

Fake or real? A mysterious metal book on the market

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Abstract

A newly emerged gilded folio metal book containing illustrations and unreadable character strings raises the question of authenticity. The article describes the object and examines on what grounds can be claimed with relative confidence that such a book is a forgery. The examination includes a structural analysis of the symbol sets and a comparison with similar, analogous metal books.

1 Introduction

In 2023 a mysterious metal book appeared on the book market. The small format (approximately 20cmx10cm) booklet is made of 16 metal plates embossed by various symbols. The folios are called by the owner gilded silver plates. The owners, who wished to remain anonymous, offered the object for sale to the Library of the Hungarian Academy of Sciences, claiming that it was a valuable rare object. The authors of this study got an informal request to analyze the book's authenticity. What follows below is not an official evaluation, but rather the results of our analysis based on historical analogies and the behavior of the writing system. Note that the authors were not in the position to examine the book as an object, they were only provided high-quality photos of all the folios.

2 The first impressions

Upon perusing the folios of the book under scrutiny, one is immediately struck by the presence of illustrations. Notably, discernible depictions include the Star of David, the seven-armed candlestick, the palm tree, the eye of God,

the “prophet”, and an oriental female figure (see Figure 1). The book's features are reminiscent of Phoenician or proto-Hebrew origins, while others evoke the imagery of Etruscan or early Greek signs. Additionally, interspersed within the book are characters reminiscent of the Etruscan and the Phoenician alphabets as well as other signs known as charaktêres, and encountered in Jewish magical manuscripts and Renaissance magic handbooks (Diringer 1948, Facchetti 2001, Le Pape 2006, Gordon 2014, Buda 2022).

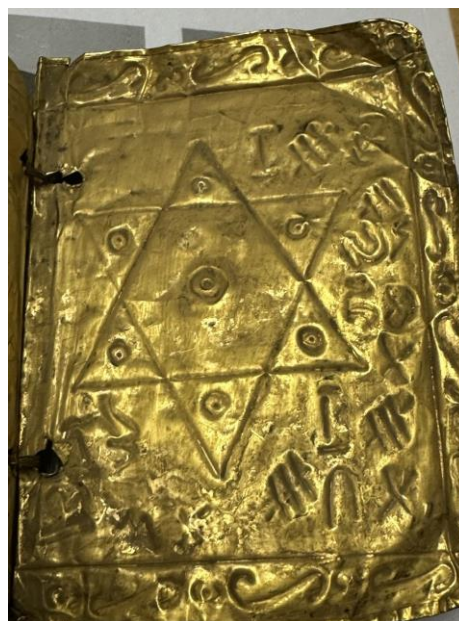


Figure 1. Folio no. 1 from the metal book with the Star of David

It becomes apparent that certain symbols, signs, and illustrations within the book convey an intentional effort by the author to impart the impression that an original Biblical or similar sacred text had been created. However, upon closer examination, the “text” contained within

the book reveals brevity and a notable absence of the structural elements characteristic of realistic texts, even those veiled in cryptic scripts (see Figure 2).



Figure 2. Folio no. 12. from the metal book with “text”

3 Analogies

In terms of visual resemblance, the book bears a striking similarity to the Pyrgi gold plates discovered in 1964 and gold-plated books recently unearthed in Turkey. Three golden metal plates discovered near Pyrgi contain bilingual Phoenician and Etruscan dedicatory text (Smith, 2016, Schmitz 1995.). While these languages were not unchallenging to the linguistic experts of pre-Roman Italy, they succeeded in decrypting and interpreting them, and the plates were never suspected to be fake.

Considering the book format of our source, even closer analogies emerged from Turkey in recent years. As one of the news titles put it: “In Turkey, counterfeit Jewish artifacts are commonplace – and often sloppy” (Klein 2021). Some of these are amulet-like books. A particularly similar object to our book is reported in the Turkish news as a fake.¹ As far as one can

judge from the video, this second golden book is also relatively short, equally small in size, and contains some of the same images. Character strings are equally scarce, only making up for a few folios.

4 The writing system

The symbol sets of the whole book have been transcribed manually to analyze whether they show any structures that may refer to a natural language or any kind of intentional structure (including encryption) (see Figure 3).

We have tried to reconstruct the folio layout of the book on the basis of the photos. In the transcription, we considered it logical that the recto folio is the folio from which the inscription is embossed. It is more difficult to imagine that the intended writing is mirrored first and then embossed, but it is clear that the convex shapes are turned outside on the two cover folios of the book. This is probably because the 'author' realized that the convex writing is more readable and looks better.

As a result of the reconstruction, 16 folios (each with a recto and verso) were identified and numbered. The numbering of the figures in this article refers to this line-up.

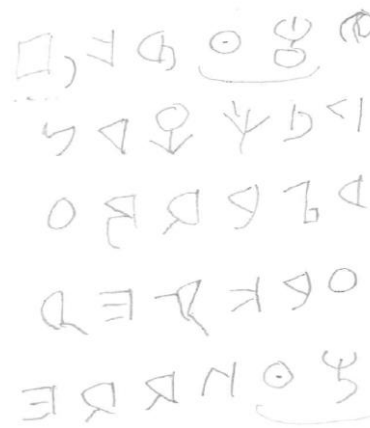


Figure 3. Transcription of folio no. 12.

We could split the symbols of the script into two groups. In one group, the Phoenician alphabet seems to have been the model, and the folios that mostly have symbols of this group are mainly found at the beginning of the book. In the other

¹<https://www.youtube.com/watch?v=19dK4-9R8wI&t=13s>

group, the Etruscan alphabet seems to have been the model. This is more typical towards the end of the book. For this reason, one could even think of two authors or two stages in the preparation. However, the two groups are not perfectly distinct. On one hand, there are characters that are common to both alphabets. On the other hand, there are some characters that appear in the other group in isolated instances. Among the repeated character strings there are also some that appear on a folio of the other type.

In the Etruscan alphabet (the order of which, by the way, has been preserved in ancient relics), there is hardly any missing character that has no equivalent in the metal book, but among those that are reminiscent of the Phoenician alphabet, there are many missing.

A peculiarity of the Etruscan letter group is that some of the signs are reminiscent of its archaic figures while others remind us of the later forms. These have never occurred simultaneously in history. Many are found only in the archaic alphabet (B, D, O, S); some are later developments (F). The vowels of the Etruscan alphabet (A, E, I, O, U) are extremely rare in the text. The author might have imitated the consonant-dominated Phoenician script.

It is plausible to imagine that the author has selected the symbols from a table of alphabets showing the different periods together. Browsing the internet for samples of "golden books" immediately brings up the Pyrgi gold tablets that also contain a Phoenician-Etruscan bilingual inscription. At the same time, however, there is no doubt that the Phoenician of Pyrgi is a later cursive (Punic) version, which did not necessarily provide a direct model for the present "Phoenician" characters.

In the metal book, there are altogether 462 characters, making up for a very short text in any writing system. Among these characters, there are 92 different ones (many of which have variations, which eventually could be different letters). In the "Phoenician corpus" there are 20 different Phoenician characters, and 27 further graphic signs.

In the "Etruscan corpus" (folios mainly in the second part of the book, where the Etruscan alphabet dominates), there are 27 different symbols reminiscent of the elements of the Etruscan-Latin alphabet, and 24 further signs.

There are also 11 Etruscan-Latin symbols in the "Phoenician corpus" on isolated positions, and the "Etruscan corpus" also contains 3 isolated Phoenician symbols. Note that there are 6 characters that are common to the two alphabets creating a low degree of ambiguity.

The statistical analysis of the text reveals that many of the symbols occur very rarely. Half of the 92 different symbols – precisely 42 – only occur once. 76% of the symbols (70) occur 1 to 4 times.

The recurrent symbols also exhibit an unusual pattern, with five of them recurring so frequently that they collectively add up to 180 characters, constituting a noteworthy portion (38%) of the text's total character count of 462. An additional set of 17 symbols appear at 147 places, amounting to 31% of the total. This implies that a subset resembling an alphabet, comprising 22 symbols, collectively furnishes two-thirds of the entire text.

Merely 92 signs would indicate syllabic spelling, but syllabic spellings do not have such sign distribution statistics. The above statistics make it improbable that the writing is a letter script in a natural language. The only probable option is that the text is based on an alphabet complemented by logograms (such as a monoalphabetic cipher system with nomenclators).

However, assuming for a while that this is the scenario (an alphabet script comprising 22 symbols enriched with infrequently appearing logograms), the scenario remains disorderly. Each folio exhibits a unique pattern. Folio 16 (a cover folio) features symbols occurring only once. Folios 3, 8, and 11 predominantly contain only a few uncommon symbols, making them applicable to an alphabet analysis. Folios 14 and 6 encompass numerous symbols occurring 1–4 times and almost lack "alphabet letters," yet even the infrequent symbols exhibit an unusual behavior: nearly all their instances in the book originate from these two folios. Numerous cases can be found where all occurrences of a rare symbol are confined to a specific folio. The distribution of symbols appears too arbitrary for a system combining an alphabetical framework with logograms.

Analysts and codebreakers of unknown character sequences first look for patterns and repetitions. Since both Phoenician and Etruscan were written from right to left, the transcription

followed the same direction. The repeated combinations of signs in the metal book's alphabet are usually no more than two characters long; each corpus has one repeated trigram. But perhaps there is a certain intentionality in the combination where two h's are repeated (there are 4 such places) because this cannot be accidental. In addition, on folio 4, two double signs are in the same order. It is also noteworthy that the bigram combinations mainly include the sign "samekh" in Phoenician and "theta" in Etruscan, which does not necessarily indicate the possibility of random repetition either.

The inclusion of "REX" on folio 14 adds complexity—unclear if coincidence or an intentional trace that is meant to prove that the text is meaningful. However, this term is to be read in the opposite direction of the assumed right-to-left writing direction in order to yield a meaningful interpretation. Additionally, considering the existence of mirror-symmetrical variants for multiple signs, one could posit that signs resembling early Greek script should be read in a system known as boustrophedon ('ox-turning,' alternating direction line by line), a phenomenon frequently cited in the history of Greek writing. The text on folio 14 does indeed appear interpretable as if written in a boustrophedon system.

This inference is supported by the presence of "directional arrows" between lines on four folios (2, 6, 9, 15), which, in any text, have an unusually striking effect—unless we consider them as auxiliary markers intending to illustrate the operation of boustrophedon in a modern study of writing history (see Figure 4).

While the assumption of boustrophedon writing direction could provide an explanation for several phenomena in the book, its application beyond the REX term has not been justified. (It is worth noting that, apart from theoretical considerations, clear indications regarding the direction of writing have generally proven elusive.)

5 Conclusions

Upon comprehensive examination of all the folios, a prevailing sentiment emerges—that of an assemblage of seemingly arbitrary and devoid-of-meaning signs, lacking any discernible underlying system. The impression garnered from the entirety of the book is one characterized by randomness,

with the signs appearing haphazardly arranged, defying attempts to unveil a coherent pattern.

We do not know what exactly this object purports to be apart from the indication that it is precious. Therefore, we would not go so far as to label it a fake. Furthermore, a thorough analysis should include the workmanship of the book, the metal should be examined by a materials expert. However, the textual analysis raises serious doubts about its authenticity.



Figure 4, verso of folio no. 6 with the "directional arrows"

Finally, the authors' impression is that the creators of this metal book lacked historical perspective. Such deliberately crude, careless, "primitive" workmanship can only occur in the mind of someone who wants to give credibility to the antiquity of the object but has no nuanced knowledge of antique craftsmanship that may seem primitive to modern man but is carried out with careful and delicate workmanship, orderliness, thoughtfulness.

6 Acknowledgments

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