

“Was Early Modern Shorthand Cipher? Some Examples from Late Stuart England”

Andrea McKenzie
Department of History
University of Victoria, Canada
mckenzie@uvic.ca

Abstract

This paper addresses the question of whether early modern shorthand, a scribal technology first widely used in seventeenth-century England, qualifies as “cipher”. In addition to the famous shorthand diary of Samuel Pepys (1633-1703), it will examine the previously undeciphered shorthand of several other late Stuart figures, with a particular focus on the lawyer and Member of Parliament Sir George Treby (c.1643-1700). Just as the authors of stenographic manuals touted shorthand as “secret writing”, writers like Pepys and Treby clearly employed strategies to make their shorthand (or parts of it) difficult either to decipher or detect. Early modern shorthand can pose significant challenges for scholars, especially in cases where the system used is unknown; as with contemporary ciphertext, cracking these sources often requires painstaking contextual analysis currently beyond the powers of artificial intelligence.

1 Introduction

In July 1682 the Cambridge fellow Dr Nathaniel Vincent wrote the naval official Samuel Pepys to offer him and his royal patron, the duke of York, the right of first refusal of his new invention, a kind of secret writing he called “Cryptocovianicon” or “Monocrypticon”. This was “a way of writing which can never be deciphered” by anyone but the person to whom the writer had furnished special “directions”, which would however “not discover its way of writing”; after being read, its “characters vanish...so that no letter written by it can ever be a witness against its author”. While Pepys responded with some commonsense objections (if the characters faded so quickly, how could copies be taken? And if the addressee were able to read the message, would he not become “master” of the secret and hence “impart it to more?”),

he was nonetheless sufficiently intrigued both to correspond further about the subject with Vincent and meet him in person. Pepys’s interest fizzled as his suspicions were presumably confirmed: the invention was too good to be true (Smith, 1841).

As Vincent perhaps knew, Pepys had a special interest in cryptography. The diary for which Pepys would become famous, written from 1660 to 1669, was almost entirely in shorthand – a scribal technology that had first originated in practical form in England in the early seventeenth century and which would remain an exclusively Anglophone practice until the eighteenth century (Henderson, 2008; Gardey, 2010). As recent scholarship has demonstrated, Pepys carefully curated his archive, destroying many of his own papers (and almost all his wife’s) that would reflect badly upon him. He took careful measures to keep his shorthand diary from prying eyes, increasing the safeguards as time went on by writing sensitive passages – especially those relating to his sexual exploitation of and violence against female servants and other women and girls – in a polyglot of French and other languages and the occasional insertion of “dummy letters”. At the time of his correspondence with Vincent, Pepys was likely debating whether he should destroy the diary, which he seems initially to have undertaken for his own private use. He ultimately decided to leave it with the other contents of his library for posterity, after taking elaborate precautions to ensure that the shorthand would eventually be deciphered, but only under certain conditions and by likeminded – and, hence, sympathetic – readers (Loveman, 2022 and 2025).

2 Scholarly Perspectives

There has been a persistent tendency on the part of both popular and academic writers to characterize Pepys' shorthand as cipher, a secret or "mysterious code" (Loveman, 2025; Akkerman and Langman, 2025) rather than a scribal technology conforming to basic rules that could be accessed – provided the system were identified and a manual could be located. It was long believed that the Cambridge scholar John Smith, who first deciphered Pepys's shorthand, did so solely by comparing Pepys's shorthand notes of Charles II's escape after the battle of Worcester (1651) with the printed account, thinking it was a cipher of the diarist's own invention and belatedly realizing, after his massive work of transcription was nearly complete, that the "key" had been in Pepys's library all along: Thomas Shelton's shorthand manual *Tachygraphy* (Matthews, 1934). However, as Kate Loveman has established, Smith's familiarity with certain arbitrary symbols leaves little doubt that he had identified the system as Shelton's but promoted the impression that Pepys's diary was written in "code" both to enhance his own prestige and to protect his intellectual labour (Loveman, 2025). This misconception has also persisted because of the tendency to underrate shorthand as a skill: after the late nineteenth-century feminization of the secretarial sector, the once lively antiquarian and scholarly interest in the history of stenography dried up rapidly (Gardey, 2001 and 2024). In other words, interest in Pepys's diary has reflected the ways in which "cipher" has been coded as male and shorthand as female, less worthy of study.

While in the last few years there has been a welcome resurgence of scholarly interest in shorthand, there is still a lot of work to be done. As one important recent work has emphasized: "Most texts written in, or with, shorthand are as inscrutable to us today as Egyptian hieroglyphs were in early modern Europe" (McCay, 2021). Since William

Matthews, the shorthand expert and co-editor of the standard modern transcription of Pepys' diary, relatively few modern scholars have engaged in this tedious and difficult work: important exceptions include Frances Henderson and Timothy Underhill for seventeenth- and eighteenth-century England, and Linford Fisher for colonial America (Latham and Williams, 1971; Henderson, 2001 and 2005; Goldie, 2007; Underhill, 2013 and 2018; Fisher et al., 2014). Rather than focus on transcription, many scholars prefer to study shorthand as a genre or practice, or even as what James Dougal Fleming has described as an early form of the "infosphere". Fleming has characterized Pepys's shorthand as "legible, in principle, by anyone who cared to learn Shelton", concluding that "shorthand looks like cipher only until you have learned it" (Fleming, 2024). Yet this underestimates the difficulty not only of decoding Pepys's diary (a vast collaborative effort taking many years) but even other early modern shorthand, which while seldom as elaborately "encrypted" as Pepys's was, nonetheless tends to be ambiguous and personalized, and often explicitly aimed at thwarting detection. Certainly, the early modern purveyors of shorthand touted not only its brevity and speed, but also its "secrecy" (Rich, 1646). Pepys and other seventeenth-century writers, like the dissenter and court critic Roger Morrice, were evidently confident that their shorthand would have been impenetrable to contemporaries (Matthews, 1934; Goldie, 2007).

The expert on early modern English cryptology Katherine Ellison has defined "code" as the straightforward substitution of words or names by other words, symbols or numbers; "cipher", however, is more complex, with a "cooperative" and "relational grammar", necessitating "problem solving" and "contextual analysis" that computer analysis or even (failing significant human input) AI still cannot provide (Ellison, 2017 and 2022;

Ellison and Kim, 2017). Recent cryptographic breakthroughs, such as the decryption of Mary Queen of Scots' letters, written with homophonic substitution cipher, have been facilitated both by new technologies in "computerized cryptanalysis" and more traditional manual codebreaking techniques but also by intensive "linguistic and contextual analysis" and recourse to more conventional historical studies (Lasry, Biermann and Tomokiyo, 2023; Bossy, 1991 and 2001). Thus, deep and specialised scholarship remains indispensable in terms of making inferences about gaps or allusions that would have been much easier for contemporary insiders than for modern readers to understand (Desenclos and Lasry, 2025). Contextual analysis is no less critical to deciphering shorthand, not to mention identifying the system with which it was writing.

While Ellison has stopped short of defining shorthand as cipher, she and other scholars of early modern scribal culture, such as James Daybell, have seen it as, potentially, a species of "secret communication" (Ellison, 2022; Daybell, 2012). If shorthand fails to qualify as cipher because its "key" (the shorthand manual) is in the public domain, it should be noted that scholars of early modern secret writing have established that most "real life cryptography" was a far cry from the sophisticated "polyalphabetic" systems described by the pioneering scholar of codebreaking David Kahn (Láng, 2018; Kahn, 1980). Most routine diplomatic cipher consisted of simple homophonic systems in which letters, syllables and words corresponded to letters in ascending alphabetical order, making it intuitive and convenient to use, but also "very easy to break even on a trial-and-error basis", even apart from the risk of the key being intercepted (Láng, 2014). It was common for the same key to be used for months or

even years on end and, even when changed, to maintain the same rules with minor variations; safeguards like adding "nullities" were often dispensed with altogether (Akkerman, 2011 and 2016; Marshall, 1994; Láng, 2018). In practice, then, "most ciphers were "rudimentary, intended merely to delay decryption" (Daybell, 2012). And while most shorthand could not have resisted a truly determined assault, it could similarly delay or deter closer examination, especially if the content appeared to be pedestrian – as in fact much of it was.

Indeed, one major bar to the decryption of early modern shorthand documents is not just that the work is tedious and time-consuming, but that the text, once transcribed, is often frustratingly prosaic (Boeddeker and McCay, 2024; Underhill, 2024).¹ The transcriber of the letter book of the seventeenth-century merchant Thomas Hill acknowledged herself to be "disappointed" that the letters had "failed to produce more interesting information" (Palmer, 2008). Many shorthand writers used this scribal technology primarily to save time and space to copy letters, record sermons, transcribe speeches or proceedings. Even those who wrote more personal communications – journals, notes, draft letters or even shorthand messages to others – tended to be circumspect, confining themselves to vague and cryptic references and evidently reserving the most sensitive information and confidences for face-to-face interactions. However, as the examples that follow suggest, the determined (and patient) researcher can, after long sifting through muck, sometimes retrieve a few gold nuggets.

3 Shorthand in Practice

The remainder of this paper will briefly discuss some examples of the shorthand I have encountered and deciphered in my own research, focussing primarily on the

¹ Interestingly, Benedek Láng (2018) has made similar observations about early modern cipher.

lawyer and MP Sir George Treby (c.1643-1700), but also referencing the previously undeciphered shorthand of two other contemporaries: the Anglican bishop William Lloyd (1627-1717) and the Anglo-Irish statesman Arthur Annesley, earl of Anglesey (1614-86), who had, like Treby, trained as a barrister. Recent scholarship has established that early modern shorthand, like cipher more broadly, was not the monopoly of elite, or even male writers (Láng, 2014; Daybell, 2012; McCay, 2021; Underhill, 2024). Nonetheless it was doubtless more often practiced by, and certainly most frequently preserved in the papers of the hyperliterate: those drawn from professions which required extensive writing and record keeping – government officials, the clergy and lawyers.

One reason early modern shorthand is difficult for researchers to crack is that there were many different systems, and variations between, and even within, different editions of the same systems.

The Alphabet of M^r

	Rich	Majon.	Steel.	Bridg.	Everard.	Metcalfe.	Furthing.	Dix.	Shel: Reig:	Witt.	Shel: Tack:	E. Willis.	T. Willis.	Bales.
a	/	/	<	c	a	<	c	<	>	<	<	<	<	a
b	o	o	c	c	o	>	c	c	>	<	<	<	<	b
c	r	o	c	c	r	>	c	c	>	<	<	<	<	c
d	t	o	c	c	t	>	c	c	>	<	<	<	<	d
e	h	>	c	c	e	>	c	c	>	<	<	<	<	e
f	y	>	c	c	f	>	c	c	>	<	<	<	<	f
g	h	>	c	c	g	>	c	c	>	<	<	<	<	g
h	h	>	c	c	h	>	c	c	>	<	<	<	<	h
i	.	.	.	.	.	.	.	.	.	.	.	.	.	i
j	.	.	.	.	.	.	.	.	.	.	.	.	.	j
k	.	.	.	.	.	.	.	.	.	.	.	.	.	k
l	.	.	.	.	.	.	.	.	.	.	.	.	.	l
m	.	.	.	.	.	.	.	.	.	.	.	.	.	m
n	.	.	.	.	.	.	.	.	.	.	.	.	.	n
o	.	.	.	.	.	.	.	.	.	.	.	.	.	o
p	.	.	.	.	.	.	.	.	.	.	.	.	.	p
q	.	.	.	.	.	.	.	.	.	.	.	.	.	q
r	.	.	.	.	.	.	.	.	.	.	.	.	.	r
s	.	.	.	.	.	.	.	.	.	.	.	.	.	s
t	.	.	.	.	.	.	.	.	.	.	.	.	.	t
u	.	.	.	.	.	.	.	.	.	.	.	.	.	u
v	.	.	.	.	.	.	.	.	.	.	.	.	.	v
w	.	.	.	.	.	.	.	.	.	.	.	.	.	w
x	.	.	.	.	.	.	.	.	.	.	.	.	.	x
y	.	.	.	.	.	.	.	.	.	.	.	.	.	y
z	.	.	.	.	.	.	.	.	.	.	.	.	.	z

Figure 1: from Elisha Coles, *The Newest, Plainest, and the Shortest Short-hand* (1674)

Elisha Coles' 1674 pamphlet (Figure 1) identifies the “alphabets” of ten of the principal shorthand masters of his day; estimates of the total number of stenographic systems ranges to as high as over forty in the late seventeenth century (Matthews, 1934). The fact that all used similar or identical symbols to denote different letters, words or sounds made them very difficult to distinguish (Goldie, 2007; Boeddeker and McCay, 2024).

Early modern shorthand, consisting of different alphabetic or phonetic characters for letters, combinations of double and triple consonants and arbitrary characters for prefixes (“prepositions”), suffixes (“terminations”), and individual words, with many combinations and variants thereof, was clearly not a “code” involving simple substitution. Shorthand manuals often demonstrated how the same word could be written differently either by what Jeremiah Rich and Thomas Shelton called either “Alphabetical Rule” or “Marks for long Words”. Users routinely personalized their shorthand by adapting or simplifying rules or even inventing new characters (McKenzie, 2021).

It is difficult to recognize that both Pepys and William Lloyd were using the same shorthand system, Shelton's *Tachygraphy*, both because of their writing choices and idiosyncrasies (see Figures 2 and 3). For instance, in both Shelton and Rich's systems, the plural “s” was signified by adding a dot or diacritic mark (a “tittle”) to the left of the word. Lloyd ignored this rule entirely, manually inserting the shorthand character for “s” at the end of words. Pepys however followed it, as did Anglesey, who (like Pepys) used Shelton's system, although the latter was erratic – sometimes putting the plural tittle not on the left, but on the right, where it could be confused with words ending in vowels, where a diacritic mark was placed in different

positions according to which vowel (“a” to “u”) was being indicated.²

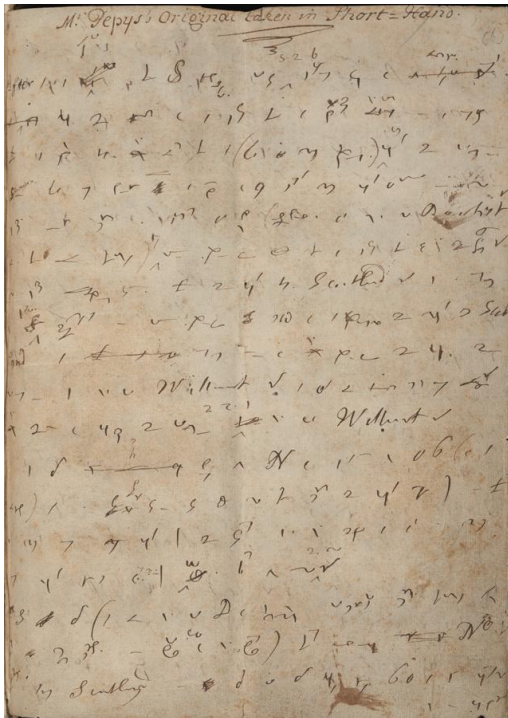


Figure 2: page from Pepys’ 1680 “Account of the Preservation of King Charles II”(Pepys Library, Magdalen College, Cambridge, 2141)

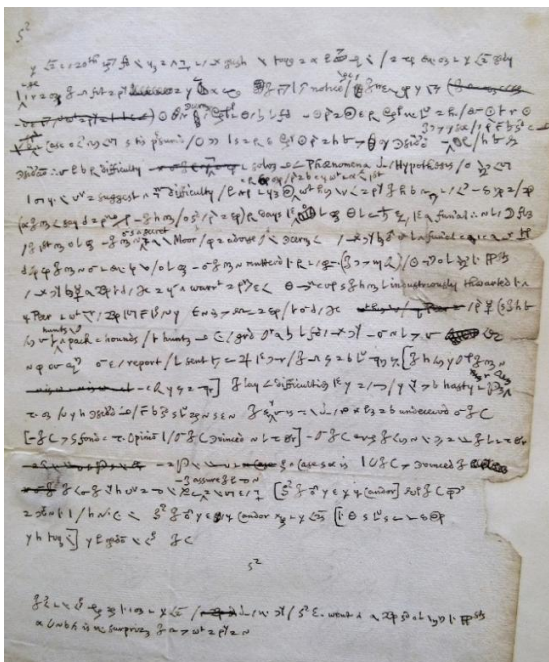


Figure 3: draft letter from Bishop William Lloyd to Sir Roger L’Estrange, 20 April 1686 (Gloucestershire Archives D3549/2/2/1)

Treby, who used Jeremiah Rich’s shorthand, generally chose not to indicate the plural form, leaving the grammatical number to be inferred from context. In the rare cases in which Treby indicated the plural he did so manually, like Lloyd, with the character for “s” instead of a tittle. The context of one of these cases suggests that he chose to add a plural “s” so as not to stumble over his notes when he read them aloud in committee (McKenzie, 2021).

In contrast to Pepys, Treby and Anglesey, whose shorthand seemed intended only for their private use – Anglesey, like Pepys, was apparently concerned with concealing sensitive passages in his journals – the Anglican bishop William Lloyd used his shorthand not only for notes and draft letters but in his correspondence with his son, several secretaries and current and former chaplains. It is likely that when writing shorthand letters intended to be understood by others, Lloyd and his correspondents ignored Shelton’s rule of using diacritical marks to avoid confusion with accidental marks resembling dots. (Lloyd also consistently rendered the pronoun “I”, a dot or tittle in Shelton, in longhand, possibly for the same reason).

But it is also possible some adaptations were chosen to make detection of the shorthand system more difficult: Lloyd and his circle, who consistently wrote the common word “is” in longhand, may have done so because the symbol in Shelton (1630) was distinctive and could thus have identified the system they were using.³

The fact that, as authors of shorthand manuals acknowledged, shorthand was easier to write than to read (Rich, 1654), and it was difficult to read even one’s own shorthand, meant that even proficient shorthand writers such as Pepys, Lloyd and Treby often used longhand for words that

² Medial vowels were typically not written out in early modern shorthand but indicated by the placement of the following consonant.

³ The key in Lloyd’s papers in the Gloucestershire Archives makes it clear that Shelton’s symbol was known to Lloyd and his circle, and that their rendering it in longhand was a conscious choice.

could not be easily inferred from context, such as proper nouns. As Kate Loveman has demonstrated, Pepys also relied on occasional longhand words – typically names – as a “navigational” or “finding aid” (Loveman, 2025).

4 Shorthand and Secrecy

Conversely, some contemporary authors of journals or notes written largely in longhand wrote certain words in shorthand for the purposes of concealment. In his manuscript diaries, Arthur Annelsey, earl of Anglesey, discreetly inserted both short passages and individual words in shorthand which could be easily missed by someone not looking for such marks. Much of the shorthand consists of names or titles and seems to have been aimed at disguising the extent of Anglesey’s contact with dissenting ministers, Catholic clergy and members of the political opposition, as well as his frequent visits to women of his acquaintance, to whom the earl officiously offered comfort or marital counselling. Anglesey also periodically added the shorthand for “wife”, usually between the entries for two days (suggesting the early morning hours), followed by a number, presumably representing some sort of marital sex count – which restarted every year at on the Earl’s anniversary of his wedding with Elizabeth Altham, 24 April.

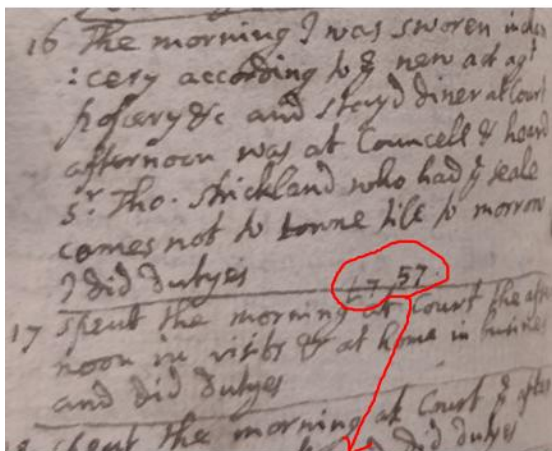


Figure 4: The shorthand for “wife”, followed by “57”, between the entries for 16 and 17 April 1673 (BL Add MS 40860, Diary of the Earl of Anglesey, 1671-1675, f. 45v).

Similarly, William Lloyd and his correspondents would sometimes depart from their common practice of writing proper nouns in longhand when they wanted to conceal sensitive material, using shorthand to make titles, names and other identifying terms opaque to prying eyes.

George Treby, a lawyer who would later become chief justice of the Common Pleas and Solicitor and Attorney General under William III, seems to have used shorthand in an exclusively solitary capacity, for recording trial proceedings, depositions, marginal comments, notes and draft addresses and letters. His shorthand was very difficult to crack because he left no key, no clue as to the system used, and no transcribed material. In the end I was able to establish that he was using Jeremiah Rich’s system after detecting a pattern in the notes Treby had written, while Chair of the Committee of Secrecy investigating the Popish Plot (1678-81), on the back of the duke of York’s former secretary Edward Coleman’s confiscated papers.

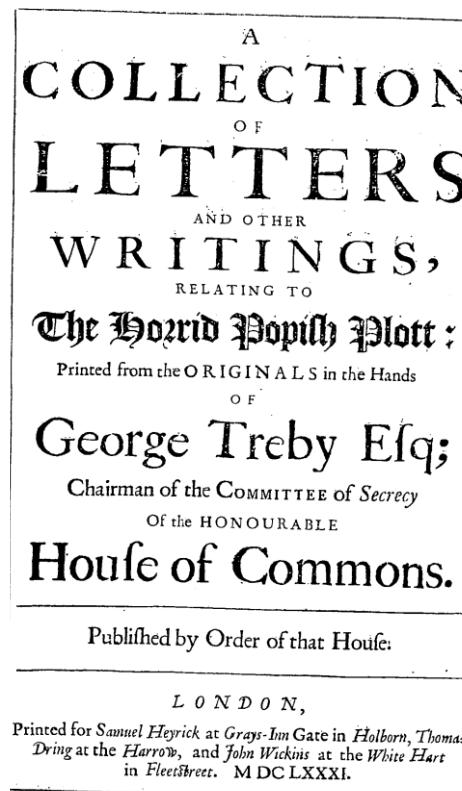


Figure 5. Titlepage of the House of Commons’ publication of a selection of Coleman’s letters

On the backs of those letters not selected to be published by the House of Commons (see Figure 5) – i.e., because they were not sufficiently incriminating – Treby often wrote a symbol that only in Jeremiah Rich’s system could signify “nothing”, followed by other characters that meant “in it”; i.e., “nothing in it” or “nothing to [the] purpose” (Figure 6). While Treby had adapted Rich’s shorthand and invented several new characters, my identification of the system allowed me to decipher enough of his notes to be able, over time, to infer modifications and innovations from context.

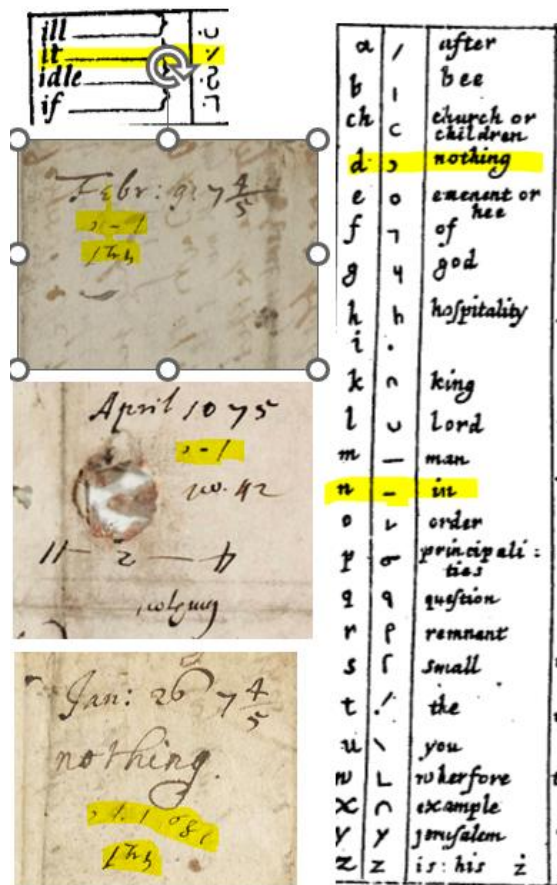


Figure 6. Jeremiah Rich’s shorthand alphabet, from Samuel Botley’s *Maximum in Minimo* (1674). Treby’s shorthand notes on Coleman’s letters, from top to bottom: “nothing in it[;] transcribed”; “nothing in it”; “nothing to the purpose[;] transcribed” (DRO D239/M/O)

In his case notes taken as a law student and newly minted lawyer, Treby sometimes made pointed comments in shorthand about the errors, inconsistencies and even corruption of various courtroom actors, including the judges (McKenzie, 2026).

While he would become more cautious with age, he still let slip the occasional snarky remark. For instance, in the margin of a deposition of a Popish Plot suspect and would-be informant, Treby wrote in shorthand – next to a passage referring to Charles II’s 1672 Declaration of Indulgence, seen by most English Protestants as a sinister plot to promote Catholicism – “as the king has promised”.

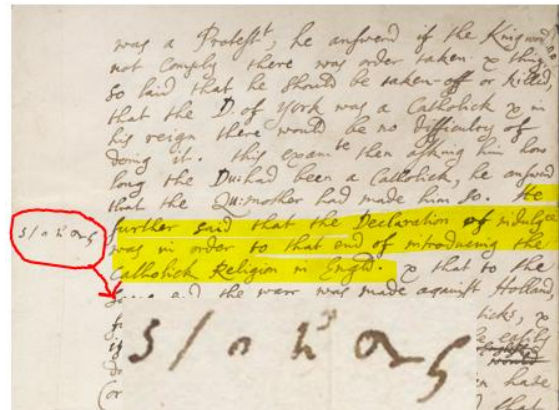


Figure 7. DRO D239/M/O/1623, Examination of Edward Fitzharris, March 1681. Highlighted text: “He further said that the Declaration of Indulgence was in order to that end of introducing the Catholick Religion in England”

Like Lloyd and Pepys, Treby often wrote proper nouns difficult to infer from context in longhand. Also like them (as well as Anglesey), he sometimes rendered names in shorthand, presumably to add an extra layer of concealment by making it hard for any casual observer glancing over the page to identify sensitive passages. Treby also occasionally inserted blank spaces as though to underscore what was being omitted. In his reporting of one civil suit, in which both parties invoked the support of Charles II, the plaintiff brought a letter supposedly written by the king himself on his behalf to the judges. The latter refused to read it aloud, but conferred privately, obviously shocked, as Treby explained in shorthand, “that the letter was contradictory to [defence] testimony”, even though the defendant claimed to have acted on the king’s instructions. Treby noted in shorthand that the judges then gave the letter to a defence witnesses, Lord Ashley –

Lord Pembroke was the lord of the Admiralty and Aaron Smith a Treasury employee; the mayor of Bristol was a militant Tory who had shortly before incited a mob to attack the circuit judge William Gregory in retaliation for the fraud conviction of a Tory customs surveyor. At the bottom of the Privy Council order, Treby has written what appears to be three names, in tiny shorthand characters: “Dudlestone Southern [?] Blathway[?]”.

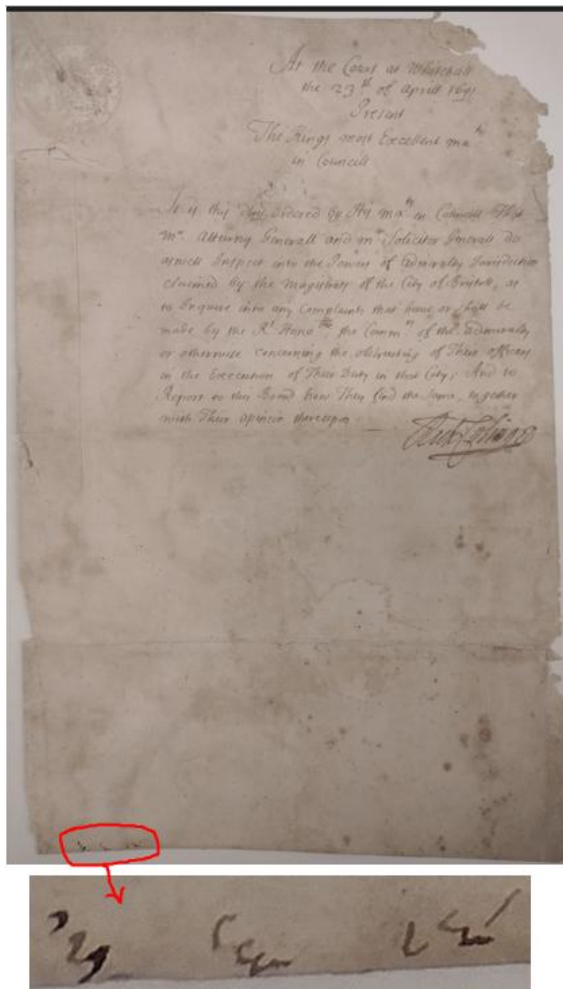


Figure 12. Front of previous, with detail of circled area

Sir John Dudlestone was a Bristol merchant and political ally of Knight's, but I have not been able to identify the other two individuals: who they were and why Treby wrote down their names remains a mystery.

6 Conclusion

Most of Treby's draft letters, like those of William Lloyd and his circle, were

frustratingly vague, containing allusions to people and things that only his correspondent could understand. Many of Treby's shorthand notes, like some of Anglesey's, were banal, consisting of lawyerly queries, glosses, cross-references and reminders to himself. Arguably, the fact that much early modern shorthand is pedestrian worked to the advantage of such writers, for all that it frustrates the modern researcher: it was relatively safe to bury the occasional indiscreet remark in a larger body of apparently routine text. As I have suggested, painstaking palaeographical and historical sleuthing can yield some interesting material. However, in seeking to fill in the blanks we are often reminded that the ultimate key to early modern shorthand was not in the pages of the stenography manuals, but in the minds of the shorthand writers themselves – and they, like the characters in Vincent's mythical Monocrypticon, have vanished forever.

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