity than change in the consumption of a wide array of plant foods, that other important taxa may have been overlooked by earlier sampling (e.g. the nutlets and tubers of Cyperaceae, wild almonds despite their toxicity, nuts of several trees, beans, small-seeded grasses, and

52 Maher and Conkey 2019.

53 See overview in Zeder 2011.

54 Willcox 2012: Table 4.1.

55 Willcox and Stordeur 2012 (Jerf el Ahmar, Mureybet).

rye),[56] and that the biodiversity enjoyed by each specific area determined the choices made by the cave-dwellers of the whole region,[57] then by the first villagers at multi-phased sites, who may have chosen different gathering/cultivation options while experimenting with their commitment to permanent architecture and its possibilities.

Challenging the cereal-based "crop package" of the whole Fertile Crescent, Asouti and Fuller also questioned the rationale of deliberate interventionist behavior, since the selection of the anomalous large-seeded grasses (cereals) that did not easily shatter upon ripening resulting in a fixation at the morphogenetical level is not as easily detected as selecting for grain size. The authors observed that there seems to be "a continuous gene flow between contiguous wild and cultivated populations" of cereal, indicative, for instance, of "harvesting before cereals reached full maturation, or in multiple passes in which an earlier pass was saved for procuring seed corn."[58] When looking at the bigger picture, they remark: "That developed crop "packages" seem to have been the exception rather than the rule before the LPPNB [second half of the 8th millennium BC] also raises another important question: was plant domestication the enabler or the outcome of population aggregation manifested in the LPPNB "megasites"?"[59]

A paper that combines a comparative of lithic cultures in the Northern Levant with climatic data has proposed that a Rapid Climate Change event at around 10,200–9,800 cal. BP brought to an end the majority of early settlements (PPNA).[60] The authors also claim that the new wave of sites reappearing 200–400 years after this event revealed a general lack of continuity in terms of location (see Fig. 1.2).

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[56] See, *inter alia*, Savard, Nesbitt and Jones 2006 (Cyperacea, small-seeded grasses -PPNA Upper Tigris; Hallan Çemi, Demirköy, Qermez Dere, M'lefaat), Arranz Otaegui et al. 2018 (high taxonomical diversity -EP Shubayqa, Jordan), Caracuta et al. 2016 (faba bean, EP el-Wad, Israel), Caracuta et al. 2021 (wild almond), and Douché and Willcox 2023 (rye, EP Abu Hureyra, Körtik Tepe; PPNA Northern Levant: Jerf el Ahmar, Mureybet, Dja'de,'Abr 3; PPNB Çafer Höyük).

[57] See, for instance, Kabukcu et al. 2023 (Franchthi Cave, Greece; Shanidar, Upper Zagros) for the likely early processing of bitter plant foods by hulling, boiling and pounding.

[58] Asouti and Fuller 2013: 308. See also Arranz Otaegui et al. 2016a. Asouti and Fuller posit that plant food may have been as much a component of "feasting" events as meat is considered to be. This is still, in my opinion, a teleological understanding of domestication, even if the perspective leans towards ritual. However, throughout my dissertation I defend that celebrations allowed people to regularly enjoy moments of distension and sharing to compensate for the increased labor-intensive routines.

[59] Asouti and Fuller 2012: 157.

[60] Borrell, Junno and Barceló 2015. The detection of this pattern leads them to postulate an adoption of agropastoralism after the RCC event that is not supported by the data outside the Middle Euphrates region.

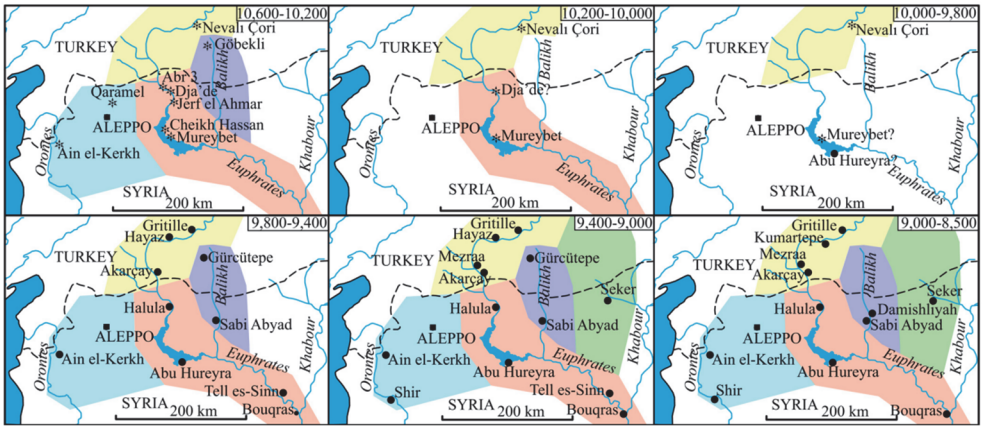

Fig. 1.2. Settlement patterns in the Northern Levant, from ca. 10,600 to 8,500 cal.BP. After Borrell, Junno and Barceló 2015: Fig. 5. Colors distinguish different lithic cultures. Reproduced with the permission of Juan Antonio Barceló.

So Asouti and Fuller's question is all the more relevant. Village sedentism was a very slow process begun or re-undertaken (see Ch.2) after a hiatus around the mid-9th millennium BC, which largely agrees with another archaeologist's claim that the Early PPNB in the Southern Levant needs to be postponed to ca. 8,600 cal. BC and its most representative sites seen as founded by populations coming from the Northern Levant, with a parallel development in Cyprus.[61]

Regarding animal husbandry, the situation is largely similar to the cultivation-agriculture continuum and the multi-center origins and subsequent trajectories. The millennia-long developments "followed markedly different trajectories in different regions".[62] Furthermore: "There are only five sites where it is fairly certain that the full suite of domestic livestock were managed together by 8000 cal BC (…). For most of Southwest Asia, however, the barnyard complex did not come together until the Pottery Neolithic (seventh millennium cal BC) and in some regions it was not until the Chalcolithic that cattle and pigs were combined with caprine husbandry into fully integrated livestock economies".[63]

Monumentality is already attested among the early communities of southeastern Anatolia and the Upper Euphrates, but the large-scale round buildings and orthostats decorated with rich carvings have nothing to do with social stratification, and rather seem to be an idiosyncratic phenomenon related to communal ritual, which triggered the investment on better residential construction. Once we enter the so-called "mega-site" phenomenon of the 8th millennium BC—usually applied to large villages in Jordan, but better fitting Central Anatolian sites—the notion of 'corporate groups', preceding that of 'households', is used as a stepping stone to future social complexity. Based on his experience as director of excavations at Basta, Jordan (LPPNB),

[61] Edwards 2016. This has not been significantly challenged by new excavations. See discussion in Ch. 2.

[62] Arbuckle 2014.

[63] *Ibid*.: 14.

Gebel proposed a re-definition of sedentism revolving around the idea of 'territoriality', since "this mode of life is supported and secured by a set of measures and behavioral dispositions that originate in a more aggressive territorial ethology and its related commodification frameworks for space and related cognitive spheres."[64] His proposal rests upon a classification of "physical" territories (perhaps suggesting, even if subconsciously, that there may be "metaphysical" territories?) according to the ever-present hierarchical paradigm: a progression of 'primary', 'corporate' and 'obtainable' territories. Negotiation, instead of competition, rarely enters the semantics of this model, nor does he ponder responses to growth. Growth, for instance, may lead to a lack of flexibility that hampers adaptation when crisis strikes. It may also lead to internal tensions and divisions that would not necessarily cause widespread armed conflict but the dissolution of the settled group. Gebel sought to pigeonhole the end of the aceramic Neolithic as one of "corporate ownership" (an intermediary stage), and yet there is no such thing as "obtainable physical territories" until the 3rd millennium BC, and the Southern Levant was not one of the regions that saw early city-state formation.

Gebel was also initially the head of the Ba'ja archaeological team. Ba'ja is an intramontane village accessible only by a natural passage between rock walls, not far from Basta. The team has recently published an article postulating that "early Neolithic hierarchization in southern Jordan was based on corporate pathways to power[65] rather than self-interested aggrandizers", because some aspects of a particular burial pointed to "network based leadership". On the basis of one juvenile found with a broken macehead and a few personal belongings like arrowheads, a pestle or a bone spatula, they concluded that "single individuals achieved prestige or status or both on the one hand by their access to exotic items, probably through ancient networks of equally influential persons in other communities of the southern Levant."[66] This is a site where collective burials have yielded a wealth of objects, including beautifully crafted ornaments. Considering that the house had also other sub-floor burials, the young man or woman may have been granted burial in his/her own corner for any number of reasons, including lack of available space. As concerns the "exotic goods", it is somehow ironic that the recent publication of epigenetic characteristics of teeth and skulls of individuals from Basta has revealed that the villagers were a

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64 Gebel 2014: 28.

65 The "corporate group" approach, favoured by British anthropologists, was already criticized by Lévi-Strauss as a juridical bias (1987) and more recently, among others, by Carsten: "In the mid-century, British social anthropology was dominated by avowedly ahistorical studies of African "unilineal kinship systems." (…) Lineages were described as "corporate" in the sense that they functioned as though they were a single property-owning and jural unit. (…). In retrospect, it is clear that the unproblematic boundedness of the units described was much more a product of a particular kind of analytic endeavour than a reflection of the much messier realities of the political and social context of colonial and postcolonial Africa (…). Nor did matters become any easier when descent group theory was transported outside Africa to societies in Southeast Asia or Papua New Guinea, where the notion of lineage as a corporate group was difficult to apply" (Carsten 2004: 11f).

66 Benz et al. 2019: 27.

highly endogamic community.[67] This is in contradiction with the portrayal of Basta as part of an exchange network that involved precious stones and shells imported from relatively distant, but neighboring, locations (Red Sea, central Jordan, Sinai).[68] 'Network' implies trade. However, the underlying assumption that these early villagers were completely disconnected from earlier knowledge related to the wider landscape, or in contact with other peoples while on expedition (instead of assuming that nomadic traders came to them) needs to be corroborated. Endogamic means autonomous. Contact with others did not lead to inter-group partnerships. The acquisition of valuable objects in the framework of traditional learning practices (e.g. a rite of passage) could have been alternatively posited by the team, together with a suggestion that the Ba'ja juvenile may have simply been cherished by his/her community.

This commoditization of human experience also affects the study of obsidian, a material that is found all across the board from the beginning of sedentism (see Fig. 1.3) until the historical periods. We now know that the obsidian coming from the islands of Melos and Giali in the Aegean was being used by dwellers of caves and coastal sites in the Bozburun Peninsula on the southwestern cost of Anatolia as early as the end of the Late Pleistocene-Early Holocene.[69]

From Oküzini Cave, we also know that the extraction of obsidian at Göllü and Nenezi Dağ existed before sedentism.[70] Bingöl and Nemrut Dağ near Lake Van were similarly exploited before sedentism. As time went by, we see more sources being exploited and occasional rearrangements regarding preferred sources and flows of acquisition.[71] Investigation of the *harrat* (volcanic) landscape of northwestern Saudi Arabia—which include obsidian outcrops—has barely begun, but preliminary reports targeting caves and lava tube systems may in future reveal more abundant obsidian lithics in habitational contexts than the few so far reported.[72] This original diversity of foci indicates that a plurality of strategies to obtain this valuable material existed and continued to exist for millennia. A recent article gives a total of 29 obsidian sources used during the 5th millennium BC in Anatolia and the Caucasus,[73] despite the long continuity of favorite extraction locations. That even in the Chalcolithic this remained the case made Kopanias suggest that obsidian ought to have been either distributed by mobile groups or else acquired through expeditions dispatched to the sources, adding that—even if down-the-line trade was actually the chosen mode of transmission—it must have been in the hands of people uninterested in dynamics of power.[74]

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67 Alt et al. 2013, based on strontium isotope analysis and the frequency of a particular dental trait.

68 Alt et al. 2013: Fig. S5; Nissen, Muheisen and Gebel 2004.

69 Atakuman et al. 2020.

70 Carter et al. 2011.

71 For instance, it has been observed that the Southern Levant followed opposite trends in the quantities of obsidian acquired during the Neolithic by comparison to the Northern and central Levant (Ibáñez et al. 2016).

72 Stewart et al. 2024.

73 Khalidi et al. 2016.

74 Kopanias 2017: 32, with references.

Fig. 1.3. Map showing the location of selected Neolithic sites and the location of obsidian sources. After Asouti 2006: Fig. 1.

The increasing socialization of settled communities seems to have crystallized by the confirmation of multiple traits characterizing the process called "Neolithization" at the end of the 7th millennium BC. With better architecture and organization of built space, comes not only the notion of 'houses', expressing a physical reality, but also that of 'households'. Hodder considered "violence, danger, and sexual power, and the ability to intercede with the ancestors" as elements that were constantly expressed in the symbolic imagery of Çatalhöyük, and by extension, elsewhere at this time (roughly, the 7th millennium BC). These values are seen as a demonstration of the "intercession with and control of wild animals and the use of their powers to protect and nurture", which in turn "allowed the creation of trust and dependencies", and therefore "created the conditions in which sedentary life and intensive delayed-return economies became possible (selected for)".[75] Delayed-return economies, then, depended upon the integration of the biological and the social, and on co-operation and division of labor. This remained true, in my opinion, even after domestication. The distinction between 'wild' and 'domesticated' animals is not always so clear-cut (see Ch. 4).

From the prevailing current perspective, domestication entailed a kind of conquest of man over nature, a hyper-rational and economy-oriented social change: buildings became family or lineage houses; working and storage facilities witnessed

[75] Hodder 2007: 115.

the emergence of 'property'; the decrease in elaborate intra-mural mortuary arrangements is considered an extension of the territorial boundaries of the village. However, graveyards were not initially clearly segregated from the built space, and as time went by, internments were frequently taking place in a recently abandoned habitational area, which remained in close proximity to the newly built ones. This *does* show changes in the relationships with the dead, but it also shows that territoriality has a metaphysical dimension that is not exclusively defined by physical boundaries and power plays, not to mention that diversity of ritual in the treatment of the dead persists until the 3rd millennium BC. Regarding 'property', a term with economic and legal connotations (different from 'ownership' or 'belongings', concepts that belong to the sphere of personhood and identity), our eagerness to find the building blocks towards 'complexity' has elevated stamps and amulets—becoming more abundant in the 7th millennium BC—to bookkeeping devices. This will be treated in detail in Chapter 4. For now, I will borrow Croucher's words: "Objects accumulate biographies. (…) Multifunctional, such items become bound up with the identities of those giving and receiving during exchange."[76]

The process of dispersion and the development of flexible sedentism (6th-5th millennium BC)

Conclusions extracted from recent research

- Core-and-periphery models need to be applied with caution. Material culture packages or horizons co-exist with continued practices and regional variation.
- "Halaf" groups are both sedentary and mobile, and largely egalitarian. Communities during the 5th millennium BC show an increasing trend towards a lack of individual differentiation in mortuary contexts.

Developments that require further reflection

- Migration and growth
- Opportunism and flexibility
- The body and portable materiality as a means of social adscription
- An exaggerated emphasis on a (relative) decrease of fine decorated wares
- First attempts at planned layouts and more efficient organization

Both the contributions to a volume devoted to the Late Neolithic of Upper Mesopotamia and those similarly assembled to try and define the second half of the 5th millennium BC (*Beyond the Ubaid*) have emphasized the need to break with core-and-periphery or diffusionist perspectives, inherited from the past (i.e. *ex oriente lux* comes from Southern Mesopotamia).[77] In the first volume, Akkermans and other authors also observe that Halaf societies remained predominantly egalitarian. In contrast to the (exaggerated) phenomenon of megasites attested at some specific areas of Anatolia and the Southern Levant during the 8th and the 7th millennium BC,

[76] Croucher 2013: 195.

[77] Nieuwenhuyse et al. 2013, Carter and Phillips et al. 2010.

clusters of small sites become well-attested during the 7th and the 6th millennium BC, either reflecting villages co-existing simultaneously in close proximity, or the crab-like movement of villagers progressively expanding, and frequently abandoning previously occupied quarters. But a better investigation of growth, splits, and new foundations is still sorely missing. This period is characterized by a flexible sedentism strategy, reflecting the opportunism that had characterized the Epipaleolithic and early Neolithic, as well as the consolidation of communal life during the 8th and the 7th millennium BC. New groups settled down and occupied areas hitherto unoccupied all over Southwest Asia. Domestication *did* cause an impact on social and physical configurations, but for a very long time communities tried to preserve communal life and its enjoyment. Even though elaborate mortuary ritual disappears, portable symbolism—including painted ceramics— expands and diversifies. Apart from the hunting-pastoralist way of life observed in the southern semi-arid steppes, it is unlikely that any other ecological niche saw a radical economic specialization, like full-fledged nomadic pastoralism. Migration is an extremely relevant topic for this period. The second-half of the 7th millennium and the first-half of the 6th millennium BC was a time of demographic dispersion. The focus has been, understandably, on the crossing over to Southeast Europe. As ancient DNA analysis start revealing some social patterns in terms of admixtures, population sizes, and kin-related mortuary practices, we may gain a clearer picture of growth and mobility.

Southcentral Anatolia may have been the original area of migration towards Asia Minor, but there are still many uncertainties to clarify. Communities who adopted the Neolithic package appear in some well-delimited areas from the Sea of Marmara down to the southwestern coast of Anatolia, and in the Aeagean, northern Greece-Macedonia, and the Balkans during the second half of the 7th millennium BC. Yet, the demic diffusion model is contested by those who see simultaneous continuity with Mesolithic traditions, and prefer a model of "acculturation", or by those who observe that new settlements may have been operating for around two hundred years with domesticates before other traits were incorporated. Düring noted: "The situation in the Marmara region is an interesting hybrid. On the one hand, there is a range of distinct local characteristics. These include the lithic industries, which descend from the Mesolithic Ağaçlı tradition. Likewise, the ceramics are distinctively local from the start, and cannot be linked convincingly with ceramic traditions from Central Anatolia." He likewise argued for distinctive assemblages emerging in the Lake District and Aegean areas.[78] This complicated picture is best described in words of Özdoğan: "First, it was not an instantaneous event. On the contrary, it extended through a very long period of time, spanning a millennium, taking place in different waves of expansion, each one with its own trajectory and pace. Second, it is also evident that each wave had its own selection of the Neolithic package. Finally, and probably more significant, is the fact that different modes of Neolithisation such as endemic movement, colonization, acculturation, adaptation, and transfer of technologies and commodities, took place simultaneously".[79]

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[78] Düring 2013: 88-90. *Contra* Özdoğan 2013: 197.

[79] Özdoğan 2011: 666. Likewise, Düring is uncomfortable with a 'chain migration' scenario whereby a small number of pioneers settled in Asia Minor.

For most of the 5th millennium BC, growth and increased densities are attested everywhere. There are signs of spatial segregation as concerns pottery, but no other sign that specialization and division of labor affected communal space in terms of planning. This is one of the markers of what 'urbanism' entails, and yet it is conspicuously missing at this point.

The Ubaid package has been defined by black-on-buff pottery, labrets, bent clay mullers, ophidian figurines, tripartite architecture, niched-and-buttressed buildings, communal cemeteries and infant jar burials, and circumferential headshaping, with the understanding that there is a significant degree of regional variation.[80] Yet, several of these elements show continuity: hybrid figurines, zoomorphic vessels, labrets, cranial modification, and communal cemeteries are attested in the previous millennium. Is there such a thing as a Ubaid horizon? Furthermore, Carter and Phillips acknowledged the bewildering absence of elites, expected to show their behavior by now: "It is possible that stable elites existed or were emerging, at least in some areas, but that such groups chose either to mask their growing power or express it by means other than through conspicuous consumption and display."[81] This view was adopted by Brereton in his analysis of mortuary rituals, arguing that wealth, e.g. metal objects, remained in circulation.[82] Rothman and Peasnall, who reviewed the mortuary evidence that had been reported for Tepe Gawra XIA/B-VIII by a member of the original team, saw no evidence of clear social stratification (just "two-tiers"), and even less in diachronic progression.[83]

Portable symbolism continues to be essential to express a negotiation of identity and social relations, and the perception that aesthetics no longer play a role in ceramics, from the mid-5th millennium onwards, has been somewhat overblown. Karsgaard observed that the most noticeable shift from Halaf wares to those characteristic of the last Ubaid phases is that "the individual appears to have been submerged into a larger shared identity" and that a bigger emphasis was placed on "mundane acts of commensality", signaling the participants' inclusion in a "community-based identity."[84] Karsgaard followed here Wengrow's 2001 article on the equation of bowls with a redistributive economy that would anticipate the emergence of the state. Many sites mentioned by Karsgaard as an example of this alleged trend have not been adequately excavated, and the observed decrease in decorated wares is very gradual and is not applicable to certain regions (e.g. the Susiana). Overall, there is a trend towards morpho-functionality in all pottery types. This culminated with the widespread use of BRBs (beveled-rim bowls) of the 4th millennium, facilitating fast-food serving and multi-purpose use. Bowls and stamps —the latter initially at home in Upper Mesopotamia—are indications of better organized labor. It is perhaps not a coincidence that stamp iconography seems to increasingly lean towards more "figurativism" and less abstraction as pottery undergoes the reverse process. Visual experimentation in the glyptic truly begins to spread its wings during the 5th-4th

80 Carter and Philip 2010: 4.

81 *Ibid*.:13.

82 Brereton 2011, ch. 6.

83 Rothman 2002, 147; Peasnall 2002.

84 Karsgaard 2010: 56f.

millennium BC, but it will become wholly standardized during the second half of the 3rd millennium, accompanying role-ascription efforts by ambitious individuals in the growing bureaucracies of the time.

'Proto-urbanism' and Uruk as the golden standard of an early city

Conclusions extracted from recent and not-so-recent research

- That in the course of the 4th millennium several communities in Southwest Asia adopted centralized systems of administration of their resources, thereby signaling the onset of "proto-urbanism".
- During the "Late Uruk" period (ca. 3600-3300 BC) populations over vast areas of Southwest Asia were impacted by "Uruk culture" one way or another.
- That soon after the Late Uruk period and during the early Early Dynastic (before 2400 BC) "proto-cities" of southern Mesopotamia were experiencing political and economic complexity in an analogous manner to that of Uruk.

All of these assumptions need to be revised to a certain extent. The 4th millennium BC is extremely complex. It is therefore not surprising that old and new theoretical frameworks co-exist without much debate or clarification as to what is meant by certain concepts, like 'trade networks', or 'secular/religious' offices of power. The archaeological literature until recently elevated a few cultural markers—the BRB;[85] decorative façade cones, cylinder seals and tokens, and tripartite architecture—to the diagnostic assemblage that characterized the Uruk period and heralded civilization, in the same way that until recently domesticated cereals and animals, ceramics, and houses composed the idealization of the Neolithic package. Different theories to explain the so-called Uruk phenomenon first conceptualized by Algaze were bandied about for decades, all influenced by the region that their proponents' were most familiar with.[86] Nowadays, elements of independent complexity opposed to the *ex oriente lux* Urukean model have been defended (for instance, from the Arslantepe team, or from specialists excavating new Iranian sites) but more importantly, emphasis on material culture continuity linking the end of the 5th millennium with the approximate age of the Uruk phenomenon (3500-3200 BC?) reinforces the impression of hybridity.

But first we need to consider why we are using the label 'Uruk' for periodization at this time. A brief review of what is considered the golden standard is of the essence. All models, past and present, rely on evidence that is readily acknowledged as coming from problematic excavations, and reports on stratigraphy and associated material culture that were and remain unreliable. This is valid for both Uruk and Susa, but especially relevant for Uruk, "the first city". Its main consequence is what I call monumentality in a vacuum. Some causes and consequences are summarized here:

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[85] See Potts 2009 for a critical overview.

[86] A comprehensive if now somewhat outdated overview was given by Butterlin in 2003, including Stein's proposal of a Ubaid "staple finance" / Uruk "wealth finance" dichotomy, reinterpreted by Frangipane as a north / south Uruk-world scenario.

- Problematic stratigraphies

The site of Uruk saw more than three millennia of occupation, experienced highs and lows, was initially founded in a period of geophysical instability—at a time when the alluvial delta of the Persian Gulf was undergoing change—, was later shaped by canal, terrace, and wall constructions, and after its partial abandonment in the 2nd millennium and its final one, was subject to erosion. If this site had been excavated at the end of, instead of the beginning of the twentieth century, the knowledge we would have of its changes throughout its protracted life would be quite different. The German missions that excavated it until the IIWW cared mostly about its monumental architecture, and like everyone else at the time, were keen in recovering treasure to take back home. Later reassessment (starting in the 80s) has only contributed to clarify the extent of what remains unclear. As concerns the two central areas that are key to understand the first centuries of growth in the 4th millennium BC (see Fig. 1.4), and the transition till the mid-3rd, anachronistically called the Anu-Zigurrat and the Eanna district areas, there are very few certainties as concerns the temporal correlation of the changes in construction seen in both, as well as "internally"—the renovations of the buildings, their replacement by other buildings, terraces or platforms, the purpose of many incomplete structures during the transition, etc. In a recent work, M. Van Ess has observed: "Since there is still a lack of clear stratigraphic evidence as to which building layers of the Anu ziggurat correlate with which building layers in the Eanna area, no reliable comparison of the occupation levels between the Eanna and Anu areas can be made for the Late Uruk period".[87]

[87] Van Ess 2021: 134, my translation. In fn. 17, she briefly summarizes the opinions of Heinrich, Schmidt, Sürenhagen and Nissen regarding these correlations, specifically between layers Z6-Z4 of the ziggurat terraces and their correspondence with a particular sub-phase at "Eanna". See Eichman 2019: Fig. 16.3, 2021: Fig. 1 for a sectional image of all the layers of the "Anu Ziggurat". Z9 would have been the platform where the White Temple stood. See also Eichman 2021: Fig. 2 for buildings earlier than the White Temple on top of Z9 and Z14, and Fig. 3, encompassing Z4-Z6 and the Alte Terrasse to the east with constructions spanning centuries

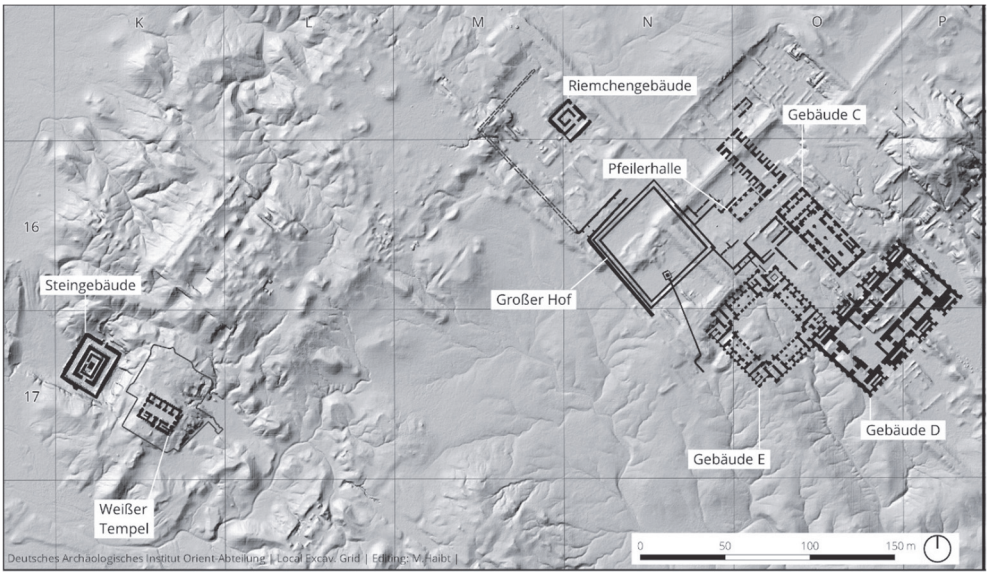

Fig. 1.4. The central areas of Uruk during Level IV (three sub-phases). After Nissen 2021: Abb. 2 (created by ©DAI, M. Haibt). Reproduced with permission.

- An unreliable ceramic sequence

According to Nissen, Lenzen—who was director of the Berlin excavations at Warka between 1931 to 1939, and 1954 to 1967—was opposed to using pottery as a chronological tool, because he estimated that the architecture, tablets and seals would be enough to establish comparisons with other sites.[88] Nevertheless, the "deep sounding" was undertaken after the removal of the "Limestone Temple", assigned to Level VI, and published by von Haller in 1931. However, as soon as the reports of the salvage excavations at the Middle-Euphrates sites of Habuba Kabira, Tell Qannas and Jebel Aruda were published, inconsistencies—and for Nissen, more importantly, insufficiencies—became apparent. "People had noticed before that on the pottery plates for the Archaic Levels I-III of the Uruk sequence (…) items were included which undoubtedly were of much later date, and, secondly, questions were raised whether more material might be available than published".[89] In Nissen's opinion, Sürenhagen's reassessment of what was available at the Berlin museum fell short of being satisfactory because, to begin with, the latter did not question the completeness of the material. Nissen's very plausible suspicion was that a good number of "uninteresting" vessels, like the fast-made bowls, were discarded because they did not fit the mission's criteria. In a previous work, Nissen had tried to establish that the archaic tablets could instead become the most reliable cultural markers to obtain a chronological sequence. By reasons of epigraphy and other traits, the tablets would be divided between a Level IV "phase" (ignoring the subphases) and a problematic Level III that would have started after 3300-3200 BC, and which has revealed traces

[88] Nissen 2002: 4. For a short overview on Uruk and Susa's ceramic sequences, drawing on Sürenhagen's and Dietriech's reassessments, see Butterlin 2003: 36–59.

[89] Nissen 2002: 5.

of structures of uncertain purpose. Levels III-I span the architectural remains of the 3rd millennium BC, after which the excavators presumably found the superimposed remains of the Neobabylonian and Seleucid periods, with exceptions (depending on the area). Despite his own acknowledgment of the stratigraphic problems, and the lack of associated*, in situ* contexts for this other material, too, his need to find a "solution", a path forward, was so strong that he chose to ignore his own misgivings.[90] For instance, concerning the tablets, he remarked: "We have no idea on the original place of their employment. True, the contents of a number of the administrative documents can be read as part of a centralized economic administration, taking in enormous quantities of food stuff and other goods, and distributing them to offices and individuals, but this does not necessarily require that all tablets belonged to that sphere. I cannot help developing the feeling that the fact that nearly all tablets were found within the limits of Eanna plus the prevailing ideas on a centralized temple economy extracted from later sources have prevented us (including myself) from asking inconvenient questions".[91]

- Circular reasoning: attempts to build a chronology based on unstratified or undatable material

Disagreements between the excavators on chronological interpretations became more and more visible after the 1960s, and by then, art historians had joined the dating game.[92] As Eichmann pointed out, regarding previous attempts to establish sequencing by correlations between the central areas, there was a dangerous assumption that similar-looking artefacts from both belonged to the same period, without taking into consideration the difficulty of estimating the length of a given period in terms of building layers.[93]

Radiocarbon dates are available, but create even more uncertainties. In 1991, three fragments of the roof beams retrieved from Temple C gave results ranging from cal. 3500 BC to 3400 BC approximately. However, dendrochronological analysis of several wood fragments belonging to the inner rings of the trees allowed narrowing down the end date to ca. cal. 3290 to 3245 cal. BC.[94] Allowing for approximately eighty years to account for the age of the trees when they were felled, we would have a reasonable dating for the last sequence of monumentality at the western central area before it was levelled that ranges between 3400 and 3200 BC. More recently, wood fragments from the White Temple and from a posthole of a nearby building on

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[90] Nissen, in Nissen et al. 1987 (ATU 2): 50, assigned a chronological group to the tablets, starting with Layer IVA to a last sequence of II, I, FD1 and FD2. On this lack of correlation with the later stratigraphic layers, see Englund's comments in 1998: 41, n. 83. Despite his attempts to find *terminus ante* and *post quem* for the tablets after re-analysis of the architecture, Nissen placed his hopes in the paleography of the texts, continuing Falkenstein's work in ATU 1 (giving a few observations on line length, "cursive" writing, some signs' evolution or tablet shape), though he nevertheless kept on trying to find dating guidance on the proximity of the tablets to buildings, terraces, walls and similar features (1987, Ch. 2).

[91] *Ibid*.: 11.

[92] See Heinrich 1982: 35–55.

[93] Eichmann 1989: 180.

[94] Van Ess 2019: 342, with references.

top of the platform were analyzed and dated between ca. 3500 and 3300 cal. BC.[95] Even if we bear in mind that there may have been "perturbations in atmospheric carbon 14" at this time,[96] it is safe to assume, in conjunction with the dates coming from Iranian and other sites, that between 3300 and 3200 BC climatic upheavals may have engendered changes of variable nature depending on the site, which in the Gulf region resulted in the development of two writing systems. At Uruk, monumentality and writing follow two divergent paths, since there are hardly any written sources documenting bureaucratic continuity after the end of the 4th millennium BC. Already Englund in 1998 chose to distance himself from Nissen's tablet chronology according to the stratigraphy of previous missions. Observing that the Eanna district appeared to have been razed ca. 3300 BC (based on the first radiocarbon dates), he wrote: "Excavations have shown that the Uruk III level buildings were erected over the grounds of razed Uruk IV constructions, and that the levelling of the many pits formed in razing the old buildings resulted in substantial earth moving, including the transportation of fresh and already deposited debris from the prior administrative centres. Thus trash heaps of shards, bones and discarded tablets were mixed with ancient excavations of still older debris and used to fill in holes and pits".[97]

Englund tentatively assigned a 3400-3300 date to the envelopes (hollow bullae with counters inside), a 3300-3200 BC range for the numerical tablets (incised circles or straight grooves), reserving the following three hundred years to witness the whole development, from "numero-ideographic" to complex tablets (Uruk III layer).[98] However, all of these tablets and the sealing impressions were discovered scattered over the two central areas of Uruk, and even sometimes in association with much later buildings, like the *Stampflehmgebaüde*, belonging to the late ED-Sargonic period.[99] Yet, evidence for writing continuity evaporates at a certain point. There is no apparent epigraphic development comparable to that observed for the Ur, which comes sometime later, and the Fara-Abu Salabikh tablets, the sole evidence to this day on the transmission of the writing system before the archives of Lagash.

Equally relevant is that we have no excavated housing arrangements to understand how the people were actually living, either inside Uruk proper, or around it. Hopefully this issue will be clarified in future.[100]

- A tendency to fit new evidence into old molds

Despite the cautiousness exhibited by the new director of the Warka mission, M. van Ess, and her team, the need to boost and maintain the discourse of "Uruk, the first city" has led to some premature conclusions. For instance, the remains of burnt wood coming from the roof of Building C, which allowed for the first radiocarbon dates,

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95 *Ibid*: 343.

96 Dahl, Petrie and Potts 2013: 363-365.

97 Englund 1998: 34, and overall, 32-41.

98 *Ibid*.: 214f.

99 See Eichmann 2021: 118f for the temporal attribution of this building; Nissen in Nissen et al. 1987: 44ff for the tablets.

100 See Becker, Van Ess and Fassbinder 2019; see also Finkbeiner 1991: 193, a small trench in O 11/12.

were analyzed and identified as *Pinus spec*. (*P.brutia*/*halapensis*), its provenance automatically assigned to Syria/Turkey and linked to a Uruk trade network scenario.[101] However a closely related species is also attested in the Zagros and other areas of Iran, known as *Pinus halapensis var. eldarica (Medw.)*, with a similar if not identical anatomy.[102] Of course, even if the wood had come from a far closer area, it ought to have been cut and transported —presumably by barge—[103] until it reached its destination. Recent modeling of the Persian Gulf, with a focus on the eastern section of the arch of the delta (affecting the Tigris component and the landscape of Khuzestan/the Susiana),[104] indicate that a large area would have still been inundated or filled with brackish water marshes.

- Surveys and environmental studies

During the late 1960s and 70s, Adams conducted a series of surveys in different areas of South Mesopotamia. With the aid of aerial photography, he tried to discern ancient site, watercourses, and "pre-modern" subsistence patterns. The results were published in his renowned *Heartland of Cities* in 1981. The survey that Adams had previously conducted with Nissen in the Warka region concluded that there had been a peak of settlement density in the transition from the Middle Uruk to the Late Uruk period but a later increase in the size of small settlements, a trend reaching the "Jemdet Nasr" period (that is, post-3200 BC).[105] According to Adams, a decline in urban growth engendered the dispersal of rural settlements in the Uruk environs.[106] However, he made a correlation that is far from assured. His belief that Uruk experienced even more impressive growth in the Early Dynastic I is not corroborated by the archaeological evidence, at least for now (like other scholars, he uses the narratives featuring Gilgamesh and other legendary kings in support of his theory).[107] Adams and Nissen stated that the site of Uruk grew to 300 or 400 hectares, but this is only based on the trash pieces retrieved from surface examination. One decade later Finkbeiner and his team conducted a thorough survey of the site itself.[108] For both the Late Uruk and the Early Dynastic there seems to be a widespread scattering of material (see figure below).

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[101] Van Ess 2019, 342f; Engel and Kürschner 1993.

[102] I thank Naomi Miller for this information and for the bibliographical references (e.g. Parsa Pajouh, Schweingruber and Lenz 2001, and https://conifers.org/pi/Pinus_brutia.php).

[103] See the scene on a tablet with one round hole on one side found at Kani Shaie, in the Sulaimaniya plains leading to the Central Zagros, depicting several horned animals transported by a boatman, while a man riding a similar animal supervises the departure from the shore (Tomé, Cabral and Renette 2016). The tablet was impressed twice.

[104] Heyvaert and Baeteman 2007, and see Ch. 6.

[105] Adams and Nissen 1972: 27.

[106] Adams 1981: 81.

[107] *Ibid*.: 82ff.

[108] Finkbeiner 1991.

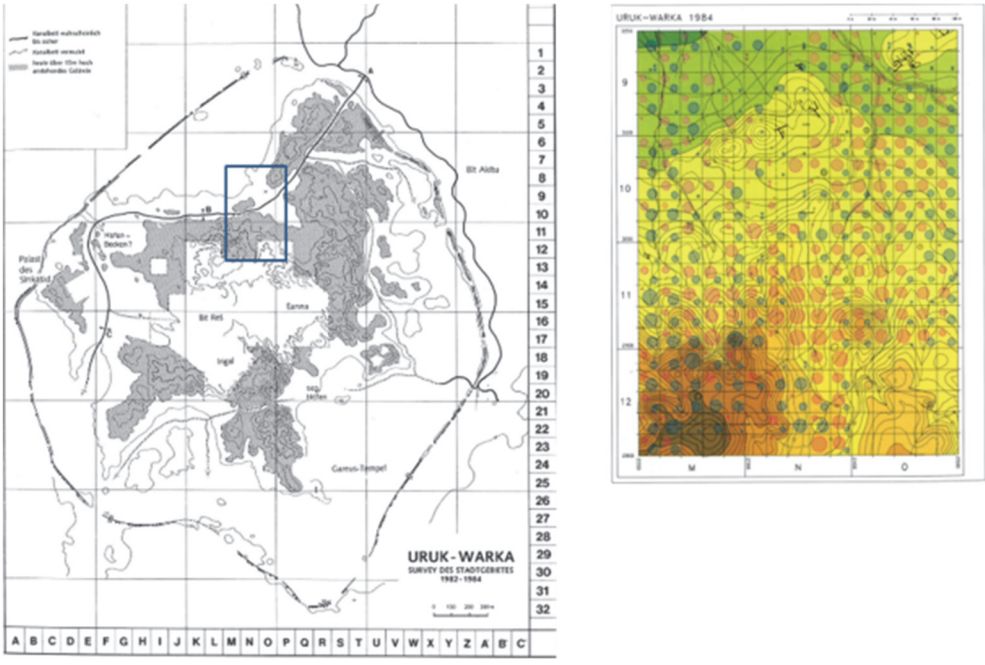

Fig. 1.5. Map of Uruk in a chronological composite showing probable course of one of the canals and results of the ceramic survey of one section of the mound (M-O 9-12). After Finkbeiner et al. 1991. Red spots are "Late Uruk"; blue ones "Early Dynastic".

This scatter of early material all over the mound, plus the razing and terracing superimposed over the early monuments, suggests that a major episode or several episodes of heavy if not catastrophic flooding affected the central areas of Uruk between 3300 and 3200 BC (and maybe later), which understandably forced its inhabitants to undertake a series of measures: cleaning, terracing, re-locating, re-building, incipient canal and wall construction.

This is by no means farfetched. The study made by Pournelle on the deltaic landscape of southern Iraq offers sufficient information for this transitional period to give us pause (see Fig. 1.6). I have selected a few of her observations that may be relevant here and later on, in Chapter 7. "A mid-Holocene marine incursion, extending gradually northward through the deltaic cone during the sixth to fourth millennia BCE and subsequently receding, at its maximum pushed the brackish estuary zone inland (…)".[109] Moreover, the Tigris contributed more to the alluvial settlement during the third and second millennia than previously assumed, and "the twin rivers appear to have had anastomosing and significantly intermingled flows".[110] When focusing on the Warka area, she confirmed that "this basin was, indeed, where the twin rivers' waters met the sea during the fourth millennium BCE".[111]

[109] Pournelle 2003: 110.

[110] *Ibid*.: 100.

[111] *Ibid*.: 138.

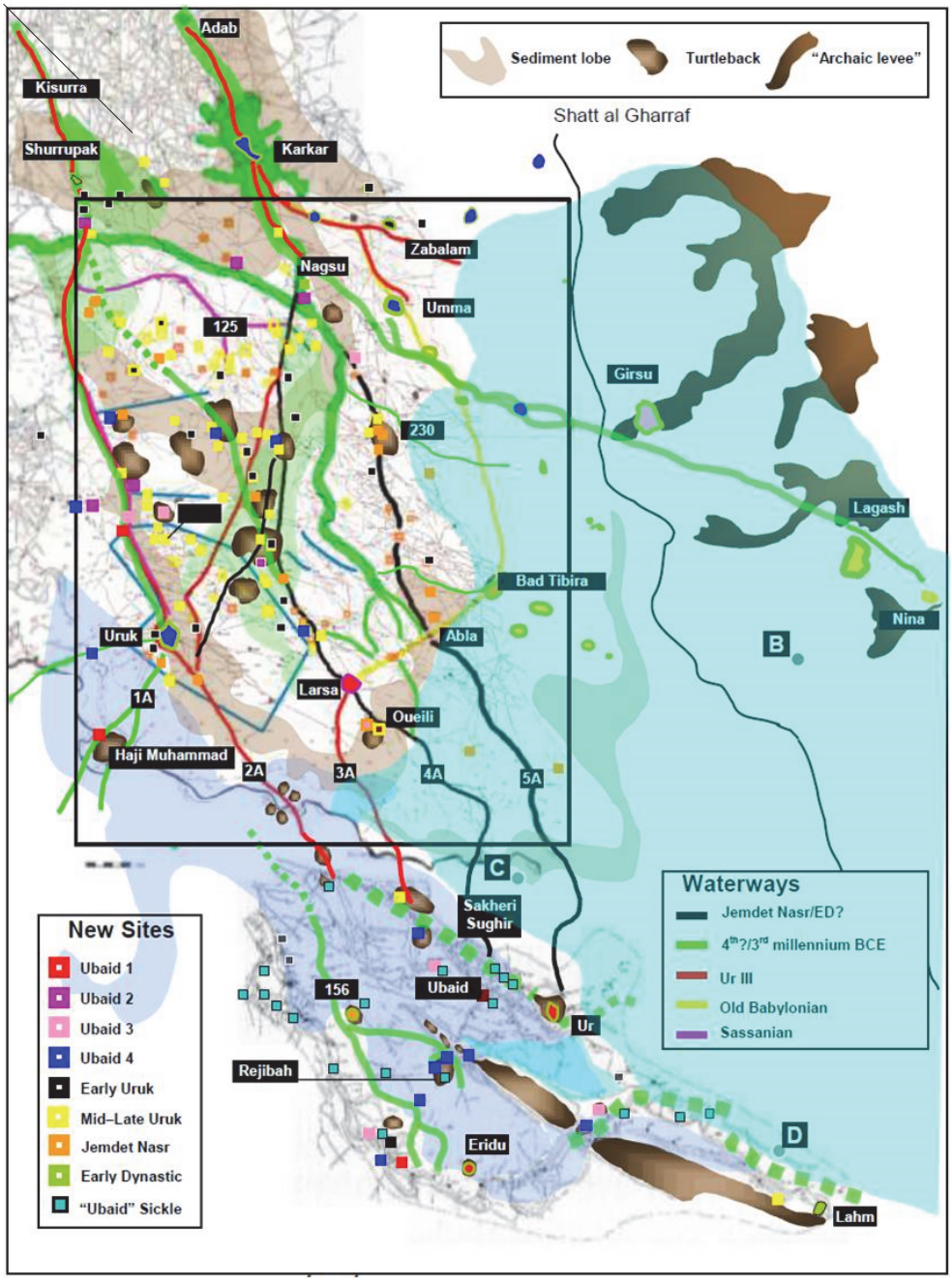

Fig. 1.6. Sites of the 5th-3rd millennium BCE delta, with maximum extents of marine incursion and mixing zones. Borings show: at (B), a transition from fresh marsh to brackish marine conditions 'Ubaid 1-4; at (C) and (D), brackish marine 'Ubaid 1-Middle Uruk, followed by brackish marsh Late Uruk-Ur III and salt panne thereafter. This area comprised the outer Euphrates delta. Extent of tidal influence in the eastern (Tigris) delta is as yet unknown. © 2003, 2022, Jennifer R. Pournelle. First published in Pournelle 2003: Fig. 76. Reproduced with permission.

Since she assumed the directorship of the Uruk mission, Van Ess and her team have been focusing on prospection by using different geophysical surveying methods and environmental data gathering. The borings location and the results (so far) from the geoarchaeology research undertaken since 2002 have been published, revealing a complex but not unexpected diversity in terms of height above sea level, sediment accumulation, and span of occupation.[112]

One question that we need to be asking ourselves is whether there two "origins of civilization" happening in the mini-Fertile Crescent conformed by the arch that crowns the Persian Gulf, a first one seeing the aggregation of numerous groups in the Warka Basin and the Susiana (high areas with multiple resources around) and the beginning of administrative systems; and a second one that continues in a more modest way after dispersal and crisis, and is witness to the true development of the writing system.

1.5. Aims and structure

As stated above, the main goal of this dissertation is to demonstrate that acquired social intelligence facilitated an organizational experiment requiring meta-collective leadership (4th mil. BC). 'People' were the most precious resource that prehistoric communities had for a very long time —before land property, tenancies, the isolation of urban families, and slavery. Pressure on available resources would have come when communities that had been experiencing protracted growth were struck by climatic deterioration or contagious disease. Sedentism afforded growth through collective sharing, but it also rendered communities more vulnerable, so their responses to crisis were heterogeneous and slow. One solution was piecemeal migration. But other reactions and strategies may also be detected in the diachronic analysis of the archaeological record.

Chapter 2 will deal with beginnings, the beginnings of our species and of sedentism in Southwest Asia. 'Animism' and 'analogism', using two of Descola's basic ontological categories in his *Par-delà nature et culture*, will be tackled in Chapter 3, since the notions of 'domestication' and 'property' cannot be appropriately dealt with without a previous reflection on how our own ontology in the present works and how it may condition our research. Chapter 4 will structure possible connections between materiality and peoples' practices with the aim of showing that, during prehistory, people had an animistic understanding of the world's inhabitants as defined in Chapter 3 (the inclusion of alterity in the social world). Although this chapter will mostly focus on the Neolithic, later chapters will also use the expression of values through different means and media to support the arguments treated there.

Flexible sedentism, small-scale migrations, and multi-functional spaces will be examined in Chapter 5 as strategies that characterized the nature of biosocial intelligence preceding meta-communal aggregations. Chapter 6 deals with the relative visibility of growth in terms of the identification of a more rational, segregated use of space in settlements (limited). Furthermore, two patterns of the second half of the

[112] Van Ess 2021.

5th millennium BC may be related to early responses to crisis (infant burials and metallurgy). The subsection on metallurgy will tackle other issues, too, like a possible shift in gender values, and the "hoarding" and ritualization of knowledge.

Chapter 7 will finally approach meta-communal aggregation and heterarchy, paying special attention to symbolic aspects in the glyptic indicating the beginning of an ontological shift in the Susiana and South Mesopotamia, but not elsewhere; and finally how the development of one of the two emergent writing systems at the end of the 4th millennium BC is currently used to justify an origins-of-civilization doctrine that obscures the gaps and difficulties that prevent a real understanding of the thousand years that span those origins.

The only assumption that I made while I journeyed throughout time is that being human means, above all, being diverse.

CHAPTER 2. A SOCIAL ANIMAL

This chapter seeks to understand how the first sedentary communities in the world emerged in Southwest Asia, a region of the world that has acted as a crossroads between Africa and Eurasia since the first expeditions made by our biological ancestors. Sedentism will be explored from the perspective of a changing ethos, one that started through and after the development of key aspects of shared life by people who became a community, the most important of which being mortuary ritual. But before approaching the Pre-Pottery Neolithic, gathering some insights from the current state of the matter regarding human evolution can contribute to explain the two pulses that would mark the pace of future sedentary communities: one was to function with a high degree of autonomy; the second was an active opening to the outside world, implying collaboration and emulation.

Contrary to the assumptions coming from evolutionary anthropology or biology until very recently, developments leading to the morphogenetic emergence of our species and our success (extended dispersal, demographic growth, wide range of adaptive behavior, symbolic material production) owed as much to serendipity and occasional but significant inter-species and inter-group cooperation as to any biological factor. With the confirmation of Anatomically Modern Humans (AMH) emerging as far back as two hundred thousand years ago, preceded by a very complex and structured evolutionary history, we can safely state that three quarters of the history of humans as such elapsed without a distinct, unambiguous demonstration of superior cognitive skills. Moreover, the discovery of 48 specimens of *homo naledi* at the Rising Star Cave in South Africa, a species which did not—in all likelihood—breed with our ancestors, yet was capable of symbolic expression and burial, represents a game changer.

2.1. Humans: biological and cultural hybrids

Given that over the last three decades there has been an increasing number of publications stemming from paleoclimatology, genetic studies, excavations in regions of the world that had previously received less attention, and the analysis of human fossils, lithics, and the ecologies of those excavated sites, I am opting here for referring to the most relevant evidence in four broad chronological phases. Recent and intensive research and new discoveries are challenging old models and forcing an inter-disciplinary approach to make sense of the evidence. Among the difficulties, the scarcity of well-preserved fossil remains, the lack of association of lithic assemblages with the former, and the dependence of genetic studies on statistically based methods may be mentioned. Most paleoanthropologists and prehistoric archaeologists are heavily influenced by their regional specializations. Yet, two patterns are becoming increasingly clear: 1) that genetic introgressions through interbreeding may not only have been possible between different hominin species but also between them and the first AMH; and 2) that more than one possible route for two-directional mobility in the Eurasian corridor, Africa-the Levant, and in general a more dynamic

approach to mobility in general, should be envisaged since the very first hominin dispersals, particularly during transitions signalling worsening climatic conditions, and during interstadials allowing for broader ranges of exploitation.

1) From 1.7 million years ago to 800 kya.

Continued research at Olduvai Gorge, Tanzania, has recently led to the realization that Oldovan and Acheulean knapping-tool techniques were employed simultaneously and that the former did not precede the latter here.[1] Change towards aridity was observed at Bed II, lowermost layer, ca. 1.7 mya at Olduvai Gorge, and Omo basin and Badisima Formation in East Africa,[2] so perhaps the change in technology came after the need to adapt to grasslands and to a more carnivorous diet, since the new tools seem to have been employed to butcher carcasses.[3] Of interest is also the observation that, just as at Olduvai the recent recovery of another hominin fossil does not allow for the Acheulian to be associated with a *habilis* or a particularly evolved taxon, in South Africa, *australopithecus*, *paranthropus* and *erectus* were co-existing ca. 2 mya.[4] Oldovan techniques are also attested at Kokiselei (Kenya) and Konso (Ethiopia) at similar dates, but, significantly, Acheulean handaxes at Konso appeared later, at over 1.4 mya.[5] This specific tool of the Acheulean technoculture is highly diagnostic, and even if other modes of bifacial production are associated with it, its specific presence is related as much to innovation, associated to the *erectus* expansion out of Africa (bearing in mind that the Acheulian would not become widespread in Europe until ca. 700 kya),[6] as to technological conservatism, to the point that current debates are trying to clarify at what point of the Middle Pleistocene (after 200 kya) it was finally replaced.[7] The more primitive Oldovan techniques, characterized by small flakes and cobbles, were detected at a key site for Early Pleistocene Out of Africa (OOA) dispersals: Dmanisi, in Georgia, dated to 1.85-1.78 mya.[8] Five skulls were unearthed here, with no consensus as to the species they belonged to or even whether four of them belonged to the same taxon.[9] Dmanisi is very important because it signals the beginning of a repetitive occurrence: Southwest Asia acted as an ecological extension of Africa, a crossroads from where other regions could be accessed.

At least a non-*erectus homo* population, and, later, early *erectus* populations, travelled eastward until reaching territory in current China before the route undertaken by *erectus* from Africa to Europe ca. 1.4 mya (probably coinciding with another

1 Domínguez Rodrigo et al. 2023.

2 Cerling et al. 2011.

3 Diez Martín et al 2015.

4 Herries et al. 2020.

5 Beyene et al 2013.

6 Moncel et al. 2020.

7 Key, Jarić and Roberts 2021.

8 Lordkipanidze et al. 2013.

9 See Scardia et al. 2021, and references therein (including the excavation of a lithic assemblage at Zarqa Valley, Jordan, dated to 2.48 mya).

change towards increasing aridity documented at 1.3 mya). There are two main areas where early hominin presence has been recovered and well-studied, one to the north-east of the Loess Plateau of northern China (the Nihewan Basin, particularly at Zhoukoudian),[10] thus connecting it to a Eurasian corridor whose other extreme would be the Caspian Sea; and a second area in Lantian, closer to the Qingling Mountains that mark the ecological boundary between North and South China.[11] The more wooded, riparian landscape in the second region, with abundant megafauna, would explain the early and protracted occupation of early hominins.[12] The Gongwangling cranium and teeth cannot be ascribed to any particular early *homo* taxon with certainty, as is the case with the Meipu teeth, dated to 990-780 kya.[13] They are simply assumed to be *erectus sensu lato*. At Yuanmou in southern China two incisors assigned to *erectus* and dated to 1.7 mya were found, but for now this remains an isolated discovery.

The other region outside Africa-Southwest Asia with very early hominin presence is Sundaland (Island Southeast Asia). Even though the dates at Sangiran go back to ca. 1.5 mya for the first hominin presence in Java, the majority of the fossil and lithic evidence on the island (Sangiran, Mojokerto, and Trinil) at this early stage belong to the 1.2 to 0.8 mya chronological range,[14] thus preceding the Middle Pleistocene Transition—which ended with the onset of a 100-ka cycle of glaciations and interglacials at ca. 640 ka. The recent discovery at Mata Menge, in the Indonesian island of Flores, has now placed the emergence of *homo floresiensis* at ca. 800 kya.[15] This means that for the development of a small-sized hominin to evolve since its divergence from *erectus* entering Sundaland, and maybe later capable of interbreeding with them,[16] the presence of *erectus* in Java needs to have started as early as 1.2 mya, if not earlier. Given that the Zhoukoudian and Middle-Pleistocene Javanese *erectus* will be morphologically distinguished from each other,[17] we could envision two scenarios for the isolated southern China, on the one hand, and Javanese *erectus* presence until ca. 100 kya, on the other.[18] The first scenario would see at least one population of the earliest *erectus* arriving in northeastern China by 1.6 mya, and after developing better knapping techniques moving southwards towards the Lantian region, mating with other groups, and continuing further south (Yuanmou) until reaching Sundaland. The second scenario would be based on the evidence from the

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[10] For an overview, see Yang et al. 2020.

[11] Zhu et al. 2015; Zhu et al. 2018 (Gongwangling, Shangchen).

[12] Zhou et al 2023.

[13] Pan et al 2022.

[14] Zaim et al 2011.

[15] Van den Bergh et al. 2016.

[16] See discussion in Martinón-Torres et al. 2017, where they also posit their possible interbreeding with Middle-Pleistocene *sapiens*. Many opt to see the small size of *florensiensis* and *luzonensis* as an adaptation commonly observed in isolated island animals, including humans (cf. Van den Bergh et al. 2016; see also Mondal et al. 2016 for the contemporary Andamanese).

[17] Kaifu 2017.

[18] See Noerwidi et al. 2023, and references therein. *Homo floresiensis* also disappeared around that time. See also Détroit et al. 2019 for *homo luzonensis*, and its disappearance ca. 65 kya.

Lantian region (Gongwangling-Shangchen) as one of the terminus locations of an early route that would have run along the southern coast of the Caspian Sea *via* what is today India, Bangladesh, and Burma, as proposed by the model of few carnivores and available lithic resources reconstructed by Carotenuto and colleagues,[19] then dispersing northwards towards the Nihewan Basin (at 1.6 and 1.1 mya), with a different branch going southwards all the way into Sundaland.[20] This scenario entails that at least two genetically-closed species co-existed before and after dispersing, and that the route was used at least twice (one ca. 1.8-1.7 mya and one ca. 1.4-1.3 mya). Some evidence in support of this route may be inferred from the Acheulian lithic assemblages excavated at two locations in Pakistan, and Attirampakam, India, starting in the Early Pleistocene.[21]

At around 1.4 mya, a second wave of dispersals of early *homo* populations practicing the bifacial reduction of the Acheulian moved from Southwest Asia (e.g. Ubeidiya) towards central and southern Europe (and, as just noted, maybe also eastwards). Several sites with lithic assemblages and the occasional fossil fragment have been excavated in the Levant and Anatolia, all within this chronological range, as well as from northern Africa, the Balkans, and Italy.[22] From Sima del Elefante at Atapuerca, northern Spain, a mandible (and some bone fragments) that was described as having derived features compared to African *erectus* but presenting some traits akin to one of the specimens from Sangiran, was excavated, and dated to 1.2 mya. This population may or not have been related to the population from which *homo antecessor* (ca. 800 kya) at the same cave complex originated.[23] *Antecessor*, however, shares enough neurocranial, mandibular, and postcranial features with the later 600-400 kya Atapuerca hominins, including Neanderthals, that a suggestion of both continuity and hybridization, as is the case in East Asia, becomes the most plausible hypothesis.

2) From 800 to 400 kya.

Evidence of hominin fossils between 800 and 600 kya is scarce in all regions. The few fossils from Africa available—Daka and Bodo (Ethiopia), Kabwe (Zambia), all crania—were thought to be derived from an Ethiopian *ergaster* line, or to represent a different species, derived from *erectus* (*rhodesiensis*), respectively. In a careful analysis of the evidence, Argue concluded that none of these (or the much later cranium from Ceprano, Italy) could have had *erectus* as a common ancestor.[24] The *heidelbergensis* box of ambiguous European specimens that was still in vogue three decades ago relied on the unrealistic expectation that it was possible to find both the earliest common ancestor of all *sapiens* taxa between 800 and 500 kya, and to trace

[19] Carotenuto el al 2016.

[20] At Sangiran, the layer with the highest number of remains is dated to ca. 900-800 kya, which implies more than one wave.

[21] See Dennell et al. 1992, Pappu et al. 2011.

[22] Cf. Roksandic et al 2018.

[23] See overview and references in Bermúdez de Castro et al. 2017.

[24] Argue 2015.

its continuity down the chronological line to secure this taxon as our direct ancestor. This is no longer the situation. As Athreya and Hopkins remarked: "Nearly 50 years after Butzer and Isaac's (1975) classic description of this time period—the "muddle in the middle"— we are still grappling with fundamental questions about how many taxa are present in the Middle Pleistocene, who belongs in which taxon, and how temporal, regional, or morphological groups are related to each other as well as to H. sapiens."[25]

Genetic evidence places the emergence of Neanderthals as a species at ca. 500,000-450,000 years ago. An earlier divergence between the Neanderthal and our ancestor lineage was estimated at around 765-550 kya, while the slightly later divergence between Neanderthals and Denisovans (or rather, the ancestors of Denisovans)[26] was placed at ca. 473-381 kya.[27] However, in the last decade, several studies challenging this genetical clock have been published. For instance, a recent study of two of the Denisovan specimens (out of four who could be sequenced) from Denisova Cave (190-40 kya), and three late Neanderthals, has concluded that the Denisovans split around 700 kya from a Y-chromosome lineage shared by Neanderthals and modern humans, that the last two split at around 339 kya (much later than posited by earlier studies), and that they could have shared gene flow between 370 kya and 100 kya, before their coexistence at Denisova.[28] This difference in split time readings was due, according to the authors, to previously undetectable gene flow between our ancestors' lineage and Neanderthals given the complete genetic replacement of the latter. But their study lends itself to additional interpretations, too. It implies that our ancestor lineage and that of Neanderthals could have interbred successfully at a very early date.

Two overview articles published in 2011 and 2017 tackled the problem of hominin morphological variation observed in Europe for most of the Pleistocene. The first placed a core population in Southwest Asia and postulated a "source-sinks model" to explain variability in the European subcontinent during the glaciation-interstadial cycles starting at ca. 650 kya (corresponding with MIS 16) onwards. The second postulated an Eastern Mediterranean Area as the geographical entity where the most variability is observed once Neanderthals were consolidated in West Europe.

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[25] Athreya and Hopkins 2021: 7, and see Table 1 for a comprehensive record of "major Middle Pleistocene *Homo* fossils that have been proposed to belong to *H. heidelbergensis*" (but also described as 'pre-Neanderthal' or 'archaic *Homo sapiens*').

[26] This taxon was discovered from remains found at Denisova Cave, in the Altai region of Siberia (see below). Denisovans were either a sister lineage of Neanderthals or a sister lineage who became a hybrid. MIS 12 (~478-424 kya) was one of the harshest glacial periods in the Northern Hemisphere, so speciation due to prolonged geographic isolation is possible. For the second option, see below *re* Xujiayao.

[27] Prüfer et al. 2014; Meyer et al. 2016, Kuhlwilm et al. 2016, Posth et al. 2017.

[28] Petr et al. 2020.

The authors of the first study postulated that many populations outside southern European refugia would have gone extinct if unable to move to more advantageous locations when a cold phase hit.[29] That optimum climatic conditions can be correlated to demographic growth seems to be corroborated by the fact that "the earliest indications of hominins in the Orce Basin and at Atapuerca all occurred in mild, interglacial periods". Furthermore, although MP hominin populations—with the possible exceptions of two (at Ceprano and Vértesszöllös)—show Neanderthal traits, "the derived conformation varies from group to group, and populations like Sima de los Huesos (>530 ka) appear to be more Neanderthal than some later Middle Pleistocene ones such as Arago in France".[30] To explain the variability observed at these and other sites,[31] moreover taking place during the whole period (and beyond), they postulate a viable model of demic expansion and mixing that would explain both the consistency of Neanderthal traits as well as the variability and non-conformity of many individuals-populations. During warm periods, expansion of two or more groups allowed for the resulting source populations to interconnect, mate, and engender further groups "northwards". However, autonomous groups far from their sources could become isolated during cold conditions. They are thus termed "sink" populations. Their continuity would have depended on the duration of their isolation. The assumption is that "regional extinctions of Neanderthal populations would have led to repeated genetic bottlenecks, the survival in southern Europe of a non-random sample, and a subsequent reduction of the variability in the Neanderthal lineage". However, in the early stages of this evolutionary lineage, interbreeding between *demes* would explain not only the protracted high variability but the survival of so many populations throughout all climatic fluctuations.[32] For repopulation or recolonization processes to be possible, core areas become a necessity. The fossil record for Southwest Asia and the Balkans was quite meagre as of 2011.[33] Roksandic and colleagues resumed the debate some years later, after the discovery of a mandible at Mala Balanica, in Serbia, and reviewed all available evidence at the sub-regional level (see Fig. 2.1).

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[29] Dennell, Martinón Torres and Bermúdez de Castro 2011.

[30] *Ibid*: 1516.

[31] See discussion in 1517f.

[32] For further details concerning this model, extracted from ecological theory and tested with several animal species, see *ibid*: 1519f.

[33] Of particular interest is the mandible fragment from Azykh, Azerbaijan, a non-Neanderthal.

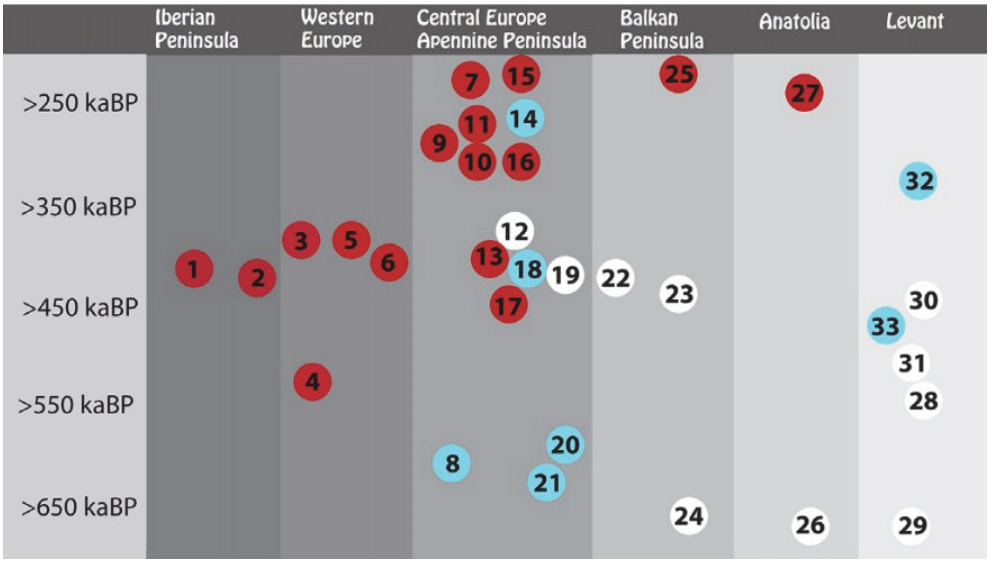

Fig. 2.1. Schematic distribution of the MP hominin fossil record across the Southwest Asia-European regions following approximate temporal assignation. After Roksandic et al 2018: Fig. 1. The authors distinguished the unambiguous presence of Neanderthal traits with red circles, lack of Neanderthal traits with white circles, and blue circles for ambiguous or insufficient morphology. 1. Aroeira, 2. Sima de los Huesos (Atapuerca), 3. Swanscombe, 4. Boxgrove, 5. Arago, 6. Montmaurin, 7. Steinheim, 8. Mauer, 9. Bilzingsleben, 10. Vértesszöllös, 11. Reilingen, 12. Visogliano, 14. Castel di Guido, 14. Sedia del Diavolo, 15. Casal de' Pazzi, 16. Ponte Mammolo, 17. Fontana Ranuccio, 18. Pofi, 19. Ceprano, 20. Isernia la Pineta, 21. Notarchirico di Venosa, 22. Mala Balanica, 23. Petralona, 24. Megalopolis, 25. Apidima 2, 26. Kocabaş, 27. Karain, 28. Nadaouiyeh Aïn Askar, 29. Ubeidiya, 30. Hazorea, 31. Gesher Benot Ya'aqov, 32. Zuttiyeh, 33. Qesem.

As may be observed in the figure above, the most likely source of continuous genetic variability in Europe for this chronological range and beyond is eastern Europe and Southwest Asia.[34] This could also explain the expansion of these hybrid populations eastwards, starting with the MIS 11 (420-360 kya), an unusually long interglacial. Although the Yunxian, Nainjing and Hexian fossils coming from South China (the latter and best preserved is probably the youngest at ca. 400 kya) are insufficient to clarify whether populations are due to sub-regional continuity or had recently received arrivals from other regions,[35] continuity is assured at Zhoukoudian in the north,[36] where "Peking Man" at Locality 1 is represented by fossils of at least

[34] The authors recommend that the *h. heidelbergensis* hypodigm now include Mauer, Vértesszöllös, Ceprano, Visogliano, Balanica, Hazorea and Nadaouiyeh Aïn Askar, even if this group "would not necessarily show any morphological distinction".

[35] Cf. Kaifu 2017.

[36] At Zhoukoudian, an uninterrupted sequence of four hundred thousand years has been studied for decades, the site encompassing 27 localities with abundant lithic assemblages, four of which have also yielded hominin fossils For a comprehensive overview, including a history of research at Zhoukoudian from a Chinese perspective, see Shen et al. 2016.

40 individuals, as well as with the Chenjiawo mandible (710-684 kya) and the fragmentary remains from Yiyuan.

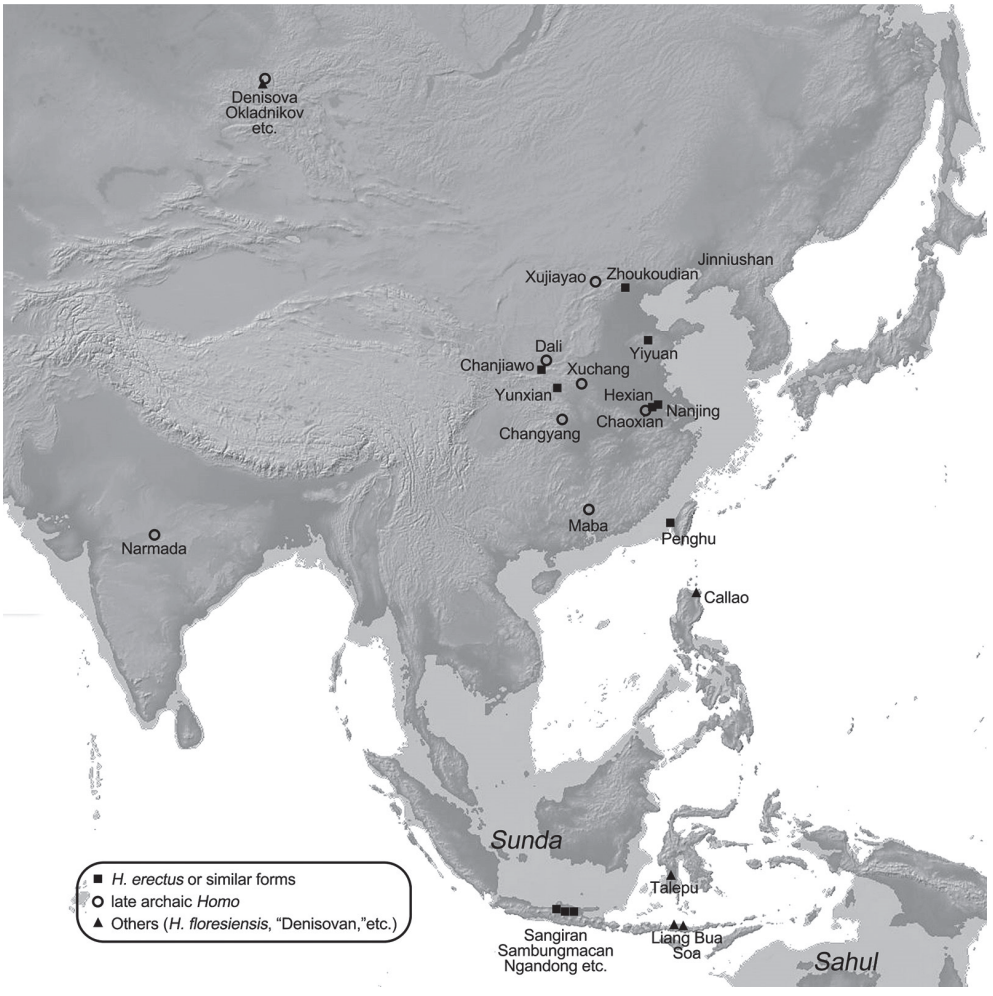

Fig. 2.2. Map of main fossil localities in Pleistocene Asia. After Kaifu 2017: Fig. 1. Color image available at
https://www.journals.uchicago.edu/na101/home/literatum/publisher/uchicago/journals/content/ca/2017/ca.2017.58.issue-s17/694318/20210620/images/large/fg1_online.jpeg

North China populations are the most likely to explain the irruption of Denisovans, in connection with the chronologically overlapping Xujiayao (see next section). The left parietal bone found at Nadaouiyeh Aïn Askar, El Kowm, Syria (>500kya) closely matched one of the skulls unearthed at Zhoukoudian,[37] further supporting the existence of a Eurasian corridor route (instead of/apart from a southern one across Asia) that for now remains invisible.

[37] Schmid 2015.

3) From 400 to 130 kya

With abundant lithic and faunal assemblages spanning two hundred thousand years and thirteen teeth retrieved from three archaeological contexts, Qesem Cave near Tel Aviv (ca. 400-200 kya) represents, better than earlier Gesher Benot Ya'akov (a few fragmentary remains) the confirmation of an admixture zone in the Levant from the time when Neanderthals are confirmed as a distinct taxon at Atapuerca-Sima de los Huesos.[38] Dental morphology analysis placed its mosaic features closer to the later AMH of Skhul and Qafzeh than to Neanderthals. The Zuttiyeh cranium, however, seemed to be less derived.[39] Both Qesem and Zuttiyeh shared a regional Acheulian culture. In light of the connection that had been made between increasing encephalization of hominins during the Middle Pleistocene and hunting practices, a zooarchaeological study of bone cut marks at Qesem was conducted, indicating that the largest pieces of game (mostly fallow deer) were brought to the hearths inside the cave and shared equally, given the presence of both expert and non-expert butchery patterns.[40] Also of interest is the fact that small blades appear in great numbers (with very few axes) and these were used for cutting both animal and vegetal matter.[41] At Xujiayao in the Nihewan Basin, equid hunters were capable of using relatively simple core-and-flake technology to maximize the intake of meat from their kills.[42] Something that both Qesem and Xujiayao have in common, apart from their being roughly coeval,[43] is a large number of 'spheroids' that have been reported from these sites. This kind of simply modified lithic appears first at Zhoukoudian, Locality 1. Although not resembling the Acheulian toolset, the more than seventeen thousand pieces excavated here included hammer stones, choppers, scrapers, and spheroids. Knapping know-how experienced visible improvement during the later phase of the occupation of the cave complex at ca. 400-300 kya, given the increasing numbers of small blades, awls and burins. The large assemblage from Locality 15 shows that the core reduction improvement process was continuous, leading to a wide range of scrapers.[44] Given that the Acheulian of the Levant was also quite idiosyncratic,[45] detecting the presence of this particular feature (spheroids) in assemblages could help in future identify west-to-east routes of dispersal. A recent diachronic study on polyhedrons, spheroids and bolas (PBS)[46] was recently undertaken with data coming from Africa, Eurasia and the Levant, although hindered by the exclusion of unpublished, not published in English, or superficially reported material. Hence, many

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38 See, *inter alia*, Meyer et al. 2016.

39 For an excellent overview of the Levantine material, see Roksandic et al. 2018.

40 Stiner, Barkai and Gopher 2009.

41 See references in Sarig et al. 2016, who also show how small tools were used as a "third hand" to cut up the meat held in place by the anterior teeth.

42 Norton and Gao 2008.

43 Ao et al. 2017. The new dating of the fossil-bearing layers, in combination with analysis of the faunal remains—similar to those seen at Zhoukoudian—was established at 370-260 ka.

44 Shen et al. 2016: 6f (Locality 15 should be dated earlier, cf. Ao et al. 2017).

45 Barkai and Gopher 2016.

46 Cabanès et al. 2022.

sites from Java, China and South Korea were not computed. Starting at ca. 1.2 mya in Africa, and divided into chrono-cultures—the Oldovan, Core-and-Flake type industries, Acheulian, Middle Stone Age and Middle Palaeolithic—the study sought to understand the lack of PBS presence in Northwest Europe, and paid special attention to raw materials. However, as the study itself could show, PBS—as well as other tools— were fashioned using hard and soft stones following criteria that seem to combine both availability and tradition or cultural preferences. The fact that PBS and cleavers were not used in northern Europe cannot only be due to the ready availability of flint—as the authors try to posit in their own conclusions—nor to a preference for tools that perform the same function (presumably marrow extraction or vegetal processors). Rather, given that in southern Europe PBS are present but not widespread, and that they are certainly present at several locations in southern Asia,[47] this could be a particularly significant trait to follow cultural transmission patterns by migrating populations, indicating that conservatism or lack of interaction may be behind their absence in some areas.

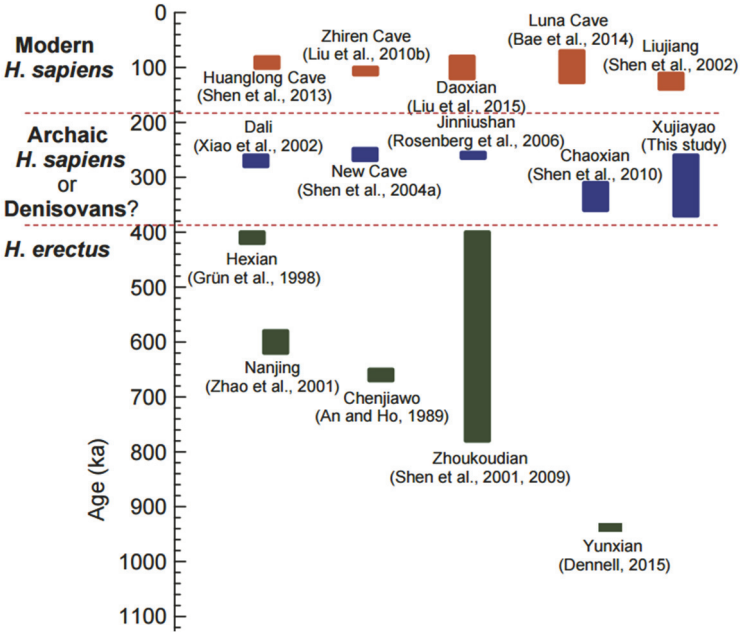

Fig. 2.3. Chronostratigraphy of well-dated AMH (orange), archaic H. sapiens (blue), and H. erectus (green) sites from China. Adapted from Ao et al. 2017: Fig. 10 (Gongwangling and Yuanmou not included). Reproduced with the permission of Dr. Hong Ao.

The Xujiayao hominins have been proposed as good candidates for Denisovans. A recent genetic study has confirmed that there was irregular but repeated gene flow between Neanderthals and Denisovans during the last one hundred thousand years of their existence.[48] The question is whether Denisovans were simply isolated

[47] See the three maps in Cabanès et al. 2022: Fig. 3.

[48] Peter 2020.

Neanderthals or they incorporated *erectus* genome at the time of Xujiayao or even earlier, and what we see at Denisova Cave more than two hundred thousand years later is the result of this successful interaction.[49] There is some genetic[50] and morphological support for this theory. A recent paper suggested that, given the Xujiayao hominin particular mosaic features, they could be a hybrid species.[51] Hence, the hominin populations at Chaoxian (360-310 kya, classified as *erectus*), Zhoukoudian-New Cave, Dali, Jinjiushan and Xujiayao—all from northern or central China—might represent groups of descendants of earlier *erectus*, but given that the well-preserved fossils at Xujiayao present clear non-*erectus* features, we can infer that interbreeding with other species started to take place at ca. 400 kya, or earlier (see Fig. 2.3). Both early Neanderthals and Southeastern European/Levantine hybrids are good candidates.

Regarding Africa, the situation is still more complicated. The discovery of a new taxon, *homo naledi*, in the Rising Star cave complex of South Africa (ca. 335-236 kya), and the subsequent study of the fossils therein, led to the realization that this small-brained species could not have led to the emergence of our ancestors, even if capable of leaving engravings (crosshatchings and other geometric shapes) carved into the pillar wall of an antechamber that led to the small cave were at least 15 individuals had been disposed of throughout a long span of time.[52] There are no signs of predation nor evidence of water flowing into the deep underground cave. Dinaledi Chamber is such a game changer that its implications have still not sunk in, and there is an understanding reluctance to accept that the adults and infants found there were deliberately buried in shallow pits.[53]

The new dates for Jebel Irhoud, Morocco—where the numerous fossils that came to light had been classified as Early Modern Humans, or archaic *H. sp*., given the variable retention of primitive features including some Neanderthal traits—established an occupation encompassing a 350-300 kya span, and forced a reflection on the nature of hominin interaction and evolution within Africa and in connection with possible early genetic introgressions impacting our lineage.[54] These fascinating discoveries need to be considered in association with the emergence of EMH and AMH in East Africa (Ethiopia, Kenya, Tanzania) and South Africa (Florisbad), to be placed

[49] Archaeological evidence (lithics) in the Altai region commences at ca. 800 kya (scarce), with a more noticeable presence at around 500-400 kya, and 300 kya, of "Middle Eastern populations", according to Buzhilova, Derevianko and Shunkov 2017.

[50] Prüfer et al. 2014 (up to 8% of their genome, according to Bayesian calculations, could come from a hominin that introgressed with the European lineages ancestor as far back as 1.4-0.9 mya).

[51] Martinón Torres et al. 2017: S443f. While the Xujiayao *homo* would generally fall between a Zhoukoudian *erectus* and a modern human, more specific studies have found some traits (bilevel nasal floor, specific mandibular features) shared with Neanderthals, while also exhibiting remarkably large teeth. Morphological anomalies related to size have been observed to occur as a consequence of animal hybridization. See also Buzhilova, Derevianko and Shunkov 2017 for similar conclusions. Cf. Ao et al. 2017 for an overview.

[52] Berger et al. 2023.

[53] Pettit 2022.

[54] Hublin et al. 2017.

broadly within a 300-200 kya span.[55] Martinón Torres and colleagues have proposed that Irhoud represents a "sink" population. They would have survived locally for a long time, but would not have been one of the sources contributing to the South or East African AMHs. From a different perspective (phylogenetic modelling), and including a Pan-African approach, Mounier and Lahr largely came to the same conclusions.[56] There are others who question the new dates and suggest that these fossils are younger.[57] To understand the Neanderthal component present in the Jebel Irhoud fossils we need to have more evidence to support an African-European irregular but repeated gene flow for the whole duration of MIS 11. The Tighenif fossils from Algeria belong to the preceding stage. Given that introgression of a "modern human" lineage into Neanderthals must have first happened at this point, based on the mtDNA extracted from a femur unearthed at Hohlenstein-Stadel (~270 kya),[58] and that contemporary northern African populations carry Neanderthal ancestry, too,[59] the future challenge will be in determining the "back to Africa" scenario. The most likely proposal is to see hybrid populations entering Africa from the Levant, eventually joining the eastern and northern African hominins.

The study of the northern African fossil and lithic remains from the MIS 8 (~300-245 kya) onwards has led to the confirmation of remarkable continuity, and although the presence of lithics and fossils in the Levant, Arabian Peninsula, Thar Desert of India, and Southern India is prevalent during the later MIS 5 (130-80 kya),[60] it is possible that the western part of the Arabian Peninsula was reached from the Horn of Africa already during MIS 7.[61] A study of the climate in East Africa during MIS 6—which was highly variable—established that this region enjoyed good conditions.[62] By contrast, the "megadroughts" observed at Lake Malawi during MIS 6-5, and MIS 4, could represent a "push" factor in the two OOA dispersal waves at ca. 130 kya, and 60-50 kya, respectively. This could mean that at least the first of these populations came from the Rift Valley in Ethiopia and Kapthurin Formation in Kenya after a prolonged period of hominin growth, which saw the emergence (Omo 2, Herto) and continuous evolution of the AMH. The Herto area in the Middle Awash region of Ethiopia has been described as "a low-relief landscape near the margins of a freshwater lake, an ecotype inhabited by abundant large mammals, with the modern analog of the Yardi Lake margin only c. 2 km to the west."[63] In-depth studies in this region of the Afar Rift Valley have noticed that the bifacial cutting

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55 Stringer 2016.

56 Mounier and Mirazón Lahr 2019. They conclude that the Jebel Irhoud population must be the descendants of an earlier population who had interacted with European Neanderthals.

57 Sahle et al. 2019.

58 Posth et al. 2017.

59 Sánchez Quinto et al. 2012.

60 Scerri 2017; Groucutt el al. 2015; Blinkhorn et al. 2013.

61 A survey of the Lower and Upper Coastal Plains and the coastal Harrat al Birk (Arabia), conducted by Bailey and colleagues (2015) located 67 sites with lithic remains, 31 of which were categorized as Early Stone Age.

62 Tierney et al. 2017.

63 Sahle et al. 2019: 113.

tools of the Acheulian coexist with the Middle Stone Age/Levallois lithic complex well after 200 kya. Sahle and colleagues have provided data to confirm this technological co-existence at the Upper Herto Member in the Bouri Formation without any possible mistake in the analysis of the stratigraphy and its correlated dating, hence denying the alleged transition to a more evolved culture with the emergence of AMH or *sapiens sapiens*.[64]

Considering the very early dates for the presence of AMH in the Levant (Misliya) and Greece (Apidima), both around 200 kya,[65] some early expansion northwards should also be envisaged, but humans did not veer into Europe at this stage. The Skhul and Qafzeh cave occupations in Mount Carmel are dated to ca. 130-100/110-90 kya, respectively, hence considerably later than Misliya/Apidima. Even though the Skhul fossil morphology has been assessed as somewhat more primitive than the younger Qafzeh fossil remains, the associated lithic technology at Skhul was gauged to be more advanced (e.g. diverse methods of point production).[66] Another study noted that, while two lithic assemblages at Jubbah, in the Nefud Desert of northwestern Saudi Arabia, resembled the lithic technology of northeastern Africa, one location unexpectedly revealed noteworthy differences. The techniques there were perceived to be "more analogous to those typically present in East Africa and the Levant in MIS 5".[67] The authors hesitated to posit a Neanderthal intrusion, though, and leaned towards *H. sapiens*. However, recently discovered fossil remains at Nesher Ramla, Jordan (see Fig. 2.4)—securely dated to ca. 120 kya—were identified as a Middle Pleistocene *homo* with Neanderthal affinities (their teeth somewhat more AMH-like, but their cranium and mandible still archaic), and associated with a Middle Stone Age/Tabun lithic assemblage (or Levallois) prevalent in the Levant and East Africa at this time, as mentioned above.[68]

Therefore, the actual presence of Neanderthals this far south during MIS 5 is not a requirement to postulate genetic introgression, provided that a Neanderthal genome component was present in other Middle-Pleistocene *Homo* coexisting with AMH in Africa-SW Asia. It is not until the beginning of the MIS 4 glacial, or later, that Neanderthals of unknown provenance[69] dispersed all along the Levantine corridor (Karain, Dederiyeh, Tabun, Kebara, Amud).[70]

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64 Sahle et al. 2019.

65 Hershkovitz et al. 2018, Harvati et al. 2019.

66 Groucutt et al. 2019.

67 Scerri et al. 2014.

68 Zaidner et al. 2021.

69 There were two main repopulations affecting Neanderthals living in the Eurasian steppe. Eastern European Neanderthals moved to Denisova at around 90 kya. These groups began improving their knapping techniques (the 'Micoquian') in a discernible way, so their presence in Central Europe, and later at ca. 60-50 kya. at Chagyrskaya, in the Altai and Mezmaiskaya, in the Caucasus has been detected, and corroborated by genetic evidence. At Shanidar, in the Zagros, and the Levant, this lithic culture has not been identified. Cf. Picin et al. 2020, and references therein.

70 Pettit 2011: Ch. 5.

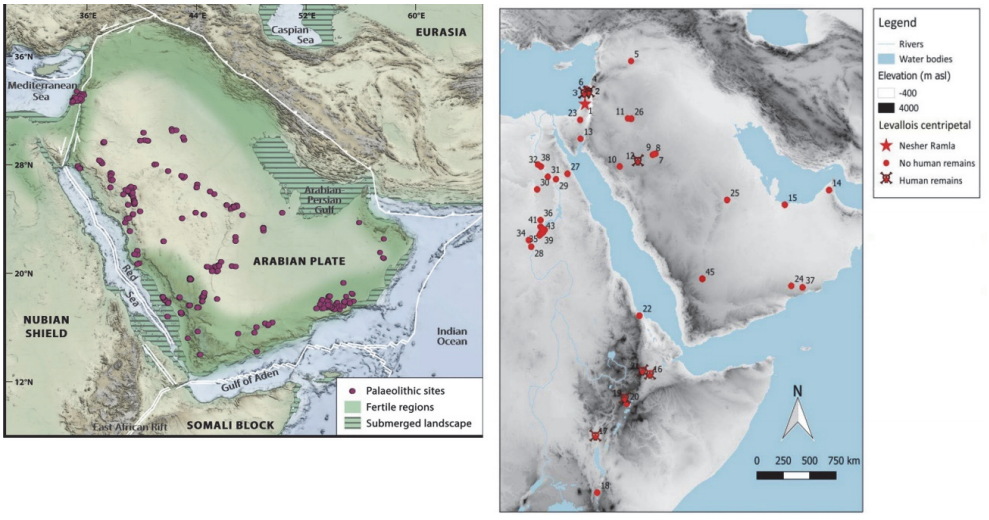

Fig. 2.4. Left: General map of the Arabian Peninsula and Horn of Africa, showing fertile areas and the extent of present submerged landscape. After Bailey et al. 2015: Fig. 1. Reproduced with the permission of G. Bailey. Right: Map of lithic assemblages with a marked Levallois component dated to MIS 5 and 6, showing also the location of fossil finds (skull) and Nesher Ramla (star), where fossils belonging to an archaic homo dated to ca. 120 kya were found. After Zaidner et al. 2021: Fig. 1. https://www.science.org/doi/10.1126/science.abh3020

4) From 130 kya to the Last Glacial Maximum

Table 2.1. Main developments since the emergence of AMH using the Marine Isotope Stage timescale from ca. 200,000 years ago until the onset of the Holocene. Cells with bold borders indicate Late Pleistocene-early Holocene. Italics indicate interglacials. All given dates are approximate. Each stage has regional subdivisions. Positive (warm and wet) or negative (cool and dry) assignations are generic and do not take regional-chronological variations into account. HE: Heinrich Event (Northern Hemisphere). LGM: Last Glacial Maximum.

MIS 7	MIS 6	*MIS 5*	MIS 4	*MIS 3*, MIS 3-2	MIS 2	MIS 2-1
190-170 kya	170-130 kya	130-80 kya	75-65 kya	60-35 kya	HE 3 30 kya HE 2, LGM 24-19 kya	Bølling-Allerod 15-12 kya Younger Dryas
+	-	-,+, -	-	variable	-	+,-
First AMH fossil evidence First OOA	EMH and AMH coexist in the Levant and Arabia / *Homo naledi* disappears	Co-existence of several *homo* species / Javanese *erectus* disappears / First AMH in China	Main OOA wave (see Fig. 2.5)	Continental dispersal and growth	Neanderthals disappear/ Eurasian semi-sedentary groups in river basins during warm periods	Crossing to Americas/ Open-air sites increase / Early layers at Körtik Tepe, Qaramel

There is much yet to be learned about the last migrations of Neanderthals and Denisovans before their extinction, the arrival in China of the first AMH by ca. 120 kya,[71] the eventual extinction of hybrids —who survived in isolated pockets of Africa, Europe and East Asia as late as the LGM—, the genetic replacement of pre-60 kya humans by the second OOA episode,[72] and the effects of the consequences of other *sapiens*' introgressions into our genome. However, we can safely state that our species did not manifest an outstanding ability towards material/symbolic innovation until before and after the cold periods of the last glacial cycle. Thirty years ago, McBrearty and Brooks published an article entitled *The revolution that wasn't*, advocating a non-Eurocentrist (the transposition of the Middle and Upper Palaeolithic divisions to an African record) approach to the archaeology of Africa, more continuity than change between Middle and Late Stone Age, and a very gradual evolution regarding milestones indicative of "modern human" behavior, like better lithic reduction techniques (a panoply of blades of all sizes, points, and blanks or pieces showing the potential for re-use), the use of bone and wood to fashion small tools or ornaments, the use of pigments and raw materials, the exploitation of marine resources, and the expansion of exchange networks. One of their concluding observations is of great relevance here, and still pertinent: "Rather than applying arbitrary criteria for modernity, one could take the position that behavioral innovation drove the morphological changes that are observed in early modern human anatomy".[73] Ironically, the perception of abrupt changes from the Middle to the Upper Palaeolithic in Italy and the Iberian Peninsula (where Neanderthals and AMH coexisted for at least ten thousand years) has since then also been rejected, and at Jawlapuram and other early Indian sites, continuity since ca. 80 kya has been defended.[74]

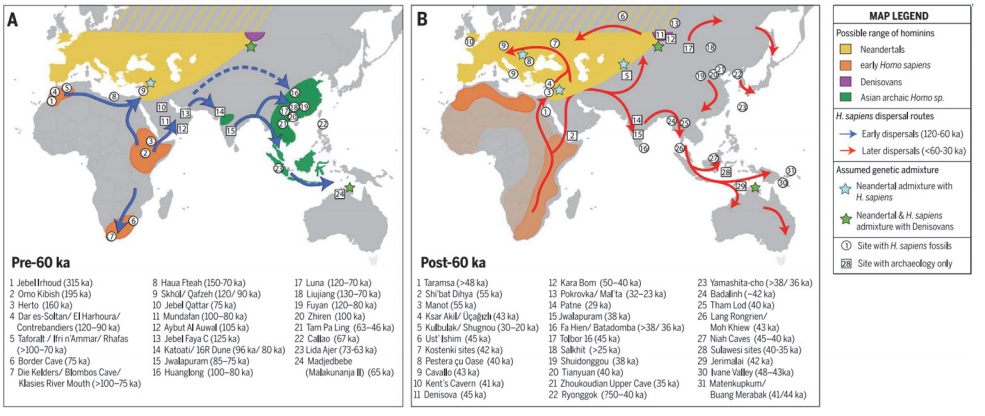

Fig. 2.5. Map of sites and postulated pathways associated with modern human dispersals across all continents before the penetration in the Americas. After Bae, Douka and Petraglia 2017: Fig. 1. https://www.science.org/doi/10.1126/science.aai9067

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71 Liu et al. 2015.

72 See Sikora 2017 for overview and references. A genetic bottleneck was postulated by Karmin et al. 2015 at 52-47 kya, based on Y-chromosome haplogroup analysis, also confirming earlier estimations of very low levels of OOA populations.

73 McBrearty and Brooks 2000: 534.

74 Riel-Salvatore and Barton 2004, esp. 267ff; Blinkhorn et al. 2013.

To justify the apparent conservatism in lithic use for more than two million years, regardless of location, Shea classified their application into occasional, obligatory and habitual use.[75] While hominins before 300 kya shifted between occasional and habitual stone use, "obligatory" stone tool use—which, he suggested, would have coevolved with spoken language—is observable after that date, signalling technological "intensification" and efficiency. According to Shea, population growth and dispersal would have stimulated these changes. His reflections on lithic use and language was inspired by the debate introduced into archaeology more than two decades ago by neurobiologists and primatologists concerning the social brain of primates and hominins and the linguistic abilities of *homo sapiens s.l.*[76] However, how the social brain of hominins evolved during two million years of dispersal and interactions and how it specifically gave AMH a significant advantage in terms of survival and growth, is currently approached from very different perspectives depending on the scholar's discipline and background. Defending the self-domestication hypothesis—which postulates that hominins-humans experienced a biological and behavioural evolution that is largely consistent with the changes observed in domesticated species, certain wild species in captivity, and bonobos—Thomas argued that "relaxed selection" conditions provided by "a buffered environment" could have caused those changes in humans —i.e. gracility, diminished sexual dimorphism, retention of juvenile traits, reduced brain capacity though increased neocortex development, dental occlusion, extended sexual availability of females, buildup of deleterious alleles.[77] Thomas looked for external factors that could have led to a relaxation of aggression in "a human-made environment", and the only one that could stand up to scrutiny (apart from a proclivity to communicate) was cooking.[78] Unfortunately, to argue for the phenotypical and behavioural effects of meat and vegetal processing, on one hand, and communal sharing and social stimulation, on the other, frequent—not occasional—use of fire needs to be proven a long way back in time, and that is simply not the case.[79] Hearths with adequate evidence for fire use inside caves become more frequent as of 400-300 kya, but this essential element in home-making will not become well attested until ca. 50 kya. Actually, the use of fire is proving to be like any other technology, non-linear. Dibble and colleagues observed that Neanderthals at some Middle Paleolithic sites were using fire regularly during some periods, but other sites with evidence for prolonged and successive occupations revealed no signs of fire use (and there was no correlation to climate).[80]

It seems increasingly apparent, then, when taking all the specialized evidence gathered over the last decades all over the world into account, that we cannot keep referring to 'species' and 'evolution' holistically any more. Rather, the populations that genetically replaced other humans, hybrids, and hominins between 40 and 15

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75 Shea 2017.

76 E.g. Dunbar and his "social brain hypothesis", which may be summarized as increased group size leading to increased neocortex size.

77 Thomas 2014.

78 *Ibid*.: 5.2.5.

79 See Sandgathe and Berna 2017.

80 Dibble et al. 2017.

kya seem to have benefited from all the combined genetic, cultural and experiential wisdom, and became the last ones standing for reasons that we still do not understand. Considering the lengthy spans of time that we are confronted with, enhanced linguistic ability—full-fledged orally transmitted languages—cannot have been a prerequisite for either survival or innovative adaptation.

Although speculative, and to be tested, it could be postulated that multi-species cohabiting groups existed without perceptible conflict. Admittedly, this is very hard to discern in the archaeological record. Hominin fossils retrieved from cave complexes in any region of the world come from specific stratigraphic layers and chambers. Wherever stone tools and bones are found forming long-term depositions, they highlight the apparent use of caves as temporary even if habitual seasonal shelters. Venturing into speculation, we could claim that territorial boundaries, at least as concerns particular caves (but maybe not cave complexes as a whole), were scrupulously respected, which may have been related to the origins of a simple visual code—the crosshatchings and simple shapes that will be attested at a certain point in the timeline—which would have gotten more complex in time (see 2.2.1 below).

There is more evidence for autonomy than either an aggressive or a cooperative behaviour. That is why Denisova Cave is so significant. We now know that at least when climate did not drive groups into isolation, opportunities for inster-species conviviality materialized. Investigations at this location have been ongoing for five decades, and recent dating determinations using different methods have established an intermittent occupation by Neanderthals from 140 to 80 kya, and a regular use by Denisovans since ca. 194 kya until the Upper Palaeolithic.[81] All fossil remains at the cave are represented by a few teeth, finger bones, bone fragments, and a cranium fragment. By contrast, their whole genome was mapped. The bone fragment of "Denisova 11" revealed that this was a young female who had a Denisovan father with some Neanderthal ancestry (estimated to go as far as 300-600 generations back), and a Neanderthal mother, who belonged to a population coming from Eastern Europe.[82] Nevertheless, an older Neanderthal individual ("Denisova 5") also revealed some Denisovan ancestry.[83] It is therefore highly likely that, during the time Neanderthals and Denisovans shared the occupation of the cave (both chambers), they functioned as one community.

Recent evidence from Tibet (Baishiya Karst Cave), together with a mandible found at Xiahe, have expanded the range of action of Denisovans to the Tibetan Plateau.[84] In addition, apart from the noticeable presence of Denisovan genome in modern Papuans and native Australians, another admixture event has been detected for South and East Asians in general, and yet another for Tibetans in particular, responsible for the latter's resilience to hypoxia in high altitudes.[85] These genetic introgressions seem to precede the arrival of second-wave modern humans in many

[81] Jacobs et al. 2019; Douka et al. 2019. See Shunkov, Kozlikin and Derevianko 2020 for an updated overview of the archaeological evidence at Denisova and elsewhere in the Altai.

[82] Slon et al. 2018.

[83] Prüfer et al. 2014.

[84] Zhang et al. 2020.

[85] Zhang et al. 2021.

regions of Asia.[86] Therefore, hominin interaction in East Asia, until newcomers arrived to Tianyuan Cave from Western Europe[87] ca. 40 kya, may have entailed the inter-cultural hybridization of Neanderthals, Denisovans, and first-wave humans, who may have eventually proceeded southwards with worsening climatic conditions or in order to explore new changing environments that they perceived as advantageous.

Sexual interaction may be derisively dismissed as a very basic mode of contact between two groups, but for it to repeatedly occur, a high level of trust if not frequent cooperation needs to be realistically envisioned. My proposal is one of cultural, and not only biological hybridization, going beyond what has been proposed by Ackermann and colleagues: "We view the emergence of our lineage as a continuing dynamic (process) rather than an outcome (product); there is no clear starting point, or ending point, but rather an ongoing, repeating process of divergence and hybridization at multiple points in its evolutionary history".[88] Instead of inferring acculturation for the manifestation of advanced "modern" behaviour in Neanderthals and Denisovans, as exhibited for instance in the discovery of shells bearing pigment traces at Cueva de los Aviones in Spain ca. 115 kya,[89] or with the wide range of bone tools and ornaments found during the last occupation of Denisova Cave,[90] we should instead envision inter-culturation. It is hard to say whether the reluctance to respect territorial boundaries and remain autonomous beyond arranged spatial negotiation is behind the extinction of the other species when cold conditions resumed at ca. 35 kya. It is theoretically possible that humans, who were growing and occupying new territories, aggressively competed to retain the exploitation of the best ecosystems. But there are also some indications of cooperative behavior. A mandible of a "modern" human found at Pestera çu Oase, Romania (42-37 kya), whose morphology was first described as retaining some Neanderthal features,[91] was later confirmed as a hybrid by genetic analysis.[92] The individual had had a Neanderthal ancestor four to six generations back. In addition, humans retaining archaic traits have been unearthed at Iwo Eleru (Nigeria), Lukenya Hill (Kenya), and Zhirengdong (China), to give just some examples.[93] This proves that, as rare as successful

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86 See Clarkson et al. 2018 for a confirmed pre-60 kya presence of modern humans in northern Australia (Madjedbebe).

87 Dennell et al. 2020. See also Massilani et al. 2020 for the genetic analysis of the 34,000-year-old modern human individual unearthed at Salkhit, Mongolia, who was more related to Western Europeans (Goyet, Belgium) than to East Asians (Tianyuan Cave), but carried a 5% and a 7% Neanderthal and Denisovan genomic components. A future Eurasian corridor population (Mal'ta in southcentral Siberia; Yana Rhinoceros Horn Site in northeast Siberia), who would later cross over to the Americas, replaced earlier modern humans.

88 Ackermann, Mackay and Arnold 2016.

89 Hoffmann et al. 2018.

90 Shunkov, Fedorchenko and Kozlikin 2019 (South Chamber).

91 Trinkaus et al. 2003.

92 Fu et al. 2015.

93 Stringer 2016, Liu et al. 2010.

hybridization may have been,[94] it was not that infrequent. It also suggests that the community of the main species accepted members within it who we would perceive nowadays as fundamentally alien (given that alienation based on the concept of "race" still exists). So perhaps cooperation and exchange were more important evolutionary drivers than autonomy and competition.

2.2. First sedentism in Southwest Asia: building communities with stone, clay and bones

One of the reflections made by McBrearty and Brooks, who—as mentioned above—advocated a very gradual development of AMH behaviour according to our cultural marker expectations, is and will be relevant throughout this work since it is related to the pitfalls of interpreted intentionality: "When we realize that the modern human adaptation appeared gradually, rather than suddenly, the process can be broken into its constituent parts, each having its own origin and demanding its own explanation. It is necessary to establish the nature of the changes, the order of the changes, and the pace of change in order to discover the causes".[95] I generally agree with this warning, although I also think that there is always a factor of randomness—of serendipity, in a way—impacting any observed change that we deem relevant. To the question "Why did this phenomenon (i.e. sedentism, domestication, civilization) emerge in this region of the world earlier than in a different one, where conditions could be argued to be more or less similar?", there is no neat explanation and no easy answer. Unlike narratives of the "*Guns, germs, and steel*"[96] kind, the shortest answer would be instead a disappointing but honest: "Just because". However, we can indeed try to discern why those conditions were favourable for the phenomenon to appear, and what the motivations of those who made a sequence of choices leading to its appearance and consolidation (or rejection), might have been. As McBrearty and Brooks recommended, we should divide each process into its constituent parts, and discern the intentional motivations that came after the unintentional results.

The difference between first settlers in Southwest Asia and earlier beginnings, like those witnessed at the Pavlovian sites of the Danube region, or the Kostienkian culture in the middle Don area (ca. 28-24, and 24-20 kya, respectively),[97] is that the latter did not resume their commitment to settlement after the cold and dry conditions that put a stop to their community-making process. In the case of Southwest Asia, the optimum climatic conditions lasted longer, and the climatic downturn (Younger Dryas), was milder. It has already been noted that the "broad-spectrum revolution" heralded in the 80s as a precursor to agriculture, is instead a world-wide opportunistic

[94] There is an increasing body of genetic literature leaning towards a deleterious effect of excessive alleles in Neanderthals, maybe due to their inability to integrate AMH gene flow during the last thousands of years before they went extinct.

[95] McBrearty and Brooks 2000: 534.

[96] Diamond 1997.

[97] For an overview, see Aurenche, Kozlowski and Kozlowski 2013 ("Failed attempts").

practice[98] that emerged under climatic pressure but boomed with climatic amelioration[99]—whether in small refugia with aquatic resources, or in the transformation of those contracted refugia into full-fledged ecosystems—so this is not the only region of the world were humans hunted large game in great numbers whenever they could, and hunted, fished, and collected a broad range of plant and animal species to supplement their diet using new tools and new materials when they could, too, acquiring in the process a taste for a more diverse "cuisine",[100] better ceremonial performances (shells, raptor feathers, shaped bones and antlers), and portable and disposable materiality that came from an active observation of the natural world.

Table 2.2. Starting with Ohalo II, representative sites in Southwest Asia before the Pre-Pottery Neolithic A (first sedentism).

Late Late Pleistocene	55-45 kya, main AMH expansion 26-19 kya, glacial conditions 19-13 kya, climatic amelioration ~12.8-11.6 cal BP Younger Dryas[101]	
Pavlovian culture (e.g. Dolni Vestonice), Danube	28-24 kya	* Structures (wood, mammoth bones pebbles, wattle and daub) * Clay figurines (bears, lions, rhinos, women) * Engraved ivories * Textile impressions on clay * Broad range of plant foods, grinding stones * Burial rituals (skulls; ochre; double, triple, collective burials; mammoth bone coverings; beads) * Complete wolf skeletons
Ohalo II, Lisan Lake shore, Israel	19.5kya (23 kya cal BP)	* Structures (branches, leaves, twisted grass) * Single burial * Multi-seasonal * Broad plant exploitation * Very broad animal spectrum, e.g. gazelle, 3 deer taxa, fish, birds, fox
Uçağızlı Cave, southern Anatolia, northern tip of Levantine corridor, by the coast[102]	UP occupation at ~41-28 kya; Transition to Epipaleolithic at 20.8-20.4 cal BP	* Broad range of shell beads in Upper Palaeolithic layers, including Dentalium (only EP), Columbella, Nassarius, Tritia taxa, many showing traces of manipulation * Whereas ungulates predominate in the UP, small and medium-sized game, plus birds, hares, shellfish and fish are exploited during the EP

[98] See e.g. Janz 2016 (Gobi Desert), Kitagawa et al. 2018 (eastern European steppe). A recent paper has emphasized the high reliance on plant foods among 15-13.000 cal BP groups living at Taforalt, Morocco (Moubtahij et al. 2024). The zooarchaeological evidence confirms a trend seen elsewhere as well (ungulates, snails, molluscs).

[99] Edwards 1989.

[100] Even plants that would have been bitter to the palate, or slightly toxic, were processed and consumed, see references in 1.4 (fn. 56, 57).

[101] Van der Plicht et al 2020.

[102] Kuhn et al. 2009.

Karain B and Öküzini caves, western Taurus, northernmost boundary of Levantine corridor[103]	19.8-13.7 cal BP	* A conifer-almond-terebinth forest is attested for the first period, suggesting a "refugium". The occupants of the last phases at Öküzini also benefited from oak forests and an increase in riverine vegetation. * Broad array of lithic assemblages, with components for specific tasks; precursors of "shaft straighteners" and "cup-mortars" appear towards the end, as do some pieces of obsidian * Broad plant use, including nuts, fruits, bulbs, roots and tubers, and at Öküzini, small-seeded pulses and wild Viciceae (here, flesh of wild pear and grape were preserved) * Specialized to generalized animal exploitation, with wild sheep and goat, and at Öküzini during the last two phases, coinciding with a change in lithics, fallow deer, predominantly hunted. Tortoises appear, roe deer and boar increase. * Last phases yield the majority of worked mollusc shells, most belonging to the Dentalium taxon, but other taxa present, as at Uçağlızı, though not in the same numbers * Parietal and mobiliary art. Animal representations feature goats and aurochs. Basic shapes forming a map of sorts is exemplified here with engravings on a stone shaped like the hind-leg of an animal (both sides)
Kharaneh IV, Azraq Basin, Jordan[104]	19.8-18.6 ka cal BP	* Ecotone, between semi-arid steppe and wetland * Gazelle, equids, aurochs, tortoise and waterfowl exploited * Lithic assemblage scattered over a wide area * Other sites in the basin suggest multi-group confluence * Four structures excavated, with lithics, ochre and shell caches * Scarcity of burials
Hayonim, Ein Qashish and other sites in the Mount Carmel-Upper Galilee area Nahel Oren, El Wad, Raqefet, further south, by the coast[105]	23-15 BP (Epipal.)/ 15-12 BP (Natufian)	* Stones of medium-large size, with a more or less flat surface, or smaller pebble-like stones, are engraved with basic shapes, sometimes including animal or human figures * Small figurines * Burials in uninterrupted sequence * Broad-spectrum strategies (incl. pulses and vetches) and ground-stone technologies * First open-air sites

[103] Otte et al. 1995, Martinoli 2004, Atici 2010, Carter et al. 2011. An obsidian piece was recently found at Yabroud Rockshelter, southern Syria (Göllü Dağ provenance), dated to 41-32kya: cf. Frahm and Hauck 2017, who also refer to an earlier find from Shanidar Cave.

[104] Maher et al. 2012.

[105] See Belfer-Cohen and Goring-Morris 2011, 2020 for overviews.

Eynan (Ain Mallaha)[106] Upper Galilee, Lake Huleh	14-12 kya	* Basic structures in terraces outside cave complex * Early occupation sees burials under floors, later phases sees pigment-coated pits and sequential burials (and reopened graves); final occupation sees a return to sub-floor burial * Pounding and grinding implements attest to vegetal and ochre processing * Wide range of faunal bones, more boar than gazelle * Shells, bones, colored stones, and maybe fox, bird and other animals are used as ornaments, tools * A few obsidian pieces * A few incised pebbles and a handful of small figurines
Tell Qaramel, northern Syria	15-14 kya	* If early dates confirmed,[107] first open-air site in this region (short-lived)
Dederiyeh Cave,[108] northern Syria, some 80 km east from the coast	13.3-12.7 kya (Phase 3); 14.2-13.8 kya (Phase 2)	* Stones demarcate spaces * Charred wood and branches and postholes suggest roof (Constr. 1, Phase 3, beneath top layer) * Diversified lithics; one obsidian piece from top layer; a small stone cup, a cup-mortar and a pestle found stained with ochre * A few beads, incised pendants, Dentalium shells * Bone sickle handle with black pigment traces * Broad plant spectrum, incl. large-seeded grasses (emmer, einkorn) * Broad animal spectrum, e.g. boar, aurochs, tortoise, deer, wildcat, fox, birds and fish * Human hemi-mandible - Phase 2 coeval with open-air Jiftahel, southern Syria - Phase 3 maybe coeval with Phase 1 at Abu Hureyra
Shanidar Cave-Zawi Chemi,[109] north Zagros region	~12kya (11.1-9.7 BP) More or less coeval with Hallan Çemi	* Structures outside cave (stone, wood, mud) * Broad plant and animal exploitation * Burials in cave and not outside, incl engraved bone plates * Auditory exost. (associated with fishing in cold waters) detected
Körtik Tepe,[110] Upper Tigris	~11kya (10.2-9.2 BP)	* Several structures in succession (pebbles, wood, adobe) * Broad-spectrum plant and animal exploit. * Multiple burials, defleshing and coloured plaster observed, broken and unbroken grave goods * Wide range of crafts * Auditory exostosis.

From the point of view of the social sphere (community-making, there is a long, gradual, and irregular process in two broad core areas of Southwest Asia since the Late Pleistocene/Epipaleolithic (see Table above, and Figs. 1.2 and 1.3) until the widespread 'village' sedentism of the Pre-Pottery Neolithic B. The first is the oldest,

[106] Valla et al. 2017.

[107] Mazurowski et al. 2009.

[108] Nishiaki et al. 2017.

[109] Solecki 1963, Agelarakis 1993.

[110] Özkaya and Sidiqq 2023.

the Levantine corridor, whose northern boundary lies in the western Taurus (e.g. Karain and Öküzini caves) and follows the Mediterranean coastline all the way to the Sinai. Open air sites in the vicinity of cave complexes or in well-watered ecotones (Azraq basin, Jordan) start appearing with the climatic amelioration at the onset of the Holocene (20-15 kya), before the so-called Natufian period of the Southern Levant. The second path starts in the Upper Tigris and Upper-Middle Euphrates basin and spreads out.

The first trajectory is not developed to the same extent as the second (see below). The long continuity and slow graduality of the first should lead to a cautious interpretation of what sedentism entailed during the Epipaleolithic-Natufian-PPNA, and to a re-evaluation of "habitational" structures as well as "exchange networks". The heterogeneous development of the second also demands caution. The statement that many specialists hint at but shy away from declaring is that the end of the Pre-Pottery Neolithic A is not a prelude to agriculture *sensu* domestication, but the culmination of broad-spectrum strategies including storage (and, I would add, well-planned task coordination). Initial settlers in both regions exhibit two essential traits signalling incipient community-making, leading to the formation of first villages, during the PPNA-EPPNB (11th-9th millennium BC): collective burials and architectural experimentation. But for the second to emerge, the former needed to be there.

'Funerary caching' is the opportunistic use of fissures, crevices, channels and other geological features in cave formations for the disposal of the dead. Burial implies the deliberate excavation—leaving a visible intrusion in sediment deposition—of a pit in order to place the corpse in it.[111] Deliberate burial is associated with expanded cognitive abilities, since it would have required imagination (the conception of an afterlife), or at least attachment to a location for mourning and collective remembrance (emotional responses beyond morbidity).[112] However, human bone retrieval from landscape features that could have acted as a sort of caching location is absent outside superb preservation conditions (e.g. peat bogs), so we cannot surmise what kind of practices existed if members of a group that was hunting/foraging suffered lethal accidents, or when very old and/or disabled individuals died.

Even when burial practices started encompassing multiple individuals, including adults, and these a) were buried in close proximity or under built structures, or b) they were kept near the cooking/living areas, and the stratigraphy at these locations shows that burial practices took place in a protracted sequence, the number of buried bodies cannot represent all members of the whole social unit. This observation can also be extrapolated to the PPNB-Pottery Neolithic, when mortuary rituals become vital for social identity and the recovery of bodies in excavations multiplies. So, while repetitive burial entails the birth of something key for collective consciousness—a conceptualization of 'time'—it also entails a communal synecdoque, a selection of individuals that act as representatives for the group as a whole.

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[111] See Pettit 2011.

[112] Pettit qualifies morbidity (as observed among primates) as "Cronos compulsions": initial curiosity towards the dead body, followed by behaviours that swing between grooming and gentleness to aggression. *Ibid.*: Ch. 2.

With the first aspect, time became cultural, ushering the first historiography of sorts, the projection of the group into the future. With it came the creation of narratives to explain the cosmos, and the group's role within it and within a chronological order. If perceived as cyclical, different modes of reincarnation beliefs may have shaped mortuary ritual. But in any event, prehistoric peoples never lost the connection to the physical world, which was imbued with life and conformed the mental landscape.

'Uyun al-Hammam, in Jordan—where two graves (dated to ca. 17,700-14,750 cal. BP) with remains belonging to several individuals and a variety of associated items, including animal remains—serves as a good example to illustrate the connection to physicality.[113] The excavators report that one of the graves included a fox skull and humerus underneath an individual, all showing traces of red ochre. The rest of the red fox skeleton, red deer antlers and other items were discovered in association with articulated and disarticulated human remains lying in close proximity. Outside this context but nearby, there were tortoise carapace fragments (whereas at later Körtik Tepe they were placed on the skulls or near the skulls). An old woman was buried with her puppy at Eynan/'Ain Mallaha more than two thousand years later, which could perhaps be interpreted as a sign of emotional attachment to a pet.[114] Maher and colleagues believe that the red fox should be regarded as a potential pet, too, just as the dog. However, animal and human bones at 'Uyun al-Hammam speak of secondary manipulation. Humans and animals are still very close in the Epipaleolithic and PPNA, they are part of a continuum. At Hilazon Tachtit, an old woman was buried with tortoise carapaces, raptor wings, the pelvis of a leopard, and the mandible of a wolf. The excavators labeled this woman a "shaman".[115]

On the other hand, regarding the second aspect—the synecdoque—, the methodical burial of all individuals at one location, the complete articulation of bodies, and the same degree of body processing or sacrifice of mundane objects was, and remained, an impossible enterprise.

The conceptualization of time and the selection of bodies went hand in hand. Many features of the architectural and mortuary world—lime plaster and pigments, inter-connectivity, de-articulation and scattering to cover all inhabited space[116]—coalesce. Maybe because all humans ultimately came from a particular geographical area, or maybe because there is a convergence in the way of thinking of bodies and abodes, the big picture is one of overwhelming similarities, and it leads to the importance of both human and animal bones as social material. In the same way that many myths record that the Earth has bones too, i.e. the mountains, so humans and many other animals have bones, too. At the beginning of anchoring itself to a specific location, the group conceived the home as a shelter built of stone, clay, wood, reeds and bones. Human burials spread out over a settlement as new constructions were

[113] Maher et al. 2011.

[114] Davis and Valla 1978.

[115] Grossman et al. 2008.

[116] Croucher speaks of the fragmentation of bodies and objects as an expression of communal identities and inter-personal relationships between the dead and the living (2012: Ch. 6).

erected, renovated, or destroyed and built again at roughly the same spot.[117] This may be indicative of a development in the historiographical efforts initiated with the first simple burials. Primary inhumations are the first step in a circumscribed space. As the space becomes larger and more permanent, available body remains may be dug out and reburied where needed. The only requirement was keeping track of burial spots. Lime and ochre—which also would have helped in curtailing the effects of decomposition—, stones arranged like cairns, and external—and later internal—corners of structures helped to easily locate bones. The creation of a metaphysical territory out of physical components is therefore indicative of a group with self-awareness as a unified collective. Eventually, the synecdoque exercise would also lead to the pre-eminence of skulls as the best representation of the body.[118]

There may have been a political component in mortuary ritual, too. Given the amount of work that it could entail—i.e. control of the putrefaction process, dis-articulation, transport of bodies, re-opening of graves, curation of skulls using plaster and other material—it is safe to assume that whoever controlled the selection of representatives, and whoever was somehow involved in the process, would have enjoyed a measure of prestige.

To sum up, without the repeated occurrence of burial practices, there could not have been a mental configuration of collective self. The investment on other kinds of experimentation (what we call 'architecture' or 'agriculture') is secondary to and dependent on a prior strong sense of belonging. From my perspective, the proposal of plant- or animal-based "feasting" as a path towards sedentism or reinforcing sedentism, a frequent claim made by Neolithic scholars, becomes redundant.

2.2.1. The PPNA in the Southern Levant: small groups and temporary aggregation

With the sole exception of Jericho at the end of this period, there is not a single excavated site in the Southern Levant that could unambiguously be posited as a permanent, year-round settlement for a single group before the 9th millennium BC. Instead, the conclusion that may be drawn when observing the similarity of cultural components all along the Levantine corridor since the end of the Upper Paleolithic is that both long-distance and sub-regional mobility strategies may have been alternatively adopted depending on the kind of seasonality that the climatic cycles afforded. Therefore, there is no reason to see any location as exclusively used by a single group throughout time, but rather several groups in a region may have been using all cave complexes available in arranged agreement, and further building in an autonomous manner their own open-air sites, which become more numerous during

[117] This behavioral pattern is maintained within PPNB houses. If the settlement was small, most houses had subfloor burials. In those cases when the settlement grew to a relatively large size, only a few houses were chosen.

[118] A cross-regional study on skull removal since the Epipaleolithic and throughout the Neolithic was undertaken by Bocquentin, Kodaş and Ortiz 2016, concluding that young adults (under the age of 30) were the best represented group, and that decapitation was more frequent after partial or total decomposition, even though early dismemberment cannot be ruled out in many cases.

the PPNA. The Epipaleothic rotating groups, probably of variable membership, shared for millennia the same visual codes. Geometrical patterns of difficult interpretation were found at the *homo naledi* burial chambers of the Rising Star Cave complex in South Africa already three hundred years ago, as seen above. Abstract symbolism is also found on cave walls and stone surfaces all over Africa and the world accompanying the dispersal of our species (https://rockartdatabase.com/). Together with these basic lines and shapes, hand stencils, and animal—or animal and human depictions—occur, and then the latter were also given tri-dimensional form. These representations which interpreted the world were, indeed, symbolic. They stood for something, and they were meant to be understood by others. If isolated, a limited number of patterns are observed to appear recursively.[119] The excavators of Ein Qashish, in the Jezreel Valley, an open-air site lying 500m east of Mount Carmel, encountered four pieces of symbolic behavior.[120] One is a pebble with one surface preserving triangular shapes and a hand, while the reverse shows the carving of an ibis. Being able to identify a 'figure', in this case a bird, came clearly as a relief for the Ein Qashish team, just as the anthropomorphic figure with flowing arms (identified as a shaman) came as a relief to the excavators of Raqefet Cave.[121] Figurative motifs lead us to the wrong assumption that they are naturalistic representations of a beautiful or useful animal (see Chapter 3 for the role of animals in animistic ontologies). Disregarding the markings on the other face of the stone, the team interpreted it as "an emblem", a ritual accessory indicating group affiliation.

Another stone found at Qashish, probably a fragment of the original, has deeply incised markings, but looks incomplete. In the case of yet another stone fragment, geometric shapes can be seen on one surface, but the entire composition is lost.

The focus here is on a good-sized stone with crisscrossing lines and ladder motifs (see Fig. 2.6). Abstract patterns represent a conundrum. The proposal of the Hayonim Cave excavation team's, where slabs with similar engravings were found, namely, that these represented systems of calendrical notation and territorial mapping, did not convince the Ein Qashish team. Contradictory proposals by other scholars were also considered: "The patterns could comprise an emblem "adopted" by a particular group or family for successful survival in conditions of increased social complexity; or alternatively, these could have been produced and possessed by individual community members as an expression of connectivity with a broader cultural realm. Moreover, in some cases the hidden, if not altogether secretive context of the images, obviously not intended for actual display, suggests the possibility that the very act of engraving and possessing knowledge of the act were of prime importance, rather than the actual visibility of the end product".[122] In light of the repetitive occurrence of these motifs in several regions of the world, they concluded that the common origin of this symbolic conduct is to be found in Africa, and that the "interaction,

[119] Von Petzinger 2016.

[120] Yaroshevich et al. 2016.

[121] Rosenberg et al. 2020. See also the representation of an aurochs with muzzle and an individual hunter on a pebble found at Öküzini Cave in Otte et al. 1995: Fig. 9, 2.

[122] Yaroshevich et al. 2016: 22.

albeit not necessarily a direct one, between remote mobile groups" is the most plausible explanation for the apparent convergence of a shared visual language.[123]

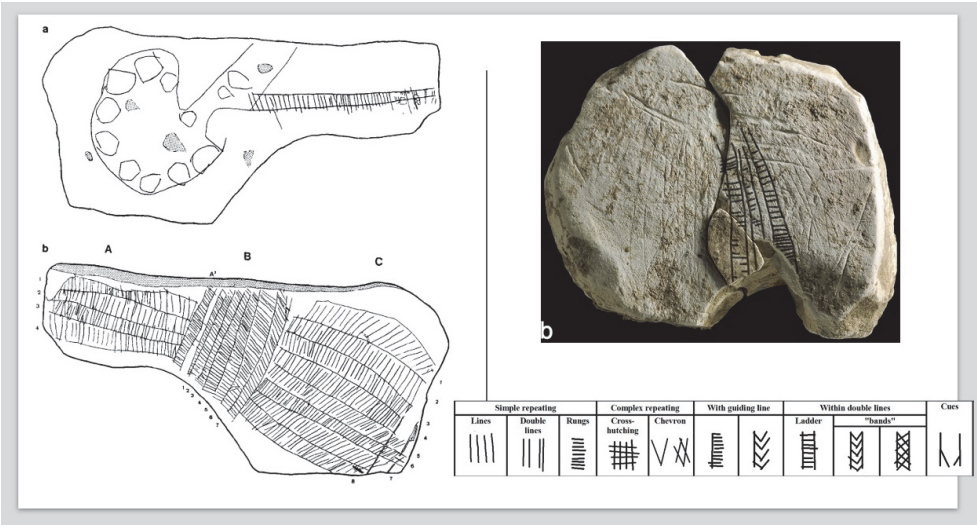

Fig. 2.6. A visual language shared throughout the Levantine corridor. Left: drawing of the etched lines in a stone found at Öküzini, Anatolia. After Otte et al. 1995: Fig. 10. Right: Stone found at Ein Qashish, Israel; after Yaroshevich et al. 2016: Fig. 14, b). See all at https://doi.org/10.1371/journal.pone.0160687.g014 Below, motifs on the Qashish engravings, and similar ones found in early contexts of Africa, Asia, and Europe. After Yaroshevich et al. 2016: Fig. 17 (only the motifs are shown). Check table at https://doi.org/10.1371/journal.pone.0160687.g017

I argued before that the expression of boundaries to be respected in shared residential areas (most visibly, cave complexes) may have been behind the expression of simple symbols shared between different groups. But those symbols could also have been meant to offer suggestions of where key resources may be found to other groups, or to a split of the same group.

Abstraction and geometricity went hand in hand with figurativism until well into the 5th millennium BC, as will be seen below. The main difference between the Late Epipaleolithic/Natufian (~15,000-13,500 BP), and the PPNA, is media: visual communication was eventually transferred to well-shaped pebbles and plaquettes, bone and stone figurines, small objects or the occasional phallus-like pestle.[124]

The impression of continuity is reinforced by the so-called "return to the caves" phenomenon observed at the end of the Natufian (e.g. Hilazon Tachtit, Hayonim, Raqefet). Belfer-Cohen and Goring-Morris point out that the largest substructure at WF 16 "provides similarities with the large-scales structures at (early) Natufian

[123] *Ibid*.: 23, and references therein.

[124] See Belfer-Cohen and Goring-Morris 2020: Fig. 2; Mithen, Finlayson and Shaffrey 2005 (and see phallic stone object from WF16 in Mithen et al. 2018; Fig. 14.25) and Chapter 4.

Eynan (L131) and Wadi Hammeh 27".[125] Although the semi-oval, semi-subterranean structure at Eynan,[126] built with stones and wooden posts, does resemble the main building of the Wadi Fidan 16 adobe conglomerate (Str. 075), only here and at Hammeh can we discern a certain commitment of one group to an open-air location, even if short-lived, as suggested by the extent of their multi-purpose features (see Fig. 2.7). At Wadi Hammeh, located to the east of the Jordan River, remains belonging to seven individuals were found in association with the pebbled floors, only one a primary inhumation. One of the skeletons in a collective, reopened grave (pit) was partly stained with red ochre. By contrast, pieces of crania were found with assorted refuse in another pit on the exterior of the last phase. Remarkable is a small pit containing twelve infant teeth, the location of which was marked by several stones, deposited after the site had been abandoned.[127]

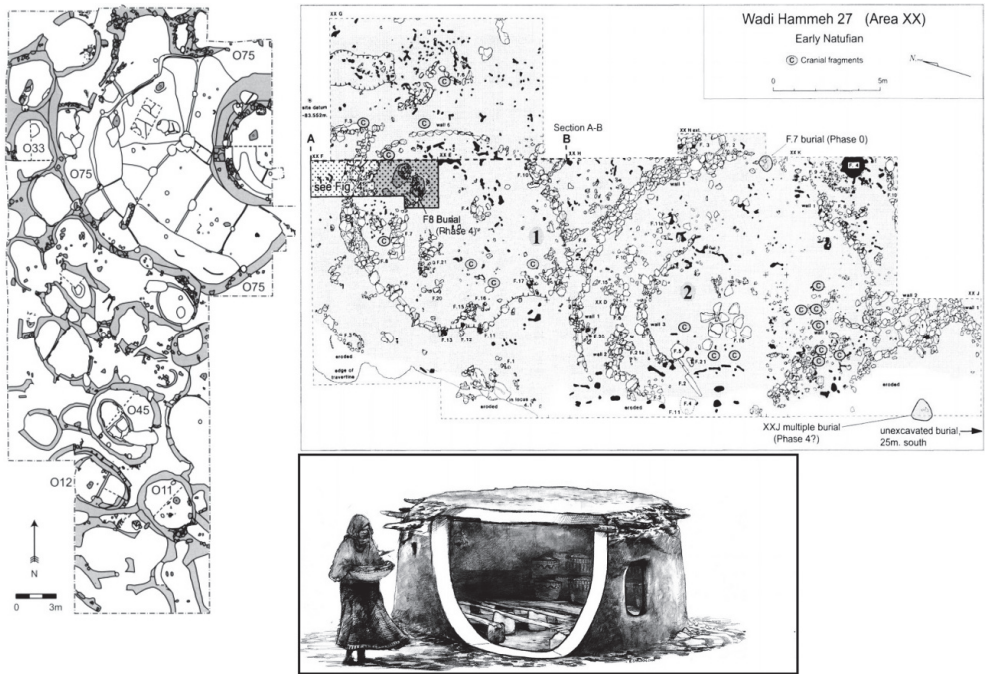

Fig. 2.7. First architecture in Southern Jordan. Left: Schematic plan of excavation of WF16, Jordan, showing main walls in grey. After Finlayson et al. 2011: Fig. 1. Right: plan of Wadi Hammeh 27, showing location of burials. After Webb and Edwards 2002: Fig. 3. Bottom: Interpretive reconstruction of Str. 4 at Dhra', Jordan, showing suspended ground floor inside. After Kuijt and Finlayson 2009: Fig. 4.

[125] Belfer-Cohen and Goring-Morris 2020: 42.

[126] See Valla et al. 2017: Fig. 34.2 A.

[127] Webb and Edwards 2002.

At WF 16, located to the southeast of the Dead Sea, where adobe and stone pillars were preferred as main construction material, six individuals were buried cutting into a small structure at different moments in time.[128] The in-fill had material and objects (e.g. a bowl and lid, a pestle, chipped stone, beads) that support the team's interpretation of prolonged use of the surface of the in-filled structure once it had lost most of its walls, so it is impossible to say whether the objects were in association with the human remains. There were almost no goods placed by the skeletons. The most significant feature is that actual remains of a shroud coated in gypsum still wrapping a bundle of bones,[129] and the flecks of white gypsum and black paint[130] staining soil and bones indicate that bodies were transported to their intended destination, an idea further supported by the tightly flexed positions of the skeletons. Other remains (often partial skeletons or a selection of bones) at other intramural and multi-phase structures, including the main building (075),[131] representing sometimes older burials and sometimes later ones (intersecting pits), further suggest that originally burials preceded construction and that the site saw activity even after the temporary constructions had gone out of use or were destroyed by fire.[132]

Of particular importance, according to the excavators of WF 16 and Dhra', also in Jordan, are the storage facilities. Given the small size of the majority of structures at these two sites, with the exception of 075 at WF16, it could be argued that storage and a division of space by working activity was the rule rather than the exception. Thus, even if Str. 4 at Dhra', with an internal space of around 3x3m (see image above), could indeed have served as a granary for wild barley,[133] any of the other circular or irregular structures at the site could have served more than one purpose. The upper roof may have become a viable working space. Apart from finely carved mortars and pestles, WF16 had also cup-hole mortars on the floors, attesting to the intensity of food processing activities. The WF16/Dhra' team have defended that there are no discernible "ordinary" domestic structures (permanent, family dwellings) during the earliest Neolithic, neither in this region nor in the northern ones.[134] In the Southern Levant in particular, the experimentation with architecture as concerns materials, techniques and shapes never shakes off the impression of improvisation, or the investment of the minimum time and effort to achieve a short-term purpose. Permanent structures should be regarded as a supplement to *ad hoc* arrangements, whose presence is sometimes inferred through postholes and hearths instead of walls.

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[128] Mithen et al. 2018: Ch. 21, Str. 083.

[129] *Ibid*.: Fig. 21.20.

[130] Bitumen was found at the site, also coating baskets. *Ibid*.: Fig. 14.11. One of the skeletons is described as being encased in a silt that was originally "liquid mud" (p. 271).

[131] Benches, an ibex cranium with horns, a fox skull, or a big hearth are some of the features that suggest a communal place of gathering. One of the walls had traces of a red plaster background and decoration, and another had preserved incised wavy lines.

[132] *Ibid*.: Ch. 14, 19, 20, 38.

[133] Husks were recovered from the mud floor, while straw and glumes served as temper for the adobe of the walls.

[134] Finlayson et al. 2011; see also introduction to Mithen et al. 2018.

There are no sites in this region during this period, neither Netiv Hagdud (11,300-10,900 cal. BP)/Salibiya IX,[135] nor Hatoula or Ein Gev II, that shows patterns of food-processing activities or burial practices that are significantly different from those described above.[136] Gilgal I—where plant remains including barley, oats, pulses, nuts and fig seeds (all undomesticated) alongside remains of bitumen-coated basketry and other items were retrieved from a quadrangular structure—corresponds to the end of this period.[137] As for Jericho, radiocarbon dates place it as late as 9150-8350 cal BC,[138] so the tower with stairs, wall and adjacent buildings that have given this site excavated by Kenyon's team its iconic reputation as an early Neolithic site can be reasonably interpreted as the result of external influence, namely, the incorporation of a people from the north after some kind of short-duration decline (~8600-8400 BC) in northern Mesopotamia, as mentioned in Chapter 1.[139] This southwards movement can be traced through the founding of new settlements with Northern Levantine cultural components, from Tell Aswad near Damascus, to Qarassa, to Motza.[140] Newly excavated sites in all regions of the Southern Levant support an image of increasing but low settlement density and small aggregations until the 8th millennium BC.

At Kfar HaHoresh, in the highlands of the Galilee region, not far from Jericho, the protracted use of installations of a temporary nature—plastered floors, hearths and walls—, the high number of animal bones, and the tool assemblage—arrowheads, awls and burins, retouched blades, round hammers, cached blanks—[141] point towards a camp site for hunting and leather/meat processing, which became in time a ritual meeting point and regional cemetery. It was sporadically used for centuries, since around the early 9th millennium BC. The high frequency of human and animal bones buried in direct association or in proximity have been remarked upon, as well as their fragmentation and particular deposition.[142] A high number of aurochs bones

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[135] Bar-Yosef and Gopher 1997.

[136] Adult skeletons without a cranium were reported at Netiv Hagdud, and at Ein Gev II, plaster encased or covered many of the skeletal remains.

[137] See contributions to Bar-Yosef, Goring-Morris and Gopher 2010, esp. Ch.2 and 16.

[138] Asouti and Fuller 2013, Suppl. A.

[139] For a thorough review of Kenyon's publications regarding "proto-urban" Jericho, see Parr 2000. Note Bar-Yosef's (1986:157) observations pertaining to the wall: "It is only subsequent to the earliest occupations that the freestanding wall and tower were built. (…) Stages IV-V consisted of the building of an additional wall (or only the thickening of the first wall) and the digging of a ditch in front of it (…).

[140] The dates obtained for the earliest settlement at Motza, with combined foreign and local cultural elements, place it at ca. 8600-8400 cal. BC. See now Birkenfeld et al. 2024 and discussions on the chronology of the EPPNB in the Southern Levant from different perspectives in the same *Paléorient* issue. The on-going excavations at Mushash 163, Kharaysin, and Shubayqa 6 in Jordan do not fundamentally challenge the bigger picture and its chronology, that of a few pre-existing semi-sedentary communities and an influx of population coming from the north, merging with the locals, or founding new sites at old and new locations, since ca. 8600-8500 BC.

[141] Goring-Morris et al. 1994-5.

[142] Simmons, Goring-Morris and Kolska-Horwitz 2007. For an overview, see Croucher 2012: 232ff.

at several loci, presented as evidence of feasting to relieve scalar stress (instead of meat processing), were dated to the EPPNB, when this animal was not yet on the brink of extinction.[143] One had bones of animals belonging to 59 specimens, of which 4 were aurochsen, covered by later MPPNB deposits including a kiln. Another had 356 aurochs, fox, and gazelle bones, above which a headless male was interred. Ritual use of the site is better defined later on. During the 8th millennium BC, young adults of both sexes and children were buried here.[144] Locus 1155 comprised three human skulls—one of which was plastered, an early occurrence of this practice—, headless skeletons and partially articulated remains, stones, and a headless gazelle skeleton forming what was interpreted to be a deliberate arrangement in the shape of an animal.

Plaster and ochre were frequently used at Kfar HaHoresh, probably used to visibly identify the burials. The few querns and pestles found at the site sometimes showed traces of plaster residue. Recent analysis of the plaster used at a Natufian site has revealed that it was composed of quicklime and sediments with a high level of carbonates, and that the latter was very important for the durability and quality of the plaster.[145] Moreover, the recent identification of non-pyrogenic, calcite-based plasters in a PPNB context has also led to the conclusion that these plasters with small burnt components must be more widespread than scholars suspect,[146] although an article on the importance of chemical reactions between lime and volcanic ash sediments had already been published in 2000 concerning a PPNB site in Anatolia.[147] This means that good-quality plaster could be achieved with little effort during its middle-stage elaboration—since it did not require complex pyrotechnology—but that a higher effort on the detection of adequate soils and their manipulation was required. Partly burnt lime plaster was already in use for mortuary preservation and grave marking, and as a decorative element in floors and walls, in all core regions before first ceramics.

2.2.2. The PPNA-EPPNB in northern Mesopotamia: from articulated cooperation to the first villages

The situation regarding a chronological Epipaleolithic/PPNA division is much the same as in the Southern Levant. The artificial creation of a PPNA can only be justified to explain future domestication, which was at the top of the research agenda (*re* food production strategies during the early Neolithic) three decades ago. After the

[143] Meier, Goring-Morris and Munro 2017.

[144] Eshed, Hershkovitz, and Goring-Morris 2008.

[145] Friesem et al. 2019. In addition to "burnt limestone fragments", sand size quartz, bones (some burnt), shells and flint fragments were observed at the microscopic level. This is also the conclusion drawn by Grissom and Griffin 2013 for the plaster used to model skulls at 'Ain Ghazal: "(…) the plaster was made by mixing the plant fibres with a large amount of powdered marl, a smaller amount of slaked lime made by calcining the marl (…), and water" (p. 192). Remains of calcareous fossils were detected using radiographs and microscopic analysis.

[146] Friesem et al. 2020.

[147] Hauptmann and Yalcin 2000.

re-settlement patterns observed at the end of the EPPNB (roughly 10700-10200 BP/ 9600-8800 BC for northern Mesopotamia) and the beginning of the following period, with the first village-like aggregations founded in the old core areas, as well as in Central Anatolia and Cyprus, we can indeed generally state that a higher reliance on pre-domesticated founder crops, sheep and goats, is observed. Asouti and Fuller's observations (see 1.4) that domestication was the result of the LPPNB affluent villages is also pertinent to understand that the preservation of the PPNA as a chrono-cultural period can only make sense if viewed as the voluntary engagement of only certain peoples in advantageous ecological zones with an experimentation in community-making, whereas at the "economic" level it is nothing but the maximization of the broad-spectrum opportunism of the Epipaleolithic.

Perhaps because of the scale of those ecologies and the larger territories of the three cultural horizons of northern Mesopotamia, plus the interactions between them, the overall picture emerging after recent discoveries and protracted archaeological research is one of higher complexity than that observed in the distribution of sites at both sides of the Lisan Lake/Dead Sea. Although not mentioned above, one of the current debates—as concerns the first as well as the second OOA dispersal events—revolves around the contribution that marine resources would have had in supporting AMH routes following coastal lines. Initial investigations around the southwest coast of the Arabian Peninsula have so far yielded Bailey and colleagues no results regarding early (MIS 5) occupations.[148] The brief sedentary experiments of the Kostienkian and Pavlovian horizons further suggest that river basins and lakes would have been more versatile ecological niches. This preference seems to be confirmed by the attestation of the first type of structures (irregular floors delineated by stones, postholes, hearths, debris and the occasional burial) preceding a sequence of occupations since around the end of the 11th millennium BC at the Upper Tigris and Upper/Middle Euphrates areas.[149]

The key features to understand the community-making process in the North are three: mortuary behavior, the architectural adaptations that suited the new needs of the group or groups, and the time that was invested in an array of material that was "good to think", using Lévi-Strauss' expression, which indicated a marked pre-occupation with communal identities. All of it represents a significant change after millennia of the "home-making" behavior of groups converging at certain nodal points and reducing the territorial extent of their roaming, as postulated by Maher and Conkey. Constrained mobility would not only have forced a choice between freedoms and customs (autonomy vs cooperation), but also as concerns membership and affiliation. During this time, it was not only about how the world works—the empirical investigation of its physical components—but it was also and primarily about who is 'we', who are we within it all, and who we want to be.

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[148] Bailey et al. 2015.

[149] Abu Hureyra I would only last until the mid-11th millennium BC (cf. Moore, Hillman and Legge 2000). Abu Hureyra II-III is a new settlement founded at ca. 8800 BC. Tell Qaramel had some indication of activities in the Epipaleolithic, but it is with Horizon 1 (starting at around 10,600 calBC) that the sequence begins. Cf. Mazurowski et al. 2009, Mazurowski, Białowarczuk and Januszek 2012.

Even though my analysis is geographical (Upper Tigris and downstream into the Jazira, Upper and Middle Euphrates, the Urfa region in southeastern Anatolia, see Fig. 2.8), there are two main stages in the three main axes:

1) From the end of the Younger Dryas until the end of the 10th millennium BC. This is a period spanning approximately one and a half thousand years. It sees the emergence of built spaces for gathering and specialized buildings/features, the consolidation of secondary burial practices, and the first translation of the perception of the natural world into flat or three-dimensional objects. Collective identity is expressed through particular choices within a shared cosmology and common symbolic language.

It would behoove us to visualize the group at this stage as a multi-limbed body, still thinking in terms of tethered mobility. That mobility, depending on the requirements of the catchment area, may even have entailed temporary constructions and a few burials while on expedition. It would certainly have entailed encountering other people, maybe even collaborating with them in the procurement of whatever resources were sought. We tend to assume that the continuous occupation of a site—where the thickness of layers without anthropogenic remains is minimal—represents the compendium of activities by the same group of people as an inter-generational continuum. Once constructions got to be more sophisticated, and animal and plant remains from hearths and floors signal year-round occupation, sedentism seems assured. Yet, it is highly possible that one of the reasons why buildings were put out of commission in a way that many components and some objects were all neatly packed inside could have been due to a practical wish to facilitate re-use in future. That the facilities were meant only for the living group, or their direct descendants, is a matter of guesswork. It is also possible to observe that some graves contained unbroken objects of a practical nature, thus potentially serving as caches. That would have been secret knowledge, or at least, their inclusion in graves would have communicated a non-trespassing sign to others.

2) From ca. 9200-9000 to 8800-8600 BC. This is a short period of time that precedes the abandonment of most PPNA sites. More than the co-existence of circular and rectangular architecture, what is remarkable is that the built spaces for assembly/gathering become larger, aspiring to encompass the resident community as a whole. A division between work activities and leisure/rest is translated into the new constructions and layouts, but a penchant for closeness, togetherness, agglutination is already glimpsed.

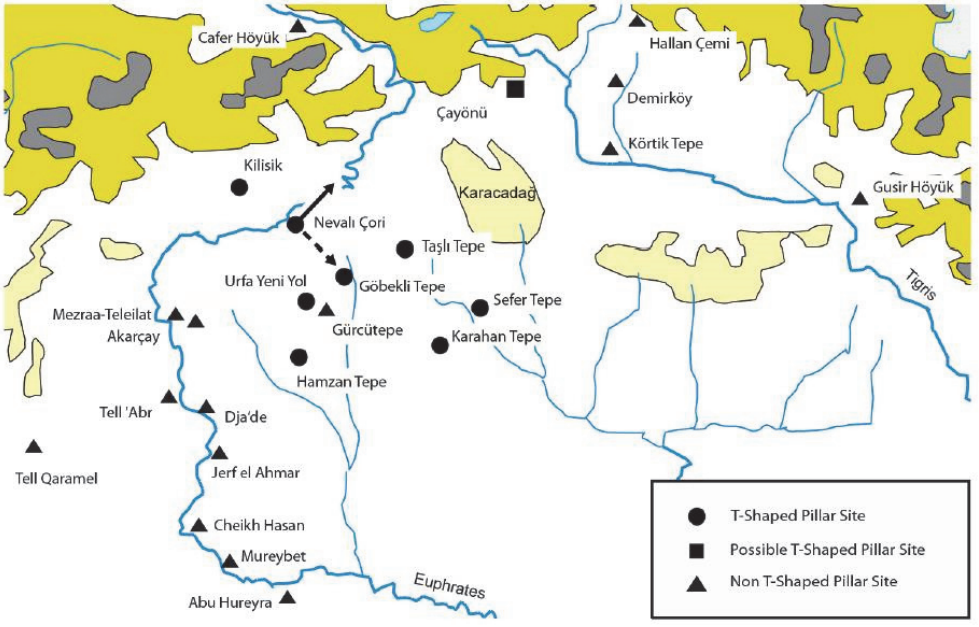

Fig. 2.8. Map of 12th-9th millennium BC sites in northern Mesopotamia. After Morsch 2017: 188, reproduced with permission by the author. The T-shaped pillar sites are distinct from the other two trajectories (Euphrates and Tigris), despite a shared symbolic language.

The Upper Tigris

Körtik Tepe—where the remains of more than 800 individuals have been unearthed—serves as a good starting point in mortuary analysis of the eastern axis, the Upper Tigris.[150] Occupation started at ca. 10,400-10,200 cal.BC, at the end of the Younger Dryas, and lasted for a millennium or so.[151] It was probably located at the top of a mound between two small rivers.[152] Given that in a roughly 200 km^2 area, several sites from this period have recently come to light—Sumaki, Hasankeyf, and Gusir at one side of the current Tigris course, Körtik, Çemka and Boncuklu Tarla at the other, with Demirköy and Hallan Çemi not far to the north— it is highly likely that even during the Younger Dryas the area was interspersed with streams, rivers and lakes that have not survived, supporting a relatively high density of population. Auditory exostosis, usually associated with fishing in cold waters, was detected in some individuals at Shanidar Zawi Chemi, Körtik Tepe and Çayönü, which implies that deep-water (hence lacustrine) fishing was responsible for this reactive bone

[150] New archaeological missions in this area were undertaken as salvage operations in the framework of the Ilısu Dam project, which was later postponed. Since many are still on-going, and primary layers not reached, and since the archaeological missions at Hallan Çemi, Demirköy, Qermez Dere, and Nemrik from the 1980s to the first years of the 2000s were short-lived (see now Watkins 2024), getting a whole, accurate picture in terms of a chronological trajectory is still not feasible.

[151] Benz et al. 2012.

[152] Emra et al. 2022.

formation. The symbolic profusion of aquatic species in figurative scenes and amulets, the tortoise shells, and the fishing gear crafted with stone and bone at the newly discovered sites supports the environmental studies that describe a threefold ecotone of forest, grassy fields and riverine habitats at the foothills of the Taurus Mountains.[153] Ear plugs made of stone, exquisitely carved, were found at Gusir Höyuk and at several graves from Boncuklu Tarla, probably belonging to the EPPNB (or later), together with mushroom-shaped buttons and ear-piercing ornaments.[154]

As of 2015, 743 graves bearing the remains of more than 800 individuals had been recovered from the open spaces and beneath the floors (close to the walls) throughout the sequence of occupations at Körtik Tepe, mostly revealed in four excavated trenches.[155] As observed at other sites, the terrain was irregular and simultaneous occupation of the whole (roughly 160 × 60 m) during its long span, unlikely. By contrast, at Hasankeyf Höyük, even with a shorter (by half) occupation span, 107 burial pits with 124 individuals were excavated in one large trench.[156] Since the site is only slightly smaller, however, the high number of burials at Körtik is striking. At Boncuklu Tarla, although excavations are still on-going, non-continuous occupation from the Late Younger Dryas until well into the 8th millennium BC has been revealed.[157] This is the biggest site by far, and substantial exposure in the central and eastern areas has started to yield an architectural evolution comparable to that of Çayönü. The number of burials, although still unreported (only the later MPPNB cemetery is especially mentioned), seems to have been—for the earlier layers—normal. Therefore, the large number of individuals buried at Körtik Tepe may be indicative of a composite group—a group of groups, where a permanent representation staying onsite was not only responsible for mundane tasks and burdens, but also crafted heavy chlorite vessels and decorated them with patience. The bone painted plates, as well, show not only outstanding craftsmanship but a careful translation of the bounties of their environment into a small surface, and many were meant to be hung. So it could be that, at least initially, Körtik Tepe was one of the few sites serving as a permanent home to several groups in the region.

Nevertheless, all Upper Tigris sites show good craftmanship of stone and bone, and moreover each site shows specific traits. Körtik Tepe stands out for its particularly fine bowls; Gusir for its ovoid beads with insets matching polished stones;[158] Boncuklu for its broad array of amulets, pendants, buttons and bracelets. All sites have animal heads reminiscent of tortoises or birds carved out of the top of pestles, undecorated but well-worked heavy stone rings, hooks, bowls and mortars, and beads of all sizes, made of colorful stones, fish bones, and gastropod shells. Generally speaking, and despite common elements —e,g, the so-called shaft-straighteners

[153] Emra et al. 2022, Coşkun et al. 2010; see Özbek 2012 for his detection of auditory exostosis at Çayönü, with further references.

[154] Karul 2011: Fig. 18; Kodaş 2019: Fig. 9b.

[155] Erdal 2015; Benz et al. 2015.

[156] Kondo, Tashiro and Miyake 2022.

[157] Kodaş and Çiftçi 2021. A more than likely interruption came after the EPPNB, as the radiocarbon dates suggest. This was probably the case at Mureybet too (see below).

[158] Karul 2011: Fig. 22.

or grooved stones, the placement of bucrania in a communal building— and represented animals —scorpions, snakes, horned ibex/deer, aquatic birds or raptors—, this area has the most numerous and diverse collection of portable materiality at this time. Personal items—whether utensils or ornaments—are the most frequent grave goods, but in the vicinity of burials, around structures that were built for working tasks, distinguishing debris and trash from caches is not easy, particularly in pits with a high number of lithics.[159]

There are two traits that seem to be characteristic of Körtik burials, but since they are also attested elsewhere, their visibility here may be due to the high number of people that chose to be buried at the site: postcranial and cranial cutmarks, and skeletons with traces of white, red and black plaint. Some graves preserved traces of white plaster (247) which had been transferred to the skeleton too. More than half of the skeletons had traces of pigments, but the plaster itself preserved the color residues better. On 115 individuals, "red and black colourants forming transverse and diagonal bands" were found on every part of the skeleton.[160] The parallel lines of color were also plastered on to the corner of an axe.[161] All colourants had an iron component: hematite, goethite and limonite for the red; magnetite for the black.[162] Mat or fabric residues were sometimes detected, as was the case at WF16 in Jordan. Reed matting, cordage, and basketry may have been crafts since the Late Pleistocene, when numerous bone awls start becoming a part of assemblages.[163] Imprints on ceramics are attested at Pavlovian sites and East Asia.[164] "Painted" skeletons were also observed at Demirköy and Hasankeyf.[165] Therefore, the use of a shroud and mat to place the body inside and over, without clothing, and the use of plaster with a lime component and red-black soils to cover the shroud and help both with the visual marking of the grave as well as providing a hygienic containment of the body during decay may have been practical/symbolic measures more than aesthetic ones. The shroud also facilitated moving the body to a different placement, and its corruption would explain why some bones were lost or why even "primary inhumations" are not standardized as concerns anatomical position.[166] Grave goods would have been left outside the shroud, but on the mat, and re-located if necessary, too.

With the aim of investigating the process of defleshing.[167] Erdal conducted a preliminary analysis of more than half of the total number of skeletons and concluded that the cutmarks observed in a minority of individuals (10 out of 281 examined) could not be correlated to any specific identity trait, nor to the number and quality

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159 Benz et al. 2015: 17 (incl. a fist-sized chunk of obsidian).

160 Erdal 2015: 23.

161 *Ibid*.: Fig. 3d.

162 *Ibid*.: 8.

163 See, e.g. Rabinovich and Nadel 1994-1995 for bone-tool evidence indicative of hide working at the lacustrine site of Ohalo II, where three fragments of vegetable-fiber fabrics were also retrieved.

164 Adovasio et al. 1996; Hyland et al. 2002.

165 Rosenberg 2011, Miyake et al. 2012.

166 Kondo, Tashiro and Miyake 2022.

167 Erdal 2015.

of grave goods, nor were the cuts the result of cannibalism or trophy-taking.[168] Overall, the most logical explanation for the cutmarks found in the skeletons at Körtik and elsewhere (e.g. Çayönü and Tell Qaramel, or later Kfar HaHoresh and Abu Hureyra) was accelerating the process of flesh removal by direct intervention. Vultures or raptors (often found in the iconography at this time, persisting in Anatolia for millennia) had probably nothing to do with this. It was rather an emulation of the taphonomic role of carrion birds, part of the life and death cycle.

The Skull Building at Çayönü, first built after the initial basic-structure-with-interstratified-burials stage, was an architectonic solution to keep all (or most) bones in a central place. Three phases representing substantial renovations were identified.[169] Despite the fact that the bones and skulls of around 400 individuals were chosen, this building was in use for centuries. From the traces of blood (human and cattle) found on a stone table belonging to an intermediate phase of this building, we may infer that some kind of ritual involving animal sacrifice was performed, and that defleshing, bone selection and fragmentation may have facilitated mortuary processing.[170] The history of alterations and the organization of space in terms of the underground chamber, the cellars, and the possible inclusion of benches and other features to display the cattle horns or human skulls certainly seem to suggest that the re-arrangement of the available space for further depositions was a constant requirement. It is also possible that its end was due to some kind of crisis coinciding with the transitional phase[171] before cell-room rectangular architecture. After this building was ended by fire and buried, sub-floor house burials became the norm.

Regarding PPNA architectural developments, there are two main things to consider. One is that walls are the key important element both in terms of shelter from the elements as well as the support of the roof. Generally, whatever architectonic materials (clay, stone pebbles, a combination of any of these with other materials) were initially chosen to erect walls, they would continue to be preferred afterwards, albeit used according to improved techniques. The second is that—until a very late date— structures for gathering were rather small, indicating that whatever activities were performed inside them (work while sitting down/leisure), these must have been practiced temporarily by a few adults. On the other hand, several of these buildings may have coexisted, something that is hard to discern without large horizontal exposures and good stratigraphic correlations (see figure below). At Körtik Tepe, the largest structures (with a diameter of 3.4-3.8 m), few in number, precede the

[168] In view of the evidence for antemortem skeletal trauma, however, Erdal did not discard interpersonal violence as affecting some individuals, although accidental injuries could not be ruled out either.

[169] Schirmer 2010.

[170] Loy and Wood 1989, Yılmaz 2010. Estimates given by Yılmaz for the last phase (rectangular building) were 66 subadults and 165 adult individuals, albeit based on the addition of the MNI/area. Crania were overrepresented in the central and eastern cells.

[171] The so-called Plaza, a large open space with paved floors, came into use at the end of the Skull Building's life. It was frequently refloored and kept clean until the last stage, when it was used to dispose of trash (many faunal remains). See Özdoğan and Özdoğan 1998: 587.

abandonment of the site.[172] The on-going excavations at Boncuklu Tarla, however, may help clarify the whole PPNA and the decline of the early EPPNB ca. 8500-8300 cal. BC (probably including Çayönü, where—despite its apparent continuity—many doubts remain concerning transitional phases and their chronological assignation[173]).

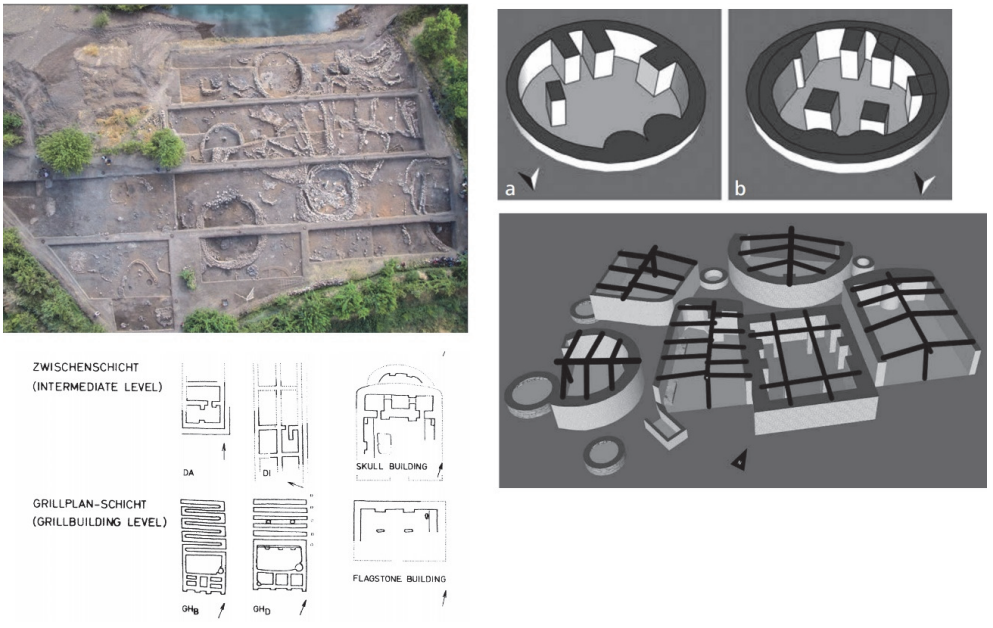

Fig. 2.9. First architecture in the Upper Tigris. Top left: general view of Gusir Höyük. After Karul 2020: Fig. 4. Below: plans of the phase after the hut stage and the intermediate level (channeled and cobble-paved construction) at Çayönü. After Schirmer 1990. Right, top and bottom: O11 building (PPNA) and transitional PPNA-B phase at the eastern section of Boncuklu Tarla, including the "Pillar Building" (Level 4b). After Kodaş and Çiftçi 2022: Fig. 4, a, b; Fig. 12.

Sunken floors, buttresses and interior pillars made with slabs, or pebbles and mortar, contributed to the diversity of constructions in the final stages, and they were clearly not intended for food-processing, cooking, crafts, and sheltered sleeping. They were built solidly, but with an eye to symmetry, their plastered floors well-kept, sometimes provisioned with benches. We have finally communal buildings.

[172] Özkaya and Coşkun 2011.

[173] The subphases may be summarized as rough round structures, grill-plan, transitional (channeled and cobble-paved), cell-plan, and large room buildings. The last two phases would encompass several centuries, at the end of which domestication and pottery (7th millennium BC) are attested. See Özdoğan 2010 for his view that grill-plan foundations helped with vaulted ceilings before rectangular architecture was mastered.

Northern Syria and the Middle Euphrates

The site of Tell Qaramel is located in the basin of the river Qoueiq, near Aleppo. Sequential occupation during the early Neolithic starts with Horizon 1 at ca. 10,900 cal. BC (levels I-III). The last horizon at Tell Qaramel (H3, 9820-8710 cal BC) confirmed the particular use at this site of what the archaeological team called "towers".[174] H1 had three of these structures, in combination with small, round buildings made of pebbles, mortar, and tauf blocks and semi-subterranean pits. The towers look like circular buildings in-filled with their own construction material (mid-sized boulders) at the end of their lives. The "tower" in H3 had a diameter of 6.5m and a wall that was 1.5m wide, with a hearth in the middle. Four crania and two mandibles were buried under the pebbled floor of its wall.[175] The tower in this level, moreover, was erected in close proximity to a rectangular building of good size (5 × 10 m) with room subdivisions. Apart from 11 burials probably belonging to the topmost layer (intrusive), the other burials in this horizon were found in this rectangular building. A total of 26 graves (36 individuals) was reported, which suggests that this was a rather small collective and that other forms of disposal had been hitherto preferred.[176] Cutmarks, particularly on the cervical vertebrae and mandibles, were observed, together with disarticulation of the cranium and postcranial skeleton.[177] Furthermore, the skeletons of two aurochsen were buried in symmetry in the central section of the rectangular building, which also featured an inner hearth with animal bones and plastered benches.[178] Overall, because of its shape and the strong possibility of multi-layered accumulation, this "cult" building may be considered a precursor of the so-called charnel houses at Dja'de el-Mughara and Abu Hureyra (second half of the 9th millennium BC),[179] which acted as cemeteries of sorts at the end of their mundane lives.

At Mureybet in the Euphrates, first signs of temporary occupation commence at around 10.2 k cal BC, but first buildings are not attested until 9700-9600 BC. Round constructions built on flat pebbled platforms and tauf walls with wooden posts to support the roofs are characteristic here, as well as at Jerf el Ahmar. Only one large building (around 6m in diameter on average) with sunken floors accompanied practical constructions and surfaces at each level, and this kind of building was frequently renovated, so distinct communal buildings have a longer tradition here

[174] Mazurowski et al. 2009. H4 had only remnants of constructions in the south and west trenches. This implies not only a movement in location, but also contraction. Mazurowski and colleagues suggest that the population moved 1.5 km to the west of the river terrace (2009: 779).

[175] Kanjou 2016.

[176] Kanjou et al. 2013.

[177] Only three individuals were reported as "Complete skeleton in correct anatomical position", Kanjou et al. 2013: Table 1.

[178] For the whole description and finds, see Kanjou 2016.

[179] Chamel 2018. Most of the radiocarbon dates at Abu Hureyra belong to after 8000 cal. BC, with a short-lived occupation corresponding to the second half of the 9th millennium. Cf. Asouti and Fuller 2013: Fig. 7.

than in the Upper Tigris.[180] This tradition is carried over to phase III and E/III respectively (ca. 9300 BC), when quadrangular architecture (curved corners), multi-purpose structures and new lithics emerge. The lower part of walls consists now of stones worked like oval, flat bricks ("en cigare").[181] Small partition walls separating cells and rooms add practical comfort to inner space. The latest phases at both sites show a complex evolution. Jerf el Ahmar experiences an internal division (see Fig. 2.10): part of its membership moves a few hundred meters west (roughly coinciding with Level 2 in the initial settlement). Larger communal buildings, sunk 2 to 2.5 meters down, include now big cells around their perimeter, benches, and, at Mureybet only, hearths, ovens and female figurines.[182]

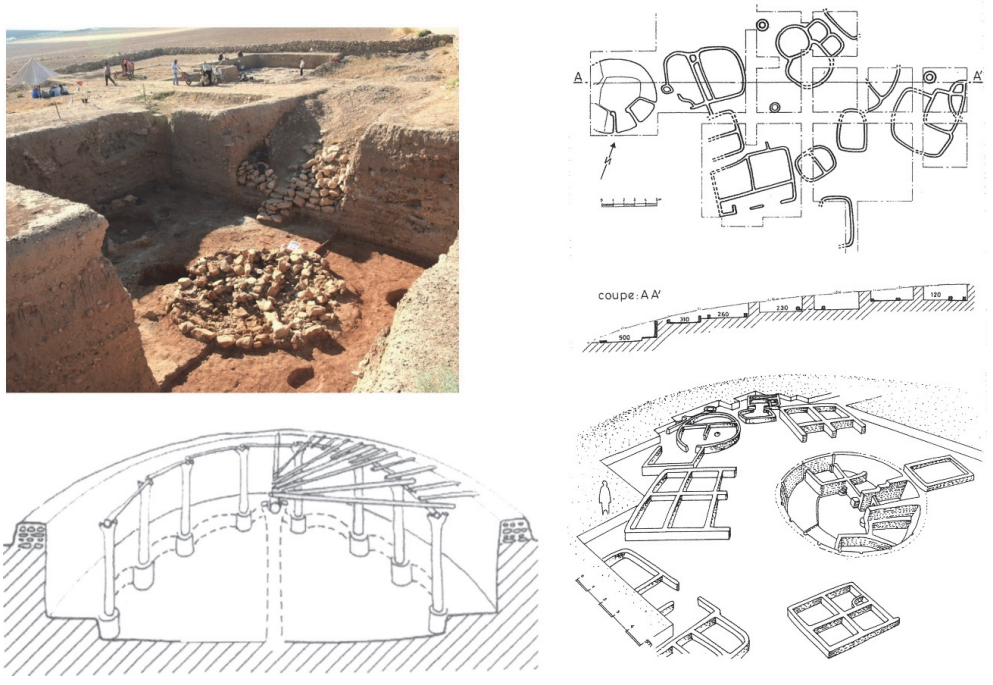

Fig. 2.10. First architecture in the Euphrates. Top left: Tower V at Tell Qaramel, from https://pcma.uw.edu.pl/en/2019/01/11/tell-qaramel-2/, Gallery, 5). Right, top: plan of Jerf el Ahmar Phase I East, showing EA 7 on the left. Below: reconstruction of Phase II West, showing EA 30 in the centre. After Stordeur 2000: Figs. 2 and 3. Bottom left: Communal building B2 at Tell Al Abr' 3. After Yartah 2005: Fig. 8, 2.

[180] Ibáñez 2008: 649. In the Upper Tigris region, as seen at Boncuklu Tarla and Çayönü, the main special feature is symmetrical buttresses and pillars, which end up used in circular, quadrangular and finally rectangular buildings. Stone, tauf and wood are the main construction materials. Intra- and inter-structure burials are more important than in the Euphrates.

[181] Ibáñez 2008: 652f.

[182] At Mureybet, buildings 54, 47 and later 42; at Jerf el Ahmar EA 7 in the east; EA 30, in the west.

EA 7 was burnt down, together with all surrounding structures of Level 3. Three aurochsen skulls and a bucranium (the horns), together with handstones and charred grains, were unearthed.[183] Building 47 and EA 30 were also destroyed by fire. Ovens and finds in the first suggest cooking and food-processing activities. At the latter, lithics, including obsidian; faunal remains, mostly aurochsen bones, a quern containing ochre,[184] suggest animal processing, including leather-working. Hunting during this period intensified, frequently targeting males of large-sized mammals, like equids, boars, ovicaprines, and aurochsen.[185] Cell 5 was postulated as a silo, since it contained high concentrations of barley chaff, and it had a small opening at the bottom.[186] Natural lighting at EA 30 would have been scarce, since mud-covered flat roofs are reported from the burnt debris analysis. From the bottom of the central space, access to only two cells was possible. The only practical solution to access all cells would have been to leave an open gap between the ground and the roof. Stordeur and colleagues report that walls rose more than 60 cm into the open air.[187] The skeleton of a woman missing the cranium was placed at the center of the building before the roof was burnt and collapsed over it, maybe a message of retribution for some transgression.[188] What is most astonishing about these sites is that the three phases preceding their abandonment[189] portray an image of creativity and prosperity, even demographic growth. If one excludes communal buildings with cell partitions (multi-purpose storage) and focuses on those with one single, open space, the impression turns from shared storage to a true communal building in the sense of gathering and celebration. Two buildings like this were found at Jerf el Ahmar (EA 53 and 100, of which very little was recovered before the site was inundated by the Tishrin Dam project) and at short-lived Tell 'Abr 3 nearby.

Although EA 53 was built soon after EA 7, it is characterized as signaling the transition to the PPNB by Stordeur and colleagues, since the village layout at this point still shows an array of diverse, elliptical structures and organization around big hearths.[190] So either EA 30 in the west was renovated for a longer span than other communal buildings, until the surrounding architecture culminated in the rectilinear walls and well-planned layout around its circular building that we can see in the figure above, or the eastern section came to an end before the western one (the youngest layer, 0/E, with rectilinear buildings, did not reveal much otherwise). These "true" communal buildings, therefore, would represent a phase of prosperity before the masked tension discernable during the last occupation of Jerf el Ahmar West, an

[183] Willcox and Stordeur 2012.

[184] Stordeur et al. 2001; Stordeur and Ibáñez 2008.

[185] Gourichon and Helmer 2008.

[186] Willcox and Stordeur 2012.

[187] Stordeur et al. 2001: 34.

[188] *Ibid*.: 37.

[189] Phase IVA at Mureybet corresponds to a 16m^2 trench without architecture. Ibáñez 2008: 656. Only four pre-IVB burials were discovered during Cauvin's excavations in the 1970s, all of them belonging to the transitional phase. One of them had an embedded flint arrowhead at the back. See Chamel et al. 2017.

[190] Stordeur et al. 2001: 42.

impression reinforced by the extent of the conflagration that put an end to EA 30, and by the recovery of high-quality items left intact before the end.[191]

EA 53 was an impressive construction (7m in diameter) whose roof was supported by six wooden pillars forming a hexagon, with a bench circling the walls. The walls were painted, and creatively decorated tiles covered the bench walls, with incised motifs of chevrons or triangles (also used for the stone vessels at this site). One of the plastered pillars preserved an undulating snake with triangular head, common in the iconography of portable material here and elsewhere. EA 100 had moreover two pillar-like steles with abstract-geometric incisions and broken heads (but suggesting a raptor-human hybrid). The tile in-between the steles preserved depictions of headless figures.[192]

The building at Tell al Abr' 3 was double the size of EA 53, with stone reinforcements at the base of the wooden pillars, and a central pillar to which radiating beams, to bear the weight of the roof, connected. The floor was decorated with white, black and green stone chips. Incised motifs on the bench walls featured chevrons, gazelles, sitting felines represented from the back, a lizard-like figure, a bull, and an hourglass-like motif.[193] An aurochs bucranium had been inserted into the bench, and bones from this animal were uncovered from a posthole. The building was in place throughout the five levels of its occupation. Given its size, to posit that the whole adult membership of this hamlet may have sat on the benches during meetings is not farfetched.

All sites reviewed so far have left behind the remnants of their permanent structures. We find traces of organic materials composing the plastered surfaces, the mud and reeds or burnt wooden posts of roofs and walls, the shrouds of the dead, the imprints of basketry on clay. We can therefore easily imagine that many a house would have been a tent made of leather hides, or a hut of wood and woven reeds, that people may have worked and slept on soft rugs, easily portable. Except for the large circular and rectangular buildings, we are missing important parts of their communal life. Many of the structures called houses may have actually been stores containing different kinds of resources, and the processing may have been performed by pairs or trios at the designated storage location. However, while many aspects of their mundane or leisure activities remain opaque, we do have signs of their values, their appreciation of the world around them, sometimes loaded with mystery, sometimes with winks belying a sense of humour (see figure below; Ch. 4).

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[191] For instance, a cache of cores and blades of flint, covered by a cairn of stones (Astruc et al. 2003), and several querns and handstones recovered in situ from houses of I/E and II-I/W. The majority of querns found at the site had been reused as building foundations. House 10 from IIW, also affected by the fire, yielded ample evidence of plant-based foodstuffs, like seedcakes, lentils, and herbs. Cf. Willcox and Stordeur 2012.

[192] Stordeur et al. 2001: Fig. 11.

[193] Yartah 2004. Yartah calls the last motif "dalles au soleil" (see Fig. 14). However, it resembles the more detailed representation of the landscape of mountains and lakes carved into the surface of a stone vessel from Körtik Tepe (see figure below), where a lake or aquifer seems to be a plausible reading of this symbol. This motif was frequently engraved on chlorite vessels from Körtik, Tell Qaramel and Al Abr'3, see Benz et al. 2018: Fig. 5.7.

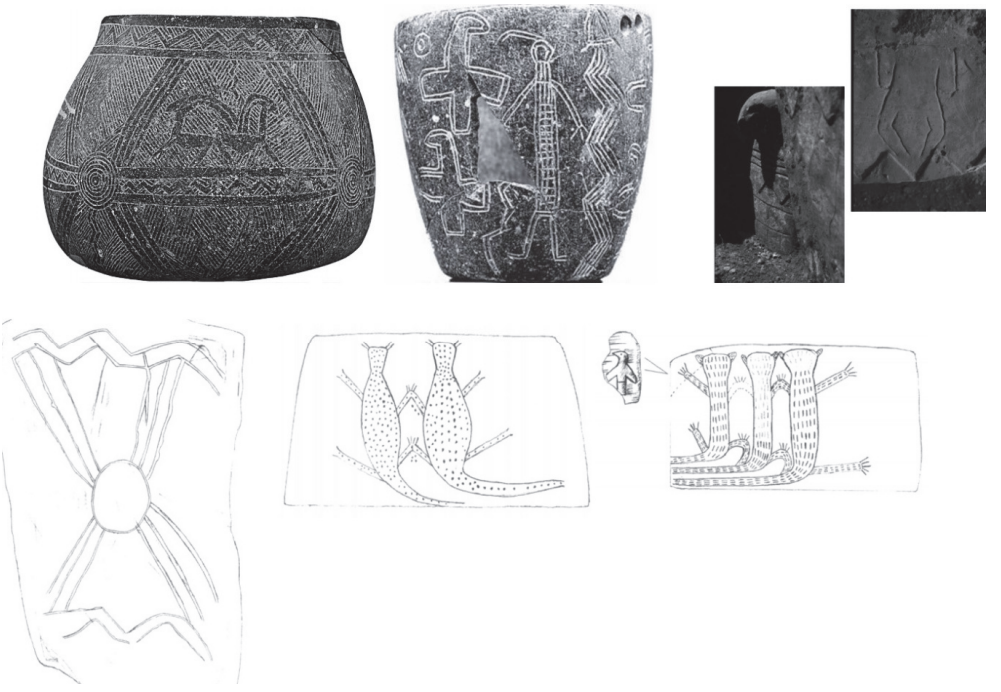

Fig. 2.11. The shared cosmovision of first sedentists. Upper row: two stone vessels from Körtik Tepe and a sculpted bird of prey plus a headless human from a bench decoration at EA53, Jerf el Ahmar. After Çoskun et al. 2010: Fig. 2, Benz et al. 2018: Fig. 5.7b), Stordeur 2014: Fig. 15.1 (7-8). Lower row: drawing of some engravings on the bench tiling at Tell Abr' 3, the last two representing a pair and a small trio of felines shown from the back with their limbs wide open. Note also the small bird-like human on the left corner of the last figure, resembling the ones seen on the KT vessel. After Yartah 2004: Figs. 11, 12, 14.

The T-shaped stele horizon of southeastern Anatolia

A completely segregated form of living and ritual celebration is attested in the Urfa Region of southeastern Anatolia as early as 9700-9600 calBC. Çelik's survey has revealed that all sites comprising circular enclosures with T-shaped pillars are located at the top of rocky hills in the Harran plains, and that the cavities, surface finds and fallen stone pillars at other sites, apart from Göbekli and Karahan Tepe, have already revealed identical constructions and carved iconography.[194] Recent studies from the Göbekli Tepe mission have led to the increasingly clearer conclusion that one or two of the western enclosures remained "open", that is, not filled-in with soil, stones, and sculptures until ca. 9200-8600 cal. BC, when a population settled to live throughout at least two phases of architecture built on the terraced slopes that surrounded the original buildings (see Fig. 2.12). Çelik's concluding remarks on the Harbetsuvan report provide more questions than answers to the subject of sedentary populations in association with the sites: "The most striking characteristic of Harbetsuvan Tepesi is that it is a small-scale settlement like Sefer

[194] Çelik 2015.

Tepe, Taşli Tepe, and Kurt Tepesi. (…) The surface surveys conducted south of Harbetsuvan Tepesi revealed numerous domestic settlement sites dating to the Pre-Pottery Neolithic period. A similar occurrence was observed in the area surrounding Sefer Tepe settlement, which might be evidence that Neolithic settlements with pillars are cult centers, while other domestic settlements lay in the hinterland".[195] He also notes that rectangular buildings built side by side (just as at EPPNB Göbekli) were present on the western slope of Harbetsuvan, and that similar ruins were discerned on the southern slopes. Just 350 m to the southwest, another small settlement was detected.[196]

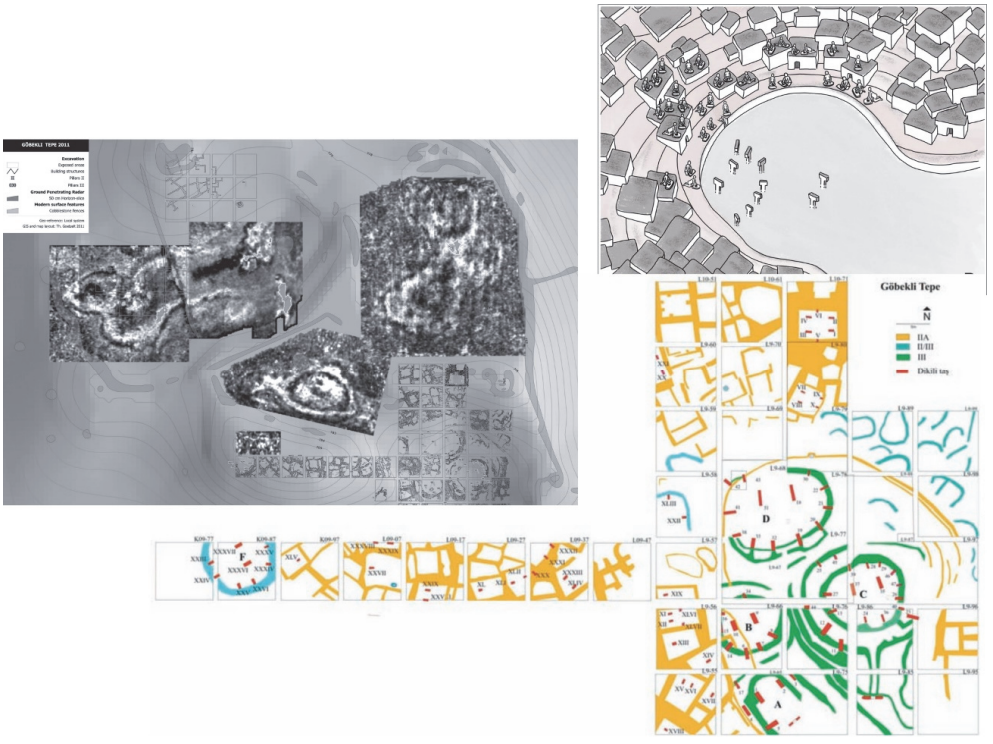

Fig. 2.12. Göbekli Tepe. Left: Plan of excavations and geophysical surveys, indicating the large scale of the site in its entirety. After Dietrich and Notroff 2015: Fig. 7.4 (graphics: T. Götzelt, ©DAI). Right, bottom: schematic map of the excavation at the southern slope and western hilltop, with colored chronological divisions. After Schmidt 2010: Fig.2. Top, right: Reconstruction drawing of communal work on the terraces and roofs with a view towards the monumental buildings (created by DAI, photo N. Becker, graphic J. Notroff, based on an architectural reconstruction by D. Kurapkat). After Dietrich et al. 2019: Fig. 6B.

195 *Ibid*.: 424.

196 *Ibid*: 423.

At Karahan Tepe, a dual arrangement has been remarked upon by Karul, although only the West Terrace is undergoing excavation.[197] Structures AD—23 m in diameter and quadrangular, gouged out of the bedrock—and enclosures AB, AA and AC were all interconnected and deemed contemporary. Lithic analysis (survey) at Harbetsuvan and Karahan Tepe suggest a late PPNA-EPPNB (before "Çayönü tools"). The enclosures at Karahan were filled with soil and stones, but also a few "pottery" fragments (as was the case with Enclosures C and H at Göbekli).[198]

Radiocarbon dates for Enclosure D at Göbekli Tepe cluster between 9600 and 9300 calBC, but charcoal extracted from the fill gave a measurement of 9127-8763 calBC. Likewise, the organic material extracted to date Enclosures C and A came from the in-fill and yielded similar late dates, particularly the latter, which had a more quadrangular shape.[199] At Enclosure H, in the northwestern part of the excavated area, three dates clustering between 8800 and 8300 calBC were obtained. The structures were at least partly if not almost totally subterranean. Analysis of the rings surrounding Enclosure C indicates that one way to renovate these buildings consisted of moving the pillars and rebuilding new walls, thus narrowing the overall space of the buried structure.[200] Reused pillars, sometimes in abnormal positions or showing signs of alterations, were found in Enclosures C, D and H.[201]

The rectangular buildings of Layer II had different sizes, which—together with their agglutinative arrangement and vertical superposition following the slopes of the mounds—facilitated access through the roof,[202] where occasionally a special kind of grinding bowl was placed,[203] indicating food-processing activities. The Layer II larger houses at Göbekli did not have T-shaped pillars and benches arranged in a circle at the center, but still used or reused T-shaped pillars, which implies that communal gathering buildings were inserted into the domestic sphere during the last stage.

A tentative chronological reconstruction may therefore be outlined:

– From 9600 to 9300 cal BC: a large group of people, or a multi-group ensemble roaming the Harran plains, decide to collaborate in the erection of a large-scale stone calendar, maybe first at Göbekli Tepe. The initial enclosures were replicated at other locations.
– From 9300 to 8800 cal BC: the descendants of the original groups settle down at the foot of the chosen hills. They build new enclosures, renovate the old ones, and carve scenes narrating their stories on the pillars and other appointments. At GT,

197 Karul 2021.

198 Çelik 2015, Karul 2021, Dietrich, Notroff and Dietrich 2018.

199 Dietrich et al. 2013. Soil extracted from a fallen pillar at Enclosure A gave a particularly late reading: 8617-8315 cal BC, hence fully coinciding with the "Layer 2" settlement.

200 Kurapkat 2015.

201 Clare et al. 2018.

202 Kurapkat 2015; Dietrich et al. 2019. The roof as a working surface anticipates a very frequent layout feature of the later 9th and 8th millennium BC villages in Anatolia and the Southern Levant, which entailed locational conservatism and the frequent renovation of buildings.

203 There were four finds of this kind. Dietrich et al. 2019 suggest they were used for dehusking cereals. The objects showed signs of sustained wear.

these mythical scenes often portray animals in dynamic fable-like scenes (see Fig. 2.14 below). The initial star-gazing, astronomy-related events have given way to more frequent celebrations. The first oval houses appear at Göbekli Tepe, followed by rectilinear architecture.

– From 8800 to 8300 cal BC: while many settlements disappear, the village at Göbekli Tepe expands and Nevali Çori is founded. At the latter site, a rectilinear building with T-shaped pillars and sculptures coexists with round, then cell-room domestic architecture.

Even if we can only guess what motivated the original builders to test their skills to the maximum by undertaking projects of such scale with lithic technology, a ritual celebration related to the observation of the sun, the moon, and other phenomena, at key moments of the year, is not a farfetched theory as a point of departure (see Fig. 2.13).

Fig. 2.13. The Karahan Tepe winter solstice alignment (20/12/21). Main photo: H. Newman. Inset: D. Wint. Right: anthropomorphic head from Structure AB, facing the entrance of the enclosure. Photo: H. Newman (selection).

With the collaboration of a Turkish archaeologist and an astronomer, two researchers of megalithic architecture have recently visited Karahan Tepe to observe the winter solstice, and noticed that the sun rising at dawn would have illuminated the anthropomorphic head protruding from one side of Str. AB, the T-shaped pillar enclosure immediately adjacent to Str. AD.[204] While a similar observation has been put forward for Göbekli, the proponents had very little knowledge about the site, and their proposal was roughly put together (e.g. the commemoration of a Younger Dryas comet impact, the focus on some of the imagery to find constellation shapes, or the analogies to monuments from very different cultures), meriting the rebuttal from the Göbekli Tepe team.[205] However, Haklay and Gopher have postulated that Enclosures B, C and D had to be part of the same complex design, given that their central

[204] Newman and Ainsworth 2022, personal publication: https://www.academia.edu/download/106696562/Karahan_Tepe_s_Winter_Solstice_Alignment_Newman_and_Ainsworth.pdf

[205] Notroff et al. 2017 (a response to Sweatman and Tsikritsis).

pillars appear to be the points of a perfect equilateral triangle.[206] The questions that need to be clarified via excavations that target the monumental mounds as well as at least one of the lowland settlements in their vicinity is whether mobile groups could have first collaborated for a multi-focal purpose all over the Harran plains, and whether a more permanent tethering to a specific area occurred at some point, partly due to the wish to maintain, expand, and share a constantly renewed identity around the rocky mound complexes.

The long continuity in the use of these structures can explain the diversity of proposed interpretations on Göbekli published to date. Given the long-lasting chronology of this, and probably the other sites, one single interpretation (secret sodality, cult place for male hunters, skull cult, work or religious feasts before domestication, totemism or shamanism) cannot fit the enchained histories, the innovations, traditions and re-invention of traditions, that lurk behind a very complex stratigraphy. At Göbekli, the visual communication of common values is expressed everywhere: the pillar fronts and their sides, high reliefs that are added to enliven the scenes, sculptures of busts, anthropomorphic statuettes or totemic columns, portholes and fixtures, shards of decorated stone vessels, small stone masks and shaft-straighteners. Some of these can be correlated to other sites, thus hinting to the later part of the chronological line, but many finds came from in-fills or were repurposed, and therefore prevent stating whether they were broken or recycled deliberately, accidentally, or to make way to new narratives that fitted the youngest communities better (as may have been the case with a partial erasure of a carving on a pillar in Enclosure H).[207] T-shaped pillars were initially quite hieratic—reduced in many cases to a phallus-like form or, through the mere carving of arms, belts, or a loincloth (second central pillar at Enclosure D)—, conveying that a sentient protective being is supervising the community/-ies. Minimal is also the expression of facial features, like the head with a long neck, wide-open eyes and exaggerated lips at Karahan Tepe, or the statuettes and masks at Göbekli. Yet this minimalistic expressivity would last very long, as seen at Nevali Çori or the "Urfa man" found at Urfa Yeni Mahalle.[208] In any event, a profusion of descriptive and narrative scenes depicting animals, sometimes framed by abstract motifs, has contributed to the site's reputation, even if not all the carvings had the same level of quality, theme or tone.

Despite the lack of burials at Göbekli, a skull cult theory has been recently proposed after the analysis of the human bone fragments found mostly among the debris of soil, stones, flint and faunal remains that was used to fill the enclosures when they were decommissioned (Enclosure E). The ratio of cranial to postcranial bone fragments is of 408 to 283.[209] Three skull fragments showed signs of manipulation: one had been drilled and showed traces of ochre, two had cutmarks indicative of disarticulation and defleshing. The authors support their proposal on the three-dimensional and relief imagery at the site that would connect raptors with heads and

[206] Haklay and Gopher 2020.

[207] Clare et al. 2018.

[208] See Hauptmann, Schmidt 2007. See Fig. 5.8 below.

[209] Gresky, Haelm and Clare 2017.

death.[210] A more balanced interpretation, "a symbolism of life and death", has also been suggested,[211] but the investigation of more etiological values (death allowing for life renewal) has not been pursued with the same interest. 'Religion' and 'cult' are concepts that are taken for granted, and shamanism is a way to find the agents and elites that archaeologists are constantly looking for in their evolutionary theories.[212] Whatever cult there may have been during these centuries, and since the Paleolithic, it was one that communicated very simple, yet powerful, values of sacredness based on paying attention to the world around, keeping the balance, and negotiating with more powerful beings who were scarier than death (and who were never explicitly given form) or who could aid the group's legitimate pursuits. Even if a male ethos of defensive aggression and predation is consistently expressed in this cultural horizon, snakes, cranes, ducks, spiders, lizards and small mammals were also engraved or shaped into figurines.

Fig. 2.14. Narrative scenes depicted on some pillars of the Göbekli Tepe enclosures. Left: three-tiered narrative scene, where the top shows baskets or pouches, the middle a game with a ball with two kinds of birds as protagonists, and the lower part has a scorpion, a crane, a headless ithyphallic man and hidden animals. The side (not visible here) shows a recumbent lioness (?) and an incomplete spider or scorpion. Pillar 43 from Enclosure D. After Dietrich et al. 2017: Fig. 5.18 (photo: K. Schmidt, ©DAI). Middle: ducks on land, big and baby boar. P12. After Clare, Yüncü and Uludağ 2019. Pillar from. Right: reconstruction of a complex, maybe multi-layered scene with 55 animal depictions. P56 in H. After Dietrich, Notroff and Schmidt 2017: Fig. 5.19, drawing by N. Becker, ©DAI.

[210] *Ibid*.: Fig. 4. See also Dietrich, Notroff and Dietrich 2018 on masks, limestone heads and their context, and the sculpture of a headless vulture (?) grabbing a human head (Fig. 10.4).

[211] Dietrich and Notroff 2015: 85.

[212] This is patent in Dietrich, Notroff and Schmidt 2017, where a discussion on social inequality leads to a suggestion that ritual specialists may be detected here (and elsewhere) via items like stone buttons and pestles (equated to sceptres).

As investigations on the Layer II houses advance, the 2012 proposal that 'feasting' would be, on the one hand, related to the cultic status of the enclosures or the ritual nature of the construction process, and on the other, the result of EPPNB communities on their way to achieved domestication *via* the processing of cereals to make beer, is extremely contradictory. Either the team opt for the first or for the second, but not both.[213] If the permanent residents of the final village were responsible for the cereal processing, as well as some of the faunal remains and portable material, then the feasting events may transmute into mundane and celebrational commensality accumulated over a few centuries.[214] The round or rectangular large limestone basins[215] found at the site may have served as beer recipients, or used to soak cereals and tubers before their being cooked as seedcakes, bread or porridge.[216] The discovery of grape fermentation to make wine as suggested from the tartaric acid found in residue analysis of a Körtik Tepe vessel[217] does not mean that extensive knowledge on the fermentation of many foodstuffs to expand their shelf life was widespread at this stage, but even if Dietrich and colleagues were right and beer was produced at Göbekli (not confirmed), they would either need to correlate the evidence found here with the temporary habitation with basic structures that we may find in future in the vicinity of the site(s)—communities who co-existed with the village of the last phase— or to surrender the "cultic feasting" interpretation and opt for the culmination of the broad spectrum strategies that would eventually[218] lead to the selection of non-shattering cereals and a preference for founder crops.

The dearth of figurines at Göbekli has been remarked upon and set in contrast with nearby Nevalı Çori.[219] However, the latter site was relatively long-lived and was founded during the last phase of Göbekli. Anthropomorphic figurines will be treated in Chapter 4.

The newly discovered Pre-pottery Neolithic building found in between two modern houses in the village of Sayburç, in the Şanlıurfa district, sums up the symbology and atmosphere of communal gathering that characterized the undivided large circular buildings of the Middle Euphrates settlements, and the interregional visual codes—seen particularly well at Göbekli Tepe—, anticipating moreover the Central Anatolian (Çatalhöyük) hunting mural scenes, which have a ritual character. A male and female feline frame an individual with animal ears and curved legs holding his erect penis—a common theme in statuettes but expressed less explicitly in rock reliefs, except at Karahan Tepe—while a mere human male with raised arms, adopting a dancing stance, faces a bull to the left.[220]

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213 Compare Dietrich et al. 2012 with Dietrich et al. 2019.

214 This was already a warning given by Dietler in Dietler and Hayden 2001.

215 Dietrich et al. 2012: Fig. 11. The six basins were "integral parts of particular rooms" of the EPPNB houses.

216 As attested at the burnt house of Jerf el Ahmar West, see Wilcox and Stordeur 2012.

217 McGovern 2009.

218 Only 27% of the different species of wheat and barley at EPPNB Qarassa were morphologically domesticates: cf. Arranz Otaegui et al. 2016b.

219 E.g. Dietrich, Notroff and Schmidt 2017: 124.

220 Özdoğan 2022.

Fig. 2.15. The Sayburç relief on the frontal face of the bench of a communal building. After Özdoğan 2022: Fig. 4 (Photo by B. Köşker).
https://www.cambridge.org/core/journals/antiquity/article/sayburc-reliefs-a-narrative-scene-from-theneolithic/3A35B54B3265C7224CB225FE70EBDD02

In conclusion, this chapter is articulated around the idea that social acumen—active cooperation more than autonomy—may have been decisive for the survival and thriving of our species. Primitive humans may have co-existed with other hominin species during a good portion of the last two hundred thousand years, thereby acquiring enhanced cooperative skills, which—together with the climatic ameliorations before and after the last glacial period—eventually allowed them to expand across the globe, and then to maximize the opportunities that ecotones and aquatic ecosystems afforded, which entailed a restriction of mobility and spurred a wish for home-making. This gradually stimulated the development of inter-generational collective consciousness and the multiple expression of symbolic communication. The sedentarization process in Southwest Asia may have been the product of a diversity of particularly advantageous locations that favored a maximization of broad spectrum strategies while in turn presenting challenges requiring multi-group cooperation: sequential mortuary ritual, long-term constructions, experimentation with soils for the obtention of plaster and ochres, the extraction of obsidian, the development of culinary preferences, the use of plants for several purposes, and the careful observation of animal behavior—the latter an inexhaustible source of potential cultural choices (e.g. emulation of carrion and migratory birds and fishes; male horns as a source of vitality and power; fox furs, feathers and shells as ornaments that may have been linked to didactic stories and ritual strategies; herd hierarchies, parasitism and symbiosis, etc). In the core areas of this region of the world these peoples exhibited a more discernible willingness to sacrifice freedom and flexibility for the sake of welfare and belonging, which entailed coordination, multi-task management, and sharing the moments of leisure and celebration. Better knowledge of the physical world and bigger projects ensued, leading to the construction of ambitious communal buildings, developed in parallel with more complex storage facilities. Although inter-group exchange would have remained frequent, as attested by a broadly shared visual language at the inter-regional level, specific choices and customs are also observed. By the end of the 9th millennium BC, two trends will emerge in the consolidation of sedentism: house agglutination and the maximization of terraces and slopes to build these house complexes more securely.

CHAPTER 3. ANIMISM AS THE ONTOLOGICAL BACKGROUND OF PREHISTORY

3.1. Setting the framework: what is an animist ontology

3.1.1. What it is not: a religion

'Religio' was described by Cicero as the *cultum deorum*, but the care, cultivation, tribute, worship owed to the gods in the public sphere took place in highly curated spaces and was performed by a hierarchy of curators of the sacred. It is this institutional aspect which defines all religions—whether ethnic-based or proselytist, based on sacred texts or on texts and oral traditions for legitimacy, whether hegemonies or successful heresies—, so that it is the loyalty owed to the institution(s) the principle that governs the production of (curated) knowledge, the forging of alliances when deemed advantageous by the elites, and the competition with other institutions that would threaten its autonomy. The definitions that would precede religious analysis as a scientific discipline cannot be related to the implicit dichotomy in terms like 'deity' and 'spirit', the hierarchical classification turned *topos* a tautological distinction. Animism should not be defined, as of today, as "a form of religion that sees nature as animated by all sorts of spirits or impersonal supernatural powers".[1] All sorts of supernatural powers also inhabit the Tao (the list of deities and demons large, and including divinized ancestors), the monotheistic religions (demons, angels and archangels, Leviathans and dragons, djinn, the celestial nature of the son of the deity and the prophet, holy men and women capable of non-empirical feats), the Vedic deities that saw the birth of a man who reached a permanent state of separation from the physical world, and the Lama version where holy leaders may come back to a different physical vessel after death. All of the above include ghosts. All memberships of the above animate matter—whether following institutional orthodoxy or on the margins as superstitious country pumpkins, that is a different matter, and indeed a matter that relates to the original physical anchoring of the sacred. What is the point, then, of labels like 'deity' and 'spirit', unless it serves to differentiate agency within a given cosmology/pantheon?

The emergence of religion which accompanied civilization was preceded by an ontological shift, that is, a change in relationships with alterity. Naturally, "the old ways" would have persisted for a long time in the territories turned into polities. Intent as I am on origins, separating people's animism from the visible birth of state cults—for instance, Sumerian religion before the Lagash dynasty, Christianity before Constantin, Islam before the Abbasids, Buddhism before Ashoka, Taoism before the Zhou, Japan (Kami) before the Nara—always boils down to a diachronic archaeological analysis fraught with heuristic difficulties, and to an equally difficult exegesis of first textual sources. The shift lies in the role of humans in the world, in how they conceptualize their relationships with alterity. With Descola's 'analogism'—that is, with civilization—ritual became monarchical and religious,

[1] Tong 2002: 29f.

institutionalized and controlled by a few, seeking to control the superpowerful in order to control the least powerful.

As is well known, 'animism' was coined by E. Tylor at the end of the 19th century to define the earliest stage in the history of religion, that is, the most primitive stage in human evolution, even compared to religion itself —a fossil that science would render obsolete.[2] However, for the past decades animism has been re-defined as an 'ontology' in an effort to wrench it from its Euro-centrist, functional, and structuralist beginnings. In words of Harvey: "Many academics have jettisoned the term 'animism' from their critical, technical and scholarly vocabulary. They consider it irredeemably compromised by the dubious role it played in early anthropological theorising and religious polemic. I would agree with this assessment but for the fact that the term has escaped the constrictions imposed upon it by its colonial origins."[3] After the upheavals that postcolonialism entailed for Western academia as it was somehow forced to confront its stalwart positivism and self-centeredness, and confronted by the demands of land and heritage rights by those who had been previously seen as passive subjects, some anthropologists were willing to adopt new interpretive approaches—no longer related to metaphors and symbols—that pushed them towards the so-called ontological turn.

3.1.2. Animism and shamanism

Before exploring 'animism' through the reflections of recent anthropological literature, I would like to explain the reasons why I have felt uncomfortable working with 'shamanism' as a cultural background for prehistorical peoples. In a nutshell, I regard 'shamanism' as the knowledge and practices undertaken by individuals with special skills and training within an animistic ontology. I find Beck Kehoe's warnings on the extrapolations of Siberian 'shamanism'—itself an anthropological construct—to a plurality of cultural practices in different areas of the world judicious, and her criticism of Mircea Eliade and followers well warranted,[4] but not only good ethnography focusing on shamanism—with a probable circumpolar origin that nevertheless extended to other regions of Asia and the Americas—[5] has been rigorously undertaken by several scholars, my focus here is not really on 'shamanism'. I consider the presence of one ritual specialist—usually accompanied by others that assist in ritual and prayer—who negotiates with powerful agents to defend (the patient, the beings under one's care, the community) or attack (other powerful agents, sometimes envisioned as channeled by rival specialists, or the animal to be hunted) irrelevant to understand the operating ontology in the background—one of careful, negotiated reciprocal relations—, and even if potentially leading to elitism, very limited in its capacity to create durable and increasingly complex social inequalities.

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2 For an overview of this and other evolutionary views, see Harvey 2006, part I "From derogatory to critical terms".

3 Harvey 2006: xii.

4 Beck Kehoe 2000. She adopted a functionalist (i.e. Durkheim's) perspective of religion to avoid discourses around beliefs and performances, which had fuelled a primitivist rhetoric.

5 Price 2001.

Multiple specialists gradually emerge with the development of the state—musicians, exorcists, diviners, physicians, astronomers— and the scope of agency of these finds parallels in multiple-role equivalents in oral cultures.

The influence of shamanistic practices on the domestication process was put forward by Lewis-Williams in an incursion to the world of Çatalhöyük's wall paintings, analyzed through the prism of his work on the rock art of the South-African San.[6] Tapping ethnographic records of the 1870s concerning how the /Xam San experienced shamanism, he cites the words of a woman who was a healer and specially connected to springbucks. This woman formed an attachment with one such animal, then dispatched it among the wild ones.

> Tano-!khauken described this springbuck as her 'heart's springbok'. It is highly improbable that she was speaking of a tamed and trained springbuck; the species is insufficiently tractable. More probably, she was referring to a spirit-springbuck that was her 'animal helper'. (…) The verbatim phonetic transcript of this passage shows that the /Xam used one word (/*ki*) to mean both supernatural possession of a spirit-animal and ownership of real flocks and herds.[7]

The process of domestication for Lewis-Williams is a social one, but exclusively centered on the figure of shamans. The domestication of the aurochs, in his opinion, should be linked to shamanism. Following this logic, at Çatalhöyük, shamans would have sought prestige beyond the first domesticated species (sheep, goats, and pigs). Çatalhöyük is a unique example in the Neolithic of Anatolia and Southwest Asia, partly because it has benefitted from protracted excavation. Throughout its more than one thousand years of habitation in the East Mound, all manifestations of communication with alterity and the building-up of social relationships in a sizeable community are witnessed. What Çatalhöyük precisely demonstrates, through the presence of symbolic features in many of the houses, is how widespread the access to the power of wild animals was. The archaeological team tried to find correlations between the number of burials, leopard reliefs, features like horned benches, statuettes or wall paintings in the South Area—a level roughly corresponding to 6500 calBC—and could find none.[8]

Shamanism requires extensive ethnohistorical work to document. The South African San that Lewis-Williams has studied have not been allowed to live freely for a long time.[9] Furthermore, I do not see much difference between a shaman and a scholarly magic practitioner, other than the second would be part of a different ontology. Both would have had a public service vocation, the former presumably more selfless than the latter. The question is rather how shamans communicated what they experienced to the community at large as far as they could or felt they were

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6 Lewis-Williams 2004.

7 *Ibid*.: 49f, with references.

8 See Hodder 2014: Fig. 6, a plan of the site by I. Hodder and C. Mazzucato.

9 By his own account, about half the men and a third of the women at the time of his *in situ* observations may become someone with the ability to control potency during ritual dances (2013: 71ff). He prefers 'shamanism' to 'animism' for the same reason I prefer the latter: animism belongs to a broader context.

allowed to.[10] It would seem anyway that the community shares an understanding of life beyond the superficial reality afforded by human senses.[11] This will be important for my analysis of Neolithic materiality in the next chapter, which will be partly based on the empirical knowledge that may be gained by ASC (altered states of consciousness).

The animal holds a special status in animistic ontologies. What art historians call 'figurativism' can be traced back to some of the first cave paintings or etched depictions in the world and features animals more than any other kind of "figure". The recent discovery of cave paintings in the Maros-Pangkep region of Sulawesi, featuring warty pigs (*Sus celebensis*) and hand stencils, has been dated to 43.9 kya.[12] Regarding Amazonian cosmologies, Viveiros de Castro observes:

> (…) the spiritualization of plants, meteorological phenomena or artefacts seems to me to be secondary or derivative in comparison with the spiritualization of animals: the animal is the extra-human prototype of the Other, maintaining privileged relations with other prototypical figures of alterity, such as affines.[13]

In his seminal work on 'perspectivism'—applied to Amazonian peoples who experience "nature as part of an encompassing sociality"—[14] Viveiros de Castro reasoned that predator-prey perspectives in the Amazon ("what to us is blood, is maize beer to the jaguar; what to the souls of the dead is a rotting corpse, to us is soaking manioc; what we see as a muddy waterhole, the tapirs see as a great ceremonial house") would be incomprehensible without understanding that many animal species lost their human attributes at the end of a primordial time. This cosmology of time and landscape affects their hunting practices, gender and kin relations, rites of passage, attitudes towards the enemy or the dead, problem-solving, food practices and taboos, body ornamentation, and so on. The anthropomorphization of animal representations in rock art and glyptic work, a cross-temporal and cross-cultural phenomenon—characterized by e.g. exaggerated navels, expressive facial features, or human-like postures or social behavior—may have initially been stimulated by the widespread belief that humans and animals shared a common primordial past, although some animals hold special symbolic meaning depending on the geographical area, and regardless of clan affiliation. The Khanty of the Ob'-Ugrian region believe that the bear was a human reverted to animal form, the son of a deity nonetheless, and so at the beginning of the Bear Festival he is treated like a guest.[15] Animal classifications

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[10] "Visionary experiences and changed awareness, by whatever technique these are inspired or enabled, certainly play roles in shamanic work in many places. But multiple reports indicate that the crucial matter is that shamans are able to communicate across species boundaries to the benefit of their human clients and kindred. Often such communication entails adjustments to ordinary discursive, performative, and behavioral practices." (Harvey 2018: 48).

[11] This was my impression after a conversation with a member of the Santo Daime church, a syncretistic Brazilian religion that includes supervised ayahuasca sessions as part of their ritual.

[12] Brumm et al. 2021.

[13] Viveiros de Castro 1998: 472.

[14] *Ibid*.: 473.

[15] Fedorova 2001, with references.

vary wildly across the world, but their taxonomic diversity and subjacent reasoning are linked to other cultural constructs, like clan "totems", food taboos, mimetic performances, the crafting of tools, figurines or incorporation of decorative elements in "practical" objects, hunting practices, protection and medicine, political symbolism, and rites of passage.[16] All of these cultural norms and customs would be integrated into general narratives or myths, and tailored didactic discourses, and it is a pity that both the words used in direct teaching or in songs and the materiality accompanying ritual—before, during, after—has not often been combined in ethnographic accounts. One exception is Guss' study on Yekuana (Venezuelan Amazon) basketry. While Guss' initial intention was to research the Watunna creation myth that had been recorded by Marc de Civrieux some years earlier,[17] he changed the aim of his investigation.

There were no neatly framed "storytelling events" into which the foreign observer could easily slip, no circles of attentive youths breathing in the words of an elder as he regaled them with the deeds of their ancestors. Rather, Watunna was everywhere, like an invisible sleeve holding the entire culture in place. Derived from the verb adeu, "to tell," it existed in every evocation of the mythic tradition, no matter how fragmentary or allusive. (…) But it was not only this open-ended quality of storytelling, the "stitching together" (rhapsōidein) of narrative **into the fabric of daily life**, that made recording myths so difficult. For even when tales were organized into self-contained units of expression, such as during the Garden and House Festivals, other problems still prevailed. First among them was the mode of composition, **the specialized shamanic language** unknown even to many of the participants themselves. (…) In short, I soon began to realize that to understand even a single story among the Yekuana required a long and active apprenticeship.

Guss realized that another way to learn about the myths was through basketry, and he specifically focused on the round serving trays known as *waja*. Plain or decorated, they revealed the social threads of the Yekuana, like what cane is chosen and why (material and non-material properties), how this is a part-time activity frequently executed with others even if men may consult with their fathers or grandfathers on the design to be chosen, how husbands weave plain *waja* for their wives during their first year of marriage and intricately painted and personalized ones afterwards, etc. And, of course, he learnt how the symbols relate to the stories:

One could see the basic symbolic organization that helped to determine the structure of every other aspect of the society. (…) No less important than this was the ability to perceive the conflicts that each of these aspects attempted to resolve. Cast in a metaphor of endless **dualities**, the symbols in the baskets, like those elsewhere, confronted the most elemental oppositions between **chaos and order, visible and invisible, being and non-being**.

Guss' strategy worked. An external observer may be told that the following symbol represents the jaguar face for the Yekuana:

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[16] See e.g. Insoll's treatment of the subject in his volume on African materiality (2015, Ch. 4).

[17] Guss 1989.

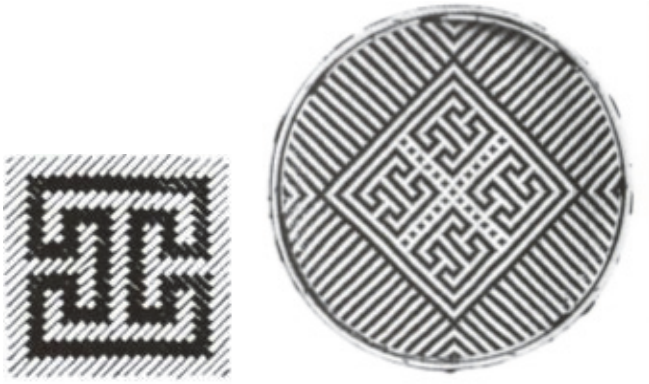

Fig. 3.1. The design called *Mado fedi* ("jaguar face") by the Yekuana. After Guss 1989: 110 and Plate 15.

But an external observer would not be aware of the Mado stories where He is occasionally outsmarted, or the fact that the Yekuana stole one of their three main weapons from Him. Or that, if people using baskets featuring powerful symbols are mature and spiritually strong, this inherent yet transferred power can be used to purify food.

3.1.3. Two proposals

Animist ontology proposals have been mostly made by opposition to what is usually understood to define Western ontologies and epistemological traditions. However, homogenization and boundary enforcement are characteristics of all territorial polities. Throughout history, dominant religions and ideologies have held surviving animistic practices as primitive, backward, and strange. If there is to be a duality, it should be between systems of knowledge with a strong written transmission component, and orally transmitted traditions.

In his contribution to Harvey's *The New Handbook of Contemporary Animism*[18] which—as the title indicates—is a heterogeneous compilation, Morrison made a deliberate effort to condense his work with speakers of Algonkian languages and elaborate a more universal conceptualization. Morrison starts his essay by analysing Hallowell's work from the 1930s until his 1960 publication *Ojibwa Ontology* (the Ojibwa being one of the Anishinaabeg tribes of the Lakes territory straddling US/Canada), explaining how Hallowell showed increasing discomfort with his mentor's (Franz Boas) theistic, even if secular, understanding of religion. He then proposed six comparative working hypotheses, those of the "Cartesians", and those of "indigenous peoples".[19] I have selected Morrison's first two:

[18] Harvey (ed.) 2013.

[19] Morrison 2013: 48ff.

Hypothesis 1 A: theistic ontology

Scholars have misinterpreted indigenous life because Cartesian and monotheistic ontological assumptions have structured their descriptive strategies and interpretative schemes. These assumptions are categorical commitments to understanding comparative cultures in **theistic, hierarchical and their objectivated/subjectivated** ontological terms. The categories include God (gods, goddesses, deities –both theism and polytheism), "natural forces", plants, insects, animals, humans, spirits, ceremonial and celestial "objects", on a scale from irrationality to rationality, from profane to the sacred, from matter to spirit.

Hypothesis 1B: non-theistic ontology

Although indigenous peoples differentiate beings in terms of bodily appearance, intelligence, and purposefulness (and so gloss relative power and responsibility), they also incorporate all forms of being within the ontological category person – that is, entities with rational faculties, will, voice, desire, sometimes physical form, and interdependent, existential needs: hunger, thirst and sociability. For them, ontology, epistemology and axiology form an **undifferentiated** relational field.

A preliminary comment is pertinent here. Morrison is not interested in labels, but in emphasizing that "all forms of being", beyond their range of action, are part of a richly inhabited social world. Furthermore:

Hypotheses 2A: Cartesian causal tropes (power)

Scholars misinterpret indigenous understandings of power because they assume that causality refers either to assumptions about **natural and social law** (impersonal tropes about nature, i.e**.** biological "forces", and/or natural forms of causation [geologic, chemical, electrical, mechanical, psychological and social functionalism]), or to **the assumption that humans project meaning imaginatively** upon the world (as belief and faith, qualities expressed as art, aesthetic, ideology, symbolism, magic, mysticism, spiritualism, supernaturalism). (…) This second axis variously stresses subjective factors: individualism, self-interest, personal autonomy, emotionality, the isolated body, and religion as fear, belief, hope and faith. The conceptually slippery interaction of these two axes plays out in **dualistic ways of thinking about causality**: progress/ tradition, sacred/profane, mind/body, rational/irrational, male/ female, civilized/ primitive, ethical/superstitious, among many others.

Hypothesis 2B: indigenous causal principles (power)

Indigenous understandings of causality cannot be described within the objectivist/ subjectivist paradigm. Theirs are **knowledge systems (not belief systems)** that stress the **intentional**, **relational and interpersonal** character of reality as **both locally grounded and socially emergent**. Indigenous peoples sidestep objective and subjective causal assumptions in intersubjective ways. **They stress who is dividually, and therefore collectively, acting, rather than what causes.** They emphasize interdependence, influence, mutuality, responsibility and respect (or not). Embodied power is, therefore, causal because it expresses the peoples' conscious and collective moral choice.

Here Morrison defines quite accurately something that goes beyond first impressions by external observers who first encounter any ontology that they subsume (as I do) into the animistic category: the inherently practical nature of many of their practices, entailing patent, tangible, specific outcomes. Therefore, neither 'phenomenology'

(following Evans-Pritchard 1937) nor *doxa-habitus* dichotomies (Bourdieu 1977) are adequate to describe "non-Cartesians", who also aspire to social cohesion and are subject to tensions and contradictions, but whose values do not come from adherence or non-adherence to customs and norms in states of law with hegemonic institutions. Their contradictions stem from the ambiguity on the status of all life, and of beings in Time, and so ritual, norm and customs are subject to re-actualizations and upheavals. The coercive power of authorities who supervise the moral expressions of mythical and present time cosmologies is as real as the coercive power that would emerge with the professionalization of armies.

The main criticism I can find towards Morrison's proposal is its essentialism (as is the case with Descola). It deals with *pure* ontologies that are placed in a conceptual universe in perfect, symmetrical opposition in a recent past that affects the present. This becomes more or less explicitly transparent in the cursory nature of his "interpretive inferences": "All cultures exist on a social continuum (interpersonal [dividual], personal [individual], impersonal [non-intentional, except as objectivated modes of use value and reifications that attribute agency to abstractions]) that can be isolated and compared".[20]

Nevertheless, I found his theoretical proposal potentially useful for my historical approach. The impersonal component, for instance, becomes visible ca. 3400-3300 BC in Mesopotamia, when collective values supersede the interpersonal and personal.

The second approach comes from Descola's *Beyond Nature and Culture*.[21] Descola describes his chosen four ontologies, which "serve as a point of reference for contrasting forms of cosmologies, models of social links, and theories of identity and alterity",[22] in a state of blissful historical unawareness. Depending on one's point of view on the ontological continuum, when "faced with some other entity", this entity may possess elements of physicality and interiority identical to one's own—totemism—, its interiority and physicality are distinct from one's own—analogism—, similar interiorities but different physicalities correspond to animism, and different interiorities but similar physicalities to naturalism (=modern understanding of nature). Despite this attempt at plurality, Descola provides two examples of totemism and a panoply of "dizzing prospects" for analogism. Descola is not free from bias. One of his first observations in the comparative exercise states that:

> (…) the societies that we have so far passed in review know nothing of writing, of a central political system, or of urban life. They lack institutions that specialize in the accumulation, objectivization, and transmission of knowledge and so would have been unable to carry out the kind of reflexive and critical program that made it possible for the literate tradition of some peoples to isolate nature and treat it as a field of inquiry from which to draw positive knowledge.[23]

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[20] *Ibid*.: 50.

[21] Descola 2013.

[22] *Ibid*.: 121.

[23] *Ibid*.: 28.

Positive knowledge is summarized by Descola with two traits: writing and social integration *via* institutionalization and territorial centralization. I am torn here between his patronizing oversimplification and his recognition of two key features of what we call civilization. Descola is, in his defense, aware of the risks undertaken with this ambitious project:

> Finally, these nested cosmological constructions define particular identities by the relations that institute them rather than by reference to reified substances or essences (…). Admittedly, all this does not suffice to blur the major differences that exist between the cultures presented here as examples. But it does enable one to put one's finger on an even greater difference, the one that separates the modern West from all those peoples, both past and present, who have not considered it necessary to proceed to a naturalization of the world.[24]

In spite of this perspective (e.g. "the modern West" is very similar to Latour's), or perhaps because of it, Descola's best defined conceptualization in his work is that of 'analogism' (my impression is that he is bored by 'naturalism', and subconsciously rejects 'animism' as too simplistic). *Beyond Nature and Culture* nonetheless provides a sort of conceptual bridge for me to formulate, as a historian, a transition from an animistic conception of the world existing in the prehistory of Mesopotamia from the Holocene until late into the 4th millennium to a hybrid ontological system.

I will not review here his views on "totemism". Both Australian, and North American and northeast Asian totemism,[25] may be of interest for prehistorians and may also offer an additional perspective, but there is a remarkable uniqueness in the case of the original peoples of Australia. Their cosmology and kinship organization seem to indicate that they are the sole people in the history of the world to have taken pains to include every single 'person'—animal, plant, object, foreigner, Dreaming character—ever encountered into their social system, while simultaneously taking precautions against evil agents as any other culture. Theirs was a remarkably inclusive eco-social world,[26] and Descola's analysis of their "physical and internal similarities", following old-fashioned anthropology, does not do their ontological complexity much justice. For instance:

> The fact is that the primary difference here is between aggregates of attributes common to both humans and nonhumans within classes designated by abstract terms, not between animal and plant species that are able, through their ostensible differences, to be the natural source on an analogical model that would serve to organize social discontinuities.[27]

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[24] *Ibid*.: 31, and see his remarks on p. 91.

[25] The etymology and initial mistaken use of 'totam' stemming from Ojibwa *-dodem* and other constructions are explained by Descola, together with his proposed distinction between individual and clan totemism derived from his analysis of Algonquin tribes, as a corollary to his previous study of Aborigines.

[26] Which could explain the success of Europeans at physical and cultural genocide in barely two centuries, more impactful—in my opinion—than even that experienced by American and African peoples.

[27] *Ibid*.: 158, and see also his comments in p. 154.

This lack of apparent, logical correlation between the natural world and lineage organization in acephalous societies has also baffled and irritated other anthropologists in the past.[28] Descola impatiently analyses 'totemism'—following Lévi-Strauss—in order to pave the way for 'analogism'. Analogism operates exactly at the same abstract level in the search for correspondence. The difference is not one of cognitive thinking abilities or epistemological complexities, but in a hierarchization of the cosmos in the second case. Descola ends up his analysis by reflecting on the hybrid nature of "Dream-beings", which he finds very different from the animist mythologies from the Amazon that he knows well:

> In both cases, the beings whose adventures are recounted are certainly a mixture of humans and nonhumans living within a regime that is already both cultural and social through and through. But there is a difference. Amerindian myths tell of separate events that occasioned the introduction of discontinuities between the species that had all been part of an original continuum (plants and animals dissociation themselves from humans through their forms and behavior, yet retaining an interiority that is shared by all). But Australian mythology evokes a process of **parthenogenesis unfolding actually within the classes of hybrids already constituted**. When this process was complete, each of those classes of existing beings contained a vaster number of species, including varieties of humans who nevertheless remained in conformity with the essential and material particularities of the ontological type peculiar to the subdivision in which they had come to be.[29]

A better, simplified explanation may be found in an ethnographer's observations on the Yolngu of Arnhem's two moieties, the Dua and the Yiritja:

> (…) a red parrot is Dua because of his association with the Dua creator women; red parrot feathers, one of the chief articles of decoration, are Dua because of this; baskets covered with red parrot feathers are Dua. The spear thrower is Dua, the sting-ray spear belongs to the same moiety, but the wooden spear is Yiritja. The shark belongs to the Dua moiety; the barramundi is Yiritja, as is black duck (…) The white man is Yiritja, therefore all of his culture is Yiritja (…) The white man is Yiritja because the Malay trader before him was Yiritja.[30]

To further illustrate this potential for adscription in this multiple "hybrid" world, I have also chosen an example from Rose's account regarding the reception of Noah's Ark story in the Bible:

> In this story we see a set of unities: One God, One flood, One Ark, One mob of people, One set of animals, One covenant. In many parts of Aboriginal Australia his story has been heard and accepted. What Aboriginal people have done by way of accommodation is to localize the story. Arks are usually understood to be secret, and although I have seen several arks and heard of more, I have never been authorized to say much about them. [citation] It is certain, however, that there are numerous Arks in Australia. (…) In the logic of country it is not possible that all the people of the world could have been dependent on One God, One Noah,

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[28] See Insoll's references to anthropologists frustrated by illogical taxonomies, multiplicity of totems, or parts instead of wholes (2015, Ch. 4).

[29] *Ibid*.: 163.

[30] Warner 1969 [1937], quoted in Rose 1996: 41.

One Ark, One covenant. Clearly, every country must have had its own Ark. It does not surprise Aboriginal people that Europeans talk about Noah's Ark, because that one is theirs. But equally, it does not appear to be reasonable that Noah had a monopoly on God or a monopoly on Arks. Those things which are truly important happen everywhere.[31]

'Countries', that is, 'boundaries' are understood by Aboriginal people as defined by the knowledge of the land and its inhabitants, encoded in the Dream songs, and that knowledge is historically multi-layered, once created, then recreated (re-enactment), and re-created (innovation). Inter-country relationships did indeed exist, but those relationships—common guardianship of water sources, trade and marriage, walk-abouts—had been negotiated and more or less institutionalized, though not rigidly.

Descola mistakenly thinks that, if for animists, a potential for anxiety may occur due to inter-species interiority sharing (what Viveiros de Castro also understands as 'multinaturalism'[32]), for Aborigines, there may be conflict in the consumption of one's totemic species. Yet, that conflict does not really manifest. He comes to the conclusion that Aborigines do not establish relationships with "individual creatures". Relying on Elkin's account of "sorcerers" among the Kurnai and the Yualayi, who establish a relationship with their totemic species, frequently reptiles, to either carry a disease or cure, to act as his spies or assist him in his endeavors, he concludes that, unlike Amazonian or Siberian shamans, or North Americans and their personal guardian spirits, the relations with animals here involve whole species, "and the tamed animal that the sorcerer parades is no more than an individual expression of the characteristics that are peculiar to the species in general".[33] As a matter of fact, Elkin's research assistant tells a humorous anecdote on how a carpet snake, the personal companion of an "old clever fellow", scared a white man while the old man was having a nap.[34] Healers in Australia have tried to describe their experiences to Europeans using very similar language to that of many other traditional "healers", "sorcerers", "clever men" or whatever term we may use in other areas of the world, and notions about disease causes and cures are very similar, too. Healers of both genders will certainly rely on their totemic ally, or that of a powerful ancestor, or use what we may call *materia magica* and different methods of intervention, in order to restore outer/inner health, or to damage someone's outer/inner health.

I turn now towards analogism and "its dizzying prospects". Descola first introduces the world of analogists by describing it as heterogeneous, full of slightly different substances and components, and then explains their vocation to make sense of these "differences infinitely multiplied" by weaving "a web of meaningful affinities and attractions" that may give "the appearance of constituting a continuity".[35]

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[31] Rose 1996: 41f.

[32] "Amerindians recognize a basic uniformity of bodies –but rather to affects, dispositions or capacities which render the body of every species unique (…). But this could prove to be deceptive "since a human appearance could, for example, be concealing a jaguar-affect" (1998:478).

[33] Descola 2013: 150.

[34] Berndt 1947-8, cited in Suggit 2008: 13. The old man was a Waradjeri.

[35] It is "a hermeneutic dream of plenitude that arises out of a sense of dissatisfaction" (Descola 2013: 202f).

To illustrate some of these prospects, he provides examples as varied as Neo-Platonism, the Renaissance, Ancient China or Mesopotamia, and in more detail, the Nahuas of Tenochtitlan. One of the most interesting observations that Descola makes about macro- and microcosmos connections in this ontology comes from his reflections on the importance of the human body as a standard of reference in analogism's particular version of universality:

(…) everywhere analogies are drawn (and are well attested in vocabulary) between parts of the human body, parts of plants and animals, and elements of the inorganic environment; everywhere houses are apprehended as a microcosm intermediate between the human body, of which it forms an extension, and the world, which it reproduces in miniature; everywhere links are found, sometimes of a very allusive nature, between, on the one hand, functions, dysfunctions, and biological substances and, on the other, the climatic or seasonal events and cycles.[36]

For Descola, only analogical ontologies have managed to systematize these connections for practical purposes (e.g. divination) so that "it becomes impossible to tell whether it is man who reflects the universe or the universe that takes man as its model". Although he inexplicably states that "it cannot be said that analogism has established man at the intersection of all the lines of meaning that connect things", he goes on to say:

But the **privileged position that analogism grants to the human being, as a hermeneutic standard**, makes it possible to **reduce** the proliferation of resemblances by means of an interpretative guide that can be **mastered** since it is founded on the properties imputed to a human person.

However, he denies that there is anything anthropomorphic about analogical systems due to the diversity of its parts and correlations. He becomes so enchanted by these "chains of transitive causality" when compared with animist or totemic ontologies (lacking), or present-day naturalism (incomplete, nostalgic), that this bias percolates in other parts of his analysis: the notion of 'destiny' ("the transmigration of souls, reincarnation, metempsychosis, and, above all, possession"), which according to him does not exist in other ontologies; polarities such as "hot/cold", which he identifies in Nahua cosmology and finds comparable to Hippocratic notions, China, the Ayurvedic system in India, or West Africa, but paradoxically not animistic or totemic systems;[37] or even the practice of 'sacrifice', which for him is more or less explained away as a domesticated animal offered to a deity to placate it or attract its favor, but constitutes an example of an analogic "chain of being" connecting the victim, sacrificer and deity in different ways (drawing heavily on Lévi-Strauss' *The Savage Mind*). Therefore, sacrifice cannot be compared in terms of sophistication with "the ritual slaughter of wild animals captured for this purpose and partially socialized within the village sphere" of the animists, for which he provides two examples: the tapir for the Amazonian Cashivo, and the bear festival in northeast

[36] *Ibid*.: 217.

[37] For hot/cold Aboriginal notions of wellbeing, see Clarke 2008: 6f, with references.

Asia. One therefore has the impression that analogism's deities are by some alchemical transmutation somehow superior to totemists/animists' spirits. Although he acknowledges that analogists' live in "a closed world", which he sees as an advantage,[38] and also acknowledges that animism is less hierarchical, he is too dazzled by analogism to pay due attention to the complexities of the two other ontologies.

It may be argued that animism is, to a certain extent, anthropocentric, since it provides a hierarchy of beings according to predation and cognitive or communicative capacities. Hence, the Shipibo-Konibo living in the eastern Peruvian Amazon classify beings according to what Brabec de Mori interprets as traits of "human consciousness", and the perceptive abilities may not only be visual, but auditory too (which not only has consequences for how shamans convey their experiences linguistically, but also as concerns verbal expressions and dancing).[39] Hence, from his perspective as ethnomusicologist, he reached an understanding of Shipibo ontology that he would have missed otherwise.[40]

As useful as Descola's four ontological menu is as a departing point, his categories cannot be drawn sharply. Complex analogical thinking (complex body cosmologies, circularity and reincarnation, connections between the upper, lower and parallel worlds inhabited by the dead or the powerful) is found in societies that some would classify as animistic or shamanistic. Analogism, as described by him, is the natural continuation of animism. I am, of course, not the first one to be dissatisfied by Descola's classification. Sahlins' reclassification would subsume animism, totemism, and analogism within animism (subdivided into communal, segmentary and hierarchical).[41] I still find Descola's rougher proposal more useful, as long as sharp ontological distinctions are not applied historically, allowing for hybridity. Historically speaking, Descola's ontology classification cannot work, as he himself acknowledges.[42] Change, for Descola, can be summarized in one paragraph:

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[38] "The obsession with correspondences between humans and the cosmos made it possible to establish one privileged creature as the seat of a denser focus of such correspondences, which checked both the proliferation of signs at that level and also their limitless reverberation within a closed world" (*ibid*.: 206).

[39] Brabec de Mori 2012. Whereas *osanti* songs are jocular, and therefore emulate perspectives and sounds of several monkey species, dogs, a vulture, a baby parrot and other birds, the land tortoise, three species of fish, one plant and one powerless demon, the omen songs of the *chishka* bird or the battle songs (one example of which has the shaman mimicking a plant species that lives on sharp-edged rocks, while another is the healing song against anaconda influence), by contrast, require that the songs be sung only in specific contexts and circumstances.

[40] Whereas hunters may adopt mimesis as a strategy, only the shaman acquires throughout training the ability to transform into other beings, masking himself from potentially dangerous spirits. Only shamans retain their human identity during transformations while being able to adopt the *niwe* (aura) of other beings. The *niwe* may also be recognized by smell.

[41] Sahlins 2018.

[42] *Ibid*.: 365f.

Long-distance migrations under pressure from invaders or bellicose neighbors, expansion as the result of conquest, containment within a territory subjected to more intensive exploitation, the human degradation of an ecosystem or its progressive transformation in the wake of climatic accidents: all these things oblige humans to modify their strategies for subsistence and, above all, upset the relations that unify them with others and with the world, thereby making them more receptive to drastic measures that they would otherwise regard with suspicion.[43]

With the onset of animist-analogical thought—which gradually superimposed itself on non-divisive ontologies—we could reveal, by means of thorough archeological methods, increasingly de-populated cosmologies, visualization of hierarchy, and heuristics that became increasingly less energetic in their search for new correspondences between humans and the cosmos, opting instead for paths aspiring to regulate the boundaries of sub-systems within the whole.

"Anthropo-hegemonism" should not necessarily be approached as preceded by gradual transitions, nor would an increase in ritual structures and/or cemeteries always conclude—within a reasonable span of time—in civilization (monarchical or oligarchical territorialization). Moreover, not all kingdoms attempted or succeeded in creating empires, a term which is bandied about very freely.[44] Imperialism is not the most common form of organization in the history of humankind, and the reasons why it attracts so much attention by researchers of several disciplines may have to do with fascination (popular demand), nostalgia (modern constructions of nationalism), the abundance of sources of different kinds, and the better understanding of social relations of power, nested inequalities, and peripheral behavior. An animist-analogical ontology—on its way towards neutralization of the first element—used magic as a technology of sanctioned or unsanctioned procedures using or misusing the knowledge derived from the chain of correspondences for specific social, economic/wellbeing, and political gain, with the understanding that man's potential abilities to tame, control, model, emulate, seize or grasp every element of the cosmos were potentially beyond obstacle. Instead of classifying these procedures as history of science or history of religion, we should be talking about systems of knowledge, with those transmitted in written form better studied and understood.

As Robson rightly observes, regarding the need to update our approach to a historiography of Mesopotamian medicine:

There are historians for whom medicine begins with the hospitals and stethoscopes and social change ushered in by the French Revolution, or with the 'rationalism' of Enlightenment philosophy. But if we take that line, then this essay might as well stop here for there would be no premodern 'medicine' to study or debate. And if historians of science more generally were only to study those theories that are correct by contemporary criteria, than even many mainstream nineteenth-century theories—phlogiston, phrenology, eugenics, germ theory, the ether—would be ruled illegitimate too**.** Very few would dispute that Isaac Newton is an appropriate subject for a historian of science; indeed he is often held to be an iconic founder

[43] *Ibid*.: 390.

[44] There are four criteria to be considered: size, duration, exhaustive control of a reconfigured territory, and control of population for regular taxation and coercive purposes.

of modern scientific thinking. Yet by his own lights he was no scientist (and could not have been, living when he did) but a natural philosopher, whose investigations of the natural, but divinely created, world encompassed numerology, alchemy, and theology as well as mathematics, optics, and mechanics.[45]

The systematization on the study of different objects evolving (or devolving, depending on the point of view) into segregated, autonomous systems of knowledge has a very, very recent date, and it has created many problems —as Latour's work has shown, and as many scientists within biological disciplines or the humanities are increasingly aware of.

To conclude, although on the surface not much would have changed in an animist to a mixed animist-analogical ontology as concerns practices, the difference as concerns practitioners is fundamental. Animism leaves certain people (those standing in the liminal), certain contexts (before hunting, rites of passage, craft-making), and certain spaces or phenomena open to uncertainty, and therefore in need of regulation or careful negotiation. It is fundamentally based on reciprocity and balance. There is a pervasive sense of 'awe'—wonder and terror—that is assigned to many beings in the world, whether they become partners or enemies in social relationships. That sense of 'awe' would be later exclusively circumscribed to upper-pantheon 'deities', because scholars of all kinds within an analogic ontology operated under the basic assumption that man can potentially achieve and control anything. Fear can be overcome if rules and procedures are followed or improved. Royal and theological ideologies did not fundamentally change this, but rather reduced the multiplicity of cosmic links.

Conflict in an animist reality can be ferocious: it can entail human sacrifice, cannibalism, endemic low-scale warfare, and a certain degree of objectification of the enemy including slavery. But large-scale slavery, territorial warfare, sexual domination, and social stratification can only happen in societies where the search for infinite correspondence is illusory in its apparent quest for diversity. So it is not so much "multiculturalism",[46] as conditional multiculturalism.

3.2. Notions of property and hierarchy within an animist ontology

Derived from his field experience with the Saami in Finland and his observations from fellow anthropologists' accounts on other circumpolar animists, like the Cree, Ingold devoted several articles in the 1990s to the debate on the division between nature and culture, body and mind. He challenged the conceptualization of domestication and cultural transmission from a neo-Darwinist evolutionary perspective (Optimal Foraging Theory), insisting instead on the importance of actual experience, generational choices, and the landscape as dwelling.[47] One of these articles treats the

[45] Robson 2008: 463.

[46] Descola 2013: 173.

[47] Ingold 2000.

alleged differences between hunters and pastoralists regarding their perception of animals.[48] Drawing from his own and others' witnessing of hunters referring to their prey as willing to surrender themselves to the hunter, and the sexual nature of their comments, suggesting a game of seduction, Ingold takes this literally and draws a sharp distinction between animist hunters' views and those of pastoralists who, by objectifying animals, can then establish ownership and domination over them. Ingold's definition is close to what Graeber understands by 'nurture' among many Amazonian peoples (domesticates are dominated and consumed, but also treated with responsibility and care). Thus:

> Herdsmen do indeed care for their animals, but it is care of a quite different kind from that extended by hunters. For one thing, the animals are presumed to lack the capacity to reciprocate. In the world of the hunter, animals, too, are supposed to care, to the extent of laying down their lives for humans by allowing themselves to be taken. They retain, however, full control over their own destiny. Under pastoralism, that control has been relinquished to humans. It is their herdsman who takes life-or-death decisions concerning what are now 'his' animals, and who controls every other aspect of their welfare, acting as he does as both protector, guardian and executioner.[49]

Since the time of publication, several anthropologists have challenged Ingold's radical distinction. One of the best argued comes, in my opinion, from Willerslev, Vitebsky and Alekseyev's *Sacrificing as the ideal hunt*,[50] where they posit that domestication allows for the sacrifice of the animal in a controlled context, thereby relieving the pressure of the hunt in the wild, subject to violence, contingencies, and negotiations with "masters of animals". Domestication is thus not only an economic affair, but a cosmological one: it hinges upon the animal's trust. Just as Ingold argued that the animal's trust allows for their surrendering to the hunter, so—these authors argue—reindeer would have trusted pastoralists at the time of their taming. The authors pool here their combined knowledge on the Chuckchi, Koryak, Eveny, and Yukaghir of northeastern Siberia. The first three are herders and hunters; the Yukaghir never adopted the domestic reindeer, just as the tribes of North America never tamed the caribou. There are socio-economic differences between the Eveny of Yakutia and those of Kamchatka, depending on recent historical impact (Communist interventionist policies) more than on location. Yet, all of them are animistic. "All are highly concerned with the ritual treatment of the bones of the dead, humans and animals alike, so as to ensure their continued rebirths".[51] According to them, domestication as 'selective breeding' cannot be easily applied to Siberia "despite traditional practices and the Soviet state farm's scientific management regimes". For instance, with the exception of the leader, most of the herd animals are only relatively tamed, reverting easily to a feral state if unattended. But the authors are mostly interested in the motivations and psychology of the narratives of hunters when they

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48 *Ibid*., Ch. 4.

49 *Ibid*.: 72.

50 Willerslev, Vitebsky and Alekseyev 2014.

51 *Ibid*.: 4.

describe how the animal gives itself up. They give several examples from Evenki, Eveny and Yukaghir hunters,[52] redolent with erotic undertones (for instance, involving the daughter of the master of the animals, or the dreams of a hunter where the animal spirit had sexual intercourse with him on the night previous to the hunt),[53] but the authors also quote several scholars who have challenged such idealizations, or those of the bear sacrifice rituals, mentioned also by Descola. Their position is somewhat in the middle:

> We agree with Knight [who criticizes Ingold's notions of egalitarian sharing among hunters] that human-animal co-sociality is found rather with pastoralists, whose animals have shed their fear of humans as predators, and will make use of Smith's notion of idealization (though he is quite wrong when his 'common sense' leads him to expect a hunter to boast of his prowess—that would be a sure way to anger the animals and their spirits). But we are not keen on the way this kind of no-nonsense critique tends to reduce hunting to a rational, practical art of predation (similarly to ecologistic theories about the domestication of reindeer). None the less, it is hard to deny that Smith and Knight have a valid point. (…) Why is it that the selfsame ethnographies that describe animals as willing prey often also present drawings of an arsenal of devious traps, deadfalls, and self-triggering crossbows, designed to catch animals unaware? Worse, Hitoshi Watanabe reports how the Ainu used to kill the brown bear by using poisoned arrows.[54]

For these authors, the songs and dances,[55] special clothing, eroticism, euphemisms or avoidance tactics employed to refer to prey either before or after the hunt, all point to their being trapped in a paradox, which they call the 'double bind', after Gregory Bateson's terms for two messages or rules negating each other in a communicative matrix. A rock and a hard place. So double binds are at the root of both creativity and schizophrenia, and—the authors add insightfully—ritual.

Willerslev describes very well the tensions inherent to animistic ontologies in a particular account, a second-hand transmission referring to a friend's mother, a "shaman" (*a'lma*):

> When I was a child, my family lived at the Shamanika River. It was before we moved to Nelemnoye. At times, the men had no luck in hunting and we starved. Then, my father would ask my mother for help. "**Do you want me to sin again**?" she replied. She was not keen on using her powers, but only did so when we had nothing to eat. All the members of the family gathered in one room. A willow bush with four branches was placed on the floor. Then my

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[52] See *ibid*: 6f, with references.

[53] See Kopenawa's (Yanomami leader) narrative on the "water people" and the daughters of Teperesiki, who ensnare young hunters by capturing their image (Kopenawa and Albert 2013: 46f).

[54] *Ibid*.: 8, with references.

[55] The Yukaghir at the beginning of the century expressed mimetic empathy with several species through their dances, and according to Willerslev (2007: 109), women do not hunt anymore but they still dance. The sensuality of the elk and reindeer hunt is, however, more noticeable than with other animals "that are trapped for their fur, the sable, fox, wolverine, and wolf". The dreams of the hunters who want to trap these other animals deal instead "with receiving gifts of money from the spirits", and depending on the amount of coins or bills that the hunter receives in the dream he may infer the number of the animals that he will catch.

mother started walking around on her hands and knees, mimicking the movements of an elk. On her neck was placed a small child. After a while, she would go into some kind of trance, grunting and swinging her head back and forth like an elk. Eventually, she would approach the willow bush and begin to eat its shoots. At this point, my father would give me a small bow and arrow and say, "you see the elk, go and shoot it in the heart." So I did, and she fell to the ground, kicking her legs like a dying elk. My father would then help my mother to bed. She was exhausted. All she said was that the hunters should go to a particular spot in the forest, where a willow bush with four branches was standing. There she had tied up an elk. **She said that they shoot it in the heart so that it wouldn't suffer.** It worked every time. The men always returned with elk meat. **My mother never ate of the meat, saying that she would die if she ate it.** Also people in general were afraid of eating it. In fact, some people would rather starve than eat the meat.[56]

The Yukaghirs' understanding of the rightful relationship one should have with the game masters, who may choose to withhold prey if humans have committed some transgression, is crucial as a moral background.[57]

Retaking here Willerslev and colleagues' proposal, that is, the need to overcome a double bind as a factor towards domestication and sacrifice, which would explain why "the ideal hunt has the same logic as the typical scheme of sacrifice among pastoralists",[58] a further example will help illustrate the lack of a clearly defined boundary line. The Chukchi and Koryak sacrifice reindeer on the occasion of a funeral or at an autumn ritual for the dead, and is thus described:

Such reindeer must be perfect and unblemished, with no limp or broken antlers. People dress in their finest fur clothing, highly decorated with coloured bands and beadwork, to please not only other humans but also the reindeer, which is said to take pleasure from its owner's colours. **The reindeer is captured from the herd by lasso** and dragged to the sacrificial place. People sing to calm the animal down, saying that it must not be frightened but be **a willing victim, otherwise the sacrifice will not be accepted by the spirits.** It is of paramount importance that the reindeer stands stock-still and does not resist. If it is not killed at the first blow, this means that the spirits do not accept the sacrifice. The reindeer's head is placed so that it faces the direction of the receiving spirits. A branch of willow is put under its hindquarters as a 'bed' so that it does not get cold, and water is smeared on its nose to quench its thirst. After a short prayer, 'This is for you', or **'Oh High Spirits, this is for you, make the herds thrive',** the entire animal is cooked and **eaten by everyone**.[59]

What matters here is that the use of diversionary or manipulative strategies can have consequences. "The Yukaghir, for example, with their absence of pastoralism, fear the Eveny as sorcerers, since they use their magic to do what only Khozyain (the spirit master) should be doing by riding on the reindeers' back: "It's a great sin and

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[56] Willerslev 2007: 125f, my emphasis. Willerslev illustrates the ability of the shaman to transform into another animal (first mimesis, then metamorphosis), with the concomitant risk of losing his/her identity, or quite simply, his/her inability to eat the meat that is hunted through the metamorphosis (*ibid*: 127).

[57] *Ibid*.: 128ff, with further references.

[58] Willerslev, Vitebsky and Alekseyev 2014: 10.

[59] Loc. cit., with references.

the reason why the Eveny suffered much hunger in the past. Khozyain likes his children to run free"".[60] But what would the Eveny say? How would all initial domesticators have justified their crossing the line?

Another way to avoid direct confrontation may be through the carving of figurines. According to the authors, the Evenki, Mansi, Ket, and Khanty use them "on the principle that if the pictorial soul is in the hunter's possession the animal itself will follow soon".[61]I will finally refer to the authors' final example of the cosmological similarities of hunters and herders in Northeast Asia with the bear sacrifice ritual (Amur Gulf area, Siberia and northern Japan, with variations, as seen above for the Khanty). A bear cub will be captured and raised into adulthood in a domestic setting (it may be even breastfed).[62] The bear will be sacrificed when it reaches adulthood and the ritual follows very strict aesthetic and performance rules, including the taunting of the animal prior to, though not immediately before, its death. It will finally be killed through an arrow into its heart, its body eaten by all, head and fur positioned towards the mountains, and eventually its bones reassembled. The fact that the bear is taunted and teased before its killing is explained thus by the authors:

> We suggest that the importance of the bear's growling from fury is not its 'humiliation', as has been assumed by observers of the festival, but quite the opposite: it renders beyond any doubt that its **death is not enforced upon it either by magical means or by superior force**. The bear's struggle asserts that it is not a slave to be commanded at the will of others, but a **genuinely sovereign free spirit**. Only at the moment of death must it cease to show fury, since this would turn the signs of its sovereignty into a defeat and humiliation, and thus a refusal to co-operate.[63]

To conclude, does this mean that what these authors are claiming—namely that a sacrifice provides animists for an ideal controlled setting to satisfy the rules of engagement with one out of two super-predators (species masters and the dead)—may be extrapolated to any first domestication scenario? The answer is yes and no, of course, but it certainly does help to wonder about an artificial division between the sacred and the profane. What the Siberianists are mostly suggesting is that

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[60] Willerslev, Vitebsky and Alekseyev 2014: 14, based on Willerslev's field notes.

[61] *Ibid*.: 13, *apud* Lissner 1961.

[62] Although the Guajá of Amazonia hunt and eat howler monkeys, they also keep them as pets. Those monkeys become part of the family, and baby monkeys may also be breastfed by their human mother. Cormier (2003) considers how pets form part then of a predation/reciprocity cosmological ecosystem, and compares the Guajá to other Amazonian peoples, like the Tupinambá, who practiced cannibalism and called their human captives "pets". The Guajá behave towards their pets like their *iwa* divinities do towards all game. "The Guajá benefit from nurturing the animals in that they provide companionship, function in the socialization of children, and are a symbolic adjunct to female fertility. (…) Game animals can also be considered to benefit in that their consumption affects their transformation into a sacred form in the *iwa*." (*ibid*.: 87f). Although howler monkeys are referred to as "formerly human", most other monkeys and prey animals in the Guajá cosmology "have undergone two transformations, from human, to cannibal ghost, to prey animal" (*ibid*: 89). Perspectivism applies to the underground, earth and *iwa* sky home. Incidentally, among the Guajá, there are no shamans.

[63] Willerslev, Vitebsky and Alekseyev 2014: 15f.

cosmological reasons underpinning shared communal life should be taken into account. But they are doing so based on extensive ethnographic knowledge, which we lack. What the authors do not tackle here are concepts of property and hierarchy.

Ontological differences based on hierarchical notions were proposed by Pedersen for this region of the world, suggesting a division between northern and southern North Asian peoples:

> Put simply, whereas the societies of NNA organize the world horizontally (through notions of charismatic leadership, egalitarian ethos, bilateral descent, direct exchange, and orally based shamanist religion, etc.), societies of SNA organize it vertically (through notions of inherited leadership, a hierarchical ethos, patrilineal descent, indirect exchange, a script-based Buddhist religion, etc.).[64]

Pedersen's proposal was later challenged by Willerslev and Ulturgasheva, who, on the basis of their experience with the Chuckchi, the Eveni, and the Yukaghir posited instead that animism and totemism are co-dependent.[65] Their arguments come mostly by observing the role of the dead and specifically some ancestors' intervention in the world of the living. These relationships with ancestors also mean that property ultimately belongs to them, regardless of the main mode of subsistence of the social group.

Humphrey—whose work in Mongolia is frequently quoted by Pedersen to sustain his arguments of cosmological and social vertical relations—gives some interesting observations on notions about property in this region. Despite the impact of Buddhism, and the more recent, invasive one from the Soviet era, Mongolians exhibit in death rituals a personal attachment to things that goes beyond communist or capitalistic ideas of personal property.[66] For instance, Humphrey considers the removal of all valuables from a dying person as due both to Buddhist and animist notions that seek to render the soul of the person free and unattached. There may be a particular object, a "refuge thing", that could prevent this freedom in passage.[67] Mongols frequently prefer old things, well worn, with histories. Their social understanding of property, including land, was put to the test in the communist era:

> Pastures (and land in general) up to the 1990s were public property, that is, used by households subject to the control of institutions such as princely fiefdoms and monasteries or, more recently, to that of brigades, collectives, and the state [citation]. This does not mean that there were no personal ties to land. **People had accustomed seasonal pastures which they would call 'mine'. But there was also a relation to land equivalent to that with the refuge thing**. The *toont gazar* is the particular spot where each individual's afterbirth was buried, a place one is reverentially drawn to and should never forget. **If someone is ill or dispirited, he should privately go and roll in the earth at this place, a sacred act of becoming physically part of it, 'as if one belonged to that land'**, as one Mongol confided to me.[68]

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64 Pedersen 2001: 419f.

65 Willerslev and Ulturgasheva 2012.

66 Humphrey 2002.

67 *Ibid*.: 67.

68 *Ibid*.: 69.

Humphrey's observation here is essential to understand why property does and yet does not matter. It is something that evolved from a notion of 'belongings' to 'ownership' in a legal sense with the emergence of territorial centralization/cultural homogenization in many regions of this world, but in some societies, it retains an ambiguous nature, that is, possessions have the same embedded potential that colors all material in inter-personal and inter-group relations. Humphrey also notes how, perhaps paradoxically, whereas funerals in Mongolia at the beginning of the century would have been more concerned with the "buying of land" and purification, during the Communist years where Lama Buddhism was denounced as corrupt, more attention was actually paid to personal possessions and their multi-layered expression of the deceased's relations with family and within the community.

Returning to the subject of animal property and domination, two more examples may also contribute to our realization that this kind of correlation should not be taken for granted. The first comes again from Mongolia. It pertains to the fieldwork conducted at two locations in the Khangai mountain chain.[69] In Khujerin Valley, Fijn could share the lifestyle of eight herding families owning different amounts of sheep, goats, cattle and horses for the duration of a summer. Two families combined their sheep and goat herds but kept their cattle and horses grazing separately. In a different location, her hosts kept yaks and yak-cow hybrids, better suited to the higher elevations. One of her initial observations here was that someone living in the *ger* of her host was initially referred to as a sister, although she later realized that they were not genetically related.[70] Throughout the 20th century, many families had to give up their herds and join the wealthier families, in temporary or permanent arrangements. Moreover, at this location at least, she observed that many of the people were related through descent or marriage.

Fijn as well finds that 'nature' and 'culture' for Mongolians are not in the same opposition as for us.[71] Although they distinguish between herd animals and animals outside the domestic sphere, the attention they pay to the individual characteristics and personalities of their herd animals renders the domestication-domination equation unsatisfactory.[72] After months of fieldwork, Fijn concluded:

> Mongolian herders and herd animals rely on one another in a reciprocal relationship of co-dependence. (…) Herders refer to the co-domestic herd animals simply as the five kinds of animal, or tavan khoshuu mal (horses, cattle, sheep, goats, and camels) (…). Herders allow the herd animals to retain their inherent social structure, which is similar to the herding families' own social structure; the two groups engage with one another in a cross-species **ecosocial** landscape, specifically the co-domestic sphere of the herding encampment (khot ail); herders name individual animals and recognize these animals as persons with individual

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69 Fijn 2011.

70 *Ibid*.: 13.

71 The Mongolian word for culture, *soyol*, comes from soyo, "sprout". Hence, culture can be seen as "an offshoot from the parent plant one ('existence'), and becoming itself a parent plant it gives rise to further offshoots (in succeeding 'existences')" (Fijn 2011: 42, *apud* Tseren 1996: 148).

72 See Fijn 2011: 18ff, 41-54, and Chapters 6 (defining "tameness" and the selection of animals capable of bonding with humans) and 8 (seasonality and the importance of reincarnation to understand the need for balance).

characteristics and personalities; herder and herd animal enculturate each other through the use of species-specific vocalizations and body language as a means of communication; and herders habituate the herd animals to humans from a young age, encouraging a lack of fear and a relationship of trust. (…) **Humans and non-humans co-exist within a cross-species social structure and hierarchy**, forming separate but interacting herd societies. (…) A herder's whole cosmology and world view encompass other beings. Humans and non-humans are engaged in a constant cycle of death and rebirth through reincarnation. **The expectation is that positive and respectful behavior towards other beings will be reciprocated** in kind. A fascinating example of this is the designation of a *seter*, a sacred animal within a herd**.** The seter as an individual exemplifies the animals within a herd, containing heightened powers to protect the herding family[73] and other herd animals from harm. In exchange, the *seter* is never killed or eaten by the herding family.[74]

The second example comes from Dransart's work on Andean yarn and fabric making, and her experiences with a herding Aymara community in the Chilean Andes in the 1980s and 90s.[75] Through her inclusion of archaeological material in the region of Tulan Quebrada, Dransart achieves in this complex ethnographic work a diachronic depth on camelid pastoralism and the use of fleece and fabric in the Andes. She thinks that a natural transition between hunting and pastoralism was the most likely scenario for the domestication of camelids in the Andes, comparing it to reindeer in the subarctic and sheep and goats in the Namib desert.[76] Once domestication was under way, hides and fleece became fundamental: "Since most llamas and alpacas are slaughtered at the age of seven or eight years, an animal may be shorn two or three times during its lifespan. If the fleece which is pulled from the hide after the animal dies or is slaughtered is taken into account, the owner may expect to gain as much as four times the amount of fleece from one domesticated camelid as from a hunted one".[77]

The archaeological record reveals that the bones provided nutrition and tools—either for harvesting potatoes or for weaving—, the hide was used for drums, the leather of the neck provided strips for binding beams in construction. However, through her experience with the people of Isluga, Dransart rejects previous ethnographers' materialistic understanding of pastoralism in the Andes. Like Fijn, she finds that caring for a herd generation after generation affects animal-human relations. In the third chapter of this volume, she gives an account of seasonality and celebrations. Aymara cosmology is clearly animistic, despite the apparent unconflicted symbiosis with Catholic saints and festivities. The dead inhabit ancient structures, or standing stones, and lead a parallel existence. They are offered cooked food in outdoor rituals (small pieces are thrown into the fire), "unlike the powerful

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[73] Protection from death or illness of a family member. See Fijn's discussion on the practice of selecting a sacred animal across Asia, 46f.

[74] *Ibid*.: 241f.

[75] Dransart 2002. Her unease with Ingold's trust/domination dichotomy is briefly formulated in p. 7. As many others, Dransart is also uncomfortable with the exaggerated perception of a main subsistence activity to define "pastoralist" societies.

[76] *Ibid*.: 9-14.

[77] *Ibid*.: 12.

spirits who consume uncooked llamas and human beings".[78] Time reversal myths across the Andes, and how it affects landscape futures and its inhabitants, clash with our modern conception of chronology and land property. Even when Dransart refers to camelids in the Andes and their classification, this is interspersed with snippets of cosmology, like the section devoted to birds, their status as good or bad auguries, and the importance of water birds after which llamas and alpacas may be named.

Animals can be identified individually by all villagers. Llamas, alpacas and hybrids are identified by species, age and sex, the fact that males be castrated or uncastrated, or females sterile, and the colour of the fleece, all of it resulting, particularly because of the latter trait, in an extremely complex nomenclature.[79] Significantly:

> Herders in Isluga never count their llamas and alpacas to see if all are present, although they may count their sheep, which are not easily distinguished from each other. **No matter how large the herd,** and even if for some reason a herder is also caring for a relative's herd in a combined group which contains twice as many animals as usual, **the herder checks that all are present by observation**.[80]

Although *uywa* in Aymara means 'domesticated', 'cared for', animals like condors, foxes, pumas, monkeys and ducks may be included in this category, at least according to fieldwork in Bolivia.[81] The *wayñu* ceremony, called by different names in Aymara, Quechua and Spanish throughout the Andes, gets a whole chapter because of its crucial importance to understand the co-dependence of Andeans and their herd animals. It is qualified by Dransart as a rite of passage. The animals that come of age wear felt flowers and other colorful adornments throughout the festivities. Each family arranges for this celebration in honour of their animals, Pachamama (time/ earth goddess) and the *uywiri* (general name for different male and female spirits conforming the surrounding landscape, which will be appeased during this celebration with a sacrifice), but the *wayñus* take place more or less at the end of the herding year. And yet all the villagers participate and attend the others' *wayñu*. This ritual illustrates, in my opinion, how difficult it is to assign to domesticated animals, and by extension, the land, an unambiguous value as 'commodities'.

Since inconsistency and paradox are also inherently human, and by extension, social, it would be theoretically possible to argue that many societies are capable of sustaining dual or multiple ontologies without apparent conflict. Modern ethnographic examples are hard to understand in terms of the assessment that the cultural and economic impact of colonialism/communism-capitalism has had on them. One of the trailblazers in a renewed interest of the conceptual possibilities of 'animism' was Bird-David and her work with the Nayaka of India. Her seminal work in 1999 ushered a multi-stream of anthropological and archaeological possibilities. Later articles, in collaboration with Naveh, has tackled, among other issues, how inappropriate it is to equate animism with environmentalism or conservationist

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78 *Ibid*.: 64.

79 *Ibid*.: 66-80.

80 This stands in contrast with interpretations of 'tokens' and pottery sherds as mnemonic devices used to count animals or animal products (see below, Chapter 4).

81 Dransart 2002: 80, *apud* Urton and Llanos 1997: 130.

policies.[82] Bird-David and Naveh's arguments are that Nayaka choose with whom they establish close relationships, and for the last decades, signs of apparent inconsistencies pertaining to those choices emerge. I will revise here some of their most relevant observations.

The Nayaka live in the Nilgiri hills, in the border-area of Tamil Nadu, Kernataka and Kerala. They subsist on gathering and hunting, in combination with trade and wage work, but for the last decades they are relying increasingly on the clearing of forest tracts either for agriculturalists, or to make their own small tea and coffee plantations. This is happening despite the area being protected as a biosphere since the 1970s by a UNESCO-run program. The Nayaka engage and communicate with *devaru* —which may be animals (e.g. elephants, monkeys, parrots and snakes), trees, rocks, or other landscape features— during trance-gatherings or in everyday life. Ills and misfortunes may happen if good relations with *devaru* are not maintained. Even if elephants may enter a village causing massive destruction, they will talk to and endeavor to find reasons for this behavior since elephants have *budi*, 'awareness' or 'wisdom'.[83]

However, the Nayaka may show lack of empathy, or even cruelty, with alien species. For instance, "when harvesting medicine plants commissioned via local non-Nayaka dealers by Indian Ayurvedic companies (and some Nayaka admitted to having no idea as to the use of these plants), the same men and women took part in over-harvesting which resulted in the eradication of these plants in a radius of one or two days' walk around several Nayaka villages."[84] The authors provide additional ethnographic examples where several hunter-gatherers across the world behave differently towards certain species, depending on whether they assign them personhood or not, but sometimes they have also violated their principles (within a colonialist or market-economy framework).[85] Bird-David and Naveh therefore conclude that, since the Nayaka have not established familiar relationships with the domesticated species that allow them to diversify their economies:

We propose that the incipient emergence of animals and plants as things among Nayaka occurs in contexts where there is a departure from immediacy in an expanded socio-economic sense of the term. (…) Put in simple terms, we propose that this occurs if a yield is not consumed shortly after its production, and/or by those with whom the producer has immediate relations, and/or in its original form, and/or by being procured as a means to obtain something else through barter or sale (with selling being an additional stage of departure from immediacy than bartering) –all these, we argue, each alone and in different combinations, act as routes of departure from immediacy that involve the 'coming into being' of animals and plants as things, not persons.[86]

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[82] Something that "indigenous peoples" also denounce, albeit for different reasons than Bird-David.

[83] Bird-David and Naveh 2008; Naveh and Bird-David 2013, 2014.

[84] Naveh and Bird-David 2013: 33.

[85] See bibliographical references in Naveh and Bird-David 2013: 34. In Naveh and Bird-David 2014: 79f, a Nayaka man describes himself, and every species in the forest, as *mansan*, but dogs, cows, chicken and tea are contemptuously dismissed, they are not people.

[86] Naveh and Bird-David 2014: 83.

Now, not only this is far too convoluted, but it clearly ignores the fact that sedentary or semi-sedentary hunter-gatherers are very much concerned with seasonality and storage, and that cultivation is practiced by many peoples who share a similar understanding of relationships with non-humans as hunter-gatherers do. The reasons for an objectification of certain domesticated species are not to be found in economic rationales, in my opinion, but in ontological ones, and as the discussion in this section has shown, the ontological shift cannot be automatically correlated to the confirmation of phenotypic domestication, or to a "secondary product" animal exploitation. The simple conclusion is, in my opinion, that an alien ontology has been superimposed upon certain isolated communities for the past two centuries at such speed that it has not permitted gradual ontological negotiation.

The main question we could ask ourselves is: what happens for a person to turn an animal or a person into an object, perceived as having limited or irrelevant intentionality, and believe that there are no consequences, no punishment, to that way of thinking and acting? When your survival depends upon keeping a strenuous balance with all the "persons" inhabiting the landscape, can one counter an 'economic' drive with 'ritual' strategies to appease the beings that govern life renewal? If so, those strategies would have searched for continuity with past practices, and this would explain why domestication may have taken three millennia, but domestication as domination took more than five, and even then, agency attributed to cosmic and natural elements to ensure fertility persisted.

3.3. Animal domestication in the prehistory of Southwest Asia

The slowness of the process from husbandry strategies to actual farming, and the parallel use of zoomorphic figurines accompanying the transition from wild to tame animal, strongly suggests that the peoples settling down in the first villages of Southwest Asia did not experience a radical ontological shift, but rather that they changed their cosmological views to adjust to new responsibilities. From the ethnographic experiences described above, we could infer that, once domesticated animals became the direct responsibility of a settled group, they would have been treated as part of their caretakers' social life.

The long path that eventually led to morphological and behavioral changes in certain animal species is studied by culling patterns analysis, "isotopic and phytolith evidence for foddering and manipulation of herd mobility, geochemical evidence for penning and the use of animal dung, morphometric approaches to population dispersals, as well as the results of paleogenetic studies".[87] Animal domestication in Southwest Asia saw a very long development of systems of animal husbandry, following different trajectories in different regions.[88] All of these trajectories start after the "PPNA", spanning approximately two and a half millennia, as shown in

[87] Arbuckle and Atici 2013: 219.

[88] Arbuckle 2014.

Chapter 2. Aurochsen, for instance, seem to have been domesticated first in northern Levantine and southeastern Anatolian sites, but in Central Anatolia morphological domestication is not confirmed until the 7th millennium BC. With herd animals, it is generally assumed that the targeting of young males signals incipient domestication, and this did not happen until the mid-8th millennium BC in the Middle Euphrates region (e.g. Acarçay Tepe, Tell Halula, Tell Aswad).[89]

First pastoralism was probably low-scale and local. Renewed research at Aşıklı Höyük in Central Anatolia have detected incipient management of caprines for their meat since the first sedentary stages, when the community was nothing more than a hamlet relying on a broad range of wild plants and animals (Levels 5-4).[90] The small community began to keep small numbers of sheep and goats in enclosures between their tauf houses by around 8300cal BC, according to phytolith and micromorphological traces found in preserved dung concentrations. The team posits that lambs and kids may have been taken from the wild and then fed in captivity until they had grown large enough to slaughter, particularly young males before the age of 6-7 months. "While stabling may ultimately result in genetic isolation of a caprine subpopulation in the long run, breeding animals in captivity may not have been people's plan from the start."[91] Although the skeletal health of young sheep during the initial stages was not good, in fact worsening through Level 3, significant improvements in joint health (fewer lesions)—in combination with a change in diet detected through collagen isotope analysis—suggest that small-scale transhumant pastoralism began in Level 2.[92] Enabling the thousand years of steady demographic growth at Aşıklı (estimated to have been at least ten-fold), this increasing reliance on husbanded then domesticated sheep and goats, which had reached 92% of faunal remains by the final phases of Level 2, speaks of a successful mutualistic strategy followed by these settlers: pastoralism was a human adaptation to ensure the welfare of herd animals.

To understand the vagaries of these earliest paths towards mutual co-dependence, the island of Cyprus has also provided very interesting insights. Several animal species were introduced by the island's inhabitants in the 8th millennium BC.[93] The reduced animal size for suids, sheep and cattle at Shillourokambos, Phase B, was confirmed, "but morphological analyses and the slaughtering profiles suggest that (almost?) all the goats and approximately half of the suids were wild/feral and were obtained by hunting, while sheep and probably cattle were bred."[94] The presence of fallow deer, wild boars and semi-domesticate goats shows evidence of initial intervention. Sheep were introduced on the island as already smaller animals, similar to those found at Tell Aswad, and with time herded for both meat and milk in a more intensive manner than before, but after an apparent period of stress and malnutrition, "new larger-sized lineages abruptly appeared, possibly introduced from the central

89 Arbuckle and Atici 2013.

90 Stiner, Özbaşaran and Duru 2022.

91 *Ibid*.: 515.

92 *Ibid*.: 516, and references therein.

93 Vigne et al. 2011.

94 *Ibid*.: 259.

or southern Levant".[95] It is only during the last phases that herding concentrated on meat and possibly hair production.

By the end of the 7th millennium BC, dairy products seem to have been incorporated to the Neolithic communities' diet.[96] Spindle whorls had appeared a few centuries earlier, which may indicate that fleece or hair was used in combination with plant-based fibers for textile production.[97] The earliest spindle whorls so far retrieved come from Operation III at Sabi Abyad in Syria, dating to ca. 7000-6200 BC.[98]

Fully developed pastoralism as a socioeconomic response to the 8.2 ka event (ca. 6200 BC), posited by Rollefson for the Southern Levant in general and 'Ain Ghazal in Jordan in particular,[99] appears to have been, three decades down the line, an exaggeration. The 'Ain Ghazal team posited that arid conditions led to seasonal pastoralism in semi-desertic areas as a response strategy, which in turn led to increased anthropogenic stress, and to eventual collapse.[100] Recent studies on faunal analysis at discrete settlements east of the Dead Sea, which grew to be large villages during the 8th millennium BC (the so-called "megasites") have revealed that they never stopped practicing hunting, and that the proportion of hunted equids increased at 'Ain Ghazal as well during the last phase. This adaptation to climatic stress was also observed at El Kowm, in the Syrian semi-desertic steppe.[101] Makarewicz, who has been investigating faunal patterns in the PPN Jordan sites for decades, has proposed the following scenario: "In the moister environments of northern Jordan, sheep and goats were intensively husbanded while regular hunting of boar, aurochsen, and gazelle provided additional sources of animal fats and proteins. In contrast, LPPNB animal use in southern Jordan, in general, focused almost exclusively on sheep and goats along with some hunting of gazelle and wild goats, probably ibex, but minimal exploitation of swine or aurochsen".[102] Hunting persisted or intensified throughout the 8th-6th millennium BC in the badias of Jordan-Arabia.[103] Equids were hunted, too, in other areas of the Syrian steppe and the Jezireh.[104]

The work conducted by Russell with the evidence from Sabi Abyad, Op III, shows some fluctuations on animal strategies throughout the 7th millennium BC, but

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95 *Ibid*.: 263f.

96 See Hendy et al. 2018 for lipid analysis conducted on ceramic sherds from Çatalhöyük (cooked milk and cereals).

97 Helmer et al. 2007, Saña and Tornero 2012.

98 Rooijakkers 2012.

99 Rollefson and Köhler-Rollefson 1992.

100 The presence of "rubble layers" observed at several Levantine sites in the transitional period established between the PPNB and PPNC may have been due to earthquake destruction, as observed at the inter-montane site of Ba'ja sometime during the second half of the 8th millennium BC: Gebel et al. 2017.

101 Wasse 2019: 274, with references.

102 Makarewicz and Mahasneh 2020: #22.

103 Rollefson et al. 2018; Rosen 2017. On the desert kites to trap gazelle, see contributions to Betts and Van Pelt 2021.

104 Wasse 2019.

no clear evidence of long-distance seasonal transhumance.[105] Based on her estimation of the population of Sabi Abyad during the late 7th-early 6th millennium BC, Russell estimated that around 600 sheep and goats would have been kept at the site, although she admitted that the figure was based on (contemporary) ethnographic data.[106] Significantly, small-scale ovicaprid pastoralism is not only affected by environmental factors but also by the availability of labour. Henton's work on herding strategies at Çatalhöyük, based mostly on stable isotope analysis and dental wear of sheep and goats, led her to conclude that long-distance transhumance was not even practiced at the end of the East Mound occupation, when there is some evidence for seasonal mountain grazing.[107] The conclusions of this study were later confirmed with new data.[108] Around 6450 calBC, ovicaprids significantly increased, consumption of wild game declined, and pigs almost disappeared. But domesticated cattle will be attested only towards the end of this millennium. Research on the late adoption of domesticated cattle in Central Anatolia, in stark contrast with neighboring regions, led Arbuckle to argue for a cultural choice in connection with the symbolic meaning of aurochsen.[109] Similarly, Arbuckle and colleagues extend this argument to encompass the eastern portion of the Fertile Crescent (northern Iraq and Western Iran), where domestication of this animal is not confirmed until the 6th millennium BC.[110]

An overview of livestock keeping and hunting practices in different areas of Anatolia until the 4th millennium BC (examining also evidence for textile production) led Schoop to the conclusion that these were highly flexible and variable, despite more or less generalized ovicaprid primacy.[111] At 6th millennium Chagar Bazar in the Khabur, the faunal analysis shows that sheep, goat and pig represent 82% of the total, though with noticeable contributions of gazelle and equids, whereas at Shams ed-Din on the Euphrates or Umm Qseir in the Khabur the proportion is inverted.[112]

Studying pastoralism in the Central Zagros by taking stock of villages and seasonal campsites, Abdi concluded that significant mobility—semi-nomadic or long-distance transhumance—did not take place until the mid-Chalcolithic at least

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[105] Russell 2010: 237f. Variations in carbon and nitrogen isotopes in ovicaprids suggest a varied diet that included grasses (C_4 plants), but she couldn't argue for long-distance pastoralism conclusively. Foddering may have been responsible for less isotopic variability since ca. 6225 BC, perhaps indicating a strategy "to cope with a decrease in quality grazing pastures available locally due to an increase in aridity". Slightly earlier, cattle and pigs proportions had decreased, as well as those of wild animals.

[106] Russell 2010: 253.

[107] Henton 2010. See also Chapter 5 *re* Pınarbaşı.

[108] Bogaard et al. 2013.

[109] Arbuckle 2013.

[110] Arbuckle et al. 2016.

[111] Schoop 2012.

[112] Cruells et al. 2013: 476.

(=mid-5th millennium BC).[113] Spindle whorls are attested in the Zagros in the second half of the 6th mil. BC,[114] considerably later than in the Northern Levant.

One would think that most early communities would have shifted their strategies to a main source of subsistence (i.e. the eight crops and/or ovicaprids) by the 6th millennium BC, with small supplements coming from other food sources. Yet, the picture that is now emerging denies that, supporting initial heterogeneity.

Once domestication became widespread, what were the strategies employed by these sedentary communities when juggling the different requirements of keeping crops and animals? If pigs are the easiest to feed, they are also in turn the most resistant to mobility. Cows require abundant foddering in the winter. Sheep and goats can feed on vegetable matter after harvesting, while providing manure, but they also need to feed from different pastures. Goats are mobile and resilient. Sheep tend to stray. An added problem is that assumptions on the growth and productivity of domesticated animals come from modern ethnographic examples. During these early times, animals may have grown more slowly and been less fertile. Therefore, the incorporation of animals into the domestic sphere did cause an ontological separation between the wild—still presumably governed by beings more powerful than humans—and the village, where primary care to ensure animal welfare was now the responsibility of humans. The sharp decrease in hunted animals as sedentism consolidated may have been the product of a perceived negotiation with those powerful agents. Animal figurines may have featured prominently in ritual related to that negotiation (see below).

In conclusion, until the consolidated growth of sedentary communities in the 5th millennium BC, we do not have persuasive evidence to posit that a particular subsistence option was selected for anywhere in Southwest Asia. Instead, there is a general adoption and maximized exploitation of the domesticated species available, and opportunistic hunting and fishing. To ensure animal welfare, short-distance pastoralism became the main solution. Responsibility for fully socialized animals happened gradually and probably involved the group as a whole (collective, not family task division). Since broad-spectrum strategies, only now including domesticates, persisted for centuries, this implies that a respect for balance-keeping was incorporated to the new relationships with alterity, and this seems to be confirmed by the long persistence of mixed human and animal bone burials and animal symbolism, as seen in the following chapter. Nevertheless, the reluctance of Central Anatolians to tame and control a powerful animal, the aurochs, suggests that this transition would not always have been smooth.

[113] Abdi 2003. For a thorough diachronic overview on the topic of pastoralism until the 2nd millennium BC, see Arbuckle and Hammer 2019.

[114] Alizadeh 2006: 5 (Tal-e Bakun B).

CHAPTER 4. VISUALIZING ANIMISM THROUGH THE MATERIALITY OF THE NEOLITHIC

This chapter intends to show how animistic values, as defined above—not as religious, but rather as relational, encompassing all kinds of persons inhabiting the world through the negotiation provided by ritual—were expressed in the concrete materiality of first sedentists in Southwest Asia, who happen to be the first sedentists in the world. I will not reach here the 5th millennium BC, but as will be seen in the following chapters, this region—as well as neighboring ones—remained in the same basic ontological background. I will conclude this chapter by focusing on two types of material that are conceived as precursors of record-keeping devices, linked to (in my opinion, premature) notions of property.

4.1. Exploring materiality in an animistic ontology

4.1.1. Introduction

Despite the efforts made to include animated material into the heuristic exercise of dealing with heterogeneous assemblages in prehistorical (here in the sense of atextual) contexts by the new archaeological theory approaches (like New Materialism), the aim of exploring human agency and its impact on the world (and vice versa) should never become blurred. As Morphy argues in his critical review of Gell's *Art and Agency*, inanimate objects can never be considered capable of action, even if classified as secondary agents.[1] Moreover, the search for the "hows"—which Morphy assigns to ethnographers—should be attempted, and it should include semantic and aesthetic analysis.[2] This is also, ideally, the work of archaeology in its assessment of all material that seems to have been used to communicate cultural and cross-cultural values imbued with purpose, meaning, and the kind of reflexive morality that is intrinsic to aesthetics.

Having said that, many scholars have preferred and continue preferring approaches and theories that allow them to deal with symbolic material without having to confront the problematic interpretation of ritual and its relativity, which inevitably implies becoming familiar with past, recent, and current ethnography and anthropological theory—since our own cultural background is often riddled with the contradictions of "modernity"—, sifting through it, and applying it in judicious dollops if one decides those theories or analogies are persuasive, illuminating or convenient. The nagging sensation that one is situated in a distant past, focused on a "cultural horizon" but still aware of its setting in a wider geographical area that has nothing to do with

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1 Morphy 2009.

2 *Ibid*.: 7f. "On the whole Gell fails to demonstrate how art objects can be part of the process of creating power, status, role differentiation; why they can be powerful gifts; how they can create a sense of the presence of God, be understood or experienced as sources of spiritual mind, or invoke the idea of a supra-human mind" (8f). Morphy argues, that despite his claims, Gell also embarks in aesthetic and semantic analysis when he assesses "non-Western" art.

future developments, never—like an annoying buzz— completely disappears, and in any event, the specific *operating manual* to decode the meanings and uses of objects, assemblages or contexts never materializes. Who did this and how, what was his/her/their intention, what were the use or uses, how many users, public or domestic context, was the material broken and recycled, for how long? A comparative treatment of the material coming from other regions of the world is only sometimes useful. Strategies to deal with this frustration range from the interpretation of symbols as 'metaphors', semiotics, cognitive approaches (drawing from psychology or neurology, a return to processualism), and sensorial phenomenology, to the detailed analysis of aesthetic qualities regarding techniques, properties of material (color, shininess, hardness, performance), manufacturing processes, level of realism or naturalism, size, and social norms and fashions directly or contextually derived, applied to gender or elitism.[3] Understandably, being able to answer questions about the composition, *chaîne operatoire*, technical challenges, provenance, geographical and temporal patterns that may or not signal networks, is immediately rewarding and satisfactory. The problem lies in avoiding the answer to the other questions (*re* ritual) with the same degree of zeal. It is often the case that, as soon as material becomes more abundant and the aesthetic efforts more visible, the interpretation always swings towards inequality (prestige) *via* gender, age, exchange or lineage. 'Prestige' is a term that hides many different connotations in a spectrum or scale: from the respect, recognition and acknowledgement owed to courage, skill or age, to the acceptance of privilege and aggressive domination owed to the procurer of wealth or the right bloodline. Understanding relationships of power is, of course, fundamental in revealing how inequality has been legitimized and perpetuated throughout history, particularly in the past five thousand years. But in the millennia that unfolded after the climatic amelioration of the Holocene, until civilization became a way of life for many, even individual pursuits seeking knowledge—an amalgamation of what we understand by technology and magic—may have been experienced as forming part of a single multi-composite organism. Even those peoples who in the last centuries have held on to their orally transmitted identities, struggling to preserve their values while accommodating alien religious, ideological and economic realities, may show a reduced engagement with the inhabited world than that of their distant ancestors. Migrations, political expansions, technological changes, and proselitist religions have impacted ethnic interaction and gender roles, in turn impacting materiality. Nevertheless, ethnographic accounts remain a valuable resource.

4.1.2. Open-ended moralities: implications for materiality

Animistic moralities are "locally grounded and socially emergent". Their knowledge systems stress the intentional, relational and interpersonal character of reality, that is, their epistemologies affect the perception of time, bodies, and change. In Morrison's words, "they emphasize interdependence, influence, mutuality, responsibility and

[3] Some of the scholars using these strategies will be cited further down. My intention is merely to call attention to the circumvention of the problem.

respect (or not)".[4] Their ethics are situational. Good and evil are not pre-judicial. Trickster deities feature prominently. Furthermore, following Descola's classificatory criteria, animistic ontologies are uncertain of appearances, certain that they can be deceiving. This has consequences for the comprehension, emulation and communication of reality (mimesis, divination, ASC rituals). Ethnographies across the world have treated, at length, complicated body cosmologies (not just one, but several "souls"), the implications for "medicine" and mortuary treatment, as well as multi-stage conceptualizations of the underworld and the sky, interconnecting with the experienced landscape, and the concomitant myths. Their world is plural, and that plurality requires negotiation. Lévi-Strauss illustrated this with a humorous anecdote: "In the Greater Antilles, a few years after the discovery of America, while the Spaniards were sending out Commissions of investigation to discover whether or not the natives had a soul, the latter spent their time drowning white prisoners in order to ascertain, by long observation, whether or not their bodies would decompose".[5] This ambiguity should be applied to their material remains, including symbolic expression, village layout and burial. In general, we should expect a diversity of practices and organic growth (unplanned). We should also take relativity into account as concerns:

- Systems of knowledge: oral, visual and acoustic, mundane and astrological

The example given above about the Yekuanna and their basket weaving, or the examples on metallurgy in Africa given in Chapter 6, can be extrapolated to other craft-making contexts. Teaching would have always been contextual and performative (not only the "showing" that Ingold refers to,[6] but the "testing" and doing). Stone, bone and wood, plaster, ceramics, textiles, metallic ores, all material may have initially been "sacralized" as concerns its manipulation, and later ritualized in an increasingly standardized fashion, deviating from the secrecy and mystery surrounding original manipulation. Long-lasting material may have had special connotations (e.g. well-heated clay, obsidian, basalt, jade, metal), as well as that which was specially or even recursively decorated/well-crafted (including rock art), which may have become objects of gift-exchange or communal/inter-communal seasonal celebration. Moreover, the extraction of material indicates the careful observation and intimate knowledge of the landscape at large. The persistence of caves in ritual (in the Levant and Anatolia) as well as the emulation of intimate spaces in house-making during the Neolithic (see Fig. 4.1) suggests that visual and acoustic ritual experiences continued to be important.

4 Morrison 2013: 49.

5 Lévi-Strauss 1952: 12.

6 Ingold 2000: 21f.

Fig. 4.1. "Shrine"VIA.10 east wall at Çatalhöyük. On the left, the drawing published by Mellaart 1963: Plate XIII. On the right, virtual reconstruction, with b) and c) a view of the room in two phases. After Lercari and Busacca 2020: Fig. 14 a, b, and c. Reconstruction of a) by G. Huxtable and N. Alcock; reconstruction of b) and c) by G. Cox.

- Defense against evil: contextual and performative

"In some way or another one can protect oneself from the spirits by portraying them". This statement opens Taussig's excellent analysis of mimesis and its intricacies. The description of a Cuna "shaman" (Panama), animating carved wooden figurines by the laboring woman's bed is concluded with these sung words: "The medicine man gives you a living soul, the medicine man changes for you your soul, all like replicas, all like twin figures".[7] Taussig develops his theme by expounding on the fact that the figurines seemed to represent "non-Indians", puzzling colonialists, and throughout the examples given to illustrate the multiple uses of embodied material by the Cuna, it becomes clear that spirits can be best detected by other spirits enlisted as help[8] by the mediation of simple body forms. This is a common cross-cultural pattern. Intricate works of art are not necessary, although a vaguely recognizable form as a human, animal or hybrid is. Nowadays, the Nahua cut paper to make them,[9] Northeast Asian shamanic peoples use a wide range of materials, including cloth or fish scales, depending on who inhabits it and in connection to what ritual (health-related, ancestor, fire, star, willow, bear)[10]—which connects to Bailey's warning about figurines being representations *for*, not representations *of*—[11], and in central southern Africa matrilineal groups make vaguely zoomorphic figures in rites of passage.[12] Nevertheless, size and number may be relevant,[13] something to take into account

[7] Taussig 1993: 1f. Twin figures and mirror images are a constant representation in animistic art (see below for examples). This feature should be distinguished from couples (male and female).

[8] The *xapiri* of the Yanomami were created by Omama's wife and water deity to help humans combat disease. Kopenawa describes Omama (ancestral deity)'s reaction to her intent thus: "Awe! These are wise words. **The spirits will chase the evil beings away. The will tear the image of the sick from them [the evil beings] and bring it back into their [the sick] body**!". Kopenawa and Albert 2013: 31 (Ch. 1).

[9] Sandstrom and Sandstrom 2023: 22-24.

[10] Yuguang 2021.

[11] Bailey 2013: 245f, 249.

[12] Zubieta 2013: 54ff. The most represented is perhaps the eland, the mother ancestor of the community. Earlier initiation practices took place in the mountains of central Malawi, where the women left red and white paintings. Oral traditions claim the adoption of rain-calling sacred drums from the Batwa.

[13] Taussig 1993: 10.

with large-scale rock carvings or larger-than-life human figures, like the central pillars of the Harran enclosures,[14] the Easter Island moas, or the large stone heads of Olmec Mesoamerica and the Indus Civilization.

One aspect of animated materiality that is not treated by Taussig is the making of monsters to scare other monsters, the making of a figurine to transfer spirits causing disease in the victim, or the representation of an enemy to inflict damage (voodoo). Figurines are often found broken and discarded, sometimes even scattered. Depending on the intent of the practitioner,[15] we may be dealing with safety precautions or entering the realm of what cross-culturally is known as "black magic". In any event, monster depiction would not be represented regularly, in a standardized fashion, until civilization (see Chapter 7). Monsters eventually served to scare the monster itself or scarier ones, and apotropaic materiality included the materialized written speech.

- Gender: in flux

Gender theory in archaeology has produced an abundant literature since the 1990s, and the impact of the deconstruction of many biases regarding women roles and work, kinship and marriage patterns, female depiction, political relevance, the identification of queer or ambiguous/third gender in artistic representations and materiality—among the most salient topics—has been felt.[16] Several archaeologists have found Butler's performative notions of sex-gender useful,[17] but Butler is keen in deconstructing what she perceives is a false dichotomy (biology and culture, inner and outer), for if "acts, gestures, enactments, generally construed, are performative in the sense that the essence or identity that they otherwise purport to express are fabrications manufactured and sustained through corporeal signs and other discursive means", it then follows that the gendered subject is always a political reality and not an ontological one, and above all, acts and gestures are to be localized within the "self" of the actor.[18] This ultimate reference to the particular actor is rarely within the scope of the archaeologist or historian, although it can certainly be applied to the worlds of apolitical sexualized subjects in prehistory. An alternative way to conceptualize inequality, as Graeber and Wengrow have argued, is to take freedom, or freedoms, into account. The freedom not to be bound to a single sexual partner for life, or the freedom to use herbs, prayer and sacrifices to get or avoid pregnancy, may have been common among many prehistoric peoples who were still negotiating their domestic boundaries and careful about the respect owed to male and female deities alike. Panthea may have reflected a careful cosmological balance, where the metamorphosis of deities would have extended to sexuality (erotic desire), multi-species fertility, and their sphere of agency (co-dependent). After the socialization of nature became more reduced, certain sacred roles/specialists would still have retained

[14] See, e.g. Dietrich et al. 2012: Figs. 7 and 8, and Hauptmann and Schmidt's publications on the slightly smaller pillars from Nevalı Çori.

[15] Wilburn 2019. "Our perceptions of 'realism' or of mimetic faithfulness may not map onto the ancient mind" (p. 451).

[16] See, *inter alia*, Conkey and Gero 1997, contributions to Bolger 2013.

[17] Perry and Joyce 2001; contributions to Bolger 2013.

[18] Butler 1998: 41.

the capacity to transcend gender (gender neutral or bi-gender once the social role was assumed).[19] But the prescription that fertile women should avoid ritualized production may have been widespread even before patriarchal domination took hold in many regions of the world. It is also present in the matrilineal Pacific societies who shared the principles of *mana*, embodied or performed in the *tapu* (pregnancy, giving birth, miscarried fetuses, first menstruation, warfare, cloth production), and its derivative norms.[20] Whatever notions of human and animal conception and successful birth—which would have been as binary as something can be when spirits are everywhere—existed before civilization, changes regarding women's freedoms would only have materialized after men started to control ritual, or the most relevant rituals. It is not polluting or life-giving blood; it is not agriculture, or cattle, or metal; it is not infertility and plague; it is not technological or biological innovations or events; it is the wish to control the spotlight, and women's sexuality, by tipping the scales.

- The recently departed: from sources of comfort to potential threats

Given the cross-cultural tendency to bury the dead at home in all first trajectories towards sedentism in the world, and most certainly, in Southwest Asia—as seen in Chapter 2—the dangers of maladjusted spirits returning to haunt the living—or infants—did not manifest during the early stages and should therefore not be taken for granted. There may have been disarticulation related to safety or the neutralization of the spiritually powerful and harmful, such as the headless woman who was buried with the burnt communal building at Jerf el Ahmar, but bones (and teeth) are cross-culturally perceived as retaining vital power, so the use of bones in ritual is *a priori* neither good nor bad. Heads are the location of sensorial faculties, and the skulls of some individuals—just as the heads of animated figurines—would have needed to be deactivated: broken, maybe purified (water, smoke, symbol), and discarded. Even clumsy defleshing or disarticulation does not prove headhunting or "trophy" taking.[21] The blood detected on a stone at Çayönü implies that the dead were fed. Generally speaking, some kind of ancestor worship was probably the norm, but even if foundational (clan) ancestors were remembered in a special way, intramural burial does not seem to have been overtly discriminating. Some dead people seem to have been chosen for special rituals —like those whose skull became plastered sculpture in the Southern Levant. Mortuary processing became so complex during the 8th and 7th millennium BC that it should be inscribed within a system of knowledge framework. With the emergence of cemeteries—which nevertheless were never far from the houses of the living—an emergence of prescribed division to

[19] See Hollimon's scholarly compendium and discussion on the circumpolar ethnographic and archaeological evidence for 'transformed' (alternative gender) shamans, whether male or female, and the evidence in this and other contributions in the same volume on ritual transvestism. However, two references (Bogoras and Balzer) report women transforming into a man or becoming more powerful after the menopause, while Fedorova associates the Bronze Age castings of male figures with a mask-like face, wearing animal or tree emblems, to a past where ritual specialists may not have been what they became (56ff, Fig. 4.1).

[20] Weiner 1994: 50-53, 84.

[21] *Contra* Bocquentin, Kodas and Ortiz 2016.

prevent evil possessions from ghosts or the spirits ruling the sphere of death may have appeared, although a release from the burden of carrying out all mortuary-related tasks is also possible. Metal became an apotropaic substance for the early communities experimenting with it in the 5th-4th millennium BC. In any event, a linear conception of individual/collective life, and a fixed and single underworld with its rigid norms, would not occur until civilization. Still, as Dina Katz has shown, there were songs preserving traditions related to the eastern and western mountains in early southern Mesopotamia,[22] so the alternative underworld canon took some time to crystallize. Caves never ceased to be places of ritual. Mountains and volcanoes acted as landscape and cosmological boundaries.

The following pages will approach materiality during the Southwest Asian Neolithic from the epistemological value of ASC experiences (beyond shamanism) and the ontological/moral derived observations stemming from the reciprocal relationships with alterity.

4.1.3. Beyond our human senses: the Neolithic world through the prism of ASC experiences

A good way to approach animism as a system of knowledge is to take the research recently conducted on Altered States of Consciousness seriously. For obvious reasons, "dreaming"—the ability of certain individuals to understand messages conveyed by the sacred—is not a viable topic of research until written systems of knowledge appeared. Although it becomes clear that the cultural background of the interviewed visionaries plays a role, the cross-cultural and cross-temporal use of psychedelic substances in ritual has to do first and foremost with the neurological (and related) physiology of the human body, with only a few presumably capable of channeling the overwhelming sensory input to satisfy a purpose. The ingestion of psychoactive substances, as well as fasting, wakefulness, and reduced lighting, can induce abnormal neurological activity in the human body, and different physiological and chemical reactions depending on the substance, the individual and his/her state of mind, and the setting. With a changing ontology, ecstatic ritual practiced by a few acolytes enhanced the mystery of the religious institution dedicated to the deity,[23] but what is important from the point of view of creative production before religion is that people other than ritual specialists would have had sanctioned, even if regulated, access to the substances. The problem with the figure of a 'shaman' is that even among the circumpolar peoples there are notable differences in role/roles and scope of agency—not only concerning gender or terminology—so we should expect a diversity of practices in the past. For instance, compiling ethnographic testimonies on the Khanty, Jordan writes that there were "singer-narrators, conjurers, the *niukul'ta-ku* foretellers of hunting luck, dream readers and soothsayers," and focuses on two figures, the *isyl'taku* (healers), and the *elta-ku*, the best term for what we understand

[22] Katz 2003: 6f (god Ningišzida), 20ff, passim.

[23] See Winkelman 2022. I find the definition of shaman, sorcerer/witch, and priest only relatively useful, since it would need to be readjusted to each context.

as a shaman, chosen by the spirits and the most capable. After initiation, the "spirits of accredation, usually directed by sky deities, tore apart the candidate's earthbound soul and re-made it into a seeing and hearing shaman".[24] This experience was not pleasant. Research conducted on the effects of *amanita muscaria*, also relying on a century-long ethnographic observation of several Siberian peoples, confirms that non-ritual specialists, particularly men, might have had access to it.[25] "The use of AM has been reported for "communication with the souls of the dead, communication with spirits [presumably without purpose], treatment of diseases, giving a name to a new-born child, making clear the cause of a dangerous situation and finding ways to overcome it, interpretation of dreams, prediction and fortune-telling, foreseeing of the future, seeing of the past, visiting of different worlds, flights over the earth".[26] Rhythmic music helps induce the trance, and the capacity to communicate while "flying" is documented, but not everyone succeeds in seeing the AM *manikins* or sees his/her wishes satisfied by these spirit mediators. What Rozwadowski describes as "solar-headed" petroglyphs located in the mountains of Kirghizstan and Kazakhstan (see figure below) are probably not sun deities but AM or Ephedra spirits.[27] Given the profuse decoration of the head, and the occasional differences in proportion (though theoretically the *manikins* are as tall as half an average man), the physical depiction of the spirits conveys the physical experience by the consumer, and this is always subject to volumetric distortion.

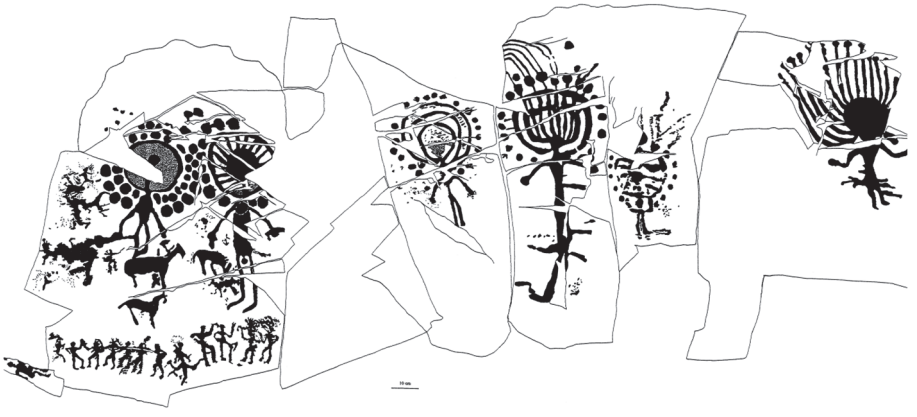

Fig. 4.2. Panel found in the Tamgaly Valley of Kazakhstan by M. Huzanazarov and A. Rozwadowski in 1997. Reproduced from Rozwadowski 2001: Fig. 5.3.

[24] Jordan 2001: 91 (based on Balzer's work) and see Fig. 6.6 and 6.7 for the extent of agency of the *elta-ku* and *isyl'ta-ku* within the cosmological division, and the sacred areas in the landscape by the Malyi Iugan River. See also Rydving 2010, drawing from early 20th century Russian accounts on the bear ritual. Dancing performances or plays—with variations between the clans—were performed by men and women, or only men, wearing masks. In the case of male only performers, the masks and costumes represented both men and women.

[25] Saar 1991.

[26] *Ibid*.: 160, with references.

[27] Rozwadowski 2001: Figs. 5.1 and 5.2, whereas stick-like figures with three or more pointed heads may represent antler headgear and/or the birch spirits in more northern regions of Siberia (cf. Devlet in the same volume: Fig. 3.7); Yuguang 2021: 138ff (on the willow).

Spirits may have initially been depicted as animal or plant-like forms, instead of anthropomorphic.[28] Stone analyzed ASC experiences to interpret the art (ceramics, textiles and figurines) of Ancient Central Andean societies, which even if described as "shamanic" would also presuppose widespread consumption among non-specialists.[29] Most interesting for my purposes here, Stone provided a comprehensive update of neurological and anthropological research in the first two introductory chapters, and describes ASC experiences as having four qualities: the veracious character of the visionary world; dual consciousness; multiplicity and flux; and brilliant light and color (predominantly red and blue/green).[30] She also gives a thorough description of such synesthetic effects as volumetric alterations (including micropsia), geometric patterns, the memorability of ASC experiences, or the presence of animals/ plant spirits responsible for the visions. I am particularly interested in volumetric distortions, geometric patterns, and dual consciousness. Regarding the latter, most substances are reported to leave the consumer capable of speech or action. But more importantly, the perception of a mirror world,[31] which appears in minute detail and is to be located in a specific cosmological sphere depending on the cultural background of the consumer, is of importance for symbolic materiality.

4.1.3.1. The micro

In his quest to find arguments to support the hypothesis that Caribbean Taino and other peoples could control syphilis by the knowledge of the micro world, Giraldo Herrera examined neuropsychological scholarship, 19th and 20th century investigations on the physiology of the retina (our eye's photoreceptors are "facing backwards") and pharmacological induction of phosphenes.[32] Phosphenes precede anything else during ASC experiences. He argues that shamans would theoretically be capable of perceiving objects of 1μm of width (like bacteria) under the right conditions, such as dilation of the pupil and focusing sight through pinholes.[33] He even argues that the first notions of germs and contagion published by European scholars in the 17th century came after reading accounts by Spanish and French colonialists on Amerindian culture, as biased as they were.[34] Despite the difficulty of conciliating these two very different epistemologies, he is nevertheless persuasive:

Microbial ecology offers a view of the world highly coherent with shamanic ontologies. It portrays our bodies and environment as constituted by a dense and fluid population of highly

[28] See the red pictograms found at caves of the southern Zagros (Fars) in Ghasimi et al. 2016, sp. Fig. 11.

[29] Stone 2011.

[30] *Ibid*.: 32ff.

[31] *Ibid*.: 13ff.

[32] The Merriam-Webster dictionary defines phosphenes as "the luminous floating stars, zigzags, swirls, spirals, squiggles, and other shapes that you see when closing your eyes tight and pressing them with your fingers. Basically, these phenomena occur when the cells of the retina are stimulated by rubbing or after a forceful sneeze, cough, or blow to the head."

[33] Giraldo Herrera 2018: Ch.7.

[34] *Ibid*.: Chs. 3 and 11.

social entities, which can affect our health and behavior and play an important role on the environmental balance. Like Taino *zemes*, Callinago *acansáncou* or Yanomami *utupë* and *xapiri-pë* microorganisms are normally invisible, miniscule, multitudinous, and powerful. They are found everywhere, constituting and influencing the behavior of our bodies and environment, nourishing soils, plants, and animals. Like their Amerindian counterparts, microbes replicate overcoming death and some of them can be considered as our living ancestors. Moreover, they are also highly social, recognize progeny or sibling replicas forming colonies, and collaborate to produce massive effects, influencing the weather or causing disease.[35]

Archaeologists of the Neolithic have noticed how frequently assemblages appear to be deliberately broken, or how some houses or features were deliberately buried when they had to die.[36] One practice that invites reflection upon disease are ritual fires, that is, the termination of buildings and most of their contents by the controlled use of fire. As seen in Chapter 2, this started with the earliest sedentism, when large buildings needed to be "neutralized" at the end of their lives, and burning the roof was the most expedient way to do so. However, some conflagrations appear to have been more extensive than others. This practice will continue in Southwest Asia, extending to southeastern Europe after the end of the 7th millennium BC.[37] Even though some of these occurrences may not have been due to specific causes but quite simply signal termination before renewal, there may have been prophylactic reasons on occasion.

Therefore, animists' understanding of the world at the micro level, the notion that the presence of small beings was just as important as the big predators, needs to be envisaged. This may be correlated to what Larrivé Bass has termed 'pareidolia', which cognitive psychologists associate with the primate/human's ability to recognize faces as part of the evolutionary development of the brain, and which she extends to bone and antler figurines during the Paleolithic-Neolithic of eastern Asia.[38]

The first attestations of figurine-making in Southwest Asia are schematic and small, and this type of figurine would last for millennia. Figurines made from equid phalanges were retrieved at Dja'de el Mughara, Syria, in contexts belonging to 8700-8200 cal. BC levels.[39] Although their manipulation was minimal, their shape and the scraping marks clearly suggest that they were chosen to represent schematic anthropomorphs (see below, Fig. 4.4). Less ambiguous are the flint figurines from Kharaysin, Jordan, of a slightly later date.[40] Animated tools are prominent all throughout the Epipaleolithic-PPN (Fig. 4.3). Pestles and scepters adopt animal heads facilitating a grip to wield them. The Southern Levant did not develop this trend as much as the North.

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35 *Ibid*.: loc 2066.

36 For an overview, see Hodder 2018.

37 Chapman 1999.

38 Larrivé-Bass 2015.

39 Christidou et al. 2009.

40 Layers dated to the beginning of the 8th millennium BC, Ibáñez et al. 2020. See also *ibid*.: Fig. 6 for two humanoid clay figurines found at the bottom of a pit.

Fig. 4.3. A selection of "animated" tools. Top left: carved bone head found at Karain Cave in western Anatolia, and similar object from Nahal Oren in Israel. After Anati 1968: 25. Top right: limestone object with animal head, from Nemrik; after Rollefson 2008: Fig. 2 a (after Kozlowski 2002). Below, stone pestles from Körtik Tepe. After Özkaya and Coşkun 2011: Fig. 24. Center and right: Hallan Çemi, after Rosenberg and Redding 2000: selection of batons and pestles from Fig. 6.

Fig. 4.4. Selection of small figurines from different southern Levantine Neolithic sites**.** Left: **s**election of flint figurines from Kharaysin. After Ibáñez et al. 2020: Fig. 4. Top right: Donkey scapula from D'jade el Mughara. After Christidou et al. 2009: Fig. 5. Below**:** figurines from Tel Tifdan. After Bennallack 2012: Figs. 4 and , with the permission of T. Levy/A. Gidding. Bottom: cattle figurines from 'Ain Ghazal, after Rollefson 2008: Fig. 8 b.

From Tell Tifdan, roughly 50 km south of the Dead Sea in the Faynan copper ore area, comes a cone with anthropomorphic carvings, allowing for interpretations as a gaming piece, or a token in a channelling ritual.[41] At this small PPNB site, zoomorphic figurines (some so schematic they are headless) have been found, paralleling the cache found at ‘Ain Ghazal. The scratches and the occasional inlet to insert a sacrificial tool—at Tifdan the flint tool was also retrieved—are a fascinating trait of zoomorphic figurines in southern Levantine sites during the 8th (coming from the middle-Euphrates *via* Tell Ramad/Tell Aswad)[42] and 7th millennium BC. Thirty-eight animal figurines, mostly quadrupeds, were retrieved from Sha’ar Hagolan. Freikman and Garfinkel considered them artefacts in rituals before hunting expeditions.[43] Maybe the decrease in zoomorphic figurines that they observe corresponds precisely to the end of that period of transition at the end of the domestication process, between the attraction of prey to the hunter and the appropriate sacrifice to please the spirits (see Chapter 3 on Willerslev and colleagues’ “double bind”). A very fine set of astragali of domesticated cattle was retrieved from 6th millennium Kazane Höyük, suggesting a lack of a radical ontological shift. They were studied by McCarty, who considered them “tokens of achieved wealth” and prestige, signs that the curator of this cache could “control nature”.[44] This interpretation is problematic. Among Siberian hunters, arrogance would attract the anger of the spirits. Bones, teeth, horns and shells combine the powerful essence of the animal and the animating agency of their manipulators, which became more creative in time (e.g. divination, games).

Apart from the ornamental use of shells starting before the Holocene,[45] animal amulets start appearing as soon as sedentists by the Tigris mastered the stone.

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41 Bennallack 2012.

42 De Contenson 2000: Fig. 100. At Tell Aswad, Syria, ram figurines have sometimes break fractures around the neck. One displays cutlet-shaped marks all along its back. See Stordeur et al. 2010: Fig. 3, 1. See also figurines with punctures at Çatalhöyük in Martin and Meskell 2012: Fig. 9, and wall painting below.

43 Freikman and Garfinkel 2009.

44 McCarty 2013: 230.

45 For early uses of shell, stone and bone ornaments, see, *inter alia*, Baysal and Erek 2018, Bar-Yosef Mayer 2013.

Fig. 4.5. Selection of amulets from Boncuklu Tarla. After Kodaş 2019: bottom half of Fig. 8.

Apart from animal and geometric ornaments, faces or heads, anthropomorphs, even "seals" may have been meant to be hung as arm or necklaces, or sewn into clothing. Clay miniature vessels are relatively frequent from the end of the 7th millennium BC onwards, particularly at Levantine sites (see figure below). At Tell el-Kerkh by the Balikh, stamps, beads and a miniature stone vessel were found in association with a buried adult in one of the first extramural graveyards attested, and more specifically, located around one of his/her arms.[46] Miniature obsidian axes resembling birds were found at the Death Pit of Domuztepe.[47]

As soon as sedentism became more frequent and prolonged, the didactic socialization of children through everyday being/object (animal, person, tool, pendant) becomes viable (in terms of time and habits),[48] but this does not preclude the potential ritual use of many of these objects. Illuminating in this regard is the world of the Inuit, fertile in miniatures.

[46] Tsuneki et al. 2022: 99. Given the general scarcity of grave goods, this was one of the richest assemblages.

[47] Healey 2013: 258, Fig. 22.7. See Ch. 5.3.

[48] Fassoulas, Rossie and Procopiou 2020.

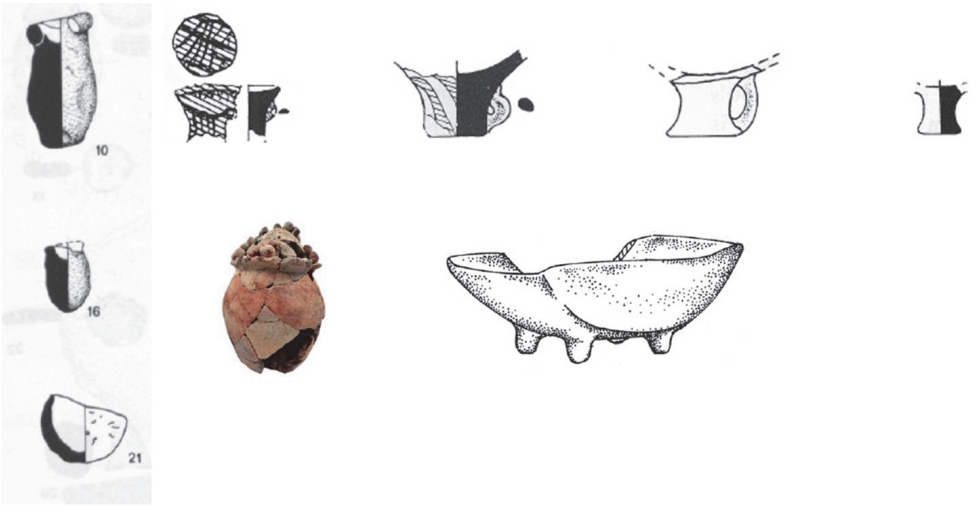

Fig. 4.6. Selection of miniature vessels. Left: Sabi Abyad. After Spoor and Collet 1996: Figure 8.5, nos. 10, 16, 21. Interpreted as tokens. Top: Sha'ar Hagolan and Munhata (Southern Levant). After Freikman 2016: Fig. 1, 1-4. Below, left: vessel from Tell Tsaf, interpreted as a silo. After Rosenberg, Garfinkel and Klimscha 2017: Fig. 6 (opening measures about 54 × 32 mm). Right: marble bowl (7.2 cm long), found in a child's grave at Franchthi Cave, Greece. After Stroulia 2020: Fig. 15 a), view from an angle.

Laugrand and Oosten, who have investigated museum objects classified as 'ornaments' or 'toys', think that these categories are difficult to maintain when confronted with the ambiguity of Inuit cosmology:

> Inuit miniatures evoke a play of deception. (…). As toys, they are instrumental in transforming children into adults; as ornaments, they may be charms or amulets; as amulets, they may be weapons in the spiritual world; and as weapons or offerings, they may take life or generate it.[49]

Discussing mortuary customs among the Inuit, specifically how it was allowed for the dead to be buried with miniature copies of their most valuable possessions (boots, bow and arrows, needles, or kayaks), the authors refer to a myth to interpret this practice. The protagonist of the myth is a woman who falls in love with a dog-man and gives birth to human and dog children. After her father kills her husband, she decides to send her children away and lays all the dog-children in the sole of a boot, setting three straws in it to act as masts. The human children, she dispatches on top of the sole leather that goes under the sole of the boot. Leaving aside the end of the story (white men are descended from the dog children; Inuit, from the human children), the myth illustrates the ability of volumetric transformation.[50] Miniature boots are worn by women as earrings to this day.

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[49] Laugrand and Oosten 2008.

[50] The basic concept to understand Inuit spirituality is *tarniq*, a shade or image that all living beings possess. It resides as a bubble of air in the groin.

Sillar has investigated Andean household rituals through small objects called *conopa*.[51] He connects these objects and historical reports by Spanish priests, intent on their eradication, with current practices:

Objects that feature in household rituals today include **small carved stone animals** that are inherited or bought at annual pilgrimage sites, as well as various "found" objects such as **unmodified stones and pieces of glass or pottery**. These objects are referred to today as *enqa* or *illa* and are considered to be **living entities** that support animal and crop fertility. Illa and enqa are described as children of the sentient mountains, which are referred to as *apus*, or as coming from Ukhu Pacha (the inner world), emerging from caves or springs, and they are said to remain in communication with the mountain apus that they came from.[52]

Fig. 4.7. Ritual bundle including stones and carved *illa*, ready to be burnt with the coca leaves as an offering. Most of the objects were inherited. (Photo taken by Sillar at Raqchi, Cuzco, Perú). Reproduced with permission from Sillar 2016: Fig.3.

Three miniature stone masks have been unearthed at the enclosures of Göbekli Tepe, probably belonging to last phase, as well as a larger-than-life mask.[53] The excavation team connect them to two similar masks retrieved at PPNA Jerf el-Ahmar, and PPNB Nevalı Çori.

51 Sillar 2016.

52 Sillar 2016: 448f, and references therein.

53 Dietrich et al. 2018.

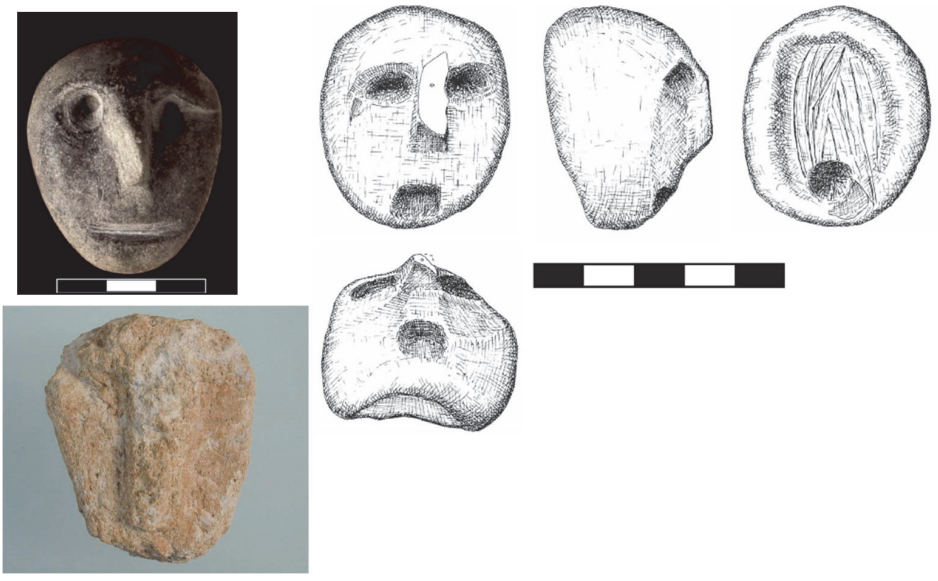

Fig. 4.8. Selection of miniature masks. Left: from Jerf el Ahmar; below: one of the masks found at Göbekli. Right: drawing of a mask found at Nevalı Çori. After Dietrich, Notroff and Dietrich 2018: Figs. 1, 2 (drawing from K. Schmidt) and 5 © DAI (photo: K. Schmidt).

Although masks have been also found at several Southern Levantine PPNB sites (e.g. at Nahal Hemar Cave), the small size of the northern ones suggest that they were meant to be used by small, powerful beings (instead of humans in disguise). The small circular groove in the Nevalı Çori mask (see figure above) indicates that a stick could have been used as support. From Level II (around or post 8500 BC), Nevalı Çori had a quadrangular building with benches and pillars preserving the enclosure tradition in the region. Interestingly, bird-like, hieratic, ithyphallic anthropomorphic sculptures and stone human-bird totems have been unearthed at Göbekli and Nevalı,[54] suggesting that the large and mysterious first enclosures gave way to smaller cult constructions (only one at the latter, also frequently renovated) in a residential settlement. Dietrich and colleagues connect the heads to the practice of dismemberment after death, and the masks to "memorabilia of rites in which masks made from materials not present archaeologically (i.e. organic) were used".[55] One could simply say that heads, big and small, watch and hear. A discussion on the topic of detachable heads, headless figurines, even headless amulets attested in a myriad of sites of different geographical regions from the 8th to the 6th millennium BC, is however outside my scope here.[56]

The use of psychoactive substances has not been detected at the two best excavated sites of the Harran plains (see Ch. 2), but imagery and symbolism strongly suggest that ASC celebrations were common throughout their long duration as ritual

[54] *Ibid*: Figs. 4, 8. Schmidt 2010.

[55] *Ibid*.: 11f.

[56] See, *inter alia*, Croucher 2013. Chapman has conceptualized deliberate fragmentation throughout his work, see now Chapman 2020.

and habitational locations, with increasing reliance on cultivates changing matters none. Anthropomorphic figures (a dead and a live person?) are depicted with their arms raised and flanking a turtle (ecotone, long-life) in a well-known bowl from Nevalı Çori. The strength of the motif lasted (*via* a Taurus-Zagros geo-spatial continuum?) more than two thousand years given the eery parallelism with a carved stamp from Tepe Giyan, although the attention to proportion in the latter is too naturalistic, and two other animals (three counting the filling motif) were added.[57]

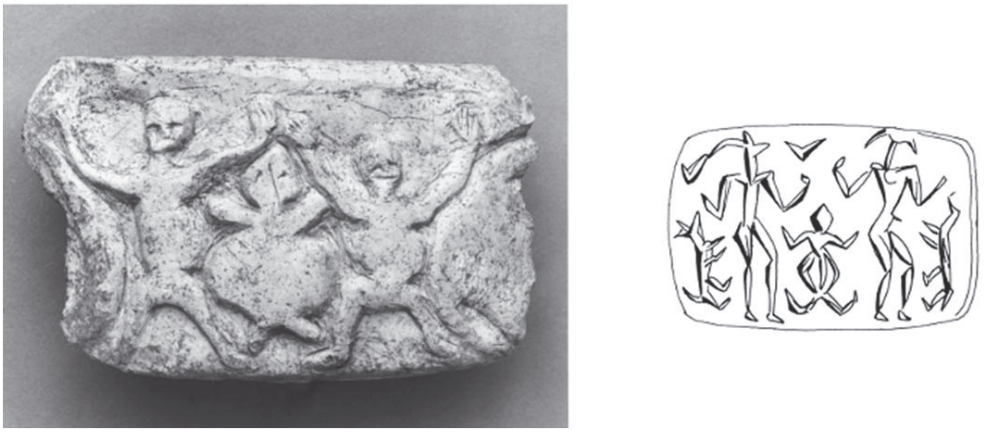

Fig. 4.9. A Nevalı Çori limestone bowl fragment (8th millennium BC). After Garfinkle 2003: Fig. 7.2 (German Archaeological Institute in Istanbul). Drawing of a Tepe Giyan stamp seal (5th millennium BC), ca. 4 × 2.5 cm. Reproduced from *ibid.*: Fig. 7.3, b.

Even more pertinent concerning micropsia and macropsia in ASC experiences are the wall painting compositions at Çatalhöyük. The Çatalhöyük team has been trying to develop future guidelines to assess wall painting patterns by comparing Mellaart's records (which may not always stand up to scrutiny) with later excavation datasets.[58] I will just focus on two of the most famous hunting scenes, the first one preserved *in situ* to this day (see Fig. 4.10). These compositions depict the hunted animal at a larger scale than the humans surrounding it, both before (dancing) and during the hunt. This either means that the animal was perceived not as an individual, but as standing for the whole species, or that it represents the spirit governing the species—maybe the headless, pregnant figure, slightly larger than the humans. Unlike the hunters wearing a contraption decorated in a leopard skin at the waist, or the

[57] Garfinkel 2003: 113f.

[58] Busacca has recently observed (2020: 22f): "Mellaart documented wall paintings and plaster reliefs largely in three forms: photographs, line-traced 'transcripts' of paintings and 'restored views' of entire rooms with iconographic features reconstructed. (…) Even the published photographs of paintings are not devoid of questions of authenticity, as they may have been "retouched" with fresh paint prior to photographic capture, a practice that has been recently attested through accurate comparison among photos of the same paintings taken at different points in time during the Mellaart excavations. (…) Similar doubts regard the drawn transcripts of paintings, which were executed in the field by three different artists (…), and in some cases represent the only documentation provided."

headless, armless female statuette dressed in a leopard top and shorts from later Level II,[59] this depiction has a distended belly and arms clasping it but is otherwise naked and genderless.

In the second scene, we can see how two human figures on the dancing stage (left) are depicted without a head and bichrome, therefore not one "shaman" but two. The animals are male and slightly larger than the humans.

Fig. 4.10. Çatalhöyük hunting scenes. Above: Photo by J. Mellaart, reproduced from *Scientific American* 2003, and detail of headless, pregnant figure from Hodder 2006: Fig. 16. Below, Plate 61 from Mellaart 1967.

[59] Hodder 2006: Fig. 91.

4.1.3.2. Geometrics and abstraction

Abstract and geometric motifs are the favourite decorative strategy during the Neolithic and beyond, even when figurativism becomes more prominent, extending to all visual media. Edwards and colleagues illustrated the difficulties of categorizing Natufian portable art motifs according to 'representional' or 'geometric' criteria by presenting three artifacts that had direct correlations to other objects ("manuports") also attested at Wadi Hammeh, thus arguing for emulation from the natural world.[60]

Fig. 4.11. Experimenting with form and color. Left: bone platelet with painted triangles from Körtik Tepe. After Sidiqq et al. 2021: Fig. 12. Centre: Mural from PPNB Dja'de al Mughara: https://archeologie.culture.gouv.fr/en/village-djade-el-mughara Top right: an ovoid bead with inlays from Gusir Höyük, after Karul 2011: Fig. 22. Below, from Wadi Hammeh: zoomorphic bone figurine, probably resembling a fossil; spur-thighed tortoise (whose scutes were found at the site), and incised stone fragments. After Edwards et al. 2019: Figs. 3, 10 and 11.

Through the manipulation of green, black and other bright stones to craft beads, amulets and vessels, and mineral ores to obtain pigments—particularly the white, red and black triad that first appears at the Körtik Tepe burials—we can also infer that attention to brightness, texture, and color were increasingly a part of the material experimentation that started in the Late Pleistocene. At Çatalhöyük, geometric and hand combinations comprise 19% of painted motifs during the middle occupational period of the East Mound, when wall paintings and other cultural expressions were at their peak.[61]

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[60] Edwards et al. 2019.

[61] Busacca 2020: 53, Figure 2.9, and see his Table 1 for wall painting motifs at Neolithic sites. See also Czeszewska 2014.

Campbell posited that motifs on decorated Halaf wares were abstract or geometric to express and reinforce already established conventions, whereas naturalistic/ representational ones would be expressions of innovation and creativity, used for storytelling purposes in specific social contexts.[62] As attractive as this proposal is, we have already seen with the Yekuana that geometric motifs can also encode hero narratives and myths.[63] Campbell himself acknowledges that "naturalistic" motifs are frequently accompanied by elements that belong to the opposite category, such as 'dots'. Ethnographic records show that the meaning encoded in geometric patterns is hard to pigeonhole. For instance, the elongated wooden shields with complex geometric compositions of the Nuaulu of Seram, Indonesia, display only some geometric motifs that can be related to totemic animals—according to Ellen—but a majority that are simply expressive.[64] Ellen thinks that the impact of the shields lies in variation itself, but he notices the evocative power given to the names of some patterns, and concludes that the geometric arrangements help create dazzling visual effects during the *auwoti* dance. It should however be borne in mind that the *auwoti* used to be performed before head-hunting expeditions, and since these were forbidden a long time ago, a lot of derived meaning may have been irretrievably lost.

Wagner qualified the geometric motifs on Daribi arrow-shafts (*sigaze*) as "metaphors", particularly since they frequently bear names like 'star', 'pig arrow', 'backbone' or 'eye'.[65] This he supported by observing that the talent in a number of craft specialties, "including the decoration of arrow-shafts, the making and playing of bamboo flutes, and the weaving of belts, armbands, and string bags, are all thought to be acquired in dreams".[66] So not ASC experiences but dreams. In *The Invention of Culture*, Wagner described innovation among the Daribi (Melanesia) in terms of recursive metaphors—building on his earlier work concerning dream interpretation—but bounded by or emerging from convention. He also observed:

> If we understand "power" to represent invention, an individual force or element that impinges upon the collectivities of society, then the urban Westerner "is" power (in the sense of his "innate" individuality and special gifts and talents) and "does" morality (his "performance"), whereas the religious or tribal person "does" or "follows" power (special roles, guiding magic or spiritual helpers) and "is" moral. (…) These people live through their cults and enthusiasms almost exclusively, so that life is a succession of highly charged expectations and adventures. It is "metaphorical" and paradoxical, a commitment to something for the sake of something else, and **therefore its essential intent and impact is utterly lost if taken literally**.[67]

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62 Campbell 2010.

63 And see Stone 2011 for a deconstruction of geometric motifs depicting a shaman transforming into a condor on a Paracas textile.

64 Ellen 2019.

65 Wagner 1972: figures 1 and 2.

66 *Ibid*: 74.

67 *Ibid*.: 66f.

In support of the last statement, Morphy and Layton's remark on contemporary Aboriginal art is relevant:

> **By converting the geometric content of the secret art into a figurative form, the multivalency of the symbolic motif is lost**. Munbal [an Aboriginal artist], by modifying the form of his paintings, can at the same time withhold his secret paintings and fit in with the demands of the European art market. This is partly due to the inherent contradiction in the demands of that market, which requires paintings which are at the same time secret and aesthetically pleasing. Part of the aesthetic appeal (as perceived by European buyers) has been in the number of figures, but in Yolngu terms **the more figurative content a painting has, the less it is secret or sacred**. But figurative paintings are perfectly consistent with what Europeans understand by sacred art, that is, paintings which can be attributed on the basis of designs to artists of particular clans and which have accompanying stories which relate to well-known themes in Arnhem Land mythology.[68]

These observations point to the main problem that we face when confronted with entoptic phenomena in ASC experiences. Psychedelic substances come from the empirical knowledge of plants used to enhance, not impair, perception. So we can we distinguish between the simple geometric patterns that emerge during the first stages of "flying", and the sophisticated geometrical pattern arrangements or the abstraction of elaborate compositions—which may include phosphenes (see Fig. 4.12)—that comes after the creative inspiration of ASC-induced perspectivism (apart from inter-personal interactions). 'Figures' are always the subject of the artist, but they do not need to be "naturalistic", or rather, "culturalistic" for creativity to be valued in its own terms. The term "realistic" is also a matter of perspective. Personally, I have always found Classical Greek sculpture as well as the hyperrealism movement in painting deeply disturbing, almost like watching the opening to a Chinese international event with complex choreography. Upon reflection, I realize that what they have in common is a jarring dishonesty, as if by trying to convey an impressive realistic appearance, they only succeeded in exposing the imperfections of the real world—but unintentionally. It makes absolute sense from my point of view that European artists at the end of the 19th century opened to other worlds to stimulate their creativity: impressionism, fauvism, the naïf, expressionism, surrealism—all these large cultural horizons came from men and women exploring the "primitive" past, other cultures, and the truth of dreams.

[68] Morphy and Layton 1981: 60.

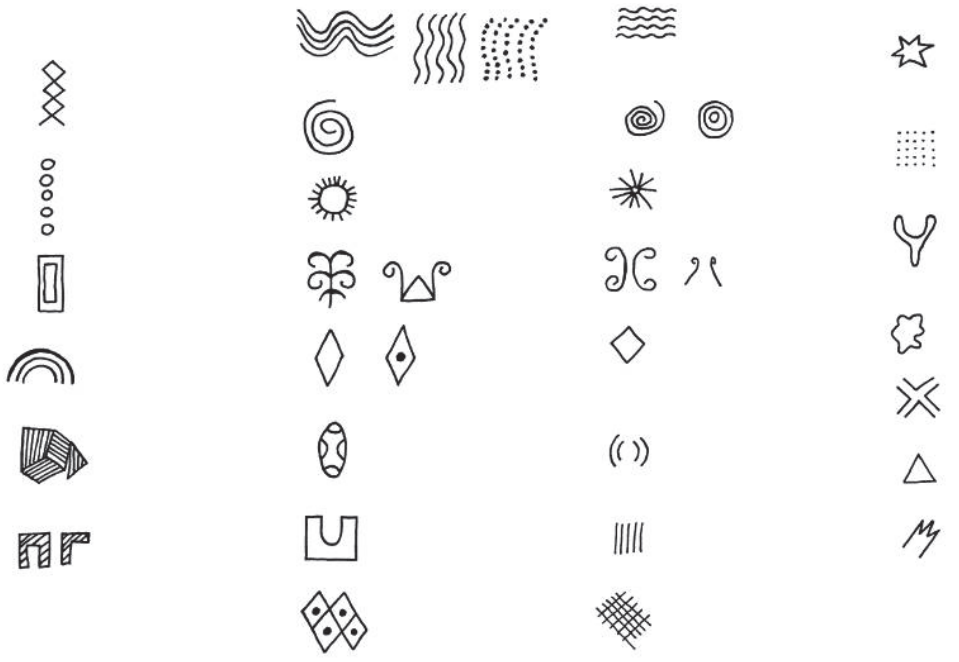

Fig. 4.12. Comparison of phosphenes seen by the Tukano (left two columns) and European scientific subjects (right two columns). Drawing by Nina West (see also Reichel-Dolmatoff 1975), after Stone 2011: Fig. 2.1.

Eventually, as experimentation with ceramic decorated wares evolved, geometricity became more rational, standardized, recursive, symmetrical (even if not fractal).[69] In his diachronic study of glyptic work (stamps/amulets) during the prehistory of SW Asia, Von Wickede noticed how many patterns follow a variation of symmetrical compositions with a central point or axis, which he compared to crystals, and described as relying on recursive mirroring. These images created the illusion of a kaleidoscopic reality.

[69] Mathematician Ron Eglash studied fractal patterns reproduced all over Africa in all kinds of media (1999). He could detect fractals in palaces and village layouts, ancestor houses, calabashes, fences, or the *sona* drawn in the sand or on walls by the Chokwe of Angola. According to him, only Africans have paid attention to a geometricity that is not only symmetrical but iterative, changing in proportion to fit the surface.

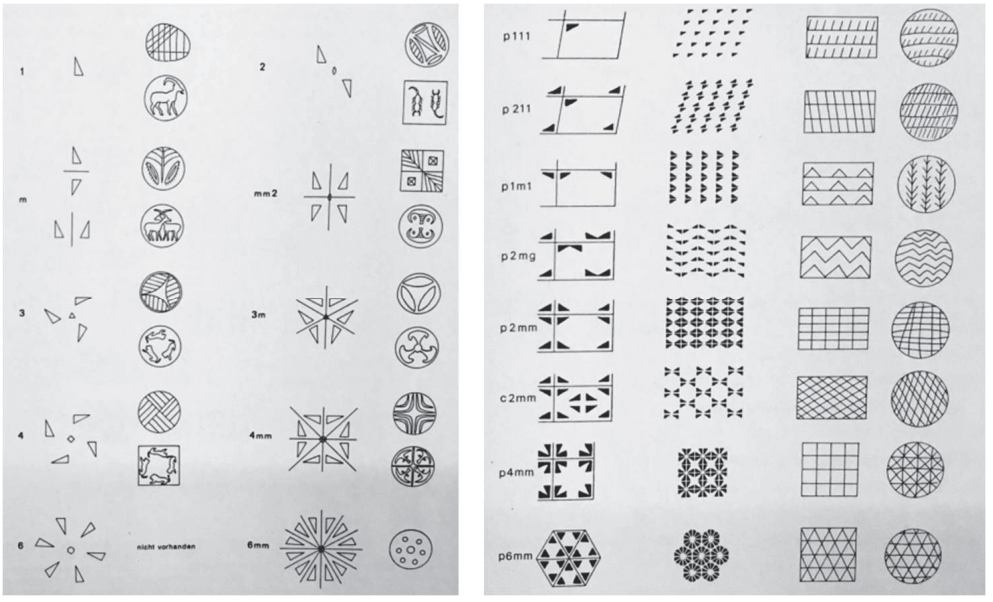

Fig. 4.13. Symmetric compositions and recursive mirroring in the glyptic of Upper Mesopotamia until the 4th millennium BC, according to A. Von Wickede. After von Wickede 1990: Abb. 7, 9.

4.1.3.3. Derived ontological implications: duality (multiplicity) and ambiguity

Through ecstatic experience, one may also gain the wisdom that sees all inhabitants of one's landscape as interrelated and relevant. Everything that could not be easily explained, including death, engendered an uncertainty that was dealt with humbly and on an *ad hoc* basis.

As shown in Chapter 2, first sedentary communities in their aquatic-mountainous ecotone showed a capacity to look at the surrounding world and detect inter-connectivity. The tortoise shells, the gastropods, fish and bees depicted on its stone vessels and flat stone surfaces, the undulating snakes—who as an animal who sheds its skin, and with a unique physiology, are central to cosmologies all over the world—as well as the small but dangerous scorpion, suggest that there was a cultural background where myths and didactic fables would have included these boundary-breaking animals to transmit wisdom to the new generations (see Fig. 4.14).[70] Apart from hybrid (human-animal) reliefs and pillars, the horns of aggressive herbivores, and the bones of the dead, there is no direct, explicit indication of the fear owed to predators, catastrophes and demons.

[70] Garfinkel 2003 devotes a chapter to figures with "turned upwards legs". This visual motif is expressed through wall reliefs, ceramic appliqués and painted ceramics at a few sites of 6th millennium Anatolia and at Khirokitia in Cyprus. The figures may look like bears (with navels), lizards or turtles, all vaguely anthropomorphic. Variations of this theme are also attested in 6th-5th millennium Iranian ceramics. Turtles are sometimes depicted with hands. See Mguni 2016 for the identification of "formlings" in South African rock art as termitaria, connected to myths.

Fig. 4.14. Aquatic and small animal representations. Top: Snails and mollusks on platelets from broken vessels, Körtik Tepe. After Benz et al. 2018: Fig. 5.8. To the right, decorated bone platelet from Körtik, depicting two scorpions (?) interconnected by aquatic plants and mollusks. After Siddiq et al. 2021: Fig. 10. Below, left: two stone pebbles from Jerh el Ahmar. After Stordeur 2014: Figs. 13 and 2. Right: gastropod and tentacled animal carved into two pebbles from Gusir. After Karul 2020: Fig. 17.

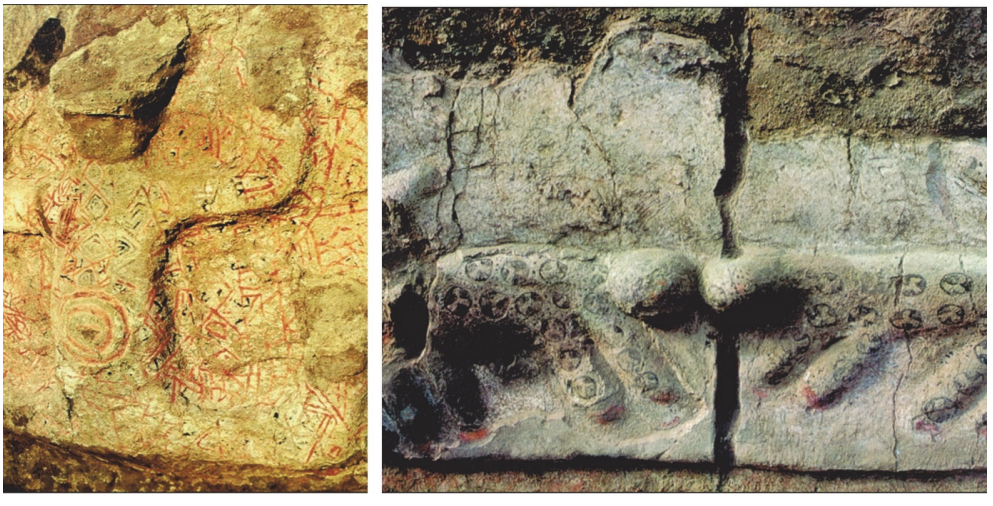

Fig. 4.15. Spread-eagled bear with navel and painted geometrics and felines with regular skin motifs, facing each other, a sample of the wall reliefs and paintings that were frequently fashioned and restored at the Çatalhöyük houses. After Mellaart 1967: Plate VII, VI.

Those who continued with community-making experimentation still focused on mortuary cult and horned, powerful male creatures—the aurochs, the ibex, the ram, the buck—which act like herd leaders. Bears and leopards at Çatalhöyük are sculpted or carved not as predators but as animals with human qualities (see Fig. 4.15, and Hodder 2006: Pls. 9.10, 18). Animals with navels and animals joining paws are signs of a human-animal crossover, as Nakamura and Meskell remarked.[71] There is not a single instance in the creativity of the PPNA, PPNB or Ceramic Neolithic where a monster or a fierce beast attacking a human or prey was depicted, with the exception of a complex scene painted on an Arpachiyah bowl (see below).

The so-called shaft-straighteners and the coarser pebbles with a deep-seated groove in their middle were often decorated, even if frequently only with deeply incised lines in a geometric pattern. At Wadi Hammeh and two other Natufian sites they were found in pairs, so Edwards suggested that they were used to agrade soft materials, like reed canes, by sliding the canes back and forth in the slot formed by the two fitting stones.[72]

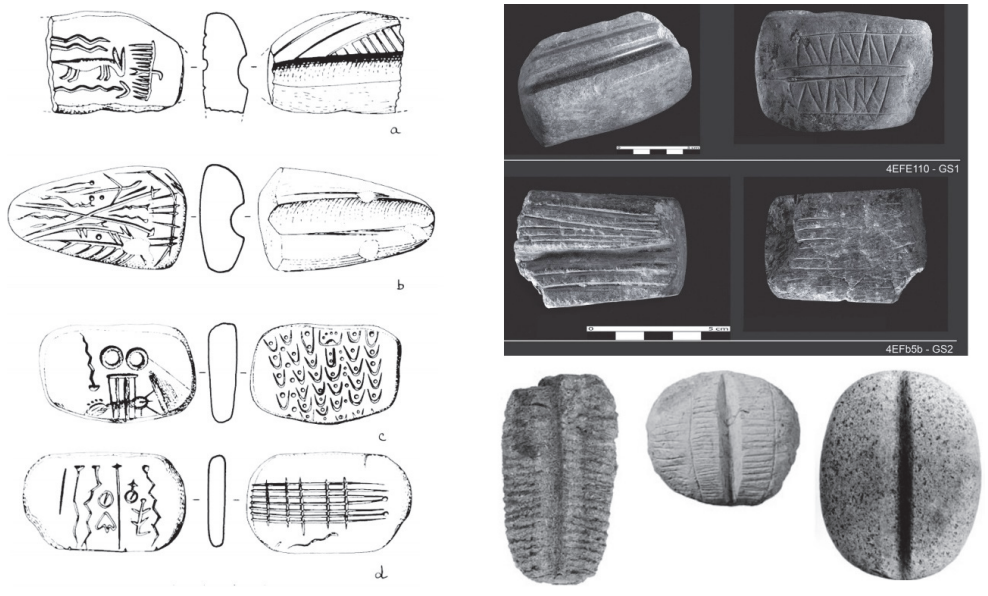

Fig. 4.16. “Shaft straighteners” and plates with carved symbolic incisions. Left: from Jerf el Ahmar, after Stordeur, Helmer and Willcox 1997: Fig. 2. Right: grooved and carved pebbles from Tell Halula, after Molist et al. 2013: Fig 2 (first and second). Below: travertine, limestone, and basalt pebbles from WH27, Phase 1, after Edwards et al. 2019: Fig. 8, 1 and 2; Fig. 9, 3.

There is a different kind of ambiguity, though, at play during the Neolithic: that which is deliberately sought and thought. Prominent examples (see figure below) are the Çatalhöyük sculpture of a woman showing sagging breasts and protruding belly on the front, and a skeletal figure from the back, or the representation of a man’s head

71 Nakamura and Meskell 2009.

72 Edwards et al. 2019: 616f.

with a serpent carved onto its skull from the cultic building at Nevalı (longevity/ wisdom?). Notions about duality and mirroring come to mind with the two-headed statuettes from LPPNB ‘Ain Ghazal.

Fig. 4.17. Reflections on life and death/ duality. Left to right: artefact 12401.X7 from Çatalhöyük, found in space 252 with ground stone, grinding stone, and a mace head. Reproduced from the Çatalhöyük 2005 Archive Report: Fig. 83 (Meskell and Nakamura-Figurines; photo by J. Quinlan); limestone head with carved snake from Nevalı Çori, from https://arkeonews.net/it-may-have-been-designed-in-nevali-cori-before-gobeklitepe-was-built/; statues from ‘Ain Ghazal exhibited at the Amman Citadel (Jordan Archaeological Museum), after Jeanhousen, CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=11749560

The plastered skulls of the Southern Levant during the Middle and Late Pre-pottery Neolithic are fashioned in such a way that specific individuality is not emphasized.[73] As was proposed in Chapter 2, there is an exercise of synecdoque discernable in burial selection, and this was still applied to the modelled skulls that became hybrid sculptures, since only a few skulls were chosen for manipulation and display. Whether represented with their eyes closed or open, intentional or unintentional bulging cheeks, visible beards or lips, plus the traces of headgear, ornaments and color, their features seem to have been modelled in such a way that an appearance of benevolence or peaceful indifference is conveyed.[74]

[73] Kuijt stated: “These individualizing processes appear to have co-existed with other, community-oriented processes, and together they celebrated both the historical individual and the community past and present. These practices effected the transformation from experiential memory, focused on named persons, to referential memory, focused on the symbolic collective” (Kuijt 2008: 185).

[74] See the discussion on the “veneration of ancestors” in Croucher 2012: Ch. 4, and her comments on the Nahal Hemar Cave plastered skulls and their context, indicating accumulative performative events. See also Schmandt-Besserat 2013, with contributions, esp. Ch. 6 on the plastered faces and skulls from ‘Ain Ghazal, with comparisons to seven other locations in Israel, Jordan and southern Syria, as well as early 6th millennium Koşk Höyük (maybe the product of a south to north migration). Skulls were chosen from collective burials and had to be “restored”. Armatures made of vegetal fibre were used.

Birds may also be connected to notions of the cyclical nature of life and death, and through their ability to fly, shamanic wisdom. Throughout time, they were conceptualized in different formats, as carrion birds, leafy plants, double axes, headless angelic pendants, or men with an X-ray effect. In the historical periods, the kingdoms of Anatolia and northern Syria included bird auguries as official divination specialists.[75]

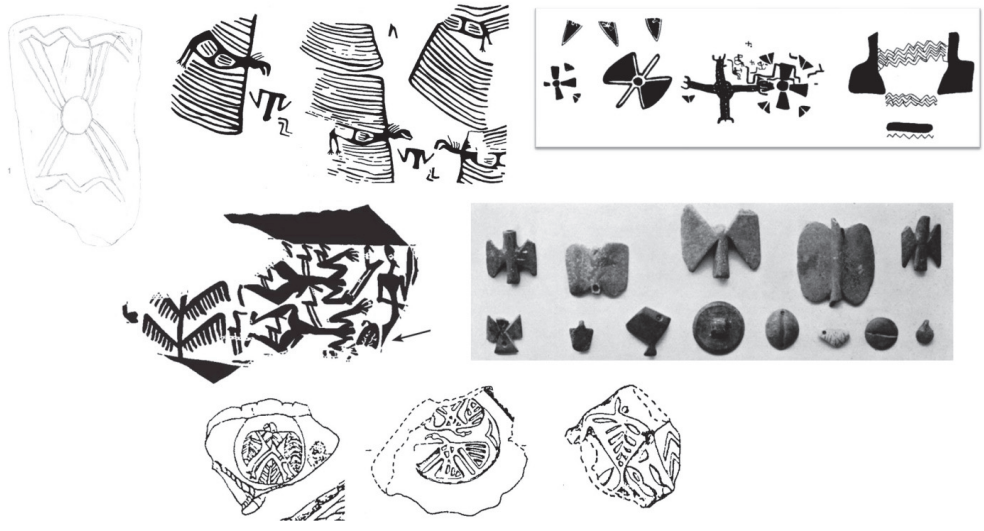

Fig. 4.18. Of wings and men in the North. Decorative bench tile from Tell 'Abr 3, representing a mirroring of the upper and lower sides of the world, linked by aquifers, but also representing wings. After Yartah 2004: Fig. 14-1 (and see Anati 1968: 26). Next, to the right: wall paintings from Çatalhöyük, after Mellaart 1967: Pls.49, 40; below, design on a Domuztepe vessel, with headless figures, plants with feather-like leaves and storks. After Carter 2012: Fig. 9a (and see Carter et al. 2003: Fig. 12). Amulets/ornaments from Arpachiyah, after Mallowan and Rose 1935, Plate VIb (selection). Bottom: stamped sealings from late 5th millennium BC Değirmentepe. After Esin 1994: Fig. 13, 1,3 and 14, 10.

4.1.3.4. The multi-valency of the female body

Given the temporal component, which may be extrapolated to other regions of the world, prolonged experience with sedentism may be at the root of an increase in symbolic materialism. Investigating anthropomorphic representations of the Neolithic Linear Pottery Culture of central Europe, Becker observed: "Oddly enough, anthropomorphic finds are not evenly distributed. (…) This unevenness in quantity cannot be explained with the current state of research, as the following example shows: East Austria yielded around 80 anthropomorphic finds whereas Bavaria yielded barely a dozen. (…) A possible explanation might be the existence of settlements with a special significance, where finds consist of a disproportionate amount of flint and stone tools, stones used for colouring (hematite, graphite) and last, but

[75] Radner 2012: 261. The cult center of Musasir to the west of Lake Urmia was known as the "raven city".

not least, anthropo- and zoomorphic figurines, vessels etc.".[76] Becker believes that some places acted as regional centers of trade and ritual. Rather, these places may have represented a network maintained by the descendants of migrant sedentists. But in any event, what seems to be at the core of causality regarding symbolic increase is sedentism—a community with a marked sense of history, with protracted ties to a specific location—, as might be the case with the Gravettian/Epigravettian and Siberian Upper Paleolithic riverine clusters[77] or the emergence of semi-sedentary settlements in some areas of Honshu after the mobility of the "Incipient/Initial/Early" Jōmon in Japan.[78]

While well-crafted figurines and representations or installations may have been at the root of communal, large-scale ritual, schematic forms of anthropo- and zoomorphs emphasizing particular features may have been used for mundane purposes of short duration, maybe even in combination. Morsch, who analyzed the Nevalı Çori figurines, remarked: "Clay objects have been found in almost all parts of the settlement: mainly in pits and in the open spaces between the houses. Interior finds are limited to the round "houses" detected in Nevali Çori. They are almost completely absent in the "rooms" of the rectangular houses as well as in the walls of any kind of house. Only six clay objects have been discovered in the walls of the cult building, most of them spheres".[79] This suggests that figurine making took place by the hearths and ovens of open courtyards. Only during the second half of the 8th millennium BC do clay objects become a part of the domesticity of village houses, though they would retain a connection to the hearths. The first figurines are mere 'tokens' (see below), showing a lack of commitment to a specific form. Lesure (2011) used graphics to illustrate a gradient of schematization:

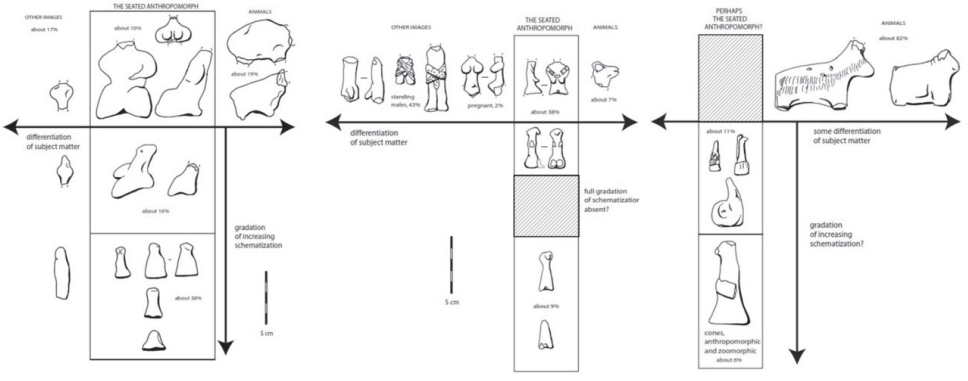

Fig. 4.19. Degrees of schematization according to Lesure. Selection. Left: figurines from Tell Aswad (Syria); after Lesure 2011: Fig. 67. Centre: figurines from Nevalı Çori (Turkey), *ibid.*: Fig. 71. Right: figurines from Ganj Dareh (Iran), *ibid.*: Fig. 70. Reproduced with permission.

76 Becker 2007: 120.

77 Aurenche, Kozlowski and Kozlowski 2013.

78 E.g. Habu 2008.

79 Morsch 2002: 147.

These figurines/tokens may have been used as role-playing pieces by children or adults or in apotropaic rituals. Like the zoomorphs, the anthropomorphs show beheading or intentional breaks, implying deanimation once the goal was achieved. However, even though from the earliest time schematic figurines were and would remain ambiguous, a number of better defined ones gradually accretes, leaning towards the female. Anthropomorphic figurine statistics applied to the data collected from southeastern Europe, Cyprus, Malta, and southwestern Asian Neolithic sites are now unequivocally revealing that most are either female or ambiguous/ schematic.[80] Moreover, the ambiguity and double gender reading that has been argued for certain Eurasian figurines before the Holocene,[81] which is also noticeable in the schematic figurines of the early Neolithic in Southwest Asia,[82] does not preclude the fact that it is in most cases the human female body that is chosen, even if a *trompe l'oeil* effect is incorporated, looking for the viewer's recognition of the simple phallic form, or the cylinder and two balls. Why have one referent when you can have both at the same time?

At a time when a squatting woman was carved during the last phase at Göbekli Tepe (see figure below), a profusion of stalks shaped like heads, torsos, or torsos with thighs appeared at Çayönü, Nevali Çori—where we see some explicitly gendered figurines of both sexes, though mostly males—, Aswad, Ramad, and the Zagros.

Early, too, are the torsos with emphasized breasts, belly, pudenda and buttocks from Mureybet and 'Ain Ghazal.[83] If schematic forms of the 8th millennium never risked becoming too explicit, from the 7th onwards, even schematic forms carried the potential for femaleness, as if the female human body acted as a standard of reference for the whole species, and as time passed by, animal heads onto female bodies may have signaled a metaphor, but that metaphor stood for trans-species animacy.

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[80] See Feagans 2013, particularly 4.1.6 and Appendix D, 403 figurines in total. Despite the lack of diachronic analysis, head/body painting and adornment visibly increase with time (until and including the 5th mil. BC). See also Robb and Harris 2017 for an overview of gender expression through iconography and burial in the European Neolithic, until the Bronze Age. During the Neolithic—according to the authors—, gender differentiation is relative, contextual, with no "stable gender identities".

[81] See, *inter alia*, Svoboda 2007.

[82] Cf. Kehoe 1991 on the figurines from 8th-7th millennium Tepe Sarab, in the Zagros (and see figure below). See also the cylindrical figurines from Munhata, with a double reading, in Garfinkel 1993: Fig. 11. See also *ibid*.: Fig. 10.1, the Byblos figurine, with an unequivocal phallic theme, although including small breasts and the "coffee bean" eyes common to Yarmukian sites.

[83] Cauvin 1977: Fig. 15, 3; Rollefson 2008: Fig. 10. The latter had a hole where the baby would have been. See Rollefson 2008 for a cross-regional overview. The regionalization of southeastern Anatolia-Northern Levant and Northern-Southern Levant can be detected after the end of the PPNA.

Fig. 4.20. Engraving of a squatting woman (and the afterbirth?) carved into a slab placed between the "lions pillars" of a Layer II house at Göbekli Tepe. After Schmidt 2010: Fig. 13 (photo by Dieter Johannes, ©DAI). Right: head of figurine from Nevalı Çori. After Morsch 2017, fig. 4b, frontal view.

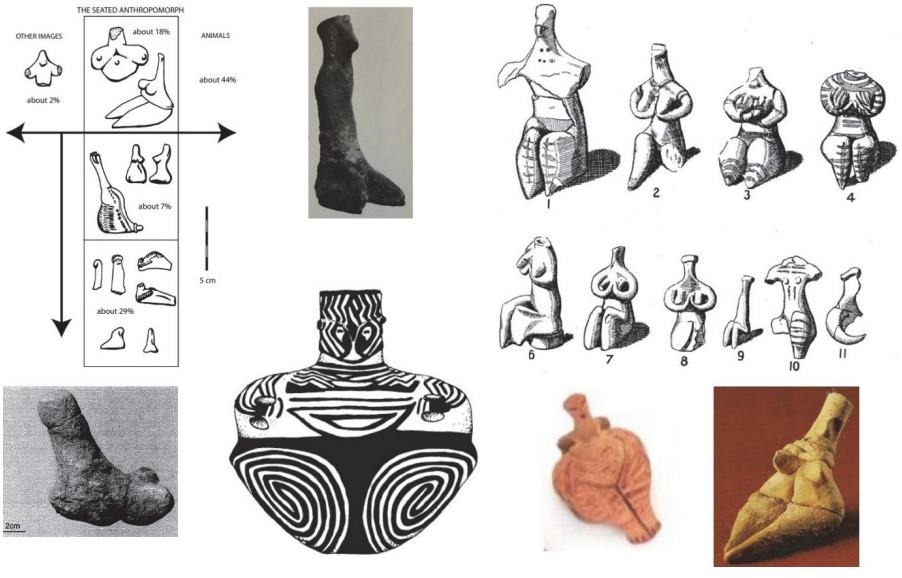

Fig. 4.21. Temporal and geographic diffusion of seated anthropomorphs, some of which show hands-to-breasts gesture. **Left**: 8th-7th mil. BC figurines from Tepe Sarab, Iran, after Lesure 2011: Fig. 74, and **below**, stone anthropomorph/phallus from 6th mil. Domuztepe, after Croucher 2008: Fig. 1.4. **Middle**: 7th mil. BC figurine from Çatalhöyük, after Hodder 2006: Fig. 82 (© ÇRP). **Below**: decorated vessel from Haçilar I (beginning of the 6th mil. BC), after Lesure 2011: Fig. 90 (redrawn by A. Purcell from Mellaart 1970: Fig. 249). **Right**: figurines from Chagar Bazar (6th mil. BC), after Mallowan 1936: Fig. 5. **Below**: 5th millennium BC figurine from Poduri-Dealul, Romania, and 4th mil. BC Merhgarh, Pakistan. After Feagans 2013 (ROM_EN_331) and Ahmad, Rizvi and Tahir 2019: Fig. 3.

The image above shows a prolonged continuity of the "seated anthropomorph", as Lesure called it, which often includes the hand/s to breasts gesture.[84] Despite the harm caused by simplistic generalizations of the "fertility" or "erotic" kind,[85] the increasing popularization of female figurines during the 7th and the 6th millennium BC (with the exception of the Southern Levant, which remained ambiguous)[86] cannot be by chance and needs to be investigated in the framework of Pre- and Pottery Neolithic domesticity and its concomitant values. Female spirits with different scopes of agency including reproduction would have been capable of metamorphosis as an attribute of a being more powerful than a human, so the image did not have to be the perfect idealization of a female deity. It is also possible that the specialist and his/her spiritual aids transferred harmful entities into the schematic figurine, which acted as a decoy, meant to be destroyed. But the proliferation of female motifs as time went by, transferred to depictions on vessels, to vessels themselves or to furniture,[87] plus the incorporation of duality and species ambiguity to the female body, are indicative of egalitarian values and localized expressions of female roles, including—but not reduced to—child-bearing/life-giving. And even the best fashioned figurines may have retained a multivalency (see figures below).

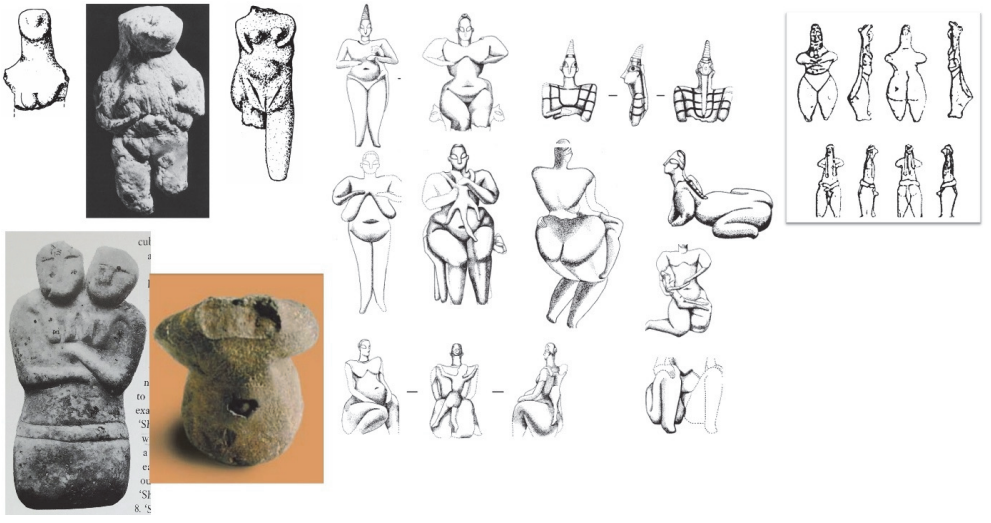

Fig. 4.22. Notions about femaleness, 8th to 6th millennium BC. **Top left**: three female figurines from Mureybet, assigned all by Cauvin to phase III (1977: Fig. 15, 2 and 3; Fig. 17); **below**,

[84] See Lesure 2011: Ch. 6 for a regional overview. Given the temporal scope, the analysis would have benefitted from the inclusion of Southeast Europe. For instance, the slightly raised (supplicant) face in seated genderless or male figurines from Mezraa Teleilat can be found later in standing figurines (genderless or female) from Bulgaria, Romania, Serbia, even Cyprus and Italy: compare his Fig. 76 with Feagans 2013, Appendix D, *passim*. This trait will merge with the cruciform (arms extended) trait from Western Anatolian sites like Kuruçay and Höyücek.

[85] See a critical overview in Nowell and Chang 2014.

[86] Garfinkel 1993: Figs. 10-12; Lesure 2011: Fig. 75, 79-82.

[87] Feagans 2013, Appendix D, 274 and 287, from two 5th mil. BC Romanian sites; and Fig. 4.33 below.

doble-headed and double-breasted statuette showing arms below breasts, and headless figurine with a hole in the back preserving a seed, from Çatalhöyük. After Hodder 2006: Fig. 36 and Hodder 2003, p. 82, back view (© Çatalhöyük Research Project). **Middle**: a selection of women's naturalistic representations at Hacılar VI, destroyed by fire, 7th-6th mil. BC. After Voigt 2007. **Right**: female and male figurines from Ulucak Höyük in western Anatolia, late 7th mil. BC. After Abay 2003: Fig. 6.

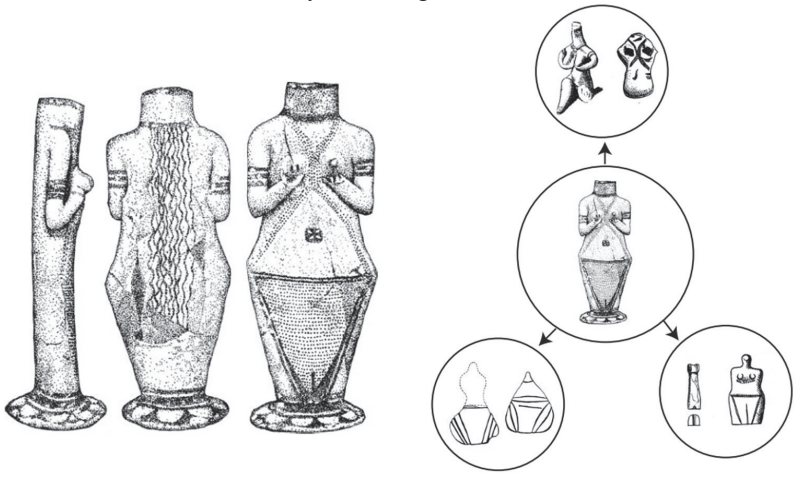

Fig. 4.23. Anthropomorphic vessel from Yarim Tepe II and Halaf female figurines. After Lesure 2011: Figures 94 and 95. Yarim Tepe vessel (approx. 22 cm tall) drawn by Alana Purcell from Munchaev and Merpert 1981: Fig. 70. Figure 95 on the right is composed by top and below, right – Arpachiyah figurines from Mallowan and Rose 1935, and below, left – YTII from Munchaev and Merpert 1981: Figs. 64 and 70. Drawn by A. Purcell. Reproduced with permission.

As seen in the plastic corpus at the Hacılar VI houses—where anthropomorphic ambiguity was preferred for large slabs/steles—, the exploration with clay favoring female representations seen throughout the last levels at Çatalhöyük (an observation made by Voigt, which I find stands the test of time) is here developed to the maximum, to the extent that this is one assemblage where the didactic interpretation—not necessarily in initiation rites—is persuasive. Small pieces resembling cushions or insertable pieces were also retrieved, although some of them look like extremely small and tentative schematic figurines.[88] All ages seem to have been covered, and the special attention paid to heads, often detached from the bodies, or heads and torsos, suggests aesthetic social preferences and fashions. In some cases, apart from the permanent ornamentation, we may presume attachable elements. Not much later at Ulucak, one of the earliest sedentary sites in western Anatolia, a figurine was found in a bowl containing pieces of flint and obsidian in the proximity of two ovens, in a house from Level IV—the best preserved, ended by fire—, whereas two more figurines were retrieved from a broken bowl on the floor of another house, again surrounded by flint flakes. The latter were intact (see Fig. 4.22 above). The female one was larger. The male body is shown wearing a loincloth, and—since the head

[88] Voigt 2007: Fig. 12.4 and 7 512.

was not broken—long hair. Like the female one, he adopts the arms under breasts position, which may have become, by then, a standardized sign of respect to a deity. The two-roomed house (part of an agglutinative layout) had abundant pottery and tool remains, was probably painted red and had benches, and was hence clearly a working space and not sleeping quarters.[89] This is one of the first clearest contexts of ritual embedded in mundane activities.

Sedentism must have engendered negotiations in the definition of gender- and age-based social roles to promote communal thriving, welfare and avoidance of conflict, where the need to respond aggressively to external threats would not turn inwards. Life in larger groups implied that women could share first menstruation rites, daily chores, the burdens and fears of pregnancy, miscarriage and childbirth, and the manufacture of whatever crafts they were responsible for, with at least women of their age and elder women. They may have survived in higher numbers than the non-sedentists, thus acquiring elderly status. Home-making, material pleasures, and the possibility of transferring comfort to multiple locations (portability) may be something that women encouraged in egalitarian social organizations, like those clearly present in the last Neolithic of Southwest Asia (7th and 6th millennium BC). Architecture was no longer solely devoted to working, storage, celebratory and commemorating spaces, it had become fully residential, although for those who adopted sedentism late (see Ch. 6), sedentism was not the same slow, transformative experience.

The Çatalhöyük team specialists have, however, insisted for decades—a reaction to the simplicity of Mellaart's religious theories (i.e. a "Modder Goddess" cult)—that the majority of the anthropomorphic figurines that were increasingly emerging as excavations progressed since Hodder was appointed director of excavations in 1993 were not blatantly female. In the 2016 Archive Report, the finding of a headless stone figurine with a marked pubis was reported. It was found in a fire spot inside a house together with worked bones and stones, flint and obsidian tools, a fragment of a horn and two wings of a bird. However, Meskell and colleagues emphasized the relative rareness of this type of figurine and de-emphasized the expression of the genitalia.[90] In two articles on body heuristics, one linking diet through isotope analysis and figurines, the other on burial practices and the plastic arts, the authors emphasized the importance of "aging, maturity and longevity" or "longevity, health, achievement, and elder status" [91] to avoid the fertility bias, defended by Mellaart even in the case of the obese women with pendular breasts found in the last phases of the East Mound, and popularized through the most emblematic version —the one seating on a throne, flanked by leopards. The first article tried to find a correlation

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[89] Abay 2003: 18ff.

[90] Meskell et al. 2016: 137ff, and Table 9.2. There may be a chronological component, which—if explored—should leave aside the stone and clay "abbreviated" figurines. See, for instance, Hodder 2006: Fig. 21 (full-bodied, naked but for a belt, hands-to-breasts gesture); Fig. 91, the mentioned headless figurine wearing a feline skin and shorts (stocky, head and arms deliberately broken, no feet) and Fig. 94, headless, seated, naked and painted, corpulent and full-breasted, hands on the knees.

[91] Pearson and Meskell 2013; Nakamura and Meskell 2009.

between the consumption of prestige food according to gender and age, and the material concern to render permanent ancestors by "improving upon the frailties of flesh", as witnessed by the use of plaster on graves (and on the single plastered skull found in Anatolia at this time), the sculpture of a headless woman with a skeletal back (see above, on duality), and the use of red paint. However, in general, there was equality in food consumption, with young males having a more diversified diet. The figurines, therefore, with their exaggerated breasts, stomach and buttocks, represent ideals, and, indeed, not a single one related to fertility. But the values of maturity at Çatal *are* expressed mainly *through the female body* —and, as domestication was increasingly adopted, the values of animal power. Hence, the assertion that "men also have breasts that can become more pronounced with weight gain"[92] may be relevant in any other type of corpulence/obesity display associated with men elsewhere, but it is not relevant for the figurines of Central Anatolia from the 8th to the end of the 7th millennium BC, and only partly relevant for the Southern Levant (the "Yarmukian" sites —where fat, clothes, elongated heads, and animalistic/sexual features affect both genders). At 6th millennium Köşk Höyük, seated female figurines with prominent eyes, conical hairdos, and rigid postures—arm to breast or crossed arms—show a remarkable degree of stylistic confluence, but—unlike the women depicted on the pottery sherds at the same site, arms raised and celebrating in unison—they display a serious expression.[93] Unbroken, many female figurines may have retained their sacred value.

The second article discussed the presence of hybrid (animal-human) features in plastic media at this site and elsewhere (lasting until the 5th millennium BC),[94] seeking also to underline that zoomorphic figurines, sculptures and stamp carvings do not emphasize sexuality.[95] Indeed, we could almost say that during the Neolithic, the animal is the third gender. Bears with navels and mirroring leopards are asexual.

As the domesticity of post-7th millennium BC villages progressed, women were frequently depicted in communal celebration scenes, mostly as vessel decoration. An early example, though, comes from 8th millennium BC Halula, painted on the floor of the main room of a house (see Fig. 4.24).

Granted, not all figures depicted in celebration are always women. Male ritual practitioners, arms raised (a symbol for ASC) or wearing tribal headgear or clothing (but at Domuztepe, maybe also women), are attested in scenes of carefully decorated wares.[96]

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92 Pearson and Meskell 2013: 475.

93 Silistreli 1989.

94 Cf. Daems 2010, who studied the "ophidian" figurines from southern Mesopotamian and western Iranian sites, spanning the 5th millennium as a whole. Unlike Daems, I think that the connection to animal traits is deliberate and does not clash with other identity markers related to the socially-conceived body. I also think that jewelry and items of clothing may be according to fashion, but painted lines, geometric decoration, and body posture may symbolize cosmological values.

95 Nakamura and Meskell 2009.

96 See figure 4.25 and Garfinkel 2013: 9.7 and 17a for Iranian sites.

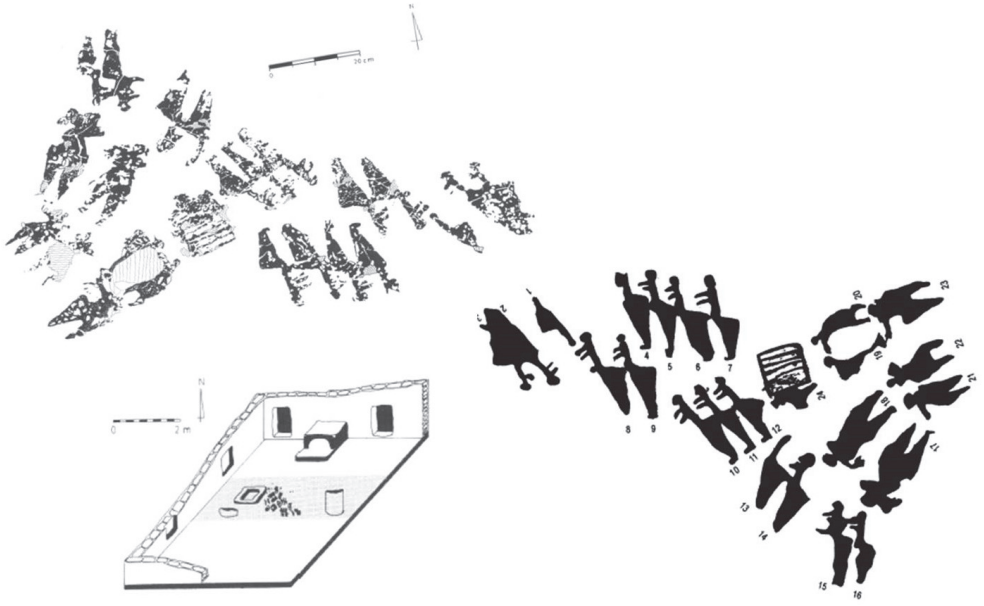

Fig. 4.24. Painted plaster floor from Tell Halula. After Molist 1998: Figs. 3 and 4 (drawing by A. Ferrer). On the right, redrawing in inverted position after Garfinkel 2003: Fig. 7.4, reproduced with permission by Y. Garfinkel.

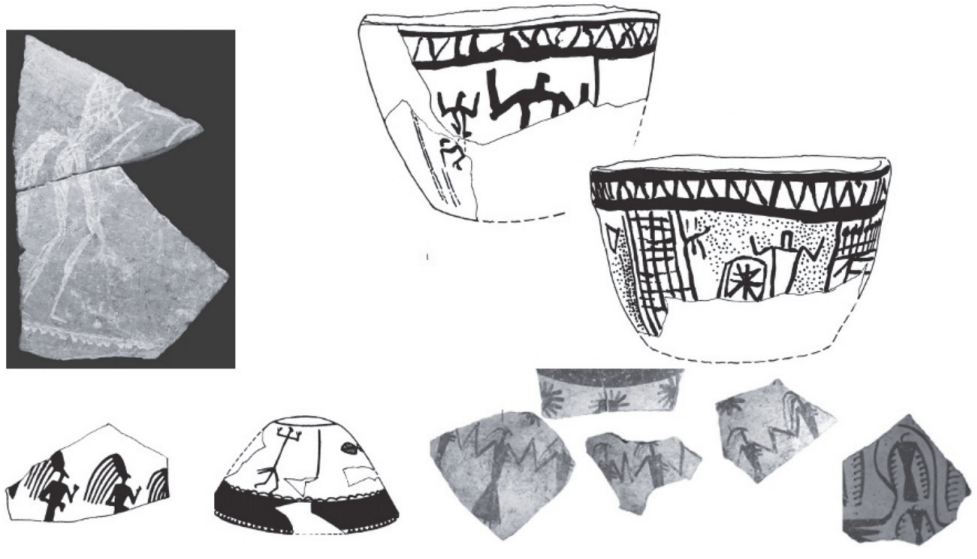

Fig. 4.25. Scenes of men (and women) in communal or group ritual. **Left**: incised sherd from Sakje Gözu (Turkey), after Garfinkel 2003: Fig. 8.18 (Ashmolean Museum, 2001.93). **Top right**: bowl from Tell Halaf, showing schematic men with raised arms and a man standing by a fire (?) with raised arms, flanked by a tree (the forest?) and a palisade (the village?) *ibid*.: Fig. 8.12. **Bottom, left**: Tell Sabi Abyad, *ibid*.: Fig. 8.3,f. and Tepe Gawra, *ibid*: Fig. 8.3,e. Reproduced with permission by Y. Garfinkel. **Right**: sherds from Domuztepe, after Carter 2012, Fig.14 a,b.

The camaraderie of women in ritual celebration is palpable in their arrangement, in lines or circles, frequently joining hands, as seen below.

Fig. 4.26. Painted sherds with images of women in celebration (6th and 5th millennium BC). Top row: Tell Halaf (Iraq), Tchechme Ali and Tepe Sialk (Iran), reproduced from Garfinkel 2013, Fig. 8.3,a; Fig. 9.25, a, d. Middle: from Samarra (Iraq), *ibid*.: Fig. 8.4,a and b; from an unprovenanced location in Iran, *ibid*.: Fig. 9.19g. Bottom row: from Jaffarabad (Iran), Choga Mami (Iraq), and Tepe Sialk (Iran), after *ibid*.: Fig. 9.15b,c,a.

The power of women with floating hair—which the Samarran stylistic schemas transform into scorpions—, the flowers or dotted circles, the comb or textile motifs, all of these features add meaning and suggest a link to the purpose of these festivals, where presumably the vessels themselves would have been used to serve the victuals. Rarely do both genders dance together, although there are exceptions (see bottom row in the image above), emphasizing even more the promotion of values of communal sharing and non-competitiveness.

The basic, composite shape of head and raised arms creates one of the best attested schematic motifs in Mesopotamian and Iranian depictions. Although these flower-like motifs are usually interpreted as bucrania, there may be a hidden, derived meaning related to ASC experiences: e.g. poppy, angel's trumpet, or similar.

Ladders, nets and textile motifs are symbolic, too. The simple cloth—looking like a mirror—held and displayed by two women in a complex scene painted on an Arpachiyah bowl found in a grave may suggest that shroud weaving was under the purview of women. The whole scene, staged carefully through outer, inner and bottom surfaces seems to be a compositional narrative, perhaps honoring the deceased (or the feat that killed him) and his role in the community (see Fig. 4.28).

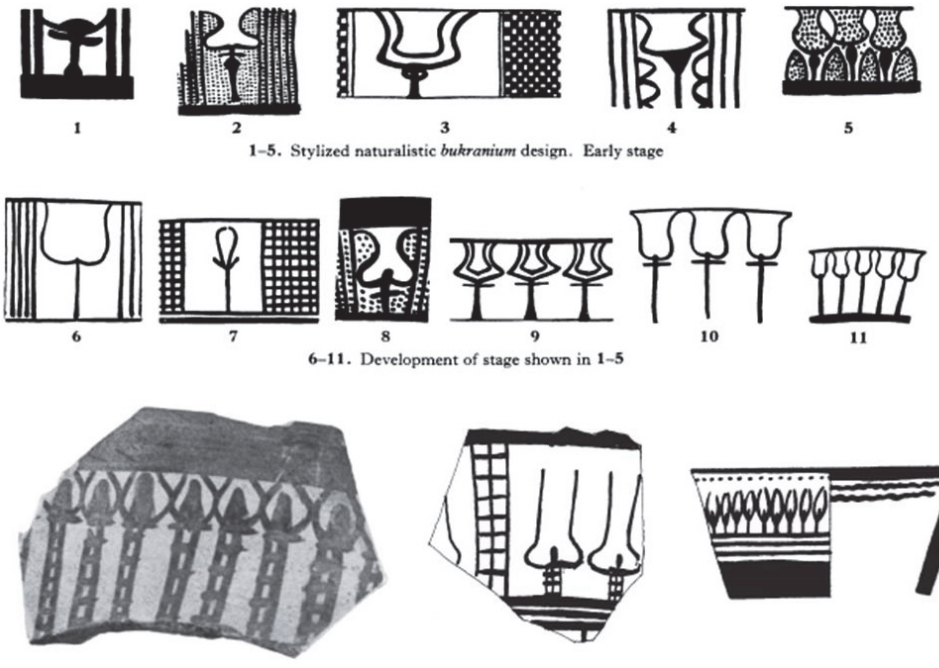

Fig.4.27. Multilayered meaning on painted pottery. Top two rows: Arpachiyah motifs, after Mallowan and Rose, Fig. 74. Bottom row: painted sherds from Tepe Musiyan, from Garfinkel 2003: Fig. 9.11 (Musée du Louvre, photo by Y. Garfinkel), Tell Dammishiliya (Syria) and Musiyan (Iran), *ibid*: Fig. 9.13 b and g.

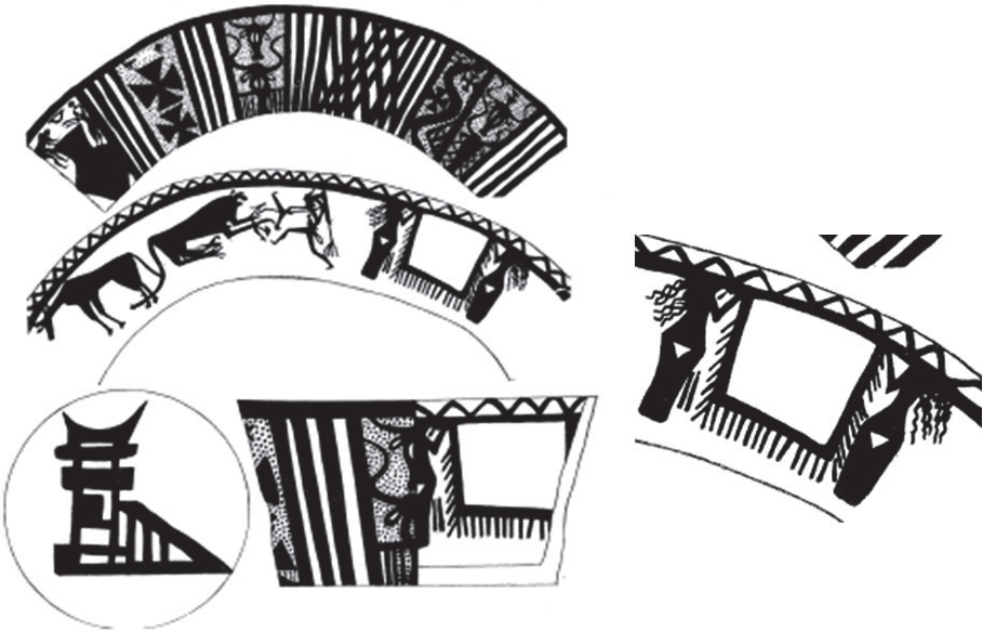

Fig. 4.28. Outer, inner, bottom and composite decoration on an Arpachiyah bowl (burial G2, tholos area). Enlarged detail on the right. After Hijara 1978: Fig. 1.

To conclude, women (and men?) during the Neolithic in Southwest Asian villages appear to have creatively expressed the role of women in the community, linked to the world beyond (the animal, the dead), through the fashioning of figurines and the decoration of home articles that communicated values of harmony and communal celebration instead of aggression and competition.

4.2. On 'tokens' and 'seals': administrative devices or scholarly cul-de-sacs?

A last section needs to be devoted to artifacts that for most scholars nowadays are imbued with—if not administrative—certainly 'property' connotations. Property, however, evokes legal notions which, together with ideas of land ownership, are in blatant opposition to an animated ontology and its open-ended moral values.

The end of the 7th millennium ushers the beginning of the "Neolithic" dispersal. Sedentism is adopted by peoples living in all regions of Anatolia, Southeast Europe, the Caucasus, the Tigris and Zagros, and lower Mesopotamia. However, we should bear in mind that storage facilities, two-storied houses, basketry and textile weaving, the so-called *vaisselle blanche* (the culmination of the experimentation with plaster begun in the PPNA)—all of these typical markers of agropastoral sedentism—predate the Pottery Neolithic and the expansion of a village-based way of life. Domestication facilitated survival, but it did not eliminate uncertainty, disease, risky pregnancies, child mortality, predator threats or catastrophes. Yet, communal life would have been perceived—in the eyes of those who emulated it—a better way to share the fears and the burdens. The focus of domestication should not be in its particulars, which can only lead to the persistence of academic bias concerning the family household configuration as an economic entity.

4.2.1. The versatility of tokens

In her well-known work on tokens, *Before Writing*, Schmandt-Besserat equated 'tokens' to 'counters'. Any small piece of clay or stone which is not a figure may count as one commodity, from her point of view, hence justifying a narrative of uninterrupted accounting practices from 8000 to 3000 BC.[97] This usage would have culminated with more diverse typologies, the introduction of "complex tokens", and their insertion in hollow bullae—envelopes—during the second half of the 4th millennium BC.

I will start by revising some of the earliest attestations, even some that are not usually acknowledged as such. As we have seen before, schematic figurines were initially —and would always remain— commonplace.

[97] Schmandt-Besserat 1992: 10f.

Fig. 4.29. Early PPNB objects classified as figurines. From Nevalı Çori (incl. one miniature vessel), after Morsch 2002: Pl. 4, 1–2, Pl. 6, 3. From Gilgal III, after Hershman and Belfer-Cohen 2010: Fig. 11.14. Below, from Çatalhöyük, some showing animal and/or phallic features. After Nakamura and Meskell 2009: Fig. 2 (photo by J. Quinlan).

Ganj Dareh (Level D, see Fig. 4.30) was a village located in the Zagros Mountains (1400 m. altitude) and occupied at the end of the 8th millennium BC. It has been of interest to zooarchaeologists concerning early strategies of goat domestication.[98] A wide array of wild animals and plants were consumed. The excavating team was surprised to find small quantities of domesticated barley, but not wheat, in all levels and at such altitude. Level D preserved hoofprints on sundried bricks, which indicated incipient goat husbandry.[99]

[98] Zeder and Hesse 2000.

[99] Smith 1990: 324.

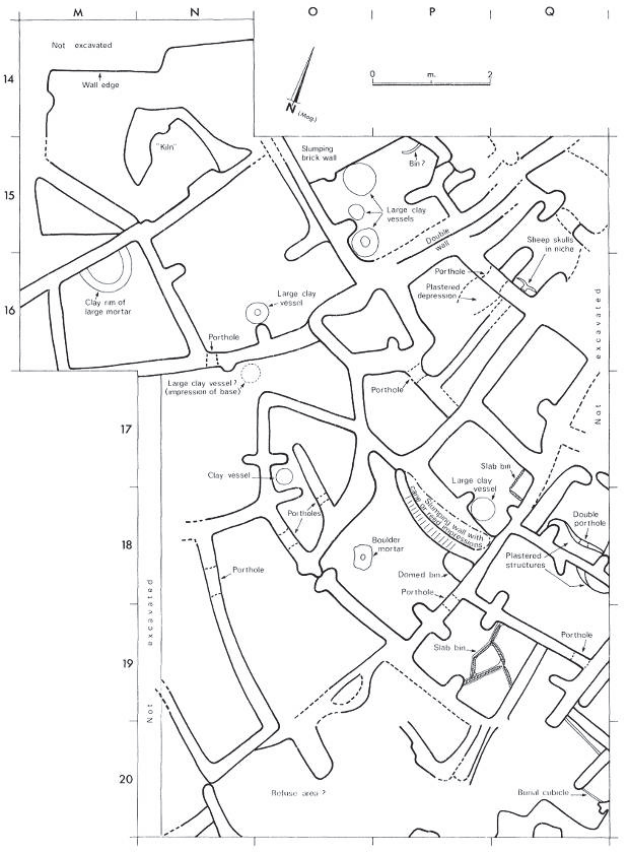

Fig. 4.30. Ganj Dareh D, central area of the site, foundation walls. After Smith 1990: Fig.1.

Apart from figurines, Ganj Dareh yielded 644 clay pieces with a roughly conical shape, 204 of which bore gashes.[100] Broman Morales remarked: "The large number of examples of this particular form at Ganj Dareh (almost one-third of the total cone sample) indicates that the practice had some specific meaning, although there is not at the moment any good explanation."[101] Some of those pieces could easily be perceived as schematic figurines depending on the perspective of the typologist.

[100] Broman Morales and Smith 1990.

[101] *Ibid*.:115.

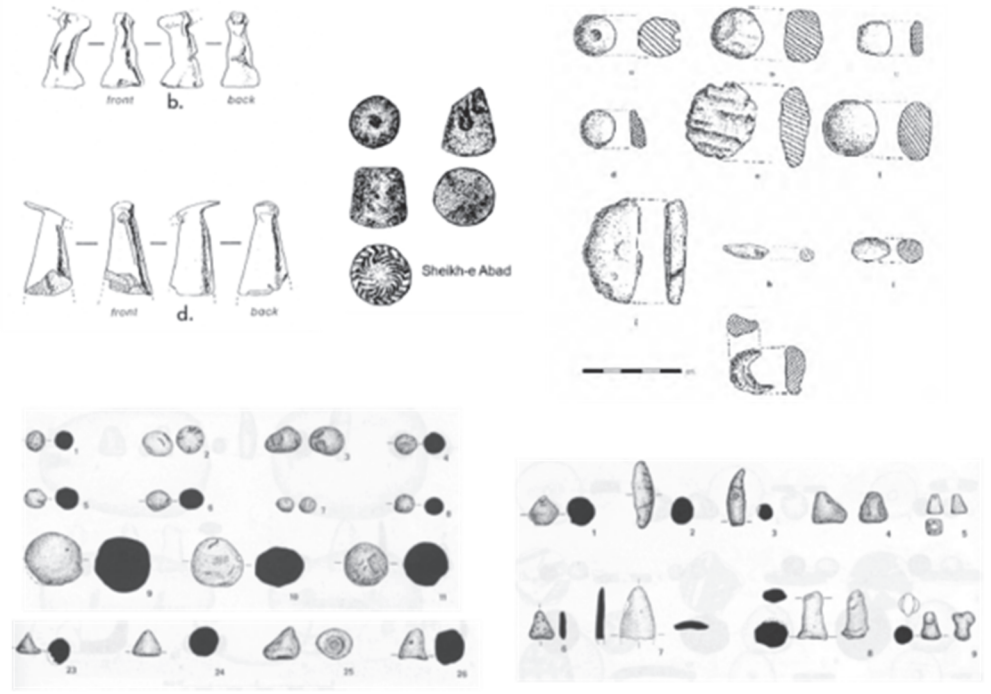

Fig. 4.31. A selection of 'tokens' from Ganj Dareh and Sheikh-e Abad in the Zagros (late 8th and 6th millennium BC, respectively), 'Ain Ghazal, Jordan (7th millennium BC), and Sabi Abyad, Syria (6th millennium BC). After Broman Morales and Smith 1990: Fig. 1, b and d; after Darabi 2016: Fig. 4; after Iceland 2000: Fig. 2.1.3 (drawings by G. St. Clair); after Spoor and Collet 1996, selection from Fig. 8.4 and 8.5.

During the 8th millennium BC sites to the east of the Dead Sea in Jordan, either in the highlands or in the wadis, emerged and grew into well-sized villages. One of them was 'Ain Ghazal, excavated in the 1980s as a salvage operation before road construction. The site is well-known for its plastered skulls and statuettes. None of the subfloor burials nor the architecture allows for an interpretation of particular social and economic complexity either, despite the presence of domesticated animals. As mentioned earlier, at the end of Chapter 3, hunting was still practiced and co-existed with small-scale pastoralism. Yet, after analyzing the small objects found at this site, and comparing them with those retrieved from Tell Aswad and Ramad, in Syria, as well as Tepe Asiab in Iran, Iceland concluded: "All four Pre-Pottery Neolithic sites appear to share the same general suite of token shapes and predominance of certain forms. The 'Ain Ghazal assemblage, however, has a somewhat greater diversity of token shapes that may indicate a greater variety of products entering the redistributive system and subject to elite control than at the other three sites".[102] "Elite control" in a "redistributive system" is justified as a reasonable social scenario because of perceived clay object diversity, even if out of 137 items, 95 were reported to be 'spheres'.

[102] Iceland 2000: 48.

More recently, Bennison-Chapman undertook the analysis of tokens from Çatalhöyük and nearby (but earlier) Boncuclu Höyük. She then further studied the Sabi Abyad I, Operation II assemblage coming from a more restricted context, since this area was not extensively excavated, together with what had been gathered from Operation I, which had been published but not examined in detail.[103]

In her earlier work, she set the parameters of what we should expect to see had 'tokens' been used as 'calculi' for administrative purposes: "(I) a range of objects definitely and intentionally crafted into a range of clear, geometric shapes; (2) little variation within shape categories; (3) a correlation between their presence at a site and specific features including sedentism, agriculture, a range of crops and other materials in circulation; (4) a set repertoire of shapes, consistent with the range and type of goods and commodities in circulation at the site; and (5) regional and temporal correlation across the entire Neolithic of the Near East."[104]

I find that these criteria are already pre-determining the tenor of research. Parameters are not set for other, earlier, theories, such as their use as gaming pieces, toys, or ritual tools. There are some biases inherent to an administrative use perspective:

1) It presupposes that communities needed to precisely count their processed foodstuffs according to the type of foodstuff. Are these applied to general categories of foodstuffs (e.g. cereals, animal meat, textiles) or are these applied to sub-categories (e.g. wheat, barley, chaff; meat from cow, sheep, goat, etc.)? Or are these applied to a measure or amount by container (e.g. one basket of so and so proportions)?
2) It implies that these people had very faulty memories and did not remember the amount of stored foodstuffs (on which their survival was predicated).
3) If interpreted as "promissory notes" or "receipts" of sorts, it implied that 'trade' either at an intra- or inter-communal level was formally practiced, and that the transactions were conducted between people who did not trust each other, or were perceived as third parties or strangers, yet requiring that everyone involved in the bartering exercise shared an implicit understanding of token=commodity.
4) It implies that they found no better way to count their stored foodstuffs or to certify their transactions than to fashion a number of objects that, even though lacking in manufacturing effort, were so carelessly shaped that they lacked precision. The frequent observation of incisions also adds to this picture of confusion. Does the fact that spheres and cones predominate mean something? What, exactly, is implied by "little variation within categories"?
5) Are we to exclude or include small animal figurines and miniature vessels? What about flattened "stamps" with no piercing? Not only tokens may be mistaken for schematic figurines, but figurines and tokens are often found together. Context is not important here. They may be found inside buildings, in external areas, or discarded in middens. At Late PPNB Es-Sifiya, in Jordan, tokens and figurines were found in the vicinity of a fire in the open. These objects had been left to dry,

[103] Bennison-Chapman 2020; 2023.

[104] Bennison-Chapman 2020: 113f.

then burnt. "The baking activity can be reconstructed as a simple open fire of twigs and shrubs, under and among which the figurines, geometrics, and lumps of raw material were baked".[105]

Of the more than 700 tokens that Bennison-Chapman examined from Çatalhöyük, spheres and semispheres constituted over half of the total assemblage, with discs, cones, and other shapes represented in decreasing proportions. There were occasional impressions from fingers, matting, or chaff, and "decorative markings". She thought that these tokens were more "standardized" than earlier ones from Boncuklu, but less than the Sabi Abyad ones. Although she studied the contexts where these objects were found at Çatalhöyük, in search for some kind of correlation, the only observation that she could make concerned the mini-balls (found often inside buildings, more numerous in the later phases). In one building, three tokens were found with a pot buried into the floor and next to a hearth.[106] The lack of neat clustering in sets makes her dismiss these objects as gaming pieces, and barely considers their use as toys or for ritual purposes. She considers more carefully divination: "Clay objects could have been used as "lots"; being thrown or drawn from a container to make a choice or decision". However, she finds the evidence inconclusive: "direct evidence of this function, like that of ritual in general is absent at Çatalhöyük".[107] This is surprising, since Çatalhöyük is a site where evidence for Neolithic ritual is one of the richest if not the richest at this time. The fact that these objects were often discarded, and many even may have been pulverized or thrown into hearths or rivers, does not only not deny their ritual use but confirms it. We are also missing the tokens and figurines made of wood. Bennison-Chapman was also unconvinced about the administrative functions—i.e. simple counters, abacus counters, and random symbolic tools— yet she finally favored the 'simple counters' option (one-to-one correspondence). She concluded: "All evidence points to Çatalhöyük's clay objects having acted as multifunctional artefacts, their accessibility and ease of craft affording them fluidity of function and interpretation with imbued value and meaning".[108]

This conclusion, however, was not extended to Sabi Abyad. As is the case at other sites, the assemblage excavated from the Burnt Village at Sabi Abyad I (Operation I, Level 6) was also composed of a high proportion of roughly made balls of different sizes.[109] The communal storage facilities (rows of cells and upper floors or roofs) found here will be further treated in the following chapter. For now, suffice to say that the burnt debris that fell on the basement rooms included pottery and sealing fragments, figurines, tokens, and spindle whorls.

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[105] Mahasneh and Gebel 1999: 106.

[106] Bennison-Chapman 2020: 121. Most non-spherical tokens were found in refuse contexts.

[107] *Ibid*.: 122.

[108] *Ibid*.: 128.

[109] Spoor and Collet 1996 classified 80 out of 197 (Table 8.1). Reanalysis by Bennison-Chapman 2023 leads to over 34% of spheres for a total of 261 tokens (though spheres dominate in Operation II, Building 1). She reduces the typology to four basic types, where Spoor and Collet had given eight categories without the miniature vessels.

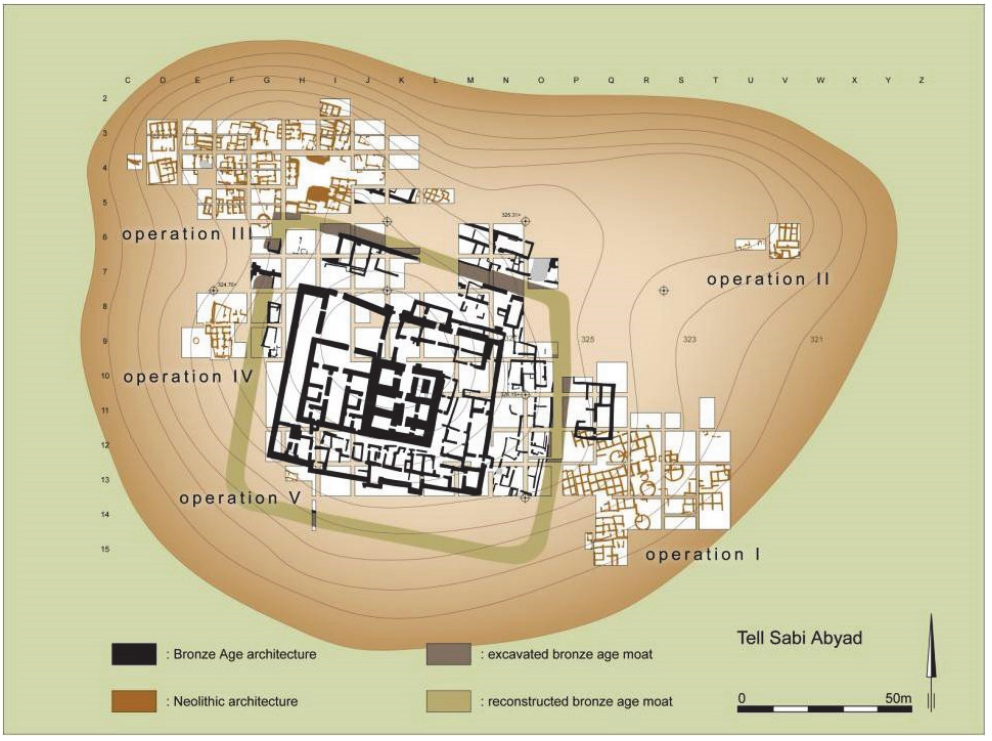

Fig. 4.32. Map of the 5 operations at Sabi Abyad I. Operations I–IV belong to the Late Neolithic. Courtesy of PMMG Akkermans, © Sabi Abyad archaeological mission.

Operation II seems to have been roughly contemporaneous with Operation I (north-east and southeast, see figure above). Op. II consists of a 10 x 10 m trench, and two main building levels (T-structure B1 and B3). The find of surrounding pits, open spaces, rooms and infant burial during its short occupation indicate that this building was a part of the village at large.[110] Building I in the oldest phase was burnt, and in this case, even more clearly than with the Burnt Village the ritual killing of the house through fire is very likely.[111] A young woman was buried in one of the back rooms in a crouching position, with half a basalt macehead underneath one hand. Under her skull there was a piece of yellow ochre and an animal bone. The macehead may have been broken on purpose for her burial, signaling its ritual death. There are no other grave goods, and yet, she must have had an acquired status to be buried together with the building, even if the house was burnt as a prophylactic measure. The room where she was placed had not been much affected by the conflagration. In this building, a whole domestic assemblage was found: ground-stone and bone tools, spindle whorls, pierced discs and jar stoppers, tokens and sealing fragments, clay objects usually called “sling missiles” and beads. The assemblage is similar to that of Building 2 of Operation I.

[110] Akkermans et al. 2006: 129ff.

[111] Akkermans et al. 2012.

At Sabi Abyad as at other sites, ground floors probably acted as basements whose main purpose was to elevate the first floor. Even if some cubicles or larger, elongated rooms may have acted as storage cellars, as the occasional plant remain indicates, it would have been highly impractical to use all of them as such, since access would only have been possible from above. Only some rooms had portholes. This implies that the objects fell from an upper floor and that a too-close reading of contexts only serves to give false correlations. So, for instance, even if Room 3 of the T-shaped building in Op. II had the highest number of tokens, other "unrelated" objects were also retrieved from the debris here, like the "sling bolts", a bone tool, a figurine, etc. The highest numbers of sealing fragments came from two of the three largest rooms. Stone tools were found everywhere. Akkermans actually acknowledged this: "Only very few objects occurred (*in situ*?) on the floor of the building; the many hundreds of other finds were all in the fill at different elevations, with most of them below the fallen roofing debris".[112] Shelves against the walls on the ground floor would only have impeded movement even more, since the width of the elongated rooms was little more than one meter.

From Bennison-Chapman's analysis of Operation II, both levels, the most interesting discovery are the fragments that when fitted recompose half or whole hollow spheres. The temptation to see extremely early precursors to the 4th millennium envelopes found at Susa, Choga Mish, Habuba Kabira and Uruk is a tantalizing one. However, although some of them bore ovoid token impressions, no stamp was impressed on their outer surfaces.[113] Tokens were found at all levels, even after the destruction of the youngest building. Bennison-Chapman does not treat a hoard that Akkermans and colleagues reported in 2006 (almost 1600 tokens in total), found "in a receptacle found into the ruins of the level 2 house (upper phase building)".[114]

Twenty-six thousand years ago, the inhabitants at Dolní Věstonice and Pavlov in Moravia may have intentionally thrown figurines fashioned with good-quality clay into well-made ovens and hearth fires to produce thermal shock and possible fragmentation of the artifacts, such was the number of pellets that together with numerous animal figurines and a few anthropomorphic figurine fragments were found at these sites.[115] The suspected reason is ritual or divination. Much, much later, at the beginning of the Pottery Neolithic in Southeastern Europe, some zoomorphic-anthropomorphic clay objects with a cavity inside, in which small pebbles were placed before firing, were found at two sites of the Vinça culture. One of them revealed by X-ray examination that there were 28 white and 4 black pebbles inside.[116]

Examples like these could help explain the hollow spheres or hemi-spheres with tokens. They could have been inserted into a hollow ball and thrown into the fire until it cracked, or held in the hand and thrown, the markings indicating some prior outcome. Although I am inclined to see these roughly shaped objects as potential

[112] Akkermans et al. 2012: 317.

[113] Bennison-Chapman 2023.

[114] Akkermans et al. 2006: 131.

[115] Soffer et al. 1993; Vandiver 2022.

[116] Vitezović 2017.

divination pieces—in a way, divination may be the oldest of economic practices, if the perception is that survival depends upon ascertaining what decision to make—they could have had many other purposes. Whereas many of the figurines may have been agents of substitution or mediation, the possibility that many of the quickly made clay objects served such a purpose, too, should not be dismissed. Or, like the *conopa*, they may have been used as hearth offerings. They seem to be a sort of "slag", snippets of clay that were left over after the fashioning of figurines or other clay objects, and then given easy forms of unknown symbolism to us. They could very well have acted as toys or gaming pieces, since a board would not have been required or may have been lost to decomposition,[117] and since they will pop up in mountainous regions where pastoralism was practiced. I will return to the subject of tokens at the end of Chapter 6.

4.2.2. Stamps before seals. Textiles and portability

The gradual emergence of objects that may have been used as stamps and/or pendants with a stamping function during the 7th millennium BC in Anatolia, the Northern Levant, and the Balkans, has been the subject of numerous publications during the past decades, although unfortunately there is no comprehensive work that bypasses regionalism to date.[118] Stamping devices appear to originate in the sphere of clay plasticity experimentation, but in combination with a millennia-long trend of ornament wearing as a sign of individual expression, as well as adscription to a cultural horizon (e.g. the marine shells of the Epipaleolithic-Natufian, or the buttons, pendants, beads and labrets[119] of the Upper Tigris), which now starts evolving towards more localized preferences, and maybe used as items of inter-personal exchange.

Central but not western Anatolia and the northern Levant are, again, core areas.[120] As stamping devices (never used in vessel sealing) they eventually spread to the Aegean and southeastern Europe, though not everywhere.[121] Prijatelj argues that the stamps from Nea Nikomedeia, in eastern Macedonia—considered a secondary point of cultural diffusion from Anatolia to the Balkans—do no share typological similarities with those of Çatalhöyük, and moreover, choices of shape, pattern and

[117] A limestone slab with six concave depressions was found at 'Ain Ghazal. Rollefson (1992) finds it similar to modern *mancala* or *wari* game boards in use throughout the Arab world and Africa.

[118] See, *inter alia*, Duistermaat 2010, Türkcan 2013, Prijatelj 2007, Naumov 2008.

[119] Labrets have been found inserted into the ear bones of a skull at Boncuklu Tarla, and into a mandible at 6th millennium Deh Luran, in Iran (Hole *et al*. 1969: 254). Croucher, who uses the body as a heuristic tool, remarked: "Further finds of labrets and comparable objects (often categorized as cones, studs, or flanged discs) are repeatedly recovered from Ubaid sites (…). Of course, in many cases items are recovered that appear to be labrets, but due to their contexts their use is unclear. Such a debate has emerged at the earlier site of Sabi Abyad, where large collections of items are debatably either tokens or labrets" (Croucher 2010: 117, and refs. therein).

[120] See Von Wickede 1990: Chapter 3; Duistermaat 2010; see overview in Eslick and Voigt 2017, including the material from Gritille.

[121] Türkcan 2013: 244.

material at all Macedonian sites where they are attested point towards different "cultural biographies".[122]

Shrouds in burials made of spun yarn have been unearthed at Halula (7600-7300 BC) despite the fact that no spindle whorls were found at the site. A thigh-spinning technique or wooden spindles and whorls made of perishable materials was postulated as a solution for the riddle. In addition, a textile imprint was visible on a big, flattened ball of lead-rich galena, also from a mortuary context, suggesting that this object was inside a sack.[123] Galena may have been used as a pigment, a glittering one if it contained silver. Roughly one millennium later, the Nahal Hemar Cave dwellers left a myriad of mundane but well-preserved remains behind, and so a mask, figurines and a decorated skull were found alongside tools and other objects. A headdress with bead insertions, plant bast-fiber fabrics, rope and basket fragments were among the finds.[124] At Jarmo, in northern Iraq (early 6th millennium BC), impressions of plain woven fabrics were detected on small clay objects (today classifiable as 'tokens'), as if they had been bundled together.[125] What were thought to be linen textiles in Çatalhöyük burials, have turned out to be, according to a recent analysis, oak bast fibers.[126]

As we gather further evidence concerning all related aspects—e.g. textile imprints or remains, pigments, weaving-related artifacts, domestication and post-domestication processes—, a better-defined picture emerges leading to a mini-textile revolution of sorts. As seen in Ch. 2, fragments of shrouds and matting were occasionally found at PPNA sites. At the point of convergence with ceramics, however, the knowledge on threads and spinning may have been the result of centuries-long experimentation with clothing (first priority), and house comfort solutions (second).

Discussions on textile-related subjects, however, are highly specialized.[127] One of the most recent debates is whether the emergence of spindle whorls was due to higher demand and the need for faster production, or due to the introduction of a new material. Whereas linen seems assured in the Southern Levant,[128] Helmer and colleagues argued for the use of hair or fleece at sites like El Kown 2 and Tell Sotto, based on slaughtering profiles,[129] and certainly animal sources cannot be discounted from the 6th millennium BC onwards, even if our earliest evidence for woolen fabrics comes from a 4th millennium Majkop site in the Caucasus.[130] "Either/or" scenarios are rarely helpful. Both the possibility of diversification and relative intensification are plausible, that is, the introduction of sheep and goat hair, and the possibility that textiles became a means of visual expression in houses (curtains, carpets, cushions,

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122 Prijatelj 2007.

123 Alfaro Giner 2012.

124 Schick 1986. See image at https://www.imj.org.il/en/placee/nahal-hemar-cave?page=6

125 Adovasio 1975.

126 Rast-Eicher, Karg and Jorgensen 2021. Not all the samples were preserved well enough to identify composition.

127 For an overview, see Andersson Strand 2012.

128 Levy 2020: Ch. 5.

129 Helmer, Gourichon and Vila 2007.

130 Shishlina et al. 2003.

even tents on the roof or outside), and at the personal level through clothing. Maybe the decrease in decorated wall surfaces at Çatalhöyük was due to an expansion of this medium of expression that sped-up the reconditioning of a house after re-plastering. The stylistic similarity between the carvings shaping the lower part of one of the walls at the site and those observed in one of the stamps certainly invites reflection[131] (see Fig. 4.33).

Fig. 4.33. Stamp found at loc. 11632 × l in South Area B.44 and detail of wall panel in B.74 (TP trench), Çatalhöyük. After Türkcan 2013: Figure 13.10, drawing by Z.B. Beyoglu, Y.E. Demirbilek, and J. Swogger. On the right: red painted, bird-headed hollow furniture item, arms under breasts, from Toptepe (Marmara region), burnt house, Layer V. No stamps or sealings were retrieved. After Özdoğan 2013: Fig. 53, reproduced with permission.

To test the "affordances" of all kinds of stamps, including those with a convex or irregular surface, Prijatelj impressed them on unleavened bread, undyed cloth and human skin.[132] She concluded that stamps would have been more visible on soft surfaces like bread or skin. However, the results of one single impression of a simple, circular motif on human skin are not comparable to the example she gives of the Kau (Sudan), who combine puncturing instruments and stamps to decorate their skin in sophisticated patterns—although many of the bone awls retrieved from excavations

[131] Plaster boards bearing imprints are attested at Syrian sites during what is considered the first stages in the Northern Levant; see Von Wickede 1990: 41ff, plates 1-14. Dzhanfezova (2003) observed that some stamps found at southeastern European sites shared iconography with other artefacts (vessels, figurines, "altars").

[132] Prijatelj 2007.

may have served a tattooing purpose. Moreover, no experiment was undertaken with fur, particularly the reverse, smooth surface that may have been worked to look like velvet, or leather. Her doubt that people in the Neolithic may not have known how to fix dyes has now been proven wrong. A comprehensive study on the use of pigments at Çatal has resulted in many interesting preliminary conclusions: ochre, cinnabar, azurite, malachite, burnt bones and chalk were regularly used to obtain red, blue, green, black and white colors.[133] Shells and clay hands served as palettes.

Fig. 4.34. Left and center: hand holder with a lug handle from Çatalhöyük. Bright blue material was found embedded into the top of the lug handle. Right: Stamp retrieved in the 2008 excavation. After Meskell et al. 2017 (Çatalhöyük Archive Report: 190, Figure 5).

Pigments were not only used for wall paintings, but were also applied to figurines, clay balls, and skeletons (but maybe percolating through the shrouds, as seen at Körtik Tepe). Pigment treatment for funerary purposes decreased over time, but palettes increased in the later periods.

At Ulucak Höyük near Izmir (Levels IV and V, ca. 6500-5800 cal. BC), seven stamps were retrieved.[134] As has been shown above, three figurines were retrieved from Level IV, which ended by fire. I focus here on two of the stamps and their context: stamp 1 was found in association with a pile of 11 donut-shaped loom weights, and a variety of tools including bone needles, grinding stones and pestles. Pierced shells and beads were among the finds. The stamp showed residues of a red material in its grooves. Stamp 3 was also retrieved from a burnt building. Among the finds, 22 spindle whorls and a schematic figurine with the remains of a textile piece still attached to its shoulder (see Fig. 4.35) stood out. Çilingiroğlu noted that this stamp had a carefully executed symmetrical design, and that if applied twice to a surface, the resulting overlapping pattern would give two concentric stepped crosses with two concentric squares in the center.[135]

[133] Schotsmans et al. 2020.

[134] Çilingiroğlu 2009.

[135] *Ibid*.: 17.

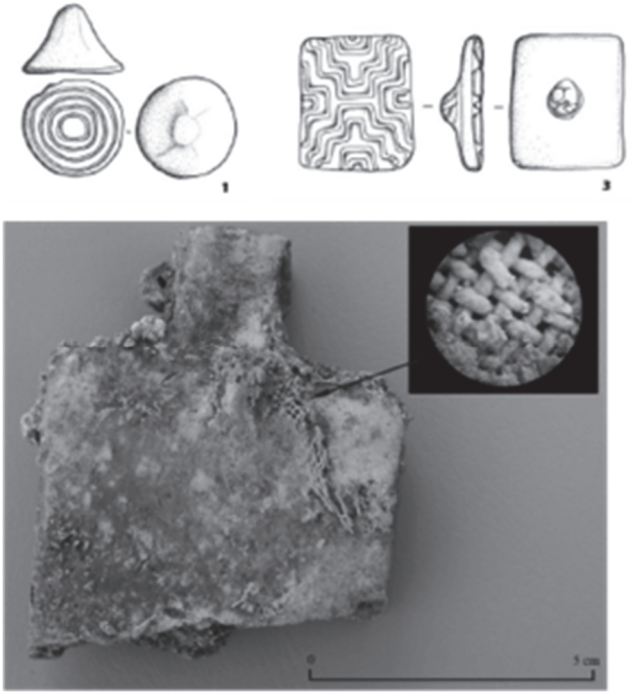

Fig. 4.35. Selection of two stamps retrieved from Ulucak. After Çilingiroğlu 2009: Fig. 4, nos. 1 and 3, Levels IVb and Vb (drawing: Canan Karataş). Below, crude figurine with cloth remains. Building 33, Level Vb. *Ibid*.:Fig. 7.

Çilingiroğlu reviewed all proposed uses of stamps—including those with pierced handles or resembling amulets—by different scholars, finally concluding that they must have been multifunctional. Stamps were non-verbal media facilitating inter- and intra-community links in a scenario of protracted, small-scale dispersal of groups of people moving from Anatolia to Europe. She finally rejected the view that stamps were used to mark bread and baskets as family property in a centralized storage and redistribution scenario: "In my opinion, social organization of early farming communities—with a population of a few hundred who depended on a collaborative lineage mode of production and kinship relations as the basis of social life (…)—would not necessitate such an undertaking".[136]

But before tackling the issue of private property, let us first extricate objects from activities.

4.2.3. The basic activity of sealing (and the secondary one: stamping)

The most remarkable observation that scholars assigning stamps a property-device function choose to ignore is that sealing fragments frequently come unimpressed. Although lids and stoppers are quite well attested from the time pottery vessels

[136] *Ibid*: 8.

become widespread (rigid, detachable),[137] the flexibility that wet, moldable clay afforded to achieve an airtight closure was eventually preferred and used for all kinds of containers (vessels, baskets, boxes, sacks, bundles). A sealing was placed where it was most needed: covering the opening, on the side, on top of a cloth secured by strings, etc.[138] Many still bear string or straw impressions. As Freikman and Garfinkel have pointed out, many fragments of these lumps of clay probably went unnoticed in excavations of the past, or mistaken for anything else.[139] Yet, although Freikman and Garfinkel give ample proof of sealing as a practice in their analysis of this material from PPNB Munhata, late 7th-early 6th millennium Sha'ar Hagolan and later Tell Tsaf, they also claim that this—the mere act of sealing—represents an early administrative activity, "the first steps made by people on their way to the effective management of their production surplus, the quantities of which were steadily increasing due to technological improvements and social developments".[140] Tell Tsaf, in particular, has been presented as a site with storage facilities that could have stored cereal surpluses by the tons. Even if the stones paving these silos, charred seed remains, and traces of white plaster are all that is left, Garfinkel and colleagues state with confidence that "the silos may have been white towers visible from a distance, manifestation of economic and probably political power".[141]

At Sha'ar Hagolan, 4 stamps and 22 unimpressed sealing fragments from two strata were unearthed. Some of the fragments came from refuse found in the courtyards of the two excavated buildings, one of them was found in one of the small rooms surrounding the courtyard, the rest from elsewhere. Large amounts of reworked potsherds, which Freikman and Garfinkel interpret as "tokens", too, and zoomorphic figurine fragments were also found.

A thousand years later, at Tsaf, the ratio between sealings and seals is even more pronounced, with more than 150 unimpressed fragments and 1 stamp (geometric design) recovered. A recent article in *The Times of Israel* (online publication dated 10 June 2021) announced that one stamped sealing fragment had been found. Most of the sealing fragments were recovered from open spaces and the interior of one of the two round structures that served as animal pens.[142] Area B, to the south of the mound, revealed a well. Around this area or inside the well several sealing fragments were also retrieved, together with discarded beads. The well is interpreted as a location for exchange, "a trading post and meeting place between representatives of different populations".[143]

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[137] From Arpachiyah comes a lid with handle and a couple of jar stoppers, cf. Mallowan and Rose 1935: Fig. 49, 21-23.

[138] See Duistermaat 1996 and Ch. 7.

[139] Freikman and Garfinkel 2017.

[140] *Ibid*.: 43f.

[141] Garfinkel, Ben-Shlomo and Kuperman 2009: 316.

[142] Hubbard 2010, based on micromorphological soil analysis, refuting the excavators' interpretation of these two buildings serving as the residence of the poor family living side by side with the rich family dwelling in the rectangular building next to them, cf. Garfinkel, Ben-Shlomo and Kuperman 2009.

[143] Freikman and Garfinkel 2017: 32.

The combined evidence indicates that the Southern Levant, just as the Zagros until the 5th millennium BC, was not a region where this kind of object was used to identify containers.

Sabi Abyad and Arpachiyah—by virtue of their burnt buildings perhaps—have yielded the best evidence we have to this day for both substantial presence of stamps and sealings. Some 300 clay sealing fragments were reported by Duistermaat in her detailed 1996 analysis of this material coming mostly from the Burnt Village at Sabi Abyad. Out of these, 228 came from Building 2, whereas 16 fragments were reported from the 1996-2002 seasons, coming mostly from trash deposits.[144]

Fig. 4.36. Plan of Sabi Abyad Level 6, showing findspots with the highest concentrations of sealings, tokens and figurines. I thank Bennison-Chapman for the information (see Bennison-Chapman 2023), and P. Akkermans for the plan. See Verhoeven 2000: Fig. 2 for location of clay finds in Building 5 and the human bones found among the rubble of Room 7.

144 Akkermans and Duistermaat 2004: 1.

This stands in contrast with the number of seals retrieved. Only 4 stamp seals and fragments of 2 were reported in the 1996 publication, with later additions reported afterwards.[145] All seals are made of stone of different colours.[146] At this site, however, given the high number of impressed sealing fragments, we could infer that clay stamps may have been recycled.

Out of 300 sealing fragments, 63% bore one or more stamp impressions. This still leaves 37% unimpressed. In addition, more than 80% of the sealings on basketry bore evidence of seal impressions, while only 33% of the ceramic vessels did so. This could be due to basketry being a more perishable container and therefore requiring more insulation, or it could be because storage baskets were fashioned with limited variations, and they required identification. In my opinion, stamps were used to identify contents via workers, not owners. Therefore, basket contents may have been more difficult to identify, particularly if they were the most favoured type of container, and thus their closures required stamping more frequently. From the position of some objects above the floor and among the debris of Buildings 2 and 5, it was inferred that some of them must have either fell from shelves on a second floor or from the roof (as explained above for the tokens).[147]

Duistermaat classified the designs in 27 broad categories (from A to AA). Despite small variations, it is noteworthy that all motifs within a category show such remarkably similar-looking iconography.

Many a sealing carries more than one impression made with the same seal. This has been interpreted as a strategy to ensure "the recognition of at least some impressions when the sealing was removed".[148] If the sealing was removed, though, chances are that the contents would have been consumed as fast as possible or that the container would have been resealed. Therefore, the most logical explanation is that they contributed to their easy recognition prior to the sealing being removed. It is sometimes obvious that surfaces were stamped quickly and with gusto. Several fragments bore impressions from two different seals, and in six cases, the combination was the same (C.1.1. and D.1.1). Duistermaat, citing Weingarten's study of this material in Cyprus, suggested "group affiliations", perhaps "kin-related".[149] This, however, makes more sense in the case of the different specimens subsumed under a design category. If instead, we envision work groups or task teams, the end process, that of preserving food, makes far more sense. For instance, if the "ibex" group were in charge of gathering, preparing and storing dried fruits at the end of the summer; and the "Z" task force was responsible for the nuts, the combination of the two stamps could mean that two people from two different groups worked in unison to store both together.

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[145] See the combined information in Akkermans and Duistermaat 2014.

[146] Duistermaat remarks that the seals and the iconography on the sealing fragments do not match, that they "seem to belong to a slightly different stylistic corpus" (2010: 174).

[147] Verhoeven and Kranendonk 1996: 56.

[148] Duistermaat 1996: 363.

[149] *Ibid*.: 364.

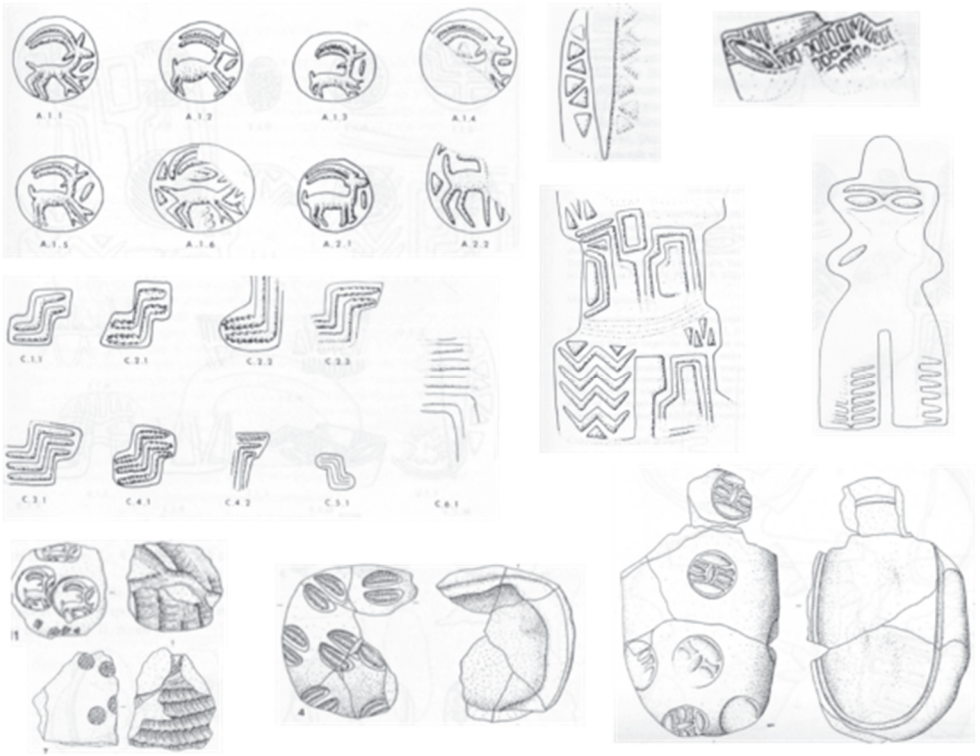

Fig. 4.37. Top, left: Seal impression categories with the most frequent variations (ibex and inverted Z); to the right, interesting outliers, recomposed by Duistermaat 1996; below, examples of sealings/lids with several impressions.

What becomes clear when one looks at Tell Sabi Abyad I, with all its Neolithic operations, is that this village reached a relatively large size at the end of the 7th millennium BC. The initial postulation by Akkermans and Duistermaat in 1996 that the population of the village was made of pastoralists who lived here seasonally should have been reconsidered by Duistermaat in her later articles in light of Russell's work on the zoological data from Operation III (see above, end of Chapter 3). In 2012, Duistermaat tentatively proposed that the seals may have had an apotropaic purpose. In her 2010 article, however, she still believed—despite the lack of evidence for intensive pastoralism at the site—that the whole population left it seasonally and entrusted their family possessions to a guardian.

To the south of Sabi Abyad, the multi-mound site of Tell El Kerkh in the Rouj Basin (Balikh) offers some evidence for the possibility of one person owning more than one stamp. Even though 140 seals/pendants and 6 sealings were reported as of 2010,[150] the combined information in three preliminary reports[151] gives a total of 31 stamps and 3 unstamped sealing fragments from layers assigned to ca. 7000-6100 cal. BC. The discrepancy in numbers is probably due to the finds in the communal graveyard, excavated after the preliminary reports. So even if mortuary

[150] Tsuneki 2016: 64.

[151] Tsuneki et al. 1997, 1998, 2000.

contexts, unlike at Sabi Abyad, have yielded the majority of the ornaments, there were some that came from the communal facilities, and extensive excavations to understand the true extent of occupation at this mound were not carried out.[152]

The communal graveyard had some 240 burials and was used from ca. 6410 to 6080 cal. BC.[153] Individual primary burials, several pits with secondary depositions, both cremated and not, and a few infant or juvenile urn internments, either contained in a vessel or covered by pottery fragments, have all been unearthed revealing a very early extramural cemetery (although with indications of very gradual sedentism throughout its long occupation). All of these categories but for the last showed that beads, shells and carved pendants were commonly used as valuable objects to represent the dead's identity, regardless of gender or age. For instance, a "seal" was found within a pot in one of the cremation pits; two children (2-3; 5-6 years old) were buried with "seals" (see figure below), and one individual in a cluster burial had one stone "seal", three bone ones, beads, and a miniature stone vessel, as mentioned above.[154]

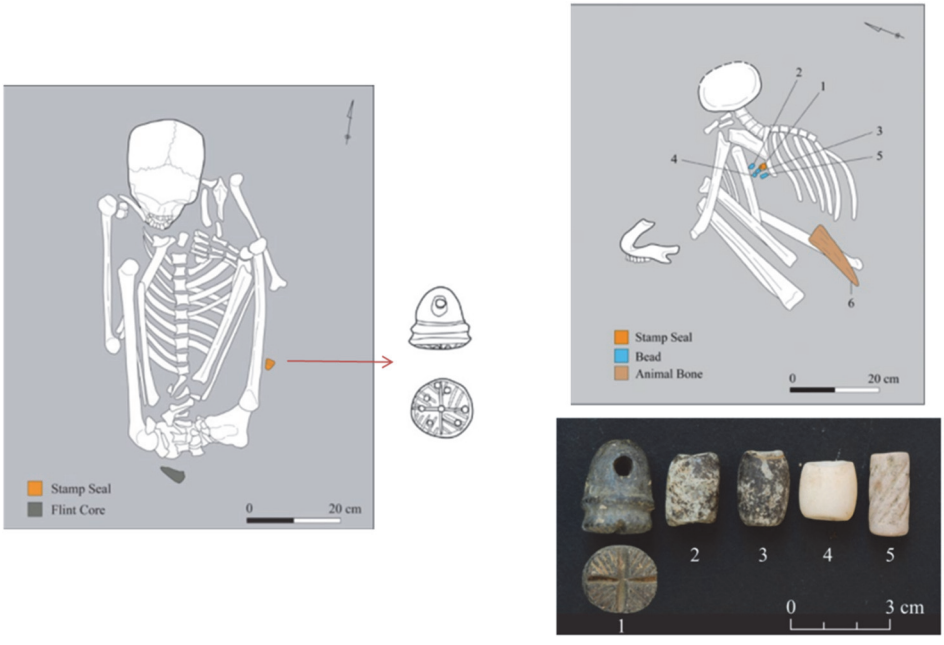

Fig. 4.38. Strs. 729 and 1053 from the Tell El Kerkh communal cemetery. Left: young adult, probably female. Right: young adult, probably male. Beads and "stamp" were all hanging from his neck. Adapted from Tsuneki et al. 2022: Figs. 5-19 and 19b, 5.79. Reproduced here with the permission of Sari Jammo / Archaeopress.

[152] The exposed areas at Tell Ain el-Kerkh did not eventually meet, so there are uncertainties regarding the growth and extent of the residential, permanent occupation, and an analysis of the changing aquatic environment in connection to settlement variations since the 9th millennium BC is missing. Cf. Tsuneki 2022 (Chapter 3). It is also true that two of the three mounds revealed archaeological remains belonging to later periods, which hindered a focus on the Neolithic layers.

[153] Itahashi and Yoneda 2022.

[154] Tsuneki et al. 2022: Table 5.1. Mentioned concentration (cluster) and associated goods: Figs. 5.124 a-h.

These finds confirm that stamping needs to be seen as a multipurpose activity, and opens up the question of whether a strict separation between amulets, pendants, buttons, and stamps makes sense. Despite the scarcity of buried goods accompanying individual burials (see Catalogue), we can see at this site how ornaments communicated identity and personal histories better than tools and utensils. Given that non-adults had them, these objects may have been crafted by their owners, earned or gifted. One of the stamps found at the site preserved traces of an orange pigment. Remarkable are also one shaped like a frog, and one like a gabled roof, the latter a design also found at later Arpachiyah and Domuztepe,[155] which invites a reflection on mobility more than it does on "networks" (see following chapter).

Arpachiyah in northern Iraq is renowned for the wealth of objects, particularly beautiful Halaf ceramics, that came to light almost a century ago. Its duration and exact dating remain unknown (the Ubaid occupation is mostly represented by the graves). Arpachiyah was excavated in a matter of weeks in 1932. Mallowan and his team of hired workers focused their efforts on the top of the mound (see Fig. 4.39).[156]

Campbell—who re-examined all available evidence—found written records indicating that 4m deposits from the outer parts of the site had been speedily removed.[157] Hijara undertook some additional excavations in the 1970s, trying to reassess the stratigraphy, but of minor import overall. Most of the finds came from the Burnt House of Level 6. Campbell was able to discern that the long room of this building was built immediately on top of a similarly shaped one, part of a *tholos* (see next chapter) of the preceding level: "TT6 is perhaps better thought of as a reconstruction of TT7 on a slightly different plan rather than as a radical change in architecture."[158] This building not only ended in a conflagration; some of the objects seem to have been deliberately smashed. Whether it was due to ritualized killing of the building or to conflict is hard to say, but, as Campbell notes, some valuables could have been retrieved and were not. Although Mallowan interpreted it as a potter's workshop—given the beautiful polychrome plates and vessels unearthed here—, multiple finds came from this building complex, including spindle whorls, figurines, knucklebones (and stone imitations), several obsidian objects and chips, and a diversity of amulets, buttons, beads and stamps.

[155] Tsuneki et al. 1998: 23-26; Tsuneki 2022: Fig. 3-60.

[156] Mallowan and Rose 1935.

[157] Campbell 2000.

[158] *Ibid*.: 6.

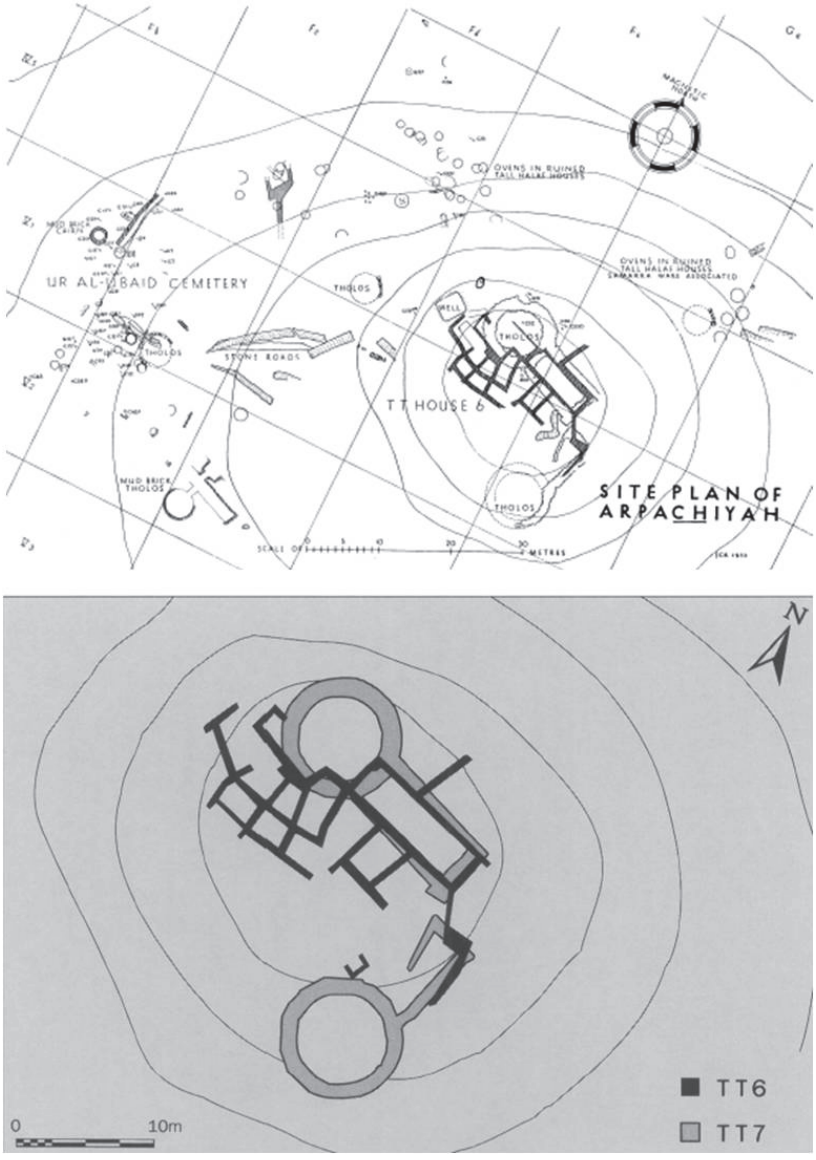

Fig. 4.39. Plan of Arpachiyah. After Mallowan and Rose 1935: Fig.3. Superimposition of levels 7 and 6 at the top of the mound of Arpachiyah. After Campbell 2000: 7, Fig. 4, reproduced with the permission of S. Campbell.

Campbell—in view of the high craftsmanship of ceramics and lithics—posited "either that the products of fine craftsmen were gathered from a number of settlements or that the craftsmen themselves were persuaded to relocate to Arpachiyah because of economic or social reasons".[159] Partly in support of this interpretation are the nearly 30 stamped impressions assigned to the "Halaf" period (but there are also some

[159] *Ibid*.: 24.

belonging to later periods, without a clear findspot), many of which were shaped in a novel format, some of them still preserving string impressions. Many of the big lumps show repeated impressions. The tags may represent a way to identify commodities in a storage room without committing to sealing. That Arpachiyah may have engaged in trading activities with other sites is indeed highly likely (whether exchange took place by encompassing contents and container, though, is a different matter), but the identification of the contents in a plurality of containers is equally valid for internally or externally produced goods. If the *tholoi* were covered by roofs (a dome in the case of the circular chamber), the lighting cannot have been very good, so it is reasonable to infer that several fires would have been needed for the artisans to work and for them to identify the stored content.

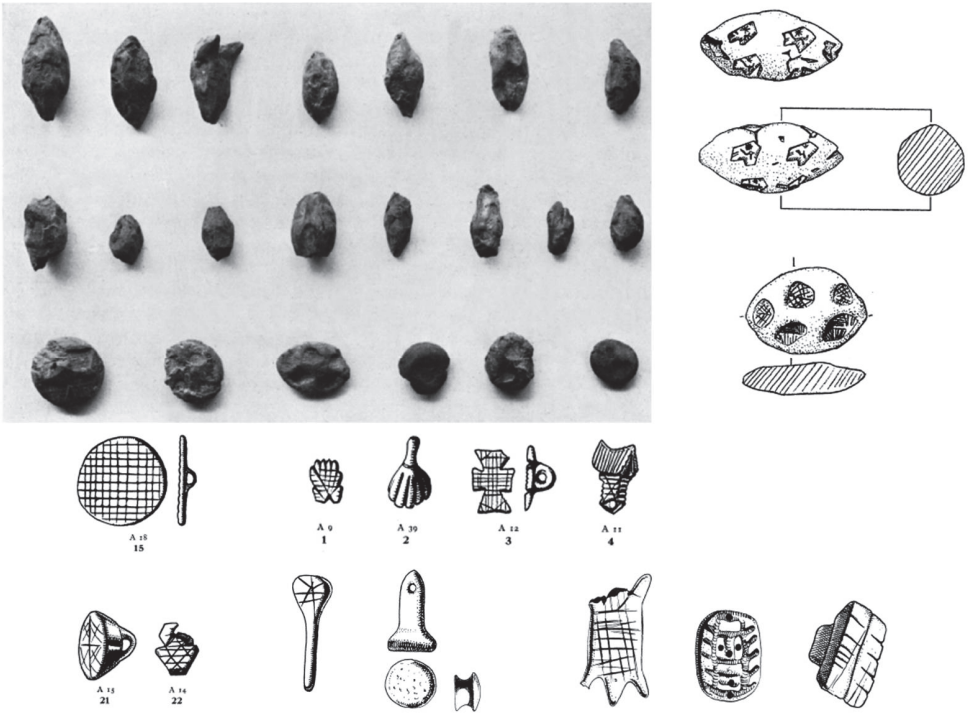

Fig. 4.40. Selection of lump-like tags with impressions, and drawings of selected tags, and stamps/buttons/labrets/pendants. After Mallowan and Rose 1935: Plate IXb, and Fig. 50, 15, 21 and 22; Fig. 51, 1-4, 16, 17, 23-5. Drawings of ovoid tags, Campbell 2000: Fig. 11, sealings 4 and 7.

A recent interpretation proposes to see the site as a ritual centre. According to Stein, the kaleidoscopic patterns on the polychrome vessels, the acoustic conditions of the *tholos*, and the deliberate destruction of the building and its contents would point towards a sacred space and the use of drugs to induce trance states leading to the special craftsmanship of the ceramics and the amulets.[160]

[160] Stein 2019.

Be it as it may and to conclude, the multifunctionality of stamps and amulets remains and maybe will always remain opaque. Initially they were probably used to imprint textiles, but with time they may have served additional purposes, such as signalling the identity of a food processor and when the food or item was stored. Pendants made of colourful stone were sometimes meant to dispense colour because choosing a material (serpentinite, clay, bone, shell) and carving it rendered them socially active, and full of potential. I find it highly significant that most glyptic iconography until very late dates is geometric or expressionistic. As Croucher has commented, the fact that stamps appear to be worn, their appearance in graves,[161] and the depiction of what appears to be a stamp on the Yarim Tepe II female figurine's navel, are indications that these objects were also items of adornment, extensions of the body as a means of personhood and identity.[162]

The isolated cemeteries at Parchineh and Hakalan in the Zagros Mountains (roughly 100 km north of the Susiana plain) illuminate very well—roughly two thousand years after the first stamps impressed vessels—how these objects cannot be seen as bureaucratic devices until the 4th millennium meta-communal aggregations that will be the subject of the last chapter. The first had 165 tombs distributed in two areas, and the second had sixteen. At this time (Parchineh is dated to 4600-3600 BC and Hakalan to 4200-3600 BC) nomadic pastoralism in the Zagros was well under way.[163] When the graves contained goods, pottery vessels in a variety of regional styles are the norm. Stamps were also found (simple ones, with geometric motifs). At Hakalan, specifically, seventeen were retrieved. This is clearly neither proof of elitism nor of administrative use. Even when figurative iconography appeared in the glyptic at the end of the 5th millennium BC in northern Mesopotamia, as observed at Tepe Gawra, the scenes are used to convey bucolic impressions of life on the steppe and male-bonding celebrations (see last section of Chapter 6).

It is frequently assumed that stamping sealings acted as a deterrent against would-be thieves. Who, however, is cast in the role of thief is never explicitly stated. And why on earth would someone find a logical proposition to see stamped vessels as an efficient way to shame thieves into not stealing stored food deserves serious reflection. Are archaeologists not imposing their own expectations into the evidence? Admittedly, that evidence is scarce. Impressed sealing fragments until the 4th millennium BC are rare. There are two possible interpretations: either we assume that they were recycled, or we acknowledge that they were not a frequent practice everywhere. Or both. It could be argued that only those sites with collective storage arrangements required stamped sealings, but this is not even true for Sabi Abyad, where more than 30% of the sealings bore no impression.

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[161] See also Parker and Creekmore 2002 for Boztepe (clear indication that they were sown or attached to clothing).

[162] Croucher 2013: 195.

[163] Cf. Haerinck and Overlaet 1996, Alizadeh 2008: 16ff.

CHAPTER 5: FROM AUTONOMY TO FLEXIBLE SEDENTISM

This chapter will focus on community-making strategies of first villagers, as well as on the popularization of sedentism and its consequences during the 6th millennium BC.

5.1. Challenging notions about sedentism: villages, not households

Defining sedentism is not easy. A doctoral work dedicated to this topic opens the subject as follows: "The scholarly study of the initial transitions to sedentism has been a rather unstructured mix of ambiguity and assumed self-evidence".[1] Her comprehensive review demonstrates that there is no correlation between sedentism and, *inter alia*, agriculture, pottery, and monumentality. New archaeological methods can rarely confirm year-round habitation during the first stages. Qualifiers like "partly sedentary" are confusing and imprecise.[2] Not surprisingly, Whitecross writes her conclusions with a good dose of frustration: "Because of the issue of the non-correlation between the material and the social, the necessary index will need to be biomechanical or biochemical. However, currently biochemical markers are not generally diagnostic for sedentism but in fact for identifying mobility".[3] In the case of Southwest Asia, where year-round sedentism is rarely questioned for the PPNA (but see above regarding WF16/Dhra'), most of the debate is hijacked by focusing on architectural progress and innovation and the degree of control over plants and animals. According to Whitecross, the explanation must come from "behavioural terms". That is, people would have committed to sedentism and remained committed for long enough that "the initial transitions to sedentism" can be safely confirmed. As will be seen in this chapter, sedentism has always been a collective choice subject to uncertainty and variability. Furthermore, the preference for habitation in cities was only one of several options until very recently, and urbanism itself, a marker of 'archaic state' formation, also needs to be approached by degrees. For instance, in her study of Syrian Jezirah sites during the 3rd millennium BC, Chiti opposed 'urbanism' (emergence of discrete large aggregations with e.g. public and private spaces, urban planning, monumentality) to "urbanization process", which investigates its gradual emergence in a region as a whole.[4]

It would seem that once we reach the Ceramic Neolithic and its domesticates, 'houses' and 'households' emerged in Southwest Asia. Yet, as seen throughout this dissertation, many excavations focus on a single location instead of a cluster, and if the trench or excavated area is small, on the architectural and material evolution perceived within that trench, with many assumptions paving the way for final correlations between exposures, and efforts at stratigraphic precision hindering efforts at a cohesive interpretation of whole communal histories.

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1 Whitecross 2016: iv.

2 *Ibid*.: 167.

3 *Ibid*.: 244.

4 Chiti 2015.

Two old anthropological topoi, 'corporate groups'/'kinship' and the 'house' as an observable social unit are currently and simultaneously being used to describe the development of sedentism in Southwest Asia during the 7th millennium BC and beyond. The first was criticized by Lévi-Strauss as a juridical bias of Anglosaxon anthropology, focusing on kinship in terms of descent, because it was of limited use when studying "cognatic" (bilateral or undifferentiated) societies.[5] More recently, anthropologists found the 'house' a more fruitful topic of social and economic analysis. A collaborative effort[6] was followed by several works on the subject on a more regional basis. The 'house' may be compared to a human body or an organism, have cosmological and symbolic associations that bear an impact on spatial distribution, or may be approached from the perspective of gender, class, and the political and economic alliances that allow for correlations with wider changes experienced by traditional and urban societies during the last two centuries. The problem is whether we should be applying marriage alliance strategies based on warring dynamics, property acquisition or political gain, or big household management that leaves a wider institutional framework (that of the polity at large) in the background, to early prehistorical societies, at a time when the fertile principle of exclusivity, ruthless individual/family ambition, and absolute human ownership were probably not even remotely conceived. Even in unequal traditional societies, the leader has to respect sacred boundaries. If this was true four or two centuries ago, what about eight or six thousand years ago?

How are we to discern "families" and gender dynamics in the architectural tapestries of unsophisticated aggregations that we see in the region (and in southeastern Europe, and—though still under investigation—the northern Indus Valley region in Pakistan or the Ghaggar River region in India) from this period until urbanism emerged and consolidated? The nuclear family bias (and concomitant assumptions on gender roles) has already been criticized by several prehistoric Mesopotamian archaeologists, the most thorough of whom being Croucher.[7] She persuasively showed how some scholars were taking for granted an arrangement of extended family/lineage groups or women exchange following specific customs. Nevertheless, there have been alternative interpretations: others have proposed that houses were shared out to families according to need and re-allocated regularly; were repositories or storage facilities more than habitational shelters; or are to be dissociated from households.[8] Croucher also warned about the implications of a more flexible understanding of social configurations based on mobility:

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5 Lévi-Strauss 1987: 153f. More explicit is Carsten, who also criticized Lévi-Strauss' cultural understanding of kinship, namely, the role that incest and marriage alliances had in his structuralist approach, with women regarded as the "supreme gift" (2004: 12ff). "In many cultures women take an active part in arranging marriages, and may indeed take the leading role in organizing them".

6 Carsten and Hugh-Jones 1995.

7 Croucher 2012.

8 See Croucher 2012: 196-198, with references. Factors that need to be considered when approaching the spatial constitution of a village concern menstruating women, people infected with a contagious disease, guests, when it was decided that houses had to die; or whether burial sites on the margins of buildings, external areas, and abandoned occupations were regarded as part of the home territory. Negotiated access to landscape resources may also be targeted by future cluster excavations.

The semi-mobile nature of some groups suggests that occupation may have been more transient and temporary. Could the residents of houses have comprised companions rather than family units or sexual partners without a familial setting? Whilst architecture does confine people to living within groups at least some of the time, it does not dictate that those groups were composed of nuclear or extended family units as we understand them, or that they were permanently occupied by the same inhabitants.[9]

Division of labor according to gender criteria probably existed (e.g. the sacred hunting parties at Çatal, which would have co-existed with and been superseded by the need to drive sheep and goats to nearby pastures, and take care of them on a daily basis), but we should expect a diversity of task-based arrangements, or even aspects of a given task (women and men manufacturing the same material with different composition and function, or working orchards/fields on rotation). Analysis of osteopathologies affecting the early population of Ilıpınar (Eastern Marmara region, early 6th millennium BC) revealed that the teeth of some women showed grooves at the back of their front teeth, "which were probably the effect of holding fibers in their mouths during the process of weaving, twining, or basket making".[10] However, at Hakemi Use (upper Tigris, roughly contemporary), these abrasions were found among both males and females.[11]

As soon as animals enter the village space, issues about animal keeping, stabling and foddering, not to mention extensive processing of animal-related products, come to the fore: the village became bidirectional and open-ended, no longer simply nested in the landscape providing refuge.

5.2. From autonomous communities to dispersion and flexible sedentism

A proposal of three phases of sedentism is made here, partly to illuminate sedentism as a process, and partly to open new avenues of investigation related to the study of growth and its challenges.

1) A first phase would encompass the Epipaleothic and the PPNA periods, and the first investment at certain enclaves of a multi-generational anchoring to place. This was seen in Chapter 2.
2) A second phase encompasses roughly the 8th and first half of the 7th millennium BC, marking the consolidation of small, middle, and relatively large-sized agglomerations, which become more numerous.
3) A third phase is characterized by dispersal or tethered mobility, and seems to borrow the flexibility of the first phase with the commitment to village life of the second. This third mode of sedentism characterizes the 6th millennium BC, but starts earlier.

9 Croucher 2012: 198.

10 Alpaslan Roodenberg 2008.

11 Tekin 2013.

5.2.1. Second phase of sedentism (PPNB): endogamy and cohesion

As seen in Chapter 2, after 8600-8400 BC many settlements were abandoned while new ones were founded. During the second half of the 9th and the early 8th millennium, a higher density of aggregations builds up in the original core areas (around the Tigris basin,[12] in the Taurus, along the Balikh or in southern Syria and moderately in the Southern Levant), while neighboring regions (Central Anatolia, the island of Cyprus) are "colonized". Perhaps as a consequence of addressing population growth, a deliberate selection of more free-threshing cereals, a slight reduction in gathered plant diversity, together with a higher reliance on caprines and pigs, finally if gradually came to be deemed the best compromise, and throughout the 8th millennium BC a subsistence mostly based on domesticates is gradually confirmed. Population growth also entailed better architectural solutions for storage and habitation, even if conservatism drove some of the choices: constructional materials, subfloor burials, wall-to-wall houses, the sacrifice of open areas but the emergence of a roofscape, and the sacrifice of special purpose storage facilities but the inclusion of cellular subdivisions in house layouts.

Aşıklı Höyük, the earliest known PPN settlement in Central Anatolia (near the Melendiz Mountains) had sparsely distributed hearths and sub-floor burials[13] even at its peak, in Level 2 (see Fig. 5.1), suggesting a communal sharing that was not based on "family households". The *'domus'* that Hodder has been proposing for years should therefore be reconceptualized as one single organism composed by a range of buildings and courtyards preserving communal life in a conservative cycle. Ritual was ever-present in houses chosen for gathering and mortuary commemoration, and communal buildings were large, but not significantly segregated, as the Building T complex at Aşıklı Höyük, Building 8 from the last Neolithic phase at Beidha in Jordan—with its red painted stripe, stone basin, and monolith—[14] and some of the rectangular structures with special features or the small circular ones with plastered floors at 'Ain Ghazal[15] illustrate.

[12] E.g. Qermez Dere, Boncuklu Tarla. Heavy erosion after terrace formation has been postulated as a possible reason for a lack of visibility of sites in the Khabur during the PPNB, but stabilization of fluvial processes at this time favored the settlement of communities to the east, in the Upper Tigris, as seen at Seker al-Aheimar (Oguchi et al. 2013: 47, 49).

[13] Düring 2006.

[14] Byrd 2005: 118f. See Fig. 5.12 below.

[15] Rollefson and Kafafi 2013.

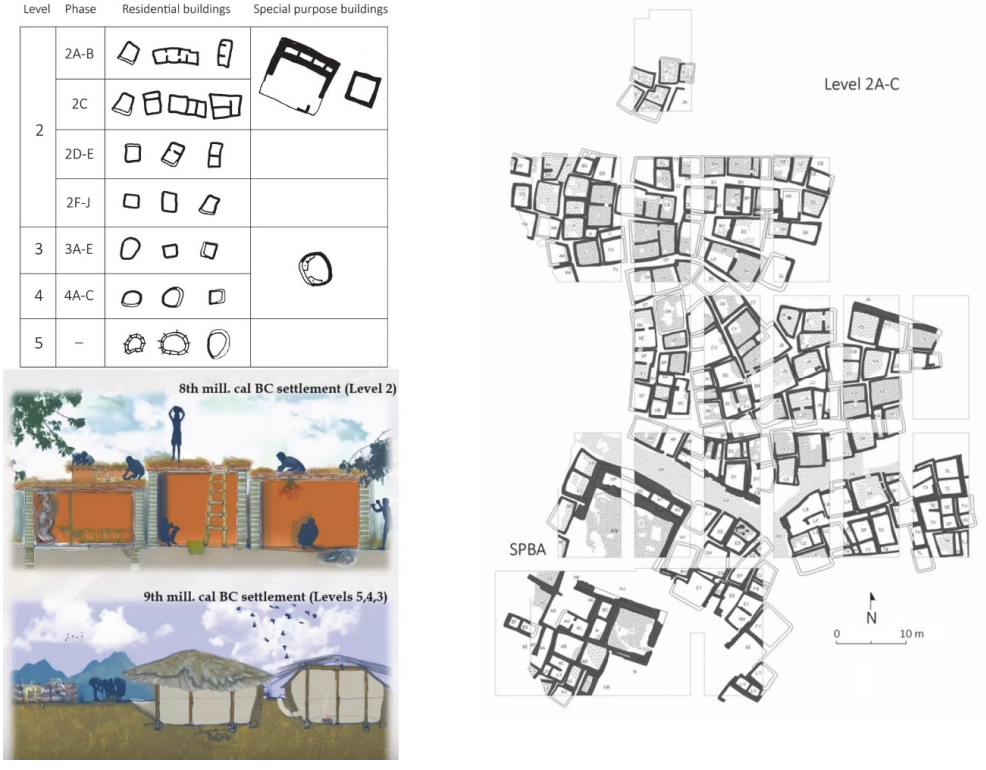

Fig. 5.1. Aşıklı Höyük as an example of an 8th millennium BC large aggregation. Left: architectural phase diagram. After Stiner, Özbaşaran and Duru 2021: S1 Fig. 2. Below: reconstruction of early and later houses from the Aşıklı Höyük Project Archive. Right: combined layout of Levels 2A-C, after re-analysis of old excavation plans. After Stiner, Özbaşaran and Duru 2021: S1 Fig. 8. Reproduced with the permission of G. Duru.

Large villages also came to be in the highlands and wadis at both sides of the Dead Sea during the mid-late 8th millennium BC. All of these sites chose an agglutinative layout, making the most of the slopes of the terrain to create constructional terracing, and/or building wall-to-wall (see figure below).

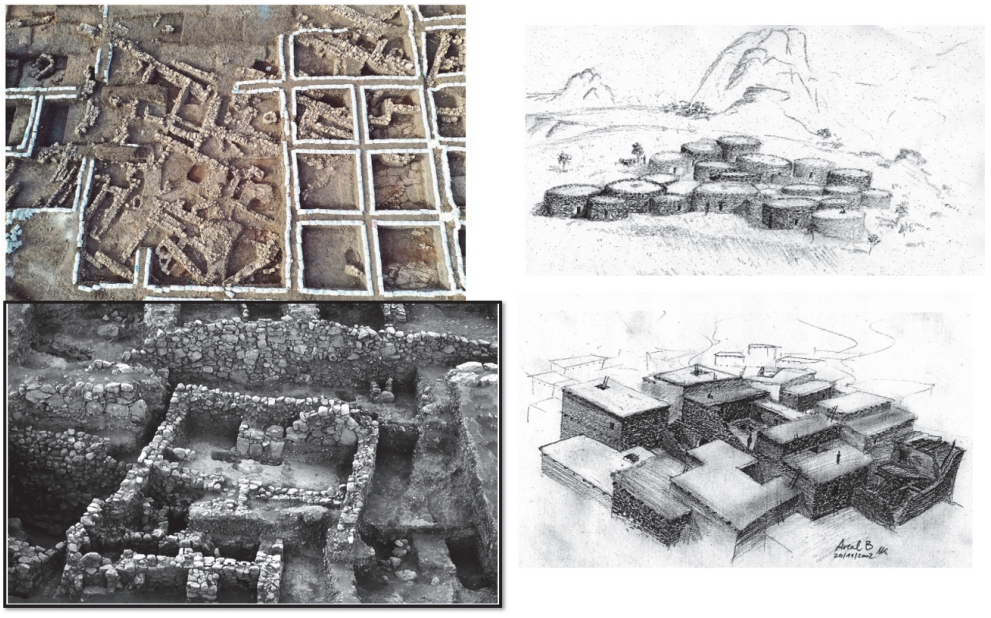

Fig. 5.2. Agglutinative layouts of the Southern Levant. Left: a final PPNB house cluster in Subarea A8 of Motza. After Khalaily and Vardi 2020: Fig. 16 (Photo: E. Marco). Below: South end of the East Field at LPPNB 'Ain Ghazal. The building was interpreted as a "temple" because of its plastered room with hearth and "altar". It was built over another building, as shown in the picture. After Rollefson and Kafafi 2013: Fig. 1.1.24. Right: reconstructions of MPPNB Schkarat Msaied and LPPNB Basta, Area B, by M. Kinzel. From Kinzel 2004: Figs. 8 and 10. Kinzel envisioned buildings with floors at different heights and a creative use of second floors to create a roofscape.

Assessing their gradual growth and decline, however, is not really feasible, since many "mega-sites" have only been partially excavated, as Verhoeven pointed out.

Megasite	Surface area (ha)	Excavated area (m²)	Excavated area (%)
Beisamoun[3]	10	576	0.57
Abu Suwwan[4]	?	?	?
Wadi Shu'aib	9	34	0.037
Kharaysin[5]	36	0	0
'Ain Ghazal	12	2355	1.96
es-Sifiya	7	140	0.2
al-Baseet	7.5	28	0.037
Basta	10	1000	1
'Ain Jammam[6]	7	400	0.57?

Fig. 5.3. Real excavated areas at Neolithic "megasites". Reproduced from Verhoeven 2006: 76, Table 1. Figures were estimated. Kharaysin has been recently excavated.[16]

[16] Ibáñez et al. 2020: 2f. Estimation was of 25 ha., but less than 1000 m^2 in total (four trenches) were exposed. Remains from the 9th to the 7th millennium BC have been found. The houses were built along terraced lines, perpendicular to the slopes.

The intramontane site of Ba'ja (ongoing project) has also been presented as a 'mega-site'. The interest of this village, however, lies not in its alleged size, but in its very location.

Fig. 5.4. Bird-eye view of Late Final PPNB Ba'ja (north of Beidha/Wadi Musa) from the South, 2019. (Photo: H.G. Gebel, Baja Neolithic Project). Reproduced with the permission of H.G. Gebel. Detail picture: from Gebel et al. 2017 (Report of the 11th season): https://www.exoriente.org/baja/2016/ Fig. 1. (Photo: B. Borowski).

It is therefore not so strange that inter-site connectivity may have been reduced even at the regional level, even if exchange and out-of-site expeditions may still have been common practices. As I remarked in Chapter 1, morphological analysis of teeth and skulls, plus strontium isotope analysis of tooth enamel of individuals from Basta, in southern Jordan, revealed that this population was unequivocally endogamic.[17] The obtention of precious materials like turquoise, coral and green stone does not have to indicate the presence of complex exchange networks, since all those precious

[17] Alt et al. 2013. Based on the very high frequency of a genetic dental trait (lack of maxillary lateral incisors) and confirmed with additional data.

materials came from neighboring regions and were used to craft personal ornaments or tools.[18] The endogamy suggests that they procured those materials on their own, probably as they had before settling down.

Returning to the subject of agglutination, a well-known site in Central Anatolia has shown how it was possible to grow and maintain such a layout for more than a thousand years: Çatalhöyük.[19] Several opened areas of excavation at different locations of the huge East Mound, and an outpouring of specialized and general studies and publications, makes it impossible to give an overview that would do the project at this huge site, and the extraordinary work of its director from 1993 until 2017, justice. Therefore, I will just focus here briefly on the changes that started happening in the mid-7th millennium BC. Hodder characterizes this change thus: "Çatalhöyük shifted from a population-needy system in which people were crowded into collective social and ritual structures, to a fragmentation and dispersal of population across the landscape. (…) The demands on individual domestic units to service all complex ties in which they were enmeshed led to population increase and generic physical stresses and strains. The solution was a greater focus in the upper levels on independent domestic production coupled with the first intimations of specialization and differentiation between houses".[20]

Using parameters such as installations and other features, number of burials, and house longevity, Hodder and Pels established a four-category classification of houses before the unraveling of the communal fabric took place: history houses, multiple-burial, elaborate, and other.[21] Dental and DNA analysis have provided strong evidence that kinship was not the main criterion in the selection of bodies for social burials.[22] A study of mortuary practices at Çatalhöyük established that, even if primary interments under floors or intramural are the most common form of burial, extramural burials (outside the houses) were also common.[23] The authors classify the depositional categories as primary, secondary, tertiary, primary disturbed, primary disturbed loose, and unknown. Boz and Hager have searched for patterns: in houses chosen for burial representation, the central room and raised platforms were generally preferred. Infants were found everywhere: platforms and central floors, near ovens, in middens, and most interestingly, inside rooms and foundational layers. No adult females were found in the courtyards and middens. "All of the adult foundation burials were females or possible females, perhaps reflecting a link to house construction or new life".[24] Although not emphasized by the authors, sometimes adults were buried with infants. Interestingly, the majority of neonate bones were buried in lateral rooms and left undisturbed. These small rooms "may have afforded privacy to the parents in the

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18 Cf. Nissen, Muheisen, Gebel 2004. Provenance: Red Sea, Central Jordan, Sinai.

19 First layers are dated to ca. 7300-6800 cal. BC.

20 Hodder 2014: 1f. See pp. 10ff for specific traits to support the "strains" and increased autonomy.

21 Hodder and Pels 2010.

22 Chylenski et al. 2019 (mitochondrial genomes from 37 skeletons). Pilloud and Larsen 2011 (dental traits).

23 Boz and Hager 2014.

24 *Ibid*.: 27.

event of the death of a newborn, perhaps becoming a place of solace or refuge".[25] The last burial of Building 49 was that of an older woman, buried in the central floor next to the remains of nine individuals. Only the head, mandible and torso were present, which indicates that "dismemberment took place at a different locale when her body was partially decomposed". There were no cutmarks on any of the articulated bones found.[26] Boz and Hager conclude: "While it is clear that some individuals were given much care and attention and that others appear to have been discarded, perhaps carelessly in some instances, especially in these external areas, it remains unclear what discriminating factors contributed to the interment decisions."[27]

In Chapter 2 it was shown how, since the earliest sedentism, dead bodies represent a selection of the community as a whole, part of the physical and metaphysical territory of the settlement, and how—by means of mats and shrouds, plaster and ochre—they may have been more easily relocated after decomposition. Chapter 3 considered the importance of mature women at Çatalhöyük, or at least how the values of maturity and experience were transmitted through the figurines that were part of domestic life. The Arpachiyah bowl where two women framed a clean canvas/textile may further suggest that women were in charge of shroud weaving and body processing in many cultural horizons at this time. My tentative suggestion is that mature women may have been part of collective councils and may have had a role in sub-floor burial arrangements, which were an important aspect of collective life. If we leave aside the relocation of skulls and bones from house to house, or the extramural burials, the question of who was initially chosen for burial and why still remains. Neonates and infants were probably perceived as protectors/to be protected (see next chapter). Very few adolescents and young adults were buried (as were children, for that matter), so perhaps mature adults were chosen because of their inspiring, exemplary lives. Croucher postulated that "the plastering of skulls may have been a reaction to particular deaths" (perceived as premature and painful by the leaving).[28]

Early Central Anatolian communities, such as Boncuklu and Aşıklı Höyük revealed that maternal kinship ties existed in some co-burials, but the sample at the latter was very small, and both had low levels of genetic diversity.[29] At Çayönü during its last phase of rectangular architecture, kinship ties are confirmed, together with four cases of cranial modification for aesthetic purposes (head-binding).[30] However, at Barcın, in northwest Anatolia and close to the Sea of Marmara (founded around the mid-7th millennium BC), results were similar to those from Çatalhöyük.[31] Since kinship ties did not seem to be a factor in the social organization of Çatal, Hodder postulated that ritual sodalities structured the organization of the

[25] *Ibid*.: 26.

[26] *Ibid*.: 28.

[27] *Ibid*.: 27.

[28] Croucher 2017: 12.

[29] Chylenski et al. 2019, Yaka et al. 2021.

[30] Altınışık et al. 2022.

[31] Yaka et al. 2021.

community.[32] Although he does not define how these sodalities might have worked, he indirectly connects them to multiple-burial and history houses, and to the symbology of wild animals, visible in installations, murals and the plastic arts as shown above, but also affecting burials with faunal remains. These theories were already present in his much earlier work, *The Leopard's Tale*.[33] In *The Leopard Changes its Spots*, he changes some of his earlier views, like those suggesting prestige-based feasting or the veneration of ancestors, since no correlation was found between storage or burial goods and house size or building elaboration, and burials. He admits that "the overall impression is of fierce egalitarianism".[34] However, Hodder still sees a radical change coming after domestication and its "material entanglements", now temporally anchored to the changes of the post-6500 BC shift. In 2006, he writes: "This 'objectification' was related to a centrality of the human in daily and spiritual life. Through this shift it became more possible to move away from giving and reciprocity (with people, spirits, things, animals, plants) and engage in change and accumulation and domination (of people, spirits, things, animals, plants)."[35] In 2014, and mentioning his collaboration with Whitehouse, an anthropologist adopting a cognitive science of religion approach, Hodder ties the new findings with his earlier postulations: "But after South P [ca. 6400 cal. BC], it has been argued, this 'imagistic' mode of religiosity moved in the direction of a more 'doctrinal' mode in which ritual events were more frequent and everyday and incited lower levels of arousal. These late forms were associated with the expansion of animal symbols into a broader array of media such as pottery and stamp seals and with the wider use of domestic cattle and sheep in feasting events."[36]

In Chapter 3, when the links between stamps and textiles (and ceramics), together with a new way of redecorating houses, were considered, it was shown how many of the old symbols and the uses of pigments were transferred to the new media. Since communities in Mesopotamia would remain largely unstratified until the first semi-urban agglomerations of the Persian Gulf delta in the 4th millennium BC, and a split between the wild and domestic space is not translated into imagery until that date—reflecting values of domestication as domination—, Hodder's insights are premature. The inclusion of domesticated animals into the house cluster formations at Çatalhöyük may be one of the reasons why the overall arrangement and way of life had to change, in combination with the impact of a climatic downturn. Central Anatolia did not apparently experience major fluctuations, but there were observable changes taking place in the Konya plain. Çatalhöyük was surrounded by a mosaic of wet and dry environments. An increase in two-row hulled barley is observed from the latest Neolithic levels[37] and throughout the region during the 6th millennium BC, which—given that this cereal is better adapted to dry conditions—may be indicative

[32] Hodder 2014.

[33] Hodder 2006.

[34] Hodder 2014: 5, with references and tables.

[35] Hodder 2006: 256.

[36] Hodder 2014: 17; Whitehouse and Hodder 2010.

[37] Bogaard et al. 2013.

of climatic deterioration, but it may also be due to an increased need for fodder.[38] There are, however, indications of "drying conditions in the Konya Plain, beginning ca. 6000 cal B.C., evident in the sedimentation record".[39] Recent research has discovered animal dung in the open areas, make-shift pens and midden deposits of Çatalhöyük East.[40] Together with the observed increase in barley, the gaps between house clusters observed at the East Mound before its abandonment[41] may have been due to a practical need for re-adjustment (see also below *re* Pınarbaşı).

Based on recent radiocarbon dates, Orton and colleagues were able to prove that the shift of East Mound population to a new location nearby happened in just one or two centuries at the very end of the 7th and the early 6th millennium BC.[42] By 6300 BC, underfloor burials are no longer witnessed, and the cessation of all activity is confirmed by 6000 BC.[43] It remains to be seen how much of the population relocated, and how many chose to leave and could not adapt to the loose house autonomy of the upper levels, perhaps resettling in small groups elsewhere. Significantly, excavations at the West Mound (ongoing) show a return to an agglutinative layout (Fig. 5.5., left), perhaps indicating that those who stayed wanted to renew a tradition of communal cohesion even if no longer based on "ritual sodalities".

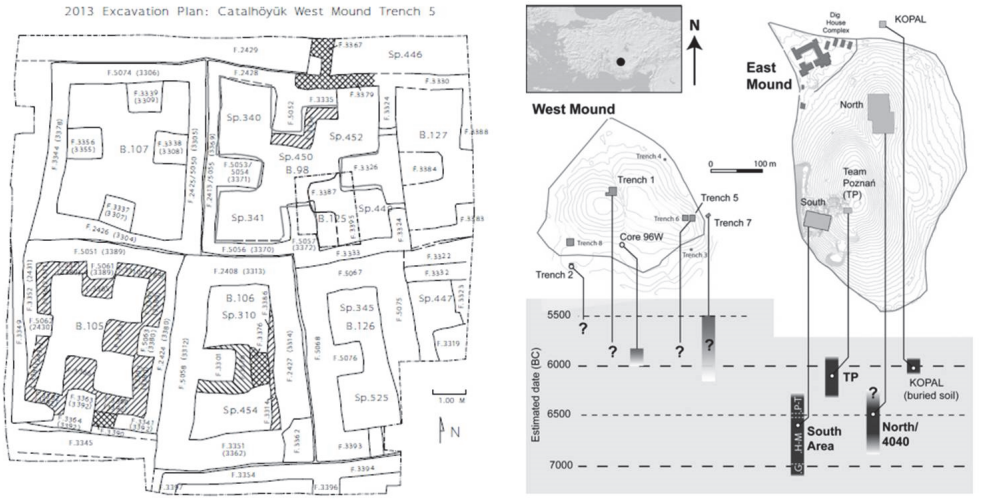

Fig. 5.5. Çatalhöyük. Plan of the West Mound, Trench 5. Courtesy of P.T. Willett. Right: Map of both mounds, showing trenches excavated and their chronological span. After Orton et al 2018: 621, Fig.1, reproduced with the permission of D. Orton. Question marks without grey bars indicate estimates made in the absence of radiocarbon dates.

38 Ryan and Rosen 2016.

39 Willett et al. 2016: 109.

40 Portillo, García Suárez and Matthews 2020.

41 See Hodder 2014, Fig. 4: Plan of buildings in Level North G with midden zones (by C. Mazzucatto). See references on botanical and faunal remains (more goat than sheep) in pp. 12-14.

42 Orton et al. 2018.

43 Marciniak et al. 2015.

Although additional excavations would need to confirm this trend, observed at all opened trenches with one exception,[44] it certainly means that the comfort found in living in close proximity was again reasserted by the new community who no longer had to endure too much population pressure in a confined and large built space, sharing it with domesticated animals. The increase in wall thickness in the houses at Trench 5 of the West Mound supports the idea of a second floor.[45] At least in this house cluster, walking from one roof to another would have been possible.[46]

5.2.2. Third stage of sedentism: flexibility and increased interrelationality

Gradually since the late 7th millennium BC, new settlements were founded in all regions of Southwest Asia. Long-lasting climatic deterioration may have had something to do with that, particularly in the Southern Levant,[47] but it is extremely hard to find a correlation between those changes and the 8.2 ka., or rather, the 8.6-8.0 climatic "event". Climate proxy data for Asia Minor and the Marmara Region, combined with evidence from Sofular Cave by the Black Sea, indicate that northwestern Anatolia may have been affected by climatic oscillations.[48] At Lake Khatouniyeh in northeastern Syria, in contrast, water levels started rising at around 6700 BC, and the trend of increased humidity lasted until ca. 5000 BC.[49] Greater humidity is also attested at Lake Van in eastern Anatolia.[50]

Overall, the evidence for dispersal and new settlements is so overwhelming that a climatic crisis does not suffice to explain this long-lasting phenomenon. Did the requirements for cultivable land, to feed both people and animals, force a disaggregation and the split of groups of people from a settlement, as the evidence from the Jordanian sites (see discussion above, end of Chapter 3) and Çatalhöyük suggests? If so, was the underlying motivation related to finding new land, free of competition from hunter/gatherers and neighboring villages, or was it related to the organization of labor and space?

I am interested in early examples of social intelligence, the strategies that allowed for communities that had grown to a considerable size and had long histories to adapt to the new needs brought about by the pressure of a dependence on domesticated plants and animals. This also entailed a less endogamic worldview and a more flexible understanding of sedentism, even as groups that had remained uncommitted to single locations until then adopted the "Neolithic way of life". In general, we can see two kinds of movements: fissioning—a group who splits seasonally from the

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44 Anvari et al. 2017: 11-14. Some abandoned areas may have been used for the disposal of both trash and the dead, a trend observed during this phase of sedentism elsewhere too.

45 Willett et al. 2016: 100.

46 On the notion of a 'roofscape' as a social arena at Çatalhöyük, see Düring 2006.

47 Cf. special issue of *Neo-Lithics* 2009.

48 See data and references compiled by Düring 2016, Flohr et al. 2016.

49 Kashima and Hirose 2013.

50 Wick et al. 2003.

community—, and dispersion through migration, which must have entailed a negotiation between the natives and the newcomers.

Relative size growth throughout the 7th millennium BC is attested at Tell Sabi Abyad I after taking the combined evidence from all the operations together, which indicates that not only "people moved down the slopes of the older tell", but that gradually "the village moved eastward".[51] The largely unexcavated tells Sabi Abyad II and III (and unexcavated IV) may in future reveal that three communities in close proximity co-existed during the first half of the 7th millennium BC.[52] Akkermans has observed that there is a clustering of small sites at certain locations along the Balikh river at this time and later,[53] as was the case elsewhere: "Inspection of site plans reveals that many if not all large mounds are basically paired or merged sites with evidence of restricted, dispersed or shifting occupation, similar to the Sabi Abyad grouping. For example, Tell Mounbatah, with its 20 ha or more the largest Neolithic site in the Balikh region, comprises at least six individual, but merged mounds of different size and height, while 16 ha-Abu Hureyra on the Euphrates has four or five (if not more) of such merged mounds (…). Similar site clusters also occur elsewhere in Syria, such as at El Kerkh in the Idlib area, at El Kowm in the central desert, and at Kashkashok and Seker al-Aheimar in the Khabur headwaters (…). The very large 6th-millennium cal. BCE, Halaf mound of Kazane Höyük in southeastern Turkey, 15 ha to 20 ha in extent, likewise gave evidence for a dispersed settlement and a differentiated intensity of occupation over the site (…)".[54]

A tentative conclusion seems to be that people were keen on controlling their own demographic development but still chose to live in relatively close proximity to their sister or daughter communities.

5.2.2.1. Small-scale migration, admixtures, selective emulation

The last two decades have added a lot of information to earlier excavations as concerns the expansion of sedentary life to neighboring areas from the early 7th millennium BC, intensifying towards the second half and even towards the end of that millennium. This higher definition, which is inserted into the old debate of the Neolithisation of Europe out of Anatolia, is giving us a multi-colored mosaic whereby it is hard to distinguish between the "*déjà vu*" that comes from recognizable material, shapes and styles, and solid patterns of clear diffusion from point A to point B—via migration or acculturation, it does not matter. Specialists of each region (western Turkey, Aegean littorals and islands, Thessaly, Macedonia, Thrace and Bulgaria, the Marmara) have realized that there are significant differences to be considered, sometimes between sites or groups of sites lying in close proximity. In other words, peoples were consciously choosing what they took with them or what they emulated.

All early stratigraphic layers at any newly founded settlement until ca. 6200 BC exhibit a high degree of flexibility as concerns commitment to sedentism. For

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51 Nieuwenhuyse et al. 2016: 74.

52 See table in Nieuwenhuyse et al. 2016: Fig. 3.3.

53 Akkermans 2013 (based on a regional survey); and see Nieuwenhuyse et al. 2016: 75, Fig. 3.4.

54 Akkermans 2013: 71, and references therein.

instance, Ulucak represents a compendium of three millennia worth of experiences compressed here into a few centuries: it starts being settled at around 6800 BC, exhibiting a fully-fledged domestication package as concerns cereals, pulses, and the four main animal species from the get go, but has basic architecture together with plastered and painted, regular-sized communal buildings, and no signs of pottery until three hundred years after its founding.[55] A parallel situation occurs at Barcın, the oldest of the inland sites of the southern Marmara area.[56] There are sites which show evidence of material culture and domestication, albeit including a high proportion of hunting and fishing (e.g. Fikirtepe, Pendik or Yenikapı in the Marmara region),[57] featuring very basic buildings/pits/ditches that never evolve into anything more elaborate, and there are sites where we see ovens and pottery in combination with simple dwelling arrangements, as at Džuljunica-Smărdeš, a well-excavated site of the "Karanovo" horizon in northern Bulgaria (ca. 6300-6200 BC).[58] At this site, aurochsen and domesticated cattle were part of the subsistence package.

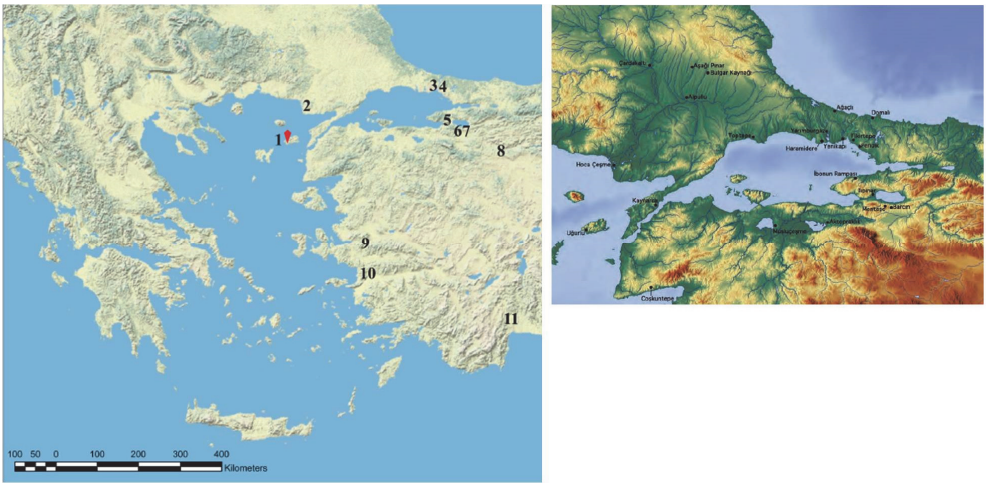

Fig. 5.6. Map of the Aegean showing Anatolian sites founded during the 7th millennium BC (1 = Uğurlu Höyük, 2 = Hoca Çesme, 3 = Yeni Kapı, 4 = Fikirtepe, 5 = Ilıpınar, 6 = Menteşe Höyük, 7 = Barçin Höyük, 8 = Orman Fidanlığı, 9 = Ulucak Höyük, 10 = Çukuriçi Höyük, and 11 = Karain B and Öküzini caves). After Atici, Pilaar Birch and Erdoğu 2017: Fig. 1. Right: geophysical map of the Sea of Marmara, after Ozdogan 2013: Fig. 1.

At Hoca Çeşme in western Thrace we can see a communal settlement surrounded by an enclosure wall, and reliance on all domesticated species except pigs, which are otherwise well-attested at many Anatolian sites. Despite its proximity to the sea, its inhabitants did not rely on fish, although mollusks were stored, consumed and valued for bead fashioning. At the center of the same region, Aşağı Pınar has revealed substantial material evidence from Layer 7 onwards, but no significant architecture

55 Çevik and Erdoğu 2020.

56 Gerritsen and Özbal 2019.

57 Özdoğan 2013.

58 Krauss et al. 2014.

and a preference for ovicaprids and cattle.[59] In Macedonia, several sub-regions exhibit rectangular and pit-house architecture at the same site.[60]

Complicating matters is the issue of previous "Mesolithic" populations. They certainly play a role in the Aegean[61] and the eastern coast of the current Sea of Marmara, which was undergoing geological changes at this time. Recent aDNA studies cannot confirm with certainty whether admixture results are due to earlier introgressions, nor define a chronology of demographic movements in Anatolia since the PPNA. All that has been established is that mixed Levantine-Anatolian ancestry is detected in the aDNA of individuals from 7th millennium Marmara sites.[62] Several scholars defend the gradual adoption of sedentism and domestication by these Mesolithic groups, with hardly any input from "colonizing" farmers/herders until the second half or even the last quarter of the 7th millennium BC.[63]

Depending on which cultural marker one chooses, the evidence leads to close similarities, parallels, remote connections, divergences, or absences.[64] In a diachronic overview of changes at this time in Asia Minor, Düring considers three models of migration proposed by Anthony for prehistorical contexts: "First, local migration occurs where people move over a distance small enough to maintain (part of) their existing social network. (…) Second, in 'leap-frog migrations' people move selectively to regions that are attractive, while avoiding other regions with less potential. (…) Third, in 'chain migrations' a small number of pioneers move to a new region and these pioneers are later followed by kinsmen. The first colonists often culturally dominate the societies that emerge."[65] Düring leans towards the application of the first and third models to Asia Minor, but points out that there are not many cultural affinities between Ulucak or Bademağacı and Central Anatolian sites (although there are some between Bademağacı and earlier Hacılar in the Lake District), while strong continuities with the preceding horizons are observed at the newly founded sites.

The diversity witnessed in all the sub-regions of western Anatolia, the Aegean, northern Greece, and southeastern Europe implies an active, if selective, emulation and therefore a geographical proximity to those who inspired those new lifestyle choices—at least initially (see figure below). Whether the migrating settlers kept in touch with their original location or group, at least for the first generations, or whether they were followed by more "colonists" from the same or different locations in the core areas, the answers will be hopefully investigated in future (for instance, *via* better targeted genetic studies). The scope needs to broaden and encompass Southwest Asia as a whole, since sedentism at the end of the 7th millennium BC experienced a "boom".

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59 Özdoğan 2013; Atici et al. 2017.

60 See Adamidou 2018 for a very good overview of the myriad of architectural and burial choices attested in northwestern Turkey/Thrace.

61 Sampson 2019 ; Atakuman et al. 2020.

62 Marchi et al. 2020; Kilinç et al. 2017,; Lazaridis et al. 2022.

63 See, *inter alia*, Yakar 2016. He also argues for the floodplain of Thessaly to be included as a source in the Neolithisation of the Southern Balkans.

64 See, *inter alia*, Perlès 2005, Özdoğan 2014, and the different contributions to the *Going West?* monograph (Reingruber et al. 2017).

65 Düring 2013: 91f, apud Anthony 2000.

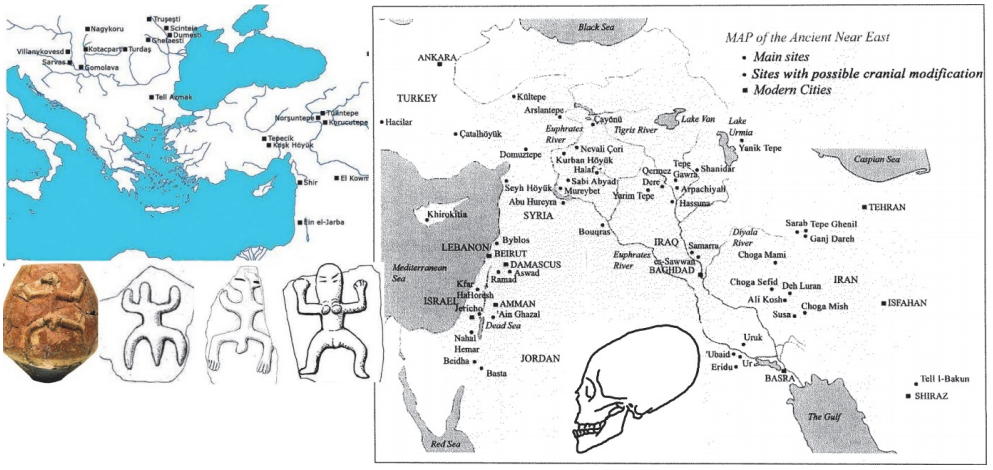

Fig. 5.7. Tracing migration through cultural markers, like the lizard-human figures or cranial modification. **Left**: map of the appliqués that Garfinkel termed "figures with turned-upwards legs" (2003), which does not include sites like Khirokitia in Cyprus, Kösk Höyük and Tülintepe in Anatolia, or Imiris Gora and Arukhlo, in Armenia. Below, some examples from Ein el-Jarba (Israel), and southeastern Europe. Map and figures adapted from Streit 2015, Fig. 1 and 7, 4),10),11). **Right**: map of main 8th-5th mil. BC sites, some of which have human remains showing unequivocal cranial modification. After Croucher 2008, Fig. 1.1. Drawing of Byblos cranium from Lorentz 2010: Fig. 9.2 a).

There are sites such as Köşk Höyük in Central Anatolia, founded at the beginning of the 6th millennium BC, where plastered skulls at home in the Levant join an iconography which—at first glance—shows regional continuity, but after examination, some of the figurines, pendants/seals, and pottery do suggest admixture.[66] Sedentary, agropastoral communities appear, in a piecemeal fashion, across the Caucasus during the second half of the 6th millennium BC.[67] A recent diachronic DNA macro-study has detected a genetic cline stretching from West Anatolia to the lowlands of the South Caucasus formed by an admixture process that started at the beginning of the Late Neolithic.[68] At Hakemi Use in the Upper Tigris, small percentages of Dark Faced Burnished Wares—at home in northern Levantine-Cilician sites—, and Samarran wares —Samarra being the type-site for southern Mesopotamian wares at this time—, co-existed in levels 1 and 2 (early 6th millennium cal BC), indicating foundational admixture. The surveys conducted across the Upper Tigris since 2007 are revealing sites with mixed Hassuna-Samarran ceramics and sites where the presence of Halaf wares from the Northern Levant are prominent.[69]

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66 See Özbek 2009 (nineteen plastered skulls and two headless skeletons), Özkan 2001 (seals), Silistreli 1989 (figurines).

67 Sagona 2011; Hansen et al. 2013.

68 Skourtanioti et al. 2020: 1166.

69 Tekin 2013: 499f. Instead of positing marriage exchange or obsidian trade routes to explain this diversity, investigating the interaction between newcomers and locals would give better results.

One of the best-observed cultural phenomena in the past decades is the evidence for cranial modification.[70] From the 7th to the 5th millennium BC several communities in different geographical areas of Southwest Asia practiced infant head binding. As mentioned above, it is already observed in two females (child and a relative, a "paternal great-aunt") and two individuals of unspecified gender from Çayönü (three buildings of the cell building subphase, second half of the 8th millennium BC).[71] It also occurs at later Ganj Dareh in the Zagros, Bouqras in the middle Euphrates, or Salat Cami Yanı and Hakemi Use in southeastern Anatolia, to mention some of the earliest attestations. Although several types of head-shaping have been posited,[72] a systematic and updated analysis of aesthetic preferences that may facilitate correlations is still missing.[73] Together with hairdos, clothing, tattooing, ear spuds or other inserted objects, cranial modification represents a collective means of identity,[74] but, moreover, it may have been transmitted across generations to honor site-founding or site-joining ancestors. At Hakemi Use, half the buried individuals unearthed bore evidence of cranial deformation. Out of sixteen, fourteen belonged to infants or children, one to an adult male, and one to an adult female,[75] and this lack of gender discrimination seems to be also the case for other 7th and 6th millennium sites.[76] Later on, at Byblos and Şeyh Höyük, skull binding was only performed on females.[77] Excavations at Tell Nader in Kurdistan have unearthed a late 5th millennium site with some black-on-buff pottery, other "non-Ubaid" pottery, and the burial of a female with signs of cranial modification.[78] Some of the celebration scenes on pottery seen in the previous chapter show women of elongated heads wearing turbans or headdresses (i.e. Tell Halaf and Tchechme Ali).

Analyzing the earliest levels excavated decades ago at Tell es-Sawwan in Iraq, Helwing noted specific stylistic similarities of the excavated figurines at this site, like arms positioning or facial features (inlays for the eyes), with those found at Bouqras on the Euphrates, and even with the anthropomorphic pillars of the Pre-Pottery Neolithic in southeastern Anatolia.[79]

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70 See map above, and Lorentz 2010: Fig. 9.4, with more 5th millennium sites.

71 Altınışık et al. 2022: 8. The child was a genetic outlier. She had inherited Zagros ancestry through her maternal line.

72 Meiklejohn et al. 1992.

73 See discussion in Lorentz 2010: 133ff.

74 Croucher 2008.

75 Erdal 2013: 218f.

76 See also Daems and Croucher 2007 for a study of both bodies and figurines from Iranian sites.

77 See references in Erdal 2013: 219f.

78 Kopanias 2017.

79 Helwing 2016. Based on stratigraphic and material culture features, Helwing establishes a first period of occupation at Sawwan at the end of the 7th millennium BC, encompassing layers 0-II, with an unknown gap in duration until "Samarran" layers III-V. This means that most of the subfloor burials excavated, published, and subsequently studied correspond to a period immediately before the adoption of pottery in southern Iraq.

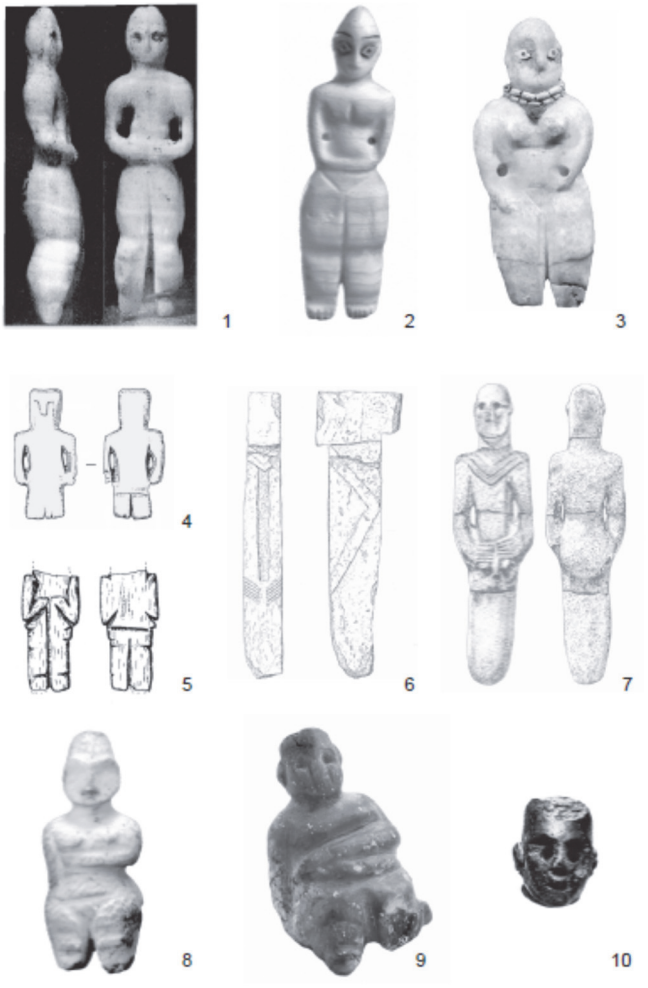

Fig. 5.8. Out of southeastern Anatolia. Chronological parallelisms in visual code representation, despite a trend towards miniaturization and portability. After Helwing 2016: Fig. 5 (and see references therein). Nos. **1-3) and 8)** Tell es-Sawwan, small calcite figurines; **4)** Dja'de el-Mughara, gypsum figurine (ca. 3.8 cm height); **5)** Göbekli Tepe, small bone figurine; **6)** Nevalı Çori, T-shaped pillar, limestone, 2.5m height; **7)** Urfa Yeni Mahalle, anthropomorphic sculpture, limestone, 1.93m height; **9**) Hakemi Use, burnt marble or calcite figurine, 5 cm height; **10**) Bouqras, figurine head said to be from burnt clay but possibly calcite.

Although roughly a thousand years separates the hieratic, monumental figure found at Urfa Yeni Mahalle from the figurines found at es-Sawwan, long-term enchained migration following the river courses may somehow explain a path of inter-generational transmission, undergoing changes in size to facilitate portability.[80]

[80] Several authors have remarked upon a trend towards miniaturization throughout the Neolithic (see e.g. Atakuman 2015; Anvari et al. 2017), but this should be connected to a more flexible way to maintain communal values in different settings.

Better geographically and temporally circumscribed are the similarities encompassing architecture and material assemblages observed between Choga Mami—east of Baghdad, at the edge of the Zagros—and Chagha Sefid in Khuzistan, Iran.[81]

5.2.2.2. Articulated dispersion or fissioning

A flexible return to the landscape as a 'homescape' is illustrated here with two well-excavated examples of sites that have been characterized as 'camps', seasonally or temporarily inhabited by a fully mobile group or groups. I will counter this interpretation by showing that it makes far more sense to see these places as seasonal camps used by groups of young people belonging to permanent, sedentary villages.

Pınarbaşı is a rock shelter site in the Konya plain, located roughly 25 km to the southeast of Çatalhöyük. It had a maximum extent of 400m^2 and has been radiocarbon-dated to ca. 6500-6000 cal. BC, contemporary with levels VI-I at Çatalhöyük East.[82]

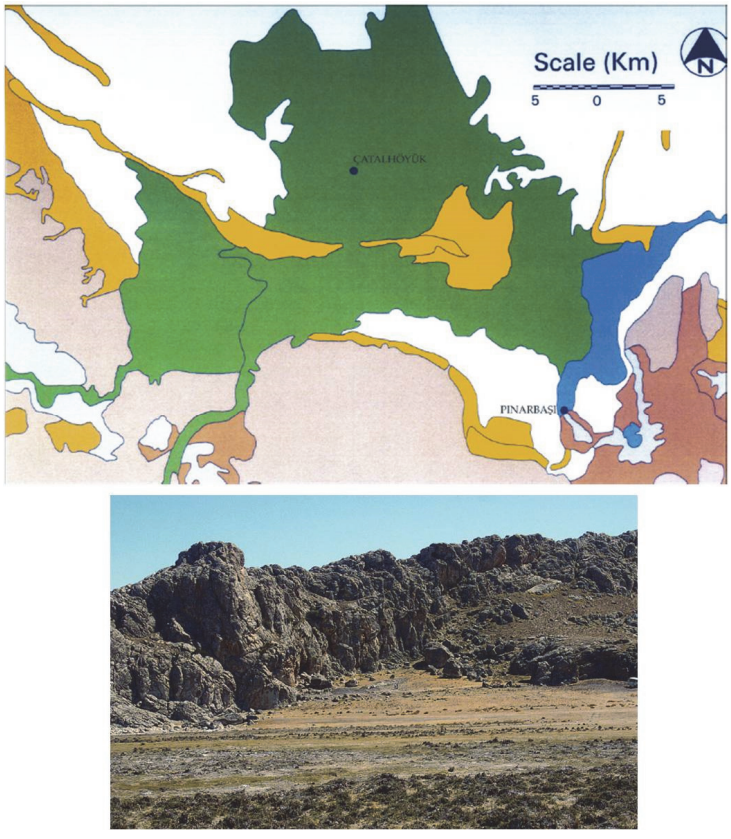

Fig. 5.9. Location of Pınarbaşı and Çatalhöyük in the Neolithic +Konya basin (blue represents lakes). Below: View of the rockshelter at Pınarbaşı. After Baird et al. 2011: Figs. 1 and 2.

[81] Oates 2013; Hole 1977.

[82] Baird et al. 2011. I am not referring here to the Epipaleolithic activities.

Its occupation has been divided into three phases: a first one consisting of fire pits filled with stone and bone; a second with a walled pit containing an oven, probably sheltered with a superstructure of reeds, and a third phase with fills of material accumulation. Faunal remains comprise a substantial proportion of domesticated sheep and goats, but also hunted aurochsen, equids and deer bones. Over 53,000 bone fragments were retrieved in total, including cranial elements and teeth, which indicate that whole carcasses were butchered *in situ*. Analysis of faunal assemblages and botanical remains suggest that large animal pieces may have been carried off-site, and point towards an occupation during the late spring-early summer, and autumn-early winter seasons.[83] There was a stronger emphasis on hunted game during the first phase, but it is still attested later on.[84] The Pınarbaşı sheep isotopes were strikingly similar to results of analysis conducted previously on Çatalhöyük ovicaprines from different levels of occupation, showing the presence of C4 plants in sheep diets in the later levels.[85] This was confirmed by Henton's study, who using all combined evidence suggested that lowland and terrace pastures, but not highland areas, were exploited to maintain flock numbers and to accommodate sheep herding maintenance after the introduction of domesticated cattle.[86] The similarity of carbon and nitrogen isotope values between Pınarbaşı and Çatalhöyük (and the difference in values between the latter and those from other sites) suggests that sheep at both sites shared diet during the second half of the 7th millennium.[87] Both cultivated and crop weed species were poorly attested at Pınarbaşı. Wild almond and terebinth nut-shells and hackberry stones were found in small numbers, and the wood from these trees was used for fuel.[88] The lack of ground stone tools confirms the impression that this was not a site dedicated to cultivation. The chipped stone assemblage is over 90% obsidian,[89] and this high proportion is similar to the results from a 1999 study of lithic material from Çatalhöyük. Baird observed that most of it represents micro-debitage leftovers.[90] This is important because it means that the "inhabitants" of Pınarbaşı took their butchering tools with them instead of burying them there. What was most striking to the excavators was the presence of bones embedded in plaster, of both wild animals and sheep (see figure below). Baird, who interpreted that the mobile herders and hunters at Pınarbaşı were supplying Çatalhöyük's inhabitants with their products, observed with surprise: "There is none of the preference for specific animal parts we see at the installations of Çatalhöyük".[91] There are two possible

[83] Carruthers 2003.

[84] Baird et al. 2011: 383.

[85] Pearson et al. 2007.

[86] Henton 2010: 376ff.

[87] Baird et al. 2011: 389; Figure 8.

[88] Assouti 2003.

[89] Çatalhöyük lay relatively close to confirmed sources of obsidian in Anatolia, but also very close to a volcano, the Hasan Dağ, which could have been active during the occupation at the site (Schmitt et al 2014), as represented in one of the wall-paintings in Mellaart's publications, believed to be a map illustrating an eruption event.

[90] Baird et al. 2011: 387.

[91] *Ibid*: 390.

reasons for this: one, installations grew progressively out of favor after 6400 BC; two, the plastered remains at the rock shelter represent those objects that were discarded, even if initially the precaution of preserving them in plaster was taken. There was no ritual going on at Pınarbaşı. Moreover, the presence of plastered sheep, aurochsen, and equid bones indicates that there was no radical differentiation between the power of wild and domesticated animals, as acknowledged by Baird in his conclusions.

Fig. 5.10. Plaster objects found in situ at Pınarbaşı. After Baird et al. 2011: Figure 6.

Using all the combined evidence found at this site, we can envision an expedition of young male hunters/herders from Çatalhöyük making regular use of the rock shelter at Pınarbaşı for some centuries before the West Mound relocation.

The second example to illustrate articulated dispersion has a later chronological context. Fıştıklı Höyük, excavated in 1999 and 2000 by Bernbeck and Pollock, has been proposed as a scenario for 'multi-sited communities'.[92] Its maximum extension was estimated at 0.5 ha., which allowed for around 14% of exploration in two seasons. Out of five phases, the first four can be dated to ca. 5900-5500 BC.[93] The first phase consisted of pits and a small pitch. The next one, phase IIIc saw the construction of a small cell-plan building and a dike, at the top of the hill. Later, a second dike was built on the eastern limits, together with two *tholoi*, two ovens, and a garbage dump at the western edge. Phase IIIa (3,2,1) sees the most intensive occupation at the settlement. The *tholoi*, ovens and trash disposal of subphase IIIa 2 align well with

[92] Bernbeck 2008, 2013; Bernbeck, Pollock, et al. 2003.

[93] Bernbeck 2008: Table 3.2; Bernbeck 2013: 52f.

the botanical, faunal and material evidence retrieved at the site for this level. Sickle blades, grinding stones, analysis of the oven floor areas, and soil sample analysis all attest to agricultural activity at the site,[94] specifically to the harvesting and primary processing of cereals and other plants, something confirmed by a more recent analysis, which excluded the samples coming from dung.[95] Grain was parched in the ovens in order to help with dehusking. The few storage units at the site would have helped preserve these. Einkorn, two-row barley, emmer, lentil and flax were identified. Basic and fine wares attest to the use of pottery for cooking, storage, and communal food-sharing, but they were brought into the site, since a pottery kiln was never built. Faunal remains attest to the primacy of sheep and goat, but cattle bones were also relatively well attested.[96] The so-called 'jetons', round sherds of clay with sharpened edges, were interpreted as "mnemonic devices" associated with practices of animal keeping.[97] However, very similar in shape and probably in purpose, are the stone sherds categorized by Starzmann as 'scrapers'.[98] Her comprehensive analysis of the lithic assemblages (arrowheads, flakes, burins, scrapers) retrieved from different areas allowed her to identify "three communities of practice" at the peak of occupation.

What is most remarkable in the few centuries of seasonal occupation at this site is that not even during phase IIIa was any burial ground found—apart from some disturbed fragmentary remains—[99] which is striking when considering Bernbeck's thesis that Fıştıklı acted as a focal point of aggregation for rotating mobile communities. This stands in contrast with very small sites at other locations. For instance, at Kerküşti Höyük, located in the plain to the north of the Upper Khabur, a tapestry of a few structures with stone foundations, hearths, two kilns, and pits belonging to the two subphases that saw the most intensive occupation (described as seasonal), demonstrates the persistence of semi-sedentism in the Pottery Neolithic (see Fig. 5.11).[100] Yet, despite its very modest proportions, architecture and duration, the domed kiln and six buried individuals of different ages and genders attest to the anchoring efforts by the small group that chose this location as a seasonal home. Bernbeck's multi-sited, rotating communities proposal aligns better with a site like Kerküşti.

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94 See references in Bernbeck 2013, and Bernbeck, Pollock et al. 2003.

95 Allen 2019: 251.

96 Bernbeck 2013: 54, n.6.

97 Costello 2002. Stamps, pendants and one single sealing were retrieved from IIIb and IIIa (Bernbeck 2013:55).

98 Starzmann 2013: 164f; Fig. 13.1,g; see also Tsuneki and Miyake 1998: 112-115 for this material at Umm Qseir.

99 Pollock 2011: 50f.

100 Sarıaltun 2013: 503ff.

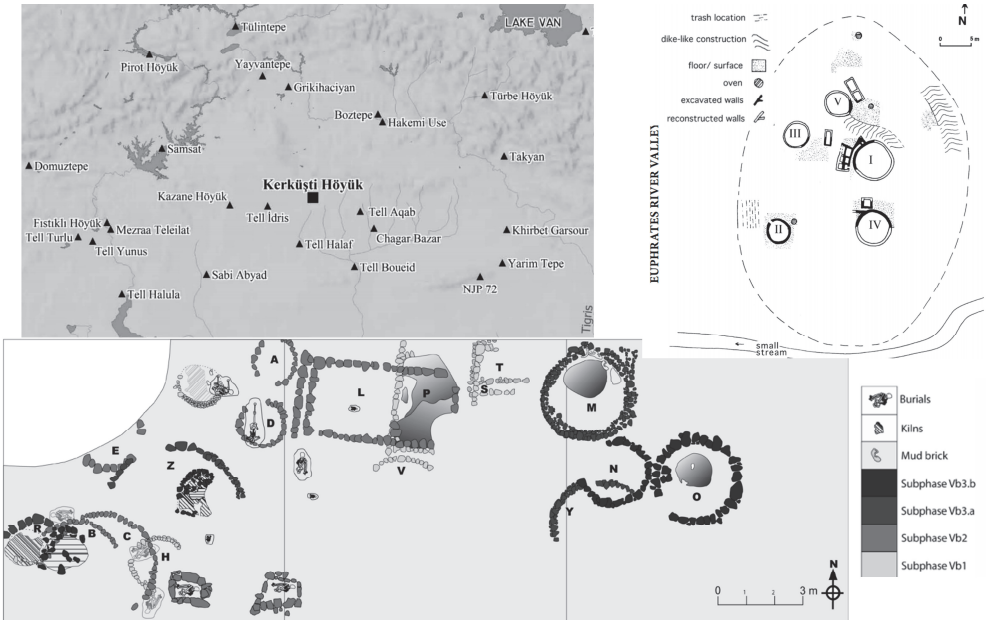

Fig. 5.11. Map showing location of Kerküşti, and to the west, Fıştıklı Höyük. After Sarıaltun 2013: Fig. 45.1. Top right: Fıştıklı, IIIa, middle subphase. After Bernbeck 2013: Fig. 3.3. Below: Kerküşti Höyük, layout during phase Vb. After Sarıaltun 2013: Fig. 45.4.

Moreover, even middle-sized villages showed a flexible approach to the landscape. At Umm Qseir in the Khabur, small-scale cultivation, the upkeep of some sheep, goats, cattle, and pigs, remarkably supplemented by the hunting of equids, gazelles, and deer, attest to a broad spectrum strategy.[101] Together with the decorated wares and spindle whorls, the impression we get from Umm Qseir is one of opportunistic yet committed home-making, combining the flexibility of pre-sedentism with the advantages of a comfortable communal life.

So, to conclude, the lack of pottery kilns, burials, and the evidence for well-organized and differentiated tasks at Fıştıklı implies that the groups using the site seasonally came from one or more sedentary communities. Bernbeck himself briefly considered the interpretation provided here, given that Zeytilibahçe, very close, and Mezraa, 2 km downstream from Fıştıklı revealed during surveying pre- and post-Halafian remains as well as "scatters of Halaf material".[102] Fıştıklı cannot be seen as the headquarters of roaming groups, but as the seasonal headquarters of groups from settled communities.

Dispersion, multi-site settlement, fissioning, and exchange were simultaneously taking place during the 6th millennium BC. Furthermore, while several areas of Anatolia experienced abandonment, decline or important changes in architecture and

[101] Tsuneki and Miyake 1998.

[102] Bernbeck 2008: 65, and references therein.

material culture at around 5600-5500 BC,[103] other areas of Southwest Asia became more densely populated.

5.2.2.3. Architectural experimentation

I want to explore here certain architectural developments that, from a social point of view, might have entailed new subsistence and cooperative arrangements. Specifically, three architectural innovations attest to the increasing importance of the requirements imposed by domestication: extensive cell-room structures, the emergence of second floors, and the so-called *tholoi*.

The widespread construction of cell rooms—either as part of the overall plan of a building or in segregated rows—points towards both increased storage space and the persistence of communal facilities since the PPNA. Internal cell rooms, however, may have eventually become building foundations to ensure longer shelf lives for above ground storage. This is obviously not easy to discern. Walls are very rarely preserved beyond a certain height, and stairs are rarely found.

Let us first start with Bouqras, in eastern Syria by the Euphrates, which despite the apparent limits to its landscape—between the river and the steppe—grew to a fairly decent size. The geophysical survey conducted by Geyer and Besançon on the middle Euphrates area confirms that the location of Bouqras would have been optimal, lying in a high plateau or ridge only relatively close to the river to avoid the seasonal floods.[104] The river at this time did not flow in a single river course, but circulated "*en tresses*", in braids (anastomosis). This optimal location is also confirmed by the ostrich depictions made with red ochre on a white wall of a house (see figure below), or the stone vessels shaped like a hare, a hedgehog and a bull found at the site.[105] One of the wall paintings showed a face with eyes of obsidian (inlays), as was the case with a painted plaster head found at Çatalhöyük.[106]

The site grew in an elongated and somewhat chaotic manner, following the vagaries of the terrain.

[103] Çevic and Erdoğu 2019.

[104] Geyer and Besançon 1996.

[105] For the latter, cf. Akkermans and Schwartz 2003: Fig. 4.27.

[106] Lingle et al. 2015: 275, 289.

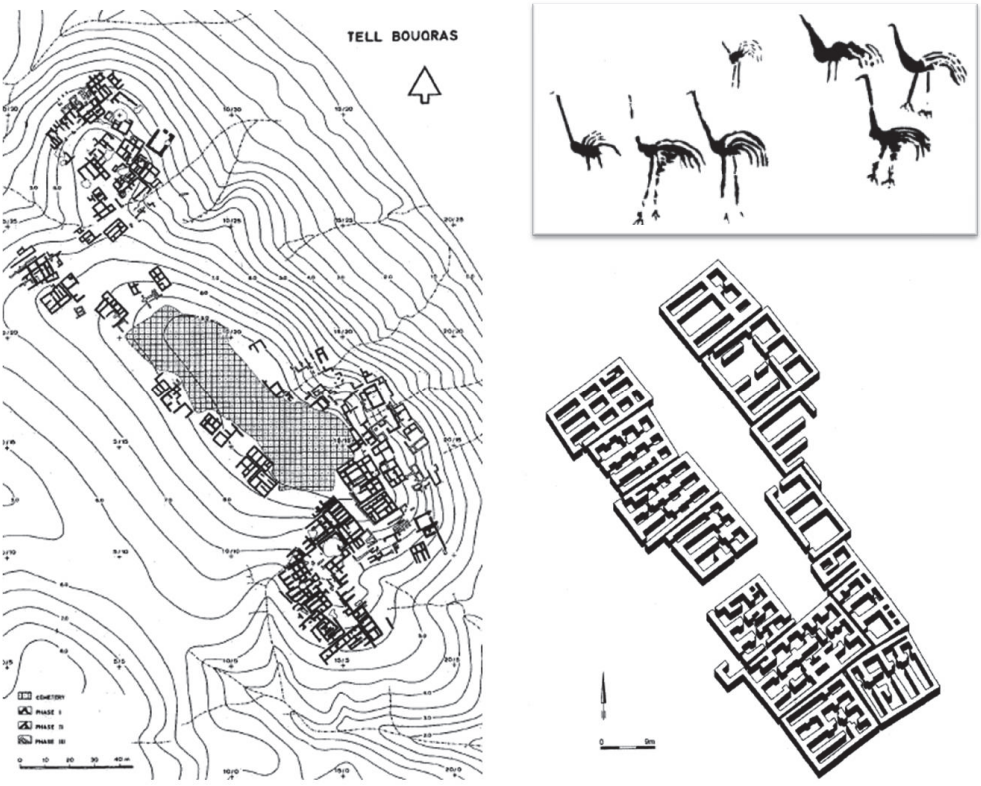

Fig. 5.12. Left: Layout of Bouqras; reproduced from Akkermans and Schwartz 2003: Fig. 4.13. Right: Wall painting showing ostriches or cranes. Below, an axonometric reconstruction of late 7th-millennium houses at Bouqras. Reproduced from Akkermans and Schwartz 2003: Figs. 4.15 and 4.14.

It was reported that three houses had walls that were preserved up to ca. 1.80 m, but the doorways were small (around 0.80 × 0.60 m), an indication of second floors or roofs, or both. Lintels were supported by wooden poles.[107] It is likely that very few of the cells comprising the foundation grid would have been accessible from above.

A roofscape is also attested at Beidha, in Southern Jordan, where the heavy walls appearing during the latest Neolithic stages confirm a widespread, supra-regional tendency to find new solutions (buttresses, thick walls) to support solid roof armatures.

[107] Akkermans, Fokkens and Waterbolk 1981: 499.

Fig. 5.13: Layout of Beidha during its Phase C. After Byrd 2005: Fig. 54. Reproduced with permission.

The evidence at Beidha leans more towards a roof than a second floor. For instance, from the photographs and reconstructed plans provided for Building 5, postulated as a building with two floors, we can see that the lower and upper floors do not match, and this is not a disparity that can be convincingly explained by the reconstruction of the lower floor at some point in the history of the building.[108] The description of architectonic features provided by Byrd is actually consistent with a scenario of putting an end to the life of a house by the complete filling-in of its space, a practice already observed in the PPNA, which continued together with the setting the roof on fire as a destruction mode.[109] In this case, however, one of the walls was deliberately preserved. Then a new building was built on top of the accumulated debris (see Fig. 5.14).

[108] Byrd 2005: 55.

[109] At the small village of el 'Arbain in the Golan Heights (early Chalcolithic), houses were intentionally destroyed, vessels were broken, most of the contents removed, and the entryways blocked before its abandonment (Freikman 2014).

Fig. 5.14. Reconstructed plans of Building 5 Subphase C1 at Beidha, showing the pre-renovation ground floor (left), the same building while undergoing modifications (right) and the alleged upper floor (below), which should fit with the ground floor but clearly does not. Reproduced with permission from Byrd 2005: Figs. 302, 303 and 304.

Actually, Byrd describes the debris, artifactual material and faunal remains retrieved from this building, remarking that there were children burials with goat horns in one of the burial pits and that the building towered over the adjacent ones.[110] So Beidha at its peak, like other contemporary "megasites" as seen above, can attest to the importance of a dual social landscape (roof and courtyards), or even a triad if we take the sub-floor burials into account.

[110] *Ibid*.: 55f. One of these was the large, long-lived communal building (Building 9, then 8).

Since the late 7th millennium BC, as witnessed at Sabi Abyad, Çatalhöyük West Mound or Canhasan I in Anatolia—where walls were preserved up to the base of the "second floor"—[111] thick walls do indeed represent the achievement of an additional space.

The Burnt Village at Sabi Abyad, that is, the section of the settlement during Level 6 that was partly destroyed by fire, allows for a possible interpretation of ground floors as both storage spaces and platforms or foundations.

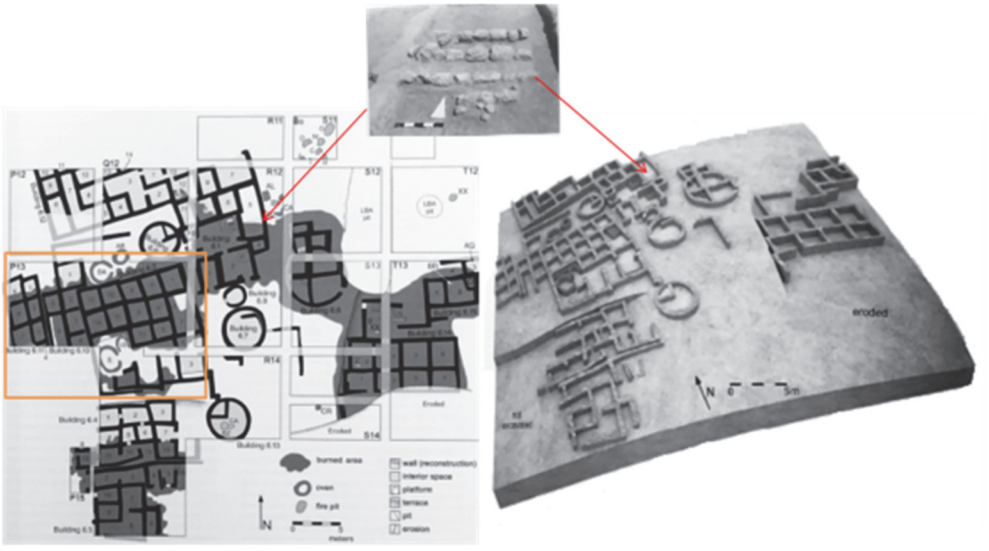

Fig. 5.15. Plan of Sabi Abyad, the Burnt Village (Operation I, Level 6), showing burnt areas marked in grey (left) and isometric reconstruction (right). Remains of stairs were found in one of the rooms of Building 1. See Akkermans et al 2014: Figs. 2.29, 2.31, 2.32. Plan of Level 6 and isometric plan courtesy of PMMG Akkermans, © Sabi Abyad archaeological team.

The cell rooms of buildings 2/3, 10, and 11, built following the curvature of the slope, are so densely packed together that access to many from above, particularly those in the middle, seems quite impractical. It raises the question of whether the whole grid acted as a platform that, once covered by a plank floor, allowed for a proper main floor to be built with a variable plan, including also roof surfaces at different heights at the top. As was seen in the last section of Chapter 3 (re 'tokens'), part of the debris that fell from above onto the ground floor of Building 2 included several objects, so it is safe to assume that the first floor acted as a residential space where food already processed was kept. Certain cells on the ground floor, however, may indeed have acted like storage bins. Charred grain and grain were found in four of the cubicles, and one cell was believed to have stored large amounts of cereal since "ashy white fibrous material of vegetable origin" was found.[112] This westernmost room, however, was next to the oven area.

[111] Düring 2006: 267.

[112] Verhoeven and Kranendonk 1996: 49.

Some of the buildings, like the complex at the bottom of the image, may not have been residential but multifunctional working spaces. This complex has preserved evidence for three doorways and two portholes,[113] but many rooms lacked entry points.[114] Charred roof beams were found to the north of this complex, around the oven area,[115] though not only here. "The common occurrence of charred beams and hard-burnt loam fragments with impressions of reeds and circular wooden poles in the various houses reveals that the roofs were all made in the same way: wooden rafters were placed at regular intervals and covered with reed mats, in their turn covered by a thick mud layer".[116] This kind of roof construction supports the notion of the roof as an extra space to work on in good weather conditions.

Differentiating dwelling from storage/working spaces is also not an easy exercise at Tell Shir, in the vicinity of current Hama, in Syria, spanning most of the 7th millennium BC. Tell Shir benefitted from the oak forest on the plateau nearby, the water of the river Sarut, a tributary of the Orontes, and the riverine vegetation of the flood plain.[117] Three buildings forming a kind of complex have come to light in one of the excavated areas. Cell-rooms in Buildings A and B had no visible entrances, and "in view of the fragments of lime plaster floors found in several rooms of Building A that had obviously fallen down from an upper storey, a two-storied building should be assumed."[118] Bartl posited that the rooms of Building A constituted a semi-subterranean basement for storage purposes, accessed through the floor above, but, significantly, she notes: "Yet, it is unclear whether the upper storey served as living quarters or likewise as a storage area. (…) The repertory of finds consists of various grinding slabs, grinding tools, mortars, and pestles as well as many vessels. Particularly remarkable are numerous large storage jars found in and around the buildings." [119]

At Yarim Tepe I, in northern Iraq, whose original occupation may be ascribed to the second quarter of the 7th millennium BC, cell-room structures are a prominent feature in the level that yielded the most results and visibility (Level 5).

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[113] Portholes were also found at Bouqras, Umm Dabaghiyah, Beidha, Abu Hureyra and Ganj Dareh (Akkermans et al. 1983). For further evidence of doorways at Sabi Abyad, see Verhoeven and Kranendonk 1996: 46.

[114] Verhoeven and Kranendonk 1996: 44f.

[115] *Ibid*.: 42.

[116] *Ibid*.: 46.

[117] Bartl 2013.

[118] *Ibid*.: 425.

[119] *Loc. cit*.

Fig. 5.16. Plan of Yarim Tepe I, Level 5, with red dots marking access points. Adapted from Merpert and Munchaev 1993: Fig.6.3.

The overall impression from the reports is that there were constant additions to the complex, and that phasing and subphasing was problematic. The lack of entry points in the layout of I, Level 5 (see figure above), is supported by Merpert and Munchaev's mention of blocked entrances and the reconstructions taking place at the end of this level.[120] The Yarim Tepe I community seems to have been, therefore, exclusively focused on suitable collective storage facilities and was not particularly concerned with planning their additional constructions in an overtly organized way.

To conclude, although some cell-rooms forming ground plans during the 7th millennium BC may have had a storage purpose, it is highly likely that overall they represented a solid protection against flooding, cold weather, and pests. Together with the thick walls and buttresses found at other earlier and contemporary sites, this was a strategy to build a spacious first floor and second floor rooms or roofs. This upper "world" also allowed for additional working and storage space, on the one hand, and intra-communal communication on the other.

The second architectural innovation that attests to the increasing need for working spaces with the advent of domestication is the round structure known as *tholos*, which made its appearance early in the 7th millennium BC, and would have protracted

[120] Merpert and Munchaev 1993: 80.

continuity in Southeastern Anatolia, Syria and northern Iraq. This is the feature, perhaps, that can best support the notion of a Halaf *koiné*. Akkermans wrote an overview on this particular and much-debated circular and versatile type of construction.[121] He made a basic distinction between simple ones, and "more complex, keyhole-shaped buildings consisting of a circular room enlarged by a rectangular antechamber".[122] The latter shape is particularly characteristic at Arpachiyah, as was seen in the previous chapter. Their usual diameter was 3-5 m, although larger ones, with partitions, occurred too. It is not known whether these buildings were roofed, but they could include hearths and ovens, so it is likely that the height and type of walls and their upper protection from the elements would have depended on their use. Access to their interior is unclear in some cases, but one of the *tholoi* at Sabi Abyad had a small doorway.[123] Stones sunk into the floor at the centre of several *tholoi* at Sabi Abyad (different Operations) made Akkermans infer that they served as an anchor point for a wooden post upholding the roof, and in some of them clay fragments with impressions of reeds and wooden poles were found in the fill. Walls and floors of these structures at the Burnt Village level were thickly covered in plaster.[124] This is actually the norm for most *tholoi* excavated anywhere. At Domuztepe, these buildings were close to the stone paved floors of some rectilinear structures.[125] Houses were built with wood, reed matting and mud,[126] as shown in a painted ceramic vase found at the site.

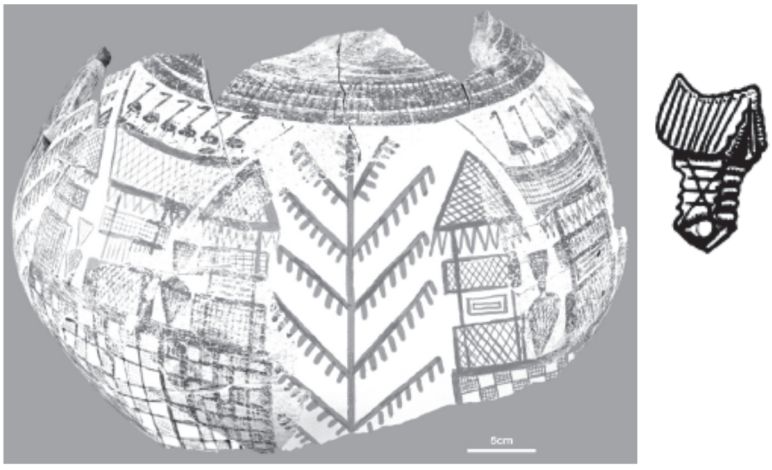

Fig. 5.17. Vase from Domuztepe (first half of the 6th millennium BC). Photo by Stuart Campbell, reconstruction based on repeated elements. After Campbell 2010: 153, Fig. 18.8. Model of a gabled house in the form of a pendant found at Arpachiyah. After Mallowan and Rose 1935: Fig. 51, 4 (A11).

[121] Akkermans 2014.

[122] *Ibid*.: 22.

[123] *Ibid*.: 25.

[124] *Ibid*.:25f.

[125] Carter et al. 2003; Carter 2012.

[126] There were burnt remains in Operation I, see Kansa et al. 2009a: 909.

One of the *tholoi* at Domuztepe was described as having an extremely thick floor, covered in plaster, except for a 20 cm wide rim at the base of the walls, filled instead with fine silt. This feature was thought to have contributed to air circulation.[127] At Yarim Tepe, round structures emerge at the end of Mound 1, but they become highly visible and complex at Yarim Tepe II and III.[128]

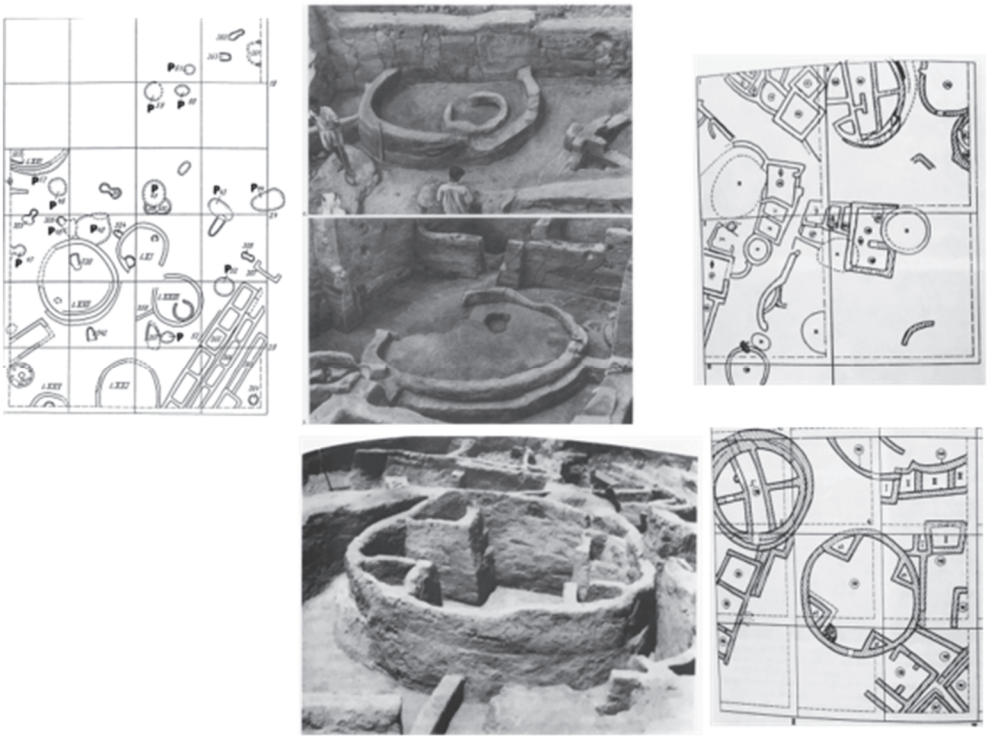

Fig.5.18. Tholoi at Yarim Tepe II and III. Top left and center, earliest building level of Yarim Tepe II (Level 9), section at the center of the tell, and drawings of tholoi LXXIII and LXVII (after Merpert and Munchaev 1987: Fig. 10 and Plate VI). Top right, plan of "Halaf level 2" of Yarim Tepe III (after Merpert and Munchaev 1993: Fig. 9.3). Bottom: Yarim Tepe III, "Halaf level 3", plan and photo of tholos 137 (after Merpert and Munchaev 1993: Figs. 9.18 and 9.19).

In the case of the two *tholoi* of Level 3 at Yarim Tepe III, thick walls preserved up to 2 m and 1.25 m of height, and no sign of an entrance clearly suggest that there was a need to keep the working area inside separate from the surrounding habitational spaces. Ash, ceramics, tools, and refuse, including cattle bones, were found in the thick soil strata of the *tholos* with a corridor in the middle, whereas the one with four L-shaped vats had more ceramics and less refuse.[129] Whatever was brought in to be

[127] Campbell et al. 1999: 405.

[128] Yarim Tepe III covers the span of the late Halaf (mid-6th millennium), the so-called HUT (or Halaf-Ubaid Transition), and probably the beginning of the 5th millennium BC.

[129] Merpert and Munchaev 1993: 174f.

processed, however, was introduced from a higher point above the preserved walls (*via* ladders, stairs or ramps).

A large key-hole shaped *tholos* of ca. 7m in diameter found in the course of the renewed excavations at Tell Halaf,[130] and a circular one of comparable diameter at Chagar Bazar[131] solidify the importance of these structures for their growing populations. As was observed in the previous chapter, the two circular structures at Tell Tsaf in Israel (second half of the 6th millennium BC) served as animal pens. The micromorphological analysis revealed several layers of phytoliths and dung spherulites.[132] This may have been related to a secondary re-purposing of these structures, as has been suggested for Chagar Bazar.[133]

To sum up, *tholoi* during the 6th millennium BC are always found in close proximity to other buildings, and yet, from their constructional features (circular, plastered, air-tight), preservation from weather and vermin seem to be a priority. They fulfilled a need for a suitable working space inside the village proper, but isolated from polluting elements and bad odors. What is clear is that these buildings cannot be interpreted as habitational structures, as was posited in the past. Even if they had ovens, or bins or any other feature, their role seems to be in support of raw material processing, like animal-derived products (e.g. hides, cured meat, fermented milk) or cereal beverages.[134] Keeping relatively sanitary conditions within the village must have been a priority anywhere where subsistence relied increasingly on domesticated animal species. Even in those regions were *tholoi* were not adopted, arrangements for safe working and storage spaces were made. At Ilıpınar, the excavated buildings of phase VI-VA —when agropastoralism and mudbrick houses with an upper floor were introduced— form a semi-circle in the upper terrace (see Fig. 5.19). Based on a thick deposit of animal dung found inside the curve of these buildings, the director of excavation concluded that herds of cattle and sheep were kept inside the central space.[135] Houses were equipped with bins, grinding slabs mounted on mudbrick footings, and mudbrick ovens. Their foundations had an opening for ventilation. Roofs were probably saddle-shaped to allow for their better alignment.[136]

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130 Becker 2013: 462.

131 Cruells et al. 2013: 471.

132 Hubbard 2010.

133 Cruells et al. 2013: 471.

134 Round, tall silos in the Cantabria region of Spain were used in the past to ferment grass, since the cows prefer it and the fermentation extended its preservation. Nowadays, plastic is used to pack the grass and ferment it.

135 Roodenberg 2011: 955. This phase was followed by one of intermittent, seasonal occupation (mid-6th millennium BC).

136 Claasz Coockson 2008.

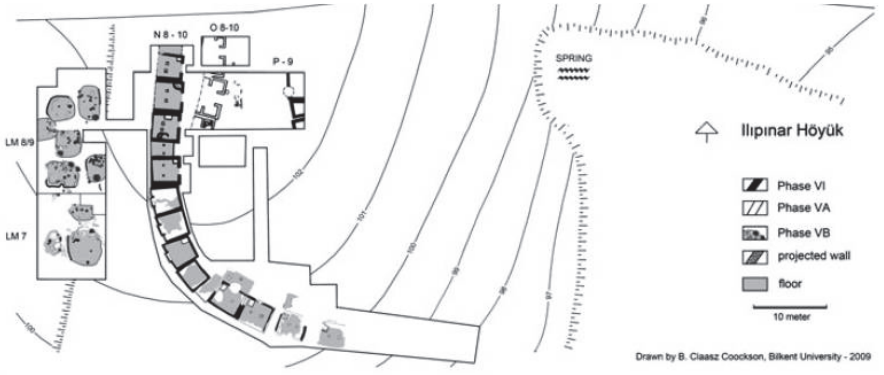

Fig. 5.19. Plan of Ilıpınar, phases VI-V. From Roodenberg 2011: Fig. 44.1, bottom. Drawn by B. Claasz Cookson, rerproduced with the permission of the author.

5.2.2.4. Communal architectural works

Several sites in the proximity of rivers in different regions have preserved works related to the optimum exploitation of water and the control of floods. At Sha'ar Hagolan,[137] a well going down for 4.26 m was found in area G, and this in spite of the villagers' proximity to the river. Together with the more or less planned layout—although a very small portion of the site was excavated—it suggests that minimization of flooding damage and the need for a safe water supply were planned for at this site.

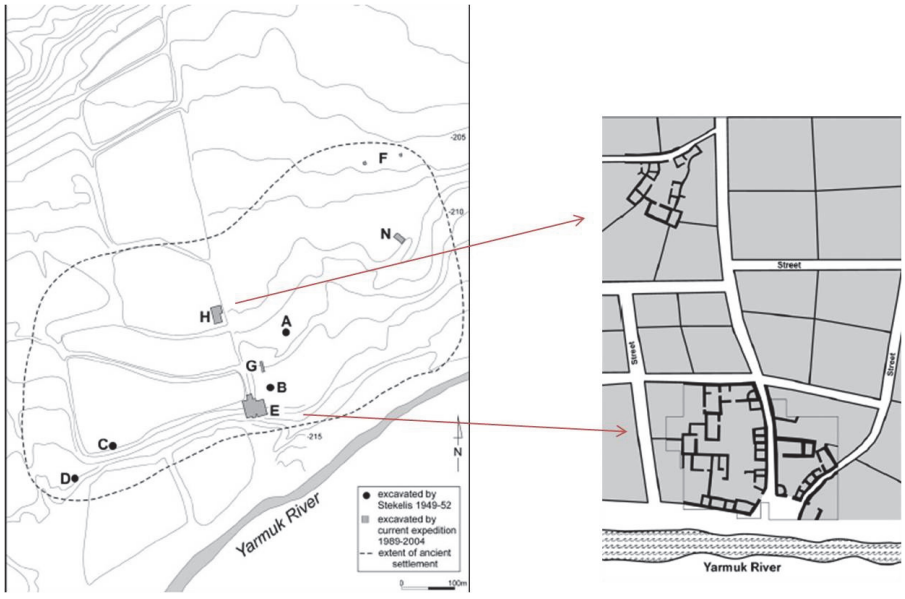

Fig. 5.20. Map of Sha'ar Hagolan showing excavated trenches. Right: detail of areas H and E. After Garfinkel, Ben-Shlomo and Marom 2012: Figs. 2 and 3. Reproduced with the permission of Y. Garfinkel.

[137] Dated to ca. 6400-5800 cal. BC. Cf. Garfinkel, Ben-Shlomo and Marom 2012.

The configuration of Tell Es-Sawwan during its latest phases, characterized as "Samarran", also suggests that seasonal flooding may have been problematic. The construction of a moat and wall, probably not before this latest stage of occupation,[138] indicates that communal efforts were made to handle the water sluicing from the north towards the river Tigris. The wall was built with bricks that were 60 cm thick only,[139] which makes the postulation of a defensive purpose highly unlikely. The decision to assign rooms within the T-shaped buildings of levels III-IV (Fig. 5.21, right) a function as granaries by the excavators seems a bit arbitrary, but it was perhaps motivated by the difficulties in correlating assemblages with building function, enhanced by the frequent repurposing and addition of features, like new partition walls and hearths/ ovens.[140]

Fig. 5.21. Tell Es-Sawwan. Left: plan of the site, plotting architecture of all layers atop each other. Two of the buildings stand on the saddle between Tells B and C, belonging to layers I-II. After Helwing 2006: Fig. 2. Right: plan of layers III-IV, inverted. After Breniquet 1991: Fig. 1.

A few centuries down the line, at the Central Anatolian site of Güvercinkayası, a stone fortress was built in such a position that the open area facing the Melendiz River would be separated from most of the houses in the village (see figure below). Although an exclusively defensive purpose was proposed by the excavators,[141] this

[138] I find Helwing's (2016) arguments to see a temporal gap between levels I-II and III-V very persuasive, and in alignment with Oates' interpretation (2013). The initial occupation of the site is uncertain due to erosion, and the possibility of intra-site mobility is high when taking all the mounds into consideration. The first houses with sub-floor burials, characterized as "Hassuna", may be dated to the end of the 7th millennium BC.

[139] Youkana 1997: 34.

[140] *Ibid*.: 21-27.

[141] Gülçur and Firat 2005, Gülçur 2012. The site was occupied for approximately 400 years (5200-4750 calBC).

ad hoc fortress had large buildings attached to the rear face of the wall, with installations like silos, bins, ovens, and the so-called "grinding benches", two of them shaped like a bull's head, features that had been frequently repurposed before the fire that put an end to the complex. Together with the numerous grinding slabs found, this was clearly a multi-functional working *cum* storage facility, albeit one that protected the village workers and their products from the weather, river floods and banditry.[142]

Fig. 5.22. Aerial view of Güvercinkayası. Reproduced from Arkeofili.com: https://arkeofili.com/anadoludaki-en-eski-sur-yapisi-ile-guvercinkayasi-kazisi/

Ceramics as seen at Güvercinkayası and Köşk Höyük, in the same region, experienced some interesting changes, going from the incision or appliqués of animals and eyebrows/eyes to a similar decoration limited only to the lugs and handles,[143] perhaps suggesting attrition (lack of time). Although this period of decline (mid-6th -early 5th millennium BC) is still being investigated, it would seem that the hunting of equids coupled with ovicaprid pastoralism co-existed.[144]

To conclude, all of these architectural traits point to a flexible way, always in flux, of understanding the 'domus'. The *domus* should be seen as the whole village, envisioned like a multi-organic entity composed of different structures and open spaces, arranged and rearranged to suit the needs for shelter, working spaces for the processing of higher amounts of foodstuffs and crafts, storage, water management, etc.

[142] After the fire and its destruction, a new, more modest settlement was erected, one that featured buildings with large rectangular halls, different pottery, use of stamps, and a baby buried in a jar that suggest that people from abroad were now making the most of this rocky outcrop.

[143] Gülçur 2012: 221.

[144] Meiggs et al. 2017.

5.3. Changes in mortuary patterns and ceramics

The new way of experiencing sedentism brought about a diversification of practices related to the common experiences lived by communities who now understood the extension of their village life beyond its boundaries, even beyond the ecosystem that surrounded the village, yet chose to express their identity in terms of group, community, or community of communities in a flexible way, choosing what to emulate, what to discard, and how to interact with others. This flexibility finds expression in ceramics, body ornamentation, figurines, and mortuary ritual.

5.3.1. Mortuary ritual

Mortuary practices underwent a decrease in ritualization throughout the 6th millennium BC, perhaps as a consequence of flexible sedentism. Secondary interments are no longer so frequent. Nevertheless, this process was gradual.[145] The repurposing of houses that had gone out of use, as seen with the Dja'de "charnel house", is a practice occasionally attested later on. Roofs appear as safe spaces used for the decomposition process once the house was no longer a dwelling. The analysis of the human remains found in House 12, Level III, at Bouqras concluded that each had been in a different stage of decay, and that four out of five had been on the roof when the fire that ended this and other adjacent buildings occurred.[146] There were indications that the house had fallen into disrepair. These were the only remains unearthed at the site. No customary practice can therefore be established for Bouqras. It is therefore likely that bodies lay elsewhere outside the excavated building complexes.

A tendency towards children sub-floor burials in the Lakes District, Central Anatolian and northwestern Anatolian regions since the late 7th millennium BC, in combination with adult burials on the perimeter of the settlement, has been observed.[147] This would soon become a more or less generalized pattern everywhere (see Chapter 6). While cemeteries, that is, burial yards in open areas, appear at this time, for centuries these liminal spaces are still a part of the village grounds—only one that is no longer inhabited by the living—and co-exist with sub-floor burials. Aktopraklık C in Western Anatolia became a cemetery once abandoned, and was used by the inhabitants of Aktopraklık B even if open areas at the latter were also used for interment.[148] This was also the case at Yarim Tepe I and II. Once abandoned, the slopes outside Yarim Tepe I were used as a cemetery by the inhabitants of the second site.[149] At the Tell el Kerkh cemetery, in use for a prolonged period as seen above, we find the first "primary cremations". The term "primary" is used to suggest that the burning took place at the same location where the bones were unearthed, but since the pits are small and contained several individuals, decomposition and

[145] See Jammo 2022 for a discussion on disarticulated skeletons during the initial PN.

[146] Merrett and Meiklejohn 2007.

[147] Lichter 2016: 78f, with references. See also Jammo 2022: 339.

[148] Roodenberg 2011.

[149] Merpert and Munchaev 1993: 104, 161. At Yarim Tepe I, most of the intramural burials belonged to infants, and some of them were buried in large vessels or under potsherds.

skeletonization occurred before their deposition. This decomposition (at least the initial phases) may have happened elsewhere. Moreover, "secondary cremation" is also attested, meaning that at least 29 individuals out of 46 who were cremated were later moved to other burial locations, frequently to be buried in proximity to someone else in collective pits.[150] Hironaga analyzes cremation at this site and in Southwest Asia from the early Neolithic to the 6th millennium BC. Intentional cremation (not caused by a house fire) is only certain at a few sites, and some outliers are hard to define as a pattern (they could have been due to random choices or migration).[151] Cremation implies that a more expedient way to process bodies than plastering, defleshing and post-decomposition manipulation was now preferred as an option by some communities. A kinship proposal has been put forward by the El Kerkh team as a reason to use this expedient mortuary practice (i.e. collective pits belonged to extended family households).[152] Carbonized wheat grains were retrieved both from the crematorium pits and other locations, suggesting *in situ* commensality.[153]

The "Death Pit" at Domuztepe has been postulated as a case of funerary feasting, either in connection with aggressive cannibalism, or as sporadic cannibalism accompanying funerary feasting.[154] The lack of a chronological understanding of the depositional events—since scattered finds of human, animal, and object remains complicate the reading of the main and secondary pits comprising this feature—and how its creation and use connects to the last stage of occupation at the site (it is dated after a gap in occupation and at the beginning of the last hundred years, 5600-5500 cal BC)[155] makes it extremely difficult to posit a convincing interpretation as to why the human crania and bones belonging to around 35 individuals—several showing cutmarks indicative of defleshing and dismemberment—and the high number and diversity of animals represented: two bear paws, dogs, sheep/goats, cattle, and some wild animals (e.g. bird) bones too, were buried together. The dogs were decapitated and mainly buried in a distinct area together with human bones, but deposition of dog and human bones happened even after the pit had been filled. In

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[150] Hironaga 2022.

[151] As at Yenikapı in the Marmara region, cf. Özdoğan 2013: 194f. Some 6th millennium sites in the Balkans also practiced cremation. Mention could have been made to the Yarim Tepe II pit and urn burials, where infants—by contrast to Tell el Kerkh—were also cremated. See Croucher 2012: 274ff.

[152] Tsuneki et al. 2022: *passim*.

[153] Merpert and Muchaev noted, regarding five cremated individuals at Yarim Tepe II, that vessels had been deliberately thrown into the fire.

[154] Kansa et al. 2009b, Carter 2012. Carter described the contexts as follows: "Artifacts other than butchered animals and human bone were limited in number and variety (pot discs, sling balls, bone tools, lithics, beads, one sealing fragment and several stamp seals) and appear to come from the soil disturbance that took place in the construction and filling of the pit" (Carter 2012: 108). A figurine in orange stone was also retrieved. The smaller pits also had ashes and comingled remains. Disturbed or not, those objects may or may not have been mere refuse. Croucher has pointed out that the patterns of damage to the skull by smashing are inconsistent (and some skulls were found intact) and rejects motivations of warfare or violence (2012: 272f).

[155] Campbell et al. 2014, who nevertheless propose seven phases of formation until its final coverage, even if they emphasize that the disarticulated individuals would belong to phases 5a and 6.

one of the earliest pits, the dog bones and the manner of deposition suggested that a dog pelt might have been wrapped around something.[156] Cattle bones belonging to at least eight prime-age females were reported by Kansa and colleagues,[157] and although a spread of cattle bones was also found in Operation III, the sacrifice of so many cows for the "feasting" events at the Pit seems anomalous, unless they were sacrificed at well-spaced intervals. The Death Pit belongs to Operation I at the top of the southern mound, which was the largest exposure by far. Even if seven (small) additional trenches were opened at other locations of the 20 ha site, a comprehensive grasp of the growth patterns at this site since ca. 5800 until ca. 5400 cal BC, including an understanding of the circumstances leading to its abandonment, has not been attempted.[158] As was mentioned above, large areas of Anatolia seem to have been affected by decline from the mid-6th millennium onwards. Campbell and colleagues have emphasized the boundary value of a strip of red soil running east to west across the southern part of the mound, and yet there was also an inhumation within the Red Terrace itself.[159] This feature was described in detail: "At times, it marked a limit to groups of domestic structures, while at others it demarcated more open areas. It was also the site of distinctive activities, some involving water-related processes such as clay levigation and others probably connected to feasting. In particular, we would highlight the repeated occurrence of large ovens throughout the life of the Red Terrace, sometimes occurring in small groups suggesting cooking at a scale considerably beyond the individual household".[160] It therefore seems that the purpose of the Death Pit, even if circumscribed to the last one hundred years, cannot be reduced to a human sacrifice scenario—and in connection to the iconography, like the headless winged pendants, or the painted headless bodies or bodyless heads on vessels, which must have been related to life-death cycle notions—[161] and may have been the result of unknown taphonomic processes.

In any event, the community before the last phase was prosperous. Making the most of the surrounding wetlands environment, they kept pigs, cattle, and sheep/goats, cultivated or exploited a broad range of plants, wild animals and fish. Given the number of spindle whorls and ovicaprine killing patterns, woolen textiles may already have been woven.[162] A wide range of stone vessels co-existed with ceramic ones, the range of "seals" shaped like buttons or pendants is astounding,[163] and the fashioning of obsidian "mirrors", bowls, and beads showed unparalleled

156 Bichener 2013.

157 Kansa et al. 2009b.

158 See Carter 2012 for a map showing areas where geophysics surveying was conducted (Fig. 2) and a chronological overview of Operation 1 (Table 1). However, neither here nor in other publications authored by members of the team is a general narrative of the site as a whole given.

159 Campbell et al. 2014: 34. Fragmentary remains and a few inhumations were also retrieved from other areas. See Carter 2012: 109ff for a description of the "ditch".

160 Campbell et al. 2014: 38.

161 Carter 2012; Carter, Campbell and Gauld 2003.

162 Kansa et al. 2009a.

163 Carter 2010. There are also fragments of "block seals". Only four impressed sealings were retrieved.

craftmanship.[164] Interestingly, the results from a recent analysis of 66 obsidian artifacts from Domuztepe indicated a high probability of an Armenian source provenance for 20 of the items (see figure below).[165] The authors interpret this as a sign of prestige-based, long-distance exchange networks (670 km distance), described in terms of the omnipresent elites-centered discourse (i.e. "exploitation or social control of certain locations", "craft production and/or social differentiation"). An alternative proposal would consider patterns of mobility more seriously.

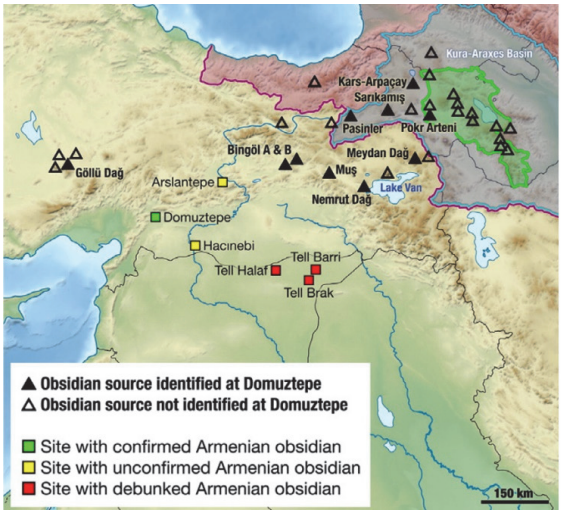

Fig. 5.23. Map of Southwest Asian obsidian sources (triangles) and archaeological sites with reported Armenian sources (squares). After Frahm et al. 2016: Fig. 3a. Reproduced with the permission of S. Campbell. Right: Obsidian mirror and selection of beads from Domuztepe, after Healey 2013: Fig.22.9 and 22.6, 3,4.

Domuztepe may have been founded (or co-founded) by people moving from the Caucasus into Anatolia after 5800 BC, and who—as suggested from one of the migration models considered above—would have kept in touch with their original communities. Seasonal transhumance may have been a possible mode of obsidian acquisition, perhaps imagining a meeting point somewhere in the middle.

A recent study on obsidian exchange patterns during the Neolithic in the Levant concluded that a certain amount of this material present at the northern sites ought to have arrived by means of direct expeditions, partly due to an observed increase throughout time, though the opposite pattern was detected for the Southern Levant.[166] Given that some items arrived as blanks, not finished blades, the implications are that: "either obsidian was transported by traders from the north, who knew how to knap using the pressure technique and/or that people from the south

[164] Healey 2013.

[165] Frahm, Campbell and Healey 2016.

[166] "In fact, for distances further than 700 km, the quantity of obsidian decreases in the LPPNB compared with the E/MPPNB, and decreases again in the EPN with respect to the LPPNB, in a trend which is opposite to the one observed by the Levant as a whole." Ibáñez et al. 2016: 18.

travelling to the north to obtain obsidian learned the reduction technique associated with this material".[167] With the mobility of many groups adopting a flexible sedentism lifestyle later on, the agency of "traders" needs to change to one of long-distance, interregional exchange. The analysis of obsidian blades found at 6th millennium BC sites of the Levantine coast down to northern Israel has detected sources from the Caucasus-eastern Anatolia area as well as Cappadocia.[168] In any event, knowledge on how to manipulate this sharp, beautiful, but extremely fragile volcanic material would have been very valuable. Given their remarkable skill, it was posited that knappers at Tell Seker al-Aheimar in the Upper Tigris shared a technological tradition with communities close to the source region, near Lake Van,[169] which implies direct transmission instead of simple barter. We tend to overestimate the value of material—or its accumulation—and underestimate that of knowledge. If we are looking for prestige in prehistory, we need to think in terms of access to that knowledge. The oft mentioned *chaîne operatoires* in the manufacture of different crafts would always have involved group coordination, and procurement and basic craftsmanship did not necessarily imply exclusivity.[170] Maybe the exquisite items from Domuztepe or Arpachiyah gave prestige to the artisans and the community, and they were sought after by whoever could afford them, or served to purchase other crafts that they did not make themselves. But as will be seen in the following chapter, metallurgy would truly entail secret knowledge, and artifacts of this material acquired apotropaic value.

To conclude this section, the main characteristic of mortuary rituals during the "flexible sedentism" period postponing initial community-making in core areas of Southwest Asia is its sheer diversity. Peoples no longer wanted to invest so much time and effort in corpse processing and secondary treatment, so they adopted new ways of disposing of their dead while often celebrating funerals with food and drink, leaving the vessels behind.

5.3.2. The "popularization" of ceramics (6th-5th millennium BC)

This section will aim to show how ceramics need to be integrated with broader materiality and with portability. By 'portability' I do not only mean that vessels and other containers may have been transported outside the village and traded, with or without contents. Vessels may have been also manufactured at seasonal sites on an *ad hoc* basis, and they may have been carried, discarded, and even cached at certain

[167] Ibáñez et al. 2016: 20. Ethnographic examples are provided in 20f.

[168] Carter, Campeau and Streit 2020, and references therein. The 48 small items and bladelets from Ein el-Jarba had nine geochemically distinct sources.

[169] Nishiaki and Nagai 2012.

[170] See Baysal 2013, where she compares large-scale obsidian blade production at Kaletepe for export to southeast Anatolia and the Levant with bead manufacture at Boncuklu Höyük—which unfortunately serves to illuminate differences of scale more than restricted knowledge. Some bead types were common at many sites in Anatolia, others responded to local tastes. Many small ornaments were repaired and reused.

locations.[171] 'Portability' entails a holistic way of engaging with material to communicate personal and communal identity. Once a wide range of forms and functions, and different decorating techniques, were mastered (see Chapter 1), experimentation with pottery commenced, and this not only affected tempers or surface treatment but also its potential as a social medium. In his diachronic analysis of burial patterns in Greater Mesopotamia, Brereton suggests that, between 6400 and 5400 cal BC, the vast majority of objects "removed from circulation" were vessels (64%), with a noticeable shift from alabaster to ceramics.[172] Brereton attributes the wide distribution of fine wares to the common stylistic language that already existed in basketry craftsmanship. This has also been postulated for the first pottery at Sabi Abyad.[173] A few centuries later, at Domuztepe, the bottom of a vessel showed the perfect imprint of a basketry-looking mat, interpreted as a stylistic imitation.[174] Skeuomorphism, applying discrete features to an artifact in order to imitate the design or a quality of a similar artifact made from another material, is a very common phenomenon when a new technology appears. As will be seen in the following chapter concerning metallurgy, there is a need not only to experiment with their functional and aesthetic possibilities, but also to negotiate their value and assess their advantages as compared to other technologies and crafts that are still in use, and which remain in use for a long time (stone vessels are still present in 6th millennium assemblages).

Pottery as a social medium is usually interpreted in terms of competitive feasting, particularly as concerns serving or open vessels and decorated wares. However, decorated wares may be alternatively understood as an integral item in communal celebration and potlach contributions, or as special tableware to welcome guests or visitors. There may have been a healthy background of rivalry between potters, the same as between any other craftsperson who took pride in their abilities. Potters' marks, which start appearing in the 5th millennium BC, may be the result of a wish to assert a guild-like identity, perhaps because potters by then had diminished prestige (see following chapter).

Despite their conspicuousness as grave goods and, gradually, as recipients of infant skeletons, Brereton concluded that ceramics in burials were indicators of "ostentatious displays of wealth consumption", and, as the Late Neolithic advanced, of "divergent strategies of wealth removal" where the aim was "to conceal their ambiguous moral status as objects accumulated for purposes of calculated exchange". Misinterpreting Weiner's work in *Inalienable Possessions – The Practice of Keeping while Giving*, Brereton sees ceramics as "a means of converting material wealth into

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[171] Based on surveys carried out over the Western Great Basin of Southwest America, Eerkens realized that mobile groups like the Paiute and the Shoshone cached pots mostly in valley-bottom locations, next to rivers and lakes, although caches were also recorded in rock shelters and caves. Rough surfaces, fine tempers, and a limited range of pot shapes and sizes are among the characteristics (Eerkens 2003).

[172] Brereton 2011: 127f.

[173] Berghuijs 2018. Nieuwenhuyse saw a "skeuomorphic echo" between dark-coloured and stone vessels, and in the use of mineral tempers to craft the very first wares (2018: 365).

[174] Kansa et al. 2009a: Fig. 4.

'intellectual property'—mentally owned assets that serve to reinforce social roles and define positions of authority."[175]

In contrast to Brereton, Campbell proposed seeing the painted decoration on Halaf wares as "part of a system of communication where vessels gained agency that was created and deciphered through social narratives".[176] As seen in Chapter 4, abstract, geometric motifs transmitted, according to him, different values from the naturalistic ones: the first sought to reinforce or modify social conventions, whereas the second carried meanings related to mythological narratives, with the potential to challenge the existing framework. As the candid statement from the Aboriginal artist quoted by Morphy and Layton or the Yekuana geometric jaguar motifs showed, in many cultures geometricity reinforces notions of sacred mystery and is usually related to mythological narratives.[177] However, Campbell's observation that, by being more standardized, "the stylised, geometric motifs may have been meaningful over much wider regions", is an insightful remark.[178] It is also possible that certain motifs were liked and chosen because they were imbued with different meanings to those originally intended. The values communicated through geometric or naturalistic motifs, appliques and incisions need to be understood beyond dialogical terms and more like a cacophony of sound. In his analysis of stylistic motifs of Halaf (northern Mesopotamian) ceramics, Hole realized that the diversity of attested practices rendered the visualization of an interconnected community of potters by reasons of trade an illusion:

> We know that some very skilled potters and painters worked with similar horizontal structures, but embellished the pots with design elements that were expressed in locally specific ways, which I see as analogs to linguistic dialects. (..) This does not preclude that within a region, pots may have moved between sites. In the absence of the kind of analysis presented here, which can clearly distinguish products made at a single site, it seems unlikely that more than a handful of pots actually moved from one place to another. I conclude that there is little, if any, evidence to support the claim of widespread trading.[179]

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[175] Brereton 2011: 147f, 344f. See my comments on Weiner in the Conclusions chapter.

[176] Campbell 2010: 154.

[177] See also Adom 2024 on the Asante Kente, a particular cloth and weaving tradition that commemorates the glory and unity of the past Ashanti kingdom of Ghana, which includes over 300 geometric designs whose colours and forms have symbolic meaning.

[178] Loc. Cit.

[179] Hole 2013: 81f. Bernardini, a specialist of the prehistoric American Southwest, has argued against a monolithic understanding of culture, network models, clan or tribal notions (fixed ethnicity) to understand the so-called Pueblo cultures before and after colonialism. He argued instead in favor of unaffiliated households, lineages, and subclans, particularly in the case of villages that grew to a remarkable size. Bernardini proposed a "vectorial, diachronic, and reticulate perspective on identity, involving the serial migration of many small groups" as an approach to understand the configuration of many prehistorical societies, in contrast to a spatial grid reconstruction of cultural identity practiced by traditional archaeology (Bernardini 2005: 35, examining the evidence available across several mesas of the American Southwest, whether settlement clusters, rock art or ceramics).

The presence of variable percentages of "Mesopotamian" styles in "peripheries" may, of course, not just be the outcome of mobility, but quite simply an attempt to diversify the usual range of creative expression, a scenario for which mere contact between neighbors (clearly visible in the tendency to cluster) would suffice. The pottery from Tell Kurdu in the Orontes, with its highly diagnostic Dark Faced Burnished Wares ("Amuq", Syro-Anatolian Levantine corridor), has been characterized as having a range of limited Halaf designs, due to a lack of naturalistic motifs. However, its Halaf wares include motifs that also feature in other contemporary sites of northern Mesopotamia, like chevrons, dotted squares, and bucrania. Özbal concludes that pottery conventions "were transformed and placed into local existing frameworks".[180]

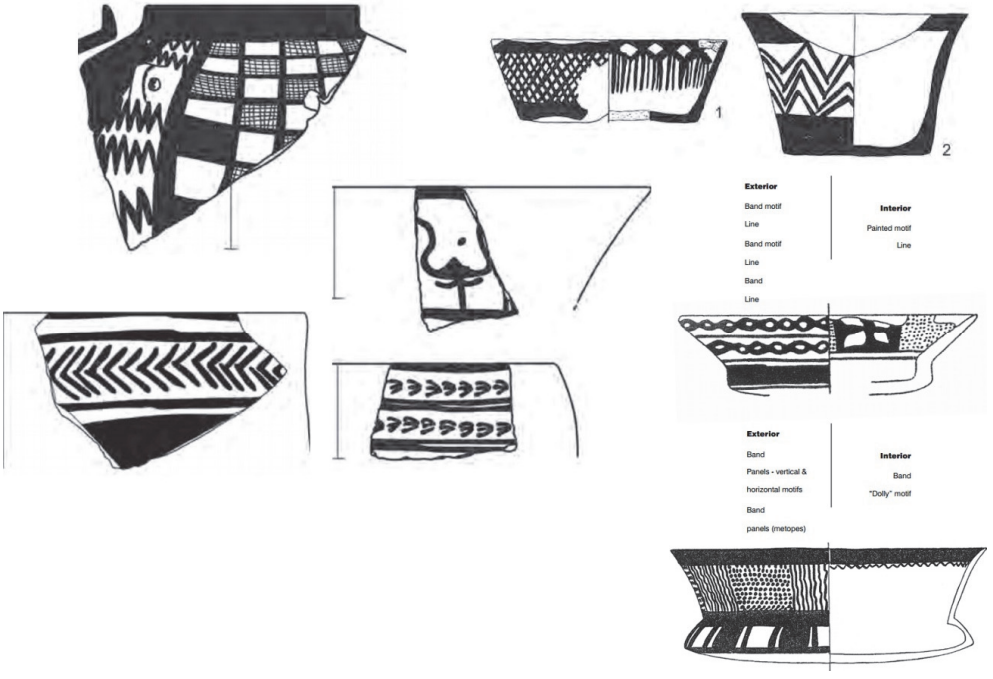

Fig. 5.24. Selective emulation in the "Halaf koine". **Left**: four fragments of decorated painted pottery from Tell Kurdu. After Özbal 2017: Figs. 12.7, 9, 11; 12.8, 2.7. **Top right**: two bowls from Fistıklı Höyük. After Hopwood 2017: Fig. 15.3: 1, 2. **Bottom right**: inner and outer decoration of bowls from Umm Qseir and Arpachiyah. From Hole 2013: Fig. 5.2.

Campbell's warning about following material typologies too strictly as regards both chronological periodization and the identification of relevant social changes (see Chapter 1) came together with a proposal for a reduction of the Halaf-Ubaid Transition period to just a few centuries (from ca. 5500 to ca. 5200 cal BC). This is only relatively useful—just as an Ubaid 0, 1, 2, 3, 4, Late and Terminal interregional sequence remains problematic as a guideline aiding to the detection of meaningful change. Without suitable calibrated dates, neither changes in ceramics nor in any

[180] Özbal 2017.

other features can be discerned and compared with other contexts—as Campbell acknowledged—but moreover, crises may not have overtly affected many crafts, while impacting many other experiences of social and environmental life.

To conclude this chapter, the process of sedentism initiated in the 11-10th millennium BC in some core areas of Southwest Asia forged the way, after a small-scale dispersion wave, towards village formation following different paths, and to the first witnessed growth and decline of settled communities from the 9th to the 7th millennium BC. The very animals and plants that allowed these communities to grow and thrive, and the time-consuming efforts to process dead bodies for their incorporation into the tangible and intangible village fabric, would eventually—even if slowly—force a readjustment of organization, affecting the way sedentism was understood. Already in the late 7th-early 6th millennium BC, this way of life gradually and irregularly became adopted in all neighboring areas, probably because both small migrating groups—maybe not whole communities—as well as reluctant sedentists were busy experimenting with new landscapes and new "material entanglements", using Hodder's term, respectively. During the 6th millennium BC, communal cooperation is witnessed in the way segments of the community will undertake expeditions outside the home base, or in the way architecture will increasingly reflect the need for animal-human co-residence and for the adoption of measures against climatic adversities and pests, without otherwise exhibiting much indication of a wish for privacy and "family household" autonomy.

CHAPTER 6. GROWTH, CRISIS, AND THE RITUALIZATION OF METALLURGY

Growth is patently visible during most of the 5th millennium BC across all Southwest Asia and Southeast Europe. At this point, therefore, according to an evolutionary narrative, we should be seeing the following: increased density and village growth spur a wish towards a better, planned layout at a new location or the reconfiguration of an existing layout; with time, those with authority construct a favorable social platform for ambitious personalities to seize the day in times of crisis and gain charismatic prestige first, then exclusive leadership. And that is more or less what happened, only one millennium and a half later, and only in a sub-region of Southwest Asia.

This chapter will address how certain communities started to explore labor division and coordinated growth as reflected on a better planned layout, hence preceding the first urban experiments of the 4th millennium BC. It also explores the possible emergence of full-time specialists who may have acquired a sense of occupational identity: potters. In addition, though not everywhere or following the same trajectories, metallurgy may have entailed the emergence of collective groups or sodalities that were joined by a common search for empirical knowledge, perhaps sanctioned by deities with new attributions, and eventually adopting a more masculine worldview and organization.

This chapter also strives to understand whether climatic change would have had a bigger impact now than hitherto. Once growing communities had gotten used to stability and prosperity, they may have experienced more mental pressure at times of crisis, which engendered collective responses of a conservative or innovative nature (i.e. increase in infant burials, experimentation with metals, activation of complex mortuary ritual in the Southern Levant). Sedentists had become less flexible, so the need to protect themselves from harm and hardship through ritual and the control of secret knowledge manifested in a comparable way to earlier mortuary rituals involving the manipulation of animals' and humans' bodies into material with primary agency at the beginning of community-making.

Meta-communal aggregation, heterarchy, and an ontological shift towards objectification and segregation will be analyzed in the following chapter.

6.1. Multifunctional layouts

The idea of multi-functionality comes to mind when examining many 6th and 5th millennium BC settlements that have been sufficiently excavated and through those horizontal exposures enable reading of a layout and its changes during a certain amount of time. In order to understand what is meant by multi-functionality, and despite the vast temporal difference, the example of the village of Baghestan, Iran, as observed by L. Horne in the late 1970s, may be useful here.[1] Horne undertook

[1] Horne 1994.

three years of fieldwork in this village of the Iranian region of Tauran in order to find correlations between built structures and wealth in an agropastoral, modestly sized village (34 households). Wealth at this village was expressed in terms of livestock and well-irrigated land, but that differentiated wealth had a difficult expression in architectural and material terms.[2] The most reliable indicator was the total number of rooms, and of these the number of spaces allocated to store tools of production, to house animals, to shelter food-processing tasks, and to store equipment, agricultural produce, fodder and firewood. Unlike villages in other areas of Iran, there was no dichotomy in terms of landless/landed, nor many second-story living rooms, and no guest rooms until 1978. Horne found, for instance, that, despite the importance of the living room, where families ate, entertained and slept (at least in the winter), it was usually not very big, and moreover, it was frequently repurposed as something else at a later date (see Fig. 6.1). Living rooms were usually recycled as storerooms, straw rooms or animal pens.

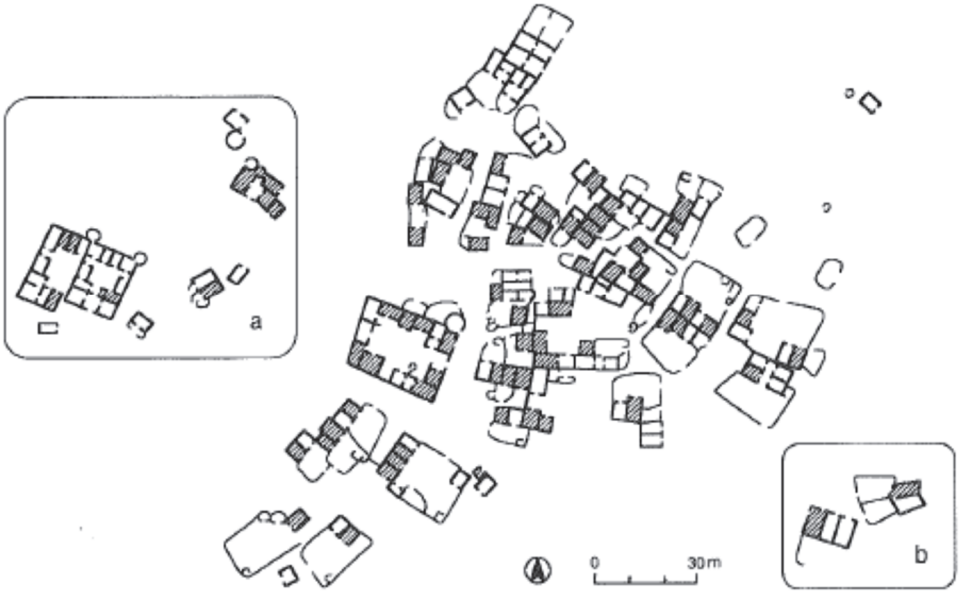

Fig. 6.1. Shaded are the rooms originally built or used seasonally or temporally as living rooms in Baghestan, a) Qal'a Baghestan and b) Kalata (in the vicinity) that Horne recorded in the late 1970s after enquiries to the families/owners. She did not include here four second-story rooms located in the village core. After Horne 1994: 181, Fig. 28.

More than extensive remodeling, the villagers preferred to build a new structure to replace the old. But for the simple purpose of reuse, changing the decoration and furnishings sufficed. Horne therefore warns about tracking these changes: "In an archaeological context, however, if reuse has not adequately erased evidence of previous functions (as in Baghestan it usually has not), or when excavation is not meticulous enough to identify *which* are the most recent functions of a structure, then

[2] *Ibid*.: 157ff.

a conflation of what were actually chronologically discrete activities will be recorded".[3]

Horne also observed that, as may be predicted, seasonal/pastoral stations had less solid, reliable architecture and no indication of reuse. They may have been situated at abandoned villages.[4] She was also aware of the fact that her overall finds did not fit with what other researchers had observed for other areas of Iran, as scarce as those studies were. This was not a region where people lived in self-contained households. Furthermore: "Most Baghestani households own and use additional rooms in other parts of the village, and moreover, many of them own only part of what would from the plan be identified as a single house unit." These reconfigurations are done by everyone: "Wealthier households do not manage to keep their houses together better than do the poor; indeed, they do rather worse at it. Even the most striking examples of clearly circumscribed multiroom dwellings, the three *qal'as* (one in Gauju, two in Qal'a Baghestan), are divided in ownership among six, four, and six households, respectively".[5]

So before the emergence of legal property and going back millennia to a situation of evolving sedentism, how much more confusing can it be for us to locate "family units"? In a recent article, the director of excavations of Tell Kurdu used Horne's work at Baghestan to a certain extent.[6] The only open avenue for Özbal to find spatial units in an agglutinative layout, despite the presence of a narrow road and courtyards, is to choose a specific area.

Hence, Özbal cites Horne's reflections on the living room being the core of what constitutes a home for the Baghestanis, only to disdard them later: "Using Horne's suggestion of living rooms provides little assistance because there appears to be considerable variability between rooms that could have functioned as living spaces."[7] It would seem, therefore, that Özbal chooses to ignore Horne's warning about the frequent repurposing of these living rooms, sometimes seasonally. What Özbal perceives, instead, is multi-functionality, but she is uncertain about how to deal with it. Although Horne is capable of giving an account of residential experiences over a couple of decades, based on people's memories, what we may have at this stage of sedentary life may be even less sequential (several rooms could have simultaneously acted as living/working/sleeping spaces). Özbal has no choice but to see the evidence for narrow alleys and occasional courtyards as meaningful divisors at Kurdu, and assigns Area A a household status, independent and self-contained. To her credit, she analyzes this area by taking into account all features—fire pits, bins, grinding-stones, ceramics, all sorts of material culture, and ovens—in order to designate sub-area functionality. Room 05 is considered a kitchen, even though the discovery of tokens, spindle whorls, bone and stone tools, "sling pellets", and pebbles indicate

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3 *Ibid*.: 179.

4 *Ibid*.: 182.

5 *Ibid*.: 187. *Qal'a* were walled or fortified settlements.

6 Özbal 2012, analyzing the 6th millennium exposed area in the northern part of the mound (700 m^2). The nature of occupation and growth of the site until and during the 5th millennium BC is largely unknown, circumscribed to the burials and ceramics retrieved from some small trenches.

7 Özbal 2012: 324, 330.

that "food preparation was not the only activity that took place in this room".[8] To her credit, too, prior to her meticulous spatial analysis of Area A, Özbal admits that other areas are more difficult to identify in terms of households and that—apart from the difficulties in finding discernible doorways—spatial organization is generally based on rooms, not house units or even compound units. She concluded that Area A seemed to be "socially autonomous" even if "intra-settlement connections" were also present at Tell Kurdu.[9]

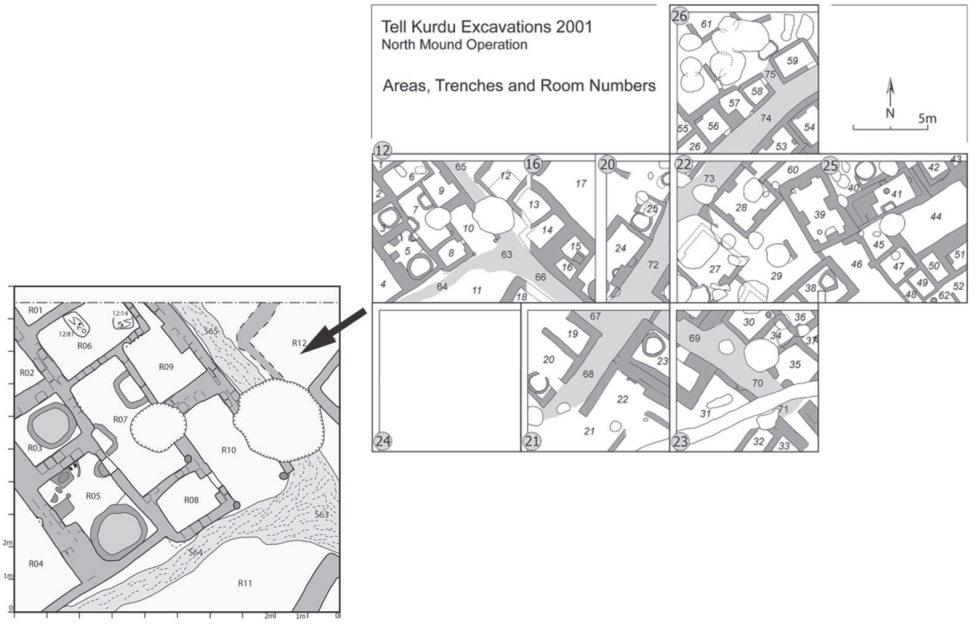

Fig. 6.2. Tell Kurdu, "Halaf" period: architectural plan, showing the north mound operations, and plan of selected Area A. After Özbal 2012: Figs. 3 and 9, reproduced with the permission of R. Özbal.

It could be argued that during the 5th millennium BC, particularly at those sites where a considerable size and a certain feature/architectonic complexity was achieved, the issue of identifying family households should no longer be so difficult. Yet organic growth and multi-functional spaces persist, suggesting that intra-communal sharing was still common. This will be shown in the last section, with Tepe Gawra in northern Iraq at the end of the 5th millennium BC and beginning of the 4th, even if my intention will not be to conduct a thorough spatial analysis. Distinguishing specific areas where intensive ceramic manufacturing took place becomes easier with time, but dividing residential quarters or blocks in terms of family household units or workshops becomes more difficult the more a site grew. Tepe Gawra or Değirmentepe became large and prosperous villages, yet their agglutinative layouts clearly indicate that communities were still operating along supra-familial organizational lines.

8 *Ibid*.: 336.

9 *Ibid*.: 339.

6.2. Growth in the first half of the 5th millennium BC: two case studies

This section will explore multi-functional but relatively well-planned spatial organization through two well-excavated sites: Tell Abada, in the Hamrin region of Iraq, and Yumuktepe, in Anatolia.

Tell Abada is a site that grew relatively fast yet never reached a big size.[10] It was constituted, on its two main levels, by six or seven residential spaces, with other buildings at the site functioning as working and processing facilities.

Fig. 6.3. Plan of Abada, Level II. After Jasim and Oates 1986: Fig. 1.

[10] Jasim 1985: 172f.

Abada looks like a village founded by a homogeneous group that was growing and decided to plan the superseding layout during the gap separating level III from level II[11] according to their agropastoral[12] and residential requirements, including the fencing of a large paddock or field behind the main building, Building A, where clay water pipes were laid out to the north of it (see Fig. 6.3).[13] Some of the buildings at Abada had a clear working/ storage facility function. Buildings G and H were probably dedicated to storage and pottery manufacture. Building I was considered a sheepfold. A small basin lined with bitumen was built against its southern wall. Building J, located just behind it, was probably used as a barn/storage/processing facility. The central hall of Building E may have also served to store grain.[14]

Building A, posited as the house of a chief, or a ritual or administrative structure,[15] must have actually been the foundational extended family house. Abada is well-known for the high number of infant jar burials buried under the ground of this building.[16] Alabaster vessels, domestic paraphernalia, and some 90 "tokens"—kept mostly inside bowls and small jars (groups of 4 to 16)—were also found in different rooms here.[17] Jasim and Oates considered these tokens the first true precursor of an accounting system, as was already defended by Schmandt-Besserat at the time. Significantly, almost none came from the other buildings at the site, like Building J, behind the pen, or Building H, with a large number of vessels, or Area G, the oven/ kiln area. Moreover, as with earlier sites, heterogeneity —despite the fact that most of the tokens were classified, again, as spheres or cones (74 out of 90)— is as striking as is the occasional attestation of incisions. If these objects were 'calculi'—as Jasim and Oates purport despite their misgivings (the burial urns)—, wouldn't they have been kept close to the storage areas, or at a single location within a building? It makes more sense to see these objects as gaming pieces.

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[11] Level III was not as extensively excavated as the upper levels, cf. Jasim 1985: 17f. Therefore, the 50-70 cm fill separating level III from level II may have been the consequence of deliberate destruction and burial of previous buildings prior to re-construction. Only three were unearthed for this level.

[12] A total of 143 spindle whorls were recovered, the bulk of them from levels II and I. *Ibid*.: 60.

[13] See *Ibid*.: 32f for a description of the water channel, pipes, and stone basin, and Fig. 27 for a drawing of the pipes. Evidence for water channeling and drainage were not only found to the north of buildings H and A, but also to the west of E and F.

[14] Ibid.: 21f (level II); 29 (level III). Jasim is not very clear about why this and other buildings yielded specific evidence tying it to the contemporary *baryat shilib*, basically a big container made with reed matting and covered with clay. Moreover, according to him, the central hall of Building E may have been unroofed.

[15] *Ibid*.: 174.

[16] *Ibid*.: 28, 33. A total of 127 infant urn burials were found below the floors of mostly Building A and adjacent Building F.

[17] Jasim and Oates 1986.

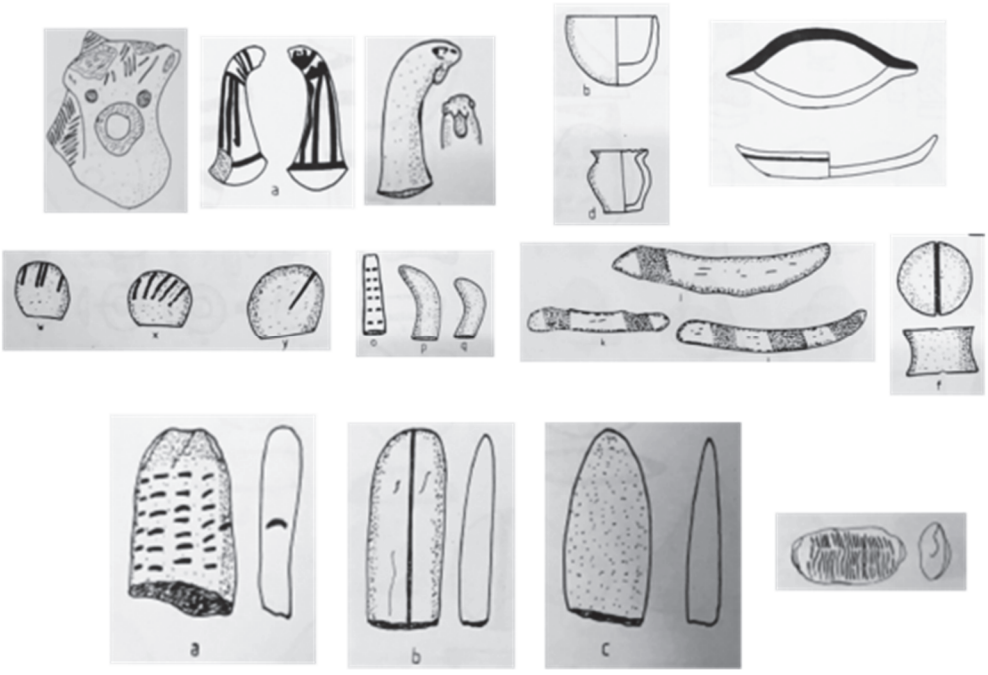

Fig. 6.4. Miscellaneous clay objects from Tell Abada (except for the last one). First row: head of zoomorphic vessel (from Jasim 1985: Fig. 49, a); decorated bent nails and bent nail with zoomorphic head (*ibid*.: Fig. 57, a and k); miniature vessels (*ibid*.: Fig. 59, b and d); miniature boat (ibid.: Fig. 63 a). Second row: objects classified as tokens (ibid.: selection from Figs. 66-69). Third row: objects classified as proto-tablets, the first three from Abada, the fourth from Tepe Gawra. After Jasim 1985: Fig. 70 (and see 70d); after Tobler 1950: plate CLVII: 71 (assigned to level XIII, of a later date than Tell Abada).

The interpretation, moreover, to classify the objects in the image above, bottom row, as a "tally" or "proto-tablet" betrays again an eagerness to prematurely build bridges towards "complexity".[18] The distributional map above does not include the findspot of other objects, like animal figurines, zoomorphic vessels, curved nails with animal heads, a rattle, or the two boat models, to name a few,[19] but many of these objects were also retrieved from Building A. Old and new materiality coalesced here, now including the "bent nails" and the decorated spindle whorls, and soon after, at sites like Gawra, the "eye idol" figurines appear. This is still a world where humans are interacting with their environment, not segregated from it. There is also a playful character to many of the objects found, as if children also participated in the world of adults. Jasim and Oates parallel the alleged administrative use of these tokens to

[18] Jasim 1985: 73; Jasim and Oates 1986: 353. In the case of the cylinder seal found at Kosak Shamali on a foundation of a "Post Ubaid" pottery workshop dated to the end of the 5th millennium BC (Sudo 2003: 239-244), more than five hundred years before the emergence of cylinder seals at Shafarabad, Susa, Uruk and elsewhere, we could be talking of a precursor. Its shape—more elongated than the later examples—and its geometric pattern point towards an isolated experiment.

[19] Jasim 1985: 35ff, 62ff.

the so-called potters' marks (here and at 4th millennium Tell Brak). These marks—sometimes painted, usually incised—are regarded as precursors of writing.[20] As we will see further below, these signs may be related to the emergence of something akin to a guild, a professional specialization that triggered inter-communal competition. To conclude, Abada represents a site that grew in size, maximized its potential with a well-planned layout, and benefited from that moderate growth for a few generations.

The second case study is the site of Yumuktepe, in Mersin, Cilicia, whose levels XVI and XV offer a glimpse at an even larger scale of well-planned growth at an advantageous location. The site as it appears at XVI seems to emerge almost *ex-novo*, unrelated to earlier occupation.[21] The possibility that Yumuktepe may be a precursor of meta-communal aggregation, that is, that an extraneous group joined the local population or several groups collaborated to build the citadel, facing the sea with the mountains a few kilometers behind as a backdrop, is therefore a plausible and enticing one.

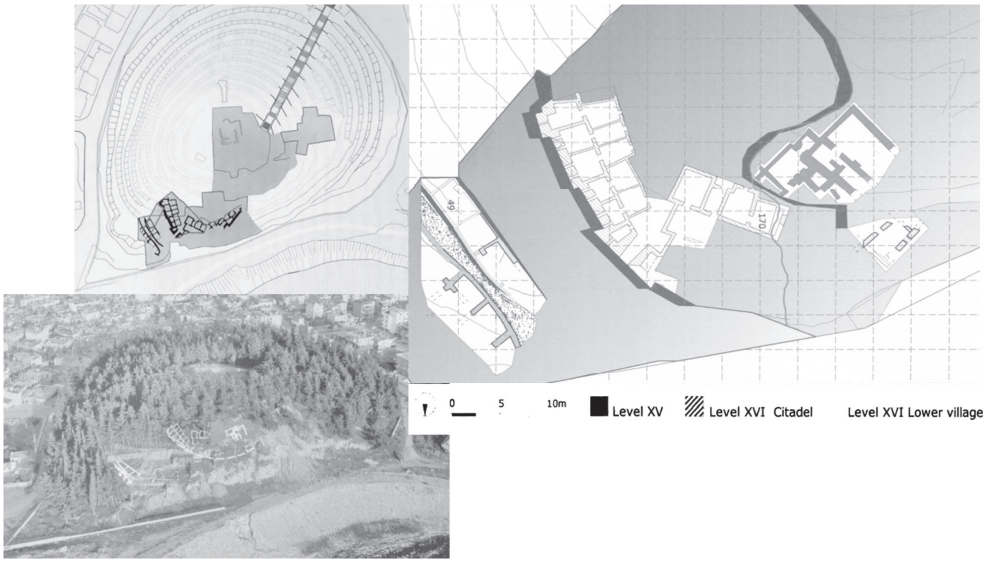

Fig. 6.5. Yumuktepe XVI-XV. Top left: Plan of Yumuktepe Level XVI, presenting the limits of the old and the new excavations. After Caneva 2019: Ch.2, Fig. 1. Bottom left: The site surrounded beyond the tree line by contemporary Mersin, after Caneva, Palumbi and Pasquino 2012: Fig. 1. Right: Plan of Yumuktepe buildings Levels XVI-XV, *ibid*: Fig. 2. Reproduced with the permission of G. Palumbi.

Smelted metal objects were allegedly found at this level (including chisels and axes) during Garstang's excavations in the 50s, although this is probably something that needs to be confirmed in future, given the suspiciously early dates and the lack of

[20] Jasim and Oates 1986: 355.

[21] Yumuktepe was apparently occupied all throughout the Neolithic, then abandoned (see Caneva 2010: 17-35).

comparable examples in Anatolia at this time (4800-4600 BC).[22] The entire chronological anchoring of the "Middle-Late Chalcolithic" occupation falls approximately between 4800 and 4200 cal BC.[23] The archaeological team that has been working at this site since the late 1990s have encountered difficulties as concerns the stratigraphic resolution of old and new excavated areas, partly due to the fact that there were several, differentiated chronological occupations (e.g. EBA, Hittite, Medieval), and partly because the rooms at both sides of the road that led to the upper citadel seem to have had earlier dates and a short duration.[24] Caneva remarked: "Graves and storage pits belonging to later periods had also been cut deeply into this level".[25] And among her general conclusions for the field data compiled for Level XVI: "Though all parts most probably pertained to a comprehensive plan, there is evidence that the different sections were not constructed and used contemporarily",[26] which suggests that Level XVI-XV was a period of intense activity.

The team was keen to present the site during this period as part of an Ubaid *oikoumene* and emphasized the administrative role of the "tripartite building" of Level XV to justify this claim. Caneva and colleagues posited that the site combines the tradition of a fortified settlement (i.e. Güvercinkayası) with the "Ubaid Mesopotamian tripartite model of exclusive prestige architecture".[27] For now, this building has yielded a single impressed sealing and many pots and sherds, but hardly anything else that allows for far-reaching prestige or administrative interpretations. Pendants/stamps seem to be conspicuously absent, in contrast to the Neolithic layers. However, the building and adjacent rooms revealed a pronounced change in ceramics. "The qualitative, technical and aesthetic features of the containers for consumption are transformed. While food in Level XVI was preferentially consumed in black lustrous decorated bowls and in finely painted cups, in Level XV it was mainly served or consumed in the hastily made and roughly finished Coba bowls."[28] If confirmed, it does seem that several people were now fed daily at the center of the settlement, in a building and rooms that acted as working spaces for the preparation and storage of foodstuffs.[29]

Despite the limited exposure in the upper terraces, Caneva has suggested that "the entire perimeter of the citadel consisted of structures that were laid out radially, with the exception of the gate and the tripartite building".[30] This is certainly plausible. For at least two centuries, it would certainly appear that the villagers made the most of the terrain, mastering hill terracing to suit their multifarious purposes: e.g. a defensive

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22 As a matter of fact, not a single metal object, tuyere or slag with a secure chronological attribution has been found in the course of the new excavations. Cf. Caneva and Palumbi 2019: 187.

23 Calcagnile et al. 2019.

24 Caneva et al. 2019: *passim*.

25 Caneva 2019: 42.

26 *Ibid*.: 43.

27 Caneva, Palumbi and Pasquino 2012: 355.

28 *Ibid*.: 369.

29 Caneva and Palumbi 2019: 186.

30 Caneva et al. 2012: 355; see also Caneva and Palumbi 2019: 185.

position, a bigger emphasis on opportunistic pastoralism and orchard agriculture,[31] the extraction of wood from the surrounding hills, the prevention of flooding, etc.

Equally interesting is the description of Layer XVI wares, which show an interesting blend between the local and the foreign. Palumbi observes that decorative motifs in the seven groups of painted wares that he identifies are combined according to a rather standardized syntax. The most common group (Cream-slipped Ware and its painted variant) has a marked local expression; the Black/Brown Burnished Ware may have connections with Central Anatolia, and the comparisons of this ware type with contemporary Güvercinkayası that Palumbi tries to establish—though dubious as concerns direct links, since both decorative combinations and preferred shapes differ—show common crescent-shaped motifs on bowls and the use of rectangular panels filled with *pointillé*.[32] According to Palumbi, a prolific flow of traditions arrive from different regions, and are then "mingled and re-elaborated" resulting in unique, yet cohesive ware groups that signal a functionalistic bias: cream-slipped wares are preferred for vessels such as gourd-shaped jars with handles whereas small fine cups seem to have been "imported", as imported were too some motifs on various fine wares reminiscent of "a set of decorative codes from the contemporary Ubaid repertoires".[33] Reflecting on the nature of that idealized "Ubaid culture", Caneva and Palumbi concluded: "[T]he remarkable dissimilarity between the repertoire discovered in Level XVI and the usual Ubaid vessel repertoire is not limited to its vessel shape, and therefore to its functional use, but is also extended to its stylistic and probably symbolic value, since painted bowls, which are one of the most typical and widespread hallmarks of Ubaid culture, are absent at Yumuktepe where they are replaced by black-brown burnished bowls that were characterized by different manufacturing techniques and were possibly linked to different cultural and regional traditions."[34]

Instead of speculating on the dynamics of the Ubaid horizon, it would be more productive to determine whether, during a good portion of the 5th millennium BC, certain pastoralist-hunting groups cooperated with more settled communities where ecological resources may have been abundant but lacked the labor force to make the most of them. The increasing presence of pottery kilns and pottery storage facilities combined with a preference for storage and fast-food consumption wares (jars and bowls) would be explained by the need to intensify the economy without losing that sense of organizational flexibility of earlier times. There was no longer time to enjoy shared meals in a small-community setting. Meals were still shared, but the need to feed many at the same time may explain the early Coba bowl trend at Yumuktepe.

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[31] There is a higher ratio of goats to sheep than at other sites (1:1), with killing patterns indicating a preference for their meat and fleece, and a surprisingly large presence of bovines, cf. Siracusano 2019. The high levels of barley are probably connected to the feeding of these animals. Wheat, pulses, figs, grapes, pistachios and olives are also attested (Ulaş 2019). Numerous spindle whorls and a few loom weights were found.

[32] Palumbi 2019: 65ff.

[33] *Ibid*: 71. This "functionalistic" constraint in creative variation will increase and become more noticeable in the 4th millennium BC with the emergence of meta-communal organization.

[34] Caneva and Palumbi 2019: 188.

6.3. Incipient work specialization: on potters

There are very few sites with occupation prior to the last centuries of the 5th millennium BC that have been extensively and intensively excavated. The literature for the whole millennium is almost dominated by ceramics and architectural discussions, but the horizontal exposure is often very limited.

As may be gleaned from the images below, excavations at Tell Al ‘Abr and Kosak Shamali, both sites in the Upper Euphrates, were thorough but vertically oriented. Larger horizontal exposure would have been highly beneficial, because its lack hinders an understanding of the relationship between structures and finds—which at some levels consists of pits and open areas— and how it all tied together with the village as a whole as it grew or contracted.

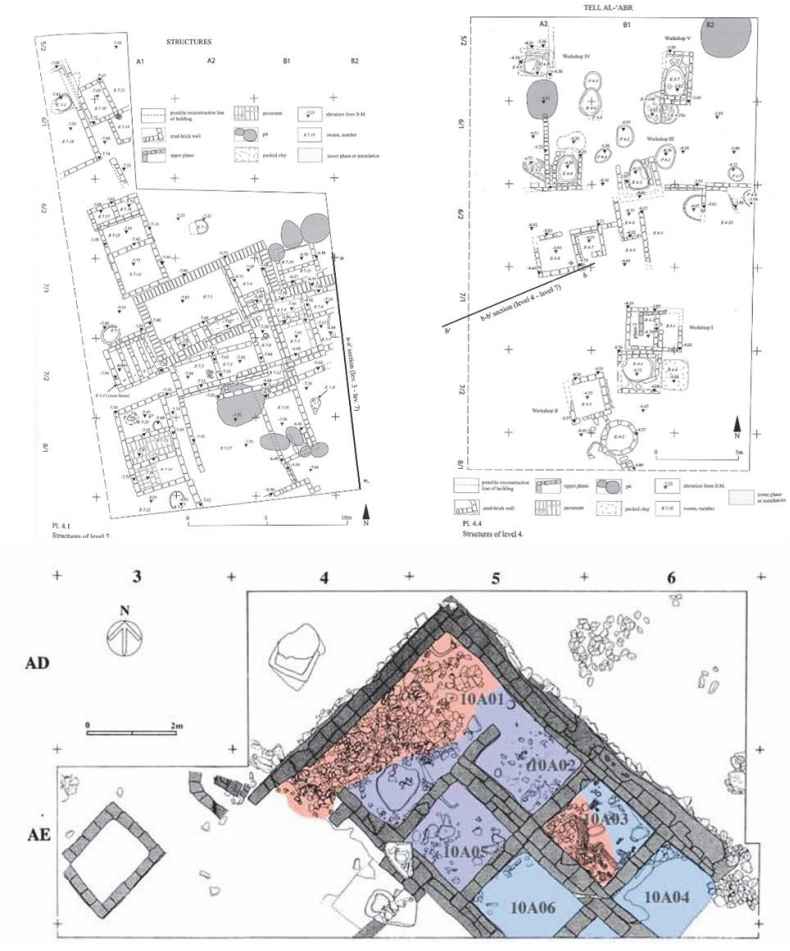

Fig. 6.6. Top: Tell Al ‘Abr, Levels 7 and 4. After Hammade and Yamazaki 2006, Pls. 4.1 and 4.4. Bottom: Plan of the burnt building at Kosak Shamali, Level 10, Sector A. Red color marks pottery storage, blue, pottery production, and light blue, grain storage. https://www.um.u-tokyo.ac.jp/people/nishiaki/KSL_exhibition/02fig.jpg (and see Nishiaki et al. 2001, Ch.3, Fig. 3.27).

The situation is the same at Tell Zeidan and Hammam-et-Turkman, two out of three sites by the Balikh River that grew in size over the 5th millennium BC, with the first eventually yielding its relevance to the second ca. 4200 BC, perhaps due to worsening climatic conditions affecting the more southern areas.[35] Tell Zeidan was the object of an archaeological mission which was interrupted by the war in Syria, and it has been the subject of a dissertation that focused mostly on the analysis of the retrieved ceramics.[36] Akkermans and his team performed a deep sounding at Hammam-et-Turkman in 1987,[37] and the ceramic material retrieved has acted as a reference in archaeologists' inter-site comparisons for decades. The situation elsewhere is more or less the same. The Upper Tigris project undertook excavations at Kenan Tepe, where some structures belonging to the 5th millennium BC had come to light.[38] Yet, overall, the dearth of sufficiently excavated sites for this period, according to modern methods and standards, is a problematic reality.

A number of sites have revealed special kilns, sometimes isolated from residential structures.[39] Tell al-'Abr and Kosak Shamali in the Syrian Euphrates have yielded evidence at some levels of pottery manufacture indicative of a high degree of specialization, and the allocation of space within the village for this specific task, though in combination with other activities.[40] At Tell al-'Abr, levels 7-2 correspond to the very end of the 6th and a good portion of the 5th millennium BC, with a hiatus of occupation at the very end of the 5th and the first three or four centuries of the 4th millennium BC, after which "Uruk" ceramics were unearthed. The more substantial evidence of pottery manufacture belongs to levels 7 (at least six kilns) and 4. Level 4 followed a possible period of either contraction or abandonment. It had at least nine kilns constructed over two phases. The size of the kilns of Levels 5, 4 and 3 is usually greater than seen hitherto. Level 4, moreover, showed improved kiln design. Kilns had underground combustion chambers and double semi-oval or stretched oval plans, and were built with standardized bricks.[41] Kaarsgaard's observation, mentioned in Chapter 1, that the ceramic Ubaid repertoire became increasingly plain, homogeneous and unpainted is statistically true as concerns Tell al-'Abr (not so much at Eridu).[42] However, Level 1—which revealed no painted sherds—coincided with the decline of this site prior to its decline and abandonment. The Tell al-'Abr team

35 Trentin 2010.

36 Fisher 2017, under the supervision of the director of the archaeological mission (2008-2010), Prof. Stein.

37 Akkermans 1988.

38 Parker et al. 2009.

39 See Özbal 2010: 300ff on Tell Kurdu (seven kilns), positing that local women may have been the specialists, and that they simply adopted a supra-regional style at a time of expansion. Genetic continuity with the previous period (mt DNA analysis) would invalidate the theory that Ubaid motifs came through marriage exchange.

40 Hammade and Yamazaki 2006; Nishiaki and Matsutani 2001. Yamazaki observes that in Level 7 and 3 at al-'Abr there is "evidence for both domestic and manufacturing activities".

41 Yamazaki 2010: 318. For a discussion of different types and the technology, see Hammade and Yamazaki 2006: 28-35.

42 Kaarsgaard 2010: 55 and Fig. 4.2.

commented: "The late stages are characterized by an increase in plain pottery, represented by scraped bottom bowls and certain kinds of necked jars. These types are usually identified within the post-Ubaid assemblage at other sites. At Tell al-'Abr, however, the intrusion of these types into the original assemblage was a gradual progression and (…), they had already appeared even in the early stage in which painted pottery was still predominant. Therefore it should be considered that there are some aspects which are not explained simply by the term "post-Ubaid". Even during the latest stage, Ubaid painted decoration still persisted in no small numbers, though with rather simple motifs."[43]

Concerning Kosak Shamali, Sector A revealed eighteen layers of occupation, with Level 1 representing the "Terminal Ubaid" after the mid-5th millennium BC and Sector B more or less overlapping with Sector A, reaching throughout seven levels the mid-4th millennium BC. This a site where occupation seems to be more or less continuous, although finds for the last levels are scarce and Level 4 was identified after a 1 m-thick layer of fill over the pottery workshop of levels 6-5.[44] The excavators suspect that this multi-room complex—this workshop where a well-preserved and sophisticated mudbrick kiln was found—was separated from residential areas at the center of the mound, signaling maybe a new generalized trend towards segregation of pottery workshops and full-time (dry and wet season) production.[45]

The most outstanding level of Sector A is the burnt building of Level 10, where ceramic vessels and numerous stone tools—interpreted as aids in the production and painting of ceramics—were discovered.[46] In the floors of this building, six sealing fragments came to light after sieving, five of them stamped and some bearing traces of the container and/or thread material on the reverse. Several are suspected to have sealed a coiled basket. Moreover, the remains of carbonized cereals, and the range of stone, clay, and bone tools suggest that this is more than a pottery workshop. Among the small finds retrieved from this building, there are lithics, clay scrapers, spindle whorls, two fragmentary figurines, and a stamp carved with a simple geometric design. Given that the chances of recovering material increase with burnt structures, the fact that only six sealing fragments were retrieved indicates that sealings and other clay fragments may have been regularly recycled. As the evidence stands for these and later levels of Sector A, nothing seems to stand out: "Domestic features were also identified, for example, ovens and infant burials as well as quantities of daily utensils such as sickle elements and clay spindle whorls".[47] Unfortunately, not much was unearthed from the last three levels of Sector A or Level 7 of Sector B which would aid in a better understanding of what the situation was like at the site after the mid-5th millennium BC. Level 4 of Sector A, however, still had evidence of a wide variety of stonework, bone, and clay tools that not only suggest pottery production was continued as before, but also attest to the fact that vessels were still being painted and decorated to a certain extent.

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43 Hammade and Yamazaki 2006: 457.

44 Nishiaki and Matsutani 2001: 127.

45 *Ibid*.: 135f. Unfortunately their examples come mostly from the following periods.

46 Nishiaki and Matsutani 2001: Ch. 3. (See also Ch. 13 of Volume 2).

47 *Ibid*.: 94.

The examples given here, although insufficient to get an accurate view of a possible work-based (guild) identity introduced in the tapestry of social relations in a village, do point towards this gradual tendency, at least as concerns ceramics. Pottery and clay object manufacture gradually acquired a status as an activity that required special facilities, and a certain number of people dedicated to it more or less full-time. There is, moreover, as seen already at Yumuktepe, a practical approach that may have been due to other priorities in terms of time management, but that do not necessarily lead, in a straightforward fashion, towards political and economic centralization, as Wengrow (2001) posited.

As frustrated as we may be after examining the evidence from the communal cemeteries at Arpachiyah, Ur, Eridu or Tell Kashkashok,[48] where the inequality and sophistication that would have been expected at this time is nowhere to be found, we need to include other areas in Southwest Asia to get the bigger picture. At Iranian sites, decorated ceramics—sometimes painted with scenes of communal celebration—and figurines persist during the Chalcolithic. Despite the cultural influence that Tal e-Bakun A, an agglutinative settlement founded around the mid-5th millennium in highland Fars,[49] had on neighboring regions, our spatial scope must be larger. The Taurus-Zagros mountain ranges must be understood as a bio-cultural continuum (see Fig. 6.7), as the rock art in southeast Anatolia and Lake Van region,[50] and the isolated cemeteries at Parchineh and Hakalan in the Zagros (Luristan) demonstrate.[51] According to Alizadeh, pottery vessels found in the graves of these cemeteries "show strong affinities with the pottery of the Ubaid 3 and 4 phases in Mesopotamia as well as the ceramics of the fifth millennium B.C. in Fars and lowland Susiana."[52]

At the Susa cemetery, many individuals were buried with fine decorated vessels and occasionally other remarkable objects, like copper axes and disks. The pottery that has survived from the early excavations is often indicative of a high degree of continuity in the region (see Fig. 6.8).

48 Brereton 2011. Multiple burials were still a common practice.

49 Alizadeh 2006.

50 Eker 2023.

51 See also end of Chapter 4.

52 Alizadeh 2006: 20.

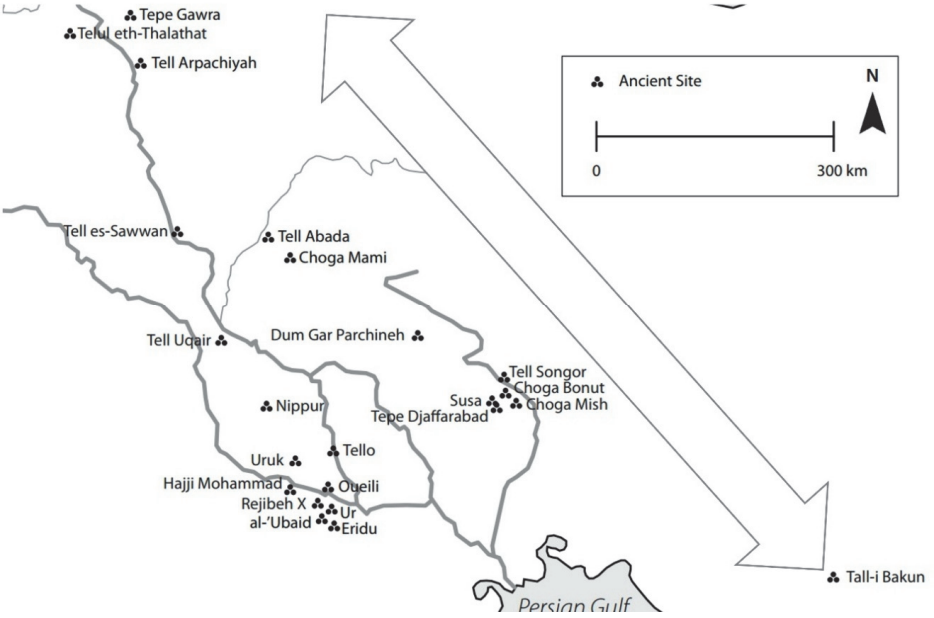

Fig. 6.7. Map of sites with "ophidian figurines". Adapted from Daems 2010: 10.2.

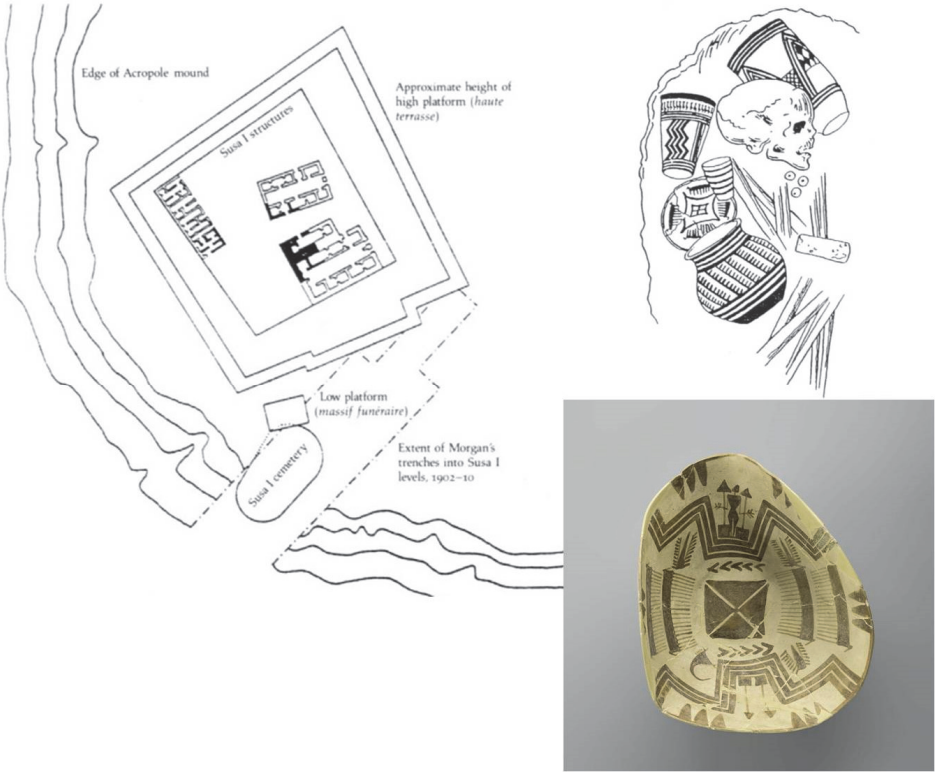

Fig. 6.8. Left: Plan of Susa I. Drawn by Hole and Kouchoukos (2013: Fig. 23). Right: Drawing of grave assemblage by de Morgan 1925-1927 (2013, Fig. 24). Below: Photo of a bowl (Louvre, exc. no. Sb 3157) https://photo.rmn.fr/archive/17-612707-2C6NU0A9POSTB.html

Potters' marks indicate that the activity was still highly valued or else that potters were seeking recognition. Although potters' marks will have a long continuity, this custom starts being visible during the second-half of the 5th millennium BC at a handful of sites in the eastern regions. Dollfus and Encrevé wrote an article examining the assemblages from Jaffarabad, Jowi, Bendebal and Susa in Khuzestan, and, despite the small geographic extension, the symbols and their application greatly differ, indicating deliberate personalization of signatures.[53]

As for other areas, potters' marks became commonplace at Leilatepe horizon sites (Karabakh region of Azerbaijan) and the Maikop horizon of the northern Caucasus, and some of those signs also appear on vessels of eastern Anatolia, like Arslantepe VII, where only wheel-made ceramics are incised.[54] By contrast, the Caucasus villages revealed no evidence of specialized workshops.

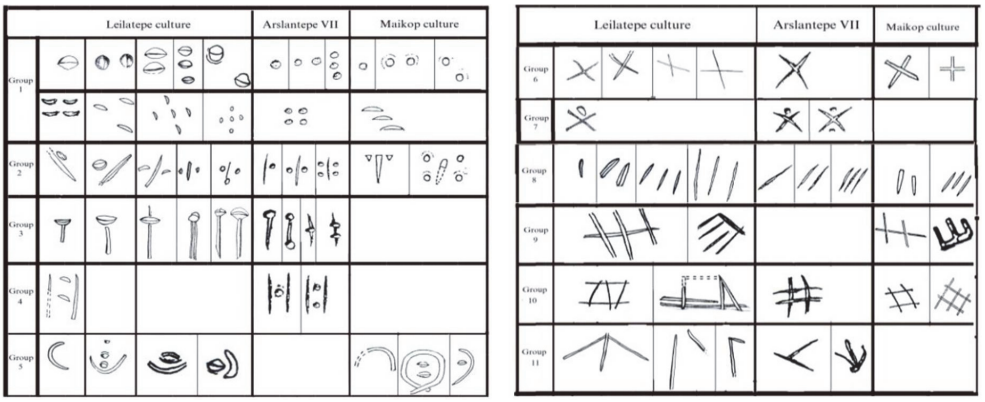

Fig. 6.9. Comparative tables of marks on 5th-4th millennium ceramics retrieved from different sites in the Caucasus and Arslantepe in Anatolia. After Museyibli 2016: Figs. 14 and 15.

Museyibli tried to assign these symbols specific meanings, for instance, as schematic depictions of human faces. In any event, although it hardly warrants comparison with the creation and maintenance of a writing system in later southern Mesopotamia and the Susiana,[55] it may be an indication of communal groups or even family-based guilds.[56] The question is, was the rivalry between potters of the same village, or were the villages competing in some kind of inter-communal market scenario?

Although it is possible that women had important roles in ceramic production and textile weaving, it would be only through figurative iconography that we could have gained a better understanding of work division according to gender, but that is unfortunately missing until much later. The increased standardization of plain wares, the invisibility of cloths, and the dearth of wooden looms prevent us from detecting a possible ritualization of these two activities. Spindle whorls became increasingly decorated during the 5th millennium BC, and even though symbolic abstraction

53 Dollfus and Encrevé 1982.

54 Museyibli 2016; D'Anna and Guarino 2012.

55 Cf. Museyibli 2016: 291, and Fig. 16.

56 On potters' marks at this time, see Oates 2012.

predominates, it does signal a ritualization of textile production. The other possible material item suggesting ritual in this sphere are the "eye idols" (see below).

6.4. Apotropaic responses to crisis

A comprehensive study of climate change in Southwest Asia for the period spanning 6300-2000 BC—based on twenty terrestrial and twenty marine proxies—detected episodes of heightened aridity in the early-mid 4th and the late 4th millennium BC.[57] However, localized spikes in the 5th millennium BC were also discerned. The study combined the data from these proxies with archaeological regional overviews in an attempt to reconcile both datasets, striving to find patterns. Archaeological evidence detects a shift in cultural trends in Anatolia from around 4300 BC, specifically towards more localized ceramic styles. Oscillations supporting the archaeological evidence are, however, only recorded in soundings from certain lakes of Southwest Anatolia, particularly at Lake Gölhisar, with a fall in the Eski Acıgöl level registered at around 4500 BC. There is an overall trend of more frequent arid episodes between 4500 and 4000 BC.[58] In the Southern Levant, the archaeological record indicates a contraction in settlement density between the late 5th millennium and the early 4th millennium BC, particularly around the Dead Sea region. This is corroborated by the Jeita Cave records (Lebanon), which indicate a time of oscillations around the mid-5th millennium, and a shift towards increased aridity at the end of it.[59] Other proxies are merely indicative of oscillations and regional variability. Lakes Mirabad and Zeribar in the Zagros, and marine or cave proxies in Oman and the Gulf of Oman, also corroborate that there were arid episodes between 6500 and 6200 BP. From the mid-5th millennium BC onwards, the marine ingression into the northern coast of the Persian Gulf started to recede and stabilize (this should be understood as a very slow process lasting for more than a thousand years).[60] In the west, the picture is better defined: "Between 4500 and 4000 BC it is difficult to associate social changes with periods of RCC, other than to note that the early centuries of the terminal Ubaid fall within a period of increased aridity, as does the disappearance of the Ubaid from the north at ~4100 BC, and the expansion of herding west of the Orontes Valley ~4200 BC".[61] There are several sites that show evidence for contraction or abrupt abandonment during the last quarter of the 5th or the early 4th millennium BC, like Değirmentepe and Tepe Gawra. Hammam-et-Turkman, too, seems to have been abandoned around this time.[62] At Tell Masnaqa, south of the Khabur region, the tripartite house (post-4500 BC?) revealed in the small trench excavated was followed by ashy layers with ovens, then by terracing works suggesting an intention to build on higher ground, followed by a period of erosion, and around 3700-3600 BC, by small-scale

57 Clarke et al. 2016.

58 *Ibid*.: 104.

59 *Ibid*.: 106.

60 Pournelle and Algaze 2014: 17.

61 *Ibid*.: 114.

62 Butterlin 2003: 260-269.

habitation.[63] Tell Ziyadeh, a few kilometers north of Mashnaqa, was also abandoned after a long period of growth, particularly well attested for the last level of the main trench ca. 4300 BC, and with remains elsewhere in the mound also suggesting a collision between growth and decline: a pottery kiln and a burned building built on top of three leveled terraces (again a sign of deliberate elevation).[64] A few small sites on the Middle Khabur including Masnaqa and Ziyadeh were founded *ex novo* at some point after the mid-5th millennium BC,[65] but would be abandoned for centuries since the end of this millennium. The survey undertaken by the University of Yale on the Khabur in the 1990s revealed two short-duration locations yielding evidence of an end due to violent flooding.[66]

Climatic "events" are always protracted and very hard to pinpoint at the regional level. Floods would have been as devastating as aridity in villages that had achieved substantial growth, and may also have favored the spread of diseases. The following sections are reflections on possible early signs of reactions to uncertainty and attrition: an increase in intramural infant burials, and metallurgical experimentation.

6.4.1. Infant burials: who protects who?

Although child burials are increasingly attested from the late 7th millennium onwards, at the end of the 5th millennium BC infants buried in pots become ubiquitous all across Southwest Asia. From a sample of 31 Late Neolithic sites (ca. 6400-5400 BC), Brereton recorded a total of 167 infants, 65 children, 34 adolescents, and 114 adults.[67] Most burials were still intramural. Around fifty burials were classified as "object burial", caches without visible remains (but maybe many had contained fetuses and neonates). Out of 663 burials (624 individuals) recorded for a sample of 32 sites dating between ca. 5400 to 4400 BC, 262 were infants, 75 children, 10 adolescents and 277 adults.[68] In many cases, age could not be determined. Most adult burials were now in liminal or abandoned habitational areas, whereas more than half of the infants were buried below floors of architectural units.[69] Infants and children were also buried with goods. Grave goods in general consist of vessels (92%), ornaments, and tools, although the first random metal item appears, and there are some figurines and 'tokens' added to the mix. A relatively high number of burials is now

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63 *Ibid*.: 269-274.

64 Akkermans and Schwartz 2003: 167.

65 Hole 2016. Hole makes an interesting reflection on small-scale migration regarding material culture at these sites, apart from the diagnostic "tripartite architecture": "What people took with them would depend on what was important, portable and useful in a new settlement". And: "To make the most effective use of the land for farming and keeping of livestock the newly settled communities were small and spaced at intervals along the Khabur River. (…) The many similar small settlements comprised a local community for mutual support during better and worse times, and interacted at the level of marriage, necessary communal labor, and protection".

66 Hole 1997: 45.

67 Brereton 2011: 116, and Chart 3.1.

68 *Ibid*.: 208, Chart 5.1.

69 *Ibid*.: Table 5.14. Multiple burials were rare but still attested (i.e. at Arpachiyah, Ur, Eridu).

described as 'libn box' or 'pot'. The latter category belongs almost exclusively to infants. At Tell Abada and Tepe Gawra XII, the jars and pots containing their remains were sometimes sealed with clay or plaster.[70]

There are two different trends that need to be distinguished here, stemming from the Neolithic, to understand mortuary practices during the second half of the 5th millennium BC: one is the persistence of subfloor burials as foundation deposits, and another is a distinct treatment for newborns, infants and young children, visible before but now overwhelmingly clear. I regard both as generally apotropaic, that is, infants were meant to protect the living.

Burials in foundation deposits, particularly next to walls, doorways or special facilities, are often described as "offerings" (=individuals as offerings). This term has a connotation of sacrifice. The implication is that some or all individuals (now children) were sacrificed to fulfill a requirement for new beginnings, or to appease deities. The alternative is still that individuals disposed of in an unknown location were disinterred and reburied anew when the moment to build anew came. The second seems consistent with earlier practices. However, as concerns child mortuary treatment, some archaeologists have opted for the sacrifice route, too.

Cannibalism, skull removal as trophy-taking, and fractured bones or disarticulation as signs of inter-communal or inter-personal conflict are some of the interpretive proposals made by some scholars as frequent occurrences during the Neolithic.[71] Yet, while cases of peri-mortem damage widely differ, skull removal, disarticulation, and secondary burial are widespread practices associated with increased sedentism in Southwest Asia, as seen above. An ideology of violence and domination is completely absent from visual iconography. Plastered skulls are modelled following stylistic preferences that align with other plastic arts. Inter-personal and even inter-communal conflict probably happened, but they do not seem to have been a matter of course. The case of the Death Pit at Domuztepe, as tentatively suggested above, allows for a scenario where human and animal bones, as well as assorted personal objects, soils and ashes, were transferred from one part of the settlement to another, and/or for a celebration at the outskirts of the village, even for the ritual sacrifice of people and animals at one event during a crisis period at the end of its occupation.

Replacing Early Neolithic conflict with Late Neolithic and Chalcolithic sacrifice, or child sacrifice, is also an imprudent generalization. We have seen above how at Çatalhöyük neonates and infants were often buried in the lateral rooms of a house. Still, this age group was not the best represented. Relying on the statistics provided by Molleson, Andrews and Boz in 2005, Moses believed that infanticide must have been a practice at this site.[72] In the statistics provided in Boz and Hager 2014, however, adults represent the overwhelming majority (67%), followed by children. Post-excavation re-evaluations also led to an estimated Minimum Number of Individuals of 384 instead of the previous 2,017 entries (East Mound). Given the high levels of child mortality until recent times, many must have been buried outside the village grounds.

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70 *Ibid*.: 255.

71 E.g. Testart 2008, Santana et al. 2012.

72 Moses 2012 (neonates reaching 15% and infants, 21%).

Infants may have been related to concepts of 'liminality'. In this regard, and even though personal factors associated with grief may be interwoven with the chosen location of many baby burials, their lack of full personhood may be more relevant. A study of 431 burials from four Naqada (mid-4th millennium BC) cemeteries in Egypt has been able to discern a tendency towards age grouping, and to observe a preponderance of infant burials (0-1y) within the settlement of Ma'adi, in contrast to its cemetery.[73]

Anthropologist David Lancy has studied cultural concepts of childhood, integrating a myriad of "balkanized" ethnographic accounts into a monograph devoted to parenthood.[74] He discusses several "cultural models" that are actually different facets of similar perceptions of infants and newborns across cultures ("not yet ripe", "unconnected", "two world"). Focusing on their physical vulnerabilities first, Lancy describes how babies may be perceived as soft and lacking motor or cognitive control, yet simultaneously possessing extrasensory abilities that allow them to be in contact with the dead. In some cultures, social inclusion happens a few days after birth, whereas in others, their acquiring sense and speech marks their incorporation to the group. The 'unconnected' section explores the perception that the newborn remains in the mother's womb, which is particularly pertinent here since some scholars have likened the usage of pots as burial receptacles to a womb, as will be seen below. The 'two worlds' section emphasizes clearly their liminal state. Babies have just left a world or dimension, they are not sprouting *ex novo*, so to speak. That dimension may be visualized as the land of the ancestors or gods. Examples illustrate how the spirit of the child is still not fully attached to its body so it is in danger from a number of sources, including entities that also live in this reality. Parents in some groups have to keep the baby quiet and abide by food or behavioral restrictions. Provisional names or ridiculing the baby may be two of the strategies used to fool malevolent forces. In the sections devoted to the perception of children as angels, devils or tricksters, Lancy is artificially separating something that stems from the same root: the purity, vulnerability, and lack of definition of a newborn's essence. Moreover, he is far more comprehensive and careful with the ethnographic analysis than with his historical-archaeological treatment of the same subject. Some of the examples on infanticide or particular disposal practices are related to physical anomalies and their perception. Explanations for infants' illnesses and cures are culturally variable but also revolve around the physical expression of what is considered anomalous and dangerous (skin color, frequent crying, mother's succession of miscarriages, newborn deaths interpreted as failed attempts by ancestors at "rebirth", etc.). Archaeological examples from different areas of the world suggest that subfloor burials of young children are quite commonplace for the secondary stages of sedentism. The Andean Chinchorro communities—flexible sedentists who practiced hunting and fishing—mummified their fetuses, infants and children and buried them in cemeteries located next to shell midden areas (7000-3600 BP). Their clothing and ornaments, as well as the grave goods, suggest that the Chinchorro valued their dead children as much as the

[73] Barba 2024, and discussion incl. ethnographic analogues. Miniature vessels were only found in adult graves.

[74] Lancy 2013.

mummified adults, probably beyond feelings of grief and mourning.[75] For many past societies, there may have been an apotropaic factor in their burying children close to the habitational areas: "[Mapuche] infants are not buried in the cemetery, but are buried in the old family plot or somewhere near the house; it is believed that it would be harder for the child to be turned into a demon if it is closer to the house".[76]

The conclusion I derive is that children in pre-civilization Southwest Asia may not only have acted as protectors of the living and the space of the living by their status as pristine souls and mediators with the other dimension, but that they were also, in turn, protected. The sealed jars at Abada and Gawra are suggestive of this.[77] In vast swathes of Anatolia, infants continued to be buried in association with structures all throughout the 4th, 3rd, and into the 2nd millennium BC.[78] This makes a correlation between infant burials and specific catastrophic events impossible, and should be rather understood as a new way to accommodate the requirements of a subsistence based on domesticates. There was no longer the time to pay attention to mortuary ritual as hitherto. However, the inclusion of vessels in graves with the popularization of this medium in the Late Neolithic-Chalcolithic suggests that funerary commensal events may have regularly taken place, and that the vessels used in the feasts for the departed were left in the grave once the ritual was finished, frequently broken. Apart from this trend, infants' bodies became gradually the new chosen —the synecdoche exercise now applied to those perceived as the most precious members of the community.

A connection between infant sacrifice and agriculture *via* pottery has been put forward by Orrelle for the Southern Levant. Broken vessels, sometimes covering the skeleton, or inverted, protected the remains of babies. According to Orrelle: "In a period of early agriculture, evidence for unnatural death could be interpreted as religious sacrificial ritual associated with crops. In the Pottery Neolithic period context of elaborate pottery vessels, one may even hypothesize that an elite beverage culture was present suggesting that crops were grown for this purpose." Two of the Byblos infants that the author mentions were buried in association with sheep and bird bones, respectively, suggesting propitiatory sacrifice of animals or funerary commensality. Orrelle concludes: "Finally, the possibility of mutilation and dismemberment and the selection of "cut" infants for ritual requires that one must consider the option of ritual killing."[79]

Other scholars have proposed a connection between infant burials and bids for power, particularly emphasizing the frequent inclusion of goods in children graves, which would not only signal their inherited high-class status, but also indicate that their parents, the self-aggrandizers, were trying to obtain social and political

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[75] See, *inter alia*, Standen, Arriaza and Santoro 2014. See also other contributions in the same volume for a careful approach to the sacrifice of children in the past from a bioarchaeological perspective.

[76] Lancy 2013: 13 *apud* Faron 1964.

[77] See also Eshed and Bar 2021 for a plugged jar burial at Tell Fazael 2 in the Jordan Valley.

[78] Massa 2014.

[79] Orrelle 2008: 76.

prestige.[80] Yıldırım and colleagues, the excavators of Çadir in Central Anatolia, an early 4th millennium small settlement on a hilltop, are quite explicit. Perceiving a social change in the architectural rearrangement observed between two phases, they state: "Providing the remains of family members for community projects may have conferred prestige through the public fulfillment of social ritual obligations, marking and maintaining the status of certain kin groups."[81] Where, exactly, that status—expressed in terms of dead infants—is supposed to lead, is never stated.[82] The Çadir team assign a ritual function (sacrifice) to infant burials during the second, "public" phase, but a "pragmatic" one to the previous, agglutinative phase. Let us briefly examine the changes in terms of construction:

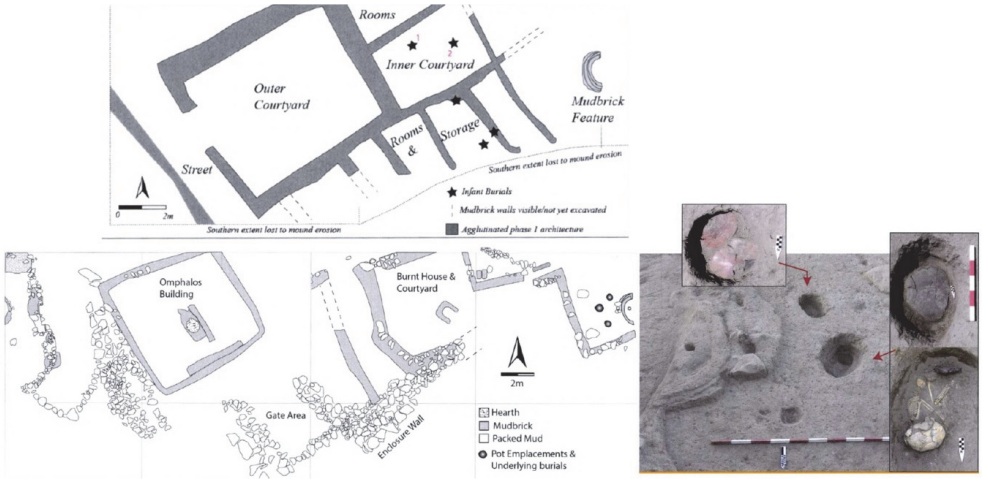

Fig. 6.10. Çadir Höyük infant burials. Top: Plan of Agglutinative Phase, infant burials marked with a star. Below: Plan of latest phases, "burnt house" occupation. Black dot marks pot emplacements and underlying burials. Right: Interior of building with mud-brick feature and three burials/pot emplacements. After Yıldırım, Hackney and Steadman 2018: Figs. 5a, 10 and 8. Reproduced here with the permission of S. Steadman.

Çadir Höyük shows an initial tendency towards the agglutinative model, surrounded by an enclosure. This earliest of phases is dated to ca. 3700-3600 BC. Five children burials were excavated, one of them without any skeletal material. A few infants' and dog bones had been retrieved on the side of an oven next to the northern courtyard wall in previous excavations. Approximately two hundred years later, the inhabitants razed everything to the ground and created self-contained built units with open spaces in between. An infant was buried under one of the collapsed walls, together with pottery, ochre, a cow scapula and two horns. Two other child burials were also placed underneath the new floors. One of them was a grown child, buried with a copper ring. The easternmost building had three more burials covered with

[80] For instance, Brereton 2011: 274ff.

[81] Yıldırım *et al.* 2018: 173.

[82] It brings to mind the concept of "somatic/embodied wealth" linked to reproductive success put forward by Bowles et al. 2010, although in this case, children's value lies in their sacrifice.

broken pieces of fine pottery and the new floors featured large pots marking the burial spots below. To the west, the "omphalos" building had three indoor burials, and three more were placed outside, adjacent to the walls, all inside a jar. On top of one of them a fine pot was placed indicating the burial location. This infant was buried with a copper hair ornament and three copper bracelets. Another of these external burials was buried in association with a small bowl, five copper bracelets and a copper ornament. The third one included six copper bracelets. The jars were often found in pits with a mud packing, suggestive of a similar practice to that seen at other sites. The "omphalos" building included a large hearth, three cell rooms for storage, pits and a bin, and it had flagstone floors. The archaeological team made a distinction between the two clusters of three infant burials buried underneath the features of this "industrial" building, as well as the burials with grave goods, and the "practical" pit burials to guard or sanctify the home in the earlier period. Only the first were perceived as "votive deposits", donated by their families.

What the small, second community at Çadir seems to have done at a general time of growth, coming after a long period of decline, is to accommodate their living grounds to include spaces for small-scale ceramic and metal production (though no crucibles were found). The children were still buried inside the contours of the compound, only now buried with items of a new technology, one which probably held apotropaic connotations for a long time, as will be seen below. The trajectory at nearby Çamlıbel in terms of a small-scale architectural expansion and infant jar burials is parallel to that of Çadir, although there are more traces of metal and ceramic production at Çamlıbel.[83] The earliest example of an infant burial with associated metal comes from Ovçular Tepesi, in the southern Caucasus, where a neonate was buried in a jar over two adzes and an ax placed at the bottom of the jar. Near this burial in the same context—dated to the last quarter of the 5th millennium BC—, the remains of a child with a few shell beads and two copper bracelets had also been buried in a jar.[84]

6.4.2. Metallurgical experimentation: secret knowledge and a quest for tangible control

Leaving aside the occasional attestation of metal objects obtained through cold-working from Neolithic sites, and the use of minerals to obtain pigments,[85] it is during the second half of the 5th millennium BC that metallurgy starts evolving in three particular regions of Southwest Asia in a very circumscribed manner—the Beersheva horizon in the Southern Levant, the Iranian plateau, and some locations in Anatolia. By contrast, since the late 6th or early 5th millennium BC, there is already evidence of smelting in the Balkans. If, at Belovode, experimentation with copper-bearing ores may have been related to fashioning malachite beads and obtaining

[83] Schoop 2015.

[84] Other metal objects of difficult dating (4500-3500 BC) also came to light at this small site. It appears that there was an earlier metallurgical tradition in the Caucasus than hitherto suspected, and one certainly preceding Anatolian traditions. See Gailhard et al. 2017, and discussion below.

[85] For an overview, see Roberts et al. 2009.

beautiful pigments, at Pločnik during the last Vinča phase (before c. 4600 BC) shaft-hole axes and adzes, as well as slag with high levels of steannite copper appear.[86] This first emergence is followed very closely and independently by the adjacent cultures to the east (Western Pontic and lower Danube areas), where gold metallurgy also appeared. Two periods of hiatus concomitant with lower settlement density and dispersion are witnessed after 4600 BC, first, and 4200 BC, second, then followed by a more widespread adoption of copper-working technologies in the Great Hungarian Plains, west and north-west into Europe, and east around the Black Sea and across the northern steppes to the Caspian Sea, then south into the Caucasus.

Although Tal i-Iblis in Iran has also provided evidence for basic smelting very early, in this region the picture starts getting neater towards the end of the 5th millennium BC in the plateaus, the core area.[87] In Anatolia, and until further evidence changes the current picture, there is a geographical and temporal gap that prevents understanding even initial smelting experimentation that may serve as a basis for future transmission. In her overview on first metallurgy in this region, Yener spoke of a "balkanized technological horizon" in the highlands of Anatolia [88] and that statement still holds true. Apart from the occasional "hoard", like the one from the cemetery at Ikiztepe, by the southern coast of the Black Sea, or the modest finds at Çamlıbel Tarlasi (crucibles in pits dug within the domestic fabric of the village), there is no clear path from mountain ores (e.g. Kozlu or Murgul) to settlements.[89] As was earlier mentioned, the new archaeological mission at mid-5th millennium BC Yümuktepe-Mersin did not discover any new metal finds, and many of the metal objects that had been excavated by Garstang have been later assigned to later periods.[90] Moreover, there is piecemeal evidence coming from East Anatolia, specifically the Altınova valley area—excavated in the 70s and 80s as part of the Kelban Salvage Project—until the late 4th millennium BC. Tepecik and Tülintepe yielded metal finds, while Değirmentepe and Norşuntepe revealed small-scale smelting activity, more substantial in the first. Building I, Level 7 had a domed hearth with tiny built-in tunnels. This building was interpreted as a temple because of its wall paintings in red and black, and the "altar tables".[91] Norşuntepe has no substantial evidence until the end of the 4th millennium BC.[92]

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86 Radivojević and Roberts 2021.

87 Frame 2009.

88 Yener 2000: 26.

89 Lehner and Yener 2014.

90 For an overview, see Muhly 2011.

91 Esin 1983, but in this article many details are missing. For instance, it is not clear whether the wall paintings found in Building I and other buildings were external, internal, or both. Esin mentions that the walls of the courtyards were decorated with wall paintings (Esin 1994). See Gürdil 2010 for an updated review of the site. Building I is an excellent example of multi-functional domesticity, though metallurgical activities may have been ritualized.

92 Hauptmann 1982.

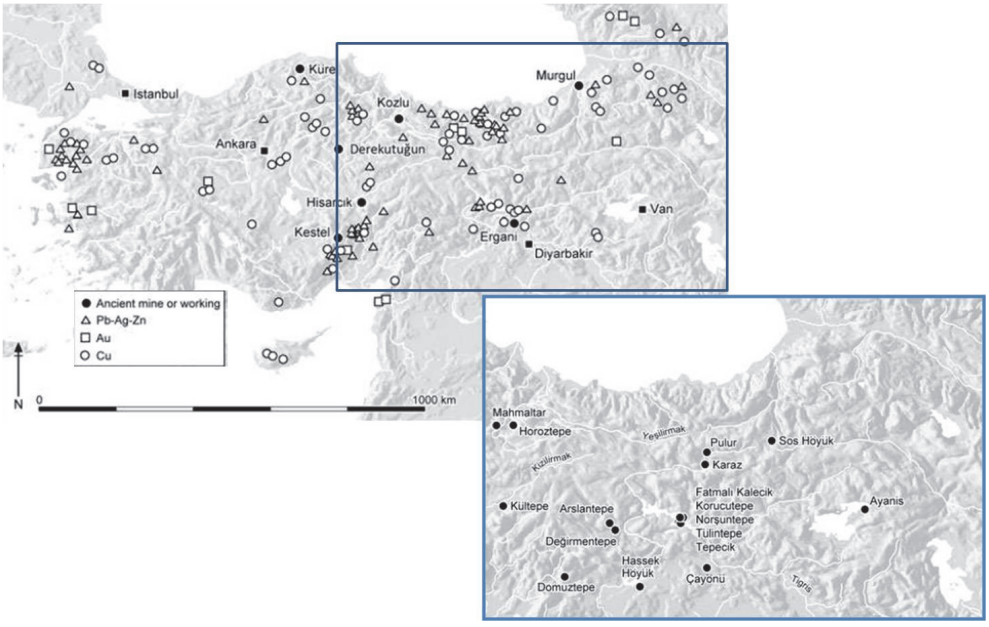

Fig. 6.11. Map of major ore sources in Anatolia and detail of prehistoric archaeological sites in eastern Anatolia with metal finds. Adapted from Lehner and Yener 2014: Figs. 20.1 and 20.3.

In one of the rooms of the acropolis at Arslantepe VIa (roughly the last three centuries of the 4th millennium BC), twenty-two metal objects were found, including nine short swords and twelve spearheads, but small-scale metallurgy characterized earlier Arslantepe VII (c. 3900-3300 cal. BC), as will be seen in the following chapter. Metal activity at other Anatolian sites clearly belongs to the late 4th millennium as well. The cupellation technique required to obtain silver may have been simultaneously taking place in the Caucasus and the Aegean around the mid-4th millennium BC.

As was the case with pottery, utilitarian reasons are not fueling the efforts of the first metallurgists. Here, Kienlin's observations may serve as a good departure point.[93] Although the tenor of his research is highly specialized, it conveys to the non-specialist the importance of an integrative approach of both technological and social aspects. Axes and adzes have elicited cultural analysis of their own by Southeastern European and Caucasian archeologists, since a high degree of standardization coexists with subregional morphological variations. What Kienlin's analysis mainly does is defend that the first metallurgists' empiricism needs to be understood following their own terms, not approached from our contemporary knowledge or the practice of metallurgy in later periods. The use of copper-bearing ores of diverse composition does not, *per se*, imply better and more durable objects. It may be an oversimplification to state that arsenical copper became the preferred choice for metallurgists of the late 4th millennium BC, preceding bronze alloys with tin. Specialists know that too many factors bear an impact in the final result: the temperatures reached during the first melting/smelting and the presence of oxygen (thoroughly

[93] Kienlin 2008.

inserting a crucible in a pit and covering it well or not, the amount of fuel, etc.), the presence of sulphidic ores, the cooling rates, casting in an open or bivalve mold, working while the object is still hot or cold-work, cold-work only or supplemented by annealing (inducing heat to work on its hardening), etc. Examining forty-eight flat axes of pure and arsenical copper from Austria, Moravia and Slovakia—divided into two chronological horizons that would roughly correspond to late 5th-early 4th millennium, and post-3800 BC, respectively—Kienlin realized that the horizon 1 axes were not the botched-up objects that might have been expected. Hot-working and reheating during the forging process seems to have been preferred. Although an excess of oxide inclusions in their microstructure rendered these axes less hard and more brittle, they were viable tools. "Was hardness—despite heavy use of some of these axes—of less importance than we tend to expect? And did the presence of copper oxides provide an alternative mechanism to improve performance by—unconsciously—benefitting from 'shortcomings' in casting technique? Or was it the other way round (…)?"[94] Kienlin also observed that the horizon 2 axes had not been worked in several cycles, which would have been detrimental, but had been worked sufficiently to become the best possible tools given their low arsenic content.[95] Kienlin realized that a "decentralized spread of metallurgical knowledge both for the initial stages of (Late Neolithic) metallurgy and for subsequent innovations modifying traditional practice" needed to be envisaged.[96] This means that a purely technological or cultural approach will not help us understand the scale of experimentation throughout more than a thousand years.

Two other recent theoretical trends have tried to bypass the technological or economic ("prestige") dichotomy. The first has to do with the aesthetic qualities of metals, and the search through experimentation of metal objects showing shininess and particular shades of color. First metallurgists in the Balkans experimented with copper during the first half of the 5th millennium BC, and Ravidojević has proposed that they were soon aware of the different properties of ores of diverse composition.[97] Related is the discussion of graphite slipped Vinča pottery,[98] in turn framed within a larger discussion on the relative importance of pyrotechnologic control (high temperatures vs mastery of oxidising conditions).[99] These discussions can also be extrapolated to the first goldsmithing emerging in some lower Danube basin sites, the most prominent of which is the outstanding assemblage unearthed from the more than two hundred excavated graves at the Varna I cemetery, treated below.

The second topos is 'skeuomorphism'. As mentioned above regarding ceramics and basketry, skeuomorphs are artifacts made in a new material featuring traits that imply imitation of the old ones. A very clear example is the detail of a rope represented in one of the Nahal Mishmar metal axes, mimicking a stone axe bound to its wooden shaft, which leads Gošić to the following observation: "The extensive casting

94 See Kienlin 2008: 100f and references therein.

95 Kienlin 2008: 97.

96 *Ibid*.: 103.

97 Ravidojević 2015.

98 Borić 2009.

99 Ravidojević and Roberts 2021: 213f, with references.

techniques used by Ghassulian metalworking, including lost wax technique in which many elaborately decorated objects are made, as well as use of pure copper for casting in open or two-part molds and complex metals for lost wax technique, demonstrate that Ghassulian copper workers were aware of the properties of the materials they were using, and of the methods to process them. It is not that they were technically unable to produce a copper axe without the image of ropes. They choose to produce it with them, in a highly sophisticated lost wax technique."[100] Based on her analysis of the metal objects comprising the Nahal Mishmar hoard, Gošić concluded that skeuomorphs were "boundary objects", acting as mediators to facilitate the integration of the new technology into the social fabric.[101]

Despite these efforts to go beyond a utilitarian/prestige dichotomy, the temptation to connect metallurgy to a previously achieved technological echelon (i.e. kiln technology) should also be avoided. Technological know-how in one activity does not justify or explain motivation to embark on a different one, whether we perceive it as related or not. People did not need metal. Moreover, metal objects for ornamental purposes had already been crafted through simple melting and hammering since the Neolithic. Metallurgy represented a challenge, a stimulating path that entailed knowledge of the ore-bearing landscapes, manipulation of fire, and ultimate control over the final material to shape it as was deemed best, acquiring in the process apotropaic connotations since this knowledge was ultimately granted by the Other.

Roberts and Radivojević inserted prehistoric metallurgy into a wider discussion on invention and innovation. They propose that archaeologists should target "anomalies" rather than "patterns" in their research. Furthermore: "The conceptualization of invention as a process—rather than a single event—(…) enables the anomalies to be placed within the choices and sequences of transformative actions underlying each pyrotechnology".[102] Their idea is (though not voiced explicitly) that archaeometallurgy should be conceived as a whole process analysis, instead of approached from the point of view of ore provenance, typological-chronological studies, or premature interpretations of social impact. But, as a matter of fact, many choices *do* correspond to patterns, like the fact that ore availability *does* have an impact on the nature of empirical trajectories in all regions, even if cultural preferences also play a big role. While the authors acknowledge the importance of the natural environment for these early metallurgists, they also give too much importance, in my opinion, to "pre-existing materials, technologies and forms".[103] None of these factors truly

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[100] Gošić 2015.

[101] Brereton uses Kayani's study on the green wares of late 5th millennium lower Mesopotamian sites, like Eridu, Telloh, Uqair, al Ubaid and further north at Gawra —whose characteristic color was achieved when firing clay pots and axes (!) at extremely high temperatures—to posit skeuomorphism, in this case, that of ceramics imitating metal (Brereton 2011: 243ff). Strangely enough, though, Brereton reaches the conclusion that metals were widely circulated. Despite the paucity of copper objects found in mortuary contexts in Greater Mesopotamia, he argues that they were kept in circulation and "transmitted across generations" (*ibid*.: 245). Since they are generally few and far between until the late 4th millennium BC, the argument is unconvincing.

[102] Roberts and Radivojević 2015: 301.

[103] *Ibid*.: 302.

explain the *élan* and continuity of several centuries of simultaneous or overlapping experimentation in initially unconnected regions.

This precaution is also applicable to later historical periods (as Roberts and Radivojević partly acknowledge in their conclusions). A recent paper observes that gold metallurgy and conspicuous use of this precious metal came to a halt at ca. 1500 BC for approximately 700 years in the Caucasus, one of the earliest regions to mine and work gold, for no apparent reason.[104] Another example is the long-debated issue of why sub-Saharan Africa does not see the widespread adoption of metals until the first millennium AD, even after millennia-long metallurgical experience in northern Africa. Thus, concerning the missed opportunity of an early adoption, Chirikure remarked: "It seems most likely that Middle Easterners either had rich alternative sources of precious metals or they were ignorant of the metallurgical resources of sub-Saharan Africa which strongly questions the depth and strength of the diffusionist argument for the origins of African metallurgy. (…) It seems, in most cases, that technology transfer and innovation was a complex endeavor based on serendipity and neither followed 'rule books' nor was it premised on 'common sense' because some 'advanced' technologies appeared, only to disappear and be rediscovered thousands of years later."[105]

Thornton's and Rehren's work on metallurgy at Tepe Hissar, in Iran,[106] led them to a curious discovery: they realized that one of the excavated crucibles was quite unexpectedly advanced. "Securely dated to the middle of the 4th millennium BCE, this crucible, which was apparently used for the melting and alloying of arsenical copper with lead, combines a normal technical ceramic with a truly refractory ceramic consisting predominantly of crushed steatite."[107] Yet this technology was not widely adopted nor did it last for long. Thornton and Rehren consider several reasons, like the preferred use of furnaces (pits in the ground) to achieve high temperatures, or the amount of talc/steatite that would have been required to fashion these particular crucibles (too onerous), but in any event they have to conclude that "this crucible existed at a modest-sized town in which non-refractory crucibles, similar to those analyzed from a number of contemporary sites across the Middle East, were in use both concurrently and for the next 500 years or so".[108]

In the case of Iran, more remarkable than the early dates confirmed for Tal-I Iblis is the emergence of *ad hoc* encampments at the foot of the Karkar mountains and the decades-long evidence gathered for sites like Tepe Hissar (northern Iran), and in the Central Plateau, Ghabristan, Arisman, and Tepe Sialk,[109] which—together with the spatial analysis conducted at late 4th-early 3rd millennium sites, like Godin Tepe, Tepe Yahya or Shar-i-Shokta—present a general scenario of intense metallurgical

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104 Erb-Satullo 2021.

105 Chirikure 2015: 29.

106 Located roughly 100 km south of the Caspian Sea and the Elburz Mountains. Two specialized workshops were excavated.

107 Thornton and Rehren 2009: 2700f.

108 *Ibid*.: 2711.

109 Thornton 2009: 313f. Thornton suggested that Arisman represents an offshoot of the Sialk community. Arisman metallurgists were involved in copper alloys as wells as lead/silver processing.

experimentation outside settlements (in small, specialized hamlets) in the late 5th and early 4th millennium BC, turning into small-scale smelting and casting in settlements during the following centuries —and an unknown situation regarding the countryside. Ghabristan was a walled village where crucibles dug in pits inside rooms have come to light, together with clay tubes that may have acted as *tuyères* and axe mold fragments, but the site has suffered from illegal excavations.[110] Recent excavations at Arisman are now revealing a protracted occupation, with only Area E—dated to the late 4th millennium—providing substantial evidence of intense metallurgical activity and acquired know-how (slag, pits, mold and crucible fragments, furnaces).[111] In any event, as Frame has pointed out as concerns 'crucibles' and 'furnaces', what is meant by each by specialists should be better defined: "The difference between a crucible and a furnace is clear when we speak of modern examples of each, but the archaeometallurgical literature is missing this distinction between "crucible" and "furnace," and this definition becomes ever-more necessary when discussions include terms like "proto-furnaces," small pit furnaces, and bowl furnaces".[112] The historical trajectory in Iran is also highly specific, as is the case in the Balkans or the Southern Levant, contingent on the composition of ores from different sources and the enchainment of sub-regional choices.[113]

To conclude, it seems that the detection of neither the "patterns" nor the "anomalies" will lead to meaningful interpretations if we do not fully embed this early empiricism in the ontological and social perceptions related to this activity at this moment. Ideally, an interregional analysis in future will provide both patterns and divergences. None of the assumptions previously made about metallurgy is sustained. In general, metallurgical practices and consumption for several centuries seem to have been characterized by exclusivity, limited transmission, selective emulation, and exceptional episodes of creativity. I will focus next on the Southern Levant and then will turn to the Balkans, the Caucasus and Anatolia but before, a brief incursion into what anthropology has to offer—in terms of what may be present and what may be absent in our earlier contexts—is convenient.

6.4.2.1. Reflections on metallurgical secrecy, power, and the genderization of the world

Two aspects of metallurgical experimentation are important to gain a clear insight into social motivations and perceptions.

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[110] See overview in Helwing 2017: 62f.

[111] Vatandoust, Parzinger and Helwing 2011. Copper objects, slag and crucibles were found at Hissar I and Sialk, but only metal objects have been discovered at Susa I, and Tepe Yahya VIA.

[112] Frame 2009: 45. She distinguishes "crucibles" as portable, disposable vessels.

[113] The Levantine specialists are keen on portraying the Beersheva sites as "a two-stage copper production", whereby metal was first smelted inside clay-lined pits, then the metal residues were melted in crucibles (see, most recently, Ackerfeld et al. 2020). As Thornton argued for this and other technical issues (re "Levantine paradigm"), experimentation in Iran needs to be assessed in its own terms (2009). Comparative discussions between the two regions should be updated.

The first is the use of metals as *materia magica*. With the advent of extractive metallurgy and smelting, metals—whose current definition is "a chemical element, such as iron or gold, or a mixture of such elements, such as steel, that is generally hard and strong, and through which electricity and heat can travel"—must have gone to the top of substances with first-rank agency and transformative power. It was very much a material that challenged men to be courageous and skillful, as much as hunting had and still did. In fact, it was probably through the skills of hunters or the pastoralist/hunters roaming mountain, grassland or desert, that resources in the wilderness were identified, and if found desirable, exploited. Together with the aesthetic aspects of metals, these objects became prestigious just as soon as they were given birth. But these first metallurgists were still operating within a bio-social world firmly embedded in dynamics of balance and reciprocity (something is taken, something is given). An ethnographer's account on how Mount Kaata, in Bolivia, is still conceived as a human body and the village, as its heart, superbly illustrates this:

> The mountain has a head where alpaca hair and bunchgrass grow. The highland herders of Apacheta offer llama fetuses into the lakes, which are its eyes, and into a cave, which is its mouth, to feed the head. (…) Kaata is the heart and guts, where potatoes and oca grow beneath the earth. (…) [The inhabitants say] If we don't feed the mountain, it won't feed us.[114]

When extracting gold and silver from the Andean mountains, the Inkas made offerings to the mountains and to specific rocks, which according to Cristóbal de Albornoz, were called "mamas" and were chosen for their beauty (rocks with gold, quartz or silica; cinnabar in the case of mercury).[115] The gold-copper alloy known as *guanín* across the Arawak-speaking peoples of the Antilles was a fundamental component of their *çibas* or necklaces. These necklaces and similar objects were encompassed into the wider concept of *zemí*, the spirit assistants of "shamans".[116] *Guanín* was coveted by the Spaniards and the French because it was incorruptible. Caciques and high-rank individuals gained from the *çibas*, but through the myths it becomes clear that *guanín*, certain marine shells, and the tinctures of certain plants had medicinal properties for the Taíno and Callinago peoples against sexually-transmitted diseases, a knowledge that was granted by powerful characters to reward archetypical heroes.[117]

There may have been a chronological factor in the consolidation of metallurgy as concerns not only work requirements but mythological narratives and ritual, too. Myths establish a transfer of craftsmanship to humans that help insert that knowledge into the social fabric, connecting cosmological spheres and establishing taboos and protocols that the protagonist, as a primal ancestor, needed to heed. However, we

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[114] Saunders 2004: 123, *apud* Bastien 1985.

[115] Berthelot 1986. Albornoz documented the *huacas* that held significance to the Peruvians, in order not only to eradicate the worship of idols but to identify metallic ores that the Spaniards could exploit. Albornoz lists 15 types of *huacas*, one of them being the *mamas*.

[116] Saunders 2004: 126, and references therein.

[117] Giraldo Herrera 2018: Ch. 9.

cannot assume that myths would have provided the same narratives during the development of a new craft than when it consolidated. Moreover, an initial stage with copper and precious metals may be distinguished from blacksmithing in those regions of the world where iron was abundant or accessible. This is, in my opinion, important, because mythologies in the Indo-European sphere have emphasized the physical strength of men working at the forge, wielding hammer and anvil as symbols of their power. Crucibles and furnaces evoke images of men in possession of secret knowledge, not powerful and strong 'macho' men. No Ancient Near Eastern religion assigned a special *ad hoc* place to a metallurgical deity in their panthea. As important as copper/bronze and silver would become in Mesopotamia,[118] metallurgical activity did not have the same impact as other civilizing achievements in the symbolic foundation of public offices linking power to fertility and stability.

The second aspect is gender. In *Iron, Gender, and Power*, Herbert compiled ethnographic accounts coming from all African regions to argue for the inscription of metallurgy, political leadership, hunting and pottery within wider cosmological and social frameworks that inherently express a genderization of the world.[119] In Herbert's opinion, both copper and iron are equally prestigious, but she observes:

> The impact of iron and copper was particularly great in the equatorial forests and savannas of Africa. The practical uses of **iron**, especially, are so obvious that they tend to have been exaggerated and to have distracted attention from the social and political implications. In this vast area, these metals were virtually the only material goods that were scarce and durable, capable of accumulation and storage of wealth (…). As with cattle in eastern and southern Africa, chiefs and big men, by controlling stores of metal, could enlarge their following through polygamous marriage, clientage, and the imposition of fees and fines. Small wonder that this is the area par excellence where chief and metallurgist are closely associated —even fused— on the level of myth and ritual.[120]

In a previous work, Herbert studied pre-contact copper working in West Africa (Mauretania and Niger, mainly), archaeologically attested since ca. 850 BC., and much later in Zambia, around Lubumbashi. In Zambia, both men and women worked the copper deposits.[121] Archaeological evidence attests at Sanga that copper smelting existed here since the 1st millennium AD, and Herbert argues that the three periods

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[118] See Sherratt's (2018) perspective on the aesthetic value that silver had in Mesopotamia, combining archaeological and textual evidence (e.g. the Sumerian disputation between Copper and Silver).

[119] Herbert 1993.

[120] *Ibid*.: 114. Her own personal case studies, conducted among the Ader Hausa of Niger, the Fipa of Tanzania, the Banjeli Bassari of Togo, and the Ekonda of Zaire refer to iron smelting (ch. 2). Of these, only the Bantu Ekonda would come close to conditions of first metallurgy in Eurasia since they only use a bowl furnace and a clay tuyère through which the air of the bellows is channeled (*ibid*: 63). They work in collaboration with the Batwa (Pygmies), the latter providing the fuel as masters of the forest, and the Batwa are entitled to a portion of the animals sacrificed at the smelt for the sake of all ancestors. While the smelt takes place in the village, the "atelier" is treated as a sacred precinct, built with certain trees, having certain plants buried at the base of the posts supporting the roof or strung across the structure (*ibid*.: 64).

[121] Bisson 2000.

dividing Sanga material culture according mostly to the funerary evidence witness an increase in social differentiation.[122] These periods, however, span ten centuries. As Herbert herself reveals, in the late 1920s, Rickard reported that Katangan old women had knowledge of the copper metallurgic technique and transmitted their knowledge to their successors.[123] Even if a chant accompanying the rhythms of the bellows attributes the origin of the high furnace with a large womb to an ancestral father, the final lines are "O my Mother! O my Mother!"[124] In fact, women used to participate in the open mine extraction of copper in this region of the Congo, and female skeletons have been found in the excavations of now collapsed gold mines in Zimbabwe exploited around the 1500s.[125] Later on, and as recorded by the Portuguese and by ethnographers in more recent times, women participated in the winnowing of alluvial ores bearing gold in Northern Zimbabwe. Among the Asante, a non-Bantu group of West Africa, the smith, the king, his wife, and the greater chiefs could all wear gold jewelry. Regarding the non-Bantu cultures of West Africa Herbert remarks: "staffs, bracelets, swords, and axes aplenty but no hammers and anvils with the notable exceptions of Benin and Ife."[126]

Wherever male power and metallurgy is highly conspicuous, though, the political office appropriates the paraphernalia of metal (iron) working as insignia, with smiths playing a role in chiefly investiture and funerals. A good example of an investiture ceremony is given by Mertens's account on the Bakongo, at a time when chiefs and their wives ruled over very small territories.[127] The smith led the candidate into an enclosure where he remained secluded for a number of days. During his seclusion, the smith forged the bracelets that would act as emblems of power. One of these, however, was not forged but extracted from the ancestors' basket. The new chief took the name of the previous owner of that bracelet, extracted by the smith. During the period of seclusion, the smith and the clan leaders taught the candidate the names of the previous rulers. At the end of his seclusion, the new chief resumed sexual intercourse with a specially designated woman, although Mertens does not clarify the particulars of this female office. The smith would eventually take the chief out of the hut, out of the enclosure, wash him, and once the chief had climbed into his forge, slipped the bracelets onto the chief's left arm. Among the details of this first part of the ritual, the mention of a cross drawn in the sand stands out, since it symbolized the joining of the worlds of the living and the dead. Then, after both bathed in a river deep in the forest, they could all return to the village for the second and public part of the ritual. Relevant is also the procedure once the king died. The smith would sprinkle the blood of an ox on the new burial mound, then on those of all the chiefs and femmes-chefs previously buried; he would finally rub some of the chief's blood onto the bracelets that would go back to the ancestors' basket, together with some skin from the deceased.

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[122] Herbert 1984.

[123] Herbert 1993: 29f. [Rickard 1927].

[124] Herbert 1993: 67 [de Hemptinne 1926].

[125] See Chirikure 2015: 36, 42f for references.

[126] Herbert 1993: 148.

[127] *Ibid*.: 136f *apud* Mertens 1942.

The Bamana's (West Africa) visualization of the forge as the smith's body is illuminating: "The furnace is his body, the bellows his testicles, the *tuyère* his penis, the fire his head. When the red iron is struck by the hammer, a replica of the *gosilande* [the primordial hammer in wood that is the repository of all human technologies] which symbolizes the universe, the sparks are thunder and lightning".[128] There is an altar within the forge where offerings to Faro and other divinities are made. At the forge, connection with the ancestors is ensured with the presence of handles of old tools and fragments of ash enmeshed in clay. There is also an ax, the "mother of the altar", regarded as "the first implement that was forged".[129]

In general, the aura of secrecy and/or exclusivity surrounding many smith lineages and their work across Africa is paramount. This bears reflection on how early metallurgists (smelters and casters) may have been allowed the freedom and leeway to experiment: a communal perception of shared prestige. The link towards individual prestige and status is actually not manifested in Eurasia until after the first phase, as we will see below. Across Africa, whether reported as a "caste" or not, they tend to be a highly endogamic group, their skill and activity perceived as valuable, but still physically and socially segregated to different degrees.

Although exceptions to the exclusion of women in metallurgical activities in Africa certainly abound, by and large, taboos concerning women of childbearing age are quite generally applied. Potters, who are frequently women and often the smiths' wives, are not held in the same regard as smiths and hunters. This also applies to agricultural labor and small-game hunting and fishing. Herbert makes the following observation:

> On the one hand, African societies go to great pains to establish separate gender identities and domains, while at the same time they accept more readily than Western cultures that gender can be situational, that one can change gender at different points in the life cycle, and even that one can be simultaneously male and female. (…) The same ability to conciliate opposites exists on the life/death continuum. (…) Human fecundity in its various phases interacts reciprocally with each of these activities [metallurgy, chief-making, hunting and pottery] and is intimately connected with ancestral intervention and regeneration. Within this quadrivirate, however, pottery is anomalous.[130]

Herbert tried to explain why pottery is not held in the same regard as metallurgy in Africa: "Although women produce the pottery used in most ritual, they rarely officiate at them, just as they produce the children but usually do not take charge of rituals associated with them until the women are postmenopausal." She tentatively posits **the lesser ritualization** of potting compared to other activities to explain the asymmetry, nuanced by observations that potters *do* have prestige in those societies where they are a "caste", their knowledge owned by a clan. Wondering at the disproportionate prestige that male activities appear to have and have had in Africa,

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[128] This Herbert extracts from Dieterlen 1951, who came under scrutiny by other Africanists as a disciple of the controversial Griaule. Herbert gives her reasons to trust Dieterlen's account in 1993: 103-105.

[129] Herbert 1993: 102f.

[130] *Ibid*.: 220.

Herbert also suspects that many accounts that European reporters and anthropologists have gathered were told by senior men and thus from *their* perspective, even though she also ponders at the possibility that elderly women, even if they are unequally regarded by comparison to their male counterparts (as "benevolent mothers or witches"), may also have been responsible for the preservation of the *status quo*.[131]

Bamana potters make annual offerings to their altars on the same day that their smith husbands sacrifice to their forges. They make two types of pots: masculine, with neck, for cooking food, and feminine, without neck, for holding water. "For the feminine pots, she presses a tightly woven net around the lower part to make a losange pattern in the still moist clay, while on the upper portion she makes a chevron design with a twisted cord. These are the symbols of earth and water, both feminine elements in Bamana thought."[132] Herbert makes a very interesting comment on the personhood of vessels:

> Following the analogy of smelting furnaces, we can suggest that this personhood takes both explicit and implicit shape; that is, some pots are created with visible anthropomorphic traits while others have humanity thrust upon them. Some become "vessels of the spirits", the abode of ancestral and other divinities. (…) Further, it is probably safe to say that all pottery which serves spiritual ends must be made sacred **through ritual**; as in the case of smelting furnaces, form is not sufficient, just as anatomy alone does not create the whole person.[133]

In societies where both men and women make pots, "they may not make the same objects and may not even use the same techniques".[134] When men are excluded from this activity, as with the Shai of Ghana, a reversal of taboos is observed: men may lose their sexual potency (although menstruating women are also forbidden access). A priestess is responsible for the health of the pit, and she forbids quarrelling among women to prevent the pots from cracking. There are ritual cycles, special songs and dances. At the time of observation, only experienced potters were allowed to decorate their pots.[135] The Kpeenbele Senufo female potters of the Ivory Coast may pileup as many as 350 pots at a time, placed carefully with stones or shards to stabilize them;[136] then they cover the mound with sticks and thatch, and finally they set fire to it.[137] The operation is supervised by the older women. Herbert remarks that although these pots are more fragile than those fired in an enclosed kiln, they are more porous, thus helping keep the water stored in them cool.

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131 *Ibid*.: 237f.

132 On the complexity of Bamana symbology (including numbers) exhibited in anthropomorphic vessels and the firing process, see *ibid*.: 210.

133 *Ibid*.: 210f.

134 *Ibid*.: 204ff.

135 *Ibid*.: 208.

136 The use of stones and shards to act as firing platforms brings to mind the controversial nature of the bullet-shaped or round clay objects found sometimes by the dozens in many sites of Mesopotamia in the proximity of fire installations during the 7th-5th millennium BC. At Tepe Gawra, Level X, several hundred were discovered next to a kiln. This was a proposal made by Hamilton for Çatalhöyük and reconsidered by Gaulon 2013: 350.

137 *Ibid*.: 202f. [Spindle 1989].

To conclude, this brief incursion into the social world of metals in the Americas and Africa, and particularly the latter, may serve as inspiration when exploring the channeling of life-renewal procedures in prehistoric times, and the possible appropriation of metal objects by the collective leadership of late 5th millennium BC communities of SE Europe-SW Asia in order to justify their active role in ensuring the prosperity of their groups in times of uncertainty. While in the Southern Levant, metallurgists sought secrecy at a time when others were seeking the cooperation of the ancestors, in the north (Balkans-Black Sea), metals may have been initially appropriated as symbols of prestige by sodalities of men, and after the abandonment of many West Pontic sites ca. 4200 BC, metallurgy in the form of smelting was taken up by steppe peoples who were more interested in symbols of male power than their Balkanic predecessors had been.

6.4.2.2. The Southern Levant: metallurgy and chthonic mortuary cults as two responses to climatic instability

The picture that emerges when all studies contributing to paleoclimatic reconstructions in the Southern Levant including the Negev desert are combined is one of apparent contradiction. It does seem that there was a shift taking place at around 4300-4200 BC, after a long period of growth, and this period of slow decline, abandonment, and resettlement lasted until ca. 3700-3600 BC, when growth was resumed in fertile valleys, though aridity consolidated in the desertic plains. It may be that rainfall in the Negev desert had actually increased for a short span of time before 4250 BC, which is not necessarily a good thing.[138] Flooding and erosion may have caused more harm than previously semi-arid conditions, and from the point of view of the pastoralists present in the region since the beginning of the 6th millennium BC, moisture coming from mist and soft rain may have been more beneficial for their seasonal herding trajectories, adapted to make the most of the wadis and rock shelters, than heavy rainfall.

[138] See overview in Rambeau and Black 2011: 95-98. According to Faust and Ashkenazy (2007), the decline in settlements in the Israeli coastal plain between ca. 5000 and 4300 BP (late 4th and 3rd millennium BC) was due to increased precipitation leading to flooding and disease in marsh environments. Climatic fluctuations are harder to detect one millennium earlier, but see *ibid*: 42.

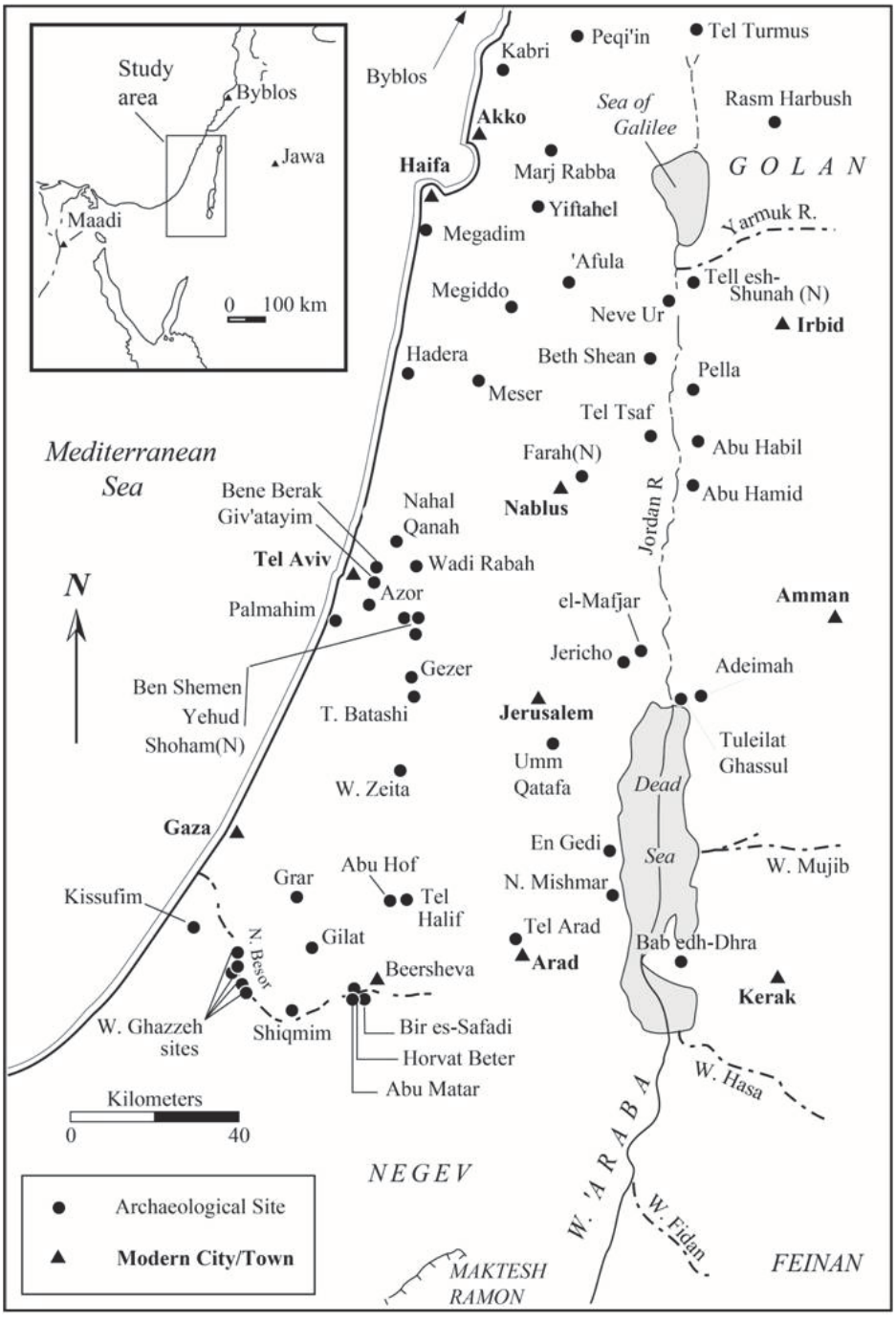

Fig. 6.12. Map of Late Neolithic and Chalcolithic sites in the Southern Levant. Courtesy of Yorke M. Rowan.

A study conducted at Grar, in the valley immediately north of the Beersheva valley, concluded that dry farming of barley and wheat was possible at around 4400-4300 BC, and the faunal remains analysis revealed that, among the small number of bones retrieved for wild taxa, marten, lion and ostrich were included. By contrast, the study of phytoliths at Gilat and Shiqmim a few kilometers south from Grar, supported the hypothesis that irrigation of crops was taking place.[139] Neither Shiqmim nor any other Beer-Sheva site has ever yielded evidence for pig-keeping, either because water resources could not support this kind of livestock or for cultural and chronological reasons (settlement by non-locals, onset of climate shift). Levy and Alon observed that Shiqmim was settled directly over a thick layer of wadi gravel, which they interpreted as follows: "when the flood plain associated with the Nahal Beersheva became a terrace free from overbank flow, the Chalcolithic inhabitants extended the limits of their village closer to the valley bottom".[140] This may mean that the Nahal Beersheva villagers, the only people in the region at this time who took up metallurgy, settled here after a heavy rainfall period. General abandonment of sites all over the Southern Levantine region is attested at ca. 3900 BC, including the Beershevan sites, probably due to increased aridity.[141]

This perception of climatic instability happening at around 4300-4100 BC, whereby people may have experienced the stress of floods, droughts, and perhaps seismic activity or plagues which would have caused alarm in times of crisis, would not have been interpreted in terms of phenomena or random fluctuations. Two different reactive practices were undertaken by people at this time:

1) By Negevian pastoralists: to settle along and across a river in a sprawled fashion at the northern edge of the desert, continue with their pastoral activities but also grow crops, and leave a number of their men free reign to experiment *via* pits/furnaces excavated in the ground and metals extracted by them or by tribes whom they knew well a good distance away, at the Feynan-Timnian formation, and even still further south. This metallurgical activity was practiced in a highly endogamic fashion. Beershevans seem to have hoarded their knowledge and the majority of finished implements to themselves. Moreover, Nahal Mishmar, the location where our link to the Beershevan's metallurgical efforts is most visible and remarkable, should not be considered a sign of the second practice.

2) By the majority of peoples from the Upper Galilee to Kissufim (we could speak of a western half of current Israel, and exclude those who used the Judean Desert caves): to bury the dead in caves—karstic natural caves, man-made cave constructions into chalk and *nari*, sandstone or loess—and perform regular ceremonies in them. This was clearly not about the 'underground' and some vague connection to soil and stone, but about finding a suitable 'womb', a shelter within the earth for both the living and the dead. This is an observation shared by Ilan and Rowan: "If we are to speculate, the cave—whether natural or artificial—was also conceived of as the womb, part of the mother, who is the earth itself. The dead will

[139] Katz et al. 2007.

[140] Levy et al. 1991: 34.

[141] See overview of this period in Rowan and Golden 2009.

> be reborn and burial in the tomb, a multiphased process that was perhaps conceived as a sort of midwifery. In this framework, we also consider ossuaries to be the vehicle or container of metamorphosis. (…) In the Chalcolithic, then, the cave was the locus of contact with the chthonic forces of death that expedite rebirth".[142]

Many assemblages include household items, probably because either domestic activities were necessary for days-long ceremonies or regular time was spent within the cave. Therefore, the distinction between "utilitarian" and "prestigious" material (including a few metal objects)[143] or even contexts (pits, benches) is a problematic one. This sharing of space and activities within a space normally reserved to the dead does indeed indicate communal cohesion;[144] the real question is why —why spend such time and effort in accessing or building multi-chambered caves, not to mention the transportation of finished objects, the requirements of ritual, the upkeep of the space, and the corpse/bone processing. The answer cannot be formulaic or avoided.

These two practices are as concrete and sensible as any economic adaptation in the face of crisis as we may envision. Specialists have focused on the economic progress that will connect the Late Chalcolithic with the Early Bronze Age I : dairy-product making and the churn;[145] the improvement in yarn production,[146] evidence for olive oil[147] and beeswax[148] production, and, of course, metallurgy. But just as important is paying attention to ritual beyond *a priori* functionalism. One of the most common observations that some anthropologists in recent times remark upon is the perceived efficacy of ritual by its practitioners, that is, how matter-of-fact it actually is for them. Most archaeologists have only a utilitarian perspective on ritual, that is, they acknowledge it as long as it is based on architecture and material symbolism and in so far as it may lead to theories of power. Symbolism may indeed be applied to the material, shape, motifs and potential contexts of objects used in ritual, but

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142 Rowan and Ilan 2012: 103.

143 Rowan and Golden 2009: 41-47; Gosić and Gilead 2015b; Ben-Yosef, Shamir and Levy 2017. Apart from Nahal Mishmar, complex metal objects, few in number, are only attested at the caves of Nahal Qanah, Giv'at Ha-Oranim and Peqi'in. Finds outside the Beersheva valley consist of high-content copper pins and tools, worked by annealing and hammering. Gold was found at Nahal Qanah (eight gold or electrum rings) and Giv'atayim.

144 Nativ 2014.

145 Rowan and Golden 2009: 34f.

146 Levy 2020: Ch. 6. At Cave of the Warrior in the Binyamin Desert, a single burial of an adult was found wrapped in cloth and with other artefacts, like a long flint knife. Radiometric dating points to 3900-3700 BC. At Zruia Cave, in the Judean Desert close to Ein Gedi, some pottery sherds and fragments of ropes, textiles, basketry and leather were found of LC-EBI assignation, but there was no burial. See Davidovich 2013.

147 Rowan and Golden 2009: 20; Ali 2019: 257.

148 Namdar et al. 2009 found some evidence for a possible function of cornets, another diagnostic Chalcolithic vessel, as lamps, due to the presence of beeswax residue found in cornets from Grar, the Moringa Cave and Ein Gedi. A more recent study conducted a more systematic analysis and concluded that beekeeping may already have started already by the mid-5th millennium in the Southern Levant (Chasan et al. 2021).

ritual itself is intentional action. In words of Edith Turner, "the ritual builds the symbols and not vice versa".[149]

Following Gilead and Gošić, I assign both practices to the very late 5th millennium BC and beginning of the 4th,[150] and I tie this to perceptions of a changing environment that caused alarm among the sedentary and non-sedentary communities of these southern regions of the Fertile Crescent. However, neither metallurgy nor ossuaries or any other material found in caves were fashioned in symbolic pathways that were significantly new (indicating ontological changes). Therefore, whenever we perceive continuity and a sense of *déjà vu*:

1) Is it because of the agency of groups that came from elsewhere, and either mingled with others, or kept themselves apart but interacted with their neighbors?
2) Is it due to the integrative agency of meeting points, villages where several groups met regularly (seasonally, annually)?
3) Or is it because there is a shared, more or less common way to look at and experience the world?

Examples of the interweaving of these three factors can be easily found for the best part of the 5th millennium BC. The site of Gilat, with a considerable occupational span and fragmentary architecture, but a remarkable diversity observed in ceramics and overall assemblages retrieved from pits, is one of the most studied of the Chalcolithic Levant. In connection with some structures interpreted as a sanctuary complex, and the numerous burials (intramural for children and a few adults; in scattered grave-pits around the site for the rest of the population), Levy argued for an interpretation of Gilat as a "pilgrimage" site (as a theoretical trampoline towards the usual theories on complexity and power).[151] Regarding the mortuary evidence, however, other sites have given evidence for similar customs, even if at a smaller scale. Gošić has criticized the tendency to assign cultic function to architecture without adequate criteria.[152] From my point of view, and in conjunction with the fact that an unusual number of wares, mostly churns, jars, and "torpedo" vessels, were manufactured with non-local clays,[153] the terraces around Gilat served as grounds for periodic gatherings, regional celebration, and exchange. Among the remarkable finds excavated here are six pieces of obsidian, beads made of Nilotic and Red Sea shells, four whole ostrich eggs and several ostrich egg fragments, and basalt *and* ceramic fenestrated stands.[154] Taking the different finds as a whole, Gilat signals minor connections to the north, direct connections to the south (either inland or via fishing expeditions), and *in situ* interaction between locals and the neighbors.

From Gilat come two figurines that do not signal an objectification of the surrounding world, but are far more explicit than hitherto. One of the variations of the

[149] Turner 1992: 17.

[150] Gošić and Gilead 2015.

[151] Levy 2006.

[152] Gošić 2016.

[153] Goren 2006.

[154] Rowan and Golden 2009.

"female seated anthropomorph" has the so-called Gilat lady seated on a stool carrying a churn on her head and a cup tucked between her arm and body. Despite or perhaps precisely because of the hieratic posture, nude and painted body, the portrayal of "domesticity" is striking.[155]

Fig. 6.13. Southern Levantine 5th mil. BC figurines introducing small variations about gender, life and death. Top row: vessel of a seated woman carrying a churn or "Gilat Lady" (from Hanay, CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=12749279 and see https://www.imj.org.il/en/collections/391736-0); ram with three cornets from Gilat (from Hanay, CC BY-SA 3.0, https://commons.wikimedia.org/wiki/File:Chalcolithic_Cornet_called_Bazikh_from_Gilat.JPG); ram with goard-like vessels from Ein Gedi, after Epstein 1985: Fig. 3b. Bottom row: violin-shaped figurines from Gilat (A,B); bone figurine with violin-shaped/skeletal figurine elements, and ivory pregnant figure and male skeletal one from Bir es-Safadi, after Ilan and Rowan 2012: Figs. 7.12, 7.6. Finally, head carved from a hippopotamus tooth, from Peqi'in Cave, after Gal, Shalem and Smithline 2011: Fig. 19.

[155] It is also found in a female figurine from the Gulmenița culture, see Fig. 24 of the exhibition catalogue in Anthony 2010.

Vessel-carrying sheep figurines were recovered from Gilat[156] and Ein Gedi, an isolated structure that may have acted as a gathering location for pastoralists,[157] according to very local aesthetic preferences. The "violin-shaped" figurines (headless), however, renew schematization and the preference for the female body. This composition finds a parallel in a hybrid figurine with skeletal appearance carved in ivory and bone. It stands in contrast to an ivory headless figurine represented as a svelte young woman of long thighs, small breasts, pregnant belly and huge navel (arms in the same position as seen with the male counterparts), from the same site, one of the Beershevan villages. Among the small finds from Peqi'in Cave, all the way north to the Upper Galilee, a schematic head carved from a hippopotamus tusk stands out.

The presence of copper and the numerous mortuary remains found at Peqi'in would point to a post-4200 BC dating, but the radiocarbon dates for this karstic cave do, however, indicate that people started using it earlier, although maybe not as a mortuary location.[158] Recent DNA analysis adds an interesting layer of complexity. It turns out that the community using Peqi'in Cave had mixed ancestry.[159] Based on extracted DNA from 22 individuals that connects a percentage of those buried in the cave to other regions (in conjunction with DNA datasets from previous studies and admixture clustering modeling), it seems that up to 17% and 26% of these Upper Galilee groups may have been descendants of people that had recently migrated from Iran ('Iranian Chalcolithic', aDNA from Seh Gabi[160]) and groups deriving from 'Neolithic Anatolia', respectively. Shalem, who has studied the anthropomorphic, decorated ossuaries found at Peqi'in, advocated that the Chalcolithic reflects a symbolic continuity since the first sedentary Neolithic.[161] Her analysis of stylistic traits is quite thorough and persuasive, although she does not consider patterns of migration or the interplay between tradition and innovation. Interestingly, only coastal sites have yielded anthropomorphic, vaguely zoomorphic, and house-like ossuaries.

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[156] Noteworthy is also Gilat's remarkable array of miniature vessels of all types (cf. Rowan and Golden 2009: Fig. 7).

[157] An enclosure built on a promontory under the Judean Desert hills, in the vicinity of Nahal Mishmar and the Moringa Cave, Ein Gedi had lithics and ceramics that suggested lack of permanency (no storage jars). Together with the spring nearby, and the construction of two internal buildings, a shed and a long room with a large hearth, the evidence points to a better and more convenient shelter from the elements for flocks and people than that provided by caves for sedentary groups practicing small-scale seasonal pastoralism. Cf. Gošić 2016, with references. For a different view, Ussishkin 1980.

[158] Segal et al. 1997; Gosić and Gilead 2015b: 164.

[159] Harney et al. 2018. The excavated spaces yielded large numbers of skulls and bones (an estimation of 453 individuals, cf. Shalem et al. 2013), sometimes placed inside high-based fenestrated bowls, as well as big-sized and jar ossuaries (approximately 200), and the bone layers both inside and outside these suggest that the ossuaries, perhaps depending on their size and decoration, were linked to the long process that started with whole body deposition (probably with decomposition taking place elsewhere) and ended in bone and skull piles.

[160] On the few metal objects found at Seh Gabi, coming from small-scale excavations in the 1970s, see Frame 2009. The most substantial finds correspond to Godin Tepe VII and VI, first half of the 4th millennium BC.

[161] Shalem 2017.

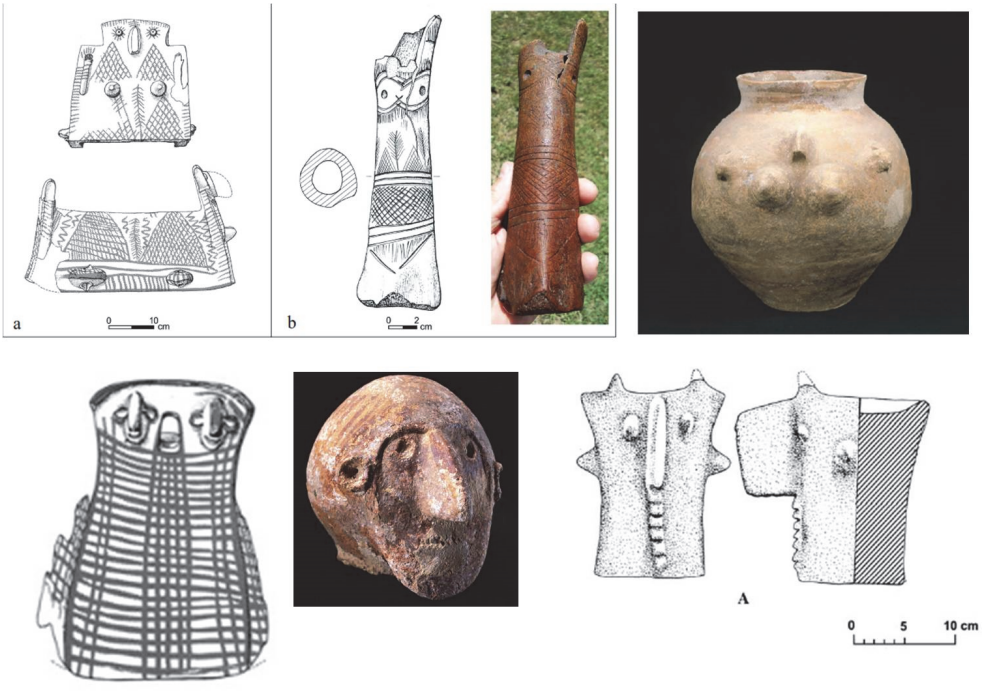

Fig. 6.14. Kaleidoscopic continuity: femaleness, duality and bird-like features. Not to scale. Top left: Female ossuary from Peqi'in Cave with raised arms, beaky nose, and chevron, net, vegetable motifs, compared by Shalem to the carving on a cattle femur recovered from the graveyard at coastal Neveh Yam (ca. late 6th-early 5 mil. BC), photo by E. Galili, drawing by L. Ziegler, after Shalem 2007: Fig. 5a and b (and see Galili et al. 2016: Fig. 3 for a carving on the radius shaft of a caprine from contemporary Ha-Gosherim, depicting emphasized eyes, gazelle eating from a tree, and vulva). Top right: burial vessel with sculpted nose, ears and breasts, after Gal, Shalem and Smithline 2011: Fig. 14. Bottow left: Ossuary with two heads and bird-like features from Peqi'in Cave, after Shalem 2017: Fig. 1. Next to it: Sculpted head decorating an ossuary from Peqi'in Cave. After Gal, Shalem and Smithline 2011: Fig. 11. Figures from Peqi'in Cave, reproduced with the permission of Dina Shalem. Bottom right: basalt head from Golan, after Rowan and Golden 2009: Fig. 15a.

The ubiquitousness of the net/mountain pattern across the Fertile Crescent, as well as the wavy lines, are signs of continuity. Shalem also remarks upon the parallelism between a two-headed ossuary and the statuettes from 'Ain Ghazal, fashioned at least two thousand years earlier. This must be due to a similar way of thinking, a pre-occupation with duality (two dimensions).[162]

Stamps/amulets also appear in the northern Southern Levant at this time —in chronological order, the two found at Tell Tsaf, mentioned above, twenty-two found at Hagoshrim, in the north,[163] the single one from Teleylat Ghassul,[164] and the one

[162] Shalem 2017: 154. She also noticed that at least 12 pairs of identical or similar ossuaries had been deliberately placed next to each other.

[163] Getzov 2011.

[164] See Bourke 2002: 12-14, and Fig. 7 for this and other isolated examples from neighboring sites.

found in one of the Palmahim Quarry caves.[165] These must have been crafted by northerners or their descendants.

In a nutshell, regional diversity, here or elsewhere, is a complex tapestry of inherited, emulated, mixed customs that owe their plurality to several factors, but are—despite the increased manipulation of the environment—still operating within a reciprocity-based ontology.

Finally, the Teleylat Ghassul wall paintings, and the issue of 'temples' as well as the identification of unknown anthropomorphs as 'deities' or 'priests', deserves attention. Teleylat Ghassul is renowned for its outstanding and enigmatic wall paintings.[166] In her excellent re-analysis of the site's frescoes within the framework of her doctoral research, Drabsch embarked in an exercise of literal semiosis, so to speak, whereby some of the features in the best-preserved compositions were read in terms of cultic structures and priests/acolytes.[167]

[165] Gophna and Lifshitz 1980.

[166] Only at nearby Abu Hamid were paintings also unearthed. This may indicate, as is the case with Peqi'in, that there was a demographic component of northern provenance.

[167] Drabsch 2015; Drabsch and Bourke 2014, 2019.

Fig. 6.15. Teleylat Ghassul frescoes. All frescoes were revised and re-examined by B. Drabsch, who reconstructed them after analysis. Top row: **1)** The "Tiger" or landscape fresco, so-called because of the net-like motif (ca. 4700 cal. BC), from a building belonging to Stratum II in Tell 3. **2)** The "Notable" or "Personnages" frieze, so-called because of the pedestals and a pair of feet with elaborate sandals, found in Building 55, Tell 3 (ca. 4200 cal. BC). **3)** The "Processional" fresco, found in an area between Tell 1 and Tell 2 (ca. 4200 cal. BC), and its reconstruction. **4)** "The Star of Ghassul", from Building 10, Level IV, Tell 3, ca. 4000-3900 cal. BC. All courtesy of B. Drabsch, reproduced with permission.

Depiction of anthropomorphic deities with specific visual codes will not clearly emerge in Mesopotamia until the 3rd millennium BC. This remains valid after taking these frescoes into account. The three colorful scenes are probably part of narratives of which we ignore and will ignore the particulars of, but which doubtlessly reflected the Ghassulians' cosmology and the relational, and by extension, normative framework of the villagers with others (human and non-human) in the past and present. We cannot know whether the characters in "the processional" fresco are wearing masks/horns, or are hybrid entities, even mythological ancestors, just as we ignore the symbolism of all the discernible elements in the composition. Likewise, we cannot know whether the two deity figures and the butterfly-like being depicted next to the Sun ("Star of Ghassul") are engaged in a performance/cosmic event either in *illo tempore* or "in the here and now", or both. The interpretation of some of the features surrounding the sun as built structures is not problematic. The problem lies in the link to specific cultic structures at the site or elsewhere. Drabsch at least refrains from engaging in retroactive interpretations, based on later mythologies, as previous scholars did (see Ch.2.2. of her dissertation). Even though the figurativism is

striking, and from our point of view, refreshing, it is fully embedded in abstraction, therefore including geometric symbolism and ambiguity.

Regarding the issue of 'temples', Lovell reviewed features and materiality of different areas at the site and argued for overall temporal and spatial coherence, without room for functional segregation.[168] The inhabitants of Teleylat chose certain buildings during their village occupation, layer by layer, to bury infants, and/or to paint scenes connected to their history as a people, as has been observed by all archaeologists working here, though it is feared that more fragments may have been salvaged, and better records kept, if the site had been excavated following modern working procedures.[169] Since the consolidation of sedentism, as we have seen, ritual took place within the "domestic" fabric of the village, even if certain buildings may have acted as gathering *loci*. So, in words of Lovell: "A lack of focus on the nature of the domestic context allows cultic localities and, by extension, cultic personages (chiefs) to be created and reified without any clear comparative data or, indeed, a community to "serve"."[170] Indeed. Teleylat Ghassul has been the scenario of four archaeological expeditions since the 1930s, the more recent one (1994-9) entailing not only the opening of new trenches or further discernment of some areas, but also the production of reliable radiocarbon dates.[171] As may be observed in the map (Fig. 6.16), both Tell 1 and Tell 3, more extensively excavated, indicate a spontaneous, cluster-based construction of residential/working spaces, including courtyards. Area E (southwest), where structures A and B in combination with the alleged "altar" or semicircular structure at the center of the courtyard have been previously interpreted as having a religious function, might quite simply—had excavations continued—become visibly subsumed into a neighborhood cluster. In the building exposed in Area Q, three deposits with infant remains included animal bones and were marked with pottery, and one of them was found in association with miniature objects. The stamp seal mentioned above was found there. The material assemblage in Area E included cornets, chipped stone, ground stone, and animal bones—all indicative of spatial multi-functionality—, which makes Drabsch's interpretation of the landscape scene ("Tiger") problematic: "The subject of this painting (…) is most likely the distinctive mountain range situated immediately to the east of Teleilat Ghassul. If one stands on the altar arc of the sanctuary complex [Area E] at Teleilat Ghassul and faces east, the elongated profile of Mount Nebo and Siyagha, present an outline strikingly similar to the one recorded in the ancient fresco. These neighbouring mountains are rich in Chalcolithic features and may well have been a focus of ritual activities, carried out on, or about, the Sanctuary A altar arc as the sun or moon rose over the highlands."[172] There is actually a location just two kilometers away from the village that may have had far more relevance than the alleged "sanctuary": the

[168] Lovell 2010.

[169] Lovell 2010: 112, and n.100. For instance, after removal of the landscape fresco, North observed that another layer where a star and striped masks could still be discerned had been painted underneath (Drabsch and Bourke 2019: 6).

[170] *Ibid*.: 106.

[171] Bourke et al. 2004.

[172] Drabsch and Bourke 2019: 6f.

Adeimah graveyard.[173] In my opinion, the painting reflects a tridimensional cosmology: above, *in situ*, and below (figures in reverse).

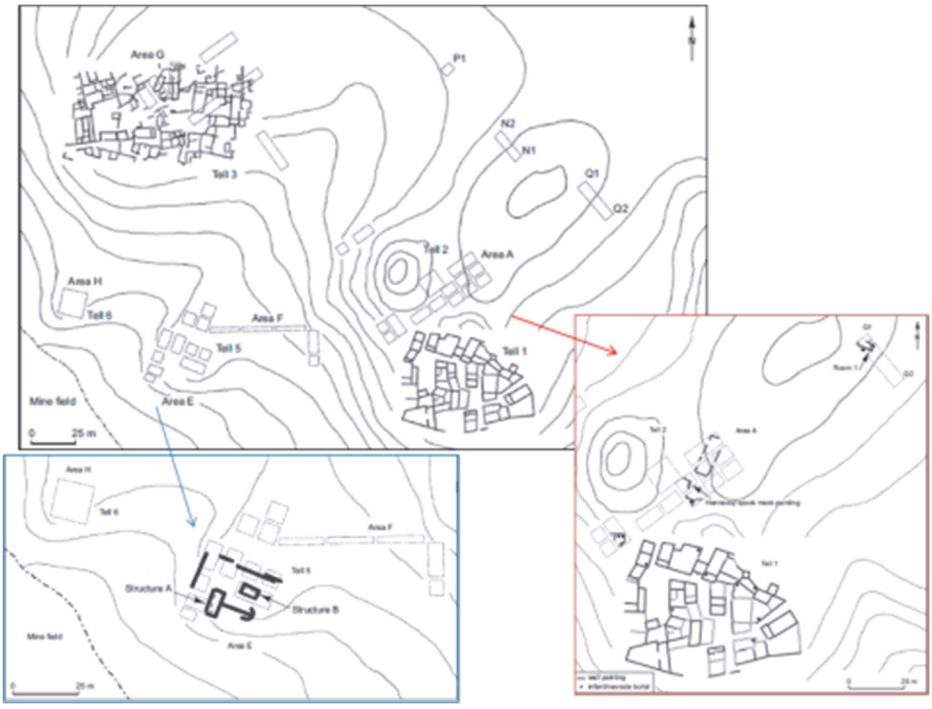

Fig. 6.16. Plan of Teleylat Ghassul. Enlargements show Area E (left), and Tell 1 and adjacent areas (right). After Lovell 2010, Figs. 2, 3, and 5.

I turn now to the two reactive phenomena taking place in the Southern Levant at ca. 4300-4200 BC, starting with the emergence of caves as spaces for the dead and the living.

In their thorough review on this phenomenon, Rowan and Ilan classify natural and artificial caves by geomorphological criteria.[174] Apart from the natural caves of the Judean Desert—which show a different use pattern—, karstic caves do not abound: Peqi'in Cave, Nahal Qanah, and Shoham stand out. The cave complex at Shoham had even more scattered human remains than the other two and the collapse of some of the caves made access even more difficult than at Peqi'in, which became completely sealed off at the beginning of the 4th millennium and had no later intrusion. Still, the caves from the whole complex yielded some 85 ossuaries of all types and a wide array of material, including stone and ceramics vessels.[175] Among the remarkable finds from Nahal Qanah—an intricate cave with galleries, passages and five depth levels—, the famous eight rings of gold and electrum are naturally the most extraordinary, but ceramics, ground-stone tools, lithics, ivory and bone

[173] Bourke 2002.

[174] Rowan and Ilan 2012.

[175] Rowan and Ilan 2012: 95f, and references therein.

objects were also found.[176] Skeletal remains and ossuaries both were retrieved from several chambers. Peqi'in has already been mentioned, and it is not my intention here to give a comprehensive review of the finds,[177] but merely to emphasize that these natural caves were not easy to access, nor were they only used partially—i.e., in chambers close to the entrance—and yet all have evidence of prolonged use for corpse processing and material that could be subsumed under the umbrella of "domestic".

As for the man-made caves, all communities seem to have found a strange symbiosis between the requirements of the soil and their own demand of a thoroughly insulated yet accessible space.[178] In locations all along the western half of Israel, they were built by the dozens, sometimes reminiscent of honeycombs. That is the impression with the cubicle-like caves excavated at Horvat Qarqar, to the south of Palmahim, were construction machinery cut into a chalk hill exposing some of these cells, which are now estimated to reach sixty in number.[179] To have a general idea of the proportions, Cave 3 had a maximum height of 2.24 m and overall dimension of ca. 5 × 2.5 m. The excavated caves varied in the specific arrangements to organize the space, the material, and the vessels acting as ossuaries.

Fig. 6.17. Horvat Qarqar caves. Section made by the bulldozers, showing the truncated burial caves. Above, right: plan of caves 5 and 8 (out of 22 excavated caves). Caves had remains belonging to 16 and 15 individuals, respectively. After Fabian, Scheftelowitz and Gilead 2015: Figs. 3 and 7. Photo by A. Fogel. Illustrations P. Kaminski.

[176] Gopher and Tsuk 1996.

[177] See Table 1 in Chasan and Rosenberg 2018 for a summary of finds from Chalcolithic burial caves. The article focuses on basalt vessels and their distribution.

[178] Rowan and Ilan give an overview of Giv'at Ha'oranim, Taiyiba and Ben Shemen for chalk/nari cave complexes, Giv'ayatim and Palmahim for sandstone/kurkar, and the semisubterranean, rectangular mudbrick chamber at Kissufim with 54 individuals (loess). All mortuary locations yielded ossuaries, cists or tubs.

[179] Fabian, Scheftelowitz and Gilead 2015.

Apart from ceramics and ornaments, flint tools were occasionally retrieved. Standing stelae were found in some caves, as was the case at other sites.[180] Radiocarbon dates for Horvat Qarqar fall in the range of 4200-3950 BC, coinciding with the time of decline.

Problematic is, however, the dating of Palmahim North and its sprawled-out tombs, which stands in contrast with the "more conventional" cave arrangements at Palmahim Quarry nearby.

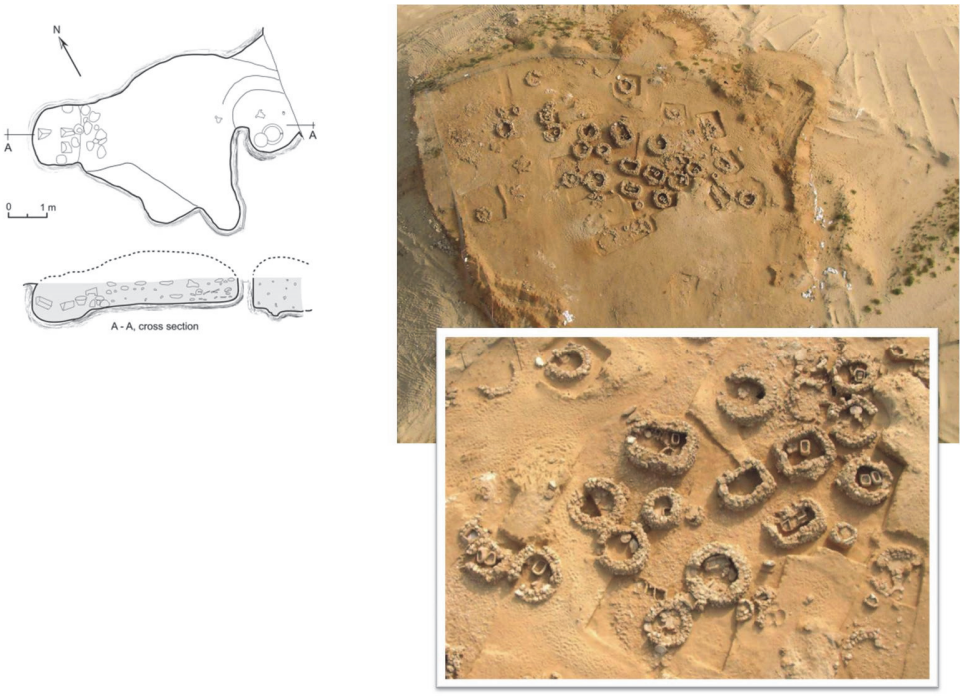

Fig. 6.18. Palmahim. Left: Top and bottom sections of one of the Palmahim Quarry caves. After Gophna and Lifshitz 1980: Fig.2. Right: Aerial and detail photographs of Palmahim North, close to a kurkar ridge by the sea. Note how the enclosures are big enough to contain tubs but not big enough for the performance of ceremonies. After Gorzalczany 2018: Figs. 3 and 5. Reproduced with the permission of A. Gorzalczany.

At Palmahim, each of the mortuary locations yields a very different experience. Palmahim Quarry represents the expected man-made cave complex for this central coastal site. Eleven burial caves contained human remains and an array of grave goods, including bird-shaped vessels and copper artifacts. By contrast, Palmahim North has revealed a myriad of cists and stone structures, sometimes in clusters, sometimes in a line, encompassing small enclosures with tubs, stone stelae, and pits. Since the stelae and sometimes additional features were found adjacent to the enclosures, Gorzalczany, director of the excavations at Palmahim North, paid special attention to stone-built structures in the Negev Desert and Transjordan, and the *nawamis* (large, circular stone arrangements) characteristic of the Sinai Peninsula, in order to argue

[180] See references in *Ibid*.: 22.

for a mortuary pattern shared by the semi-sedentary peoples of the desert.[181] The latter chose memorial sites made of stone and did not care much about preservation of remains or grave goods. I will also add here, pertinent for my discussion on Nahal Mishmar, that they were not affected by the same need to be surrounded and protected by the earth. Gorzalczany finally concludes that the difference in mortuary behavior between the two communities at Palmahim lies in all likelihood in two possible causes: either the two groups were living in the valley at the same time, but they had different cultures, or Palmahim North is the result of migrants from the south who at some point during the end of the Chalcolithic had arrived there a few generations after the cave users.[182]

A chronological factor is also present in the debate about the settlement and span of occupation at Shiqmim and the other villages of the Beersheva valley engaged in metallurgy. Whereas Levy, Alon, and the rest of the Shiqmim team concluded that there had been three phases of occupation, Gilead revised both the stratigraphy and the radiocarbon dates to argue for a more compact sequencing, the end of the Chalcolithic in the valley by ca. 3900 BC, and a different interpretation of the built space. Gilead thought that the rectilinear buildings co-existed with the underground structures, both at Shiqmim and at the other villages.[183]

The occupation in the central and eastern parts of the Beersheva valley, that is, the establishment of Shiqmim-Mezad Aluf, and the cluster composed by Abu Matar, Bir es-Safadi and Horvat Beter (see Fig. 6.19), has not an easy chronological assignation. As Gilead observes, the conservatism of material culture at all of these sites indicates that, even if their populations settled there in succession, a short span of two centuries of occupation and an earlier abandonment of Shiqmim seems the most plausible scenario.[184] It looks like these peoples had been semi-sedentary pastoralists until their settlement here. From the finds in Ashalim and Qina Caves, to the south and east of the Beersheva cluster, respectively,[185] and from the composition of some of the metal objects from the Beersheva settlers and the Nahal Mishmar hoard indicating that the Feynan-Timnian formation was one of the provenances where the ores with high copper content came from,[186] we can infer that they were very familiar with the Negev landscape as a whole. They must have chosen

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[181] Gorzalczany 2018, and references therein.

[182] *Ibid*.: 71-77. Although he also considers the usual elitist interpretations (i.e. the cave users came from prominent families; the biggest enclosures belonged to the richest of them all), he does not take this discourse too far.

[183] Levy et al. 1991; Gilead 1994, 2011. See also Burton and Levy 2012, where they defend the temporal overlap of Abu Hof in the Grar valley—immediately to the north—with the last Shiqmim stage. By contrast, Gilead supports an earlier Grar-Besor (and Gilat) horizon. Cornets, a typically Chalcolithic vessel, were not found at Shiqmim, but were found at Grar and Abu Hof.

[184] Gilead 2011.

[185] Davidovich et al. 2018. Pottery sherds, tabular scrapers, assorted small finds, and isolated human remains (a young female and an infant in the first cluster, and remains belonging to at least six individuals in the second) were unearthed at Ashalim. The Qina Cave group also revealed the largest shell pendant collection of the period, including Red Sea shells, and an almost complete cup made of hippopotamus ivory, likened to those found in pre-dynastic Egypt.

[186] Golden 2014.

a relatively unoccupied location at the northern edge of the desert and settled along both river banks not only because they needed large and well-watered terraces to keep their herds, but also because soon after Shiqmim was established, metallurgy was a deliberate activity that they planned to experiment with (or continue experimenting with).

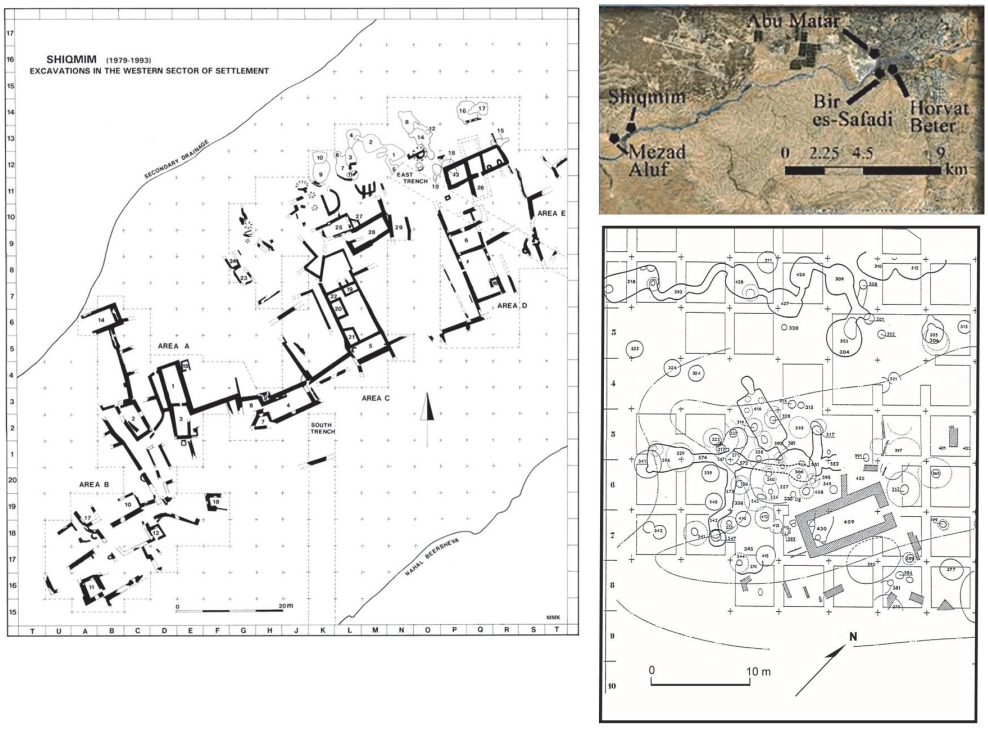

Fig. 6.19. Beershevan layouts. Left: Plan of Shiqmim, main phase. Note subterranean features to the north. Courtesy of T. E. Levy, see Levy, Rowan and Burton 2023. Right: Detail of aerial photograph. After Ackerfeld et al. 2020: section of Fig. 1. Below: Plan of Bir es-Safadi, southern corner. Dark shaded features represent rectilinear surface architecture. Curvilinear lines represent subterranean features. After Rowan and Golden 2009: Fig. 6.

Apart from the pit-like furnaces discovered at Shiqmim and Horvat Beter, and the workshop areas at Abu Matar, slag, prills and small finished objects have been found spread out randomly at these sites. Incidentally, the risk of pollution does not seem to have entered their minds. A study of skeletal remains at Shiqmim revealed that the people buried at Structure 101 within "Cemetery V" had been exposed to high levels of arsenic, two of them juveniles,[187] though no slag composed of arsenical copper was found at the site.

An additional problem is how to fit the Nahal Mishmar hoard into this scenario, and not only because of the uncertainties derived from its discovery and excavation in the 1960s. Rowan and Ilan qualified the Judean Desert at this time as a

[187] Oakberg 2000.

"necropolis", but this is an exaggeration. More than four hundred caves have been surveyed by now,[188] and of these, seventy had Chalcolithic material culture, but only ten had human remains. All were primary inhumations, in small numbers, with few associated goods. Ilan's and Rowan's theory that the first stage of the mortuary cycle started in a village (or in a "shrine" like Ein Gedi), and then the bodies were transported to the caves, seems more applicable to the attested extramural cemeteries (Gilat, Shiqmim)[189] than to the caves of the Judean Hills and the Dead Sea. Caves in this area were places of refuge, and the fact that two caves were also used post-3900 BC, with modest assemblages including arrows and a few transitional ceramic sherds, indicates that they continued to be shelters even after the contraction in overall settlement observed in the region at the beginning of the 4th millennium BC.[190]

The Nahal Mishmar complex is not an exception. As Gilead and Gošić pointed out in their thorough review, none of the human remains belonging to 21 individuals found at the cave complex can be assigned to the Late Chalcolithic period with absolute certainty.[191] The inconsistencies in Bar Adon's reports, the problematic stratigraphy and the biases of the team studying the skeletal material, in conjunction with the use of the cave in Roman times, should instill caution in any interpretation pertaining either to Cave 1 (the hoard and five non-associated burials), or to mortuary ritual during the Late Chalcolithic in general.[192] From the photograph of the hoard taken by the original expedition, it is unclear whether some of the more than four hundred metal and a few ivory objects purportedly retrieved from a single location had already been cleared away, or the confusion about two possible locations (Hall B or niche/feature 4 in Hall A)[193] has more basis than just a faulty memory.

[188] See references in Ilan and Rowan 2015.

[189] As they had posited in Rowan and Ilan 2012: 101. Many of the intramural burials correspond to infants, in patterns typical for this period (close to key structures, foundation deposits, ceramics covering bones).

[190] Davidovich 2013.

[191] Gilead and Gosić 2014.

[192] Gilead and Gošić 2014. The new radiocarbon dates, despite some problems related to the mat in which the hoard (or part of the hoard) was wrapped, cluster in the second half of the 5th millennium cal. BC. See table and comments in pp. 232-234.

[193] Gilead and Gošić 2014: 227.

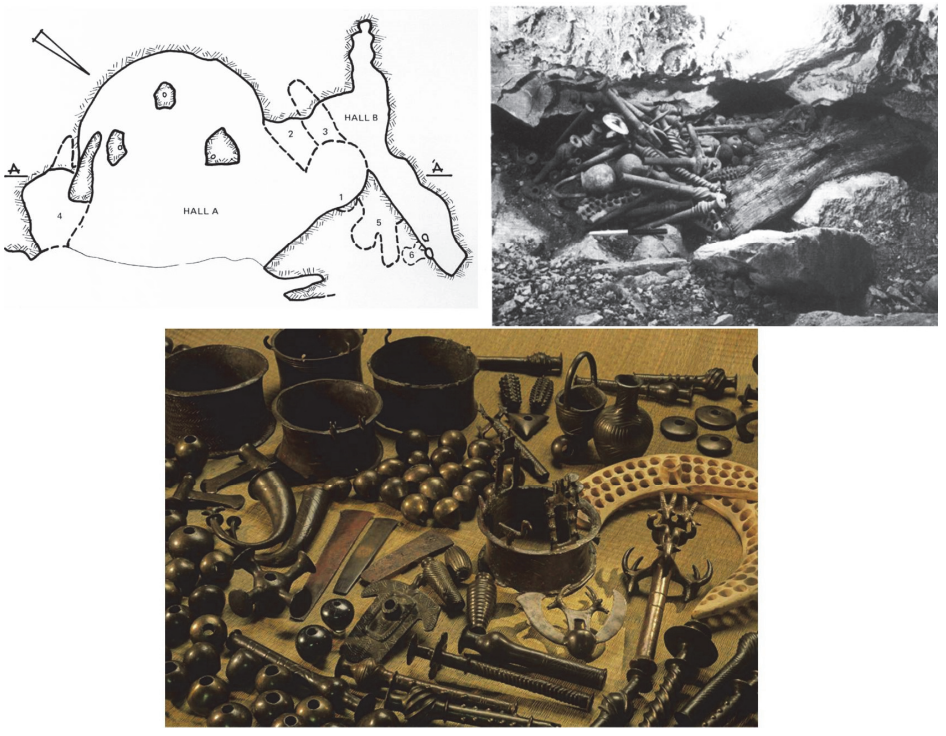

Fig. 6.20. Nahal Mishmar. Top: Plan of Cave 1. After Bar-Adon 1980: 4. Right: part of the treasure *in situ*, north wall of Cave 1, after Moorey 1988: Pl.1 (photo by W. Braun). Below: Selection of metal objects, after Ilan and Rowan 2015: Fig. 4b (photo by K. Garrett).

Given the amount of metal objects discovered here, the term 'prestige' feels thoroughly inadequate, even allowing for the build-up of multi-generational use. Moreover, as has been explained, mortuary commemoration at Nahal Mishmar, as in other Judean Desert caves, is highly unlikely, so the question is: what kind of ritual purpose were these objects fulfilling? The caves were relatively close to the Beershevan villages. Still, the toil required to carry a heavy burden for at least 50 km and the final climb to the cave are factors that somehow entail that we are missing an intermediary step or location. The objects could have been fashioned (cast) outside the villages too, of course, something that is suspected but cannot be proven.[194] My impression is that the fashioning of maceheads (over 240),[195] staff heads —from the unconspicuous scepter to the spectacular double stag—, ornamental metal tubes,[196] discs, horns and the famous crowns—sometimes simple, a few ornate and full of symbology—may

[194] At Abu Matar, Area M, hammerstones, ore, crucible-furnace fragments, and abundant slag were found, but no trace of casting molds. See Golden 2009: 288, with references. Goren's petrographic analysis of the stone or clay mold fragments that were still inside some of the Nahal Mishmar and other objects indicated provenance from the Jordan Valley-Judean Desert area (Goren 2014), but this is hardly surprising.

[195] Moorey 1988: 174. Traces of wooden shafts were found in some of them, as well as a folded fragment of linen and bitumen incrustations.

[196] See photograph in Klimscha 2013: Fig. 10.

have not only been intended for personal use but also as part of some kind of installation(s), so a closer location to the caves for practical reasons cannot be discounted. Were these groups periodically performing ritual in some sacred and secret place (e.g. head of a spring), and then hiding the fixtures and regalia in the cave, or where they performing the ceremonies inside the cave? Gilead and Gošić posit that the artifacts were hidden away at the end of their "lives".[197] But why the scarce number of human bodies then? Or why not transform the artifacts back to their basics, melt them and bury the results in the cave or the village cemeteries or in the furnace pits as an offering? The occasional find in foundation deposits (e.g. a macehead and a scepter in the corner of a rectilinear building at Shiqmim)[198] aligns well with what one would expect, but only serves to obscure matters more. My conclusion is that significant finished objects are missing in the villages because the first smelting stage was not apparently ritualized, but subsequent ones may have been, and this is somehow tightly linked with the penchant for solemn and richly symbolic artifacts which were probably used/wielded by a select yet numerous subgroup. The hoard in the cave was a cache (or were caches) meant to be eventually retrieved. The artifacts were hidden, but not deeply buried. Their abandonment means the abandonment of the landscape.

Another step or location that we may be missing is the original one, the mines. We are still missing evidence for securely-dated activity at the MBS Formation that encompasses both the Feynan and Timna areas at this period, as well as the location of the sources of copper of mixed composition (naturally including variable proportions of arsenic, antimony, nickel, lead or silver) that were either used as mined or mixed deliberately to fashion the most elaborate objects and the ingot found at Bir es-Safadi.[199] In my opinion, that enigma as well as others pertaining to the provenance of beads made of precious stones,[200] will eventually be solved once the area around the Red Sea is better surveyed and investigated, particularly on the side of Saudi Arabia. The next stage in metallurgical experimentation did not have to wait for long. The excavations at al-Magaṣṣ and Hujayrāt al-Ghuzlān, next to modern Aqaba and close to the Timnian mines (see figure below), have now allowed for a better understanding in the progression of this activity at the beginning of the 4th millennium BC. Several radiocarbon dates place both between 4100 and 3500 BC. Who were these settlers and where they came from is a different matter altogether. Hujayrat, which grew to be a good-sized, well-planned village with an irrigation system, had a mixed agropastoral-metallurgical-bead manufacture economy.[201] Therefore, there are two possible scenarios as concerns the first link in the chain:

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197 Gilead and Gošić 2014: 235; Gošić and Gilead 2015.

198 Levy et al. 1991; macehead and scepter top.

199 See, *inter alia*, Golden 2014; Ben-Yosef et al. 2017.

200 Bar-Yosef Mayer et al. 2014. Even though the beads from Nahal Mishmar cannot be securely assigned to the Chalcolithic, the authors find parallels with other assemblages.

201 For now, material culture shows connections with predynastic Egypt. There are also wall paintings, depicting horned animals, hand and foot imprints. See references in Klimscha 2013: 39f. Klimscha considers Hujayrat the next stage in metallurgical innovation after the Nahal Mishmar hoard.

either the Beershevans were mining the ores themselves, which is certainly possible since they knew the desert well, or they were relying on groups with whom they had ties. If the Beershevans were not the only ones with the precise knowledge of location and type of ore, and perhaps also not the only ones who were experimenting with metals, it is possible that they were not the only suppliers of metal objects to other communities in the Levant.

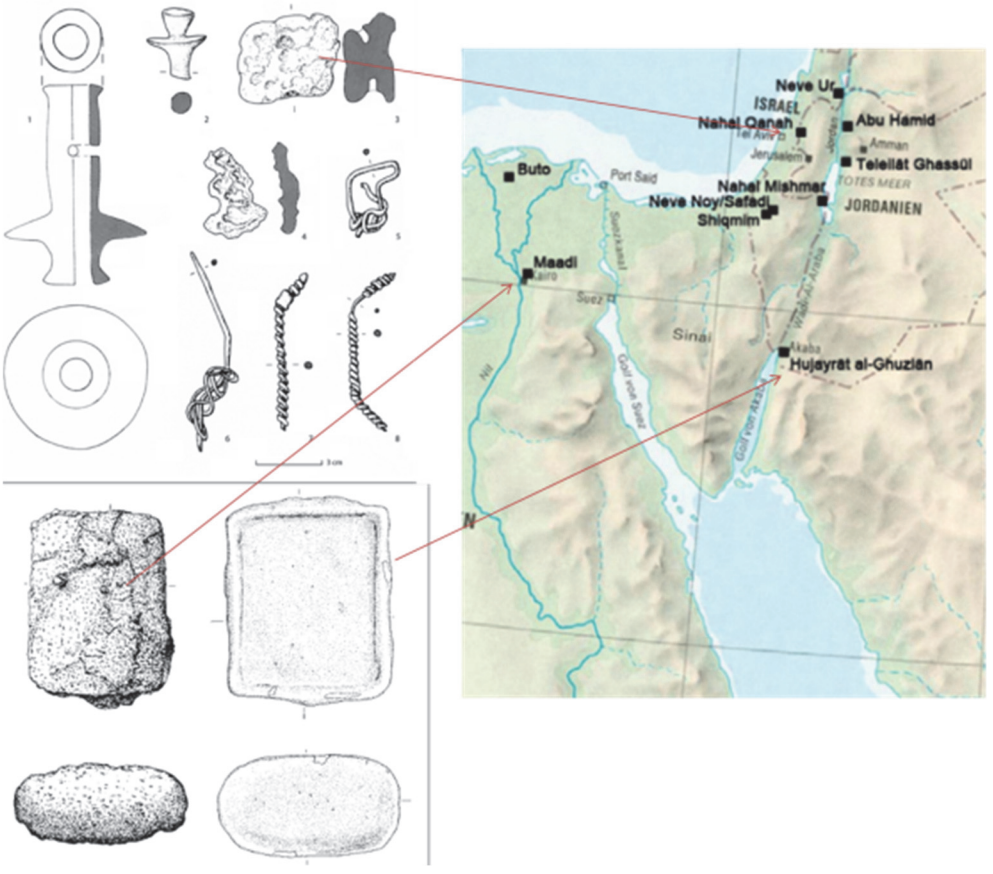

Fig. 6.21. Metallurgic continuity. Top left: Metal artefacts from Nahal Qanah. Below: Ingots from Maadi, Egypt and similarly shaped moulds from Hujayrat. Right: Map showing key sites. Adapted from Klimscha 2013: Figs. 24, 12, and 1.

The hippopotamus ivory, maybe the ostrich eggs, the gold rings from Nahal Qanah, the pendants made with shells of Red Sea, Nilotic, and Mediterranean provenance, the beads made with precious stones, and the copper artefacts—all these objects—are pointing in the direction of the south. We are looking at sporadic exchanges with southern communities, exchanges that very visibly intensified in the following period.[202] Hence, an attribution of the provenance of these polymetallic ores to

[202] Atkins 2017.

Anatolia and even further away, as some claim,[203] at a time of limited metallurgical experimentation in the north, is in my opinion as far-fetched as the lapis-lazuli beads found at Nahal Mishmar and the *nawamis* of the Sinai coming from stratospheric Afghanistan.[204] Before we embark our first metallurgists in expeditions to mountains that they do not know, to meet people whom they do not have alliances with and who have different cosmologies, we should think twice, lead isotope analysis notwithstanding.[205] Down-the-line trade cannot serve as a panacea recipe to justify very long distances.

Metal objects in other cave hoards, like those providing diversity to the assemblages of Peqi'in, Nahal Qanah, and Givat Ha'oranim, would have been indeed regarded as items of extraordinary prestige, valued for their scarcity and symbolic associations. They never became numerous enough to be socially relevant though. Whether these communities obtained these objects from the Beershevans or from other southern communities, they do not seem to have acquired them in a quest for knowledge of their own.

6.4.2.3. Axes and adzes, adzes and daggers: from sodalities to leadership ambitions

As illustrated by the ethnographic examples given above on the role that smiths had in certain regions of Africa in royal investitures and funerals, and their fashioning of royal insignia, the temptation to see a connection between the control of metal and its contribution to legitimating the right to rule seems unavoidable. Yet, although a connection to hunting and war lies also underneath the political, it is by no means particularly explicit. As Herbert observes, it is more about what ritualized activities practiced by men led to acknowledged prestige than the requirement—impractical anyway—for an aspiring ruler to be a competent smith, a reputed hunter and a distinguished warrior. From the many accounts that Herbert gives in her book, it becomes rather apparent that those skills belonged to legendary ancestors or mythological heroes, and the incumbent usually benefitted from lore and ritual to legitimate his right to rule.

As concerns the first stages of metallurgical experimentation in the Balkans, I suspect that this activity became an attractive challenge for men of all ages. The two most conspicuous big implements are pick-axes and adzes/chisels. At Pločnik, a total of 45 copper objects have been discovered in successive excavations, with only the occasional body ornament. One thing that is rarely mentioned, however, is that the early versions of these implements, particularly in the case of the axes, rarely surpassed 5 cm of width and 15 cm of length, and although they are more or less standardized by form following specific geographical areas, it is clear that there was

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[203] Shugar 2018.

[204] *Contra* Bar-Yosef Mayer et al. 2014: 270.

[205] For a cautionary discussion on the extent of information that can be extracted from isotope analysis, particularly of a single element, when applied to metal provenance, and a warning about conclusions extracted without taking other factors into account (e.g. multi-source composition, reuse), see Pollard et al. 2014.

no standardized mold or casting technique, making each object unique.[206] The interest lies in their continuity throughout time, and their idiosyncratic value within the Carpathian (Tisza-Bodrogkeresztúr) cultures of the last centuries of the 5th and the beginning of the 4th millennium BC, and their subsequent adoption across Europe.

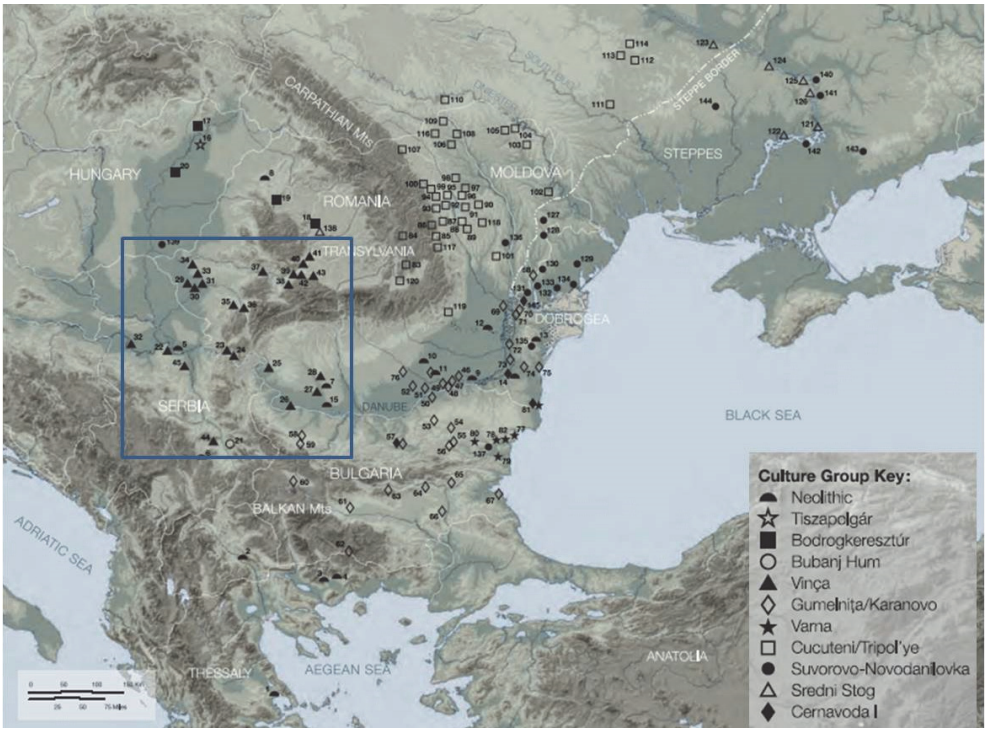

Fig. 6.22. Map of main Neolithic-Chalcolithic sites in southeastern Europe. Marked in blue is an estimation of the core area of the Vinça culture and of first metallurgy. Adapted from Anthony et al. 2010: 26f (see pp 27f for list of sites), after D, Anthony, D. Brown, the Ancient World Mapping Center and CoDe Communications and Design.

Nevertheless, given the prolonged period of initial experimentation, it is surprising not to see shaft-hole adzes truly resembling utilitarian hoes, nor copper or gilded spindle whorls or loom weights, nor skeuomorphism visible in other objects (for instance, miniature reproductions of a house or furniture). There are very few awls, burins and fishhooks; there are no female figurines wearing metal jewelry.[207] And despite the fact that—whenever use wear analysis has been conducted—the evidence

[206] Cf. Radivojević and Roberts 2021: 224, and references therein. See Ştefan 2008, who besides giving an overview on the "Vidra" type, mentions known instances of axes found as offerings through or under floors in houses.

[207] There are some attempts at making figurines out of gold foil coming from the Moigrad treasure. A ceramic plate with a gold coating was recovered from one of the Varna graves. The application of gold dust-cinnabar as a coating continued until the beginning of the 4th millennium BC in southwestern Bulgaria/southeastern Serbia, cf. Radivojević and Roberts 2021: 232 for references.

suggests that the axes and chisels cannot have been practical tools,[208] there is a deliberate persistence in their repeated fashioning, and a chronological trend towards bigger and better.

For three quarters of the 5th millennium BC many areas of Southwest Asia and Southeast Europe experienced demographic growth. In the different regions conforming the latter, villages with a deep stratigraphy are called tells, and they stand in contrast with flat, extended sites.[209] For as long as that growth lasted, sedentism got to be increasingly less flexible, but at the same time people benefitted from that prosperity, enjoyed their ties to the land, buried their dead in cemeteries, and established links with neighboring and distant communities that propitiated the occasional rich find in "hoards" or in graves. From the Aegean north through the Balkans and even along western routes into Europe, *spondylus* shells were the object of trade during the late 6th and most of the 5th millennium BC. A woman in France was buried with a pectoral of interwoven shells in a conspicuous display of wealth.[210] However, with the exception of the Karbuna hoard (Moldova),[211] the people of the Cucuteni-Tripol'ye culture of northeastern Romania, did not show a preference for this precious item, and stuck to decorated pottery, figurines, and metal objects to enrich their world. In the Dnieper-Donets II culture to the east, which lasted from ca. 5200 to 4200 BC, plates made of boar tusks emulated the shape of the shells in another manifestation of selective emulation.[212]

Adopting the perspective of hunters all over the world, metallurgy may have represented a suitable alternative enterprise for restless men missing the challenges of big-game hunting expeditions: it entailed journeying in mountains where the ore sources were (and we now know that different ore sources were simultaneously exploited even by one community), maybe negotiating with other groups for access, the risks of mining and the hiding,[213] experimentation with the smelting and casting,

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[208] But see Kienlin 2014: 451f. On the widespread use of copper implements during the Copper Age in the Balkans and the TB culture graves from the Carpathian Basin, Kienlin warns: "Rather than focusing on their conspicuous deposition during burial ceremonies, it is apparent that it was precisely their presence in more mundane situations and activities that substantiated the axes' suitability as markers of male habitus and–in more general terms–the potential of copper to play a role in the expression of a person's identity and social standing."

[209] For an overview, see Porčić 2019: 348-353.

[210] Séfériadès 2010, and see fig. 8-13. He assumes that in this period there would have been no symbolic associations with the marine provenance of this mollusc, but see fig. 8-15, a pendant with engraved symbols that look like star constellations, found in Voïvodine, Serbia.

[211] There were 444 copper objects, including an ax and a couple of adzes, and 270 ornaments of mostly spondylus shell, all allegedly stored in a single pot, according to Dergachev. It is dated to around the mid-5th millennium BC.

[212] Anthony describes this object, found at cemeteries like Mariupol and Yasinovatka, as follows: "Boar's-tusk plaques were restricted to very few individuals. (…) They may have been meant to emulate Tripolye A copper and Spondylus-shell plaques, but DDII chiefs found their own symbols of power in the tusks of wild boars" (2007: 181).

[213] Rudna Glava in Serbia and Ai Bunar in Bulgaria are confirmed mining sources at this period by excavation, not only XRF or isotope analysis. Both had pottery and stone tools, interpreted as votive offerings. The first was mined with a depth of 2 to 3 meters and 100 m long. Both were filled back, and this was maybe not due to ritual protocols but to a wish to keep their location secret.

and communal prestige derived by the use of beautiful or impressive metal objects. Even if women and girls may also have participated and helped all along the *chaîne operatoire*, this was eminently an activity made by and for men to enjoy the physical and empirical challenges, the sodality-like experiences,[214] and the potential gain of individual prestige for a master smelter and caster, maybe extended to the clan leaders. This secrecy is admittedly difficult to prove, and it relies on an observation of staccato-like transmission. There are still unresolved uncertainties as to how exactly "supply networks" truly operated. For instance, Radivojević and colleagues remarked that bead making was practiced across the site of Belovode, but actual smelting was restricted to a single trench. "This gains further significance in view of the complex supply networks which are visible in the multi-source origin of the stylistically homogeneous Pločnik artefacts, and the multi-consumer exploitation of a single ore source as seen in the so far un-provenanced but isotopically and chemically well-defined group of 16 Late Neolithic and Chalcolithic artefacts found along the Danube".[215] There is no reason to infer, however, that all the groups using copper were mining and smelting. In addition, metal obtained from a cast object may have been melted and re-alloyed with other objects to render really complex compositional signatures[216]—even if only a few signatures.

The assemblage of figurines found in a standard house of the late Vinça culture site of Stubline (ca. 4600 BC) serves to illustrate male collective leadership, particularly when counterpoised to alternative sets found in other regions (see figures below). The 43 figurines were found close to the oven in a corner of the house, in the proximity of loom weights. It is suspected that the house was burnt down soon after their rather planned arrangement in groups, occupying an area of around 1.2 m^2.[217] The figurines were modeled according to what is believed to be a "bird-like" appearance, but may actually represent hooded individuals. Eight miniature tools—two hammer-axes, three pick-axes and three mallets or scepters—and some fragmentary ones, were also retrieved, although not all figurines featured holes to allow for the insertion of these tools.[218] At Selevac and Divostin, sets of figurines were found, but they did not come with tools. Crnobrnja, however, establishes a single cultural block and further differentiates Vinça figurines from the set excavated at Platia Magoula Zarkou, in Thessaly, found inside a miniature house. He believes that the weight of the community there was heavier than the household unit at Stubline, although numerous undifferentiated houses were built in close proximity at Stubline. Nothing as substantial as tell architectural preferences may be correlated to these and other assemblages where miniatures represent a particular vision of the

[214] See comments in Radivojević and Roberts 2021: 250 on the smelting experiments conducted by Radivojević and her team at Pločnik, requiring two teams of six people to operate the blowpipes during the 60 minute process, a "master smelter", and a drummer (the latter based on ethnographic reports from African iron smelting, requiring strong and well-coordinated bellows operators).

[215] Radivojević et al. 2010: 2785f.

[216] Pollard et al. 2014.

[217] Crnobrnja 2011: 135f.

[218] There are hints of similar occurrences at two other sites, but unfortunately, they are random finds without context, see references in Crnobrnja 2011: 134.

communal world. What the Stubline assemblage emphasizes is secrecy and a club-like organization of ritual and leadership. While the male-exclusive element is not emphasized, it is nevertheless present, and it is clearly predicated upon the wielding of metal objects (those without them representing, perhaps, the uninitiated). The council-like character manages to convey rank through the sub-sets composing the groups and the fact that there were only three scepters.

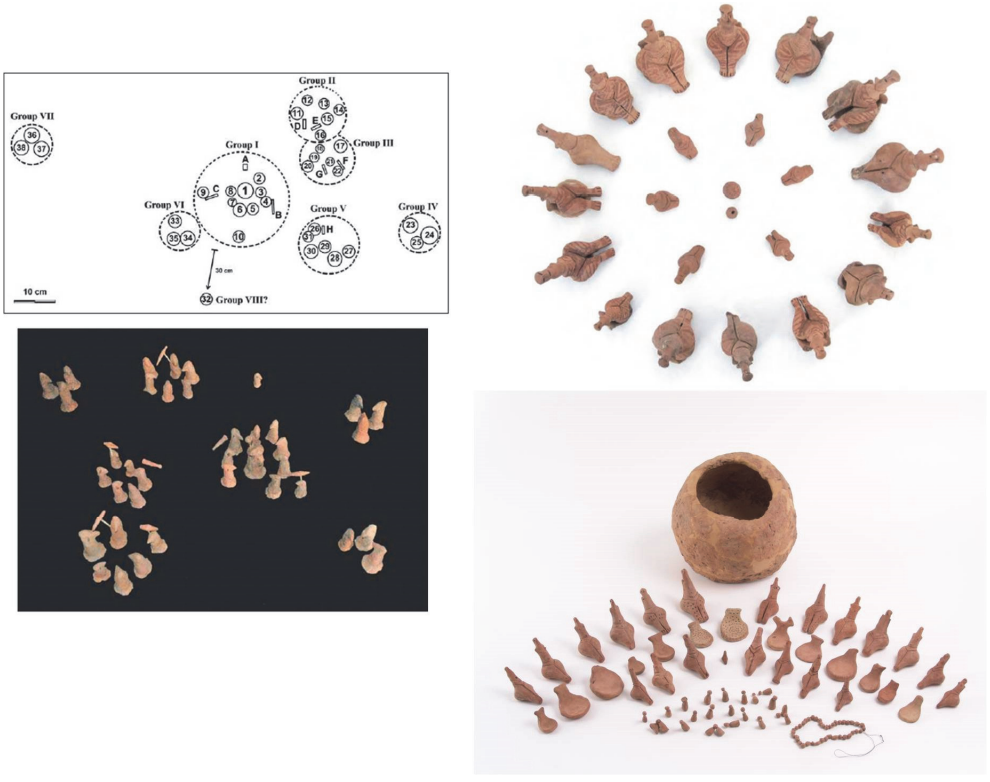

Fig. 6.23. Gender-social roles *via* figurines. Left above and below: clusters of figurines as they were found at a house in Stubline, and reconstruction with the figurines and tools retrieved. After Crnobrnja 2011: Figs. 8 and 10. Right: Reconstruction in a circle of the set of 21 female figurines (15 in the outer circle), 13 chairs, and 2 mini-pottery items from Poduri-Dealul Ghindaru (Neamț County Museum Complex, Piatra Neamț). Reproduced from Bailey 2010: Fig. 5-1. Below, a very similar set of 21 figurines, 13 chairs, mini-clay items and beads from Isaiia-Balta Popii. Courtesy of F. Tencariu.

Palaguta, who has examined figurine assemblages of the Late Neolithic-Early Copper Age known to date (12 assemblages) argues for a deliberate organization since Precucuteni-Early Tripolye times in sets of six-seven male-female figurines, which may have been multiplied by two —as exemplified by the assemblages from Poduri-Dealul Ghindaru and Isaiia-Balta Popii, which in my opinion are nevertheless all

undeniably female.[219] In any event, the arrangements of anthropomorphic figurines in sets and subsets, and their frequent disposition in a container/house model, are a good indication of a well-balanced social organization at the decision-making level. While figurines at discrete cultural horizons emphasize different body parts and render carved or painted features depending on the fashioning style preferred—thus conveying male and female roles—, all of the Stubline figures are hooded and enigmatic, their role conveyed through their position in the sub-group and the tool.

Fig. 6.24. The genderization of the 'domus' (=balance). Left: set of figurines, house model, and furnishings from Ovcharovo, Bulgaria (Gulmeniţa-Karanovo VI culture), reproduced from Palaguta 2016: Fig. 3. 1 and 2. Right: set of figurines from Dumeşti (Cucuteni A3, ca. 4200-4050 BC). Reproduced from Bailey 2010: Fig. 5-4a ("Stefan cel Mare" Vaslui County Museum). Below, left: male and female "thinkers" from Çernavodă (ca. 5000-4600 BC). Reproduced from Bailey 2010: Fig: 5-9 (National History Museum of Romania, Bucharest). Right bottom corner: figurines from Koshilovtsy, Tripolye C1-C2, with painted clothing and holes indicating fixture-like arrangements (early 4th mil. BC). Reproduced from Palaguta 2016: Fig.1, 10-11.

[219] Palaguta 2016. See Ursulescu and Tencariu 2020: Figs. 1b, and 2b, where the detail of big and small figurines shows the femaleness of all figurines, despite other signs of distinction (body paint, incisions, etc.) and the lack of emphasis on heads and breasts. They are another variation of the "female seated anthropomorph", as seen in Ch. 4. Also, the "tokens", "furniture" and small items show a lack of functional boundaries. Some small figurines and chairs display, at best, a connection to animal morphology.

It is quite possible that straightforward, direct migration helped with the transmission of the initially acquired metallurgical knowledge of the Vinça villagers after ca. 4600-4500 BC, following the observed decline and abandonment of settlements in this area of the Balkans, which may be the reason why the Karbuna hoard in Moldova represents an intrusion. If that dispersion had more to do with disease[220] than colder environmental conditions (the Piora I oscillation would coincide with the second episode of observed dispersion in the region, mostly affecting the area to the southwest of the Black Sea, at ca. 4200 BC),[221] this could perhaps support the notion of higher control of a new technology and one's surroundings as a reactive response to crisis. In any event, the "warrior" outlook that scholars usually associate with metallurgy will be missing until the emergence of daggers in Eurasia during the 4th millennium BC.

The sense of a male-exclusive activity favoring the constitution of male councils is also missing from the goldsmithing[222] undertaken by the Varna communities, despite the fact that the assemblage of grave goods recovered from Grave 43, a male adult, may suggest the opposite (see figure below). Although surrounding settlements in the Dobrogea and beyond[223] were also experimenting with placer gold retrieval and manipulation, perhaps in the context of well-developed copper mining,[224] it is clearly that only at this cemetery we find *sui generis* channeling of prestige and creativity, and prestige based on skills as much as personal biographies. Given the amount of literature on this topic, I will circumscribe my comments to emphasizing the latter point. First, it should be noted that: 1) the villages making use of the cemetery probably lie under water right now (current Varna Lake);[225] 2) the nearby site and cemetery of Durankulak maintained a small population throughout its occupation;[226] and 3) Varna was located on the western coast of the Black Sea, a confluence of terrestrial and maritime networks mobilizing several precious raw materials.[227]

Recent dates from Varna I anchor the duration of the cemetery between 4690 and 4330 BC,[228] but it is possible that the Varna II and Durankulak cemeteries, where

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[220] A recent study has been able to prove the very damaging impact of tuberculosis on the bones of several individuals at a 5th millennium (ca. 4900-4600 cal. BC) Hungarian site (Masson et al. 2015). For a summary on the end of the Vinça settlements in Serbia, see Borić 2015, including discussion of the "burnt house horizon". The comparable dispersion events north of this area, in the Hungarian plains and along the Tisza River, either happening simultaneously or overlapping, have been extensively debated within the framework of a more temporary, multi-nucleated territorial organization.

[221] Haas *et al*. 1998.

[222] For an updated, comprehensive overview, see Radivojević and Roberts 2021: 229ff.

[223] See map in Leusch et al. 2015: Fig. 1.

[224] One recent discovery comes from a small cave of difficult access in Cheile Turzii, Romania, though of a slightly later date than Varna (4100-3900 calBC). Cf. Lazarovici *et al*. 2015: 338ff. The goldsmith used copper tools.

[225] Eight villages, with evidence for copper smelting, cf. Ivanov 1993.

[226] Todorova et al. 2002.

[227] Ivanova 2012.

[228] Krauss et al. 2017.

gold items were also found, partly overlap with the earliest phase of Varna I. Already in 2007, Higham and colleagues allowed for a chronological factor in the hierarchization of the burials according to grave goods, noticing that the poorer burials were post-4500 BC (but may actually be later according to recent calibrations). Around 70 graves included gold artifacts, but of these, only 5 comprise over 80% of the total gold assemblage.[229] Together with the frequent attestation of items (ornaments and tools) made of pottery, stone, bone, copper, precious stones, and *spondylus* and *dentalium* shells, a preliminary observation is that mortuary provisioning became increasingly popular, but only a few were honored with more lavish displays. Furthermore, many of the 320 graves (47 out of more than 200 excavated) are cenotaphs, that is, empty graves,[230] and frequently very well-provisioned. It would seem that from ca. 4600 to 4400 BC, at the peak of the exchange network practices interconnecting southeastern Europe, the Varna communities were planning ahead and choosing to enjoy their *joie de vivre* also in the afterlife. Mortuary ritual could not be more different then than that exhibited by the later Southern Levantine communities. Varna I looks like a celebration of prosperity, with undercurrents of competition, and if one of the interpretations for the cenotaphs were true—that people did not mind losing beautiful objects even if their bodies ended up being disposed of elsewhere—prestige and social ranking may have been motivational factors.[231] Grave 36, a cenotaph, revealed four layers of deposition, and its assemblage included a miniature diadem, a gold scepter, a gold astragal, two gold bull-shaped appliqués and gold bracelets, rings and strings of beads. More than the items that have led to straightforward interpretations (an infant or a chieftain), what I find puzzling with this cenotaph is the sense of completion, of a finished identity despite the superimposed deposition. Maybe these symbolic graves were conceived as one part of two mirrors, one with the body, another with goods (the aim being confusion, protection of the spirit). Three of these graves, in close proximity, included flattened clay masks mimicking heads, but both this occurrence and the larger empty-grave practice should be treated as a unique phenomenon.[232] Finds at these three graves, moreover, serve as caution against fixed gender roles, since each included a copper pin, a flint knife, and a spindle whorl.[233]

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[229] Leusch et al. 2015.

[230] Also at Durankulak.

[231] One of the most elaborate has been refined throughout the years by Chapman, who in his latest work differentiates broken, enchained objects connecting people; and hoard-like, wealth-for-the sake-of-wealth ones (2020).

[232] See some interpretations in Slavchev 2010: 200f.

[233] See also Stratton 2016 on similar observations about the cemetery at Durankulak, where one of the female burials included a stone axe. She does observe, however, that there does seem to be more variability and different pottery types in male burials. Both the greater diversity of male grave goods and the caution about gender roles were also my impressions after cursory examination of Higham et al. 2007: Table 1, where if grave 255 were confirmed as a female, we would have a copper axe and a stone adze.

Fig. 6.25. Experimenting with gold at Varna. Left: reconstruction of Varna Grave 43. Reproduced from Slavchev 2010: Fig. 9-11. Top right: assemblages from Graves 4 and 36, cenotaphs. Reproduced from Leusch et al. 2015: Fig. 2. Bottom left: clay mask with gold appliqués mimicking a face, from a cenotaph. *Ibid*.: Fig. 8 (third image). Bottom right: ring idols of different mineral composition, suggesting a search for particular hues. *Ibid*.: Fig. 4. Photos by B. Armbruster and K. Dimitrov.

Regarding the individual in Grave 43, a thorough anthropological analysis of this man of 50 to 65 years of age revealed that he had pathological conditions related to squatting and that his lower arm muscle attachments indicated localized robusticity.[234] Together with the copper pick (a skeuomorph of an antler one?) and the tube by his right thigh, which Radivojević and Roberts see as a *tuyère*, or the decoration of a clay *tuyère*,[235] the interpretation of this individual as a goldsmith is a plausible one.

In any event, experimentation with gold by the Varna Lake peoples is again hinting at very specific trajectories that should be investigated in a parallel fashion to metal consumption. Only some communities in Southeast Europe chose to invest time and energy in getting involved in the whole process, from mining, to the trial-and-error of smelting and casting, to the creativity of finding new but familiar shapes, details and colors. In this sense, gold was more flexible and prettier than copper, although copper could start competing with stone and bone at a certain point down the line.

As for the climatic downturn taking place ca. 4300-4200 BC and its debated catastrophic consequences—flooded Black Sea coastal areas, burnt sites, the

[234] Leusch et al. 2017.

[235] Radivojević and Roberts 2021: 231.

dissolution of tell life in the Gulmenița-Karanovo VI-Varna triangle, and the series of small scale invasions penetrating this area of the lower Danube basin coinciding with the last stage of the Varna cemetery use—, caution has been recommended by recent scholarship.[236] Recent DNA analysis[237] and the observation that the tell-dwelling communities in these particular regions chose to rely on pastoralism and disperse, or migrate northwards—as the emergence of the Tripolye megasites (see next chapter) and the gradual expansion in the northern Black Sea regions can attest to—, the picture should be one of adaptation and interaction instead of catastrophe, invasion and conflict. The eastern component of the Suvorovo-Novodanilovka culture is visible in the dispersed cemeteries in the Danube, distinctly different from that of the settlements around, but, significantly, with pottery reflecting the locals' influence. Although Suvorovo and Giurgiuleşti stand as type sites, there are around forty of these scattered to the north of the Danube delta, down the coastline to Varna, and following the river valleys into Cucuteni territory.[238] Grave assemblages are characterized by an abundance of copper, shell (though not *spondylus* or *dentalium*) and boar-tusk ornaments, and tools or weapons of different materials, including copper. Animal bones are frequently found in the proximity of the graves. A very good example of this selective hybridity is the composite javelin found in one of the Giurgiulești graves, with pieces of wood, antler, bone, flint, and gold cleverly assembled to form an impressive weapon.[239]

The interpretation of late 5th and early 4th millennium BC events in terms of violent invasions by steppe peoples has been most comprehensively postulated by D. Anthony, who integrated past scholarship publishing in Slavic languages and the latest regional discoveries and research of the day.[240] Anthony's goal was to defend that Eurasian peoples riding on domesticated horses since the 6th-5th millennium BC widely spread a proto-Indo-European language. He therefore picks up the catastrophic interpretations of this climatic downturn, and the occasional attestation of skeletal evidence suggesting violence[241] in order to weave this and other elements—e.g. a heavier reliance on rye—[242] into his "end of Old Europe" narrative.

From my point of view, the reasons underlying a more male-oriented social organization or at least the display of male-related values by semi-nomadic populations of the 4th millennium BC could serve as a theoretical bridge to understand the later Kura-Araxes phenomenon in North Mesopotamia. It is undeniable that, from the relative collapse of the Danubian sedentary communities onwards, bigger and diverse metal axes and adzes, soon to be supplemented by the first daggers, will become widespread, first in the northern Balkans-Hungarian Plains, then elsewhere,[243] including eastwards. Moreover, the presence of jadeite axes coming from western

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236 See, e.g. Porčić 2019: 375f.

237 Mathieson et al. 2018. The scenario is one of sporadic genetic contact.

238 Bicvaev 2010.

239 *Ibid*.: Figs. 10-12, 10-13.

240 Anthony 2007, especially Ch. 11; Anthony 2010.

241 This theory has been challenged: see e.g. Kohl 2007.

242 Anthony 2010: 49.

243 Kienlin, however, warns about "reversible" progress in Central Europe (2014).

Europe,[244] the refinement exhibited by the flint macro-blades,[245] and, in the steppes north of the Black Sea, the lack of subtlety in the fashioning of stone mace-heads—frequently featuring animal heads (horses, according to Anthony)—are all suggestive of increasingly aggressive, and openly expressed, male roles —or male dreams.

6.4.2.4. The defensive/apotropaic value of metals

Several scholars currently support the emergence of a warrior culture in the northern regions, visible through mortuary ritual or hoard deposition.[246] But what does 'warrior' mean exactly? Horsemen, one-to-one combat weapons, and charismatic chieftaincies will be only arriving two thousand years down the line.

—Defending herds and people (ca. 4000-3400 BC)

The question of sedentism and how to define it, as we saw in Chapter 5, is once more a problematic issue. As pastoralism became widespread in the highlands and valleys, it is hard to discern patterns and their evolution. At Mikhailovka I (3700-3400 BC), in the steppes north of the Black Sea, sheep-goat, cattle, horse and pigs were kept in 65%, 19%, 9% and 2% percentages, respectively (NISP analysis). Moreover, imprints of seeds on pottery sherds show that emmer wheat, barley, millet and bitter vetch were cultivated,[247] so there was also an agricultural effort that went beyond stock feeding requirements. At Arslantepe VII (roughly 3900-3400 calBC), NISP analysis shows a preference for sheep and goat (never exceeding 70%) and variable percentages of cattle and pig, the latter always in small numbers.[248] Barley, wheat, einkorn, emmer, and oats were recovered, together with smaller percentages (although deposition and recovery are always and issue) of lentils, acorns, grape seeds and even wild plants like fumitory, chamomile, and crocus supplementing the diet or used for medicinal/ritual reasons.[249] At Arslantepe, the agricultural component is far more important. However, in a building at this site, bones of horse, brown bear and lion were found, and bear and lynx bones were unearthed at another location.[250] This is significant, because the presence of predators of the animal kind is in my opinion a far more realistic approach to understand the dynamics of pastoralism and metallurgy during the 4th millennium BC in the north than the biped predators in the form of pillaging hordes are. Bear bones have been recovered from sites across Anatolia at this time. Bartosiewicz reports that until the 19th century AD lions were numerous in the reedy marshbeds along the Tigris and Euphrates, and that lions in prehistory were distributed across Southeast Europe, Anatolia, and

244 Pétrequin et al. 2013.

245 On the prestigious flint "macro-blades", found frequently in males' graves, and showing signs of use as meat-cutting tools, see Skakun et al. 2020.

246 Hansen 2021, Palumbi 2021, Helwing 2012a.

247 Anthony 2007: 269.

248 Bartosiewicz 2019.

249 Sadori et al. 2019.

250 Bartosiewicz 2019: 279, 284.

Southwest Asia.[251] Although wolf bones are not attested at Arslantepe, the modeling of a wolf head made of electrum at one of the graves at Gawra X[252] indicates that this predator must also be included as potentially threatening to herds and humans, and the presence of dog bones at Arslantepe VII is quite significant.[253]

Fortifications in the form of ditches and earth embankments are characteristic features of several cultures from the Carpathian Basin to the Caucasus after 4200 BC. Fully mobile pastoralists or people taking their livestock out to pasture would have been more exposed to predators. While javelins and arrows would still have been efficient weapons to fight predators in the wilderness; the axes and maces, too, and eventually metal arrowheads, spear-points and daggers, would have increased the defensive efficiency of small groups and their livestock. It is also theoretically possible that defense against sheep/cattle raiders would have emerged. Defining the purpose of the alloyed copper adzes/chisels is, however, more complicated. They are frequently assumed to have served as carpentry tools,[254] and it is certainly possible that both construction and the making of portable furnishings are behind the variations and frequency of this particular tool shape. Or they could have been agricultural implements.

We may therefore extract a temporary conclusion: that the ability of capable men to protect their herds (and depending on the degree of mobility, their tribes) would have been highly valued, and those who had these skills may have become leaders and been rewarded. Their flexible lifestyle would have allowed these peoples to be in contact with other groups, selling their metal and animal products in exchange for pottery and foodstuffs. There is a lot of variation outside pick-ax and adze shapes, so connecting the dots between these northern cultures and their impact on the southern Caucasus is not easy, and it is largely impeded by a niche-like kind of research. Very briefly, though, and tracing an arch from the Sea of Azov to the Caucasus Mountains, there are still some traits that may be threaded at present in a provisional manner.

To the northwest of the Black Sea, between the Bug and Dnieper rivers, Tripolye megasites were established. Their eastern neighbors would sometimes emulate or acquire some of their material culture. The people around the settlements of Mikhailovka and Sredni Stog started burying their dead in kurgans, some more elaborate than others, and occasionally the grave was covered by stone anthropomorphic stelae. Sites like that of Moliukhor Bugor, where one single long house was excavated, help to show that some kind of flexible sedentism was preferred by many. At Dereivka and Repin, horses represented a very high percentage of the total of animal bones retrieved.[255] Entering the North Caucasus piedmont, there will be three chronologically overlapping cultural horizons (ca. 3300-2600 BC), all around the Kuban River area: Meshoko, Majkop and Novosvobodnaya. They were all

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[251] *Ibid*: 281.

[252] See image at https://www.penn.museum/sites/bulletin/1521/. See also Peasnall 2002: 285, Burial 114. His cist burial was lined on one side with six red jasper stones, in two rows of three.

[253] *Ibid*: 275f.

[254] See, e.g. Palumbi 2021.

[255] Anthony 2007: 268-273.

characterized by unimpressive villages of wattle-and-daub houses, and spectacular kurgan cemeteries.[256] This is the only well-settled area, though. The rest of the Northern Caucasus is only known through isolated metal hoards (e.g. Staromyshastovskaya) and kurgan cemeteries.[257] There is a general trend of increased burial complexity and diversity all over the Caucasus, but an integrated approach of mortuary practices during the 4th millennium is still missing.[258] With the kurgans of the Novosvobodnaya (e.g. Klady) horizon as the expression of "treasure" at its peak, the range and wealth of grave assemblages in general shows creativity, adoption of other's cultural traits deemed prestigious, and a general sense of personal biographies, and yet all part of the clan. Wealthier graves tend to be of male adults, but these are often buried with others in the same grave or mortuary space. The famous Majkop kurgan, the most impressive of those excavated by Veselovskij in 1898,[259] accommodated three chambers, one for a male, two for women. His was the most impressive, but it not only included "warrior"-like metal weapons, but also delicate jewelry in silver and gold,[260] a silver engraved cup, and copper and ceramic vessels.

[256] Lyonnet 2007; Anthony 2007: 285-295.

[257] Hansen 2021: 47f, 50-54. See Fig. 26, showing ceramic vessels with potters' marks.

[258] Unfortunately, Poulmarc'h and Le Mort 2016 only provide an overview of funerary practices in the Southern Caucasus.

[259] I will give only a summary from the account provided by Anthony 2007: 284-291. The tumulus was almost 11m high and around 100m in diameter; the grave chamber having also a considerable size. This chamber was subdivided in three, with two females wearing silver ornaments in the northern ones, and an adult male in the southern one. Among other possessions, he was buried with Early Maikop pottery vessels, a polished stone cup with a sheet-gold cover; two arsenical copper pots; two small cups of sheet gold; fourteen sheet-silver cups —two of them engraved with remarkable animal scenes—, copper tools and weapons. The function of the hollow silver tubes is uncertain. There were sixty-eight golden lions and nineteen golden bulls decorating his clothes. "Under his skull was a diadem with five golden rosettes of five petals each on a band of gold pierced at the ends."

[260] See color photographs in Courcier 2014 (*apud* Korenevskij 2004).

Fig. 6.26. Metal in the northern Caucasus. Top left: Hoard found at Staromyshastovskaya in 1897 during clay extraction, including a silver figure of a bull and a golden lion head. No burial was found. Reproduced from Hansen 2021: Fig. 19. Top right: a selection of metal and other objects from the Majkop kurgan, and, at the lower left corner, the cylinder seal found at Krasnogvardeiskoe kurgan, compared to one found at earlier Değirmentepe. Courtesy of D. Anthony (and see Anthony 2007: Fig. 12.10). Bottom image: metal assemblage from Kurgan I at Novosvobodnaya. After Hansen 2021: Fig. 33.

If Rezepkin's dating of this early kurgan is correct,[261] and it belongs roughly to the mid-4th millennium BC, we are already seeing in the assemblage functional axes and a long blade, precursor of the blades with riveting and of the short swords that would become increasingly attested from the last quarter of the 4th millennium onwards.[262] However, aesthetic appreciation is equally present, and the Majkop kurgan is not exceptional in that regard. A great deal of current literature is devoted to metal typologies, isotope analysis, and discussion on who got what first. Thus, while Helwing and Courcier see Iran or Mesopotamia as the original source of advanced metallurgy in the Caucasus, Hansen argues that it is in the Northern Caucasus where we should look for "the innovative shaft-hole axe" or "dated axe 0".[263] This kind of perspective leads nowhere. All areas involved show a high degree of autonomy as well as increasing contact. What is noteworthy about the hoards and grave assemblages of the Northern Caucasus is the wish for beautiful objects to define a person's history upon his/her departure to the other life. Metal objects are both capricious and semi-standardized; there are interlocking rings with miniature tools, spoons, forks and cauldrons, ornamental implements that may have served to decorate chariots or horses, chisels, awls, etc. But the objects crafted with other materials, bone, stone, flint, the numerous beads of precious stones including lapis-lazuli, the ceramics of local and foreign styles, all of it indicates that these people took pride in their pastoralist way of life and did not consider themselves inferior to the sedentary settlements of the Southern Caucasus and Anatolia. They saw themselves as both fierce and refined, and this mentality carried over to the situation of admixture and cross-pollination seen in the Southern Caucasus during the second half of the 4th millennium BC.

—The co-existence of pastoralists and agropastoralists (from the Leilatepe culture to the Kura-Araxes)

The valleys of the Southern Caucasus represent the meeting point of a double directional impact. Since the first Neolithic settlements in the region during the 6th millennium BC, this newly investigated area has provided evidence of adopting some cultural traits from the south. At this time, it appears as a region where both pastoralists and agropastoralists co-exist without apparent sense of friction, and despite the fact that need of pastures for large flocks of sheep and goats and adequate grazing land for cows would have been necessary to both. However, because of bi-directional migration, admixture or symbiosis, the reliance on architectural and ceramic styles and tempers to conform the traditional cultural packages is fraught with risk (from the end of the 5th millennium onwards; Sioni, Leilatepe-Berikledeebi, Kura-Araxes).[264]

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[261] Rezepkin 2000.

[262] Two kinds of spearheads would soon appear and become ubiquitous during the Kura-Araxes expansion, see Courcier 2014: 613f.

[263] Hansen 2021: 49; Helwing 2012b; Courcier 2014: 608.

[264] Sagona 2014.

Metal parallelisms based on form and compositional analyses indicate both cross-pollination and autonomy. Smelting evidence is only retrieved in settlements, gradually more abundant.[265] Rarely do all the ceramic types present themselves in a "pure" fashion, and several overlap and coexist in time. The old archaeological adage that "pots are not people" could not be truer in the case of the Southern Caucasus. Sites where a "Mesopotamian" influence is discerned are Berikledeebi, Leylatepe, and Böyük Kesik (all roughly spanning the first half of the fourth). Links with the south, probably maintained over time, are observed in the rectilinear building excavated at one level of the first, mud-brick architecture of the second, and in general, the chaff-tempered wares, sometimes with potters' marks, the occasional stamp, and the infant jar burials. Sites like Sioni, straddling the 5th to 4th millennium BC, indicate that flexible sedentism (based on analysis of flint-obsidian tools and lack of agricultural implements) preceded the founding of new settlements.

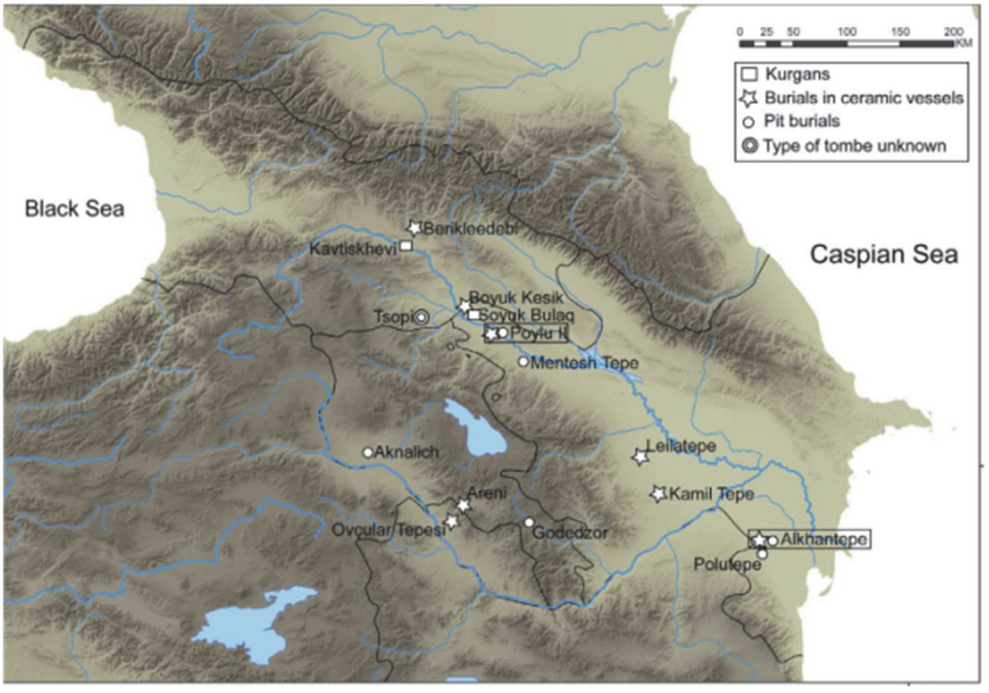

Fig. 6.27. Map of Chalcolithic burial types. After Poulmarc'h and Le Mort 2016: Fig. 7. Reproduced with the permission of Podwene Poulmarc'h.

The kurgan sites of Soyuk Bulaq,[266] Kavtiskhevi, relatively close to Berikledeebi,[267] and Sé Girdan, all the way down to Lake Urmia,[268] indicate that the Southern Caucasus saw "intrusions" from the north (noteworthy are the stone maces with

[265] Courcier 2014.

[266] Lyonnet et al. 2008.

[267] Makharadze 2007.

[268] Muscarella 2003.

carved heads representing a horse and a feline from Soyuk Bulaq and Sé Girdan). This impact will be more visibly observed during the following centuries. Even if ceramics at the kurgan complexes and settlements of the Caucasus and beyond (Anatolia, northwestern Iran) correspond to specific styles, the general picture is one of selective emulation, reflecting either exchange of know-how in the case of admixture; or commodity exchange in the case of symbiosis. Thus, the metal hoard of the acropolis period at Arslantepe at the end of the 4th millennium BC, treated in the next chapter, may be considered a product of exchange, its 9 swords and 12 spearheads acquired to be used by a small number of local individuals charged with protection duty, or quite simply to be exhibited in some kind of procession or ritual (together with the four-spiral ornament).

Finally, the idea of "sacrificial" wealth (vs administrative or commodity-like wealth), posited by Wengrow to explain the role of metal in mortuary contexts during the late 4th and especially the first half of the 3rd millennium BC in all the northern regions,[269] is an attractive one, as long it leaves room for diversity. The climatic downturn is even more noticeable and generalized than it had been a thousand years earlier. What is certainly true is that, while sedentists tended to make use of metal objects for utilitarian purposes (first small implements or ornaments, gradually tools and weapons), metal retained its apotropaic character for those pastoralist or agro-pastoralist groups that we subsume under the Kura-Araxes phenomenon. It culminated in the occasional large hoard deposition that we see at certain locations in the early Bronze Age. Recent research on the extraction of salt, copper and gold during the 4th and 3rd millennium in the Caucasus indicates that their exploitation was in most cases not visibly linked to any site in particular and was undertaken by pastoralist or agropastoralist communities.[270]

The notion of sacrificial wealth gets more complicated with recent proposals of human sacrifice within the framework of lineage-based prestige. I will try to give a brief summary of some of the trends that are emerging, and a few objections to the lack of definition of terms like 'royal'.

- Metal as an apotropaic material accompanies changes in mortuary trends. To the examples given above we could add the infant jar burial with three silver rings from Phase A Hacinebi (before the "Uruk" phase), or one of the intramural infant burials at post-"Uruk" Hassek Höyük, in the Upper Euphrates.[271] The latter is particularly interesting, because the later village grew to be quite large, and both intramural and extramural burials co-existed. The first one mixed *pithoi* (large vessels) and cists, whereas the second one comprised 97 *pithoi* burials. Both ceramics and metal objects are well attested.
- Sometimes mortuary features are superimposed on architectural remains of a site's previous occupation, as at Arslantepe or Başur Höyük. At Arslantepe after the collapse of the centralized economy phase, a male individual was buried

269 Wengrow 2011.

270 Marro and Stöllner 2021.

271 See overview in Stork 2013.

within a cist grave with numerous metal objects of polymetallic composition. Three of the swords of the previous period had hilts of identical decoration to one of the blades found among the grave hoard.[272] Lying on top of the stone slab covering the cist, a young woman and an adolescent (only his torso was preserved) were placed. They both wore metal ornaments on their hair and clothes. Placed at their feet, there were two other young individuals without goods, who were interpreted as retainers, their death a sacrifice. This burial is usually referred to as a "royal tomb".

- At Birecik, in the Carchemish area, an extensive cemetery used for an unknown span of time revealed more than 300 burials, mostly in stone cists, and more than four hundred metal objects.[273] Assorted grave goods, including metal ornaments, weapons, and cylinders with handle (sometimes shaped like animal figurines)[274] are suggestive of shared wealth.
- At Qarah Quzaq, in northern Syria, a young woman and an adolescent were buried in a building with two mortuary chambers. The woman was buried with five spearheads, and the younger person with two.[275] The excavators called this woman "a princess".
- Mention needs to be made about the recently excavated graves at Başur Höyük in the Upper Tigris. The metal objects retrieved from the 16 stone cist tombs superimposed on the backfill from the earlier "Uruk-period" buildings show a high degree of both mastery and creativity, now developed to its full potential: apart from the omnipresent pins, there were carved goblets and cups, elaborate scepters and carved cylinders, all cast with a superb craftsmanship redolent with skeuomorphism: old-fashioned symbology and new shapes (horned animals, bird-headed women).[276] It is actually not strange that Sağlamtimur and Massimino compare it with the Nahal Mishmar hoard. However, whereas the mortuary context is dubious for Nahal Mishmar, the extraordinary metal objects from the Başur graves have a more personal meaning, although maybe emphasizing the dividual over the individual. The excavators noted that "in many graves the metal items were not directly associated with the body of the deceased, but heaped along the sides of the grave, tied together in bundles with strings of linen or wrapped in textiles."[277] In one of the graves, there was also an array of 39 small carved stone pieces in the shape of animals, pyramids, balls, bullets and

[272] Frangipane et al. 2001; Di Nocera 2010. There were 64 items in total, including weapons, tools, vessels and ornaments of copper or arsenical copper, silver, and a copper-silver alloy plus three beads and a hair spiral made of gold. He was laid on his back on top of the hoard by means of a wooden board, which in turn was covered with fabric. Traces of both were recovered. The array of ceramic vessels was placed at the feet.

[273] Sertok and Ergeç 1999.

[274] See Stork 2013: Plate 3.

[275] Montero Fenollós 2004. See p. 39 for a description of the whole assemblage. She was also buried with 25 awls.

[276] See Sağlamtimur and Massimino 2018a, Figs. 9-14.

[277] *Ibid*: 333.

flat circles of careful manufacture (seemingly kept in a wooden container). Although comparisons may be made with the complex tokens of southern Mesopotamian in the early Early Dynastic period, these pieces in their context are unique.[278] They look like an exquisite gaming set.

Fig. 6.28. Game pieces from grave 9 at Başur Höyük. Courtesy of Dr. Haluk Sağlamtimur, reproduced with permission.

Deserving further mention is the special cluster formed around two children (~12 years of age), a boy and a girl, and one adult in a very bad state of preservation. They were buried in a stone-slab tomb together with at least eight individuals around it (seen as sacrificed "retainers").[279] The latter were heaped together, and their ages range from late childhood to early adulthood. The children inside the tomb were qualified as "royals". Their location and the presence of substantial metal objects in quality and number seem to justify this claim. However, the external individuals also had grave goods. Numerous ceramics and a bundle of bronze pins, sometimes with traces of fabric preserved, were found, and the older youngsters wore elaborate beaded chest plates. The possibility of a single conflict explaining the majority if not all of the deaths seen at this burial cluster, has been rejected, just as the Arslantepe team did before for the Royal Tomb. "It is, however, unlikely that a massacre could have carried off two high-status children (and possibly the fragmentary adult), as well as a mixed sex group of roughly the same age, and their two well-dressed older

[278] Eighteen burial contexts had been unearthed as of 2019. Most of the graves contained multiple burials and were furnished with a range of assorted ceramic vessels, beads and semi-precious stones. There were around six hundred metal objects in total. Sağlamtimur and Massimino 2018: 332.

[279] Hassett and Sağlamtimur 2018.

male companions or retainers. The expensive and elaborate burial treatment suggests that the community who buried them was not struggling to cope with the deaths of a substantial portion of their teenage population".[280] But why not? Why may these children, adult, and young adults not have suffered an accident while on expedition, targeted and overpowered by enemies, then been mourned and buried according to their station and roles in the clan? Only two of the skeletons preserved evidence of trauma, and of these two, one had two small cranial perforations. A comparison with the Royal Tombs of Ur, in order to argue for "retainer" sacrifice, is not appropriate. To begin with, one of the perforations is said to be 10 mm in diameter, whereas the CT scans recently performed on two of the Ur skulls—a young female from PG 1237 and a male from PG 789, the "King's Grave"—have revealed holes of about 30 mm in diameter.[281] Secondly, the largest death pit excavated by Woolley contained 74 individuals, all carefully arranged in rows or at the entrance.

Overall, the basis of future research needs to be on the acquired status that favored individuals may have acquired within the group, and whether there were differences depending on the group's lifestyle (full mobility or flexible sedentism). In the case of those fully mobile, were there arrangements to protect the mounds and kurgans from robbery? Did they choose a seasonal roaming schedule and periodically re-visit their mortuary locations? In the case of those adopting a less nomadic lifestyle, were they using metal in mortuary contexts, whether intramurally or extramurally, in noticeable different ways (i.e. prestige that is earned, apotropaic value)?

A last remark needs to be made before concluding this section: that the ontological framework observed in the northern territories since metallurgical experimentation started until well into the 3rd millennium BC gave no sign of significant fracture. The new pastoralist ethos was not one where relationships with alterity were based upon domination and anthropo-hegemonism. There is a vast difference between depicting or fashioning a wolf, a bull or a lion, and depicting a man killing a lion, showing pieces of meat or decapitated heads as filling motifs, or showing anthropomorphic heroes standing between two monster-like creatures, wrestling them.

6.5. Tepe Gawra: an agropastoral community and a male pastoralist ethos

Tepe Gawra epitomizes the consequences of a "colonial" excavation. Even though twenty layers of occupation from the 6th to the 4th millennium were exposed in the 1930s, sometimes substantially, this site promises more than it delivers. This was a time when, depending on the director of the expedition, the lack of training of most of the hired personnel for a pittance could be somewhat offset by a good organization, capable team leaders, and an understanding that even the "small finds" were valuable, so that everything should be reported to be recorded. This, however, happened rarely, and Tepe Gawra in northern Iraq is not an exception. A mission

[280] *Ibid*.: 651.

[281] Baadsgard et al. 2011: 36.

from the University of Pennsylvania, it had one director first at the helm (E.A. Speiser), then another one (C. Bache), and after the sixth season, it was back to Speiser again.[282] After the war and Bache's death, the responsibility of publishing a second volume reporting layers IX to XX fell to a member of the team (A. Tobler). This final publication saw the light in 1950. To say that the stratigraphy of Gawra is unreliable is an understatement.[283] Furthermore, there is a suspicious dearth of "utilitarian" artifacts that could help understand the evolution of subsistence activities that were carried out as the site grew, declined, was abandoned, was occupied again and so forth. Gawra is like a mirage where you see a lush oasis on the horizon, but all you get when you reach the location is a pond of murky water. Instead of being valued for its rich potential to understand the ebbs and flows of the sedentary communities who lived here for two millennia, it is a site whose rich material culture is used to establish chronological correlations with the material culture from other sites, and whose evidence of substantial growth, particularly from levels XIII to VIII, has been recently used to satisfy agendas of complex chiefdoms, administrative centralization, and theoretical stepping stones towards the Uruk expansion. Two decades ago, Rothman undertook the revision of reports and material archived at the museum of the University of Pennsylvania in order to discern these trends, eventually opting to lay most of his argumentative framework on a contextual analysis of the seals and sealing impressions scattered around the site to justify incipient institutionalization, which in turn entailed identifying at least some of the buildings of these layers as temples or as workshop complexes. The later volume edited by Butterlin, which included Rothman among its contributors, was also published with an agenda: to debate the chronology through extensive revision of the stratigraphy, the pottery, and whatever trait that would allow to place the site in the continuum leading to the Late Uruk period —having the Santa Fe "Late Chalcolithic" periodization as a reference—,[284] and to discuss architectonic features *in extenso*.[285]

I do not consider basins, hearths or stone podia (reinterpreted as ablution locations or altars), and plastered walls or buttressed façades reliable signs that certain buildings were temples, since—as has been argued above—any kind of communal gathering venue since the 8th millennium BC was interwoven in the domestic fabric of a settlement, and even more significantly, I do not see in the iconography expressing the values of Gawrans at this time any sign that an ontological change was under way, that altered relationships with alterity leading to exclusive and segregated worship—which would eventually take a long time to crystallize in the south—was already happening here. In addition, there is no architectural or visual indication that there was neither a "chief" nor an "elite" lording it over the minions. The mixed

[282] As a matter of fact, in 1937 the team at Gawra left to work at Khafajeh under the direction of Delougaz (Tobler 1950: 1f).

[283] Rothman makes remarks about Speiser's negligence on the subject of records, particularly affecting Level VIII (2002: passim; 2009: 27f), but there are numerous problems given by the sequence XII-IX, excavated by Bache, as his, Margueron's and Butterlin's reanalysis and proposals (2009) plainly show.

[284] Volume edited by Rothman 2001.

[285] Volume edited by Butterlin 2009.

mudbrick-stone tombs and stone cists that appear after level XII[286] belong to a framework of personal accomplishments within a closely-knit group. Although Gawrans were not fully mobile, their ethos, as I will show, was that of pastoralists who survive by their wits in the wilderness. Gawra was located in an exceptional position to benefit from different ecological niches: lying in a piedmont, next to a branch of the Tigris River, and having the Jebel Maqlul mountains nearby and southeastern Anatolia and its obsidian sources not far away.

Fig. 6.29. Gawra at the end of the 5th-beginning of the 4th mil. BC. Upper row: Levels XII, XIA and XI, after Tobler 1950, Plates VIII-V. Below, Level X and VIIIA, after Tobler 1950, Plate III and Rothman 2009: Fig. 8b, providing a functional interpretation of the last significant occupation at the village, marking the findspots for seals and sealings.

Looking at the layout of Tepe Gawra from levels XII to XI (Fig. 6.29), what I see is the culmination of the know-how acquired by sedentists throughout the 5th millennium BC. Here, multifunctional communal spaces predominate, isolated residential units are hard to discern, the Round House of level XIA represents a kind of *tholos* "on steroids",[287] and no activity seems to be spatially segregated (although ovens

[286] This level had more than a hundred sub-floor burials, mostly infants and children, sometimes in jars, and some skeletons sprawled or found in strange positions, thought to be related to the destruction that ended level XII. See Tobler 1950: Ch. 2 and Peasnall's thorough reanalysis (Peasnall in Rothman 2002: Appendix).

[287] Since there is heavy compartmentalization of the interior space, my impression is again that strong odours needed to be neutralized, so the fermentation of dairy products or alcoholic beverages, the processing of hides or dyeing of yarn, could have been viable activities. If Margueron's reconstruction of this building is more or less accurate (2009: Fig. 2), a second floor may have served to store valuables.

were grouped together in XI[288]). This is very much a large community working and living closely together. Architecture starts becoming more "rational" and cluster-like in level X, with a decreasing use of mudbrick walls to create corners, bins, benches, and compartments. In some cases variable ceilings, unroofed or haphazard roofs covering a sector would have been the norm.

Regarding "private houses" of Stratum XI-A, Tobler commented: "The first of these is the shapeless building formed by Rooms 89-91 and 97-104, lying in Squares 5-M and 6-M, close to the northeastern part of the Round House. The size of this building is surpassed only by that of the Round House, but its extremely irregular ground plan and the presence of two ovens within the structure testify to its secular nature. It is surprising, therefore, that seventeen graves were associated with it, fourteen of which lay beneath its northwestern half. The building composed of Rooms 39-45 lying in Squares 5-J and 5-K has a more pleasing regularity. (…) Rooms 46-48 on the northern side were not part of the original plan for their walls were not bonded into Rooms 39, 44, and 45 of the main building."[289]

None of the efforts made by Rothman to assign blocks of occupational activity by means of material finds per (perceived) cluster of buildings is persuasive enough to argue for distinct, permanent workshops and temples as institutions instead of multi-functional working/storage spaces.[290] The picture certainly started to change on level IX, and the three phases of level VIII seem to be a good example of a well-planned layout. It is quite possible that before the mid-4th millennium—since Gawra VIII lacks the stacks of easily crafted bowls, jars and beakers (including the famous BRB bowl) that are seen at sites placed in the narrative of the Uruk phenomenon—, and for a span of time encompassing two to three centuries, Gawrans opted for a centralized nucleus + satellite residential neighborhoods organizational mode,[291] which I call meta-communal aggregation (see next chapter). The problem, however, is that there seems to be conspicuous contraction and decline. Pastoralism may have become before the VIII sequence a burdensome activity, to the detriment of cultivation and plant-food processing. The maximum amount of copper objects was reached in level VI, which lacked substantial architecture. Before, the highest amount of copper objects (nine) is recorded for level XI,[292] but a zone for smelting activities was never identified. Together with the small percentage of non-local clay for the sealings of levels XI and VIII,[293] the good attestation of obsidian tools at all levels but particularly in VIII, and the occasional lapis lazuli seal in some graves, a situation of increasing mobility seems quite plausible. It may also be significant that only one

[288] Concentrated on the northwestern and southeastern sectors (Tobler 1950: 16). Tobler also mentions a group of kilns and "enclosures" in earlier level XV (*ibid*.: 39). By contrast, level X had scattered ovens and pottery kilns (*ibid*.: 12).

[289] Tobler 1950: 24. On the stratigraphy of these levels, and the Round House, see the relevant contributions in the volume mentioned above.

[290] See Rothman 2002, Ch. 5, and Figs. 6-8 in Rothman 2009.

[291] Rothman remarks upon the conspicuous lack of ovens throughout the VIII sequence (*ibid*.: 185), hindering efforts to identify "domiciles". Very few burials are attested for the VIII sequence.

[292] Tobler 1950: 212. Discounting metal objects found in graves.

[293] Rothman and Blackman 1990.

oven—but apparently no associated ceramics—was found in VIIA's tripartite "temple", where many sheep knuckle bones in one of the lateral rooms were reported, as well as a built-in trough in the exterior open structure, connecting with a group of rooms qualified as "animal pens".[294]

Gawra during this period seems to have been a community primarily devoted to textile manufacturing. Spindle whorls are attested in many rooms of these levels. Examining the whorls excavated at Kosak Shamali and Telul eth-Thalathat II, Sudo concluded that a change in weight, perhaps indicative of a turn towards wool-yarn production, is discernible, and lamented that the more than two hundred whorls recovered from Tepe Gawra had not been measured in terms of weight.[295] Flint and obsidian scrapers are abundant, as are loom weights and some clay pieces that Rothman considered parts of loom bases, as well as celts, palettes, bone awls and needles, a few metal ones, beads, animal figurines, and a few early exemplars of the so-called "hut symbols" or "spectacle idols".[296] The latter would eventually evolve into the "eye idols" found by the dozens at one of the "temples" at Tell Brak. The first form implies a three-dimensional statuette with hollowed eyes, which Breniquet linked to a tool used in yarn production because of some scenes depicted in the glyptic of Susa (and this was a female activity).[297] Most scholars, however, consider it a cultic artifact.[298] The either/or, economy vs ritual scenario is, once more, unnecessary. Textile production may have been ritualized. The "eyes" are depicted in one of the seals from Gawra, below an incomplete scene with a dog. It seems to suggest that, in the grasslands, "someone" benevolent and a tad mischievous is watching (see figure below, top left corner).

The panoply of naturalistic scenes depicted in the rich glyptic of Gawra at this time, when a preference for geometric motifs starts tapering down, represents one of the best examples of artistic sensitiveness in Mesopotamian history. Only a selection is offered below (Fig. 6.30), but the reader is invited to access Tobler's and Rothman's plates[299] to gain a better insight on the Gawrans' particular decoding of their surroundings, which is full of symbolism. Paradoxically, there are not many scenes of dogs guarding sheep, and sheep are rarely and quite funnily depicted (see

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294 Rothman 2002: 128f.

295 Sudo 2010. The earliest evidence for woolen fabrics comes from a mortuary stone chamber (kurgan 2) found near Novosvobodnaya (3700-3200 BC), although wool and plant fibers had been mixed to weave the cloth. Two dyes had been applied by "mordanting" the fibers. Cf. Shishlina et al. 2003.

296 See Rothman 2002: Ch. 4, and the relevant photographs and drawings from Tobler's and Speiser's publications.

297 Breniquet 1996.

298 For a recent overview, references and images, though hampered by the usual descriptive typology leading to inconclusive results (e.g. they were attested in graves and cultic settings, but alas, also in domestic contexts), see Cooper 2016.

299 Rothman 2002: 405ff. Rothman establishes through his drawings a clear distinction between a stamp and a sealing impression, something that is not always clear in Tobler's publication, and moreover tries to order them, when the provenance is known, according to level and context. It is advisable to see the glyptic iconography in combination with the pendants and beads. See also Von Wickede 1990, VI.3.

no. 161, bottom row). Of all the animals portrayed, it is the ibex or horned deer which still seems to attract admiration the most—a motif that is still depicted in the ceramics of the Zagros and on the walls of caves. There are scorpions, snakes, birds, a vulture, fishes, even a dolphin. When an anthropomorphic figure is included, it blends with the profusion of plant and animal life.

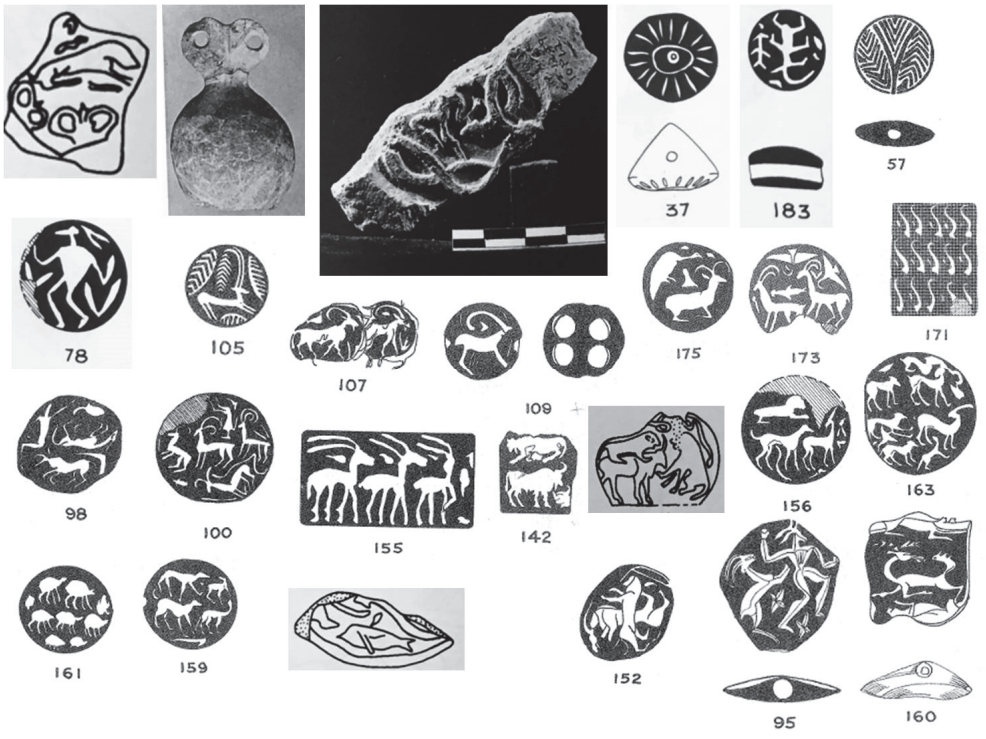

Fig. 6.30. Selected glyptic from Gawra. Left to right. Sealing impression showing the eye motif, after Rothman 2002: Plate 52 (level X), no. 2023, and stone "spectacle idol", retrieved from Tomb 31, after Tobler 1950: Plate LII, photograph b. The brick-like "sealing impression" from level XII is from Plate LXXXVIIIb. Selection of stamps/pendants. Those with a number are reproduced from Tobler 1950. The lions (?) and calf sealing impression is from Rothman 2002: Plate 59, no. 2963, level VIII. The dolphin sealing impression is from *ibid*.: Plate 50, no. 1835, level XA.

One of the most striking observations from my point of view is how different the conception of the wilderness seems to be by comparison to what starts happening in the Susiana and Uruk not long after these images. It is not only that men are not portrayed as mighty hunters, killing lions, snakes and composite monsters. Predators are never depicted in an overly aggressive manner. There is a leopard hovering over a bull (no. 142), a lion lying down while a dog and a deer look at each other (no. 156), what seems to be a lion and its cub, bullying a lamb (image in between),[300] and dogs

[300] This image is from level VIII, which also introduces the motif of deer with interlocking horns seen in the southern glyptic, as well as dual animals in inverted symmetry arrangements.

chasing a couple of goats while a dragon-like figure hovers at the very top (no. 163), but none of these images conveys violence, narrates anything that may disturb the idealized image of life in the wilderness. There are furthermore some scenes that anticipate some of the themes from the Choga Mish glyptic, namely animals behaving like humans and composite monsters, but we can see through the selection in the bottom row (nos. 152, 95 and 160) that these seem to be rather dynamic, as if they belonged to some kind of myth.

Another trend that seems to predate motifs in the south are the social scenes. Yet, these are also fundamentally different. They belong to what I would term "the brotherhood of men", since women are excluded. They are not a part of "the good life" (perhaps in contrast to the textile production undertaken in the village). There are even hints of homosexuality. Shared tasks and drinks may be envisioned as happening in the village, but they are equally possible outside of it. Some geometric motifs and symbolic depictions of tools or landscape features impede understanding some collaborative scenes to the fullest, but in any event, they highlight that materiality is never exclusively utilitarian.

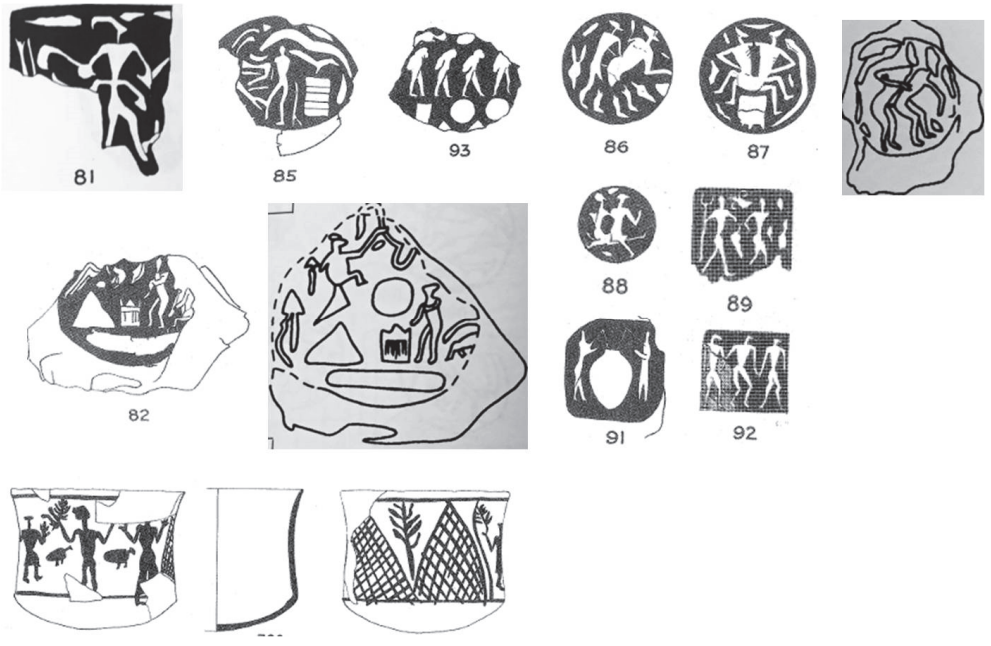

Fig. 6.31. Portrayal of "brotherhood" values at Gawra. Numbered images from Tobler 1950. Top right corner: after Rothman 2002: Plate 37, no. 1077, level XI A/B. Second row: reconstruction made by Rothman by piecing together two fragments (one of them no. 82). From *ibid*.: Plate 36, no. 1061, level XI/AB. Below: image of decorated pot assigned to XI-IX, after Tobler 1950: Plate CXLV, no. 398.

Stamps are, as they were at Sabi Abyad, used sometimes repetitively on the sealing surface, either with the same or with different stamps. Geometric and naturalistic motifs co-exist until level VIII. They are applied to all kinds of container surfaces

(though not doors, as Rothman claims)[301] and maybe even internal walls, as the huge, engraved chunk that Tobler qualified as a "sealing impression", seen in the image above, suggests. As mentioned in Chapter 4, a scenario where a person had more than one pendant or object that could serve as a stamp is not implausible.

As for the 'tokens' found at this site, they were classified otherwise by Tobler. Schmandt-Besserat states: "Some 120 tokens originating from levels XII-IX of Tepe Gawra are discussed by Arthur J. Tobler in the site report."[302] This is not really true, given that Tobler did not recognize "tokens" (i.e. accounting devices) to begin with. He chooses the term "gaming pieces" for small objects and "cone" or "grinding stone" for anything bigger. Schmandt-Besserat notices the high amount of stone artifacts reported, but believes the difference in this kind of "assemblage" is due to burial customs and a misrepresentation of the reported clay objects. According to her, "250 unpublished clay tokens from Tepe Gawra were stored at the Iraq National Museum in Baghdad and 80 at the University Museum, University of Pennsylvania."[303]

Tobler reports that the 34 "gaming pieces" found in the grave of Stratum XVIII were located around the hips and chest of the individual, which is clearly suggestive of ornamentation (in the sense proposed by Croucher).[304] In Stratum XVI, "anthropomorphic" and other pieces were found scattered.

The alabaster set found in a child's grave in Stratum XIA does indicate that board gaming may have been practiced. The tombs in Stratum XI-X included stone spheres of marble, alabaster, and in one case, red jasper. Tobler does not discount a ritualistic purpose, even related to divination.[305] Some of the stone pieces, however, resemble larger pieces of harder stone, classified as "grinding stones" or "weights". Maybe the observed change during this cist tomb stage towards increasing numbers of eye idols and stone artifacts was due to the requirements for an activity or activities which remain opaque, like textile manufacture (loom weights) and yarn/cloth accounting. It is also a time of abundant clay horns and mullers, many of them painted. The items found outside the Round House of XI may have served as 'tokens' in transactions, but—given their number (at least reported)—cannot have served as counters.

[301] Compare Rothman 1994: Fig. 1d with the figures in Ferioli and Fiandra 2007 for Arslantepe VIA, specifically 11.35, interpreted as "mushroom" stoppers. See further remarks in Ch. 7.

[302] Schmandt-Besserat 1982: 47.

[303] *Ibid*.: 48.

[304] Tobler 1950: 170.

[305] *Ibid*.: 85.

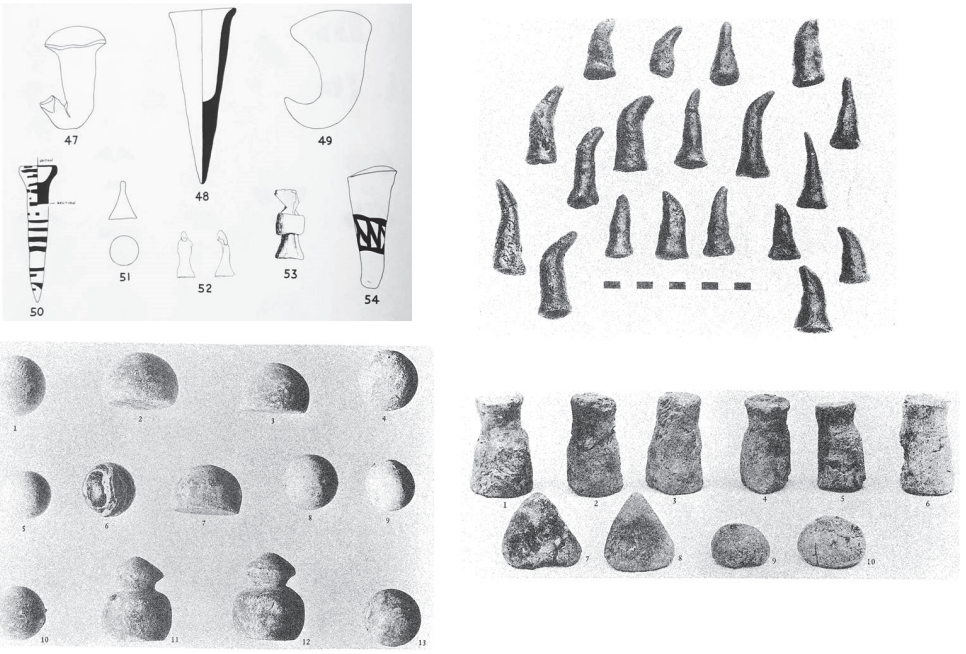

Fig. 6.32. “Tokens” or “gaming pieces” retrieved from several layers of Tepe Gawra. Top left: Selection of clay objects from outside the Round House, after Tobler 1950: CLVI (except figurines and eye idols). Top right: selection of small items from a grave in Stratum XVIII, after Tobler 1950, Plate LXXXIVc. Bottom, left: stone gaming pieces from Stratum XI and XIA, found in a child’s grave (Plate XCVI). Right: terra cotta pieces found in Room K of the Round House, Stratum XIA, after Tobler 1950 LXXXIVa.

Tokens should be reassessed in a diachronic and geographical arch from the Northern Levant/Anatolia to northern Mesopotamia/Zagros. At Tal e-Bakun A in the highlands of Fars, small clay and stone geometric pieces, some carefully painted, were found in the compound of Level 3 (ca. 4460-4340 BC),[306] again showing a tendency towards cones, spheres/discs, and miscellaneous, and again exhibiting crude manufacture and variation.[307] The majority of the compound consisted of back-to-back and side-to-side rectangular and square rooms, with an area reserved to kilns.[308] The tokens were found together with rich pottery assemblages, stamps carved with geometric motifs, sealing impressions, ophidian figurines and clay horns. The decorated pottery at this site shows patterns of geometric-figurative creativity, with an emphasis on horned caprines, bird-like or turtle-like humans, and feathered birds.[309] Tal e-Bakun may have been founded by agropastoralists moving to the region from the north, taking some metal items with them (pins, some seals, and a dagger). Alizadeh has postulated that the inhabitants of Bakun exhibited a complex administrative

[306] Alizadeh 2006: 120, Table 9.

[307] *Ibid*.: Figs. 71ff.

[308] *Ibid*: Fig. 8.

[309] For the rich range of wildlife motifs, see Alizadeh 2006: Figs.46-52.

system put in place by a chiefdom society where some individuals controlled goods and access to the storage rooms, even assigning some of the sealing impressions a function as door sealings. His sole criterion for this latter claim was a peg-like indentation: "cone-shaped lumps of clay with a flattish base".[310] The tokens were classified according to sixteen categories, even though some categories had a sole exemplar as representative.[311]

Recent excavations in Turkmenistan have revealed the presence of clay and stone tokens at the site of Jeitun (6100-5700 cal BC), mostly found in courtyards and open spaces outside the one-roomed houses.[312] Most attestations in this region largely belong to the 4th millennium-early 3rd millennium BC, however, and at sites where the architecture and mixed mortuary customs are suggestive of egalitarianism. The stone tokens discovered at Ilgynly-depe, ca. 3500-3000 BC, align well with an interpretation of these objects as gaming pieces.[313] So, my conclusion, and taking the evidence at sites like Başur Höyük above into account, is that pastoralist populations all throughout the northern mountains used to while away the hours in the evening playing games. No more, no less.

Tepe Gawra represents a neat conclusion to this section and the chapter. Two things I have found striking. One is how people cherished living together in a way that granted very little privacy, sharing work and leisure in a way that implies intimacy and trust from the very beginning of sedentism, and making sacrifices to preserve that. The second is how domestication implies working with nature, not against it. The complexity entailed by that "secondary product revolution", if we understand those products beyond food, implies grasping that these "prehistoric" communities had a superb knowledge of the natural world. That this moral code—this acceptance of nature such as it is, the wonders overcoming the terrors—lasted for more than four millennia is nothing short of astonishing.

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310 *Ibid*.: 87.

311 *Ibid*.: 83-85. Helwing, who revised excavations at Bakun conducted since the 1920s, tried to understand the nature of the social practices here and in contemporary sites of southwestern and Central Iran by looking at the imagery on pottery vessels. She concluded that this was an "essentially acephalous society", where feasts and dancing were all-inclusive, and therefore stamps would have served as identifiers in collective events and ritualized exchange, not as control mechanisms for elites (Helwing 2021).

312 Bonora et al. 2014.

313 *Ibid*.: Figs. 3-6.

CHAPTER 7. THE SPLIT OF THE NATURAL WORLD

When the division extends to the earth itself, by virtue of an administration that is landed and residential, this cannot be regarded as a promotion of territoriality; on the contrary, it is rather the effect of the first great movement of deterritorialization on the primitive communes. The immanent unity of the earth as the immobile motor gives away to a transcendent unity of an altogether different nature —the unity of the State; the full body is no longer that of the earth, it is the full body of the Despot, the Ungendered, which now takes charge of the fertility of the soil as well as the rain from the sky and the general appropriation of the productive forces. Hence **the savage, primitive socius was indeed the only territorial machine in the strict sense of the term**. And the functioning of such a machine consists in the following: the declension of alliance and filiation—declining the lineages on the body of the earth, before there is a State. (Deleuze and Guattari 1983: 145f).

Deleuze and Guattari, like many anthropologists for that matter, were not particularly keen in applying their philosophical cogitations to the past (neither in the *Anti-Oedipus* nor in their later collaboration), but their intuitive insights on hybridity and multiplicity are sharper than their language may suggest in the text selected above. In Southwest Asia before the "State", alliance and filiation would presumably have engendered a number of possible organizational arrangements. More to the point, however, alliance and filiation were not replaced by the State, but, rather, accompanied its formation(s) and continuities. In Mesopotamia, alliance and filiation would remain in an ambiguous relationship with palaces and temples and their apparent institutional sepsis for centuries, or, in other words, there was never a strict separation between the "public" and "private" spheres. But, in a way, Deleuze and Guattari are right. For the "primitive, savage" peoples, land, all of it—including what is, what was, what will be—is the territory. Once the land becomes a commodity, and what lives in it is commoditized, 'deterritorialization' takes place (if we understand 'territory' as an inhabited landscape). The immediate social knowledge of the land, which provides resources and historical identity, is fundamentally altered and becomes mediated and transactional, subject to the regulatory and ideological agency of social institutions, and as a consequence, those (now external) institutions will also transform their relationships with it. The land becomes measurable, no longer immensurable and ever changing. Creation myths after changed ontologies only serve to highlight this. Everything and everyone becomes specific, measurable, and "seizable". The road to grasp eventual elitism starts with how collectivities changed or did not change—depending on historical contingencies and peoples' choices—their organization and their relationships with humans and non-humans in the land. Materiality cannot be segregated from its social contexts. And, in turn, relationships cannot be visualized as absolutely coterminous or dependent on materiality. Ultimately, there is no 'invention' of language, no 'invention' of sedentism, no 'invention' of agriculture, no 'invention' of marriage, no 'invention' of cities, no 'invention' of writing. Those social choices took place as derivations of perceived relationships and experiences, not initially imbued with prescient consciousness and specific intentionality. Full consciousness and specific intentionality *postpone* creativity and interaction. How innovations become transmitted and widespread, and how certain practices become institutionalized, are again processes of variable

duration. Even though they become increasingly rigid, homogeneous and "homogeneizing" in time, there may be renegotiations, movements, and choices that make grand-scale theory-building problematic.

7.1. The emergence of meta-communal aggregations

As explained in Chapter 1, there is still a dearth of reliable data that currently prevents an understanding of the different trajectories that were taking place for more than a thousand years in Mesopotamia at large. But a better understanding of the period going between 4200 and 3600 BC is also essential to elucidate the "Terminal Ubaid" and "Early Uruk" periods, regarding, for instance, the extent and characteristics of decline during the transition between the 5th and 4th millennium BC in broad areas of Southwest Asia, the re-organization of settlements in the Balikh and Khabur, and the environmental and hydrological fluctuations of the Euphrates as well as the Tigris before they reached the alluvium as well as around the delta. As the dolphin stamp at Gawra, shown above, or the remains of cyprinid and other riverine as well as marine fish remains found at "final Ubaid" Larsa, and even the cyprinid and marine fish vertebrae at "Uruk period" Hassek Höyük in the Upper Euphrates, suggest,[1] the marine introgression in the Persian Gulf may have created mixed-water faunal regimes further upstream.

As seen in the previous chapter, sites like Mashnaqa and Ziyadeh in the Middle Khabur present stone constructions and terracing consistent with the avoidance of river floods. After abandonment at the end of the 5th millennium BC, only Mashnaqa would be reoccupied ca. 3700-3600 BC. Stone terracing is also visible at Hacınebi, in the Upper Euphrates, since Phase A.

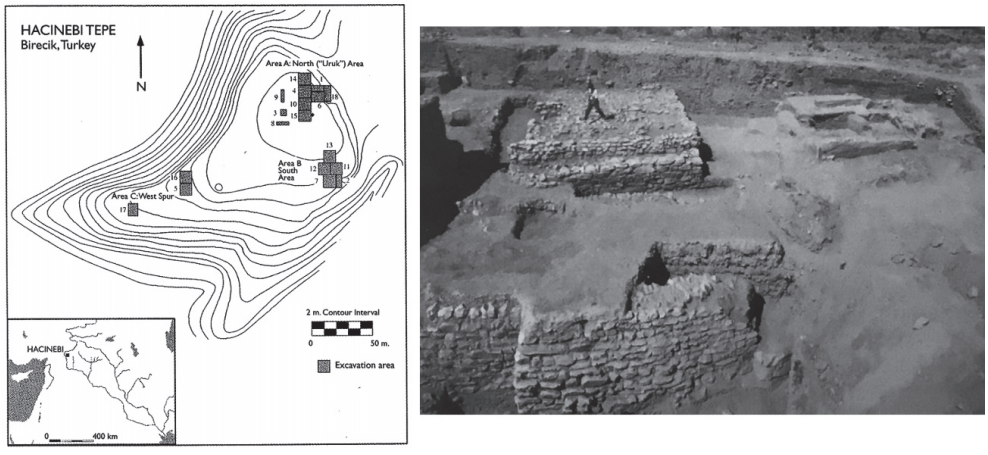

Fig. 7.1. Hacinebi. Left: Plan showing excavated areas. Right: stone terracing from Operation. After Stein 1999: Fig. 7.1. Right: stone platform and terrace complex at the top, Phase A. After Stein 1999: Fig. 7.5. See also Fig. 7.4 (enclosure wall and mud-brick/stone floor).

[1] See Van Neer, Zohar and Lernau 2005: Table 1, and references therein.

A big enclosure wall facing east, probably facing the river, was excavated at the beginning of the operations at the top of the mound. Stein and Mısır considered it a fortification, but: "Alternatively, the wall may have been built as a terrace to level off a raised area at this end of the site. The wall passed out of use at some point in phase A, as seen from the accumulation of silt and gravel layers up against and eventually over the top of the masonry".[2]

Environmental decline caused by aridity is observed in the Balikh basin, provoking the growth of sites located in the northern drainage, like Hammam et-Turkman and Tell Zaidan, to the detriment of other multi-tell settlements and middle-sized sites. During the transition between the 5th and 4th millennium BC, according to Trentin, "the structure of the settlement pattern underwent a new transformation".[3] "Whatever its causes, environmental, social, or both, it is important to be aware that it was the larger sites that were now affected. In fact, in the central Balikh drainage, two major sites had apparently entered a period of decline. (…) The point has already been made that Hammam et-Turkman was likely a primary center despite the fact that there is no evidence available to either prove or disprove the proposition. The mound is situated in the southern part of the northern Balikh drainage and during late Period IV was surrounded by a number of "satellites". It is worth asking, therefore, whether there may have been a move of some of the Balikh population from the central to the northern part of the Balikh at the transition between Periods IV and V, and whether such a relocation was accompanied not only by the foundation of new hamlets, but also by the growth of another primary center at the expense of Sawwan [[4]]. On a broader perspective, it may even be tempting to speculate on the loosening of old ideological ties to preparatory to the establishment of new forms of social organization."[5]

New forms of social organization will indeed be attested in several regions of Southeast Europe and Southwest Asia since ca. 3600 BC or earlier, but the split between nature and culture—the loosening of the biosocial with its values of reciprocity—will only be witnessed in the Susiana and southern Mesopotamia. Unlike in earlier periods of decline, sedentary communities were not dispersing anymore. Instead, many chose to massively cluster around an agglomeration placed at an advantageous location.

This trend in northern Mesopotamia is so far only detected through large-scale surveying. East of the Khabur lies Al-Hawa, known to have become a very large site,[6] and a good candidate for attracting populations like that of Tepe Gawra VIII. Excavations at Brak and Hamoukar, as well as the fact that "proto-urbanism" has become a research priority, have funded ambitious surveying projects around the main agglomeration centers, revealing tight population densities sprawled over large

2 Stein and Mısır 1996: 210.

3 Trentin 2010: 336.

4 Not to be confused with the site in Iraq.

5 *Ibid*.: 336f.

6 Wilkinson et al. 2012: 176.

areas (around 300 ha in the case of Khirbet al-Fakhar).[7] Both Brak and Hamoukar would reach their peak during the early Bronze Age (early 3rd millennium BC).

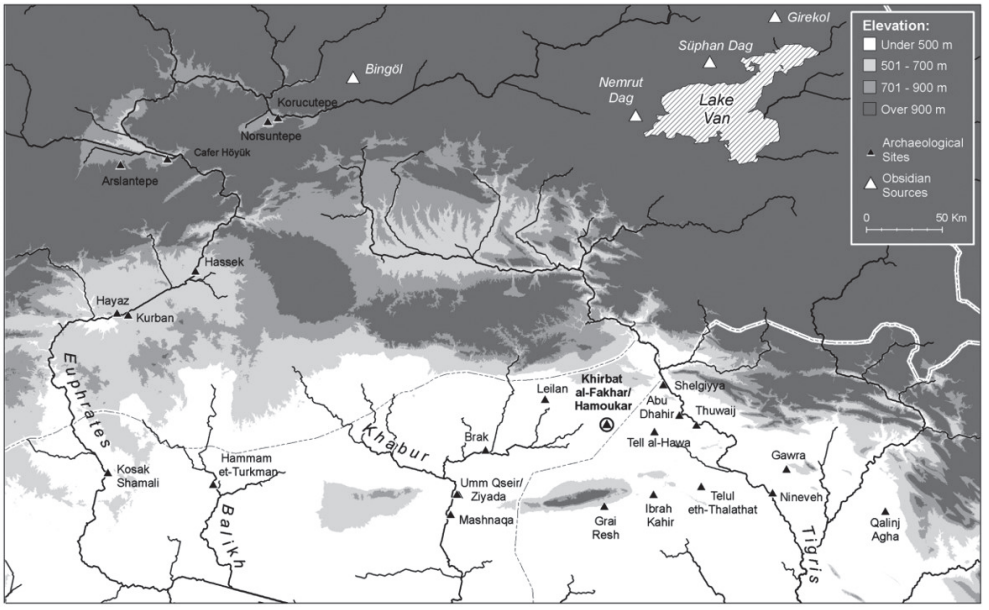

Fig. 7.2. Sites of the late 5th-early 4th millennium BC in northern Mesopotamia and obsidian sources. After Al Quntar, Khalidi and Ur 2011: Fig. 1.

No site in southern Mesopotamia has so far manifested early signs of a large size. At around 3600 BC, when Sheikh Hassan—the first colony of the Middle Euphrates cluster—was theoretically founded by Urukeans, Uruk had just started the first phase of monumental buildings at the center of the mound (see figure below). Future research also needs to address adequate dating, by means other than radiocarbon, if necessary, since fluctuations in atmospheric carbon are suspected at this time, and new calibration programs—the most recent OxCal 2020—have become available since 2001, when Wright and Rupley summarized the state of the matter at the time (Santa Fe conference). They assigned a summed range of 3750-3100 BC, and a combined range of 3610-3370 BC to the seven samples collected from the layers 7 and 6 at Sheikh Hassan.[8]

7 Ur 2010; Ur, Karsgaard and Oates 2011.

8 Wright and Rupley 2001: 104ff.

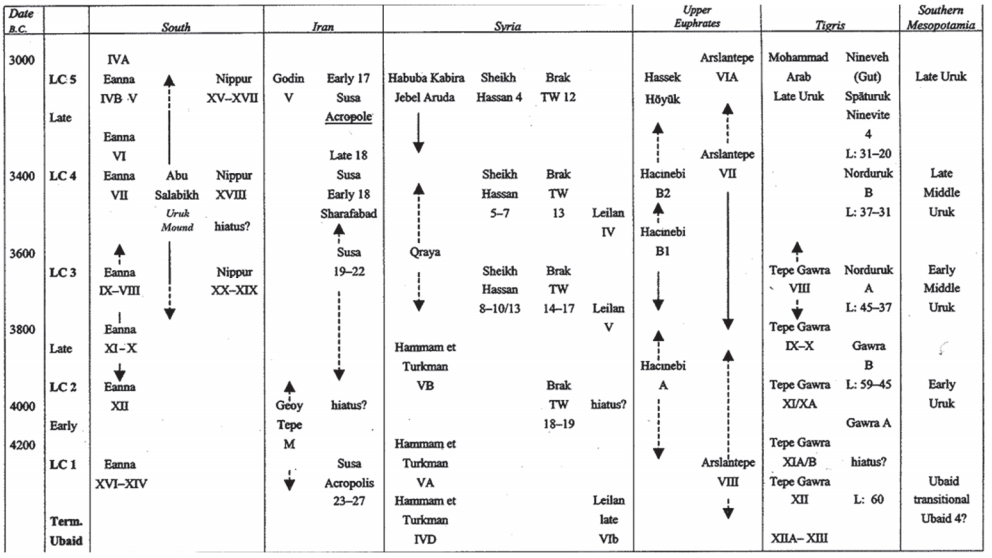

Fig. 7.3. Chronological Framework for Greater Mesopotamia (stopping at 3000BC), proposed at the Santa Fe conference. After Rothman 2001: Table 1.1.

7.2. Meta-communal aggregations with a heterarchical organization

7.2.1. Reasons for aggregation

Despite the tantalizing glimpses coming from sites like Yumuktepe and Tepe Gawra, seen in the previous chapter, there is so far no indication of a predisposition towards proto-urbanism that is easily observable. Workspaces were living spaces. There were certainly full-time specialists manipulating flint and obsidian, stone, bone, textiles, and metal, but the only discernible spatial segregation corresponds to potters' kiln areas. Even as storage arrangements and strategies to process and preserve perishable goods seem to have been continuously improving, there was never a visible tendency towards storage facilities in bulk, i.e. big granaries.[9] For three millennia sedentists

[9] The identification of storage structures is actually relatively problematic all throughout these millennia. In the 5th millennium grill foundations and modular cells characterize Tell Uweili, in Iraq. The current archaeological mission postulates that they acted as a basement to raise the floor of the building (Baldi et al. 2020: 110), a view that–as was shown in Ch. 5–I share. Grill structures have also been detected at Tell Kurdu, Tell Ziyadeh, Tell al-'Abr and Tepe Gawra, so this mode of construction, as well as the modular cells, was present all over Upper Mesopotamia. At Tell Abada, there were reed impressions in cell-like rooms or corners of courtyards, as well as grain and chaff, so Jasim postulated that the grain was laid over a reed matting, then covered in further matting and clay (Jasim 1987: 25, 29). The sealings themselves, meant to ensure an air-tight closure of containers would also have helped, and it is not strange to find imprints of straw in the inner surface of sealings. Bitumen and plaster may have acted as sealing agents of numerous surfaces. Through drying, roasting, and fermentation many food items could have had a longer shelf life, as well as through the use of salt, smoke, vinegar or honey.

never put all their eggs in one basket, and diversification was too-ingrained a strategy to be easily replaced, even with the emergence of more centralized economies. Previous experiences of sharing with others in the vicinity came handy and some groups who hitherto may have negotiated common resources in the landscape now negotiated coming together.

One of the reasons why many of the first proto-urban experiments failed may have been an excessive reliance on ovicaprid pastoralism and a lack of pastures affected by the climatic downturn at the end of the 4th millennium BC. But one thousand years earlier, although this flaw may already have been at play, as seen at Gawra and possibly in the Susiana (see below), hardship and attrition would have impacted the most important resource they had: people, particularly adults of working and reproductive age. A different adaptive strategy emerged, even if this demanded a relatively abrupt spatial and social re-organization: aggregation (that is, cooperation). The reasons for it, nevertheless, cannot have been only buffering against hardship and stimulating growth. As craftsmanship and the knowledge of the environment increased and expanded, so did the labor requirements. Many were also now engaged in basic metallurgy. The relative standardization of pottery and the introduction of fast-made vessels would have allowed for a relief of pressure in this area. But as important a factor may have been to enjoy celebrations and leisure time. It is not strange that at least initially commensality played a big role in the cohesion of the meta-group. In order for the examples given below to be successful throughout most of the 4th millennium BC, some kind of sophisticated coordinating leadership ought to have been set up, one prepared to deal with problems stemming from the potential dissatisfaction of a group. All contributors ought to have been rewarded proportionally. This is where the concept of heterarchy needs to be inserted into the narrative, because the idea that you can have economic complexity without analogous sociopolitical sophistication is not reasonable. Likewise, allegiance to the meta-group superimposed over old communal ties needs to have been pushed by the meta-communal councils. Maybe some kind of major deity worship started to segregate space, if the meta-group leadership decided to sacralize communal activities taking place in these buildings. The 'temple', however, understood as the exclusive household of a deity and associated personnel, is still, in my opinion, premature. Furthermore, until the segregation of institutions from a communal pool—one expressed through the control of exclusive cult and the emergence of patriarchal hereditability and lineage competition—came to be, we cannot refer to hierarchy as a useful heuristic tool for social analysis during these centuries of change, neither locally nor territorially.

7.2.2. Heterarchy as a model for cluster aggregations around a nucleus (first urbanism)

The term 'heterarchy' was coined by neurologist and father of cybernetics Warren McCulloch. In 1945, he published *A Heterarchy of Values Determined by the Topology of Nervous Nets*, where he grappled with the difficulty of conceptualizing mental processes in terms of 'volition'. He was confronted with the paradox of understanding processes resulting in actions characterized by purpose, and apparently not

affected by time in a measurable manner. Nervous nets' reasoning and deciding would not behave hierarchically when theoretically confronted with a range of possible actions where the values motivating them were different, and the information sustaining those values might be faulty, contradictory or paradoxical. He called this "inconsistency of preference", and by inconsistency he meant unpredictability.[10] In order to apply his notion of 'heterarchy', however, McCulloch would have needed a more robust empirical and theoretical framework than was possible at the time, a task undertaken by a myriad of later researchers inspired by this and related ideas in the fields of cybernetics (particularly the first generation), cognitive sciences, and psychology. The concept has also spread to any other field where the need for a flexible approach to study social organization was felt, and usual models based on a monothetic conceptualization of hierarchy unsatisfactory.

Carole Crumley was the first to apply 'heterarchy' to her central fields of research (Celtic polities and historical ecology) at a time when New Archaeology tenets and economic geography theories were prevalent. Crumley defined 'heterarchy' as an organizational structure "in which each element possesses the potential of being unranked (relative to other elements) or ranked in a number of different ways, depending on systemic requirements."[11] In her study of Celtic polities (esp. the Aedui in Iron Age Burgundy) before, during and after the Roman empire, Crumley applied the concept of heterarchy to adumbrate the variability of social and political organization of agropastoral Gauls, which was not based on an urban model, as well as their resilience and ecological flexibility.[12] Crumley has consistently reiterated throughout her work that hierarchy and order should not be conflated. Furthermore: "A common error, not just in settlement archaeology but in ecology, biology, and elsewhere, is that researchers uncritically *nest* levels of analysis, confusing scalar with control hierarchies and leading to the misinterpretation of chains of causation. Global-regional-local climate is an example of a scalar hierarchy: any level can affect any other. The American court system is an example of a control hierarchy: decisions at higher levels affect the operation of lower levels."[13] As Crumley observed, many structures, both biological and social, are not organized hierarchically. Hierarchy as a metaphor for order (but also, I would add, centralized political power and/or exclusive control of wealth, either land- or trade-based) may not always provide accurate descriptions of social complexity.

Connecting with the original formulation of heterarchy, Crumley proposed that our models should be able to acknowledge ambiguity in values, even contradictions. "The implication for the values of an entire society is that an intricate net of power relations—counterpoised power—in which negotiating individuals operating in varying contexts play a critical role, can not only support state apparatus but give rise to supra-state confederacies as well. (…) Ecological parameters would seem to be particularly important, since the distribution of resources and the stability of the system as a whole would necessarily add to the complexities of scheduling and

[10] McCulloch 1945.

[11] Crumley 1979.

[12] See*, inter alia*, Crumley 1995a, 1995b.

[13] Crumley 1995b: 6.

alliances for sedentary as well as more mobile populations."[14] It follows that the more rigid a structure is (i.e. empire), the more inflexible to stall or prevent dissension, and eventually wholesale collapse, it will be.

Inherent to its conceptual flexibility, heterarchical systems may be applied in the fields of history and archaeology following diverse approaches. For example, Chirikure and colleagues have found it useful to describe political interactions between polities with a "malleable" hierarchical organization, i.e. based on multifocal lineages and shifting centers of power (rotating capitals). Therefore, in their description of the Great Zimbabwe and Khami polities of the 14th-18th centuries AD, they observe that "scalar hierarchies based on using differences in settlement size to identify hierarchies of control are inappropriate" since actual control within well-defined boundaries would have depended on the situation.[15] Spiritual leaders, the ability of a chief to hold on to power, and shifting alliances, were factors that affected that situation. "This makes it likely that the Portuguese often exaggerated the power and size of polities such as the Mutapa and Torwa-Changamire states for political grandstanding in Portugal".[16]

That conceptual flexibility makes 'heterarchy' applicable to describe discrete political geographies, economies or governance, as well as the relationships between actors in an institution or social context. Hence, while Crumley has presented Mayan political organization during the Classical period as vertical and its political economy as heterarchical,[17] Izquierdo y de la Cueva posits that even the government in the cities and their hinterland was heterarchical, arguing that lineage-based 'corporations' with an *ajaw* at the head occupied a sector of a city, and that there were internal as well as inter-corporate differences in status, traceable architecturally as well as in later historical sources.[18]

I am particularly interested in an application of heterarchy for the origins of city statehood in Mesopotamia at large, characterized by a flexible political geography that would have coordinated different communities, settled at old locations or newly settled, procuring or producing different resources and dispatching them to an administrative center, in turn receiving a proportion of raw or processed products. This kind of arrangement has been described as the *balaŋ* (rotating governance) system at the end of the 3rd millennium BC (Third Dynasty of Ur period in southern Mesopotamia), and despite the numerous administrative documents found at Puzriš-Dagan—a centre receiving livestock and dispatching manufactured products—the redistributive dynamic from centers of production to the different institutions in the cities that were part of the network is still not well understood.[19] Nevertheless, it has been posited that the Ur III state acted as a supra-structure.[20]

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14 *Ibid*.: 31.

15 Chirikure et al. 2017.

16 Chirikure et al. 2017: 49.

17 Crumley 2003.

18 Izquierdo y de la Cueva 2018.

19 Sharlach 2004.

20 Sallaberger 2014:105.

In the second half of the 4th millennium BC, at the very beginning of meta-communal aggregation, the first meta-organization would have been respected by all its constituents, who would have surrendered their autonomy in exchange for equitable redistribution and less work. The founding groups may have maintained their initial residential location, but many would have had to move closer to the core. Each of the groups would have placed a number of capable individuals within the meta-communal organization to act as representatives, as well as managers and workers. In order to ensure cohesion and a transfer of loyalty to the meta organization, commensality in large gathering places would have been very important. These buildings were also communal storage facilities. If I were to translate this heterarchical meta-structure to an archaeological reality, I would expect small settlements circling a nucleus, large communal buildings, and prosperous satellites. Initially at least, the whole range of domestic and mortuary spaces would only be present in the satellites.[21]

Next, I will analyze what we actually have so far. I am well aware that only future excavations can flesh out many details of this proposal, but as the case studies below show, the essential traits of a meta-communal organization are already discernible.

7.3. Different trajectories of meta-communal aggregation

7.3.1. Trajectory 1: Nebelivka, a Trypillia megasite in the Ukrainian forest-steppe

Even if Southeast Europe falls outside the geographical parameters of this dissertation, and there are no cultural connections between the two regions beyond those having to do with the diffusion of metallurgical know-how, it is certainly interesting that, as the first urban clusters were developing in Southwest Asia, a different settlement strategy was also taking place to the north of the Black Sea.

Although the megasite phenomenon of the Cucuteni-Trypillia/Trypolie culture has been the subject of research for decades, it is only recently that new methods and a more critical perspective are leading to a better understanding of this phenomenon.[22] The large geographic and temporal scale of the CT culture, with a wide array of

[21] This cooperative system may have been also developed throughout the Longshan period in China, where settlement patterns consist of large aggregations surrounded by populational clusters covering several hectares. Since the earthen enclosures do not seem to have a defensive purpose, nor do the "palaces" at Taosi and other cities have a large size, political centralization is dubious. Although social stratification is supported by the differences in grave assemblages, there is no evidence of a prestige based on coercion. Musical instruments cast in bronze and feasting with pigs are two of the main characteristics distinguishing elite graves. For a critical overview on the state of the matter, even if still considering the Longshan, Erlitou and Erligang periods as precursors of the State, see Shelach and Jaffe 2014. See also McIntosh 1991 for a comparative of first urbanism between the Middle Niger basin, as observed at Jenne-Jeno, and the early Chinese urban clusters, proposing a segmentation based on religious or craft specialization.

[22] Nebbia et al. 2018.

settlement types and densities,[23] and the large size of the nuclear settlements themselves are obstacles that hamper neat conclusions on the subject of 'urbanism' and what it should look like. Megasites are a feature of three sub-periods within the CT periodization (from ca. 3700 to ca. 3100 BC). Due to their large extension, initial approaches did not go beyond limited excavation and magnetic prospecting. More intensive excavations started in the 1990s with Maidanetske and Talyanki. More recently, satellite imagery has been incorporated. The current Anglo-Ukrainian project at the site of Nebelivka is already bearing fruit.

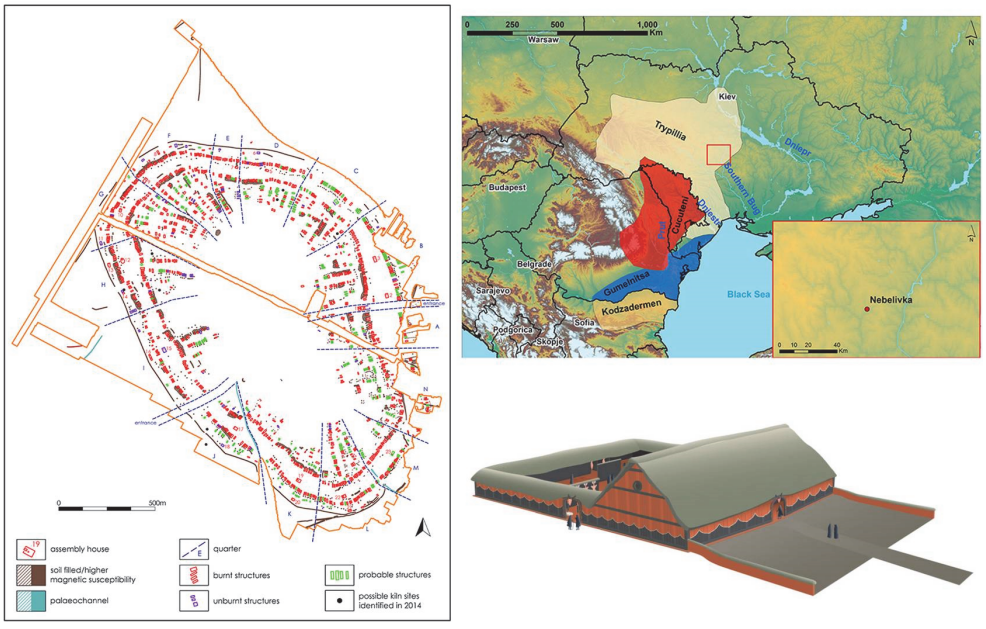

Fig. 7.4. Nevelivka. Left: Magnetometer plan. After Y. Beadnell, based on data from D. Hale. Right, above: Distribution map of Western Pontic Chalcolithic cultures, showing the location of Nebelivka. After M. Nebbia. Below: Reconstruction of an "assembly house" or "mega-structure". After C. Unwin, based on data from S. Johnston. After Gaydarska, Nebbia and Chapman 2020, Figs. 1, 2 and 7, reproduced with the permission of the authors.

Nebelivka was an aggregation occupying 238 hectares for over two hundred years at the beginning of the 4th millennium BC. Most of the 1445 identified houses were burnt upon abandonment, so it is difficult to estimate how many were simultaneously occupied, though modeling suggests between a third and a sixth.[24] Anticipatory planning has to have been present from its inception, as seen from a layout evincing an elliptical disposition around a large central open space.

[23] Statistical modelling of the Trypillian network by Shukurov and Videiko 2017 concluded that the terminal stage (CII), coinciding with the end of the 4th millennium BC, had fewer new settlements and a predominance of small sites, maybe the product of the fission of some of the earlier megasites.

[24] Gaydarska, Nebbia and Chapman 2020. Modelling provided by A. Millard. See alternative models in Nebbia *et al*. 2018, based on the assumption that some houses corresponded to visitors.

Results from a five-proxy biological sampling indicate that the ecological impact was minimal, with no discernible evidence of intensive pastoralism or agricultural activities. Subsistence was based on cattle, goats and sheep, cultivated cereals and pulses. A fire event took place 100 years before the foundation of the site, probably a sign of forest clearance. Two or three small peaks in charcoal levels probably indicate house burning. Aridity was detected before and at the end of Nebelivka's occupation.[25]

Neighborhoods have been defined by "a minimum of three houses separated at each end of the group from the next house" and there were 153 neighborhoods, most comprising three to seven houses.[26] Large houses are considered assembly houses, and they are thought to have been positioned in the public zones of each Quarter. From the plan obtained after the geomagnetic prospection (fluxgate gradiometry), the excavators have counted 9 such structures outside the outer circuit and 14 between the circuits.[27] Based on the finds coming from one of these structures—the largest at the site, measuring 60.5 × 18.3 m—, these venues served as "dining halls" and storage facilities. Whereas kilns were found in dispersed distribution at Taljanky and Majdanetsky, at Nevelivka all the evidence of cooking activities comes from these communal houses.[28] The pottery assemblage found as deposition within this excavated structure revealed that the majority of the more than 300 vessels found were apt for both dining and storage, with variability in fabric suggesting contributions from several sources. Some fine wares, flint tools, miniature vessels and two figurines were also retrieved.[29] Animal bones came mostly from pits, sometimes in large numbers. It is clear that commensality, the sharing of food and drinks in a social setting, was the main glue providing "togetherness" at this site.

Three models are currently studied to explain social organization at Nebelivka, and Nebelivka in context (as part of a large settlement network in the Southern Bug catchment area): distributed governance, assembly, and pilgrimage. The first one postulates a regional alliance of 10 clans or descent groups. Smaller, scattered settlements were affiliated to one of these groups, and supplied or supplemented the megasites with food, salt and pottery. Leadership would have been rotational.[30] The second one is predicated on an annual large-scale, regional assembly and visualizes not only seasonal visitors but a permanent core of 'guardians'.[31] The third one is based on (so far) opaque symbolic and ritual motivations, and an eight-month long season. It is inspired by Stonehenge, Angkor Vat and Cahokia. After the initial phase, house communities would have stayed at the site for short periods.[32] Given the relatively short occupation of the site (less than 250 years, maybe less), and the

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25 Albert et al 2020; Gaydarska, Nebbia and Chapman 2020: 109ff.

26 Gaydarska, Nebbia and Chapman 2020: 105.

27 *Ibid*.: Table 2.

28 Nebbia et al. 2018: Table 2.

29 Gaydarska, Nebbia and Chapman 2020: 108f.

30 *Ibid*.: 111.

31 *Ibid*.: 112f. Nebbia et al. 2018: "Although growth rates declined in the fourth generation, this time showed a peak in house numbers at 648 houses, suggesting a total of 300 permanent 'guardians' and almost 3600 visitors" (p. 53, modelling on the basis of five initial quarters).

32 *Ibid*.: 113.

periodic burning of houses forming "memory mounds", the pilgrimage model would need to include other mega-sites to form a centuries-long sequence, and prove why one site was chosen above others.

7.3.2. Trajectory 2: Arslantepe, a small but prosperous site in southeastern Anatolia

Before assessing the indications of meta-communal organization at Arslantepe VII, it is convenient to mention the survey of the Malatya plain conducted by di Nocera between 2003 and 2007 (satellite photographs and field walking). Despite observing continuity from the 5th to the 4th millennium BC as concerns preference for settlement locations, he noted: "What was very surprising, and certainly requires further study, was the fact that virtually no sites were found belonging to Arslantepe phase VIa, namely, the period in which this dominant centre reached the height of its power and prosperity, and the early state centralized system reached full development, with the site almost certainly intensely frequented by large sections of the population. The only evidence was a few ceramic materials found in the area immediately surrounding Arslantepe." The more intensive survey conducted around the tell, but at a short distance from the edges (500-600 m radius), revealed the presence of "four points" with finds. "Various sporadic and scattered remains of ceramics were also discovered in zones with good visibility, some of them all around the mound".[33] This makes Arslantepe VI a very good candidate for meta-communal aggregation around a centre that had steadily grown during the previous period (with a possible in-between hiatus). The recent publication by the Arslantepe team on level VII makes reference to string-cut bowls found at "site 101", according to Di Nocera's earlier survey, and clay source sampling around the site indicates that a few of the sources were at a maximum distance of 20 km from the site.[34]

Despite decades of excavation,[35] Arslantepe is a complex site, due to the superposition of layers from the Chalcolithic until the first millennium BC (monumental Late Bronze Age and Iron Age) structures in several sections of the mound. What is most striking about periods VII and VIA is the relative dearth of small finds, including botanical and zoological remains, and the relative lack of distinct workshop areas, which—together with the fact that most buildings of VIA showed evidence of burning, usually increasing the chances of finds—implies that its destruction was not only deliberate but that the community emptied the site of valuables and portables before abandoning it. A kiln area for exclusive pottery production has still not been unearthed. If pottery production was decentralized, this could be an interesting future find. Domed ovens (for cooking and baking simple ceramic wares) have been identified, but not even in VI were complex kilns excavated.[36] Furthermore, there is

[33] Frangipane and Di Nocera 2012: 294.

[34] Balosi Restelli 2019: 448; Fragnoli 2019.

[35] Apart from the initial French expedition, excavations began in the 1970s under the direction of Palmieri. In 1996, M. Frangipane became director and has been recently replaced by Ballossi Restelli at the helm.

[36] Ballossi Restelli 2015; 2019:132f.

no worked lithic debris in any specific area, although stone, flint, bone and some copper small objects have been found in pits, "elite" and "non-elite" residences, or buildings in disuse.

As is the case in neighboring sites, metallurgy at Arslantepe was a small-scale affair. A crucible was found among the debris of "Temple D", fragments of copper objects and pins in the courtyards and in the fill of "Temple C", two copper chisels in one of the early levels of the residential areas, two silver beads from a pit, and a silver ring from one of the domestic burials comprise all the remains of the first long phase.[37] Apart from the weapons and ornament stored in one of the rooms of the "palace complex" in the following period, the situation is similar, with a variety of small objects scattered all over the site and no clear indication of where regular smelting may have been taking place.[38]

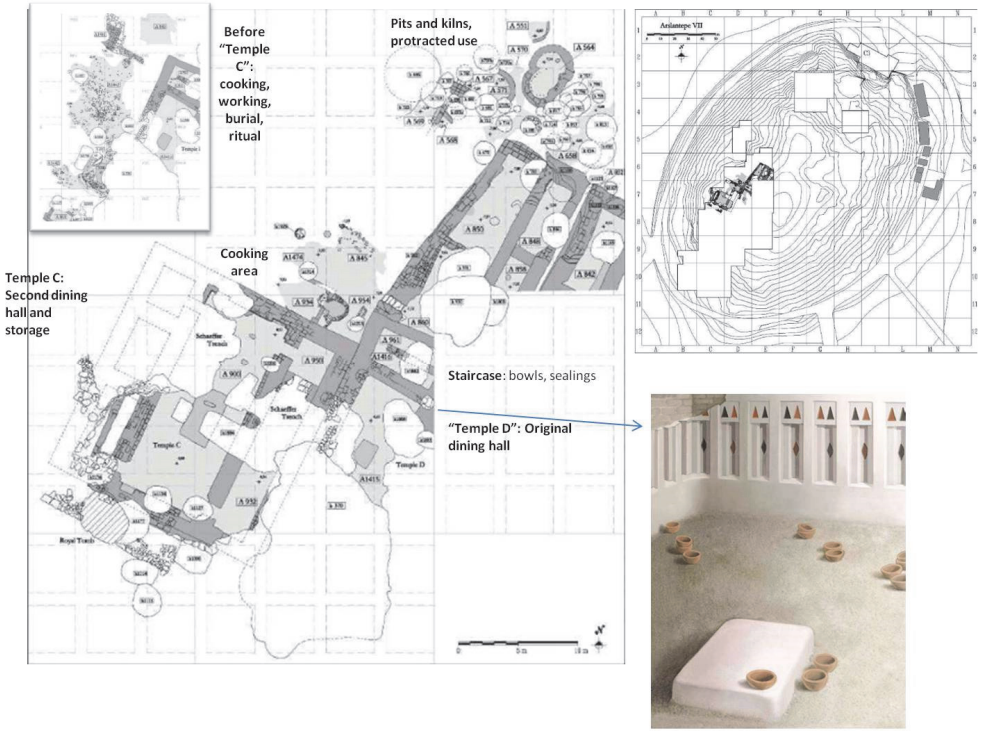

Fig. 7.5. Arslantepe VII as a whole. Top right: Plan of the mound with excavated areas as of 2019, showing Temple C and building XLVII. Main plan on the left: VII SW1a. Top left corner: SW1b (earlier). Bottom right: reconstruction of the dining hall at Temple D, by A.Siracusano. After Balosi Restelli et al. 2019: Figs. I.32, I.17, I.19 and I.25. Published with the permission of M. Frangipane, ©Missione Archeologica Italiana nell'Anatolia Orientale.

[37] Balossi Restelli 2019: 85; 548; 560; Balossi Restelli and Erdal 2019: 240. More important than the two silver beads and silver sheet found in pit K1914 are the hundreds of shells and precious stones for beadwork that were buried and sealed before the reconditioning for the following period. Together with the large storage vessels (*pithoi*), the ceramic fragments, and the bowl with red ochre, this pit looks like a hoard or offering cluster.

[38] Di Nocera 2013: 121.

The exception to a working area is found in the small rooms in the northwestern sector (D5, recently excavated and under study, on the edge of the mound), where fragments of 20 loom weights, in conjunction with small ceramic wares, grinders, pestles, pounders, horns, and an animal figurine have been unearthed.[39] It is suggestive of weaving and dyeing activities. In VIA, too, a complex in the northern area may have represented a segregated space for textile production, since one of the rooms revealed 18 loom weights, spindle whorls, bone needles and awls. The difference in the weight of the spindle whorls found in several contexts during the 4th millennium BC stands in contrast with those found in the later village VIB2.[40] The community living here at the beginning of the Bronze Age seems to have relied heavily on pastoralism, and despite a lack of loom weights, analysis of the spindle whorls indicate that "a larger variety of thinner yarns" was produced then than hitherto.[41] Nevertheless, from the second half of the 5th millennium onwards, there is an observable trend that sees whorls with lighter weights and diversification of size, shape and material,[42] a trend that is usually attributed to the introduction of wool-like fiber, although technically it only signals that finer, more fragile fibers could be spun.

Arslantepe VII is currently represented by a sector at the northeastern part of the mound and a more substantial one on the southwest. At the centre of the large western area rose the highest peak of the mound. The northeast exposure has been divided into seven architectural phases (VIIa-g), plus five more dug in a restricted area underneath. This trench will connect with Period VIII (late 5th millennium) in future.[43] Radiocarbon dates place VIIe on this sector at around 3700-3500 cal. BC. At the other side of the mound, the earliest phase has been tentatively dated to 3800-3600 cal BC. It is estimated that the phase preceding VI would fall between 3550 and 3400 BC.[44] The open areas and pebbled courtyards before the youngest phase have revealed pits, middens, and sometimes small-scale architecture that witness the protracted use of this western section for centuries, facilitated by the terracing of the slopes.[45]

During phase 1b in the southwest area, the construction of two long rooms and Temple D took place.[46] The purpose of the long rooms is hard to discern, as they may all have been built at different times, and they underwent several refurbishing episodes. The floors of the second room and the youngest (and westernmost) one have yielded bowl and sealing fragments, clumps of ochre, miniature vessels, well-

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[39] Balossi Restelli 2019: 548ff. Features in this area, e.g. the small rooms, pits and middens, postholes (cf. *ibid*.: 113ff) fit better with a working area than a temporary occupation scenario.

[40] Frangipane et al. 2009.

[41] *Ibid*.: 16.

[42] Sudo 2010, Keith 1998.

[43] Cf. Balossi Restelli 2019: 500.

[44] Balosi Restelli 2019: 145ff.

[45] SW phase 3 has yielded some of the most interesting finds at the site in terms of ceramics (whole range: storage, cooking and consumption), artefacts covering several activities, and one of the three eye idols excavated here.

[46] *Ibid*.: 44-59.

crafted bone and stone pieces, and obsidian arrowheads.[47] The material was sealed when the following floor was set, which implies a deliberate deposition, as is the case with some of the pits.

Temple D (or Dining Hall 1, from my point of view) comprised a lateral room—where the staircase to a second floor was placed—and a central hall with a platform and plastered, decorated walls. Wall paintings are actually present in big and small buildings from the late 5th millennium onwards, but the tone of the decorations here seems to have been more geometric and neutral than figurative and evocative.[48] Dozens of easily manufactured bowls were found both in the staircase room and the hall, apparently both left or stacked *in situ* as well as having fallen from the second floor, as the fill material included clay and ashes. This is also the case for the pottery sherds and sealings. A fireplace was located in the southern part of the central hall, whereas the external roofed oven adjacent to the northern wall of the building would have been active during the use of this dining hall and that of Temple C (initial simultaneous use is likely).[49]

Temple C and a long room were built during the end of the first phase. Both the courtyard area around the oven as well as the floors underneath Temple C have yielded a variety of pits and middens with a treasure trove of finds, including a ritual area with burials, a cenotaph, and bones of domestic and wild animals.[50] Interestingly, the analysis of the ceramic wares dumped or deposited/burned in the external pits surrounding the oven has revealed large-storage vessels, namely *pithoi* that could reach 1m in height,[51] suggesting that storage was not only constrained to the lateral rooms of the dining halls (in other words, trust was not an issue). The community decided to build the second and impressive dining hall in the style of their southern neighbors (tripartite structure), but with their own materials and know-how, and adjacent to the previous one.[52] The building was big enough (21 × 19 m) that there was not sufficient available flat space to the west. This flaw was compensated by the setting up of a grid-like foundation of wooden beams and stones, topped by stone slabs, and the careful placement of an extra layer of slabs on the south-western quadrant.[53] This measure, however, proved to be insufficient against earthquake activity, and the building's walls had to be repaired at some point down the line.[54] Following the first of the reconstructions conducted by Alvaro, an irregular roof line allowing for a "clerestory" would have ensured that the central dining hall had plenty of natural light coming from above. The dining hall had a platform with a fireplace, and as was the case with Temple D, bowls were found both stacked in the lateral rooms and in the dining room, by the hundreds. The side rooms also

47 *Ibid*.: 596ff.

48 Compare with wall paintings from "Temple C" and the NE sector, *ibid*.: Figs. I.44 and 93.

49 *Ibid*.: 85. Frangipane and Cereda 2019: 219ff.

50 *Ibid*.: 56-59, 84-87.

51 *Ibid*.: 557ff, particularly as concerns K1914.

52 Alvaro 2019: 151ff.

53 The quarry has been identified at a volcanic caldera about 2 km east of the site.

54 Balosi Restelli 2019: 68.

contained numerous vessel and sealing fragments and debris, even though this building was not deliberately burned or razed down (as the other had been).

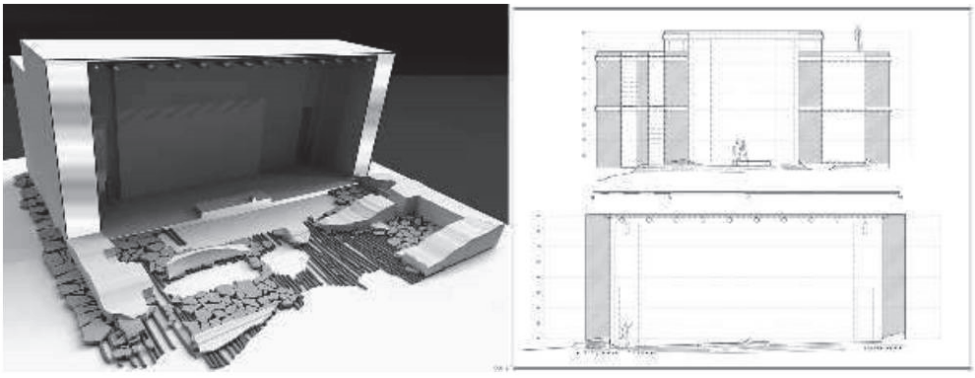

Fig. 7.6. Temple C reconstruction, hypothesis I. The sections illustrate the position of the wooden and stone elements of the platform and the slope of the entire structure. Design by C. Alvaro, after Balosi Restelli et al. 2019: Fig. III.20. Published with the permission of M. Frangipane, ©Missione Archeologica Italiana nell'Anatolia Orientale

What is somewhat surprising is that the analysis of type and function of the ceramics found at both dining halls show a surprisingly low number of large solid and liquid storage vessels as well as relatively scarce plant and animal remains.[55] Both buildings must have been cleared out of all stock before their abandonment. Between the two buildings, bowls number beyond the thousand, and some jars, beakers, and multi-purpose vessels appear too.

Sealing fragments were relatively numerous in all areas, including the pits around the oven or the youngest long room: 184 sealing fragments were recovered from one of the side rooms of Temple C and 450 fragments unearthed from the staircase room of D. Out of the latter, 211 preserved the outer seal impressions.[56] Preliminary analysis of those from C has revealed that only three stamps had been applied more than twice. Two different stamp impressions no longer occur. Unlike at Sabi Abyad almost two thousand years earlier, we are now indeed in an administrative economy, even if a small-scale one. In the case of Temple D, five designs have been identified as used more than once or twice, and two of those designs were also among those from Temple C, reinforcing the possibility of two dining halls/storage facilities co-existing for some time. Hardly any stamps have been found during this period at any location, except for two pieces, one made of bone, another of ivory (looking like an ornament).[57] Stamps may have been crafted out of wood. The use of wooden lids instead of clay ones has been remarked upon.[58] Further excavation of the small groups of people living around the site and a wider array of burials could illuminate

[55] Bartosiewicz 2019, Sadori et al. 2019, and Balossi Restelli 2019: 535ff.

[56] Frangipane and Cereda 2019.

[57] Cristiani, Laurito and Lemorini 2007.

[58] Frangipane and Cereda 2019: 211.

this matter further, but the situation is not dissimilar to that of earlier Değirmentepe, level 7. Here 24 stamps were retrieved—two of chalk, the rest of stone—but 450 sealing fragments were found.[59] Micromorphological analysis of the sealing impressions of Period VIA has revealed that stone, wood, bone and ivory were all used.[60]

Overall, the evidence for the century or so when the dining halls were in use suggests that food was dispatched from the satellites in a variety of medium-sized vessels, baskets and containers and stored here to fulfill the need to feed people on a daily basis, but maybe not to store much stock surplus.

When the meta-community at Arslantepe increased in size and decided to intensify its productivity, with the concomitant architectural redesign and expansion, barley started featuring prominently, together with plants associated with textile manufacture (not flax). Lentils, bitter vetch, fruits and medicinal plants also formed part of the package.[61] There is a significant change in terms of visible consumption. Analysis of the zoological remains signals a steady increase in ovicaprines for meat consumption at the expense of beef and pork.[62] There are no longer large numbers of bowls, no impressive dining halls (rather three moderately sized ones), and a substantial increase in the number of sealing fragments attesting to the need for more storage space. There is also an apparent increase in multi-functional spaces of difficult attribution, both open areas and buildings (see Fig. 7.7).

Following Alvaro's 2010 chronological reconstruction of the restructuring and the different phases of the roughly two hundred year span (until ca. 3200-3100 BC) of VIA, there was a north to south gradual development. The southern portion of the corridor, the monumental gate, and at least part of the Temple A sub-complex were built in a second phase.[63] This may have eventually entailed the progressive disuse of the courtyard and buildings to the east of Temple B. The extension arranged for additional storage buildings and a second floor and/or roof covering the corridor to unify the two blocks. In the northern area, there was a cloth/basketry manufacture complex, as mentioned above, with a small dining room with a fully functional, small-scale pottery assemblage within the northernmost building.[64] Across from the entrance to the "Audience Building" stood Temple B acting as a dining hall, with two working rooms and a buttress arranged along its eastern flank, and maybe additional working spaces, cooking facilities and basic storage above and in the eastern courtyard. South of the large eastern building (largely unexcavated) and abutting it, a room (A430) that was damaged by a Hittite structure was used as a dump site at

[59] Esin 1994. Bullae-like tags, like at Arpachiyah, were still in use.

[60] Cristiani, Laurito and Lemorini 2007.

[61] See Sadori *et al*. 2019; Balossi-Restelli, Sadori and Masi 2010.

[62] Bartosiewicz 2019, 2010. Animal bones were mostly found in dumps, or in the assembly/dining halls. Nevertheless, NISP values of the subsequent VI B1 and 2 periods are comparatively higher than those during the "palace" phase (Piccione et al. 2015).

[63] Given the observed reforms affecting "Temple A" (cf. Alvaro 2010, Frangipane 2007a: 41), this building had a previous, more basic configuration (when the walls of the main room were painted and decorated), which may imply that the addition of the rooms facing the courtyard and joining the corridor came later.

[64] D'Anna 2010: 183f.

the end of its life, which suggests that the expansion to the south led to an eventual re-organization or temporary abandonment of the eastern section. When the eastern section became redundant, access to the central storage room from the eastern courtyard was blocked,[65] and access to this and the northernmost storage room would only have been possible from the corridor.

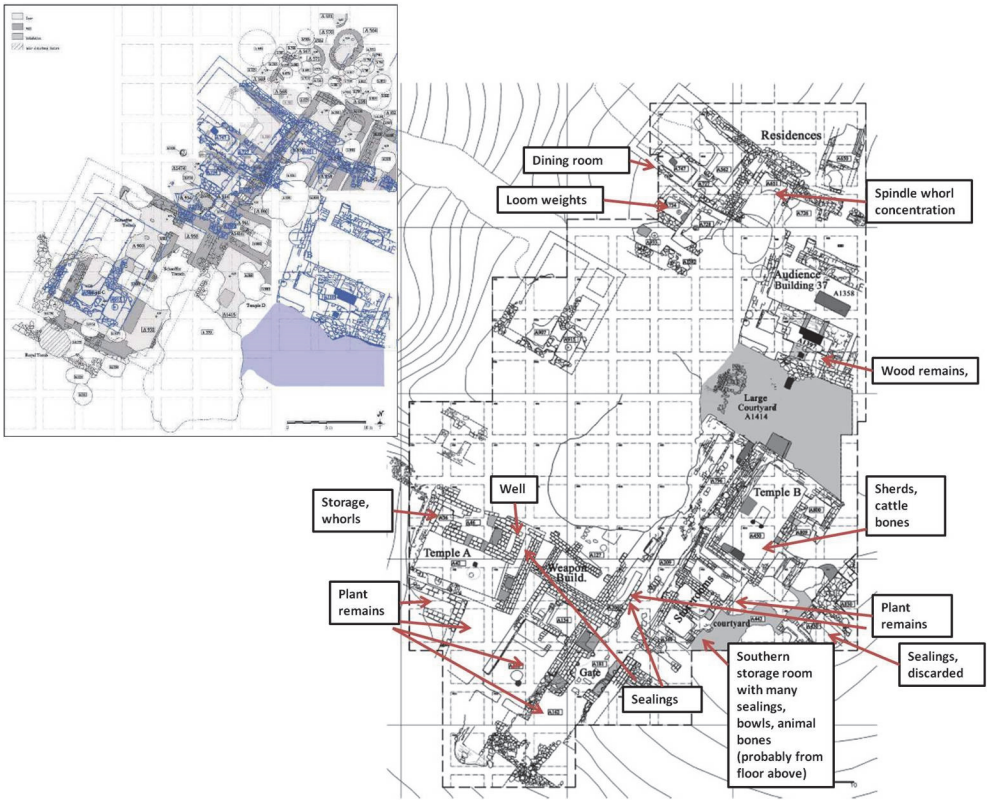

Fig. 7.7. Left: Superposition of VIA over the last VII structures. After Balossi Restelli et al. 2019: Fig. I.18. Right: plan of Arslantepe VIA as of 2018. After Frangipane 2019: Fig. 8. Finds have been added based on data from different publications. Published with the permission of M. Frangipane, ©Missione Archeologica Italiana nell'Anatolia Orientale.

Necessary to cover the corridor with a roof were the renovations and reinforcements of the western wall of the corridor. This is when the "bulls fresco" (see below) disappeared under plastering and woodwork.[66] The corridor also featured a drainage channel under its pavement running down from the big courtyard. The small triangular space labeled room A206 (adjacent to the "Weapons Building"), an awkward result of the reinforcements at the other side, does not represent—as a consequence—a primary location for the sealings found in it. The layers of sealings,

[65] See image with the wall paintings below.

[66] Frangipane 2016: Figs. 8 a, b; Frangipane and Fazio 2013. See also image below, showing a reconstruction of the recovered abstract-figurative fresco.

sherds and ash signal not only that there was a second floor, but that we cannot know what the layout upstairs was —and this is relevant because several of these sealings are interpreted as coming from sealed doors.[67] This particular kind of deposition was also observed in the thin room running the eastern length of Temple A.[68]

The main rooms of Temple B and Temple A were roughly half the size of those in old Temple C and D.[69] It is theoretically possible to see Temple B as a facility where the caretakers lived upstairs. The pottery assemblage, including bowls, suggests that working teams were fed here, but there is no reason to consider it a place for exclusive ceremonies held by "elites" or "patrons", as has been posited.[70] The storage rooms in Temple A had overall more liquid and dry storage capacity, but by little, and Temple B had bigger cooking pots. Apart from plant remains, some animal bones here, in the storage rooms, and in the northern sector indicate that meat was regularly consumed by all.[71] The rooms to the south of the "weapons room" may have been related to cereal or crop processing.[72]

In conclusion, when taken as a whole, the complex points towards a well-coordinated collective organization,[73] capable of constructing these big buildings together and of pooling resources and redistributing them on a daily basis, even if the demands of work seem to have superseded the communal meals shared by many in one single location, observed during the previous phase. The iconography of the wall paintings and the glyptic, the immense majority of the pottery wares and construction techniques and materials indicate that the community chose to largely maintain their traditions and only import what they liked and suited them.

Arslantepe VIA is interpreted as a palace complex, a secular structure that emerged after the previous religious organization, with the underlying assumption that in this phase there was a king at the helm. This is based on the interpretation of three types of evidence: the juniper remains found on a stone platform at the first chamber of

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67 Alvaro 2010: 61; Frangipane 2007a: 47-53.

68 A77. Frangipane 2007a: 41, 53-55. Actually, Frangipane interprets this narrow room as a staircase space, figuring that initially it and the adjacent room with remains of a well would have conformed one single space, the well being the staircase base. In any event, there were also layers of ash and debris. There was also a concentration of discarded sealings outside, next to the western wall, in an area belonging to an earlier structure, destroyed by erosion.

69 Alvaro 2010: 61.

70 *Contra* D'Anna and Guarino 2010.

71 *Contra* Bartosiewicz 2010. All areas had a representation of animal bones. Caprines and cattle were far more numerous than pig. Temple B had more cattle bones than Temple A, but this could be due to sampling biases (cf. *ibid*:120). Temple B also revealed some deer and hare bones, and some small lion and bear bones; Temple A, a boar mandible.

72 Balossi Restelli, Sadori and Masi 2010: Fig. V.1.

73 New pottery studies observe that from the last period of Arslantepe VII onwards, potters' marks disappear, clay procurement stabilizes, and the use of the wheel increases. However, there is still relative variability in paste recipes, modes of production, or vessel shapes, particularly concerning kitchen wares. Fragnoli (2021) concludes that there was a process of division between people that procured the raw material and those dedicated to potting, particularly as concerns wheel-finished wares, signaling a higher degree of cooperation. Moreover, rather than standardization, the observable tendency at Arslantepe is one of morpho-functional specialization.

the “Audience Building”; the preserved wall paintings at the back of the central storage room; and the design of one of the cylinder seal impressions.

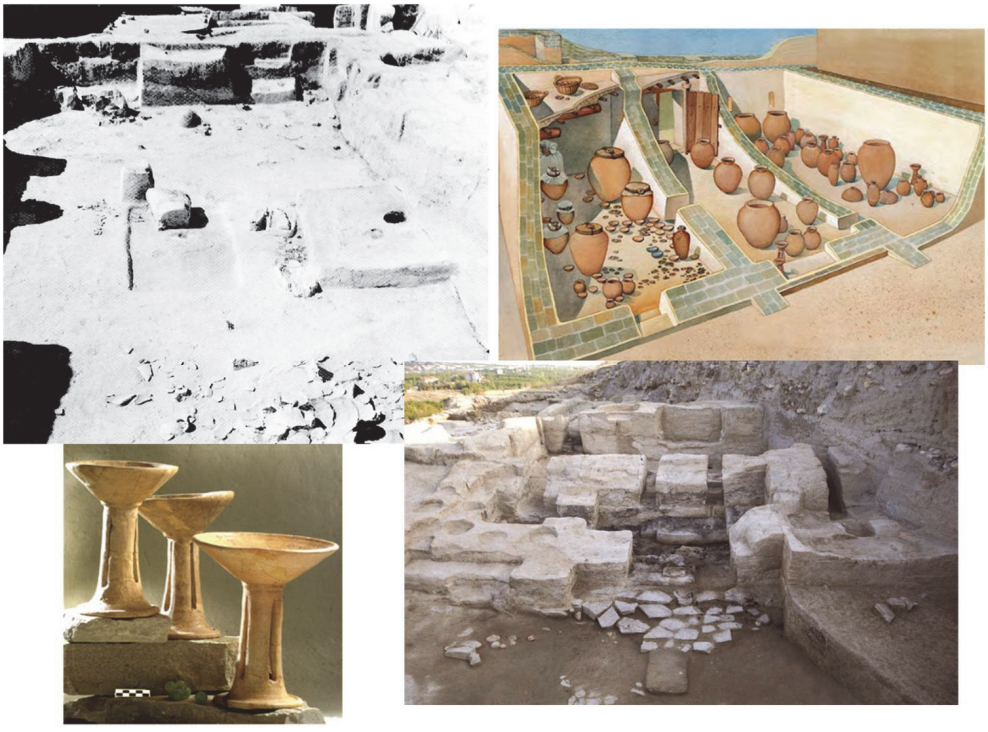

Fig. 7.8. Correlations of materiality with the “religious” or the “secular”. Top left: Main room of Temple B. Altars and podia? Or fireplace platforms and tables? After Frangipane 1997: Fig. 5b. Top right: Reconstruction of ground floor assemblage of storage rooms. Institutions or collectivity? Drawing by T. D’Este, from Frangipane 2018: Fig. 15d. Bottom left: High-stemmed vessels from Temple B, but found also at other locations. From Frangipane 2018: Fig. 11b. Bottom right: “Audience Building” showing cobbled entrance and “throne room”. Published with the permission of M. Frangipane, ©Missione Archeologica Italiana nell’Anatolia Orientale.

Regarding the first, the small size of the surviving wood samples[74] does not allow for more than concluding that there was a piece of furniture at that location. Whether it was part of a chair (or throne), a table, the flooring, or anything else, is purely conjectural. The fact that it was juniper instead of any other species whose remains have been found here, either used in the construction of the upper walls/roof (pine, alder, poplar) and for aesthetic or other purposes (*rosaceae prunoideae*), only indicates that a flexible, fragrant type of wood was chosen for this piece of furniture. Actually, juniper was one of the wood types used for the foundation of Temple C in the earlier period. Wood as a construction material was extensively used at the site,

[74] Frangipane, Manuelli and Vignola 2017: 66ff, incl. Fig. 4.8.

signaling easy availability of deciduous broadleaved and coniferous trees.[75] Ferioli and Fiandra interpreted a series of sealing impressions whose internal side had marks indicating wooden edges, holes, ropes and strings as all pertaining to door closures, sometimes reconstructing convoluted lock designs.[76] Yet, a number of those 160 (out of ca. 1500 coming from the debris of A206) could have just as easily sealed chests, cabinets, or any other piece of wooden furniture serving as a container, something far more practical than sealing doors.

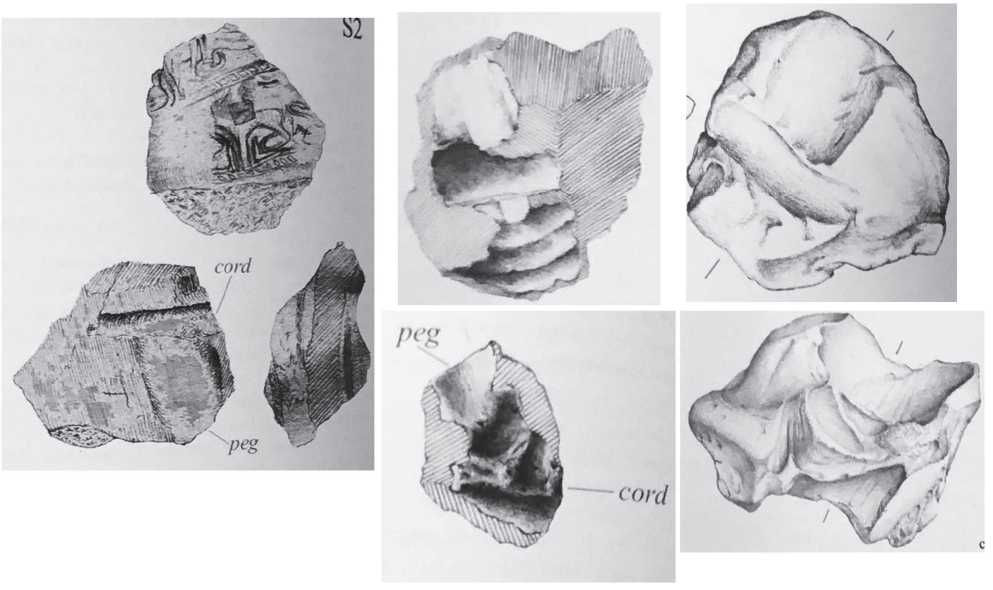

Fig. 7.9. A selection of clay impressions of the mechanisms theoretically corresponding to door locks according to Ferioli and Fiandra 2007 (Ch.2): Fig. 11.23, S2, c168, c401; S1 c321; Fig. 6.25, S2, c168, S3, c2941.

Even though the so-called audience building has certainly a monumental appearance, and it is conceivable that some kind of ritual took place inside, its access points at the back leading to the northern section, and the scarcity of finds in the first and second chamber—where there was a fireplace—do not allow for a straightforward interpretation.[77] There is no persuasive reason to see this building as an audience hall.

As concerns the imagery preserved on the walls of a storage room, especially the figure depicted on top of a spindled chair, the first observation is that this enigmatic individual is not fully anthropomorphic and is depicted not just twice but at least three times, according to the study of pictorial analysis and layering done by Fazio (the third is not shown on the figure below).[78]

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[75] Alvaro et al. 2010.

[76] Ferioli and Fiandra 2007: Figs. II.27-31. They consider private house locks in Turkish villages an acceptable source of direct extrapolation.

[77] Frangipane, Manuelli and Vignola 2017.

[78] See Fazio in Frangipane, Fazio 2013: Fig. 7 c.

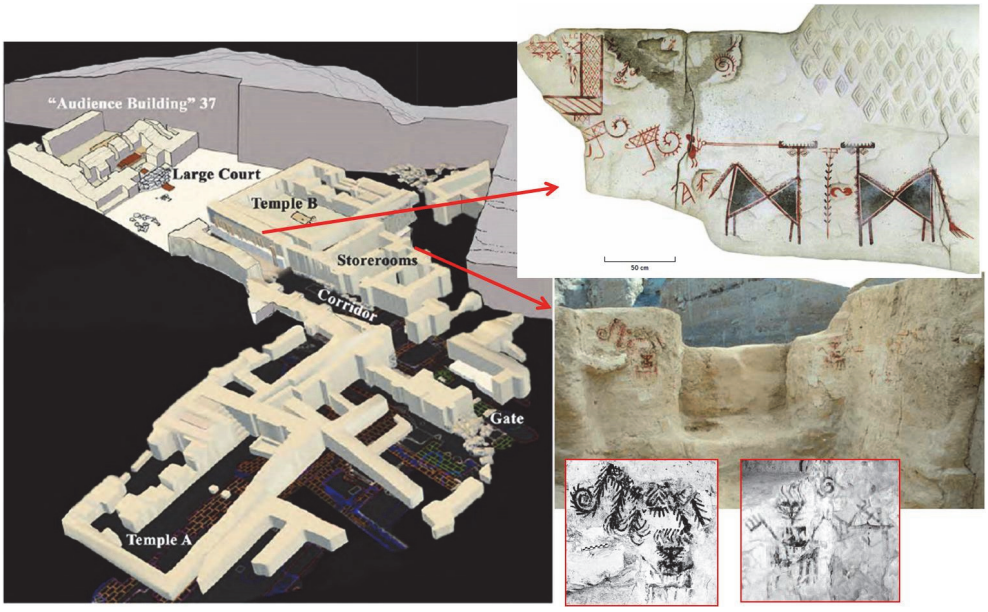

Fig. 7.10. Isometric plan of the "palace complex", with location of the best preserved wall paintings. 3D plan by C. Alvaro, reproduced from Frangipane 2018: Fig. 13. Reconstruction of the corridor fresco (T. D'Este, from Frangipane 2016: Fig. 11d). Egress of storagerooms to eastern courtyard, which was blocked at some point, showing preserved wall paintings. Adapted from Frangipane and Fazio 2013: Fig. 4. Published with the permission of M. Frangipane, ©Missione Archeologica Italiana nell'Anatolia Orientale.

Whereas the representation on the right side of the doorway bears a stick or scepter, the two on the left hold two rakes. This character has a triangular head and short waves erupting from it. The one on the left is depicted under lush vines forming a canopy; the two on the left, amidst abstract symbols. The ambiguity is disturbing enough that Frangipane remarked: "*divinità, capi, sciamani, sacerdoti?*"[79] This ambiguity also pervades the scene reconstructed from the corridor wall, where we see enigmatic bulls with geometric bodies and staring eyes, and a tiny man on their left, holding a rope to the horns of one (sending mixed signals: is the message one of domination, or humorous respect?) Enigmatic are also the leafy plant with a head (?) sprouting between the bulls or the headless, geometric animals.

Yet, even if Frangipane refrains from the religious route (and maybe she should not, provided that we allow for communal cohesion to be achieved through non-exclusionary practices), she is trapped in her need to build up a case of evolution at the site from period VII, and offer a comparative with the rest of the "Uruk world": "Power was no longer exercised through cultic practices, but directly, and in a "secular" manner. (…) The ideology of power, rather than being expressed in the sacred sphere, now used symbolic elements and artistic expressions referring to the central role of agricultural production and management, underlining the fact that

[79] Frangipane in Frangipane and Fazio 2013: 536. "God, chief, shaman, priest?"

subsistence goods must have been central to the very concept of "wealth"".[80] Indeed, but you do not need a hierarchical system for that, nor a full-fledged institutionalized system, with temples and a palace. There is not much likelihood of a "sneaky", opaque ideology that does not convey or blatantly promote its intentions through any visual means of communication, because it would be self-defeating. Apart from the monumentality and the scale of the enterprise, there is no reason to believe that the values of the people of Arslantepe, or of the Malatya plain, had fundamentally changed. This is patently observable through the glyptic, both as concerns its evolution from VII to VIA—and there are changes, but not significant—as regarding the glyptic of VIA itself. The ideology of power is also adduced for one out of approximately 2000 seal impressions and nearly 300 designs reconstructed from sealing fragments retrieved from corners of storage rooms, fallen from upper floors, or discarded in garbage dumps.[81] This particular design, despite its "Uruk"-style, is classified as belonging to a 4th rank official according to a convoluted hierarchy scheme that would have operated during the last period before the abandonment of the site.[82] The scene shows several individuals surrounding a sledge-like thresher pulled by a big animal, with the individual mounted on the seat of the thresher holding theoretically the highest office as ruler (A206-001). As is shown below, however, it is not that dissimilar from other scenes with human figures. Its originality lies in the complexity of its composition, the fact that it was a cylinder seal—which is an introduced new format, and relatively infrequent—and the ritual atmosphere that transpires, one that indeed emphasizes the importance of an agricultural ethos.

Scenes with human figures are, moreover, a minority if we take the ca. 260 designs analyzed for VIA in the 2007 special volume into account. In addition, these scenes are redolent with a symbolism that is hard to pigeonhole, but is familiar (e.g. the filling motifs that look like V-shaped birds; arms ending at claws). There is a sense of camaraderie in the pair-work scenes comparable to Gawra, though with less emphasis on the male-bonding aspect. The introduction of more human figures, the patent decrease in geometric motifs, a certain standardization in the shapes/formats of the seals and the proliferation of these stamping objects (although, as was mentioned above, the excavated exposures are not alike), are clearly observable changes by comparison to Period VII.[83] But they do not signal an ontological change. All species—big and small, predator and prey, *tête-bèche* or in circular arrangements—are part and parcel of the same cycle of life. The men in 002 and 003 approach animals in a reverent manner; there is a peculiar "mistress" of snakes in VII; foxes, cats and lions circle their prey or pose, but do not engage; and if some foreign theme

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[80] Frangipane 2016: 14.

[81] Frangipane 2007b: 175. The sealings from Temple B were excluded from analysis in this volume.

[82] Frangipane and Fiandra base this hierarchy on the premise that door sealings are successfully identified and that they belong to the highest officials (Pittman 2007: Ch.III, Fig. III.68-69).

[83] Frangipane and Pittman are currently working on the approx. 90 seal designs from this period, but in the preliminary analysis, it is observed that several of the most frequently used seal impressions bear a geometric motif (Frangipane 2021: 214). Note how the four spiral motif (S.305) will be reproduced as a metal object in VIA.

is emulated, it is quite the conservative choice (e.g. the embracing beasts forming a garland, the overflowing leather vessels, the lion in profile, or the well-behaved snakes forming an interlocking pattern and mirror image).[84] In Arslantepe we may not see fable-like scenes as at Gawra (though see the circle composed by an ithyphallic man, a big cat, a hoop-like object and a snake), but there are still some fanciful ones, like the thin cats with multiple legs and no heads (033), the hybrid horned entity with a navel and bird-like legs (052), or what may be a centaur (159).[85]

Fig. 7.11. Selection of seal designs used on sealings from VII (top rows) and VIA. The first reproduced from Frangipane 2019 (Balossi Restelli et al. 2019: Ch.4). Four bottom rows: **From A206**: 001, 002, 003, 009/ 011, 012, 014, 015, 016, 021, 033, 040/ 052, 056, 071. **From A340 (storage room):** 159, 162. **From A77 and A39 ("Temple A"):** 202, 204/ 214, 228, 229. **From A430 and A434 (eastern room used as garbage dump):** 256, 258, 250, 251. After Frangipane and Pittman 2007; Frangipane 2016b. Drawings by T. D'Este. Published with the permission of M. Frangipane, ©Missione Archeologica Italiana nell'Anatolia Orientale.

The usual descriptive/classificatory exercise that is prevalent for glyptic analysis was meticulously undertaken for the Arslantepe corpus, running the gamut from feature categorization to format, material, carving techniques, and parallelisms with other sites. One senses that symbolic expressions, and the values underlying it, are often

[84] The last seal design in the selection depicts several semicircular objects next to what seems to be a bovid. If these are yokes, the animal is not wearing them.

[85] Seen also at Choga Mish (Cf. Alizadeh 2008: Fig. 76, F).

confusing if not disturbing, and therefore do not align with our academic tenets (fake objectivity; strict separation between economy and ritual; "literal-minded" approaches as concerns object identification). In the case of the Arslantepe glyptic repertoire, Pittman and Frangipane are forced to admit that "the imagery *per se* is not directly correlated to place in the hierarchy. (…) And no themes were dedicated to single purposes". But not to be discouraged, the hope that themes may be eventually tied to "corporate groups" is given voice.[86] From my perspective, elucidating how the groups living around the site organized themselves *vis-à-vis* the core should be the future priority.

In the 4th millennium BC, the old Syro-Anatolian habit of using amulets and stamps to recognize the contexts of containers in collective storage facilities—and probably the result of collective working task groups—came handier than ever, and expanded. The stamp became indeed the seal, an administrative tool. However, the lack of human-over-nature values at sites like Arslantepe implies that the alignment of a person's public role and status with his/her identity had not occurred. These glyptic scenes are still personal and interpersonal, but not impersonal (using Morrison's terms, as seen in Chapter 3). When growth could no longer be sustained, the groups now forming a single, if extended, population, decided to dissolve and disperse. The following phase has hardly any architecture (the only remarkable feature being "the royal tomb" mentioned at the end of Chapter 6). In other words, we have a return to flexible sedentism. At the beginning of the 3rd millennium BC, Arslantepe VIIB2 sees a population that is probably of mixed provenance (the metallurgical objects and compositional signatures indicate different craftsmanship),[87] who built decent but modest house complexes in a well-sized agropastoral village.

This trajectory was not a failed urban experiment. This was a choice.

7.3.3. Trajectory 3: Tell Brak in the Khabur

As an archaeological site, Tell Brak is somehow the opposite of Arslantepe: several trenches dot the main mound as well as at Tell Majnuna, one of the surrounding satellites, yet there is no area—including CH, excavated by Mallowan in the late 1930s (largely the "Eye Temple")—where a good-sized horizontal exposure has been unearthed.[88] Moreover, a trench-by-trench, level-by-level kind of reporting at Tell Brak has resulted in an "archaeology 101" narrative of architectural features, extracted material, degree of impressiveness of architecture and material, and reasons why said impressiveness presents an independent development of complexity at Brak. This approach, combined with a dearth of specialized studies, makes a diachronic understanding of Brak and its satellites during the 4th millennium BC a current impossibility. However, if trench interconnection at the core and excavations at Tell Majnuna or other mounds end up revealing residential quarters, this site may represent the best example of a heterarchical, meta-communal aggregation. The

86 Pittman 2007: 333.

87 Di Nocera 2013.

88 Several expeditions have taken place uninterruptedly since the 1980s until the war in Syria. A. Mcmahon has been director since 2006.

survey conducted in this sub-region indicates that several groups congregated from ca. 3500 BC onwards around the main mound.[89] By contrast, there is still much yet to be undertaken at Hamoukar, located at the eastern side of the alluvial plain.[90]

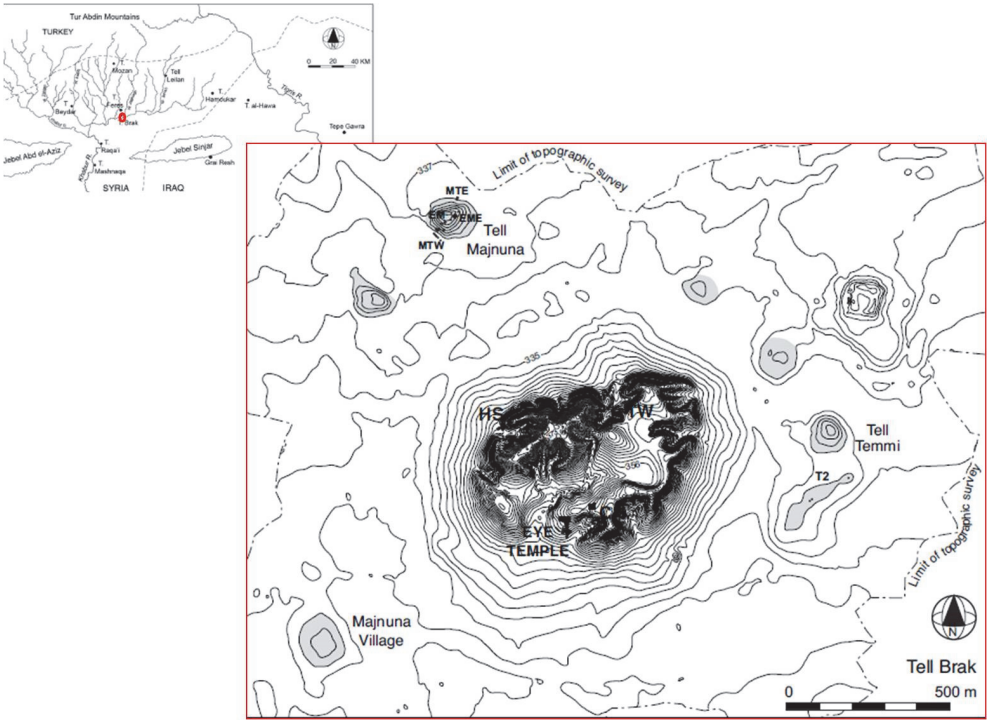

Fig. 7.12. Map of the Khabur region, showing location of Tell Brak. Map of the site and satellites, showing the boundaries of the topographic survey. After Oates et al. 2007: Fig.1; McMahon 2013: Fig. 1.

A recent volume of specialized studies[91] focuses on some aspects of activity and materiality, but is hindered by the fact that data is only relatively abundant for the TW trench. One aspect that seems to characterize the population of Brak is their excellent glyptic craftsmanship. The abundance of obsidian as a lithic material, even if Khalidi observed that eventually its ratio diminishes, is one of the topics of discussion in this volume. Yet, there is no chapter(s) devoted to the carving of objects of different formats, including a comprehensive, diachronic overview on the use of stamps and the iconography of sealing impressions, with adequate drawings and good-quality photographs. Considering that the converging communities at Brak were surrounded by alluvial land—although in the 4th millennium BC probably

89 Ur *et al*. 2011, esp. Figs. 3 and 4.

90 Ur 2010; Al Quntar, Khalidi and Ur 2011 (Khirbet al-Fakhar appears to have been more densely settled from 4300 to 3800 BC; Hamoukar grew to 105 ha during the Early Bronze Age). Preliminary excavation reports from 2008 to 2011 have been posted at the Oriental Institute of Chicago website (Reichel). See also McGuire et al. 2002.

91 See contributions to McMahon and Crawford 2014.

undergoing change and quite different from what we see today[92]—and proximity to the Jebel Sinjar and the Jebel Abd el-Aziz to the south, the Taurus Mountains to the north, and basaltic outcrops to the east,[93] it is perhaps no surprise that they took full advantage of the available waterways and land routes not only to put their flocks to pasture but also to obtain the raw materials that they needed. These materials included obsidian, bitumen, precious stones, and several kinds of beautiful and versatile rocks, used to craft tools, beads, amulets, stamps, and figurines (eye idols included). This is a tradition that started before a first wave of incomers joined the local population at ca. 3500 BC ("Uruk" phases). Metal is not particularly relevant at Brak until the end of this period, coinciding with the Early Dynastic in southern Mesopotamia, although Oates reported gold sheets found in one of the houses of TW Level 16, and axe-casting molds have been found.

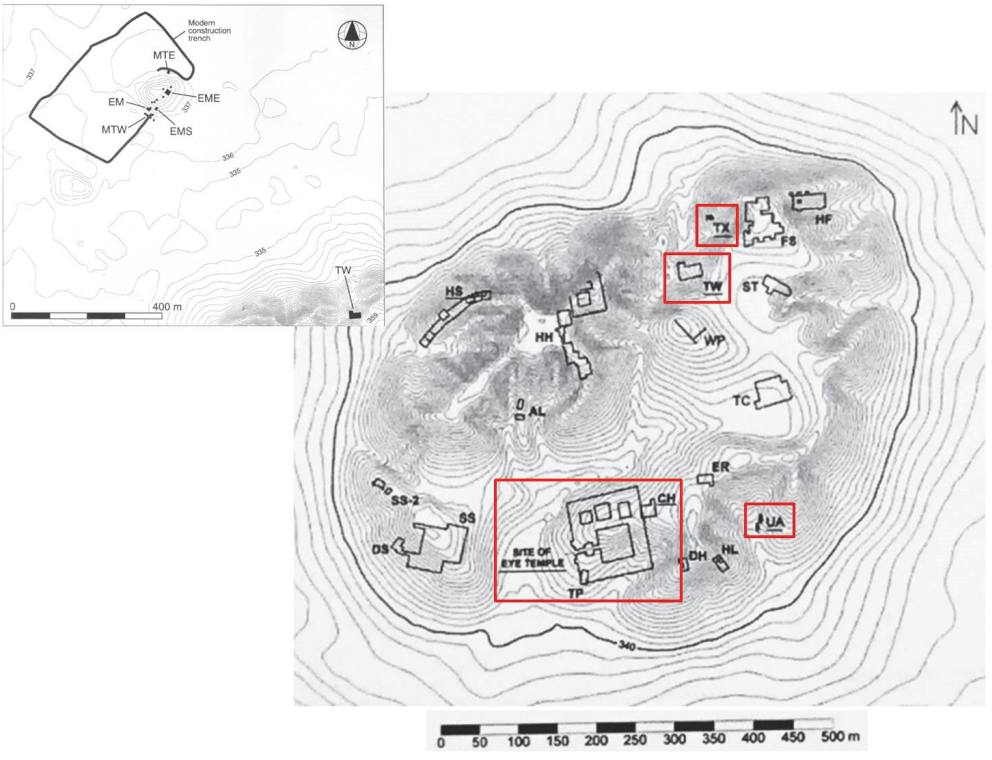

Fig. 7.13. Map showing trenches opened at Tell Majnuna. Main topographic map of Brak. Trenches in red mark 4th millennium occupation. Due to their small size, HS1 and 6 are not marked. After McMahon, Soltysiak and Weber 2011: Fig. 4; after Hald 2008: Fig. 4.1.

92 CORONA and aerial photographs were used for the surveying project, but seem to correspond to ancient (1st millennium AD) canal systems. Cf. Ur et al. 2011.

93 For a map with the soil composition of the Khabur, see Hald 2008: Figs. 2.3, 2.5.

Thanks to an extensive program of radiocarbon determinations,[94] combined with some dendrochronological readings, and to the material culture correlations that have become possible through the combined work of decades of excavation in discrete areas, the following table with collated data is here presented as a basic chronological reference:

Table 7.1. Tentative chronological reconstruction of Tell Brak-Majnouna during the 4th millennium BC, trench by trench.

Basic chronology	TW	CH "Temple" area	TX	AU	Tell Majnuna	T2
C. 4000-3600	Levels 20-18 Working spaces Communal dining Limited storage	Red-brick phase?	_	_	MTW/ EM Disarticulated human remains	?
C. 3600-3400 (admixture)	Levels 17-14 Transition	Grey stratum Abundance of glyptic	Section of a multi-room building, external ash deposits "Late Uruk" material	Pits	EMS	Graves Tanning Pottery Pig butchering
C. 3400-3100	Levels 13-10 Sections of buildings and pits	Pre-final Eye Temples Young levels at CH sounding[95]		Section of building	EMS/ EME	
Post-3100	Levels 9-1 Pits	?	_	_	_	_

Levels 20-18 at TW present a promising number of features indicating multi-functional working spaces, cooking facilities, and daily meal consumption and storage. As was the case at Arslantepe VII, two dining/assembly venues may have eventually coexisted. The walls of the large, rectilinear building to the east were 1.85 m thick and have been preserved to a height of 1.5 m. The entrance to this building was made from a cobbled-stone courtyard into a prepared plastered, then wooden flooring space and through a threshold stone that was a huge block of basalt, supported in turn by basalt stones. It is said to have lasted until Level 18, but not much is known about its interior. The working spaces and ovens in ever changing arrange-

[94] Emberling and McDonald 2003.

[95] D. and J. Oates opened a sounding in the CH sector. The material they found here, when correlations with TW started being possible (cf. Oates 2002), forced a reassessment of the chronological assignation of ceramic material and the levels where it was found going backwards in the timeline (instead of "Late Uruk" ceramic types and administrative devices, readjustments would force the coining of a "Northern Middle Uruk" period around 3600 BC).

ments from Levels 20 to 14 to the west of this building, however, were packed with numerous finds.

Fig. 7.14. Plans of excavated TW area at Tell Brak, levels 20, 19 and west end of level 18, "feasting hall". It would have coexisted with the "basalt threshold" building to the east, then with the Level 16 houses. After Mcmahon et al. 2007: Figs. 4 and 5; after Oates et al. 2007: Fig. 11.

The ovens signal a tendency towards baked meals from Level 19 onwards, coinciding with the red libn-"feasting" hall construction, whereas before, according to Weber's analysis of the animal bones found here, there was a preference for meat roasting in spitfires.[96] Already at Level 20, the workrooms contained "large numbers of basalt pounders and grinding stones, beautifully made stone and bone tools, many clay spindle whorls, carefully polished stone palettes, delicate obsidian blades, neatly ground obsidian discs, large quantities of mother-of-pearl inlay cut from local mollusk shells, together with extensive evidence for flint-working including an unusually long brown flint blade".[97] In other words, noteworthy in this late 5th millennium-early 4th millennium scenario are the site's prosperity and the construction of communal spaces, signaling incipient re-organization, as at Arslantepe. What is going on

[96] See Weber in Emberling and McDonald 2003, and micro-artifact analysis conducted by Rainville in the same publication, p. 71.

[97] Oates et al. 2007: 590. Mcmahon et al. 2007: 153ff further report "tokens", a large "spectacle idol", a small one in an infant burial, and further obsidian/flint cores and blades in the vicinity of the basalt threshold building. Level 21 had some mud-brick and *pisé* structures with ovens, bowls, and some sealings.

in the hinterland is not well known.[98] The construction of the red-brick building in Level 19 signals the beginning of cooperative behavior. Impressed sealings become more numerous, the areas around the ovens have a variety of tool-making debris, pottery fragments indicating faster-made casseroles, big and small bowls, and clay balls,[99] whereas the other rooms include large storage jars, grinding stones, a variety of spindle whorls, bone and stone tools, an array of different stones and shells, a piece of bitumen weighing 1kg., and a chalice made of obsidian with a marble base.[100] It would be tempting to see in the red-brick construction with its plastered floors a correlation with the earliest red-brick layer "platform" reported by Mallowan as the last of the Eye-Temple sequence. The measurements of the bricks of the red libn- "feasting" building have not been reported though, and Mallowan did not find anything in this stratum. Levels 17-15 at TW see the replacement of the basalt threshold building by "tripartite houses". Multiple finds were found in Levels 17 and 16, which were both burnt (see image below for 16). Levels 17 to 14 may be however crucial to understand if there is some sort of contraction or transition, roughly corresponding to the last phase of Arslantepe VII and the transition to VI. According to Clarke and colleagues, aridity peaked at 3700-3600 BC, and 3300-3100 BC.[101]

Level 16 has allowed for the retrieval of numerous objects and ecofacts, but the mention of a cache of some 350 beads and two stamps wrapped up and buried under the floor of a courtyard surface deserves attention: "The majority of the beads were carnelian, but the cache also included a number of beads of gold, silver, lapis lazuli, rock crystal and other stones. (…). The cache gives an impressive testimony to the wealth of the inhabitants (…)".[102] What the cache actually indicates is that it was abandoned. The scarcity of information after Level 16 is a major hindrance to interpret why.

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[98] Ur and colleagues report: "LC 2 ceramics were found in discrete clusters throughout the outer areas of the settlement complex, generally 200-500 metres from the edge of the high mound. (…) Each cluster covered between two and four hectares. Beyond these clusters even more dispersed settlement was detected: a seventh concentration 1000 metres to the north-east was not associated with mounding and was of much lower sherd density. Even further to the north-west, two outlying areas of uncertain extent were revealed by local officials trenching with a mechanical shovel." (Ur et al. 2011: 4).

[99] It is likely that the practical, fast-made wares were fired in multi-functional ovens, and that domed ovens and complex kilns set separately from working/storage areas were reserved for the rest of ware production. Thus, when analyzing firing structures at Brak and Hamoukar in the layers corresponding to the first half of the 4th millennium BC, Al Quntar and Jayyab (2014) observe: "When we compare our evidence for the firing of pottery at Hamoukar to that of Brak, the higher percentage of over-fired wares suggest that the potters of Hamoukar mainly used kiln pits, domestic ovens and surface firing. Meanwhile, the potters of Brak utilized kilns, as is evident in the high ratio of well fired and over-fired wares and wasters to unoxidized wares. However, the potters at Brak probably still used open firing for the chaffy coarse wares, and one might suggest that in the industrial quarter of TW, the many domed ovens may have been used not only for making bread, but also for the occasional firing of lesser quality pots, a practice known from ethnographic examples" (*Ibid*.: 98f).

[100] See image in Mcmahon et al. 2007: Fig. 6 ; Oates et al. 2007 : Fig. 8.

[101] Clarke et al. 2016: 117.

[102] Emberling and McDonald 2003: 9.

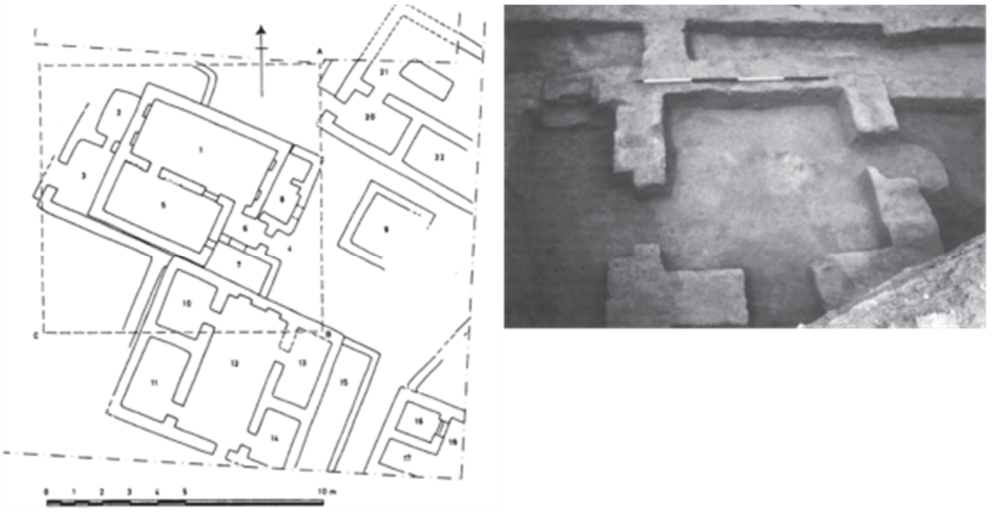

Fig. 7.15. Plan of TW 16 and photograph of house from "Phase 14". After Emberling and McDonald 2003:Fig. 11 and Oates and Oates 1993: Fig. 25.

At one of the edges of Tell Majnuna, work on a local road accidentally revealed some human remains. Two trenches were initially opened in 2006 (MTW, EM).[103] Ceramic sherds, sealings, lumps of clay, a figurine, and animal and human bones were discovered. Over 700 bones or bone fragments were initially retrieved. Overall, 13 clusters of human remains representing at least 24 individuals, mostly adults, were found. Some crania had evidence of past trauma, including two instances of healed depressed fractures. Animal scavenging was observed, and moreover, some bones seem to have been shaped into tools.[104] Puzzling were also the remains of some 30 sheep and goat as well as 5 to 10 cattle. The ceramic sherds suggested a pre-3600 BC date. Two other trenches were opened nearby, similarly revealing disarticulated human remains.[105] One other trench had burials of a much later date cutting into the "LC 3 rubbish". A cluster of bones nearby was described as if having been transported by a sack. Femoral stress in adult males shows a sharp increase for the remains found at EM loc 25 (ca. 3600-3400 BC), coinciding perhaps with a population influx. The presence of foreign individuals among the remains at this location is a possible reading of the strontium isotope analysis results, which alternatively could indicate pastoral mobility (but only at this time).[106] At the top of the mound, a cemetery (EME) was lastly excavated. The ceramic assemblage was consistent with a commensal function, and of a slightly later date. Radiocarbon dates later confirmed a post-3400 dating.[107]

[103] Kaarsgard and Soltysiak in McMahon et al. 2007.

[104] McMahon, Soltysiak and Weber 2011.

[105] McMahon and Stone in McMahon et al. 2007.

[106] Soltysiak interprets these results as corresponding to the stress of growing urbanism, even though the stress markers are chronologically circumscribed and do not show continuity.

[107] https://www.youtube.com/watch?v=fp81RA1uXqM&list=PLY1etG1YRYNJxjMuYiXCWlrCjOG1jupAK&index=17 (presentation given by Soltysiak, ARWA online lectures, 2024).

The disarticulated remains have been interpreted as the result of interpersonal conflict caused by the pressure of urbanism, the disposed victims thrown away like garbage.[108] It should be noted that the burials from trench EME and those found at Tell T2—in three modest trenches excavated in 2011, where graves belonging to nine adults and eight infants, and two adult skulls and one infant skull, were recovered—show a general dearth of grave goods. The graves at T2, dated to the LC3, were located "among pottery kilns and adjacent to a leather tanning or textile dyeing pit and a possible animal butchery zone".[109] Yet, the use of this satellite as a workshop area seems to have lasted for a long time, according to the report of two trenches excavated in 2000: "The upper level in these trenches had intrusive third-millennium material, including Ninevite 5 sherds and a burial of this date. The major occupation exposed, however, was a series of simple pit kilns and sherd pavements (…). Portions of two houses dating to the mid-fourth millennium BC were also excavated."[110] So, in a nutshell, chronological patterns during the 4th millennium BC can only be detected if the scope of excavation increases.

An alternative interpretation to the disarticulated remains is to see the mid-4th millennium as a period of contraction/transition. The anomalous human bone concentrations at Tell Majnuna are consistent with episodes of protracted rain, flooding, soil crumbling and shifting, material rolling down the slope, and final taphonomic processes.[111] Oxygen isotope analysis conducted on the enamel of five individuals from MTW/EM revealed an episode of aridity (enamel hypoplasia), pointing towards climatic-caused attrition.[112]

While the buildings of Level 16 indicate growth and prosperity, we cannot see a full-fledged centralized economy at Tell Brak yet, at least not with the current evidence. A study on the agricultural activities at this time revealed a preference for glume wheat chaff and hulled barley grains, as well as cultivated flax seeds.[113] Among the minority of plants retrieved, noteworthy are the lentils and the numerous weeds that could have served as fodder or as medicinal plants. Cultivation was probably flexible and took advantage of changes in the streams and springs, but it would have been affected by climate change. Another observation from this study is that animals were probably kept inside the so-called urban space. In fact, Tell Brak became more a pastoral than an agricultural settlement, as the numerous spindle whorls retrieved at all levels, and the clay spools found at Levels 12-11,[114] can attest to. If there was an influx of population coming from the south, they may have been interested in extensive grazing land. Rather than summarizing the later TW levels here, dominated as they are by analysis of ceramic and other "Uruk"-related markers,

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[108] McMahon and Stone 2013.

[109] *Ibid*.:99.

[110] Emberling and McDonald 2001: 45, and Fig. 20.

[111] A line of drain piping was found only at levels 12-11, but an earlier single pipe unit was recovered from level 17. Cf. Emberling and McDonald 2003: Fig. 10.

[112] See link above.

[113] Hald 2008: Ch. 6.

[114] Oates and Oates 1993.

I will focus on the glyptic skills of Brak's inhabitants before and after the mid-4th millennium BC.

Preliminary work on the sealings and iconography was briefly undertaken by Pittman two decades ago.[115] Mcmahon has reported 267 sealing fragments found at Majnuna, to be added to the approx. one hundred from TW 21-18. As seen at other sites, there seems to be an increase in animal representations (not so much mixed scenes with humans or social scenes, though) after the initial predominance of geometric motifs at the beginning of the 4th millennium.[116] The aim here is to do a quick overview to showcase the profusion of small carved pieces, leaving eye idols[117] aside. The old motif of twin bodies or twin heads, briefly seen in Chapter 3 as a symbol of liminality, may be observed at the top left corner of the image below. Far from focusing on a few species, like bulls, horned goats, lions and bears, the crafts-men from Brak are interested in many kinds of animals, including frogs, turtles, rodents or a fish. Mention needs to be made of monkeys, a preference that already puzzled Mallowan, indicating that there could be a chronological component in these crafted items.

Fig. 7.16. Selection of figurine-amulets or figurine-stamps from Eye Temple, grey brick stratum. After Mallowan 1947 (unless otherwise specified).**Top left**. Plate XV, no. 3 (bulls), no. 13 (bears?), Plate XXVI, no. 13 (spectacle idols), no. 12 (falli). **Top right**. Bears: Plate X, no. 5; figurine "probably from TW Level 17", after Emberling and McDonald 2003: Fig. 16;

[115] Pittman in Emberling and Mcdonald 2003.

[116] Mcmahon in McMahon et al. 2007. See selection of seals in *ibid*., Figs. 15-17, and Von Wickede 1990, images 419-438.

[117] See Cooper 2016.

Snake: Plate X, no. 4; unknown animal, stylized drawing: XLV, no. 6. **Second row**. Frog: Plate IX, no.1; turtle: VIII, no.4; recumbent goat stamp: Plate XII, no. 1a and b; standing monkey: VII, no.7. **Third row**. Kidney-shaped stamp: XVII, no.15-16; mongoose (?): XII, no.3a and b; rabbit stamp: XIII, no.4 a and b. **Fourth row**. Drawing of rat (?) head stamp, after Pittman in Emberling and McDonald 2003: Fig 22.9; drawing of bear or bull (?) head stamp, after Pittman 2003: Fig.22.8; bear or pig head stamp: VIII, no.2 and b; monkey stamp, Plate XI, 2a and b.

Monkeys are not only carved into figurines but also appear in stamp scenes,[118] so there is a possibility that there were ecological niches in the vicinity of the Khabur where these animals still lived at this time. Alternatively, a foreign group could have brought these animals with them. At Susa, animal figurines whose base is carved following a style that Pittman terms "baggy" and Amiet called "globules gravés à la bouterolle"[119] include a seated monkey (see figure below). The problem lies in their chronological adscription. Pittman only refers to this technique in conjunction with the appearance of cylinder seals at Susa Acropole 21 and at Farukabad and Shafarabad (ca. 3400 BC).

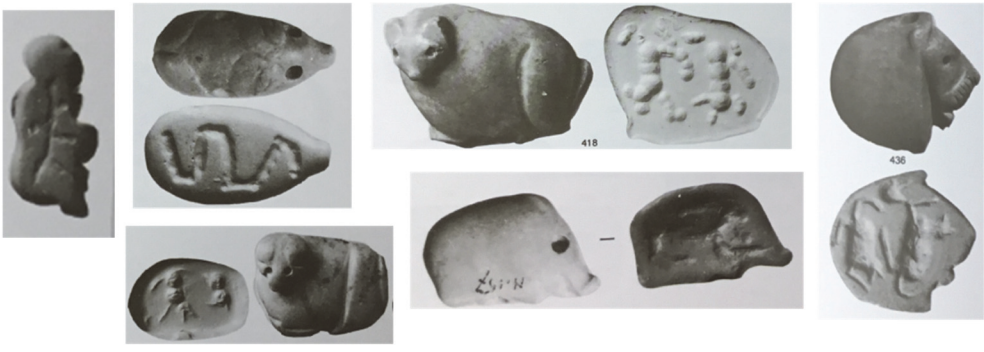

Fig. 7.17. Selection of animal figurines with carved bases from Susa. After Amiet 1972, Plate 58: 417, 416, 418, Plate 59: 436, Plate 58: 423, 427.

Mallowan assigned the glyptic finds to the "grey stratum", and they appear at TW by Level 16 (two recumbent bulls, part of the bead cache), which would correspond to a 3600-3500 BC temporal assignation. While the rendering of these figurines is sometimes eerily similar (compare the mongoose (?) on the third row from the Brak selection with no. 418 in Fig. 7.17),[120] there are some differences. The Brak glyptic is far more varied as concerns animal types and features kidney-shaped stamps. At Susa there is more variation with different types of seals, but only a monkey attested, and its carving, like many other figurines for that matter, is somewhat rougher, more

[118] See, for instance, McMahon in McMahon et al. 2007: Fig. 16c, and Von Wickede 1990, 432 a and b.

[119] Pittman 2013b: 297ff; Amiet 1972: 48f.

[120] See also the similarity of the turtle (no. 430 bis, Plate 59 in Amiet 1972) with the Brak one, or the carving of heads and eyes.

crudely fashioned.[121] The people at Brak were expert stone and obsidian craftsmen. It is at TW Level 13 that a cylinder seal impression appears (see Fig. 7.18, second row, also baggy-style).[122] Hence, either this technique appears more or less at the same time as in the Susiana, or if groups coming from the southeast settled at Brak at ca. 3500 BC (roughly corresponding to Acropole 25-23 at Susa), bringing with them this know-how, the carvers at Brak adapted it to their own preferred formats and customs.

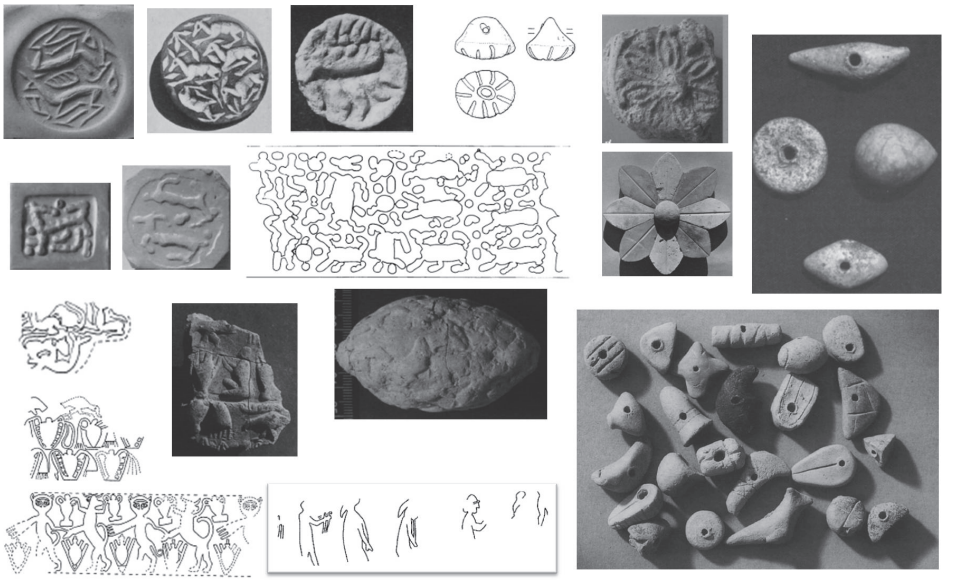

Fig. 7.18. Selection illustrating the chronological evolution of seals and tokens at Brak. **Top row**: Circular stamp seals with animal motifs (new drilling technique), after Mallowan 1947 Plate XIX, 14, 16 and 9. One of the most frequent formats of pendant-stamps at Brak (ET and TW) is a flower motif, here one from TW 18, after Pittman 2013: Fig. 22.1. **Top right corner:** a flower from Majnuna, reproduced from McMahon in McMahon et al. 2007: Fig. 16d, and below, one of the rosettes found at the last Eye Temple as decoration, after Mallowan 1947, Plate V, 3. Tokens from TW 16, the pierced ones coming from a "wall plaster" after Oates and Oates 1993: Fig. 29. **Bottom right corner**: tokens from TW 11, after Emberling and McDonald 2003: Fig. 5. **Second row**: baggy-style seal impressions, after Mallowan 1947 Plate XVIII, 11, Plate XIX, 12 and Oates and Oates 1993: Fig. 31 (TW 13). **Third and fourth rows, left and middle**: densely packed composition with animals, a drilling innovation introduced at TW 12-11 according to Pittman 2013: 19 (Fig. 22.6). Typical "Late Uruk" motifs, sitting worker with vessels, after Pittman 2013: Fig. 32 (UA trench); fusiform bulla with impression, *ibid*.: Fig. 24 (TW 12); vessels with duck-like animals on top, and rows of standing monsters and vessels, after Oates 2002: Fig. 4 (TW 12). Drawing of men and women on a file, maybe prisoners, drawing by Pittman 2013b: Fig. 16.13, h.v (TW 12).

[121] For the two examples from Choga Mish, see Delougaz and Kantor 1996: Pl.41. There are a few examples from the vicinity of Uruk or thought to come from Uruk, see Boehmer 1999: Abb. XXIV and Abb. 94, and see also the rich glyptic from the "Sammelfund" (Heinrich 1936, Tafels 9-13), which is indeed comparable in delicacy and animal variation to the Brak "Grey Eye Temple" corpus, with a nice globular carving on the base of a recumbent animal in Tafel 12. The problem is the chronological adscription of the "Sammelfund" (see below).

[122] Pittman in Emberling and McDonald 2003: 18f.

The majority of the tokens that have been published are pierced, and while fusiform bullae were found, there are no hollow ones. If at Brak these tokens are counters of commodities instead of pendants, they served that function by being strung, not inserted into envelopes. Nevertheless, many objects in Schmandt-Besserat's catalogue either before or after the emergence of "complex tokens" are pierced, at Brak and elsewhere, and contrary to her claims, with big enough holes. Piercing is attested in all of her 16 categories, which she herself acknowledges.[123]

Finally, the connection between the motif of captured or killed lions and that of incipient single-rulership at Brak at this time needs to be addressed.[124] There are some traits indicating a need for caution: 1) lions are carved or shaped both aggressively and non-aggressively; 2) there are only two lion-killing hero seals (see Fig. 7.19, bottom right), even if found on several impressions; 3) captured lion motifs (see Fig. 7.19, first row, left) are pre-3600 BC.

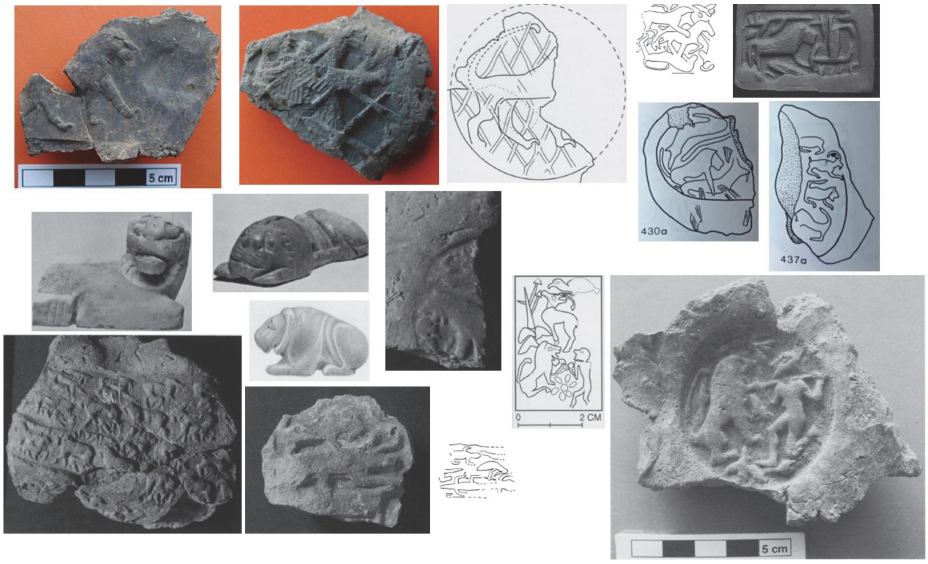

Fig. 7.19**.** Of lions and heroes**. First row**: Lion sealings from TW 19 (the second, with a net motif, on two different impressions). After Oates et al. 2007: Figs. 9 and 10. Composite drawing of caged lion sealing, from impressions found at two of the Majnuna trenches. After McMahon 2009, Fig. 5 c. Horse attacked by two felines, after Pittman 2003: Fig. 22:3. Lion, scorpion, plants composition. After Pittman 2003: Fig. 29 (UA trench). **Below, right**: drawings with lion-herbivore compositions, from "Late Uruk" levels of TW, after Von Wickede 1990, 430a, 437a. **Second row, left**: Recumbent lions; from Mallowan 1947: Plate IX, 4; Plate XI, 5 and XLVII, 6. Sealing impression of a lioness biting a human's head (?). After Pittman 2003: Fig. 25. **Bottom left**: Sealing(s) showing marching equids, lions, bovids (?), sometimes with their young. After Pittman 2003: Fig. 28. Lion attacking spread-eagled animal which resembles creatures of the seal next to it. After Pittman 2003: Fig. 26 and 22: 4. **Bottom right**: Two motifs of a hero spearing a lion (sealing TB 16859, found also in five other impressions, and composite drawing based on two impressions found in Trench EM). After McMahon 2009: Fig. 1 and 2c), reproduced with permission.

[123] Schmandt-Besserat 1992: 109.

[124] Mcmahon 2009, 2020. She makes an analogy to the later lion-hunt scenes of royal ideology.

It certainly looks as if, unlike elsewhere in the north, lions in the Khabur were perceived as 'negative', therefore justifying measures of control. This is indeed one of the visual signs of a change in ontology: humans are now entitled to treat other animals, particularly pernicious/onerous predators, as beings to be controlled, and dare explicitly communicate this. Still, compared to the themes seen in the Susiana, Uruk, and Habuba Kabira glyptic regarding animal and human domination, the people at Brak were not fully crossing the line. The two hero scenes are both imbued with a strange symbolism. In-between lion and hero there is a flower or a plant, which suggests that lion-killing was ritually sanctioned (and killed while in the wilderness).

7.3.4. Trajectory 4: the Susiana and Habuba Kabira

As was summarized in Chapter 1 and seen above, the common elements of materiality supporting an "Uruk phenomenon" linked to proto-urbanism/centralized administrations during ca. 3600 to ca. 3200 over vast areas of Southwest Asia are currently explained as either coming predominantly from Uruk or Uruk and uncertain cities of southern Mesopotamia, by reasons of trade, political expansion, or unspecified. Archaeologists working in "peripheries" try to develop their own theoretical alternatives, downplaying the impact of the phenomenon but largely accepting its main tenets. Many also favor descriptive reports on a material that shows cultural hybridity.[125]

While studies of bitumen and obsidian sourcing and distribution proliferate, very few would still argue for a monopoly or quasi-monopoly of any commodity controlled by the southerners, yet trade is certainly still part of the narrative of "complexity". The INAA or chemical ceramic analyses that have been performed (e.g. for Jerablus Tahtani, Sheikh Hassan, Jebel Aruda and Habuba Kabira in the western Euphrates) have revealed, unsurprisingly, that most of the wares were locally made with only a small percentage coming from elsewhere, and depending on the extent of the sampling, the provenance attribution to this minority will be argued for a specific distant location in the east.[126]

Meanwhile, the "elephant in the room", that is, migration, its extent and the reasons underlying it, does not receive the kind of focus and study that it should. If we go back to the seed of it all, the "Uruk" qualifier in the phenomenon and the periodization efforts, we can easily see that there is no real reason why even the exclusivity of this core should be maintained. Leaving aside the impaired sequencing of the Uruk ceramics due to the conditions of the initial German sounding, there is no such a thing as a "genuine", "prototypical" ceramic assemblage frozen in time.

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[125] After his extensive and detailed analysis, Butterlin 2003 opts for this solution to sustain the "Uruk world" theory despite its inconsistencies.

[126] For Jerablus Tahtani and the "Uruk colonies" currently under the water of the Tishreen Dam, see Stephen and Peltenburg 2002. A remote relationship was thought to be detected between the incised Ur and Jebel Aruda wares, with two other subsets potentially indicating compositional proximity between Jebel Aruda, Ur and Jemdet Nasr. For the clay used in sealings from Hacinebi, Hassek Höyük and Gawra, see Blackman 1999, who posits that some Hacinebi impressed tablets may have come from Susa. See also Pittman and Blackman 2016.

All assemblages from southeastern Mesopotamia assigned to a period betray continuities even as new shapes and techniques appear, and innovations may have had a wide area of origin instead of an epicenter.

The recent excavations at one of the mounds composing Tūlūl al-Baqarat—located to the northeast of the alluvium (close to modern al-Kut in Iraq) and therefore at a relatively equidistant location from both the Susiana and the Warka Basin—have revealed a scarcity of structures but a relative wealth of associated finds belonging to the end of the 5th millennium-first half of the 4th millennium BC ("Terminal Ubaid"-"Early Uruk").[127] The comparative exercise undertaken by Lippolis and Bruno ran first towards southern Mesopotamia (Uruk, Tell Qirawi, Uweili, Tello and Ur), even though some of the features (large handles, spouts) are also visible traits of the Susiana pottery styles.

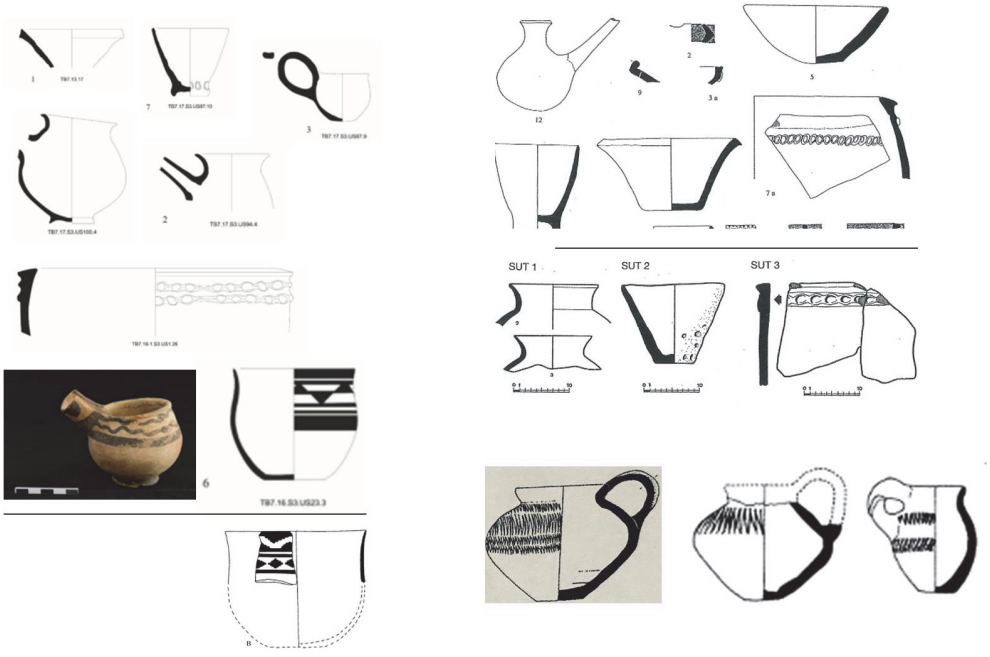

Fig. 7.20. What is "Uruk" pottery like? Left: selection of finds from TB7, after Bruno in Lippolis et al. 2019. The bottom row shows painted vessels found in "Building A" (Lippolis et al 2019 Fig. 10, a and b, and Fig. 17.6). Underneath is an exemplar from Choga Mish dated by Delougaz and Kantor to the "Late Susiana 2" period, or the end of the 5th millennium BC. Right: Selection of vessels from early levels at Uruk (XIIb) and Susa, reproduced from Butterlin 2003, Figs. 2 and 7, following studies by Sürenhagen and Dittman. Bottom right shows an Uruk handled vessel from Level VII (*ibid*.: Fig. 4, 35b) and to the right, two handled vessels from Choga Mish, after Delougaz and Kantor 1996, Plate 95 D and E.

[127] Lippolis et al. 2019. The excavations on Soundings 3 and 4 at Tell 7 are said to be ongoing, but "Building A" from the first sounding already seems to present some signs of common patterns: segregated working/storage facilities and ovens area. The associated burials align with the early dates.

Lippolis observes that painted wares occur in the LC1-2 levels of the Eanna and *Steingebäude* sequences, comparing them to the Building A finds at TB.[128] Yet, as the image above illustrates, parallels can be easily made to other sites. As is common in the continuum from the late 5th to the early 4th millennium, Tūlūl al-Baqarat also illustrates the profusion of "flower pots" and bowls of several shapes and sizes that precede the emergence of smaller, more standardized bowls. The significance of the appearance of the beveled rim bowl (BRB) at level XII of the Uruk sounding has represented a subject of inexhaustible discussion, mainly because in the past it signaled the beginning of massively produced wares. Now the debate is slanted towards mode of production. This particular form of bowl has become a diagnostic for the inter-regional period, but as a matter of fact, even if less ubiquitous, there is a relative abundance of bowls, none of them wholly standardized, all of them easy to make.[129]

The tendency to find ceramic parallels to what is held as the Uruk standard is also happening with the recent excavations in the Western Qara Dagh, Iraqi Kurdistan. The site of Girdi Qala has pre-3600 BC architecture and ceramics with "Southern Mesopotamian" features.

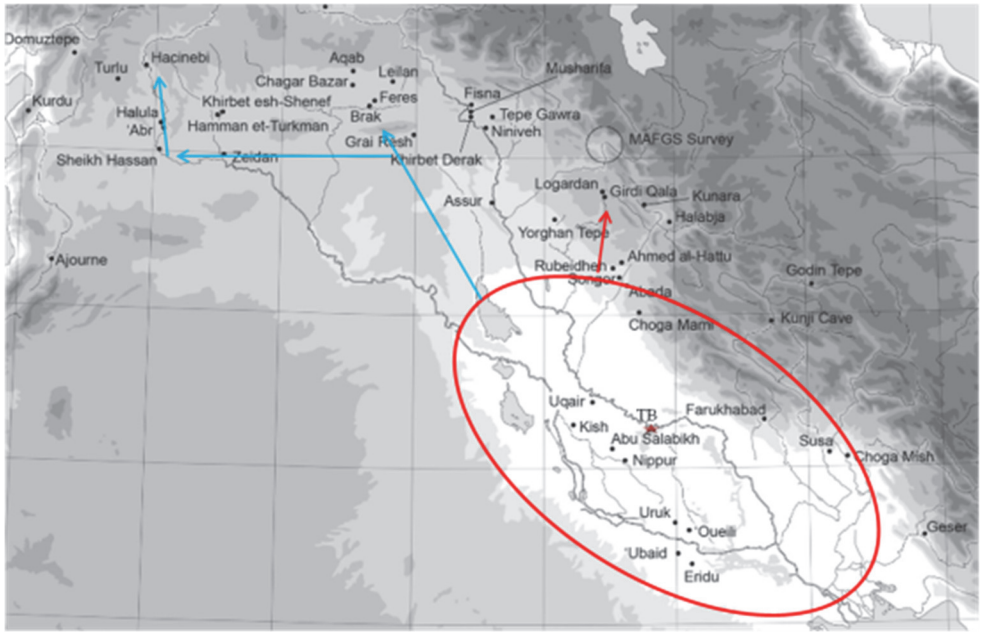

Fig. 7.21. Map showing alluvial plains, where the approximate location of Tūlūl al-Baqarat has been added (TB). Red arrow points towards Logardan-Girdi Qala. In blue, possible secondary waves. Adapted from Vallet et al. 2019: Fig. 1a.

[128] *Ibid*.: 148.

[129] The Arslantepe VII publication treats this subject *in extenso*. See now Fenollós and Sanjurjo 2021 who analyzed BRBs found at Tell Humeida, in the Middle Euphrates, with two AMS dates giving a ca. 3700-3500 cal BC temporal anchoring. Apart from confirming the low baking temperatures required, they tried to reproduce the manufacturing process by making one by hand, one by using a cavity in the ground as support and one with a mold. Then they used TAC technology to compare the porosity. They concluded that the portable mold option was the most likely.

The conclusions were that the "locals" and the "Urukeans" enjoyed "a series of very deeply intertwined cultural relations made of daily ties affecting reciprocal ways of doing and living". But instead of trying to discern what the southerners were doing there at this time, the report continues: "In particular, although architectural remains (stone ramps, monumental buildings, crafts areas) indicate a rather large number of southern immigrants since the beginning of the 4th millennium BC, Uruk settlers were not independent of ceramic production. Many local craftspeople were also regularly engaged in the manufacture of South Mesopotamian vessels by their own techniques, implying a strong interprenetration between the two components of society. Later, in the Middle Uruk, the emergence of a separate, exclusively Uruk settlement at the northern mound of Girdi Qala could suggest an increasingly massive arrival of immigrants from the South."[130] Leaving aside the patronizing assumption that the locals were incapable of "monumental" architecture and "crafts", the real question should be: how were alluvial groups interacting at the very beginning of the 4th millennium BC with these northern populations, and why did they start settling elsewhere soon afterwards?

Before focusing on the Susiana—and specifically Choga Mish—as a very good candidate for these departures, I want to make a brief reflection on interactions, and something that has been often referred to in the course of this dissertation: selective emulation. Upon regular contact with someone from "abroad", material features and practices may be inserted, adapted, or rejected. Mode of transmission and extent of impact depend on several factors (i.e. local craftsmen, travelling potters, nomadic or transhumant pastoralists, rites of passage requiring expeditions or exchanges, out-of-village ceremonies, migrating small groups, large-scale migration, etc.). As seen above, since the consolidation of sedentism, formats of flexible interaction increased and left visible traces. We cannot be continually pondering the nature of any cultural "horizon", "oikumene" or "phenomenon" as if due to a single factor: trade networks. Sedentism did not lead to static cultural blocks. The "Bakun ceramic horizon"—defined as "black-on-buff painted ceramic traditions that prevailed in many regions of highland Iran during the fifth millennium B.C." and considered in essence to be "Ubaid related"—posed not only chronological problems, given the continuity of black-on-buff ceramics in highland Fars, but also the challenge of pinpointing how it came to be emulated in different areas of Iran, whether due to the influence of nomadic pastoralists or that of lowlanders.[131]

The excavators of a small site in the province of Kerman, some 1000 km to the east of Susa, were also challenged with "Uruk-related ceramics" found in one of the trenches. Another trench revealed Susiana-related assemblages (i.e. BRBs, trays, nose-lugged jars) and earlier 4th millennium material. However, given the amount of unanswerable questions that they were confronted with, they concluded: "The Halil Rud floodplains seem somehow to have been linked to Khuzistan at the beginning of the urban explosion of Uruk and Susa, but the form and rationale for this linkage is at present unclear. In the past, the "Uruk phenomenon" outside Mesopotamia has been discussed at length. (…) In most of these models, the asymmetric distribution

[130] Vallet et al. 2019: 178.

[131] Weeks, Petrie and Potts 2010.

of natural resources (in the first place of copper, lead and silver ores) between lowlands and highlands plays a major explanatory role. But how does the Mahtoutabad III evidence fit with such a theoretical framework?"[132] At this site, even if in these limited exposures, only two fragments of molds for casting copper were found. Continuing their reasoning, they anticipate future challenges: "We should, however, continue to deconstruct previous concepts and get back to the hard core of the material evidence, as this will force many traditional models to be thoroughly revised. (…) The daily material aspects of a society (which may be found in excavations, such as ceramic production, glyptic, architecture or writing) are not necessarily intertwined in a monothetic structure. They may well have evolved independently, with various speeds and adapted differently, in contexts whose contemporaneity is still beyond our present power of archaeological assessment."[133] This is a very good sign that bottom-up approaches are supported by a small number of archaeologists, resisting the temptation to offer a premature interpretation of their site that fits into a grand theoretical framework.

My own proposal or hypothesis is one of migration, and it does not require further evidence to support its occurrence. It requires further evidence to fundament causes and motivations and the sequence of interactions. In my opinion, the Susiana was the area where many of the migrants settling elsewhere in the second half of the 4th millennium BC came from. All the alluvium and delta areas, including the Susiana, were affected by episodes of flooding and fluctuations regarding the marine ingression for the entirety of the 5th millennium BC and beyond.

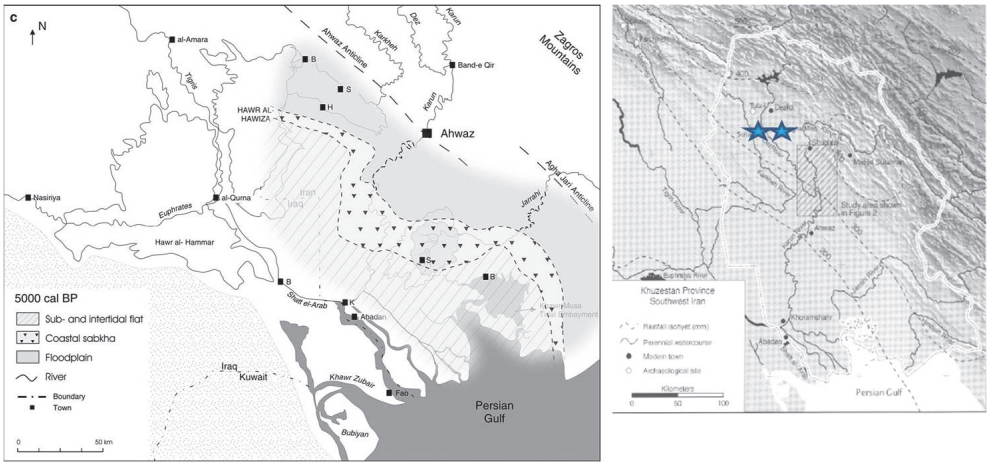

Fig. 7.22. Left: Reconstruction of the environmental setting of the Lower Khuzestan plain around 5000 cal BP. After Heyvaert and Baeteman 2007: Fig. 11. Right: Map of Khuzestan, showing grid where an environmental survey was conducted. Limited excavation at Dar Khazineh, a temporary occupation site, revealed the presence of marine mollusks at the end of the 5th mil. BC. Blue stars show the location of Choga Mish and Susa, very close to the grid. Adapted from Alizadeh et al. 2004: Fig.1. Reproduced with the permission of A. Alizadeh.

132 Desset, Vidale and Soleimani 2013: 33f.

133 *Ibid*.: 34.

A substantial number of sites are currently under alluvial deposits or lost.[134] Marine regression would not start until ca. 3300 BC.[135] But of these two interconnected regions, only the Susiana sedentary settlements were truly constrained by limited space, given the reliance on agropastoralism. Southern Mesopotamian villages did not depend on sheep and goats for their subsistence. Marine and fresh water resources, a diversity of reeds, grasses, tubers, date palm products, cattle and pig formed a flexible, opportunistic package.[136]

According to Alizadeh, based mostly on the pottery retrieved from the isolated cemeteries at Parchineh and Hakalan—roughly a 100 km away from Susa and Choga Mish—nomadic pastoralists were interacting with sedentary lowlanders since the mid-5th millennium BC, as seen in the previous chapter. It is hardly surprising that what could be retrieved from the libn tombs—despite very bad preservation of remains and the possibility that some tombs were prepared for future burials as cenotaphs—indicates that they were in contact with people from different surrounding areas. But what about the less mobile? Faunal bone analysis at Jaffarabad (a few km north of Susa) after the mid-5th millennium BC showed that sheep and goats had risen to 65% of the total sample.[137] In his environmental analysis of this region, Kouchokos posited that the last half of the 5th millennium BC saw demographic stabilization after growth, followed by decline.[138] He further corroborated previous observations that people in the plain may have been moving westward at the onset of the "Susa A" period (ca. 4300-4200 BC), Susa being one of several new sites or new agglomerations. He further suggested that population decreased elsewhere in the plain after this demographic shift.[139] Alizadeh, however, as later Hole with Susa, idealizes the complexity seen at Choga Mish during the Middle and Late Susiana periods and exaggerates its disappearance. Both of them are two radical in their arguments of collapse, since both sites have left traces of continuity from ca. 4100 to 3700 BC despite their decline. Hole regarded the massive built terrace or high platform whose façade was decorated with cones (but only traces of a tripartite building remained), together with the cemetery and "massif funéraire", as evidence of monumental growth dramatically ended by a catastrophe.[140] With the support of some of the glyptic iconography, he proposed that Susa reacted to a climatic crisis through ritual controlled by a religious class of shamans or priests. In his 2010 work he compared the glyptic imagery extracted mostly from the Acropole to other "Ubaid" and "Later Ubaid" sites depicting single individuals surrounded by features of nature, but although the Susa glyptic at this time have some scenes similar to those, they have little to do with the "shamanic" seals. The latter, fewer than ten, are very specific

[134] Pournelle 2003: 123ff; 165ff, 191ff; Kouchoukos 1998. See also https://www.archatlas.org/journal/cpetrie/routesandplains/susiana/

[135] Pournelle 2003: 125 ; Heyvaert and Baeteman 2007.

[136] See references in Pournelle 2003: 57, 186, 190. The glyptic also shows that initially cows were more important than ovicaprines.

[137] Pires-Ferreira, cited in Kouchoukos 1998: 68.

[138] Kouchoukos 1998, Ch.3, esp. 84ff.

[139] *Ibid*.: 117.

[140] See e.g. Hole 2010.

and unique (see image below). Moreover, this motif would never be continued, even if the seal format would.[141] They do signal, however, a tendency to manipulate the environment through ritual, so in this I agree with Hole.

Fig. 7.23. Stamps from Susa (late 5th millennium BC). Although the scenes of the stamps on the left hand side bear comparison with the glyptic elsewhere, the iconography of the nine on the right is unique. **Upper row**, **left**: after Amiet 1972: Pl.1, 209; Pl.2, 212, 218. **Below**: *Ibid*.: Pl.3, 239; after Le Brun 1971: Fig. 36.2. **Cultic seals**: after Amiet 1972: Pl.2, 219; Hole 2010: Fig.15.8 g); Amiet 1972, Pl.2, 220, 230, 231, 229; Amiet 1980: Pl.6, 119; Amiet 1972: Pl.2, 228, 227.

The subject of furniture, and the filling motifs of cultic paraphernalia mixed with animals, is original, and it may mark the beginning of a very long trend towards a sacralization of communal space *via* activity.

Amiet assigned the "Susa 1 B" phase with round, convex stamps to strata 25-23 of the Acropole, in an attempt to find correlations between soundings.[142] This would correspond to a pre-3600 BC chronological situation (see Fig. 7.24). The trenches opened by the successive French missions since De Morgan at the beginning of the 20th century, however, never managed to find substantial architecture belonging to the 4th millennium BC, even if methods at the time were inadequate to handle sites with such complex stratigraphies. Nevertheless, the gist of Hole's proposal, the fact that there was a recession and that this affected growth at both Susa and Choga Mish at the transition between the 5th and the 4th millennium is unquestionable, and it may have entailed adaptations that are hard to discern.

[141] De Mecquenem placed some of the iconic stamps depicting shamans bearing headdresses at Susa I levels in his "acropole" excavations, also observing that the use of "cachets-boutons" (round stamps) persisted, given that they are still found in the superior layers (3 m); cf. 1943: 9ff.

[142] Amiet 1972: 37f.

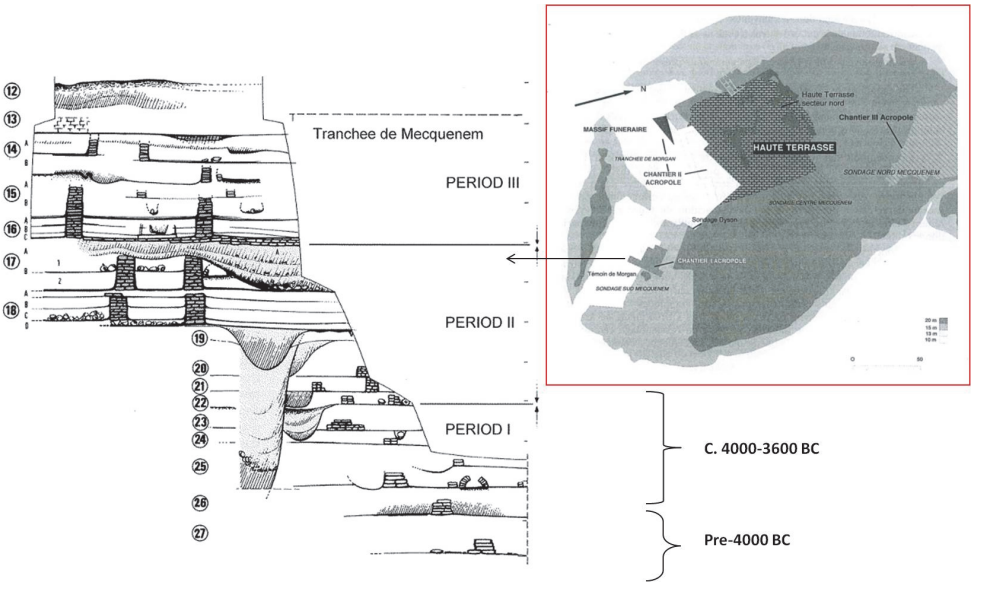

Fig. 7.24. Tentative chronological assignation to the Acropole sounding (Chantier I Acropole). Layer 21 confirms the use of the cylinder seal and sees the appearance of BRBs and hollow bullae. After Dahl, Petrie and Potts 2013: Fig. 18.2 (based on Le Brun 1978). Top right, arrow indicates location of Acropole I. After Butterlin 2003: Fig. 53.

This decline, however, needs not have been caused by conflict between highlanders and lowlanders. Alizadeh has postulated that a large "Middle Susiana" building ended by fire at Choga Mish, its desertion and that of "its satellites" (unspecified), due to "a hostile contact with the developing highland mobile pastoralist population".[143] As a matter of fact, the pastoralist component and the pasture/fodder requirements of the settled may have been higher than those opting for vertical transhumance and descending seasonally to the eastern Susiana pastures. It is after these became unavailable or insufficient because of the flooding, and a situation of protracted growth at big aggregations (Choga Mish, Susa) occurred again at around 3600 BC, or earlier, that migration and conflict both may have started to unfold.

The effects of erosion at these sites seem to have particularly affected tops of mounds and upper slopes. The terrain at Choga Mish is highly irregular. Just the configuration of the site indicates that several nodes in the vicinity of the High Mound could have acted as satellites.

[143] Alizadeh 2008: 13.

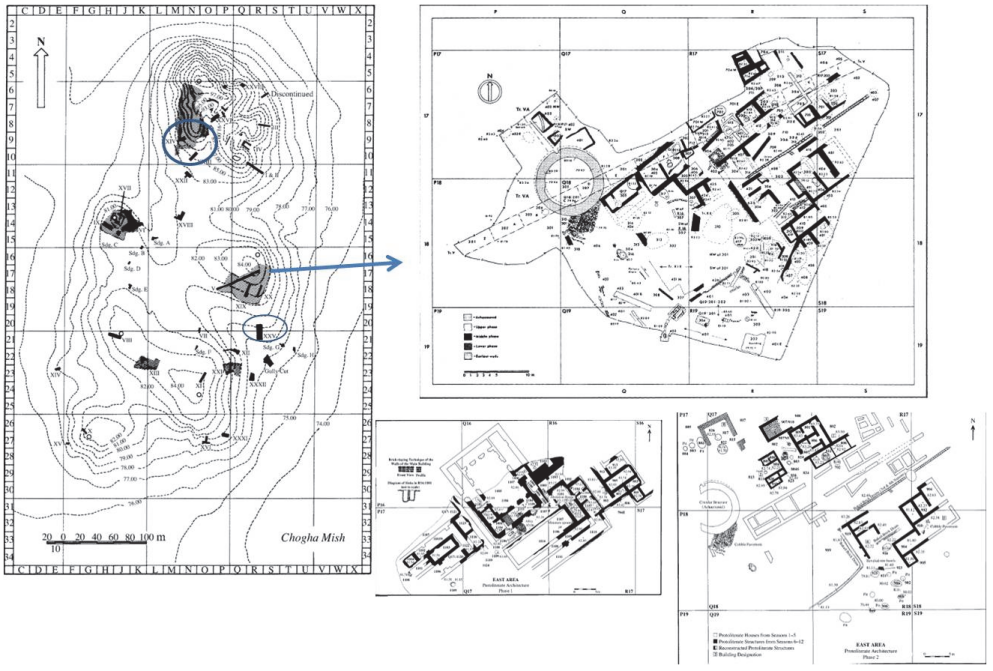

Fig. 7.25. Left: general topographic map of Choga Mish showing excavated areas from 1961 to 1971. After Delougaz and Kantor 1996: Plate 260. Upper right: East Area. Below: division of the East Area into two phases, according to Alizadeh 2008: Figs. 16 and 17.

The summit of the High Mound is at around 100 m above sea level, and the lowest elevation at the site was reached at 71.70 m (Archaic phase). At some excavated areas 2nd millennium ("Old Elamite") or later occupation is closely superimposed if not cutting into the "Protoliterate" remains,[144] or even earlier remains, just as sometimes the "Protoliterate" are described as inserted into features from earlier periods.[145]

[144] Delougaz and Kantor 1996: 11f. Referring to the "Circular Structure" in the East Area (see image above): "Delougaz concluded that the Circular Structure was, indeed, Protoliterate and that the enormous accumulation of bones was secondarily deposited in the upper part of it. His reasons were as follows. First, the walls of the nearby houses were clearly built directly against it or occasionally bonded into it without any interval (…). Secondly, great masses of Protoliterate pottery of various forms were piled directly against the building on its southwestern side (…). The proportion of complete and fragmentary bevelled-rim bowls was very large, but other types of Protoliterate pottery were represented. (…). Third, small sections of drains built of baked bricks of the usual Protoliterate format (about 42 × 18 × 7 cm) seem to have run over part of this structure. (…) **The original conclusion that the Circular Structure was an integral part of the Protoliterate city was shaken after the third season. It was then that the existence of an Achaemenid settlement at the modern surface was recognized.**" The animal bones included horse and camel. Outside the structure, BRBs were more abundant. The animal bones included pottery sherds from the later period. "It seems that in the Achaemenid period the upper part of a much older structure was cleared and eventually used as a dump for bones. (…) However, **a recheck** of the Q18:305 pottery shows that **Achaemenid sherds also appear at the deepest** part of the structure, some 2 m below the modern surface".

[145] Alizadeh 2008: 34, 42.

For the sake of expedience and given the uncertainties of the High Mound, I will focus briefly on the East Area, which yielded the most substantial architecture from ca. 3700 BC until an uncertain time, which I nevertheless estimate did not go far beyond the 3300 BC mark. Kilns and hearths, and drainage pipes, were found at several locations, but are best preserved here.[146]

As the figure of the first phase shows, and as is the case at the sites analyzed above, in the Eastern Area—also placed at the top of a mound—there is first a "monumental building" where the material signals that this was a communal venue for shared commensal activities, surrounded by working and storage rooms and courtyards. In the following phase, just as at Tell Brak and Arslantepe, those features are partly erased, and buildings become smaller. Hence, Alizadeh refers to these as "domestic" buildings and workshops.[147] The structure cluster moves gradually to the southeast. Traces of a drainage system are even clearer here. At R17 several kilns were found. The courtyard area in Q17 had a cistern connected to a brick channel. It seems that Choga Mish was a site that tried to be prepared for flooding episodes.

The glyptic imagery at Choga Mish is highly relevant for my purposes here, because in my opinion it presents the closest parallels to that of Habuba Kabira in the Euphrates. I am taking Pittman's work on the evolution of glyptic iconography in the Susiana into account.[148] As seen on the first row (see Fig. 7.26 below), Choga Mish may have a pre- or circum 3600 BC glyptic, and a very early adoption of the cylinder seal. Instead of a kidney-shaped stamp (Brak), there is a round, compact object shaped like a seed. Here, as at Susa and Shafarabad, the gradual objectification of animals and humans can be easily observed. The development of composite monsters, like a winged and beaked quadruped shown at the center of the figure above, starts early. This signals a breaking point with the past. There is no earlier conceptualization of 'the wilderness' expressed in a standardized fashion *via* an imaginary monster. Once these monsters, or the monsters and their masters, become icons, they seem to signal "manageability". Moreover, until this moment, there has been no depiction of the hunting of a predator by anonymous-looking individuals. The individuals seen in a scene below attack a lion in the same way that two lions attack an antelope in another seal. In Paleolithic-Neolithic cave or rock paintings and carvings, the human species is only one of several. During the Neolithic, social media displayed inter-species hybridity and ambiguity. Now, at the very end of the Chalcolithic, occurring first in the southeast of the Fertile Crescent, a new explicit domination of domesticated animals, which are touched, guided and controlled, or surrounding by symbols, vessels or artifacts, emerges. They parade in order, either in one direction or the other.

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[146] Delougaz and Kantor 1996: 29; Alizadeh 2008: 43f. One of the kilns was above a room in R17 (elevation 83.70), and it contained many wasters and misshapen BRBs.

[147] *Ibid*.: 44.

[148] Her main conclusion was that the Susiana could not continue to be seen as subordinate to an "Uruk" cultural world: "By the Middle Uruk period in Susiana the earliest evidence for what becomes a highly complex administrative system is found in the form of sealings, clay cups, and the earliest cylinder seals with baggy-style images." Pittman 2013: 329.

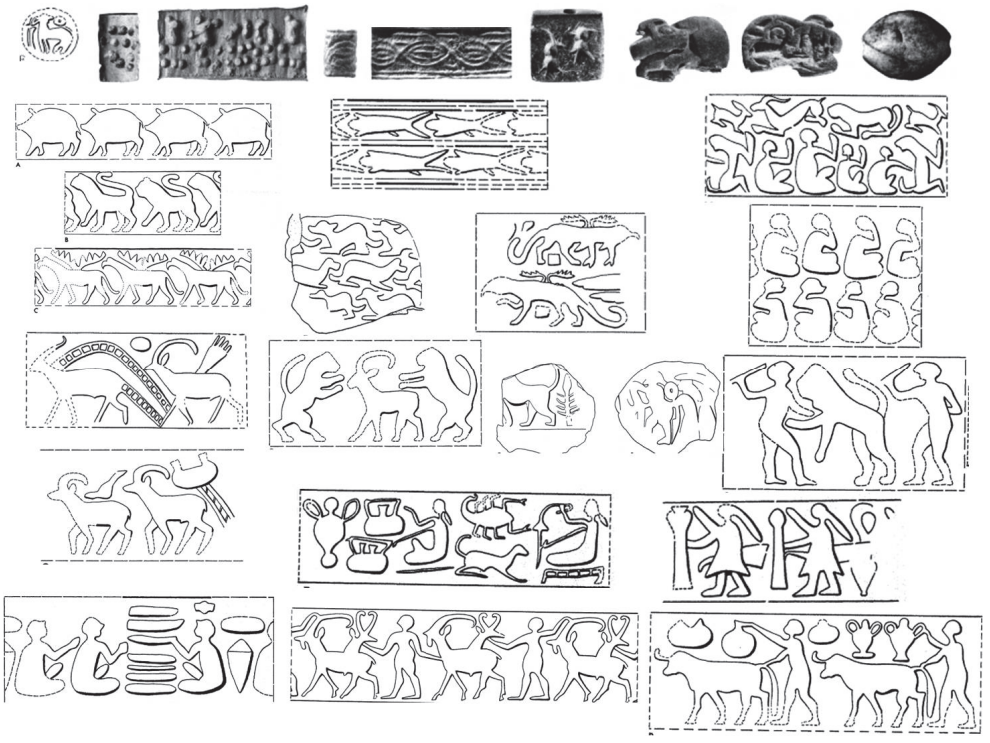

Fig. 7.26. Selection of stamp scenes from Choga Mish. **First row**: Stamp of unknown date, with a "centaur" motif, after Alizadeh 1998: Figure 76, F. Cylinder seals, square stamp, animal amulet with carving, and round stamp from Delougaz and Kantor 1996: Plate 41. **Below, left**: Processions of pigs, lions and griffins, after Delougaz and Kantor 1996: Pl. 136, A, B and C. **Center and right**: Cylinder with rows of aquatic animals, animals filing in opposite directions, and first attempts at *Mischwesen*. Human-animal scene and sitting "thinkers", from *ibid*.: Pl 138, A, E, G, H and J. **Below, left**: Procession of antelopes and ladders, *ibid*: Pl 143, E. **Center and right**: Lions attacking antelope, *ibid*.: Pl 39, C. Lion and flowering plant; procession of women with staffs and stalks, *ibid*.: Pl 144: E and F. Humans attacking a lion, Pl. 146: D. **Below left**: Antelopes, foot and vessel, Pl 143, G. **Center**: Women working in cooking (?) and thread-making (?) accompanied by vessels, scorpion and dog, Pl. 146: E. **Right**: Procession of women holding big staffs, Pl. 152, G. **Bottom row**: Allegory about bread (?), Pl. 148, A. Men holding antelopes by their necks or horns and holding bulls by their tail while grabbing a vessel, Plate 145, B and C.

When natural scenes are depicted, they signal that all species including humans work now towards a human-related goal (e.g. men and animals raising their hands/paws). Men and women become undistinguished workers, and the particulars of their tasks—their manipulation of things and production of other things—are deemed worthy of attention. Due to the wealth of glyptic motifs in the region, I will just focus on a few themes which signal an ontological change. The evolution of the "textile" motif (probably a leather hide or woolen cloth) reflects somehow this evolution towards control.

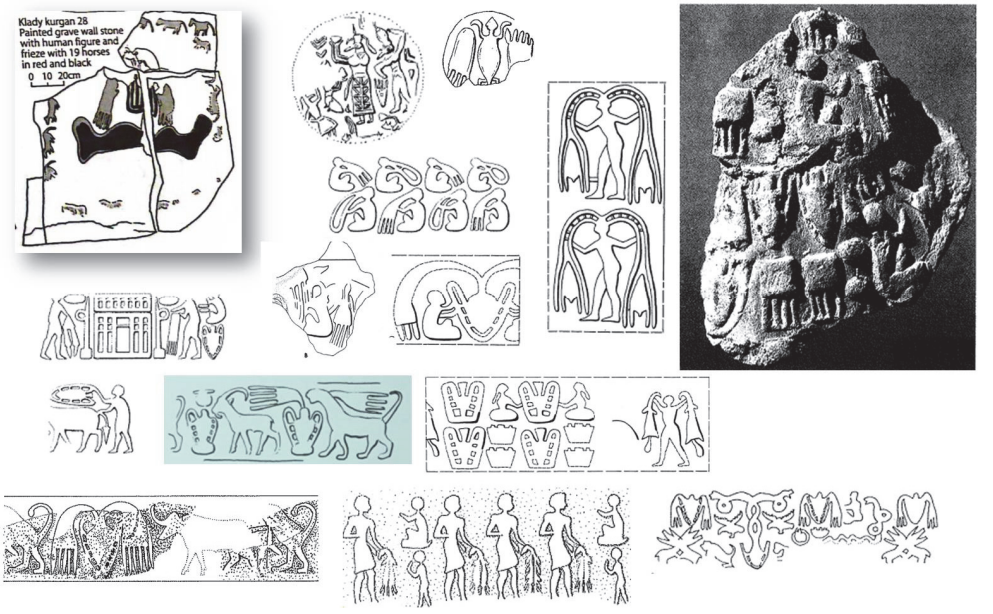

Fig. 7.27. The foot-shaped textile motif and associated iconography. **Top left**: Representation on a wall of a kurgan at the Klady necropolis in the Caucasus, showing the motif (twice) in the center, after Anthony 2007: Fig. 12.11. Its depiction is very different from the glyptic imagery in the southern regions. Rest but for bottom row, selection from Susa and Choga Mish. **Center**: after Amiet 1972, Pl.2:230 and Pl.4:462; below, scenes showing extension from human body: after Pittman 2013: Fig. 16.10.e, after Delougaz and Kantor 1996, Pl. 153A. **Right**: Sealing impression from Acropole I.19, after Butterlin 2003: photo 19. **Middle row**: after Pittman 2013: Fig. 16.10.m (cultic scene); after Delougaz and Kantor 1996: Pl. 147, B and G. **Below**: man holding bull by tail while supporting a leather (?) vessel, after Pittman 2013: Fig.16.10.p; next, animals with textiles and this particular vessel, after Amiet 1972: Pl.6, 489; workers holding animal hides or producing vessels, after Delougaz and Kantor 1996: Pl. 153, C. **Bottom row**: scenes from Uruk and Habuba Kabira. After Pittman 2013: Fig. 16.5.q and 16.7.h.i; *ibid*.: Fig. 16.12, b.iii.

The extensification of some part of the human or animal body and a given object, whether a hide, vessel or boat,[149] signaling a hybridity that now focuses on the material, indicates that every*one* is slowly and gradually becoming every*thing*. The widespread "heraldic" scenes represent a variation of this tendency to place everything in ordered and aesthetic arrangements. There are also scenes mocking animals or even mocking humans behaving like animals (see figure below).

[149] For an example of the latter (body shaped like a boat or a platform and mouths blending with a central vessel), see Delougaz and Kantor 1996: Pl.156.

Fig. 7.28. "Strange" human or animal behavior. **First row**: from Susa and Sharafabad (second), after Amiet 1972: Pl. 4, 457; after Pittman 2013, Fig. 16. 3, b.viii; after Amiet 1972: Pl. 3, 451 and Pl. 11, 567. **Second row**: from Susa (after Amiet 1972: Pl 17, 680) and Choga Mish (after Delougaz and Kantor 1996: Pl. 147, D). **Third row**: from Choga Mish, after Delougaz and Kantor 1996: Pl. 147, F and Pl. 154, B.

The last image in the figure above shows a standing lion giving its blessing to a man with a scepter, while another with a half-moon staff faces a communal building. Architecture and incipient deification (and see below for scenes of coercion) is another sign of ontological change. Architecture is expressed first in very simple ways, then its representation gets more complex. It is accompanied by the consolidation of domestication as domination and by the individual working as a "happy bee" in the communal hive.

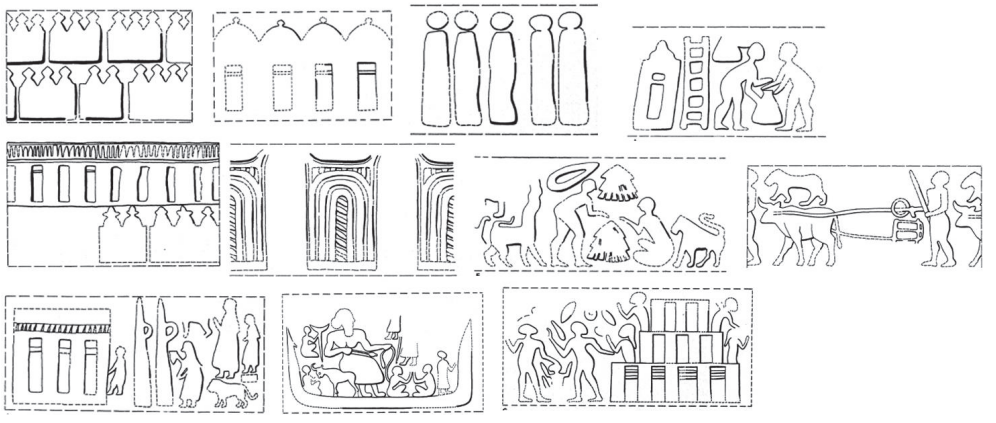

Fig. 7.29. Architectural themes and the sacralization of space. All images from Choga Mish. After Delougaz and Kantor 1996: Pl. 149 D, E, G, A, F, 154F, 148F, 146B,154A, 151B and C.

The last images signal the sacralization of space through a previous process: the sacralization of the purpose of the buildings or communal areas (interiors and exteriors), encompassing their artifacts. As associative aggregations grew, they had two options when confronted with crisis: to split again and disperse, or to reinforce the whole with new identity values and notions of a shared history, particularly if demanding the sacrifice of most of the population for the sake of the common good. Dispersion may actually have been chosen by many (the "Uruk" colonists). The second option connected communal activities and the space where they took place. Communal buildings and courtyards had a variety of purposes, namely as workshops, pens, storage, assembly/council and commensality venues. It would have been astute on the part of the meta-communal authorities to sacralize those spaces by appealing to a plurality of already available powerful entities that supervised or controlled the spheres of those activities. As may be seen above, in the bottom row, the first two scenes may represent a very early anthropomorphic depiction of deities by using the iconographic tactic of distinguishing them by size. Whether this actually entailed their representation as 3D statues fashioned as an object (or rather a subject) of worship, and anchored to a specific location, is a different matter altogether. It may have been too soon for that yet. The last image shows a demand for mercy on the part of humans in the vicinity of or inside a building. Whether the catastrophe is related to fire or water, it matters not. What matters is that humans feel entitled now to a *quid pro quo* relationship with more powerful beings that are increasingly acquiring human-like appearance, proclivities, values and behavior. We are just entering an anthropo-hegemonic understanding of the world, the split between "nature" and "culture" that Descola refers to. Even though the strategies to manage and domesticate the dangerous "other" will be soon at work, for centuries ordinary people, or people outside the hegemonic centers, will still be functioning within an animistic framework that will remain constantly fearful of having transgressed relationships with alterity and seeking to appease them in the most expedient and least elaborate of ways (little "theology", few ten-stage rituals, lots of agency through material). In the same way that the cooperative organization of the meta-communal will be perverted as urbanism expands and private property emerges, the animistic ontology will not disappear but will become hybrid, particularly in rural areas.

Returning to the issue of migration at this time, the first people reaching Kurdistan, Tell Brak and the Middle-Upper Euphrates area at the time when the assemblages start to change, was probably looking for available, well-watered grazing and cultivable land. There were either several waves or there were several stages to one itinerary, or both. The newcomers may have been willing to engage in small-scale trade up and down the Euphrates to supplement their initial subsistence. They could have easily traded with the locals, because even different ways to weave and to make beer or prepare cheese are always welcome as a novelty. Sites like Hacinebi sold copper and maybe woolen textiles.[150] Eventually, they also settled in the north, at sites like Hassek Höyük, where the exposed architecture is entirely alien.[151]

[150] Stein 1999: Ch. 7.

[151] Forest and Vallet 2008.

The best site to assess migration is Habuba Kabira, which exemplifies the creation of an agglomeration from the ground up. According to the analysis of the planning of this city, Vallet assigns at least three major phases to Habuba Kabira South-Tell Qannas. Tell Qannas would have acted as the elevated nucleus, with the so-called temples and surrounding rooms acting as commensal, storage and workshop facilities for the initial settlers,[152] who placed themselves along the river, and only later expanded towards the fertile terracing of the river banks while building the wall behind. The fortress-like wall allowed for the passage of drainage pipes. We see preserved here the most complex drainage system of all sites excavated at this time. Habuba Kabira South-Tell Qannas represents the first city proper that we have at this moment, given that not only the communal features but blocks of houses and small streets were exposed in the German salvage mission in the 1970s.[153]

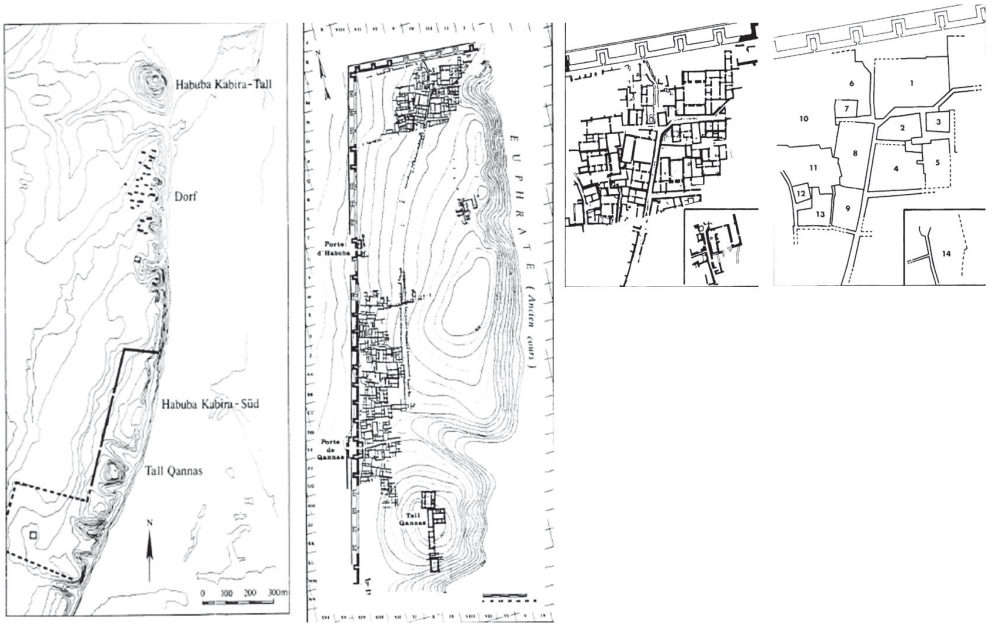

Fig.7.30. **Left**: Topographic map showing the location of Habuba Tell, Habuba Kabira South and Tell Qannas, with the contemporary village in the middle. After Strommenger 1980: Abb. 12. **Centre**: Map of the excavated areas at HK South-Tell Qannas. After Vallet 1996: Fig. 1. **Right**: plan of houses and plots of the northern sector, according to Vallet 1996: Fig. 4.

[152] Vallet 1997: 48. Tell Qannas was occupied since phase 1.

[153] Strommenger 1980. See Finet 1982 for Tell Qannas.

It was initially planned to sprawl out along the river. There were signs of activities taking place to the north, between Habuba Kabira Tall and the city (pits with BRBs and other material, but also houses), and traces of a platform with some architectural remains were found approximately 100 m to the south of Tell Qannas, even if badly eroded.[154] Habuba Kabira South may have experienced growth throughout at least three centuries, relying on agriculture, ovicaprid pastoralism, cows, pigs,[155] and whatever was obtained through trade. Its careful planning may reflect "artificial" growth, that is, outsiders may have, at some point, joined the descendants of the initial founders. Although I agree with Vallet that the house complexes may be assigned to autonomous family households, I also think that this growth cannot have accommodated all family expansions, for lack of suitable space nearby. As we saw at the beginning of Chapter 6 with Horne's observations in Baghestan, a family may own houses or sections of houses in different parts of the village. This was also the observation made by Cameron in her study of Hopi spatial organization at the village of Orayvi.[156] Citing local sources and supporting census figures, she realized that contrary to earlier reports, young people could not raise their children within the family household.[157] And yet, it may be significant that the House 2 and maybe adjacent House 3 plots at Habuba, among the oldest buildings at the site, had the highest concentration of diverse administrative material.[158] In spite of the evidence for communal administration found at Tell Qannas, initial settlers were free to benefit from trade as autonomous households. Habuba Kabira-Tell Qannas would have therefore adopted a heterarchical system formed by families instead of communities whereby an initial council formed by household heads would have supervised that communal assets were well managed while carrying out their own pursuits.

While the glyptic iconography reflects a strong influence from the Susiana, especially Choga Mish, there is also an evolving sense of local identity (Fig. 7.31).

[154] Vallet 1997: 51, 53.

[155] Von den Driesch 1993.

[156] Cameron 1999.

[157] "Orayvi houses, as in all street-oriented pueblos, are joined in long rows. Houses can expand vertically, but not horizontally without impinging on property held by someone else".*Ibid*.: 220.

[158] Rittig 2014: 365.

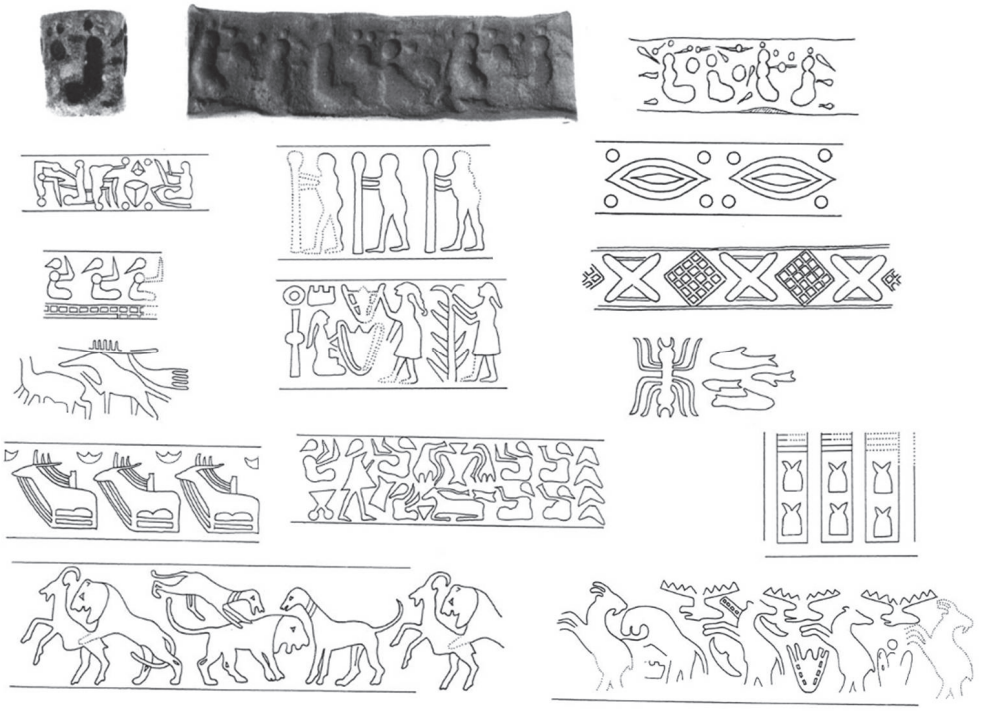

Fig. 7.31. Selection of glyptic examples from Habuba Kabira South. **First row**: cylinder seal, impression and drawing, after Strommenger et al. 2014, Tafel 190, no.3. **Second row:** drawings of cylinder seals, *ibid*.: Tafel 189, no. 9; 194, no. 8; Tafel 192, no. 7. **Third row**: Tf. 190, no.1; to the right, drawing showing women holding reeds and leather vessels, Tf. 194, no. 6, geometric scene, Tf. 199, no. 7. **Small seals showing animals**, Tafel 195, no. 12; spider and fish from Tafel 196, no. 8**. Fourth row**: triple ibex/donkey, *ibid*.: Tafel 196, no. 1; mixed composition, Tafel 190, no. 2, and encased eye idols, 199, no. 1. **Last row**: Tafel 196, no. 9 and 195, no. 9.

The glyptic also reflects a chronological development, from the "baggy"-drilled style of the first cylinder seals to the evolution towards more complex scenes, reflecting a consolidation of the control of beast and man in a tight, cohesive cultural world. Men and women should work for the sake of the whole and abide by the rules. There are nevertheless glimpses of independent creativity as seen, for instance, in the scene with the lions, antelopes and dogs, the three donkeys (or goats) in relief, or the combination of spiders and fish.

This autonomy is also reflected in the scenes of ewes, rams and their young, and the iconographic solution of building a separate corner in the image to enclose lambs in a protected space (Fig. 7.32). Humans and their artifacts supervise this idyllic image of fertility. Although it could be paralleled to the theme of bulls, cows and calves in proximity to huts or piles of stones characteristic of the Uruk glyptic, it is clearly local.

Fig. 7.32. Animal scenes, emphasizing either domestication or the arrangement of different kinds of animals in mirror-like scenes. **First six**: After Strommenger et al. 2014, Tafel 193, nos. 4, 8, 5, 6 and 7, and Tafel 194, no.1. **Below**: *Ibid*.: Tafel 197, nos. 4 and 7. **Last row**: Tafel 196, no. 10 and 197, no. 14.

Likewise, the inclusion of geese or a trio of real/imaginary predators—even if displayed via the well-attested arrangement of pairs twined at their necks—[159] reveals a distinct, local expression. The last two images in the figure below also reveal a penchant towards the odd whimsical composition.

Both original social rules and idiosyncratic development is visible as well as concerns incipient sacralization of activities and places, together with the coercive scenes conveying values of discipline and obedience, as seen in the first three images in the figure below.

[159] Pittman 2013: 302, and Fig. 16.12 "Interregional motifs".

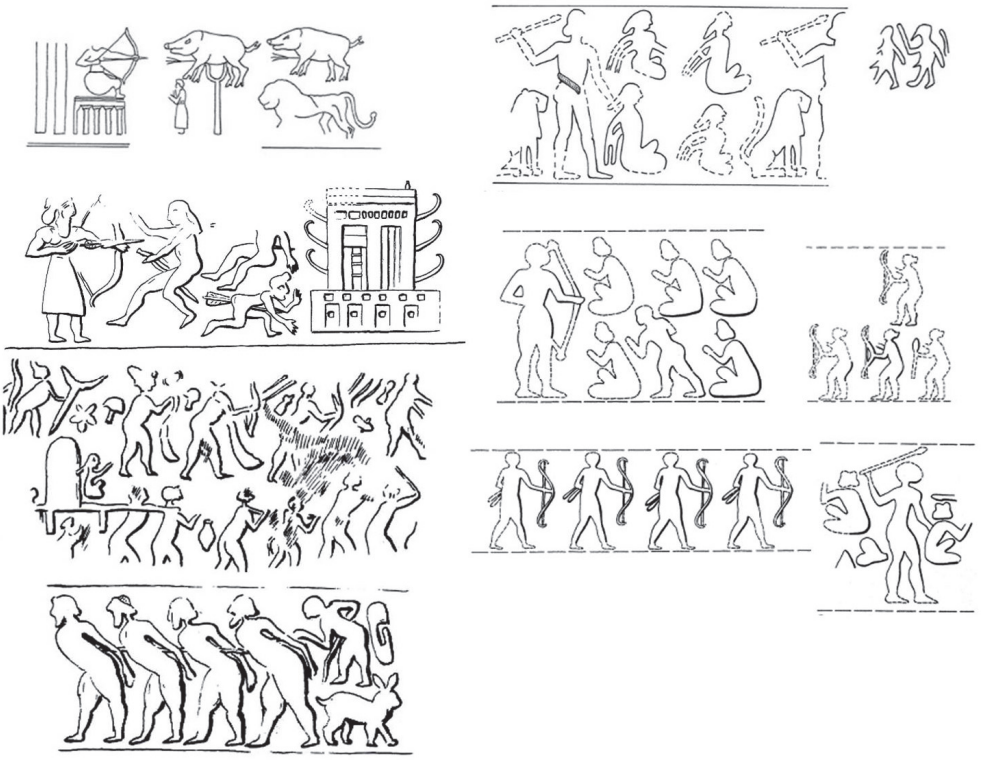

Fig. 7.33. Discipline, cohesion, aggression. **Top row**, three scenes from Habuba Kabira: Strommenger et al. 2014, Tafel 193, nos.1 and 2, Tafel 194, no. 13. **Below**, **left**, selection from Susa. After Amiet 1972, Plate 18, nos. 695, 691 and 683. **Right**, selection from Choga Mish. After Delougaz and Kantor 1996: Plate 150, E, C, A, and F.

Although men and women holding bows is a common feature in the glyptic of Choga Mish, it is only occasionally attested at Susa and Habuba Kabira (although there are several hunting scenes from Susa and Uruk with dogs, bows or lances). Whereas the impression at HK and Choga Mish is that the submission scenes are the expression of a value that is considered essential—discipline—, the rich glyptic of Susa offers as many conventional scenes transmitting normative values as ambiguous or contradictory ones. For instance, the scene depicting an attack on the city may use nudity to convey the inferiority of an enemy, but it is equally possible that it may mean the innocence of women and children before an unwarranted attack. This would firmly anchor this scene in an actual event. The scene below, moreover, is unique. It represents a popular ritual procession bearing either a mortal or an immortal female on a palanquin, and departs from more conventional expressions of institutionalized ritual coming from Uruk. I wonder, then, if the "interregional motif" transmitting a warning via people with their arms bound behind them can be compared to the depiction of this theme at Uruk. At Uruk, we see mythical beasts and humans together, a strong and highly standardized architectural component, supervising bearded or common men with lances, complex compositions that resemble the ones portraying animals, and a row of prisoners who are immobilized

by their necks by means of a rod. Actually, coercive and aggressive scenes are one of the most common themes at Uruk (see section below). It seems that elsewhere, the emergence of human servitude may be more nuanced, leaning towards social cohesion or the defense of the common good.

Finally, the fact that the inhabitants of Habuba Kabira did not adopt or did not develop a functional writing system beyond the use of tablets with impressions and numerical incisions (see Fig. 7.34) opens the window to two scenarios:

1) that even the last phase of occupation preceded the development of a writing system at Susa and Uruk, that is, the "Proto-Elamite" emerging at Acropole I 16 or the "Uruk IV" at Eanna IV a-III (3300-3200 BC)

2) or that they had become relatively isolated and were doing fine with what was available.

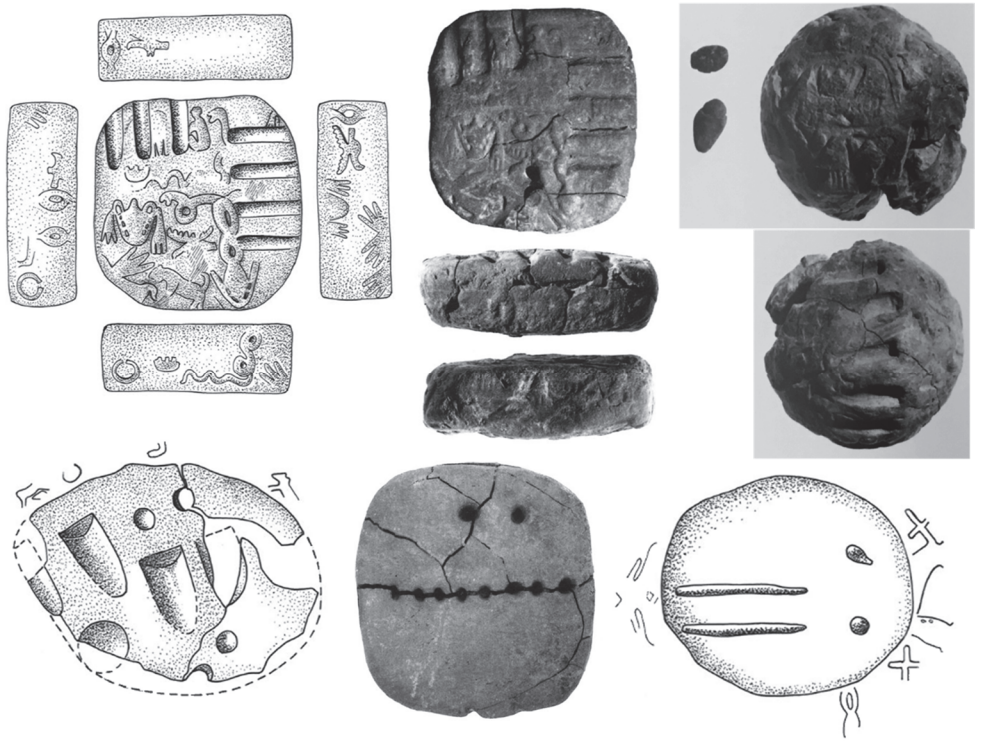

Fig. 7.34. Selection of administrative devices from Habuba Kabira. **Top left, centre**: Drawing and photo of impressed tablet with numerical notations (one of the two that were recovered intact). After Strommenger et al. 2014, Tafel 201:1 (MII: 127, dump). **Right**: hollow bulla with two counters, impression on one side, and grooves on the other side, *ibid*: Tf. 204, 1 (MII: 133, dump). **Below**: left: fragment of a sealing or a tablet, with indentations and traces of signs (*ibid*.:Tafel 203, 1, drawing); centre: thick tablet with circular holes, representing a face (ibid.: Tafel 202, 1); right: round tablet with two holes, two grooves, and traces of logographic incisions (loc. cit.: no. 2).

Together with Choga Mish, Susa and Uruk, Habuba Kabira-Tell Qannas is the only enclave where all administrative devices are well attested: a wide variety of tokens—many pierced—and made of clay and stone, hollow balls with outer impressions and bearing simple tokens, numeric and numero-ideographic tablets, impressed fusiform sealings (some of them with a peg-like depression) or bullae/tags, impressed sealings, cylinder seals (not many) and a few stamps. Some of the seals (see the spider and fish image above, in 7.31, and Strommenger et al. 2014, Tafel 192) correspond to an innovation emerging at Acropole I 17, according to Pittman, that of the glazed steatite seal, shaped like an hourglass.[160] It would therefore seem strange that the users and communal institutions at this site did not adopt a writing system from the mother area, or developed their own. Unfortunately, we do not know when exactly Habuba Kabira was abandoned, and it seems to have been abandoned rather abruptly, at its peak.[161] Arslantepe VIA was abandoned ca. 3200-3100 BC. No written tablets were found at Tall Habuba Kabira either, which seems to have developed into a village of some import soon after the collapse of the city to its south.

In any event, it becomes clear by now that the monumentality attested at Arslantepe, Brak, Choga Mish, Susa, Uruk, and elsewhere (e.g. Hamoukar, oval compound at Godin Tepe VI), witnessing the most complex communal organizations since the beginning of sedentism, was not accompanied by a sophisticated writing system. Like pottery or metallurgy, the writing system was not very useful or functional for centuries. It was developed by a few groups who were willing to experiment with it despite its time-investment costs and the lack of substantial reward. It required significant efforts of coordination and intra-communal group interaction, as well as finding solutions to new needs, from the expression of ever more complex measuring systems to the different commodities, transactions, and people involved.

The release of population like a pressure valve did not, in the long run, avoid the collapse of Choga Mish.[162] However, in the case of Susa, the transmission of its writing system throughout the Zagros and Iran can be followed from the last centuries of the 4th millennium until its demise at the beginning of the 3rd. In their analysis of the Iranian archaic system, Dahl, Petrie and Potts established a fist phase formed by tablets whose format and content only appear at Susa, Tal-e Ghazir, Tepe Sialk, Tepe Ozbaki, and Tepe Sofalin, thus "suggesting an early geographical trajectory that linked Susiana to the north-central Iranian Plateau", and a second phase that appears at Susa, Tal-e Malyan, Tepe Yahya, Shar-e Sokhta, and Tepe Sofalin (southern Zagros and eastern Iran).[163] Apart from Sofalin, Susa is the only common denominator, and I believe Uruk became also an epicenter of expansion of the writing system between 3300 and 3100 BC, probably through dispersion. According to Desset: "These writing systems were contemporary, excluding each other, and the Uruk expansion and Proto-Elamite phenomenon actually belonged to the same historical period characterized by this still unexplained material (ceramics)

[160] Pittman 2013: 327.

[161] Vallet 1996: 48, n. 12 expresses his reservations against a short duration of this city, as defended by Strommenger and Sürenhagen.

[162] Alizadeh 2008: 23-27, and chapters devoted to the East and West Areas.

[163] Dahl, Petrie and Potts 2013: 375.

standardization, the common use in Mesopotamia and Iran of the numerical/numero-logographic tablets giving birth in these two areas at the same time to two writing sisters (the Proto-cuneiform and PE systems) and the use of a specific architectural pattern in western Iran (in Susa, Godin Tepe, Tal-i Malyan and Qoli Darvish at least (…)) clearly distinct from the Mesopotamian ones."[164]

The Uruk expansion, then, would have been a late 4th millennium sub-regional phenomenon. Prior to that, people from the Mesopotamian alluvium may indeed have participated on the northwestward flows that have fed the "Uruk phenomenon" narrative, between 3600 (or earlier in the case of the northeast, as seen at Girdi Kala) and 3300 BC.

7.3.5. Trajectory 5: Uruk, "the first city"

As was explained in Chapter 1, it is currently impossible to reconstruct the evolution of Uruk from its "Ubaid" occupation until the beginning of communal architecture ca, 3600 BC, then to guess the nature of its impressive monumental growth (for instance, how many original groups comprised its "hinterland") or how it adapted to a more than likely decline at the end of the 4th millennium BC. What seems clear is that the Warka Basin, having Uruk as its focal point, was most likely a location of centripetal not centrifugal movement until then.[165] This would have allowed for different groups, maybe speaking different dialects, if not languages, to acclimate to the ethos that was ensuring the emergence of a unified identity. This sense of collective identity is remarkable and far more aggressive than what is seen elsewhere. The glyptic may suggest that its government attempted to turn it into some kind of hegemonic power, implying a very early corruption of meta-communal governance.

The first scene in Fig. 7.35 shows a very early depiction of animal body parts (not to mention that dogs seem to be bigger than lions and bulls). The floating heads and legs are no common filling motif. This motif will only become widespread later on. The so-called "king-priest" figure could be an idealization derived from a good shepherd, either using a staff or a lance, but the related patriarchal father-figure values are missing. The scenes of discipline at Uruk are deeply disturbing. The use of kneeling and floating small men and women figures, all bound with their arms behind them is suggestive of the capability of extreme force if the order is disrupted. These scenes represent the first clear depiction of slavery in the history of humanity. So it could be that at some point at the peak of its growth, Uruk tried to obtain human resources from neighboring communities through force, and conveyed a sense of terror, not just discipline, through imagery paradoxically impressed on sealings, fusiform and hollow balls (which implies it was made by and for workers at different

[164] Desset 2016: 97.

[165] Small-scale excavations to the northeast have revealed houses and "shelters" to a distance of 3-4 km (Nissen 2021: 311), but the ceramic sherds seem to belong to an Early Dynastic date, and more excavations are required anyway to understand the disposition of orchards, fields and residential satellites around the core.

locations), but not, however, on tablets,[166] perhaps because the practice to impress tablets, which also hinders the visibility of the sign-carvings, disappeared precisely at the point when we see the central areas razed and re-purposed. This suggests that the élan of the writing system as concerns layouts and content (classified as "Uruk III") stemmed from a time of crisis, one that gave way to a downsized and more manageable Uruk at the very end of the 4th millennium BC.

Uruk would have required a large labor force to build a succession of ambitious public works in both central areas between 3600 and 3300-3200 BC.

Fig. 7.35. Imagery of coercion and domination from Uruk, reconstructed from seal impressions on sealings and bullae. Animal scenes, after Boehmer 1999: Abb. 48, A-N, Abb. 48 A-E. Images of slavery, after Boehmer 1999, Tafel 12, 3 A-E, Tafel 17, 4 I-L, Tafel 22, 6 C-E, Abb. 65 A-C, Abb. 64 A-D. Last scene, with legendary undertones, Tafel 41, 13 T-W.

[166] The imagery on the numerical (wedge-like impressions) and numerical-ideographic tablets in ATU 5 (Englund 1994) show a preference for pastoral and hunting scenes. However, a small tablet (when the logographic repertoire starts expanding) bears some of the most explicit images of slavery: ATU 6, Tafel 92. One third of the tablets allegedly coming from Jemdet Nasr bore impressions (Matthews 1993: 26), but maybe only one (MSVO 2, No. 13) depicts this kind of scene.

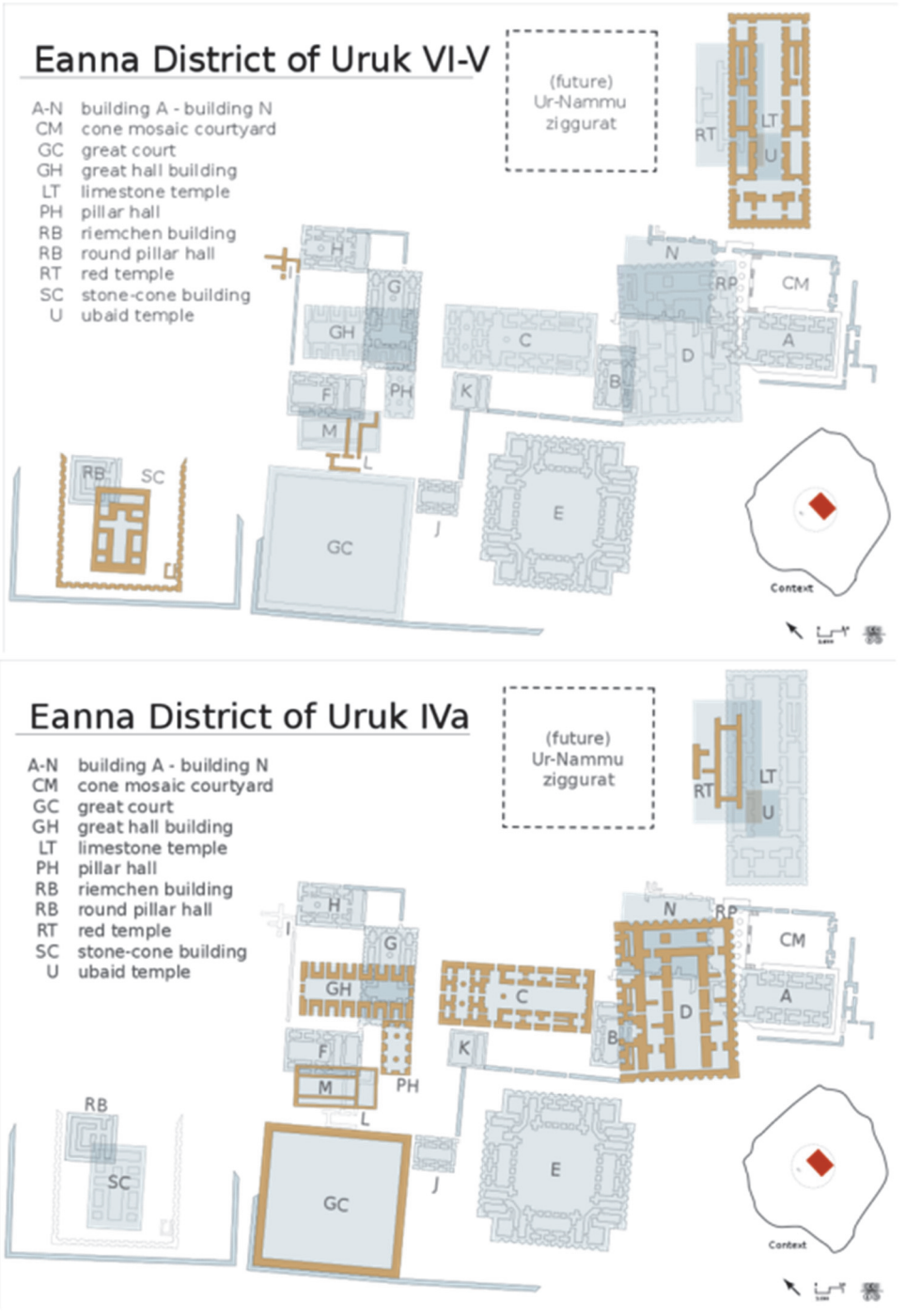

Fig. 7.36. First image: plan of Uruk, eastern central area, ca. 3600-3500 BC. Second: eastern central area ca. 3300-3200 BC. Reproduced from Wikimedia commons CC-BY-SA-3.0, after Lamassu Design, Gurdjieff, original by author based on survey data by Heinrich Lenzen 1954, Boehmer 1984. Files: https://commons.wikimedia.org/wiki/File:Eanna5.svg https://commons.wikimedia.org/wiki/File:Eanna4a.svg

The platform in the western central area rose to be 12 m high and saw the final construction of the White Temple (Fig. 7.37).

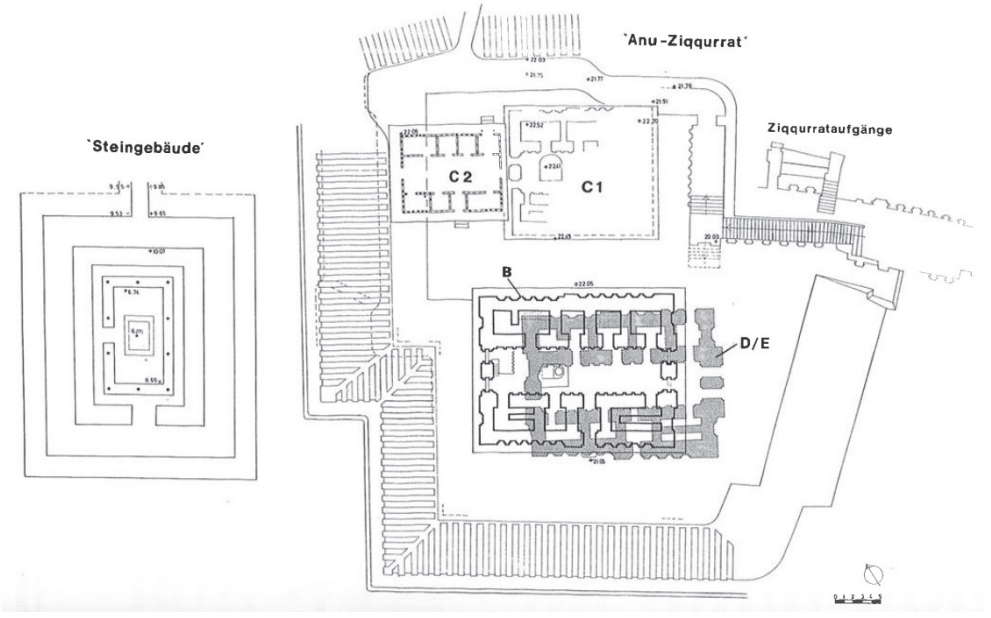

Fig. 7.37. Anu ziggurat/western central area, late 4th millennium BC. The 1st millennium BC Anu temple was built on top of the much, much earlier remains. As can be seen in the plan, the White Temple was built on top of an earlier structure. C1 and the Steingebäude, to the left, would have co-existed with the WT. After Eichmann 2021: Fig. 2 (and see also Eichmann 1989: 153).

But what happened after all that impressive monumentality at the two core areas—assembly venues, market places, specialized storage, banquet halls, even gardens or animal pens (Great Court)—was erased? If there is one common denominator that characterizes the following stage is 'terraces'. These and other features seem to indicate a preoccupation with flooding and water management. Even the buildings at the top of the west central mound may have been affected. According to Eichmann, the surface was paved over with large and heavy bricks, which he sees as a decision to connect it with the so-called Old Terrace below (more like a huge platform, since it was 10 m in height).[167]

As for the eastern central area, even if the last stage of Uruk IV survived the White Temple,[168] it would be eventually razed, superseded by cooking pits and temporary constructions, then by a large brick terrace, immediately to the northeast. Its façades were adorned with cone mosaic decoration. Southwest of the terrace remains of multi-roomed buildings were recovered. If any building was built on top, it left no traces. What is remarkable is that water-lifting facilities were installed

[167] Eichmann 2021: 109, and 110: Fig. 3.

[168] *Ibid*.: 112.

already during the first building stage of this terrace.[169] Remains of a drainage system from the following building stages were also unearthed (vaulted channels), but we ignore what was the exact course that the canals followed in the inner city, assuming that its deliberate canalization started during the last quarter of the 4th millennium BC. Like the big city wall that Gilgamesh, legendary king of Uruk, had built, and which has left traces that accompany 3rd millennium pottery sherds, the current mission hopes that the canals can be identified and will provide a kind of permanent reference of the structure of the city during its long history. The drill borings undertaken by Brückner and Van Ess, mostly in the western part of the city, are already indicating that the geomorphology may have been more complicated than expected,[170] with some peripheric areas having natural rises, and others indicating the existence of a previous canal or river branch and evidence of flooding. Particularly illuminating is the boring in the middle of a depression (no. 2), [171] which has proven to be located in the middle of one of the canals flowing south. There is a ceramic-bearing layer on top of the original dune/alluvium sediments, followed by almost 4 meters of alluvium, then a very thick ceramic band, in turn followed by 9 meters of layers with more isolated attestations of pottery sherds, and so on. The thick ceramic band is composed of mixed late 4th and 3rd millennium material, and includes what could be fragments of the floor of the canal. The canal here may have reached, at some point during its history, a width of 10 meters (according to the magnetograms). They also think that the canal was artificially deepened several meters into older flood sediments. Equally relevant is the fact that **the original city core was not built over natural rises**. The reasoning for the first city planners may have been that the hills around the periphery, and later the wall in combination with better water management[172] (plus the platform/terrace strategy first seen in the western central area), would protect it.

Therefore, as things stand now, there is even less evidence to contextualize the latest administrative records or finds such as the Uruk Vase than during an "Uruk IV" phase, given the lack of architecture with a clear administrative purpose for the beginning of the "Uruk III" phase. The Uruk Vase, an alabaster tall vessel with a rich, complex iconography—simultaneously politico-religious—has been analyzed by countless scholars from multiple angles. Its findspot, however, prevents an easy chronological contextualization. In order to access the layers underneath the "Ur-Nammu zigurrat" without disturbing it, the German excavators dug tunnels.

169 Eichmann 2019: Fig. 16.14 and 2021: 112-114.

170 Brückner 2019; Van Ess 2021.

171 Van Ess 2021: 137f, 140.

172 Van Ess 2021: 141. The wall along its southern perimeter is better preserved. The magnetograms have revealed that it was made up of separate lines, and that another canal circled the city outside it. See Becker, van Ess and Fassbinder 2019: 340.

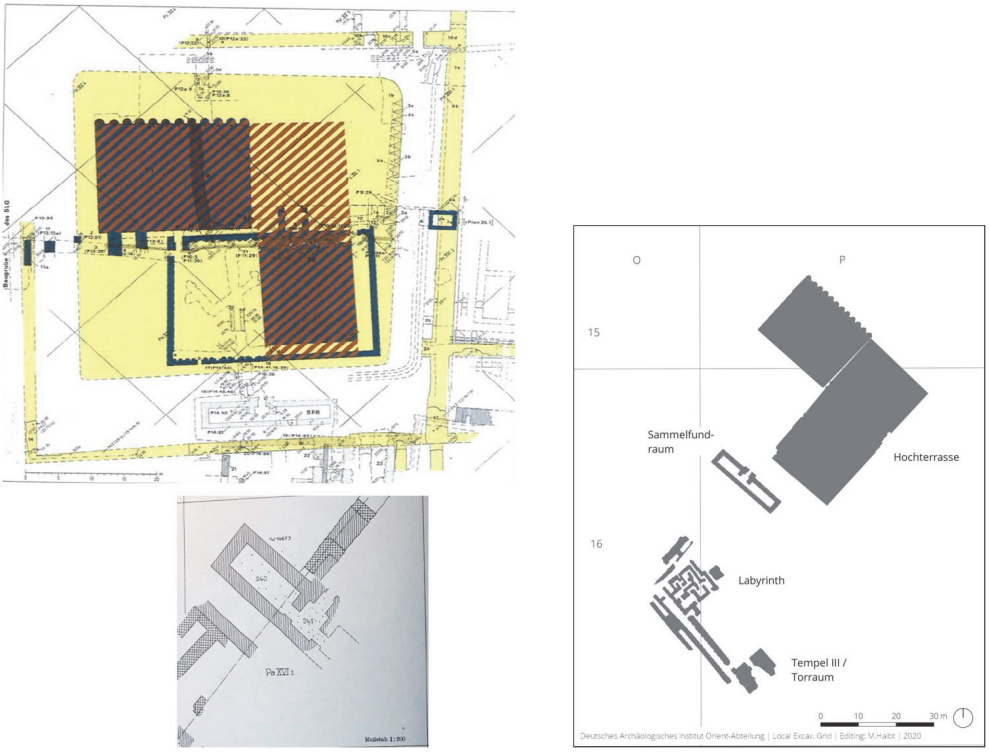

Fig. 7.38. The "Sammelfund" where the Uruk Vase was found. **Top left**: Reconstruction of the history of the terraces after the razing of the Uruk IV monuments in the eastern central area until the "Urnammu ziggurat" period at the end of the 3rd millennium. Evolution from two separate terraces at a diagonal, to an L-shaped one, to a large, almost square structure (in yellow). *Sammelfund* rooms located outside, to the south. After Eichmann 2019: Fig. 16.12. **Below**: drawing of *Sammelfund* rooms by Heinrich 1936: Abb. 1. **Right**: L-shaped terrace and *Sammelfund* in the vicinity of the multi-room structure called the Labyrinth. After Nissen 2021: Abb. 3 (created by M. Haibt, ©DAI).

This vase, and two sculptures (sheep heads) that initially brought more attention than the vase itself, were actually found outside the perimeters of Rooms 240 and 241, according to Heinrich:

The majority of them were found within the floor plan mentioned above (cf. fig. 1), particularly many in the small, roughly square room no. 241 and between the frames of its three doors. However, many pieces were also found in the elongated adjoining room no. 240 and some, especially the most valuable pieces, were found **outside the floor plan**, such as the large alabaster vessel W 14873 and the two sheep heads W 15237a and W 15239. A few pieces were even found deep in the Ziggurat tunnel, but within the corresponding layer, such as the silver vessel W 15260. Given the context of the finds, one would initially think that the building had been destroyed by enemies.[173]

[173] Heinrich 1936: 3f, my translation.

The excavators were hoping to find metal objects, but they found almost none. Heinrich suggests a hypothetical enemy plundering it to hide their disappointment. In the filling rubble, beautiful vessels, cylinder seals, beads, shell and stone plates composing rosettes or geometric shapes, together with several pendants including recumbent animals with the "baggy" scenes carved into their bases—which, as was shown earlier (Brak, Susa and Choga Mish), belong to a ca. 3500 BC date—were found. We could infer that these rooms were used as storage of valuable old and new objects (valuable for their "Uruk III" builders, not for the excavators), and/or we could infer that the old objects came to join the new, once these rooms were destroyed by flooding. If these storage rooms were attached to or in the vicinity of other structures, and connected to the "Labyrinth" compound, we do not know.[174] The previous construction stage in the area of the *Sammelfund* rooms features a few walls and a large number of tablets—superimposed over the Limestone Building, one of the earliest built structures (see figure Eanna District of Uruk VI-V above)—which has been the subject of discussion.[175] Given the complexity of the ideological values expressed by the cultic procession that tier by tier lead to the representation of a deity-priestess and a ruler-devotee at the top, where symbols of fertility and prosperity abound, I am inclined to see the Vase as belonging to a very late 4th millennium BC context, one where the society of Uruk was being reconfigured,[176] just as Susa one millennium earlier had faced a crisis with ritual.

As time went by, multi-roomed architecture returned[177] but not the textual continuity that is to be expected. Englund gave a 3300-3200 BC attribution to the numerical tablets (and the period was subdivided into simple and complex); then estimated a 3200 BC dating for the numero-ideographic tablets, left 3200-3100 BC for the Uruk IV(a) and squeezed the Uruk III tablets into the following century.[178] In light of the new radiocarbon dates (see Ch. 1), the CDLI (Cuneiform Digital Library Initiative) database has shifted the temporal assignation of the Uruk IV and III phases (now, 3450-3200 and 3200-3000 BC, respectively), and has assigned tags or simple tablets to an Uruk V or IV dating, arbitrarily. It is highly likely anyway that some initial categories co-existed or overlapped. Nevertheless, there is no getting around the fact that the tablets assigned to an Uruk III phase were found scattered and mixed with random debris.

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174 Cf. Nissen 2021.

175 On Jordan's "Red Temple" and subsequent interpretations, see Englund 1998: 34-38.

176 See, *inter alia*, Suter 2014, who gives a good overview of past interpretations, mostly debating the nature of a hypothetical sacred marriage ceremony. She leans towards an expression of royal ideology. There is no other evidence to support this interpretation.

177 Eichman 2019: 104-107.

178 Englund 1998: 214f. There were also period attributions for the tokens, and the envelopes/hollow bullae, at the beginning of the chronological scale, and a final Early Dynastic I tablet period.

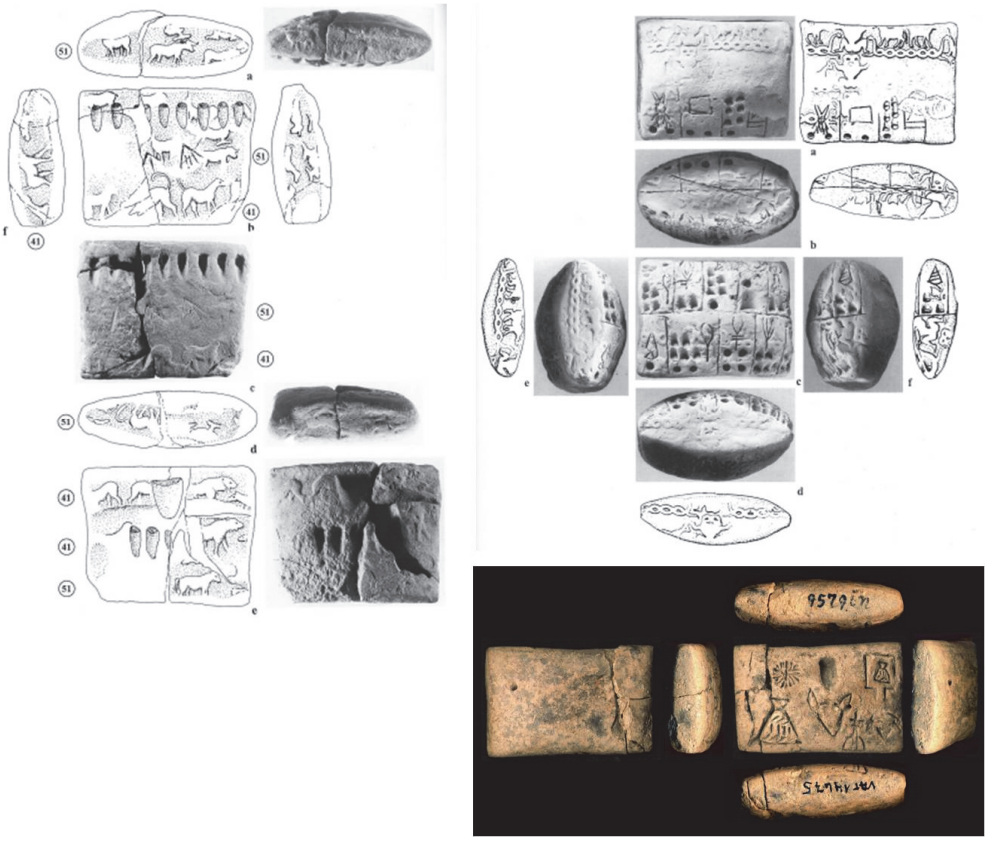

Fig. 7.39. Early tablets from Uruk. Left: Numero-logographic tablet with seal impression. Note the logograms below the numerical notations on the reverse (top). After Boehmer 1999: Abb. 51 A, W6881. Right: tablet with simple tabulation, numerical notations and logograms on the obverse and one side. The reverse shows additional notations, seal impression, and logograms. After Boehmer 1999: Abb. 66, W21074,1. Below: "Uruk V" tag. ATU 5, Pl. 115, W 9656, in Artifact Entry (2001) 2023. CDLI July 3, 2023. https://cdli.ucla.edu/P001664

The *Stampflehmgebäude* that was gradually built throughout the late Early Dynastic to the east of the terrace (roughly in O15)[179] yielded one tablet of a late 4th millennium date, one tablet that may be early 3rd millennium and an older one, two sealing impressions of late Early Dynastic or Sargonic attribution (so ca. 2400-2300 BC), and a fragment of a stone inscription badly preserving a name (maybe lugal-kigidudu).[180] Perhaps the administrative activities at Uruk were transferred during the reconstruction of the center to a different location and we may find more tablets only through excavation, at the bottom of heavy anthropogenic deposition. But I also

[179] See Eichman's comments on the intrusive nature of this building and its possible attribution to the Sargonic period in 2021: 118f.

[180] Nissen 2021: 309f, and references therein. Nissen assigns W21906 to an Ur-archaic period, but the CDLI has given it an Old Akkadian (Sargonic) dating. See Boehmer 1991: Tafels 22 and 23 for the sealing impressions.

think that Urukeans may have experienced one or two periods of decline, one around 3200 BC, the other at the beginning of the 3rd millennium BC. The first one may have triggered a small-scale migration northwards, to other locations in southern Mesopotamia, and it may have been the consequence of catastrophic flooding and the increasing coercive nature of Urukean rulership. Migrants took their knowledge of the writing system with them, one that would continue evolving in Uruk itself for a while. The second period of decline was regional, so it is highly likely that not every community that had adopted the writing system continued using it. The first half of the 3rd millennium BC picture is virtually an enigma, not only due to the apparent lack of activity but to unexplained geographical differences that come from very scarce and confusing sources separated in time and space. The whole delta, especially on the Tigris side of things, was also undergoing change, as has been shown in Chapter 1. What we should be doing is paying attention to diversity, gradualism and change. Instead, we are assuming that on the seventh day the gods created civilization, everyone saw that it was good, and ancient Sumer was born.

7.4. The writing system and the 'origins of civilization' discourse

7.4.1. Challenges to investigating 'origins'

In order to understand how Uruk acquired such impressive growth and then declined, readjusted and continued to moderately grow for a span of approximately one thousand years, we need more than traces of architecture and scattered material. We need to know how people lived and organized themselves, even if a complete understanding of how the different groups contributed to the whole may be forever beyond our grasp. While the pooling of resources would have been an attractive reason for people to join, participating in the festivals and communal life organized at the monumental centre of the city would have been the real attraction. It would have provided a sense of belonging and pride. The imagery of submission and slavery transmitted on the sealings and bullae that moved around—dispatched from peripheries to the centre, or between two different processing facilities—suggests, however, that an opposition between 'us' and 'them' developed very quickly. That antinomy may have been represented by original groups and newcomers or by Uruk at large and external competitors for land above the water table.

Furthermore, relationships with alterity were fundamentally changed with civilization, and both the Susiana and Uruk illustrate very well how the objectification of the multiple Other accompanied the split of the natural world. The defense of communal fields, pastures and pens, of fisheries and hunting grounds, led to a three-tiered cosmology: the built space, the hinterland, and the wilderness. What was not useful for 'us' became a potential enemy.

However, we do not know what the situation at other locations was like. Excavations at one of the cities of the future state of Lagash, Tell Zurghul, have revealed

nothing of note at the transition between the 4th and the 3rd millennium BC.[181] We need to consider that we may be dealing with two types of absence: one caused by the hydrological changes at this time, and later taphonomic processes; and a true absence in the sense of outstanding development, slow growth and a diverse composition of these southern communities living on the fringes of a future delta, and even more diverse further north into the alluvium and up to the Diyala. When this absence, this silence, ends (leaving the unique case of Ur, its mortuary rituals, and its tablets aside)[182] between ca. 2500 and 2400 BC,[183] the picture we actually have is one of extreme heterogeneity. Inscriptions on statuary, vessels and plaques are found at different geographical enclaves, but only Fara and Abu Salabikh yield archives. And it is far from certain that the texts from these sites belong to institutional archives, although this is a discussion that does not pertain here.

Yet, out of sheer frustration, or because of the assumptions that we have inherited from past scholarship, we (archaeologists and Assyriologists alike) are still portraying the origins of civilization as if they had happened in a smooth, well-ordered manner, almost as if "predestined". The discourse that glorifies the grand monuments of Uruk; the irrigation works; the rationality of a writing system, at the service of the administration of the State; the fortunate or unfortunate but always inevitable social stratification, …; that discourse, in a nutshell, cannot afford to give a more nuanced, more gradual, more "imperfect" narrative. The lynchpin to maintaining this patently obsolete discourse is the writing system. Since it somehow evolved and survived—seems to be the reasoning—, surely it must have been transmitted by expressing the same language,[184] naming the same actors—with identical roles and competences to future offices—, referring to the same kind of territory (proto-Sumer), and articulated around worship to the same deities[185]? According to this discourse, five, six, seven

[181] Nadali and Polcaro 2020. Building A at Mound A was a multi-roomed building that yielded diagnostic pottery, an oven, and sealings made of bitumen, unimpressed. No tablets were found. A radiocarbon dating anchored it to 3104-2850 BC. The late 5th –early 4th millennium population living at Mound B was a community of fishers. The team's environmental studies confirm, however, that the 4th millennium BC would have been a period of increasingly less frequent but more violent floods.

[182] Benati and Lecompte 2016 try to argue for the "Ancient Room" within the "Royal Cemetery Area" (Woolley's nomenclature) as the most plausible findspot for a majority of these texts on the basis of records and texts from the British Museum that had not been published. Nonetheless, the texts cannot, still, be dated with certainty.

[183] Sallaberger and Schrakamp 2015.

[184] In opposition to Englund 1998, several scholars have defended that some early version of Sumerian was transmitted through the writing system. Just the fact that it needs to be debated speaks volumes. What no philologist has considered (see Rubio 2005 for an overview) is that several dialects of Sumerian and other languages may have been spoken in the Warka region during its peak of growth, and that multiple dialects of Sumerian and other languages may have been spoken all over the alluvium (and the Susiana, is, of course, included). Only a strong political entity controlling a large, centralized territory can have the legitimation and means to impose a particular written version of a multi-dialectal language.

[185] Attempts to identify cults to Inanna and other later major deities, by focusing on the reed standards that represent an ideogram or are part of a logogram, have been made, without much success. Although Szarzyńska included their representation in the glyptic and plastic arts, all that

hundred years are inconsequential. The fact that it was a time of huge, revolutionary social changes is dismissed, its causes and hows, the motivations and the choices on the part of these communities, deemed irrelevant. The existence of 'Uruk, the first city' renders any additional explanation superfluous. And the survival of a writing system after such a long time is not so much felicitous as inevitable. The rationality of the first scribes and their students heralds all future amazing developments and the ever-continuity of 'lore' transmission.

In the face of our blatant absences, however, how can this discourse persist? The simplified answer is: 1) by believing in the alleged provenance of some (archaic) tablets; 2) by believing that the lexical lists, symbol of a strong scribal culture and reflection of the social structure, became an established tradition in Uruk-South Mesopotamia since the end of the 4th millennium BC; 3) by using retroactive interpretations,[186] that is, instead of investigating our complicated origins, we are assuming that the society in the region during these centuries remained essentially the same until the late Early Dynastic period.

7.4.2. Grasping at straws: the example of Jemdet Nasr

As of today, the most important site of a late 4th millennium date that can aspire to offer a counterpoint to Uruk in South Mesopotamia is Jemdet Nasr. The tablets published in the MSVO 1 volume,[187] however, are far from being a homogeneous group, and that heterogeneity cannot be explained by the use of the writing system for a prolonged span of time. Given the importance attached to the large building from Mound B, the ceramics, the tablets, and the seal impressed on thirteen sealings that Matthews used as a basis for his "cities" network theory (see further below) the particulars of the original excavations, even if already commented upon, bear some further reflection if we are to understand the inherited weight of past scholarship. The overview of events, hearsay and comments that has been collated here, drawing on Englund's, Matthews' and Moorey's accounts, offers a good opportunity to understand the framework of colonial excavations, and the risks of relying on a thriving "antiquities market" as concerns the reliability of our sources.

Jemdet Nasr was excavated by chance because the real protagonist was nearby Kish. In his reanalysis of records and material stored at the Ashmolean Museum, excavated by the joint Oxford-Chicago expedition at this multi-mound site and

may be concluded is that the reed standards may have been important in cult, or used by different clans in communal festivities. This, and other essays related to the archaic writing system, were compiled in Szarzyńska 1997.

[186] I call a retroactive interpretation one that assumes that it is possible to "theory-build" any aspect of the social experience belonging to the centuries preceding significant change by extrapolating the same circumstances seen post-change, only marking it down a notch or two. A form of evolutionism is to assume a "proto" scenario with every single aspect of social organization, whether it is religion, trade, or political power arrangements. Even the labels of these spheres become fraught with imprecision, unwanted connotations and biases. This tendency paradoxically prevents the understanding of change, which is usually gradual, irregular, heterogeneous, and complex.

[187] Englund and Grégoire 1991.

nearby tells, Moorey also gave a critical assessment of the methods of recording, interpretations, and publications that is invaluable.[188] Since Mcguire Gibson had already published a reassessment of Kish, based on records in the Field Museum, Moorey only gave critical information on the more personal details of the mission when relevant. The organizers had decided to appoint Ernest Mackay as Field Director at Kish over the French engineer Watelin, less experienced. However, it was decided that Professor Langdon, an American theologist and a "reader in Assyriology" at Oxford since 1908, would be in charge as Director. It was agreed that, after the division of objects between the Iraq Museum and the Expedition, Oxford was to receive all inscribed objects, and Chicago all archaeological, scientific, and skeletal material. All accounts of these excavations have emphasized that Langdon was mostly interested in finding tablets. Lack of adequate records was notorious. Moorey remarked: "De Genouillac's report offers a very cursory account of his work on the ziggurat and adjoining town site, with only the most sketchy plans, whilst providing no provenance for the objects listed in the catalogue. (…) Of Mackay's work only second-hand reports ever went into print, largely contributions by Langdon to general reviews of current archaeological work. Even the popular account published in the first volume of *Excavations at Kish*, including the plan, were worked up by Langdon from Mackay's reports by letter from the field and suffer from his ignorance of the actual excavation".[189] Langdon was not present at Tell Ingharra during the third season, but he returned as the expedition was excavating at Mound 'W' in December-January 1925-26, "to mine for tablets". This was immediately before he focused on Jemdet Nasr. Langdon had already realized the potential to obtain "literary tablets" at a building in 'W' (1924), but he had complained about their condition.[190] The tablets would be later dated to the Neo-Assyrian and later periods. Langdon not only left erroneous notes on the stratigraphy and objects found here, but moreover he left no records of the tablets. The reason why may be understood by Moorey's reconstruction of excavations at Jemdet Nasr: "He published the tablets [allegedly found at Jemdet Nasr], almost certainly his primary purpose in excavating, and a very cursory general report in German in a periodical now increasingly rare".[191] It is highly likely that Langdon chose *Der Alte Orient* to publish this report because of the ongoing and successful German excavations at Warka.

[188] Moorey 1978. Moorey also refers to de Genouillac's previous small-scale excavations, in 1912, when necessary. "Owing to difficulties in studying the finds, which had been sent to Istanbul as required by Ottoman Law, de Genouillac was unable to publish his report until 1925". By then, the Oxford-Field Museum Expedition was well under way, with "little or no regard for the Frenchman's earlier efforts". Moorey 1978: 13. This anecdote serves to illustrate the climate of competition prevalent at the time.

[189] Moorey 1978: 21.

[190] *Ibid*.: 48.

[191] Moorey 1978: 147.

Mackay's work at Kish, maybe because he had to do all the work but someone less capable took all the credit, also left quite a lot to be desired. According to G. Possehl on an article dedicated to the life and work of Mackay, published in a Penn Museum bulletin (*Expedition Magazine*),[192] this Bristol man had been part of the staff of the Field museum in 1922. Earlier, Mackay had participated in Egyptian expeditions under Sir Flinders Petrie and been part of an army commission for the survey of monuments in Palestine and Syria during WWI. He stayed in Palestine after the war, and when his position was at risk, he gained employment as assistant curator at the Penn Museum, although in order to assist a Dr. Fisher with his excavation at Beth Shan, Jordan. When Dr. Fisher fell ill, Mackay complained that he had had to carry out many tasks without help. Dr. Fisher, on his part, was not pleased with Mackay's disposition, and fired him because he was rendering no useful service. His photographs were not "up to standard" and the cards had "half the necessary information omitted". Possehl reasons that, given Mackay's later accomplishments at Kish, Mohenjo-daro and Chanhu-daro, Fisher's remarks were inappropriate. During his time at Kish, Mackay remained in contact with the Archaeological Survey of India. As soon as the opportunity arose, in 1926, he left his work at Kish,[193] and embarked for England, then India. Possehl gallantly praises his work as an excavator in India, even though he "did not understand stratigraphy in a particularly profound way." As a redeeming quality, he could "understand the spatial relationships of artifacts found in the same context".[194] Matthews, who revised all documentation available at the Ashmolean Museum for the publication of his own excavations at Jemdet Nasr before the breakout of the first Gulf War, remarked that the object cards recorded by Mackay were undated and rarely registered the findspot.[195]

Let us, however, go in chronological order, to track activities at this hill some 30 km to the northeast of Kish.

– 1903: a group of 36 tablets allegedly from Jemdet Nasr is sold in Baghdad to the German expedition that is then excavating at Fara. These would later disappear in the collections of the Berliner Staatsmuseum, and would finally be published as an appendix to ATU 1 (first volume on the archaic texts from Uruk) by Falkenstein. Due to their doubtful provenance, and Green's claims that they might have come from Uqair, Englund decided to republish them later in a separate volume.[196]

– 1915: around 25 tablets were purchased by the dealer Géjou and sold in lots to the Dumani Frères, the British Museum and the Louvre. The latter would be later published by Thureau-Dangin in 1927. The Dumani Frères sold theirs to Breasted

[192] Possehl 2000 ("Ernest J. H. Mackay and the Penn Museum"). Possehl was then Professor Emeritus of Anthropology at the University of Pennsylvania and Emeritus Curator-in-Charge of the museum's Asian Section.

[193] Moorey notes that Mackay believed that "Langdon was to drop the concession for a year" (1978: 14). Later Langdon changed his mind and hired Watelin.

[194] Possehl 2000: 43.

[195] Matthews 2002: 4f.

[196] MSVO 4, Proto-Cuneiform Texts from Diverse Collections, 1996.

of the Oriental Institute. The British Museum ones are problematic. Five of seven would be later included by Langdon in his 1928 tablet publication. However, Langdon described in this publication how twelve of the tablets acquired in 1925 were then sold to the Louvre, although Thureau-Dangin claimed that the Louvre had acquired these in 1924.[197] Scheil, having theoretically examined all of the tablets before his own publication in 1929, stated that they all came from the 1915 lot.

– 1925: local men bearing tablets and painted pots allegedly from Jemdet Nasr approached Mackay and Langdon at Kish. According to Mackay, one of them may have been an antiquities dealer.[198] Mackay and Langdon decide to send one of their foremen to Jemdet Nasr to investigate and then they visit the site themselves. Langdon's appetite is whetted. He not only purchases some tablets from these men, and probably the collection of "painted pots", but decides to begin an excavation of his own here.

– January-March 1926: a group of twelve to sixty local men work under the supervision of Langdon at Jemdet Nasr. Langdon drives daily to Kish carrying the objects found within a building on Mound B, the central of three mounds. In the evening, Mackay records the objects on cards. There are neither photographs nor cards of any of the tablets or their location. At some point, Henry Field from the museum in Chicago happens to be visiting Kish to inspect the human skeletal remains. He also visits Langdon at Jemdet Nasr. In a letter sent in February, Langdon had asked for money to increase the workforce at Jemdet Nasr, mentioning that just the previous week 150 pictographic tablets had been found[199] (in my opinion, to justify the expense).

– April-May 1926. Langdon falls ill. Apparently, his strenuous, dedicated work—according to Field he was getting down and dirty with his men, unlike Woolley at Ur—took a toll on his health. The details of his dedication we know from the letters that Langdon sent to Field and a Mr. Davies from the Field Museum.[200]

– March 1928, ten days. Louis Watelin, who had replaced Mackay as Field Director at Kish, ends the excavation at Jemdet Nasr with a workforce of over 100 men, theoretically finding a few tablets (according to Langdon's publication, of "post-archaic periods"), although he leaves almost no records of his work there. From the letters that Watelin wrote to Langdon, who was back in Oxford, we learn that he was unable to match his own trenches with the earlier ones. This, Watelin wrote also elsewhere: "Yesterday we started excavations at Jemdet Nasr continuing what had been done before. I set the men to work in places which had been excavated according to the plan in *Der Alte Orient*, whose orientation is false and whose scale (printed as 1:80) is impossible to understand. I do not know how to fit in with the plan rooms which I have cleared. We have found two pots

[197] Matthews 1992: 1.

[198] From Hillah (Moorey 1978: 147).

[199] "In the room at the southern corner" (Moorey 1978: 149).

[200] Matthews 1992: 2f.

painted overall, but few decorated, many fragments, and some tablets in very poor condition. They are not pictographic but very archaic and there are some fairly large fragments. Also about 15 cylinder seals and some very old seals, finally a small group of two people in soft limestone whose occupation indicates that the sensual joys have not changed since 3500 B.C. –the group is a marvel of sculpture!" [201] The informal, and from our perspective, quite humorous tone of this report can only be understood in context. Watelin was writing to the person in Chicago who was giving the final financial backing. Even though it is hard to understand what Watelin meant by "not pictographic", this description stands in contrast with the "post-archaic" of Langdon. Englund noted: "According to extant Ashmolean Museum records, at least two (…) of the tablets published by S. Langdon in JRAS 1931, 837-841, and represented by him as having come from the Watelin excavation were in fact accessioned in the year 1924 and may have been part of the Parisian Géjou group discussed above."[202] From my point of view, it is tempting to think that Watelin actually found numerical-ideographic tablets.

Watelin sent a sketch plan of excavated walls with the letter 'T' marking several points in a letter.[203] Matthews published instead those made by Langdon (or Mackay), as published in 1927 in the German journal mentioned above (with the title *Ausgrabungen in Babylonien seit 1918*). These pencil plans of the large building—where allegedly the tablets came from—were wrong in scale and orientation.[204]

[201] Moorey 1978: 149f.

[202] Englund 1998: 26, n. 23.

[203] Matthews 1992: 3, but Moorey does not quote this letter, only that Watelin enclosed on his letter to the financer a sketch plan of his own work on the east side of the large building, where he found kilns and three graves (the kilns are compared by Moorey to those found at "Palace A" from Kish, of a late Early Dynastic date).

[204] See Margueron 1982: 23-34, for a detailed analysis of inconsistencies and alternatives.

Fig. 7.40. Adaptation of Langdon's 1927 plan of the Mound B building at Jemdet Nasr, showing location of Painted pottery, Seals and Tablets. After Matthews 1992: Fig. 1.

– 1989-1990: Matthews conducts excavations at Jemdet Nasr, finding a corner of the building: "The southern limit of the building is marked by a substantial boundary wall or platform only partly accessible under the spoil heaps from the old building excavations".[205] The use of the platform spans the Jemdet Nasr and Early Dynastic periods. To the south of the platform, he found an extensive burnt rubbish dump. Matthews also excavated at Mound A, where some 4th millennium structures and ED graves came to light. Overall, Matthews unearthed stone and clay vessels, impressed sealing fragments, seals and beads, small figurines, clay sickles and some other material (in a modest quantity, given the extent of the excavation time), but no tablets. His classification of the previously acquired pottery, supplemented by his own finds, shows a Late Uruk to Early Dynastic III chronological range.[206] Other material, like the seals or the few metal objects retrieved in the 1920s, also supports a long span of occupation, of unknown duration.

[205] Matthews 1997: 111f. See also Matthews 2002.

[206] Matthews 1992: 17; 2002: Ch. 5.

The publication of the epigraphic material by Langdon in 1928 featured 240 tablets. Matthews estimates that 215 were actually retrieved from the excavations. The MSVO 1 publication by Englund and Grégoire included "those unpublished tablets from Jemdet Nasr accessioned by the Ashmolean Museum in 1927, those excavated by Watelin in 1928 and a small number accessioned in other years".[207]

It is, however, legitimate, given the account given above, to doubt that the tablets sent to the Ashmolean before and after 1926 came all from Jemdet Nasr. I find it highly unlikely, given Langdon's interest and position, that more than two hundred archaic tablets were unearthed from this strange building of huge proportions, which could actually represent building units belonging to several architectural phases, something that Matthews himself acknowledged.[208] Why did Langdon not take a single photograph of the 150 lot, draw the largest fragments or record the contexts where they were found (or had Mackay do it for him)? Why is there not a single tablet fragment found later by Matthews, regardless of a hypothetical decline of the site after the "Late Uruk" building was burnt? I think that it is very likely that Langdon relied on his antiquities dealer contacts to obtain tablets from any location in the area, and preferably tablets that resembled the Warka expedition ones.[209]

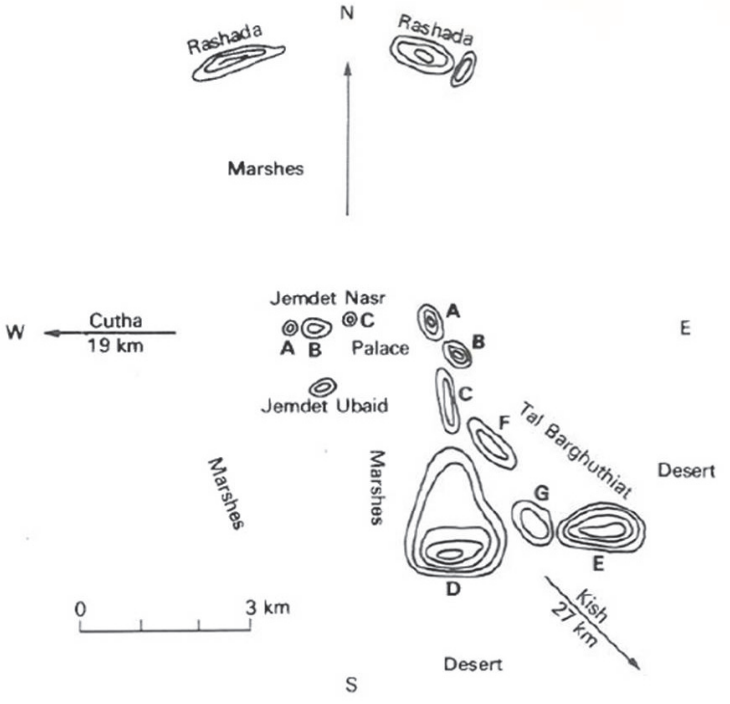

Fig. 7.41. Sketch plan drawn by Langdon for his 1927 publication showing Jemdet Nasr, Tell Barguthiat, and the directions and distance to Cutha and Kish. After Moorey 1978: 146, Fig. Q.

[207] Englund and Grégoire 1991: 8.

[208] Matthews 2002: 13f.

[209] Moorey notes that de Genouillac had remarked upon the destruction caused by illicit excavations in the "mounds west of the ziggurat" (1978: 28).

On his well-known article on slavery, Vaiman relied on a limited amount of Jemdet Nasr tablets (MSVO 1, 212, 213, 214, 217, and probably 216), all of them sharing an inner consistency that justifies the reading of the sign SAG+MA as a slave.[210] The sign depicts a head with a horizontal leaf at the neck. Englund connected MA with a cord used to hang fruit to dry.[211] In combination with SAL+KUR, and sometimes SAL+KUR+ERIM—the sign ERIM representing a yoke—these texts seem certainly to refer to female and male workers, in relation to the provisioning required for them (No. 216), or listing their names as Englund proposed,[212] or else the total amount of human and other resources required to complete a task. The problem is that SAG+MA appears nowhere else in this corpus, although it is attested in another unprovenanced tablet (MS 2727, unpublished, CDLI P006120), thought to come from Umma.[213] By contrast, the sign ERIM is relatively frequent, since it was also used in tablets dealing with animals.

Englund's proposal that MSVO 1 161-181 represents a closed group seems accurate. Thirteen of these tablets bore the impression, according to Matthews, of the "Cities Seal". The combination AB NI+RU or simply NI+RU is certainly attested in sixty-four tablets from a single site, maybe Jemdet Nasr. Together with the occurrence of AB APIN or AB UB, we may surmise that some locations in the fields around whatever settlement the tablets came from (AB APIN and AB UB) were dispatching foodstuffs to the central organization (NI+RU).[214] These are small tablets often dealing with fruits and vegetables (Englund's interpretation of MA as string or rope is derived from some of these logograms, suggesting they were strung).

However, this group is still a relatively small number of the total corpus allegedly coming from this site. Whether many of these tablets came actually from Kish, Uqair,[215] Cutha or any of the mounds surrounding Jemdet Nasr or Kish, does not matter. What matters is why we choose to trust material originating from unreliable contexts to build our theoretical suppositions on the history of southern Mesopotamia between the late 4th and early 3rd millennium BC.

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[210] Vaiman 1989.

[211] Englund 1998: 179.

[212] *Ibid*.: 176.

[213] See Bartash 2018: 55. Bartash actually disagrees with Vaiman's and Englund's interpretations on this group of tablets, and postulates that SAGxMA did not designate prisoners (see his comments in *ibid*: 55f). He also found it difficult to identify ERIM in Uruk IV tablets in the context of human labor, and impossible in the case of Uruk III texts.

[214] See Monaco 2004 for NI+RU as an administrative department.

[215] For instance, Green discussed a seal impression on a tablet acquired by the Berlin Museum in 1903, allegedly from Tell Uqair, which corresponds with the "cities seal" from Jemdet Nasr (Green 1986).

7.4.3. The lexical lists and the convenience of retroactive interpretations

At the beginning of the 1980s, the team composed by Nissen, Englund and a mathematician (Damerow) set out to investigate the so-called archaic writing system and patiently reconstructed measure systems and commodities. *Archaic Bookkeeping* was published in 1996, with some earlier publications by Englund and Nissen paving the way. The different measurement systems and some of the commodities (or their nature) had been worked out, and in 1998 Englund gave a thorough overview of the work undertaken until then. Since then, apart from Monaco, and Englund himself, no scholar has been working on the archaic writing system (four to five thousand texts) with complete dedication. More than a decade ago, Lecompte undertook the study of the Ur archaic corpus.[216] Scholars specializing on the 3rd millennium BC have, of course, studied some of the material —mostly by means of the lexical lists— in order to focus on some particular issue that cogently manifests from the late Early Dynastic period onwards, hence consolidating the image of uninterrupted scribal tradition and social continuity.

Regardless of the fact that we are dealing with four hundred years of initial writing development, then four or five hundred years of textual absence except for three enclaves whose archaeological and textual material present its own set of difficulties (Ur, Fara, Abu Salabikh), how can we assume that the writing system reflected complex societies in flux comprehensively and conservatively? We would not expect—to give an example—historians investigating the establishment of state taxes in early England from Saxon to Norman rule to assume that the reality at the end of those centuries was the same as at the beginning, nor that the language, social composition, customs, and institutional realities had remained the same.

As might have been expected, those scholars who have actually spent time with the publications of the original tablets have started to see discrepancies. For instance, in 2005, Monaco published an article on "unusual accounting practices", whereas Chambon and Lecompte have proposed different mensuration system readings for the Ur corpus.[217]

With the exception of some very complex tabulations in the "Uruk III" phasing, these tablets witness very basic entries and exits of commodities assigned to high- and middle-rank administrators, and the people working under their purview, or vice-versa, commodities that are dispatched for storage purposes, festivals, or sent to another department for further processing. Krebernik has recently pointed out: "The first writing—like its administrative precursors—was more object-oriented than language-oriented". As concerns the incomprehensibility of signs that belong to either 'offices' names or 'personal' names, he remarks: "1) the persons are merely symbolized by the sign, and there is no direct relationship between the sign and the name; 2) they are representations of non-Sumerian names; 3) they represent Sumerian names that do not conform to the usual types of a later date."[218] I also propose a

[216] Lecompte 2013. Burrows' Ur Excavation Texts, II, was published in 1935.

[217] Chambon 2003; Lecompte 2013; Bartash 2015a.

[218] Krebernik 2019: 168.

fourth reason. Maybe we are not dealing with 'personal' names, but with qualifiers, that is, indications to identify who, within the department, actually receives or sends the goods on the basis of their work or any other trait that would be known to the parties. In other words, the Uruk writing system was meant to be exclusively local or supra-local.

Assyriologists still ignore the meaning of many a sign or combination of signs. The immense majority of the tablets are fragments, and their surfaces are frequently eroded. Therefore, a reliance on the lexical list texts makes sense to save time and avoid frustration. By assigning some commodities a translation or at least describing their basic nature, it is possible to understand the general context of an administrative text. This does not always work, of course. For instance, the sign ME is featured in the Metals list (in the shape of a T, maybe designating a hammer or pickax), but is also attested as a managerial position.[219]

But the real reason why Assyriologists rely so heavily on the lexical lists is because they want to "read" society. The aspiration is to go beyond offices and discern social stratification, temple administrations, and support for a "king-priest" acting as a ruler at this time, and not only at Uruk but in all "Sumerian" city-states. This is not only a static, unrealistic way to approach historical change, but also betrays the burden inherited from past scholarship, who had less knowledge than we do and for whom any kind of continuity regarding perceived features of civilization was taken for granted.

It is from this perspective that 'composite' lexical lists belonging to different chronological contexts have been presented as standards of reference (as is otherwise done with 'literary' texts from the Early Dynastic and Sargonic periods). Once the composite list stands as a guide, all there is left to do is find tablets that seem to "match" the composite list somehow. From my point of view, however, it was puzzling to find that the majority of texts assigned to the lexical list category are small fragments (fewer than 10 cells or items), because it is a certain indication of circular reasoning. According to this reasoning, Uruk scribes and their descendants must have faithfully transmitted lexical traditions for five centuries despite the appalling dearth of textual evidence until 2400 BC just because future scribes would rely on lexical lists.

As a matter of fact, there may be both geographical and generational trajectories that we will never be able to discern. Veldhuis has proposed that there was a Kish or a Semitic scribal tradition (from the northern alluvium up the Euphrates to Mari and Ebla) on the basis of "ED Lu E and Animals B, as well as some lesser-known compilations such as Practical Vocabulary A".[220] This tradition would also include geographical lists.[221] However, this is only one possible trajectory of transmission. That transmission happened is undeniable. That this transmission happened in a comprehensive, methodical, conservative manner during a misunderstood development of Sumerian city-states is unrealistic.

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[219] Or as a qualifier, as in the case of W20274,13 regarding EZEN, a festival.

[220] Veldhuis 2014b: 241.

[221] See also Lecompte 2009, unpublished dissertation.

Let us approach this category by following Englund and Nissen's 1993 publication (ATU 3). They found the following sub-categories or genres: Lú A or professions, Officials, Animals, Fish, Birds, Swine, Wood, Tribute, Plant, Vessels, Metal, Grain, Cities, and Geography X or unidentified. By the time Veldhuis published his diachronic study on lexical lists in 2014, these denominations had already changed. Veldhuis presented the following table to inform about their number:

Title	Uruk	Jemdet-Nasr	unexcavated
Lu A (professions)	185		16
Vessels and Garments	91	1	3 or 4
Word List C ("Tribute")	56		
Metal	55		1
Trees and Wooden Objects	30		2
Cattle	24		1
Officials	23		
Fish	22		
Cities	17		
Geography	12	1	1
Food (numbers, bread, meat)	9		
Birds	6		
Plants	5		

Fig. 7.42. Table of archaic stage lexical lists and their number. From Veldhuis 2014a: 32.

The last four categories were created exclusively on the basis of small fragments. Furthermore, given the fact that most tablets were not large, even when well preserved, there are fundamental differences as regards the following stage (Fara), or later. If we reasoned with a non-retroactive approach, we would rather state that the transmission of these "thematic" word lists (or practical vocabularies) followed trajectories that seem random because we do not know who adopted them (and adapted, depending on how many sources were available, then copied and re-copied).

There is some debate as to the nature of some "word lists" that pertains to my discussion here. Civil proposed that the so-called Tribute list, later re-named Archaic Word List C, had a mixed composition of words and numerical notations—covering different "topics" without a clearly discernible connection—because it was a simplified narrative to an already known oral story.[222] Not convinced by the literary interpretation, Veldhuis proposed that this was a scribal exercise: "Word List C includes much that was of immediate relevance for the contemporary practice of writing: the administration of food, animals, and agricultural work, including the proper use of numbers".[223] A recent diachronic study of this text, with the intention

[222] Civil 2010, 2013.

[223] Veldhuis 2014a: 38. For other interpretations, see these authors, *ibidem*. The telegraphic nature of this composition, which Veldhuis designates by its incipit, AD-Gi$_4$, is explained thus by Civil: "When the scribes attempted for the first time to write down narrative texts, they simply

of discerning the meaning of SAL (according to her, in this and other texts, it should be read as a consumable plant, a crop, and not as a female human or animal), shows the difficulties hiding behind orthographic changes and illustrates what Civil meant with his comment that later scribes did not understand what they were copying.[224]

If we approach these original word lists as vocabularies that made sense to different groups working at different locations of what we simplistically call a city, we would be closer to understanding why the standardization of these lists is far from clear or assured. Concerning the Vessels and Garments list, Veldhuis observes that the Uruk IV two exemplars do not include—as a few centuries later—prepared products and textiles, but instead continue with a section on metals, and one of these continues, in turn, listing stone beads. A few Uruk III fragments include a section on what may be dyeing materials and cheeses. If the vessels are arranged by content criteria, the short textile listing shows a preference for color and type.[225]

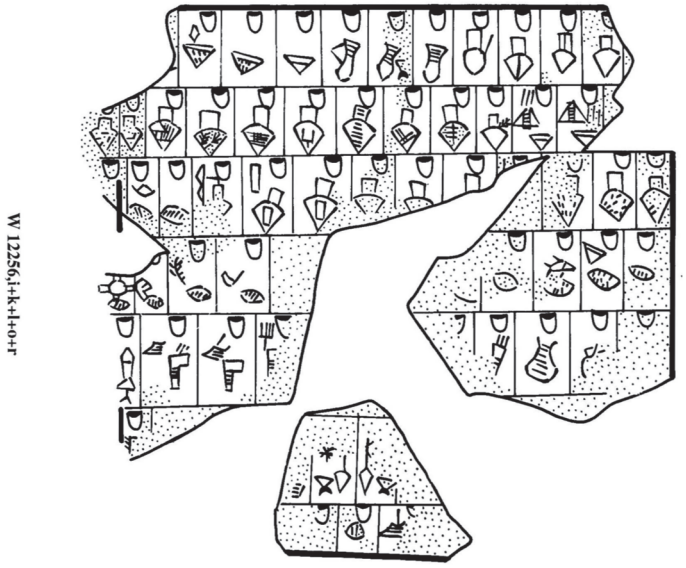

Fig. 7.43. One of the practical vocabularies on vessels and metals (ATU 3, Tafel 66). The preservation of traces of an official and a total amount on the reverse (see publication) show that this may actually be an administrative tablet listing single units.

The largest fragment of the Metals List, as published in ATU 3, preserves 18 readable entries and classifies metal tools according to their use. The smallest fragment preserves one item. On the Trees and Wooden Objects list, Veldhuis notes that the

enunciated the participants of the narrated event, leaving out the representation of predicates and of anaphoric pronouns that tie together various textual elements and give continuity to a narrative. The bare enumeration of the core arguments of the predicate (actor and objects), including perhaps some circumstantial complement, but without making explicit the predicate itself, can only function as a mnemonic trigger that evokes the full plot in the addressee's mind." (2013: 17f).

[224] Kelley 2021. Civil 2013: 14, and *passim*. The subject of the parallel orthography UD.GAL.NUN is beyond the scope of this dissertation.

[225] Veldhuis 2014a: 35f.

fist 40 lines are quite standardized, but that wooden objects see divergence. Actually, even the largest fragments preserving many entries show order divergences when compared to the composite list, either in order or with absences. Two of the texts included here should be discounted as vocabulary lists, since they are clearly administrative tablets. Englund and Nissen qualified the sign of an official and a totaling sum on the reverse of several lexical lists as a "Kolophon", that is, as if "signed" by an official, choosing to disregard the total amount given next to it.

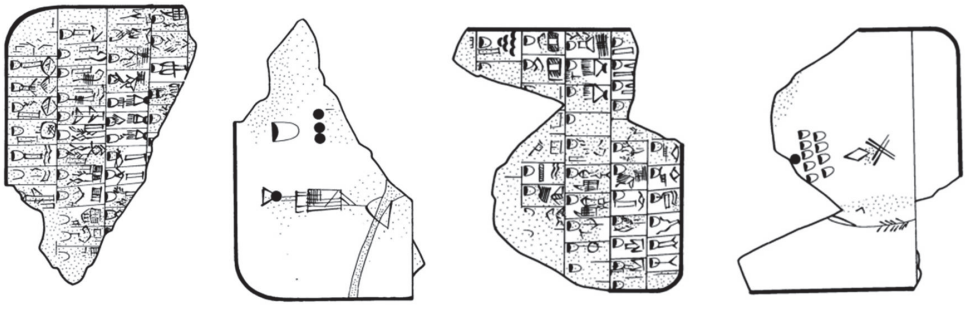

Fig. 7.44. ATU 3, Tafel 37, W 20495 and Tafel 42, W 20044, 46+55, showing totals and the (different) officials responsible for the dispatch or reception of wooden items. The second tablet even includes GI (delivery).

Moreover, one of the largest and best preserved fragments also shows traces of a final sum (Tafel 38, W 20327,2, complex tabulation). Therefore, here as in other cases, we should bear in mind that some texts were actual administrative records, even if the amount of each item was one. The three tablets just mentioned mix entries for both trees and wooden objects. In the case of two exemplars listed in ATU 3 as "Tribute", the officials noted on the reverse are not the same, although the total amount coincides.

Veldhuis' comments on the Cattle list allow for a final conclusion on the practical nature of these vocabularies. There are also divergences between the listing of Cattle-related items in archaic texts (all of them, without exception, small or very small fragments), and those of the following stage. Only with the help of later texts, we can infer that age, sex and color, maybe breed, were deemed important. In this case, it is the administrative texts that can serve as a guide to the "Animals" list fragments. Cows, bulls, calves, and wild bulls were the main categories. Veldhuis remarks: "The text does not list products (such as dairy or leather), nor does it include sheep or goats, even though those animals are very important in the archaic record".[226] But this is not due to a capricious vagary of preservation. As the glyptic shows (byres next to the pastures),[227] Urukeans were actively involved with breeding cattle. This entails that woolen textiles and sheep/goat dairy products must have been imported by southerners from the shepherds who herded their flocks around the marshlands.

[226] Veldhuis 2014a: 40.

[227] See Gouin 1993 (frieze from al-Ubaid and related iconography). See references on faunal remains in Pournelle 2003: 57, 186, 190.

Distance from the core may also be tentatively posited for the manufacture of vessels and metals, as well as textiles, at the beginning of meta-communal aggregations, in the satellites. The facilities would have been located on the outskirts, where raw materials sent from the satellites could be registered and stored, and the core could avoid bad smells and traffic.

7.4.3.1. The "Cities" Seal and Lexical List: the proto-Sumer

As shown above, and in Chapter 1, the eastern part of the Persian Gulf arch at this transitional time may not have been perennially under water, but it was definitely in constant fluctuation, as the excavations at Tell Zurghul (ancient Niğin) demonstrate. This situation, which must have lasted well into the 3rd millennium, renders futile efforts to make heads or tails of alleged geographical names in "lists", which scholars do not see as topographical designations at a concrete enclave, but as a network of early cities.[228] Furthermore, the configuration of first "cities" followed an *ad hoc* planning approach, as we have seen even for Uruk, which initially may have had more than just two parts (the name Kullab being an ED attestation). The spellings for ancient Zababa have been recently discussed by Bartash after Almamori's excavations in the Umma region.[229] The salient point of this discussion is not whether the attestation of UB-me^{ki} in some texts corresponds with what city (Almmamori suggested Umm al-Aqarib), or rather, with what satellite around a core. The question is why we are still interpreting the "cities" lexical list (and even the Abu Salabikh "geographical" texts) as maps of ancient Sumer. Very few archaic texts were compiled in ATU 3 for this category, and few as well are those attested at later stages: one from Fara (SF 23), combining two lists and a god list, a large fragment and a small one from Abu Salabikh, and an Old Babylonian exemplar. It is the Fara one (most texts may be tentatively dated to ca. 2550-2500 BC) that encourages the view of early cities with fully-developed palace and temple institutions, even if the tablets at this site—whose surface has been very damaged by erosion—were found in domestic contexts.[230]

[228] Biggs published the Abu Salabikh fragments (OIP 99: 98, 99) as part of a group of texts that he termed "List of Geographical Names". See, *inter alia*, Frayne 1992, Selz 2013.

[229] Bartash 2015b.

[230] Martin 1988.

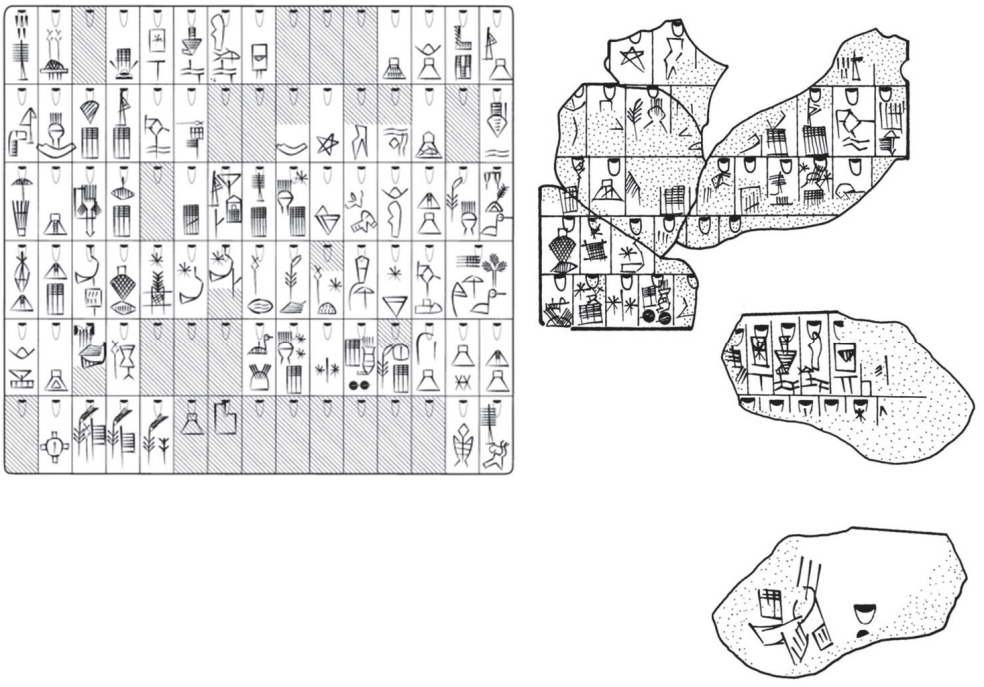

Fig. 7.45. Left: Composite cities list. Right, top: ATU 3, Tafel 76, W 20335, 2+4+7+9 and below W20266, 74.

The first fragment in the image above is one of the largest preserved ones. The second example has a reverse featuring the total and the official in charge, which indicates that this is actually an administrative text. There is only one fragment preserving the first items of the composite list (W 21126): theoretically, Ur, Nippur, and Larsa. The archaeological evidence of these places for the late 4th millennium BC is scarce, probably due to their small size at this time.[231] Many of the combinations preserved in the seventeen fragments do not show a particular bias towards "cultic" identities: the vocabulary is related to agriculture, vessels, tools or professions. Some of them could very well have designated topographical, or rather, organizational features. As far as I know, only Lecompte has considered that the archaic attestations need to be matched to the topography of the city.[232]

[231] For the domestic structures witnessed at Ur corresponding to Level H, built over pottery kiln debris, see Benati 2014. The first layers of excavations at the Inana Temple area in Nippur, below the multi-room building, only revealed "domestic" structures (levels XIX-XIII). See Englund's account on the opinions and hearsays concerning the tablets allegedly from Larsa (1998: 29f). Ironically, the main reason that he adduces to believe the antiquities dealer's claim that this groups of tablets came from Larsa over Falkenstein's claim that they had been stolen from Uruk is this fragment of the "cities" list. Parrot, who excavated at Larsa in the early 30s, found little of note for this period, apart from fragments of decorative cones (see Parrot 1968: Figs. 9 and 10 "fouilles stratigraphiques", and 12).

[232] Lecompte 2009: 31ff. As he points out (p.37): "Of course, the multi-purpose functions of the ABa/b [building on a platform] and E_2a/b [lit. 'house'] institutions, which serve above all as relays

The cities network existence seems to be reinforced by what Matthews thought was one single seal impressed on thirteen tablets thought to come from Jemdet Nasr. [233] Let us first see some examples:

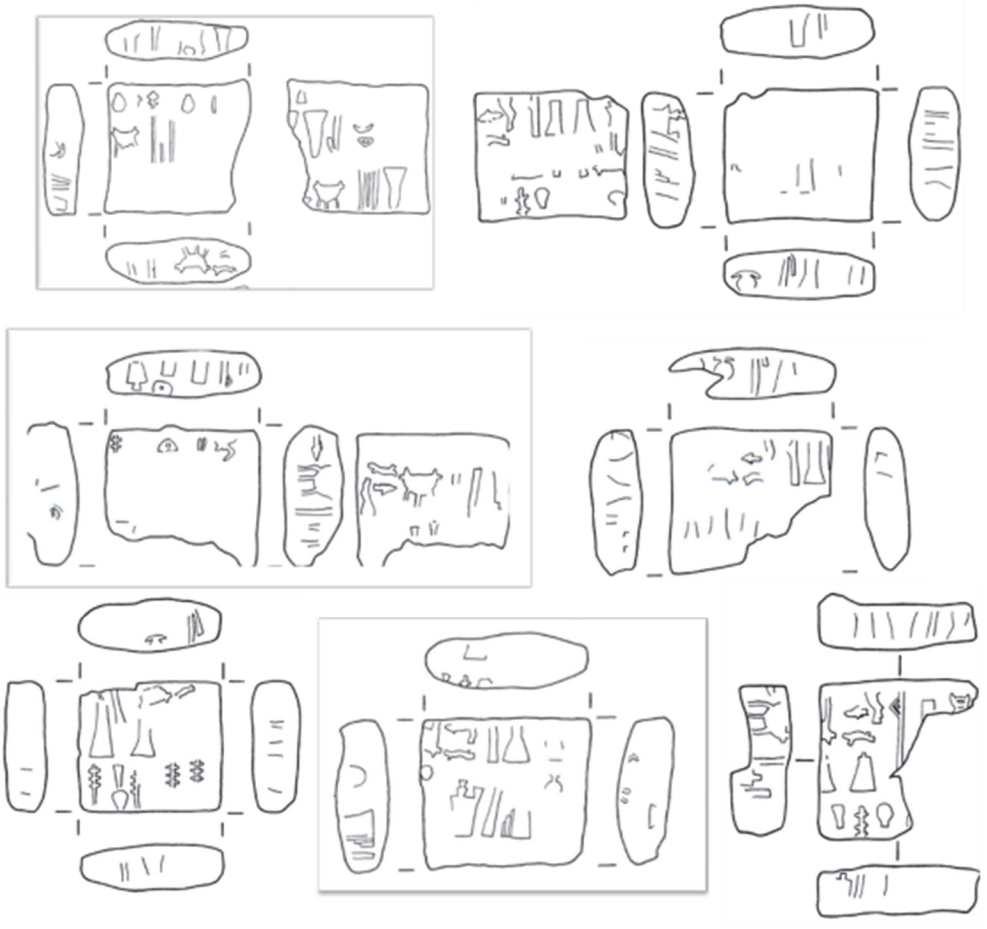

Fig. 7.46. Seal impressions on MSVO 1: 161, 163, 172, 173, 176, 178, 180.

for Urukean administration, make it impossible to distinguish toponyms that fulfil an exclusively religious role. The same is generally true of toponyms from the Archaic period, for which we do not know whether they refer to a city, a sanctuary, a general administrative body or an extra-urban centre". [My translation] Lecompte strives to find the links to some kind of cultic practice in the logogram combinations, even when the semantic fields belong clearly to other spheres (387ff.). See also his conclusions, 434ff. He believes that the religious and hegemonic reality expressed by the enigmatic archaic "cities" list had disappeared by Early Dynastic III times.

[233] MSVO 1, 161, 163, 166-170, 172-174, 176, 178 and 180.

Now, let us see Matthews' reconstruction of these impressions into a single one.

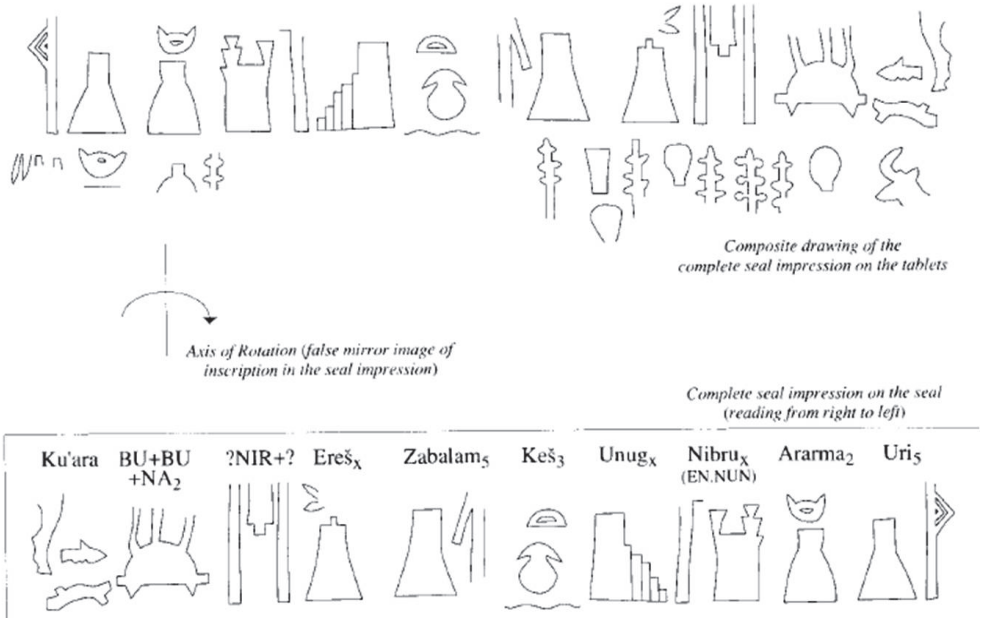

Fig. 7.47. Reconstruction into one seal of the impressions on thirteen tablets theoretically from Jemdet Nasr. After Matthews 1993: p. 37.

The preservation of the order, which in the case of the impressions—since the seals were stamped on all tablet surfaces, without a particular preference—is not a relevant point to be made here. The allegation that there is one single cylinder seal at work among the administrators of this community, that is, some kind of mega-seal is, however, relevant. Matthews claims that the full length survives (?) and that the seal's impression would have been 15.5 cm, with a diameter of 4.93 cm. Not surprisingly, he acknowledges that there have been no comparable seals ever found.[234] I think it is quite evident, when looking at the drawings from all thirteen tablets, that we are dealing with several seals (see Fig. 7.48 below).

Furthermore, with the exception of the first four items (theoretically corresponding to Ur, Nippur, Larsa and Uruk), matched on the Fara tablet listing to Uruk, Kesh, Zabala and Eresh, a suspicious reading of Gaburra (8th), the connection of the 9th drawn item with the 14th on the written list (BU+BU+NA_2), and a theoretical reading of the 10th drawn item as KU_6+UR_2+RAD_3 matched to $ŠIM_3$.RAD_3 on the list, there are no more assured correlations.[235] Matthews embarks on a speculative journey of iconography and future attested spellings, then on the possible identification of those cities to possible archaeological sites.[236]

[234] Matthews 1993: 34.

[235] See Lecompte 2009: 119f.

[236] *Ibid*.: 34-36.

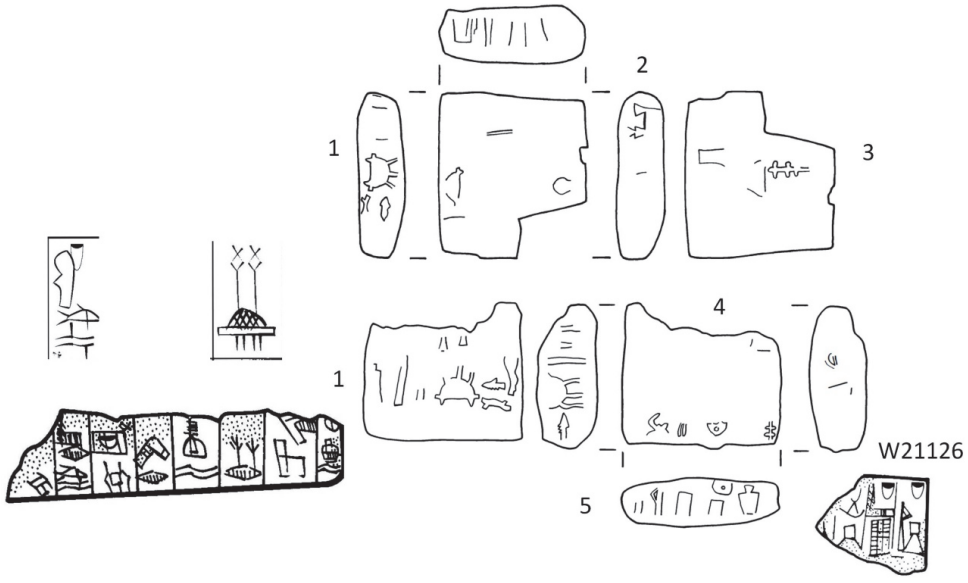

Fig. 7.48. Drawings of sealing impressions on MSVO 1, 169 and 172, showing the presence of at least five motifs. Tablet W17729, cn+eq (ATU 3, Tafel 78) has composite list signs for $ŠIM_3$.RAD_3 and BU+BU+NA_2 above. Tablet W21126 (ATU3, Tafel 76) is the only fragment preserving the first items of the composite list.

As the figure above shows, the theoretical combination of BU+BU+NA_2 and $ŠIM_3$. RAD_3 is the most frequent motif (also when checking all tablets). The sign BU may refer to a standard, as Lecompte points out,[237] but the elements composing the written logograms of the composite list are also seen in different combinations throughout the administrative tablets (e.g. NAGAR, NE_x, MUŠEN, GI, reed standards $MUŠ_x$,[238] NUN, URI_x).

Therefore, and to conclude, we should let the illusion of a late 4th millennium proto-Sumer go. Descola's description of 'analogism' as a continuous search for correlations within a closed world comes to mind. Only, in this case, it is not theirs (it is still too soon), but ours.[239] The scarce fragments of this theoretically thematic lexical list indicate that these were practical, variable vocabularies that were later copied without being understood.

[237] *Ibid*.: 122f.

[238] $MUŠ_x$ (Inanna) and TUN compose "Cities 30, Susa". TUN is a metal tool.

[239] On the basis of one of the Jemdet Nasr MSVO 1 small tablets dealing with fruits and vegetables, Steinkeller (2002) suggested that all the major cities of "Babylonia" as shown in the "city seal" were dispatching offerings to the triple-deity of Inanna cult at Uruk.

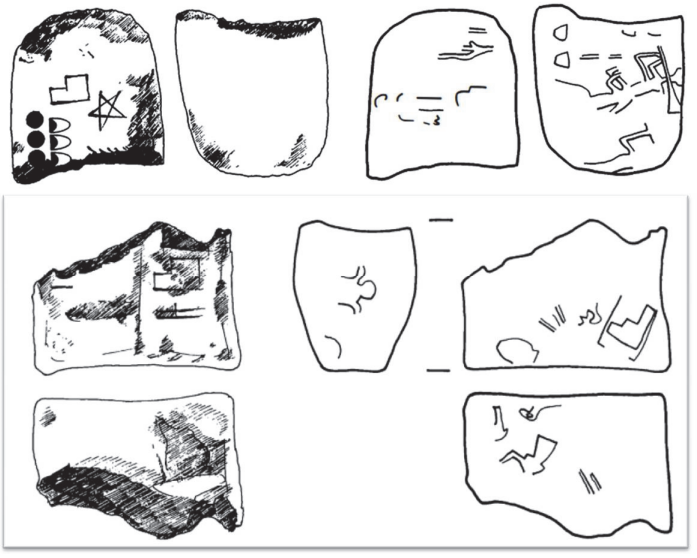

Fig. 7.49. MSVO 1, 61 and 63

What does it mean, in the case of the two tablets above, that the sign URU (rectangular feature) in MSVO 1, 63 seems to find an echo in its seal impression, unlike in No. 61?

In the search for meaningful correlations, Matthews also included seals with abstract complex designs from other locations, but mostly from Ur (following Legrain).

Fig. 7.50. Selection of seal impressions from MSVO 2. City seals? After Matthews 1993: Fig. 10b (from Uruk), Fig. 12 nos.1 and 13 no.11 (both from Ur); after Strommenger et al. 2014, Taf. 199, 9 (from Habuba Kabira).

The glyptic of the early 3rd millennium reveals that people were keener on finding connections between the natural and the built world than they had ever been before, expanding on a trend first seen at Susa at the end of the 5th millennium BC, as seen above.

7.4.3.2. In search of the king-priest and the elites

I will examine, at last, the most "ideological" of all lexical lists, the list of professions or Lú A, which is supposed to render, by extrapolation, not just a radiography of communal organization but of society as a whole.

The majority of these texts are small fragments. Veldhuis warns that at this time "the list" was not rigidly standardized, which means that the order may not be respected. Moreover, several of these tablets preserve "colophons" (e.g. W20266,1; ATU 3, Tafels 2 and 3).

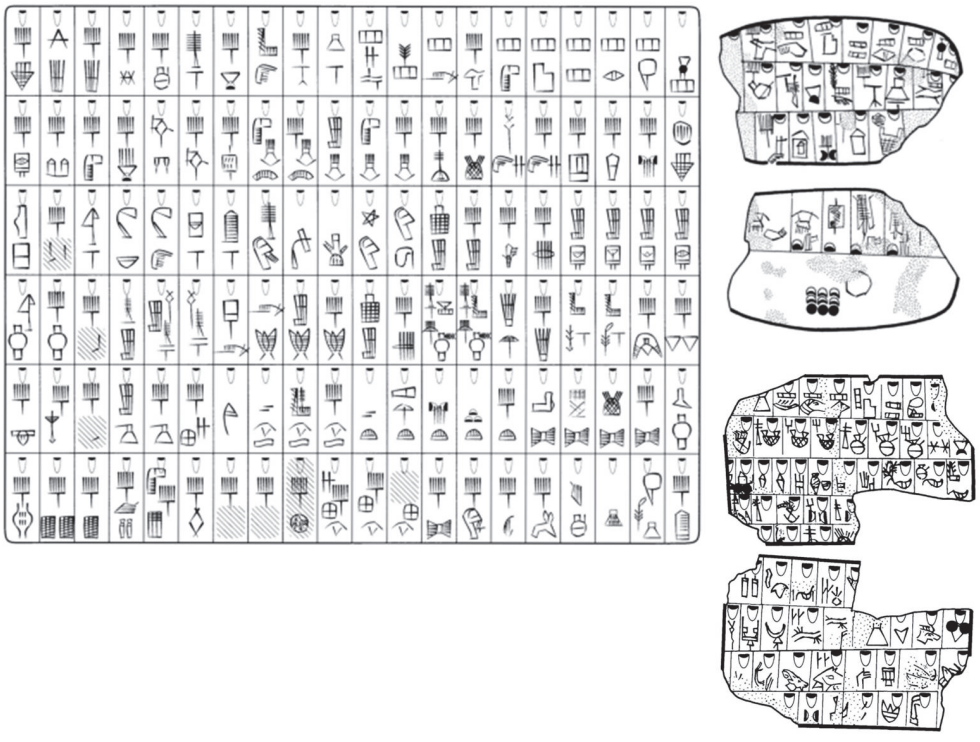

Fig. 7.51. Left: LúA composite list (to be read left to right). Right: ATU 3, Tafel 1, W17492 and Tafel 23, W 9656h.

The second tablet in the image above is a unique list, the only "true" vocabulary preserved so far (W9656,h). This tablet, however, does not match the order of the composite list.

A previous reflection on why we expect this list to establish a fixed hierarchy of a managerial system—whose degree of institutionalization is unknown—and valid not only for Uruk but for all those "unprovenanced" locations, is convenient. We do not know how 'elites'—and once we reach the 3rd millennium BC, we need to talk

indeed and for the first time of the agency of elites—tried to subvert the composition and functioning of communal organizations for their own gain. We are surprised when our attempts to identify the top officials (and, incidentally, what do we mean by that: those with the most responsibilities and therefore in charge of entire groups, or those allotted the highest number of rations *sensu* salaries?)[240] do not match our expectations according to the Lú A list. Hence, Veldhuis observed:

> It is generally understood that Lu A starts with the highest offices and continues with titles of a lower echelon, thus representing, perhaps, the administrative hierarchy of archaic Uruk. The opening section of the list includes numerous combinations with the signs NAM_2 (perhaps meaning lord) and GAL_a (big, or big one); the initial entry NAMEŠDA, a ligature of NAM_2, GIŠ, and ŠITA, is translated *šarru* (king) in much later lexical series. (…) The hierarchical interpretation is not without its problems, though. The word NAMEŠDA is found with some frequency in archaic administrative texts that do not in any way suggest that the referent is holding highest office.[241]

Furthermore, Veldhuis remarks that in many of these texts NAM_2+GIŠ is not the first entry. Studying occurrences of NAMEŠDA in Late Uruk texts, Lecompte reached the following conclusions: 1) that this managing position appears in texts related to grain, textiles, and animals, and 2) that this official received "standard" or "average" amounts of foodstuffs.[242]

The first six items found on most of the texts are NAM_2+GIŠ / NAM_2+KAB, / NAM_2+DI / NAM_2 NAM_2 / NAM_2 URU / NAM_2 ERIN. With the exception of GAL ŠUBUR (the latter sign designating pigs), the ordering by the logogram for NAM_2 continues down to Lú 11. Although an ordering arrangement by grapheme has been recognized, this observation has not led to the conclusion that there is no hierarchical principle involved.[243] Lú 16 reads GAL UKKIN (KINGAL), and is placed in a section with GAL ('high', 'main') as the ordering component, whereas the first item in the "Officials" list (with very few exemplars for this category) is UKKIN, a kind of vessel. Officials 7 (only two texts preserve this in ATU 3) reads ŠITA, a unit of measure based on a specific vessel. Item 23 in the composite "Officials" list corresponds to the first item in the "Professions" composite list (NAM_2+GIŠ). The combinations with EN in one do not find a match in the other. [244]

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[240] This issue on the nature of rations was already discussed by Prentice for the administrative texts (*re* the barley disbursements) of the É-MÍ managed by the personnel of the queen of Lagash; cf. Prentice 2010: 13ff, esp. her reflection on "labour tax" in 39f. There may have been two kinds of employees of the, by then, consolidated "pseudo-public" institutions: those permanent, and those employed or expected to perform tasks or public works on an *ad hoc* basis.

[241] Veldhuis 2014a: 34.

[242] Lecompte 2018: 95.

[243] Wagensonner 2012. See also Johnson 2015: 182ff on ATU 6, pl. 58, signed by the official EN TUR. Johnson's argument is that this tablet follows the UKKIN list (Officials).

[244] Regarding the ED Lú A, Veldhuis observes: "Reading and translation of almost every entry is disputed or in doubt [citation]. In many cases the titles and professions only occur in archaic texts and so it is questionable that they have any circumscribed meaning in Early Dynastic Abu Salabikh or in Old Babylonian Nippur." (2014a: 69).

Signs EN, PAP, SANGA, LAGAR or ME occur frequently in administrative tablets, but in the majority of cases they are followed by qualifiers. They may occur alone, however, if the text belongs to one single department, and the context of the tablet is well-known by all parties (see example below).

ATU 5 23, W7024 CDLI P000928

obverse
column 1
1. 5(N01)# , ESZDA
2. 5(N01) , NUN~a
3. 5(N01) , LAGAR~a
4. 5(N01) , EN~b
column 2
1. 3(N01)# , TE#
2. 3(N01) , ZATU693
3. 3(N01) , GA2~b
4. 3(N01) , MUSZ3~a
5. 3(N01) , ZATU659 PA~a
column 3
1. 3(N01) , DUG~c
2. 1(N01) , SZUBUR ZATU644~a NAM2#?
reverse
column 1 TOTALS
1. 3(N14) 8(N01) **, ŠU2**
2. 1(N01) **, ZATU644~a** UNUG~a# [...]
column 2
1. 1(N01) , SAG
2. 2(N01) , NU
3. 2(N01) , SAL USZ~a
4. 1(N01) , ZATU758
5. 1(N14) , TI#
6. 1(N01) , BULUG?
column 3
1. 2(N01)# , ZATU687#
2. 1(N01) , SUKKAL#? [...]

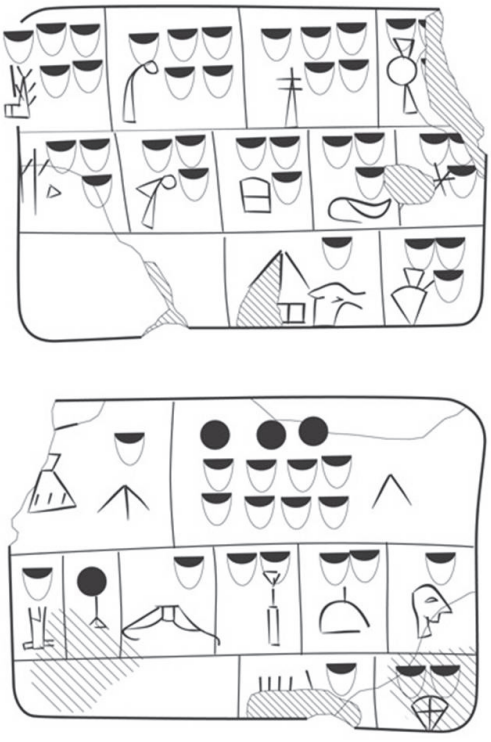

Fig. 7.52. Tablet illustrating the isolated mention of some officials (no qualifier), sometimes equated with objects. The totals reveal that a tool ($ŠU_2$), mentioned as a qualifier for GU (a harpoon?) in the metal vocabularies, may be the assigned or required commodity.

The first officials mentioned in ATU 5, 23 do not follow the order of the Lú A list. Either polysemy or phoneticity may be behind signs EN, SAL, or MUŠ—used in this tablet—as qualifiers of animals, plants and objects in multiple texts (this is, for obvious reasons, beyond my scope here), but in the case of tablets referring to managerial personnel, more often than not we see the designations for "officials" in connection to these qualifiers; in the example here, though, they all probably belong to the same department so clarification is minimal. The example above illustrates that object and person responsible for it may sometimes be equated (e.g. NAGAR being a tool *and* the carpenter) for reasons of economy.

Following a hierarchical principle in the Ur archaic texts, Lecompte analyzed the use of kiğ-gal (at the top of the "Officials" list) with no conclusive results.[245] Attempts to find a hypothetical énsi (PA-TE-SI, future designation for ruler) *via* the sign PA or the combination PA SI seems again a search requiring too much energy, unpersuasive results, and a static understanding of history at a time of transition.[246]

In conclusion, the writing system (including the first vocabularies) that Uruk administrative personnel elaborated for their own practical purposes were transmitted to other locations following several trajectories and probably through direct agency, which explains the expansion of this new technology to other enclaves. However, the transmission from ca. 3000 BC to 2500 BC was in all likelihood not a smooth one, and may have suffered from the limited, circumscribed knowledge that those employing it had, and the extent of the knowledge that in turn was transmitted to subsequent generations.

7.5. Concluding Remarks

During the 4th millennium BC many communities of Southwest Asia, and a specific zone of Southeast Europe, chose to maximize growth and improve their standard of living by allying to other groups and conforming one single operative entity, a meta-communal organization. In order to do that, they needed clever decision-making bodies and well-organized management structures. In the southeastern area of this large geographical zone—the Mesopotamian alluvium and the Susiana—, these heterarchical organizations show signs of a disintegration of the founding principles towards an authoritarian superstructure, trying to keep cohesion by the coercive superimposition of communal values over individual/group freedoms and identities. In the case of Uruk, in particular, this tendency towards authoritarianism came hand in hand with significant growth, followed by decline. This decline—maybe due to violent flooding episodes—may have triggered disaffiliation and dispersal. An ontological shift took place in the areas where coercive force was used to bind meta-communal aggregation (not seen at Arslantepe or to the same extent at Tell Brak). This entailed a split between nature and culture, between the wilderness and civilization. Visible in the tools used for administrative purposes, as well as in the iconography of the glyptic, we see here better than elsewhere an early tendency to objectify, count, and manipulate beings that had been part of the reciprocal relations

[245] In his collaboration with Benati (2016), he noticed that this official was involved with the distribution of "field allotments" in the texts from Ur (early 3rd millennium BC). In this article, he follows this official in administrative texts probably from Uruk that were going to be published in MSVO 3 and are available on the CDLI database. In this group, he finds coherence and he links this official (and others) to cereal accounts. In some tablets he is allotted big amounts, in others he is not. Among his observations: "The persons assigned a certain amount of grain seemingly did not pertain to the hierarchy of the Lu2 list nor to the "subordinate staff" –with the exception of the NAMEŠDA who receives a low amount– and may be considered of a lower status than the KINGAL, although they do not belong to the dependent personnel either. (…) As can be inferred from the observations of Englund and Damerow (forthcoming), some of the "agents" of the transactions seemingly controlled by the KINGAL occur also in other tablets, in which the main person responsible may be a different official". Lecompte 2018: 105.

[246] Lecompte in Benati and Lecompte 2016: 22ff.

with alterity that had existed until then. These sites may have experienced very early a successful unification of identity values under the banner of the meta-community, the city, but also a very early corruption of communal institutions, who encouraged the use of these scenes in containers that were dispatched between the different departments/workshops. It remains to be seen whether the inhabitants of the satellites, and the villagers of the hinterland who may have been providing part of the resources (sheep, goat and fish products) were also using this kind of iconography.

The so-called Early Dynastic until the IIIb phase, encompassing roughly the first half of the 3rd millennium BC in South Mesopotamia at large, must have represented a period of transition that is surprisingly not seen as such by current scholarship. After reading about 'elitism', 'prestige' and 'corporate groups' since the emergence of sedentism, I find it deeply ironic that at the time when it finally becomes relevant, these topics are relegated to the background because of unwarranted assumptions about kingship and temples as already unfettered institutions.

Without going into detail, I will try to offer an approximation of how the demise of the communal may have come to be, and how the evidence that we have supports a scenario of heterogeneity and gradualism.

Although at the beginning of meta-communal consolidation in the southern regions we would have different groups without relevant affiliation, in time blood allegiances may have consolidated and lineages emerged, particularly if it was felt that the interests of some groups were no longer represented at the meta-communal level. At some point, and even though this process is completely opaque, we may postulate that private land ownership became a reality, originating in all likelihood as a counter-measure to communal land division or by the initial allotment of communal fields to particulars in exchange for "taxes", with no possibility of hereditary transmission. Until the Presargonic and Sargonic periods we do not see this expressed through the writing system, although we can see some early examples in the Fara land sale documents and perhaps in the "ancient kudurrus". [247] In any event, from the moment private land ownership appeared, communal organizations were doomed. That doom, however, took a few centuries to crystallize.

As for communal management and its assets, we may reasonably conceive that public works became an outlet for the stored surpluses in times of abundance, attracting people from the "hinterland". But at the end of the 4th- beginning of the 3rd millennium BC, as large nuclei experienced modest growth, affiliation in exchange for permanent work would have been for sale, particularly in the case of people who had been uprooted and were no longer in contact with their original communities. Professional specialization would have been highly valued. Communal institutions became employers, maybe now involving whole families. They continued to provide foodstuffs and basics on a daily basis and monthly, depending on the work performed. Celebrations were still important, but now, and from now on, "banquets" become a very important social arena, as witnessed by cylinder seal iconography,[248]

[247] See now Balke 2016 (regarding a large stone palette and chisel-like object called the "Blau-Monuments", the Ušumgal Stela and the "Figure aux plumes" limestone block).

[248] The other one being the "master of animals" theme, with variations, where a mythical hero– even if a composite figure himself—successfully wrestles with wild monsters.

soon transferred to stone plaques (affixed to walls next to doorways), which show more variation. Those banquet scenes may be related to patronage and the search for affiliation. Renette has noticed how it is not until the end of the Early Dynastic period that scenes depict only one or two individuals and feature elements like temple façades.[249] He also introduced elitism as an active exercise linked to prestige, albeit assuming a general framework of loyalty to the royal family: "While at first elites used feasts to maintain general loyalty through an emphasis on communality and the redistribution of food (integration phase), they gradually began to use the regularly recurring ritual feasts as a stage to display their prominent position (distinction phase). Ultimately the emphasis changed completely to the role of the king during these events, when he made sacrifices and libations to the gods, with whom he interacted on behalf of his people".[250] Renette thinks that invited to those feasts where the members of temple households.

However, how do we assess, archaeologically, what domestic contexts are, or communal facilities, and what, exactly, is a temple? Could we have an initial sacralization of space made by the people to bless their halls, workshops, burials? Is that why "votive" objects take so long to be inscribed (as writing slowly became widespread)? In particular, the period between ED II and EDIIIa (at some point between 2700 and 2500 BC) is full of ambiguity. What should our criteria be? Stone plaques? Without an inscription they could be merely functional/ornamental, not votive objects. Stone vessels and statues? These are very scarce at Fara. Fara's houses start yielding tablets when the first inscriptions on statues appear elsewhere, some qualified by Marchesi and Marchetti as royal, one from Tell Agrab in the Diyala, and two unprovenanced.[251] At Ur and Fara the seal and sealing impression inventory is extensive and includes "banquet scenes" from a very early date, but there is hardly any impressive building where pottery assemblages and seals combined allow for an interpretation as an assembly hall-warehouse. EDIII monumentality is sparsely attested, and Khafajah (Tutub) doubtlessly represents an exception in that regard (at least so far). Yet here there are no tablet archives.

We may visualize banquets taking place in outer spaces and courtyards, and maybe even private houses, as there is nothing in the pictographic variations of those seals that prevents such an interpretation: we see chairs, tables, vessels, animals or greenery. None of the structures at Ur next to the Royal Cemetery Area[252] or the rooms before Level VIII at the Temple of Inanna area in Nippur suggest that lavish

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[249] Renette 2014: 69. During the ED III, stone plaques focusing on this theme will show banquets in more detail, having a variety of attendants, musicians or people in conversation, and having a seated man and a woman (as is the case with the seals) at the top or in a privileged position. At this point, we start seeing evidence of a "ruling" couple.

[250] *Ibid*.: 74.

[251] Marchesi and Marchetti 2011: 129f. See their Table 12 (p. 87) and 14 for ED epigraphic material. One of the unprovenanced statues mentions a PA.TE.SI of what Marchesi thinks is a place name (BÁHAR.É). However, the Fara god-lists include this name (cf. SF 1, VII, 18) and Selz translated it as "the Brick-maker (of) the temple (?). Selz 1997: 171, so PA.TE.SI must be at this time or in certain areas some kind of supervisor.

[252] See a reanalysis of Pit F at level H by Benati 2014 (glyptic and ceramics, with chronological correlations to other sites), and Benati and Lecompte 2016: Figs. 1 and 2.

feasts could be taking place there. The cemetery at Ur,[253] as Benati points out, may signal a preference on the part of the community to be buried in the proximity of a sacred place (reflecting on the lack of intramural burials, in contrast to Abu Salabikh and Khafajah).[254] In the case of the neighbourhood temples at Khafajah or the Temple of Inanna at Nippur, we see an abundance of votive objects, dedicated by men or women with very specific professional or kinship profiles, after that EDII-III transition.[255] From the moment votive objects become more commonly inscribed, and the name of the deity is preserved,[256] we can therefore start assigning a building a function as a temple. What we do not find, however, is a correlation between a "sanctuary" area and a special accumulation of "votive" material. At the Inanna Temple, for example, Evans mentions IT179 as a "sanctuary", and indeed votive objects were buried beneath the floor of this room or laid out "on the benches against the short west wall of sanctuary IT 179 and covered with mud plaster".[257] But rooms with liquid installations, an oven, and a well were included as depositional loci, too.

This dynamic picture of temples as houses where different activities take place and where all dependencies (gates, courtyards, working rooms, deities' rooms) may be mundane and sacred at the same time will never completely disappear. But what of the deities themselves? Three-dimensional anthropomorphic representations of deities may have initially been considered either ridiculous or a transgression. It makes sense that they started first as flat representations engraved on secondary-agency objects, like seals and steles. The mouth-opening ritual applied to statues may actually be derived from an original worship based on objects.[258] From the offerings records that the queens of Lagash kept (EDIIIb-Presargonic), we would be hard pressed to link statues with deities. Offerings were made by Baranamtara to eight identified statues (royal predecessors) and eight unidentified ones in the inner quarters of the house.[259] As Kobayashi noted, the term for statue (alan) for deities is not alluded to in royal inscriptions. Thus Ur-Nanshe merely states: ^{d}nanše mu-tu. The verb tu may be translated as 'to create' in the sense of giving birth. So it is thanks to the glyptic and the comparison with the treatment granted to royal statuary

[253] Woolley and his team excavated around six hundred graves below (going back to the Jemdet Nasr period), around and over, even intruding into the shafts built for the sixteen special vaulted chamber tombs called "royal" because of the abundance of their finds, the inscriptions on some seals, and the evidence for ritual sacrifice. There is already abundant literature on these tombs from any conceivable angle. I will merely point out here that neither a cultic personnel nor a royal family dichotomy for the identity of the buried ones (EDIIIb) is very helpful. This was a political move using religious means.

[254] Benati 2014: 13f. At Fara domestic burials were also recorded.

[255] See, *inter alia*, Evans 2016, 2019.

[256] See Verderame 2019 for the inscriptions on the votive assemblage at the Inanna Temple of Nippur, Level VII, particularly VIIb. Twelve out of twenty-two inscriptions preserve the name of Inanna, with or without the divine determinative, while a bowl and a plaque were dedicated to Nin-SAR, probably a hypostasis of Inanna, by the chief stonecutter, Lumma.

[257] Evans 2019: 170.

[258] See Selz's remarks and references on the mouth-washing regarding Gudea Statue R and cultic objects in general (1997: 177-179, with footnotes).

[259] Kobayashi 1984: 46.

that we can infer that, at some point during the 3rd millennium BC, deity statues were fashioned out of precious wood and another line was crossed.[260] As Berlejung noted when studying the *mīš pî* or mouth-washing ritual tablets (1st millennium BC, though), human intervention is denied by the craftsmen involved in the fashioning of the statue of the god: their hands are symbolically cut off, the invocations certified that the statues were born in heaven and that Nudimmud/Ea was their creator, and the tools were disposed of.[261]

In *The Holy Drum, the Spear and the Harp*, Selz grouped the objects in the Fara god-lists into six categories: divine/deified emblems and paraphernalia, deified professions/offices, cultural achievements or properties, musical instruments, deified animals and varia. From my point of view, we are still very much operating here within an animistic reasoning to make sense of the world and to negotiate relationships with the powerful Other in old-new ways. The cultural achievements would be later "theologized" into the ME conceptual elaborations (but Inanna carries them in physical form in the myths). What we already see at this time in Mesopotamia is an idealization of occupations or vocations, not in the case of the Fara god-lists, but in the following stage. Selz uses the six categories just mentioned for the Lagash records, too, and even though it is easy to understand the civilizational, and therefore sacred, usefulness of barbers, jewelers, bartenders or shepherds via the tools of their trade, we even find divinized tax-collection!

Undoubtedly, devotion and generosity, channeled through communal institutions, were strategies followed by ambitious men and women to attract the loyalty, skills or connections of key people in key positions. Until the Stele of Eannatum, though, there is no clear sign of a defined single rulership efficiently producing the expected ideology, despite our attempts to identify the nature of en-ships, énsi-ships, lugal-ships and so on. The very presence of a term like lugal, lit. "Big Man", is already pointing towards a situation of increased competition, but not necessarily that of one Big Man per city. It quite simply signals that initially these important men were capable of commanding people and resources and use them to follow their own agendas, whether in their native cities or elsewhere (as the conspicuous Mesilim, lugal of Kish, seems to have been). They may have competed between them or with other important men who held political sway and who may have held official positions as a cosmetic, procedural custom (maybe something akin to "old money" or "old power" vs "new money" or "new power"). We may conceive then of a mixed kinship and bureaucratic scenario. These top elites may have therefore engendered a "religious" need where there was none before.

[260] See discussion on the noticeable lack of archaeologically retrieved divine statues in Walker and Dick 2001: 5f, with references.

[261] Berlejung 1997: 61f. Specifics depend on the ritual version, cf. Walker and Dick 2001. See also Pongratz-Leisten and Sonik 2015: 9. They embed their observations on this ritual within a broader discussion on *presencing*, summarily defined as "multifarious modes of rendering the immaterial –and specifically the immaterial divine– material, accessible, and relatable" (*ibid*.: 10).

CONCLUSIONS

But the myth of power is, of course, a very powerful myth and probably most people in the world more or less believe in it. It is a myth which, if everybody believes in it, becomes to that extent self-validating.
Gregory Bateson 1972

The notion of personhood, which has been readdressed within the category of animism, especially in its relational aspect, articulates the conception of a "pervasive relational cosmos", while shedding light upon the actual fluidity and sensuous reality of those ancient religions understood as a daily life experience.
Perdibon 2019: 197.

This diachronic journey accompanying the first communities in the world has shown how evolutionary narratives prevent a humanistic and informative comprehension of people and their motivations. None of the utilitarian and functionalistic approaches to any technology or system of knowledge—be it an advanced lithic complex, agriculture, pottery, metallurgy or the writing system—has stood the test of time and in-depth research. They were all socially (contextually) emergent. Empirical and social intelligence—extensive and intensive knowledge of the landscape and active cooperation instead of competition—defined the behavior of the first sedentists in Southwest Asia. Neither family households nor private property are very likely to have existed until the 5th millennium BC, and even then, the existence of land ownership and territorial domination is never supported by the nature of material or the iconography and plastic arts. Village layouts and materiality support, instead, cohesive communities who adopted different strategies to weather crises together. At most, inequality seems to have followed the respect owed to seniority and skills, and to whole sub-groups within communities. Instead of searching for "degrees and kinds of inequality"[1] or "different kinds of egalitarian societies,"[2] applied uncritically to complex but heterarchical organizations, we should focus on different kinds of 'dividuality', how individuals and groups expressed their identity and belonging to home and landscape. Beadwork and ornaments—including stamps, interpreted as seals—seem to have been both connected to relationships and to roles. But the most valuable object that I could find in the past under study was intangible: it was knowledge, albeit sometimes hoarded, secret knowledge.

The burdens of labor, knowledge transmission, migration, and the interplay between tradition and innovation—that is, people—should precede the study of economies, property devices, trade networks, and technological analysis—that is, things. Were I to summarize what has impressed me the most in this long research journey, I would choose two observations. The first, the tantalizing possibility that several hominin species including ours lived together in eastern or northern Africa, in the Levant, Arabia or China before and after the main out of Africa event undertaken by our species. The second is that living together, the experience of

1 Drennan et al. 2010.

2 Frangipane 2016.

sedentism, was the prettiest "invention" of them all. For millennia, people consistently chose togetherness and inclusiveness over privacy and neatly defined boundaries. This social experience encompassed the living and the dead, humans and non-humans, the village and the landscape.

At the beginning of my research, I set out to find out how communal institutions could have become so eroded that dynastic single rulership supported by the temples in the land of 'city-states' came to be. Ideology of any kind is a complex set of beliefs that takes time and an enchainment of causal events to slowly grow into coherence and take hold in people's minds. The discourse that Mesopotamian scholarship has constructed over time on the Uruk phenomenon and proto-urbanism as signs of a social complexity inexorably leading to civilization is, as I have tried to show, unsatisfactory. It hides many uncertainties and is based on premises that are far more complex than assumed. Those premises rely on a single, monolithic expression of ambition and greed, or, in other words, power and materialism. Moreover, in the vast geographical area under study, power abuse only became relevant in two areas in the south at the end of the 4th millennium, and most explicitly at the beginning of the 3rd millennium BC. What is most paradoxical is that the elitism we are interested in—a situation of competition involving the overlapping of private and public roles, and the anticipation and manipulation of the needs of different groups for individual or familial gain—became only possible after the emergence of heterarchical aggregations, and that emergence in turn would not have become possible without considerable social intelligence, strategies promoting communal cohesion, and the suppression of open individual ambitions. The competition associated with 'prestige', visible in many of the northern territories of Southwest Asia from the mid-4th millennium onwards, did not lead to an objectification of the world around them, to an ontological split between "us" and "them". The importance of values and motivations cannot be underestimated for there are social, political and economic consequences. We only pay attention to the latter without realizing that these compartmentalizations do not render our research more "objective" (although it does objectify it).

The changes that we associate with a technological advance or a complex economic system—'progress'—did not take place in a social vacuum, and they were never revolutionary upon their emergence (that is, single, instantly impactful, portentous events). Therefore, diversity, temporal scales, and the material changes that signal a potential change in values *do* matter. They are not background noise and they should not be sacrificed for the sake of academic expedience. This dissertation was not only about writing a diachronic analysis to argue for the importance of the biosocial (animism) as an ontology to understand prehistory, to highlight that domestication was only relevant in so far as it required shifts in internal organization, or that the first stages of social and political complexity are better understood through heterarchy instead of hierarchy. I was also interested in how we do what we do: our practices, beliefs and interpretations as scholars.

I propose two suggestions that could be useful for those subscribing to bottom-up approaches:

1) A better understanding of the potential that social and cultural anthropology—particularly of the last four decades—could have in our research, if undertaken as an exercise to discern patterns within heterogeneity.

Even through anthropologists can also be tempted by Gini coefficients (e.g. *Current Anthropology* 51(1), 2010), wealth and labor in roughly contemporary societies may be analyzed from a myriad of cultural contexts and a discussion of multiple factors. On the subject of gift-exchange, for instance, I found Weiner's re-examination of earlier anthropological scholarship, her cohesive analysis on the practice of "keeping while giving" (trying to keep the most valuable possessions and give valuable but not too valuable objects, or through feasting behave with splendid generosity) very inspiring. Although I thought that her use of the term 'inalienable' was not particularly felicitous, I understand that it comes from her review of European economic theories of the 19th century, in the same way my use of 'animism' derives from that time. She also equated difference with hierarchy, but her intention is to defend a less simplistic and romanticized idea on the circularity—sometimes truncated—of objects used in practices of intricate kinship and affinal relationships, and always with an eye to their re-acquisition.

One of her observations I found particularly relevant for my investigation: "Through such control of inalienable possessions, authority emerges creating **potential** nodes of centralization that in **particular** circumstances sustain rank and political hierarchy".[3] Even though Weiner is keen in showing the non-exchange value of certain possessions, engendering potential socio-political differentiation, I found it striking that the Trobriand Islanders may be defined as an egalitarian society (and even more so their Massim Islands neighbours), the Samoans as supra-clan chieftancies, and the Hawaiians as a monarchical regime with well-defined social stratification (until the ravages of colonialism had taken its toll, of course). Doubtlessly, there must be historical and environmental factors that are at play, but my general impression was nevertheless one of unpredictability. Our job as historians cannot be imbued with a sense of omniscience and predestination, as if the choices and actions of the peoples we study were fated to become more or less complex according to our definition of 'progress'. As Graeber and Wengrow argue in their collaborative work, many peoples in the past were free—or exercised their freedom—to choose a political, economic and ritual organization, and if dissatisfied, choose again.

In conclusion, and going back to my insistence on the importance of tapping, critically, from the research of social anthropologists, Weiner's book was not useful to me when searching for analogies, or broadening my horizons, but it was useful to get ideas on several concepts—like the nature of possessions or property, the social extension of what we simplistically call economy, the invisibility of perishable objects (or rather, their perishable social contexts and associated values), like the *taonga* or the bones of ancestors and enemies used in rituals of birth, war and burial—and thus it served as one more warning against materialistic reductionism.

[3] Weiner 1992: 40, my emphasis.

2) The training and autonomy of 'integrators' or specialized generalists.

My second proposal is motivated by the gained impression that archaeological work, before, during, and after excavation does not generally leave the director, the excavators and the analysts—whether they participated in the excavation or not—sufficient time to reflect, collate data, and debate with any number of colleagues involved in the enterprise intensively and unhurriedly before the time comes when reporting and publication require offered interpretations that are minimally plausible. I have already spoken about insufficient horizontal exposures and will say no more on this subject. Generally speaking, the amount of data gathered should indicate how far the speculative exercises should go, and the temptation to sell one's research or site in an impressive manner—though understandable—should be avoided.

But more important than these observations is the conviction that good, integrative analysis will continue to be impaired if we do not acknowledge the limits of hyper-specialization. Talking about inter-disciplinarity is fashionable, but it may be just enough to attempt inter-sub-disciplinarity first. Within the academic world at large, we may be, across several disciplines, experiencing potential changes in paradigm.

A relatively recent paper by a biologist specialized in ecology has recently argued that "pivotal advances in genetics—and other fields of biology—are also made by synthesizing disparate threads of extant information rather than generating new information from experiments or formal theory." He proposes a "synthesis paradigm" to replace the three prevalent paradigms of "model organisms" (Mendelian genetic mapping), "mathematically explicit genetic theory", and the central dogma: "chromosomal theory of inheritance".[4] Starting by the well-known "discovery" of the structure of DNA by Watson and Crick, and reviewing achievements that have taken place before and after them, Rice argues that—given the amount of data available nowadays and the difficulties in processing it and finding patterns—[5] a combination of all three approaches is necessary for the field as a whole, entailing a model of education that trains students more broadly so that they are capable of participating in interdisciplinary collaboration. Together with computational specialists, "there is also a crucial role for "big picture" individuals who find connections and integrate across structural subdivisions".

Although our problem is not precisely an excess of data, our situation is not dissimilar to that of genetics and many other fields involving live assemblages, multifactorialism, and analysis at different scales. My proposal is therefore that we (archaeologists and historians) promote the offer of studies at the post-graduate level that would consist of a multi-disciplinary curriculum in order to train specialized generalists, competent in several sub-fields. In the case of archaeological expeditions, they would be hired to act as data integrators. They would receive information from all involved, and they would not report to the director of excavations. Their

4 Rice 2014.

5 "We are now experiencing a qualitatively new era in which data banks for genes, genomes, transcriptomes, epigenomes, proteomes, micromes, microbiomes, and genetic networks are accumulating far more rapidly than our analysis and understanding of these behemoth archives" (*ibid*.: 370).

analysis would be published together with everyone else's, striving to provide large-scale interpretations for the site and region. This would be actually highly beneficial for everyone involved, since it would promote debate and multiple perspectives.

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SUMMARY

Origins—in this case origins of urbanism in Mesopotamia—just as declines, collapses, and reconfigurations are long, multi-factorial processes with the potential to illuminate much about the choices of collectives, their actions and the unintended repercussions, despite the dearth of evidence that characterizes them. This study has integrated evidence as concerns experiences of sedentism by the communities living in Southwest Asia from ca. the 11th millennium BP until the 4th millennium BC in order to illuminate those origins, adopting a critical approach to evolutionist narratives. By studying community-making throughout the history of sedentism in this region of the world, I have shown how mobility, organization and cooperation may have given the necessary social inherited skills—more than any technological achievement—to those groups who chose to pool resources and come together in large aggregations that are still studied under the umbrella of the "Uruk phenomenon", which—even if no longer presented as a political and economic movement having the citizens of Uruk as protagonists—is still based on a core and periphery framework (presented as variable hybridity). Yet, the reality of the excavations undertaken by archaeological missions before the II World War, at Uruk but also at Susa, do not permit in-depth interpretations as concerns chronology, causality of change, material contextualization, later developments, and the perspective of domestic and mortuary practices. The re-examination of these monument-and-treasure oriented excavations cannot hide, to this day, the gaps that riddle a civilization narrative inherited from past scholarship and still standing.

Given that evolutionary theories also affect the origins of our species, a brief overview of recent discoveries on this subject has served to show that there is no particular cultural marker that can be argued to have been achieved by our ancestor line, which may anyway have sufficient genetic contributions from species living in Eurasia, the Levant, and Africa, as to make the taxon-to-taxon exercise impossible. The first attestations of our species (morphologically speaking) out of Africa around two hundred kya in the Levant, and around one hundred kya in China, are less important than the evidence for inter-species interaction in eastern and northeastern Africa, the Arabian Peninsula, and the Levant before the main out-of-Africa event ca. 60 kya, and for the suspected interaction with Neanderthals and Denisovans in Eurasia and Asia afterwards. If the modes of interaction beyond gene flow are better discerned in future, active social skills (sharing, emulation, cooperation) as a fundamental aspect of our nature, and true reason of our last Ice Age survival, may be confirmed. Tackling the beginnings of sedentism in Southwest Asia in four core regions, the analysis paid special attention to mortuary ritual, which defines better than even architectonic developments—which take a long time to crystallize and become unambiguously residential—the anchoring to space and the group's self-awareness as a community who project themselves from the past into the future. Large communal buildings, usually circular, are a common trait across core regions despite differences in size and construction. Regarding domestication of plants and animals, and the attempts at detecting strategies by first communities during the first period of the aceramic Neolithic, the conclusions are that a broad spectrum subsistence as a strategy witnessed since the climatic amelioration at the onset of the

Holocene was shared by those adopting sedentism, with only clear evidence of selection for size in the case of large-seeded grasses at the end of this period. Morphogenetic domestication became gradually visible during the following phase, clearly accompanying the growth of villages and the villagers' increasing dependence on them.

Drawing heavily from anthropological theory in order to postulate 'animism'—defined as a holistic and reciprocal way to relate to alterity—as the prevailing ontological background in prehistory, the animal is given a special place. The ethnographic examples given here, coming mostly from northern Asia and the Andes, challenge a strict, reductive view of domesticated animals as property. An overview of recent research on animal domestication and later practices in Southwest Asia during the first millennia strongly support the fact that fully-specialized ovicaprid pastoralism as a subsistence strategy requiring constant mobility did not happen until the 5th millennium BC, even if in some areas of the southern Levant, southern Syria and Anatolia, people may have relied heavily on pastoralism and hunting.

Using the material culture that may be classified as media, means of communication, whether "utilitarian", ambiguous, or "art", it is argued that the values of prehistoric, sedentary communities were mindful of the Other. There may have been a heightened awareness of Its multiple forms by means of ASC (Altered States of Consciousness) experiences, whether mediated by specialists or not. The trend observed during the first phase, where in the north in particular, the animal and abstract compositions that may include anthropomorphic figures predominate, continues and expands, together with the manipulation of animal and human bones, skulls, plaster and color. Monument decoration and sculpture gradually yield to more portable and diverse materiality. If body ornaments speak of personhood and identity, textiles, reeds, ceramics and invisible wooden items may have gradually contributed to the comfort of home-making. There are no scenes of hunting, predation or monsters. There are reflections on the ambiguities of life and death, animal-human hybridity, and geometric symbolism that may have been inspired by nature. The males of herd species and their horns have and retain their importance. In time, the female body becomes the most chosen canvas to express connection with the Other and communal values. This section concluded with a critical revision of the so-called 'tokens'. Interpreted as counters of commodities, used perhaps as schematic figurines with an apotropaic purpose, or as pieces in divination or games, these clay schematic objects seem to speak of multi-functionality. Equally held as economic tools, stamps, however, can be distinguished from amulets with difficulty. Storage is rarely segregated in the northern regions and seems to have been collective. Working teams have as much chance as families to be the users of stamps who marked the sealing of containers in those areas where this practice emerged and continued (the northern Levant, Anatolia and northern Iraq, and eventually south along the Zagros reaching Fars). Neither tokens nor stamped sealings are at home in the southern regions.

Flexible sedentism, small-scale migrations, and multi-functional spaces were examined to illuminate new and clever social arrangements and the importance of the communal in the 6th millennium BC. Thinking about future large aggregations,

the search of a spatial order in village plans of the 5th millennium is explored with the case studies of Tell Abada, in the Hamrin region, and Yumuktepe, in Cilicia. Pottery, and the fashioning of other items with a clay component, may have been spatially separated at some sites, although there is a need for better horizontal exposures. Two patterns of the 5th millennium BC may be related to emotional responses to crisis in terms of protection (infant intramural burials), and control, secret knowledge, and experimentation: metallurgy. The subsection on metallurgy also tackles a possible shift in gender values: men seeking for a group identity and prestige, something that was later facilitated in some regions by a return to flexible sedentism, mobility, and a danger coming from predators and, perhaps, disease. The north would, however, retain, until well into the historical periods, the respectful negotiation due to others in a shared landscape.

The last chapter explores different trajectories of the social experiment described here as heterarchical, since it would have entailed collective decision-making; at first, to create the meta-community, and later, to coordinate the human and material resources that were pooled into the common facilities. All trajectories have spaces of commensality in common, suggesting daily and celebratory meals. Southern iconography, in the Susiana and Uruk, yield imagery associated with the collective administration of resources that speak of a turn towards authoritarianism and the manipulation of the landscape to suit the needs of the new collective. As concerns the colonies of the Middle-Euphrates, assumed to have been founded by Urukeans, the marine introgression and Delta hydro-morphology was examined to posit that only the communities in the Susiana would have been in dire need of both fields and pastures, not affected by brackish waters, since they were heavily relying on an ovicaprid economy. These colonies had all the range of administrative devices (seen earlier in the Susiana) characterizing the "Uruk period", but they never adopted the writing system. The critical examination of Uruk after the eastern monuments at its centre were razed, and terracing and water management structures superimposed, allow for catastrophic flooding episodes to be posited. This not only obscures the reliability of deposition but also the continuity of the non-residential city. Perhaps due to the terror tactics employed to obtain cohesion (scenes of monsters and naked prisoners), and to the impact of the floods, people may have left the settlement of Uruk's hinterland, taking their knowledge of the writing system with them. Finally, there is a critical revision of the first textual material extracted from Uruk (Susa's is not treated), focusing on the unwarranted reliance on the lists of vocabulary—few if any may be said to be standardized upon scrutiny—to justify the identification of social hierarchies, institutions, and geopolitical entities, and the smooth transmission of the writing system in southern Mesopotamia. Current evidence, however, is far from supporting those assumptions, which rely first on the conviction that some information inherited from colonial excavations can be trusted if it aligns with our interests, and second on retroactive interpretations, which project the late Early Dynastic (still fragmentary) contexts centuries into the past. Our current evidence—environmental, too—supports heterogeneity and irregular emulation/transmission.

Among the conclusions, the need to consider any kind of perceived technological/economic achievement as socially emergent is emphasized.

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KOKKUVÕTE

Enne tsivilisatsiooni: kogukonna kujunemise kriitiline ajalugu Edela-Aasias

Päritolu – antud juhul Mesopotaamia urbanismi päritolu – nagu ka allakäik, kokkuvarisemine ja ümberkujunemine on pikad, mitmetegurilised protsessid, mis võivad palju valgust heita kollektiivide valikute, nende tegevuse ja soovimatute tagajärgede kohta, hoolimata neid iseloomustavate tõendite vähesusest. Käesolevas uurimuses on integreeritud tõendeid, mis puudutavad Edela-Aasias elanud kogukondade kogemusi paikse eluviisi kohta alates ajast umbes 13 000 aastat tagasi kuni 4. aastatuhandeni e.m.a, et valgustada selle algupära, võttes omaks kriitilise lähenemise evolutsionistlikele narratiividele. Uurides kogukondade loomist kogu selle maailma piirkonna paikse eluviisi varase ajaloo jooksul, näitan oma uurimuses, kuidas liikuvus, organiseeritus ja koostöö võisid anda vajalikud päritud sotsiaalsed oskused – rohkem kui mis tahes tehnoloogilised saavutused – neile rühmadele, kes otsustasid ühendada ressursse ja tulla kokku suurtes kogumites, mida ikka veel uuritakse „Uruki fenomeni“ nime all, mis – isegi kui seda ei esitata enam poliitilise ja majandusliku liikumisena, mille peategelasteks on Uruki kodanikud – põhineb endiselt tuuma ja perifeeria raamistikul (mida esitatakse muutuva hübriidsusena). Siiski ei võimalda enne II maailmasõda Urukis ega ka Suusas toimunud arheoloogiliste missioonide poolt tehtud väljakaevamiste tegelikud andmed põhjalikke tõlgendusi, mis puudutavad kronoloogiat, muutuste põhjuslikkust, materiaalset konteksti, hilisemaid arenguid ning koduste ja surnuaiapraktikate perspektiivi. Nendele aaretele ja monumentidele orienteeritud väljakaevamiste tulemuste ümberhindamine ei saa enam varju jätta lünki, mis senini tekitavad nõutust tsivilisatsiooni arenemise narratiivis, mille on tänapäeva pärandanud minevikus toimunud uurimistöö.

Arvestades, et evolutsiooniteooriad mõjutavad ka teadmisi meie liigi päritolu kohta, on lühiülevaated viimaste avastuste kohta sel teemal näidanud, et ei ole olemas mingit konkreetset kultuurilist markerit, mille kohta võiks väita, et selleni on jõutud just meie esivanemate liinis, millel olnuks piisavalt geneetilist panust Euraasias, Levantis ja Aafrikas elavatelt liikidelt, et muuta taksonite omavaheline võrdlemine võimatuks. Meie liigi esimesed säilmed (morfoloogilises mõttes) väljaspool Aafrikat umbes kakssada tuhat aastat tagasi Levantis ja umbes sada tuhat aastat tagasi Hiinas on vähem olulised kui tõendid liikidevahelise suhtluse kohta Ida- ja Kirde-Aafrikas, Araabia poolsaarel ja Levantis enne peamist Aafrikast väljapoole suunatud rändu umbes 60 tuhat aastat tagasi kui Euraasias ja pärast seda Aasias leidis aset arvatav suhtlus neandertaallaste ja denisovlastega. Kui geenivoolust kaugemale ulatuvad suhtlemisviisid tulevikus paremini välja selgitatakse, võivad aktiivsed sotsiaalsed oskused (jagamine, jäljendamine, koostöö) kui *homo sapiens*i olemuse põhiaspekt ja meie viimase jääaja ellujäämise tõeline põhjus, saada kinnitust. Käsitledes paikse eluviisi algust Edela-Aasia neljas tuumikpiirkonnas, pööratakse analüüsis erilist tähelepanu surmarituaalile, mis määratleb paremini kui isegi arhitektuurilised arengud – mille kristalliseerumine ja elukohaks muutumine võtab kaua aega –, ankurdumist teatavasse ruumi ja rühma eneseteadvust kogukonnana,

kes projitseerib end minevikust tulevikku. Suured kogukondlikud ehitised, harilikult ümmargused on tuumikalade ühine joon, hoolimata mastaapide ja konstruktsioonide erinevustest. Taimede ja loomade kodustamise ja muude esimese keraamika-eelse neoliitikumi ajastu varaste kogukondade eluliste strateegiate uurimise kokkuvõtted väidavad, et paikse eluviisi valijad harrastasid laia spektriga toimetulekut pärast kliima soodsamaks muutumist holotseeni alguses, ning hakkasid valima kasvatamiseks suureseemnelisi taimi. Morfogeneetiline kodustamine hakkas muutuma järgmises faasis tasapisi nähtavaks käies selgesti kaasas külade kasvamise ja külaelanike aina suurema sõltuvusega oma elukohast.

Tuginedes suuresti antropoloogilisele teooriale, postuleeritakse „animismi" olulisus – mida määratletakse kui terviklikku ja vastastikku austavat viisi suhtuda endast erinevasse – kui valitsev eelajalooline ontoloogiline maailmapilt, milles loomale anti eriline koht. Siin esitatud etnograafilised näited, mis pärinevad peamiselt Põhja-Aasiast ja Andidest, seavad kahtluse alla range ja reduktiivse käsitluse kodustatud loomadest kui omandist. Ülevaade loomade kodustamisest ja hilisemate tavade hiljutistest uuringutest Edela-Aasias esimestel aastatuhandetel toetab kindlalt fakti, et täielikult spetsialiseerunud kitse- ja lambakarjade pidamine kui pidevat liikuvust nõudev elatusstrateegia tekkis alles 5. aastatuhandel e.m.a., isegi kui mõnes Lõuna-Levandi, Lõuna-Süüria ja Anatoolia piirkonnas võisid inimesed tugineda suuresti karjapidamisele ja küttimisele.

Kasutades materiaalse kultuuri objekte, mida võib liigitada kui meediat, kommunikatsioonivahendit, „kasulikku", mitmetähenduslikku või „kunsti", väidetakse, et eelajalooliste, paiksete kogukondade väärtused olid tähelepanelikud Teise suhtes. Võib-olla esines kõrgendatud teadlikkust selle mitmetest vormidest ASC (teadvuse muutunud seisundite) kogemise kaudu, olgu seda siis spetsialistide vahendusel või mitte. Esimeses etapis täheldatud suundumus, kus eriti põhjas domineerivad loomsed ja abstraktsed kompositsioonid, mis võivad sisaldada antropomorfseid figuure, jätkub ja laieneb koos looma- ja inimluude, koljude, kipside ja värvidega manipuleerimisega. Monumentaalsed kaunistused ja skulptuurid annavad järk-järgult järele kaasaskantavamale ja mitmekesisemale materiaalsusele. Kui kehakaunistused kõnelevad isikupärast ja identiteedist, siis tekstiilid, roog, keraamika ja nähtamatud puuesemed võisid järk-järgult kaasa aidata kodukujundamise mugavusele. Puuduvad stseenid jahipidamisest, kiskjatest või koletistest. On mõtisklusi elu ja surma mitmetähenduslikkusest, looma ja inimese hübriidsusest ning geomeetrilisest sümboolikast, mis võis olla inspireeritud loodusest. Kariloomade isased ja nende sarved on ja säilitavad oma tähtsuse. Aja jooksul muutub naise keha kõige enam valitud lõuendiks, et väljendada ühendust Teisega ja kogukondlikke väärtusi. See osa tööst lõppeb nn „tähitsate" (*token*) kriitilise analüüsiga. Neid tõlgendatakse kui kaupade loendajaid, mida kasutati võib-olla skemaatiliste figuuridena, millel oli tõrjemaagiline või ka mängu- ja ennustusvahendi kasutusala – need skemaatilised objektid olid tõenäoliselt multifunktsionaalsed. Pitsateid, millel oli ka majanduslik väärtus, võib ainult raskustega eristada amulettidest. Asjade ladustamine tundub olevat kollektiivne, ainult põhjapoolsetes piirkondades vähesel määral segregeeritud. Töörühmad võisid samamoodi kasutada pitsateid nagu ka perekonnad, kes tähistasid nendega oma konteinereid igal pool, kus selline tava esile kerkis ja edasi

kandus (põhjapoolne Levant, Anatoolia ja põhja-Iraak ning ka lõuna pool Zagrose mäestikus kuni Farsini). Ei tähitsaid ega ka pitsateid polnud kombeks kasutada lõunapoolsetes regioonides.

Uuritakse paindlikku paikset eluviisi, väikesemahulisi rändeid ja multifunktsionaalseid ruume, et heita valgust uutele ja nutikatele sotsiaalsetele korraldustele ning kogukonna tähtsusele 6. aastatuhandel e.m.a. Mõeldes tulevastele suurtele rahvastiku koondumistele, uuritakse 5. aastatuhande külaplaanide ruumilist korda Hamrini piirkonnas asuva Tell Abada ja Kiliikias asuva Yumuktepe juhtumite abil. Keraamika ja muude savikomponendiga esemete valmistamine võis mõnes paigas olla ruumiliselt eraldatud, kuigi vaja oleks paremaid horisontaalseid ekspositsioone. Kaks 5. aastatuhande e.m.a mustrit võivad olla seotud emotsionaalse reageerimisega kriisile, et kaitsta ja kontrollida (väikelaste matused siseruumidesse), ning salajaste teadmiste kultiveerimise ja katsetamistega (metallurgia). Metallide töötlemist käsitlevas alajaotuses uuritakse ka võimalikku muutust soopõhistes väärtustes: mehed otsivad grupiidentiteeti ja prestiiži, mida hiljem mõnes piirkonnas hõlbustas tagasipöördumine paindliku paikse elu ja liikuvuse juurde ning kiskjatest ja võib-olla ka haigustest tulenev oht. Põhja pool jäi aga kuni ajalooliste perioodideni alles teiste suhtes lugupidav läbirääkimise viis jagatud looduskeskkonnas.

Viimases peatükis uuritakse kirjeldatava heterarhilise sotsiaalse eksperimendi erinevaid arengusuundi, sest see oleks eeldanud kollektiivset otsustamist; algul metakogukonna loomiseks ja hiljem ühiseks elukeskkonnaks koondatud inim- ja materiaalsete ressursside koordineerimiseks. Kõigile suundumustele on ühised ühisruumid, mis viitavad igapäevastele ja pidulikele söögikordadele. Susiana ja Uruki lõunapoolses ikonograafias leidub ressursside kollektiivse haldamisega seotud kujutisi, mis räägivad pöördumisest autoritaarsuse poole ja maastiku manipuleerimisest uue kollektiivi vajaduste järgi. Mis puudutab Kesk-Eufrati kolooniaid, mille asutajateks arvatakse olevat Uruki asunikud, uuritakse mere introgressiooni ja delta hüdromorfoloogiat oletamaks, et ainult Susiana kogukonnad oleksid vajanud hädasti nii põlde kui ka karjamaid, mida ei kahjustanuks mudane vesi, kuna nad tuginesid suuresti kitsede ja lammaste karjatamisel põhinevale majandusele. Nendel kolooniatel olid olemas kõik „Uruki perioodi“ iseloomustavad haldusvahendid (mida on varem nähtud Susianas), kuid nad ei võtnud kunagi kasutusele kirjasüsteemi. Uruki kriitiline uurimine pärast selle keskuse idapoolsete monumentide hävitamist ning terrasside ja veemajandusstruktuuride uuesti ehitamist võimaldab oletada katastroofilisi üleujutusperioode. See ei tee segasemaks andmeid mitte ainult ladestuste usaldusväärsuse, vaid ka linnaosade asustuse järjepidevuse kohta. Võib-olla tänu ühtekuuluvuse saavutamiseks kasutatud hirmutaktikale (stseenid koletistest ja alasti vangidest) ning üleujutuste mõjule võisid inimesed Uruki tagamaa asulatest lahkuda, võttes kaasa oma teadmised kirjasüsteemist. Lõpuks vaadatakse kriitiliselt üle varaseim Urukist leitud tekstimaterjal (Susa tekstimaterjali ei käsitleta), keskendudes leksikaalsete loetelude rohkusele – mis olid ainult vähesel määral standardiseeritud –, et õigustada sotsiaalsete hierarhiate, institutsioonide ja geopoliitiliste üksuste identifitseerimist ning kirjasüsteemi sujuvat edasiandmist Lõuna-Mesopotaamias. Praegused tõendid ei toeta siiski kaugeltki neid oletusi, mis tuginevad esiteks veendumusele, et koloniaalse ajastu väljakaevamistelt päritud teavet võib

usaldada, kui see on kooskõlas meie eeldustega, ja teiseks tagasiulatuvatele tõlgendustele, mis projitseerivad hilisdünastilisi (väga fragmentaarselt mõistetud) kontekste sajandeid kaugemasse minevikku. Meie praegused tõendid – ka keskkonnaalased – toetavad heterogeensust ja ebaregulaarset emulatsiooni ning edasikandumist.

Järelduste hulgas rõhutatakse vajadust käsitleda igasuguseid tajutud tehnoloogilisi ja majanduslikke saavutusi sotsiaalselt esilekerkivate saavutustena.

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"The question of 'elites': real people or mysterious agents? Elitism as a convenient recourse to interpret social change in prehistoric Southwestern Asia (from the origins of sedentism to the 'Uruk Phenomenon'), in *Studia Antiqua et Archaeologica* 27 (2), pp. 223–253.

"The Display of Esarhaddon's Succession Treaty at Kalḫu as a Means of Internal Political Control". *Antiguo Oriente* 14 (2016), pp. 11–52.

"The Conceptualization of the *Akitu* under the Sargonids: Some Reflections". *State Archives of Assyria Bulletin* 23 (2017), pp. 91–129.

Extra-curricular academic activities

9–12 October 2018: Cuneiform Reading course at the Seminar für Altorientalistik of the University of Jena, taught by Prof. M. Krebernik.

9–11 January 2019: Presentation of my preliminary dissertation work at the annual conference of the British Association of Near Eastern Archaeology held in Oxford

24–28 June 2019: Attendance to the Broadening Horizons 6 workshop at the Freie University in Berlin

6–9 April 2022: Virtual presentation – 12th International Congress on the Archaeology of the Ancient Near East (Bologna)

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"The Display of Esarhaddon's Succession Treaty at Kalḫu as a Means of Internal Political Control". *Antiguo Oriente* 14 (2016), pp. 11–52.

"The Conceptualization of the *Akitu* under the Sargonids: Some Reflections". *State Archives of Assyria Bulletin* 23 (2017), pp. 91–129.

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24–28 juuni 2019: Osalemine Broadening Horizons 6 seminaril Berliinis (Freie Universität Belin)

6–9 aprill 2022: Virtuaalne osalemine konverentsil 12th International Congress on the Archaeology of the Ancient Near East (Bologna)

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