I: Mirrored Letters and Reputed Script “Inconsistencies”

Internet blogger Steve Caruso claims that the presence of mirror (“flipped”) letters in the Jordan lead books are proof of modern forgery (see Fig. 1):

![Image of mirrored letters and script inconsistencies](http://aramaicnt.org/2011/04/04/finally-a-good-look-at-the-lead-codices-script/)

Accessed 30 Sep. 15

The mixture of correctly pointed and mirrored letters on the lead books, which Caruso sees as evidence of inconsistency and therefore of forgery (Fig. 1), is, however, paralleled on three universally recognized authentic Bar Kokhba lead weights, and cannot therefore by itself indicate, let alone, prove, an act of modern forgery.
On the first Bar Kokhba lead weight we find several mirror or flipped letters, namely, *alef*, *kaf* and *yod*:¹

\[
\begin{align*}
\text{Yod}: \mathfrak{y} & \quad \text{should be} \quad \mathfrak{y} \\
\text{Kaf}: \mathfrak{k} & \quad \text{should be} \quad \mathfrak{k} \\
\text{Alef}: \mathfrak{a} & \quad \text{should be} \quad \mathfrak{a}
\end{align*}
\]

On a second Bar Kokhba lead weight we find even more mirror or flipped letters:²

\[
\begin{align*}
\text{Nun}: \mathfrak{n} & \quad \text{vs} \quad \text{Mem}: \mathfrak{m} \quad \text{should be} \quad \mathfrak{m} \\
\text{Lamed}: \mathfrak{l} & \quad \text{should be} \quad \mathfrak{l} \\
\text{Alef}: \mathfrak{a} & \quad \text{should be} \quad \mathfrak{a}
\end{align*}
\]

On a third Bar Kokhba lead weight we find even more mirror or flipped letters than on the second lead weight:³

\[
\begin{align*}
\text{Nun}: \mathfrak{n} & \quad \text{vs} \quad \text{Mem}: \mathfrak{m} \quad \text{should be} \quad \mathfrak{m} \\
\text{Lamed}: \mathfrak{l} & \quad \text{should be} \quad \mathfrak{l} \\
\text{Yod}: \mathfrak{y} & \quad \text{should be} \quad \mathfrak{y} \\
\text{Alef}: \mathfrak{a} & \quad \text{should be} \quad \mathfrak{a}
\end{align*}
\]

The same three Bar Kokhba lead weights exhibit a mixture of scripts and styles, which Caruso would have to interpret as script “inconsistencies” were he to remain logically self-consistent. The first Bar Kokhba lead weight exhibits the following mixture of scripts and styles⁴:

\[
\begin{align*}
\text{Waw}: \mathfrak{w} & \quad \text{Shin}: \mathfrak{s} \\
\text{Nun}: \mathfrak{n} & \quad \text{Samekh}: \mathfrak{s}
\end{align*}
\]

The second Bar Kokhba lead weight exhibits the following mixture of scripts and styles⁵:

\[
\begin{align*}
\text{Yod}: \mathfrak{y} & \quad \text{Shin}: \mathfrak{s}
\end{align*}
\]

The third Bar Kokhba lead weight shows similar mixed scripts⁶:

\[
\begin{align*}
\text{Shin}: \mathfrak{s} & \quad \text{Nun}: \mathfrak{n} \\
\text{Yod}: \mathfrak{y}
\end{align*}
\]

¹ The illustrations of flipped letters that follow are excerpted from http://www.archaeological-center.com/en/monographs/m11/
² The illustrations of flipped letters that follow are excerpted from http://www.archaeological-center.com/en/monographs/m18/
⁴ The illustrations that follow are excerpted from http://www.archaeological-center.com/en/monographs/m11/
⁵ The illustrations that follow are excerpted from http://www.archaeological-center.com/en/monographs/m18/
There is a similar mixture of styles and flipped letters found throughout the epigraphy of Bar Kokhba coins, as a selection of the following letters in Fig. 2 illustrates:

![Fig. 2](http://aramaicnt.org/2011/04/11/the-lead-codices-on-livescience-and-my-interview/)

Accessed 27 April 2015


The mixture of scripts on the three authenticated Bar Kokhba lead weights and coins are quite comparable with the following examples in Fig. 3 of perceived mixture of styles, stroke order, and flipped letters on the Jordan lead books:

![Fig. 3](http://aramaicnt.org/2011/04/11/the-lead-codices-on-livescience-and-my-interview/)

Accessed 27 April 2015

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Upon closer examination, however, much of the Caruso’s evidence for the Jordan lead books’ supposed “alphabet soup” evaporates. We comment first on his following two identifications, reproduced here in Fig. 4:

![Fig. 4](image)

Fig. 4

Fig. 5 is an enlargement of the actual untouched image of the letter Caruso identifies as “monumental style”:

![Fig. 5](image)

Fig. 5

Fig. 6’s two clearer stampings of the identical letter reveal this is not a monumental style at all:

![Fig. 6](image)

Fig. 6

Caruso’s reconstruction of the letter is seriously flawed, naturally in great part on account of the lead book’s obscuring patina. The medium of lead as well admittedly can create its own ambiguities for the decipherment of letters. Viewed in the light of clearer stampings, the letter in question is clearly not Nabatean or Palmyrene monument script, but is simply a modified (unusually rounded) Hasmonean he, a letter

---

7 We owe this observation to a personal communication from Charles Häberl.
seen elsewhere on the very same codex in some of its more usual forms, as Fig. 7 documents:

![Fig. 7](image)

Next Caruso claims the following shin in Fig. 8 is “late”:

![Fig. 8](image)

But this rounded form of shin would be late only if it were Aramaic, but if it is Hebrew, like the letter he on the same codex, then it is by no means late, and in fact agrees with many of the attested rounded forms of Paleo-Hebrew shin on various Bar Kokhba coins, as we see in Fig. 9:

![Fig. 9](image)

Fig. 9

Bar Kokhba Coin Shins


Next, the following letter in Fig. 10, which Caruso identifies as Nabatean (waw) could just as well be a standard Paleo-Hebrew resh, as illustrated in Fig. 11 (or even known forms of Hasmonean dalet and he):

![Fig. 10](image)

![Fig. 11](image)


Next, the following letter in Fig. 11 admittedly resembles a Nabatean qaf, but a degree of Nabatean script influence on the lead books would not be too surprising, given their Jordanian provenance:
However, the letter in Fig. 11 could conceivably also be a mirror version of a Paleo-Hebrew bet or resh, or even an idiosyncratic Paleo-Hebrew qof.

In conclusion, while the lead books admittedly exhibit a mixture of scripts, this aspect has been grossly exaggerated by Caruso. All of the letters he claims are Aramaic are demonstrably Paleo-Hebrew, with one possible Nabatean influence. This is not to deny that there may be other Nabatean script influences in the lead books, but again, such an influence would not be too unusual, given their Jordanian provenance.

II: Non-Existent Hebrew Letters?

In Fig. 1 Internet blogger Steve Caruso claims that a certain letter he highlights is neither Hebrew nor Aramaic, and implies that it might be Coptic instead:

![This is Not Hebrew or Aramaic](http://aramaicnt.org/2011/04/29/the-lead-codices-coptic-characters/)

**This is Not Hebrew or Aramaic**

This character simply does not appear in either language. It does, however, exist in Greek, Latin and Coptic alphabets.

**Could Part of it Be Coptic?**

As that would solve a few problems:

The odd "shin" character, which could only be a late Palmyrene form if it were Aramaic could then be interpreted as a Coptic "o".

Which means that the following examples could be:

- shai?
- khi?
- laula?
- qima?
- faλ?

There are also others which could be ksl and gamma.

**However...**

This still leaves a number of "odd" characters.

Since Coptic is beyond my expertise, comments from those learned in Coptic would be appreciated.

-Steve Caruso

The letter which Caruso claims is neither Hebrew nor Aramaic is manifestly a Paleo-Hebrew tsadi as attested on coins of the Jewish War 66-70 CE (Fig. 2), often as the first letter of the word “Zion” (Figs. 3, 4) a word found in Paleo-Hebrew letters on the Jordan lead books as well (see Fig. 5):

---

8 Right image from Meshorer Vol. II, Plate 19 left image from the following url accessed 30 September 2015: <https://www.google.com/search?q=bar+kokhba+coins+zion&rlz=1C1KMZB_enIT550IT558&espv=2&biw=1366&bih=643&source=lnms&tbm=isch&sa=X&ved=0CAYQ_AUoAWoVChM0yLA0L#imgrc=s4P7ykTS1y3atM%3A>

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The letter in question, which Caruso denies being Hebrew or Aramaic (Fig. 6), plainly matches the letter tsadi on Jewish War coinage (Fig. 7), and various forms of tsadi from Maccabean and Hasmonean times as well (Fig. 8):

This is Not Hebrew or Aramaic

This character simply does not appear in either language.

Fig. 6

Tsadi on a Jordan codex and Jewish War Coins

Fig. 7

Tsadi entry from M. Lidzbarski, "A Tabel of Alphabets" in Gesenius' Hebrew Grammar (Oxford 1910)

Pace Caruso, the letter in question therefore certainly exists in Hebrew. What is even more disconcerting than Caruso's lack of knowledge of even the basics of the Paleo-Hebrew alphabet is the fact that a respected scholar such as James Davila who is employed at an accredited institution of higher learning would publicly support Caruso and the latter's wider circle of collaborators, and publicly attack an eminent and respected Dead Sea Scrolls scholar, Philip Davies, who has contributed nearly an entire
career span to scholarship, for being interested on a scientific level in the Jordan lead books. 9

Next, in Fig. 9 Caruso finds the Jordan lead books’ shin “odd”:

![The odd "shin" character. Palmyrene form if it were interpreted as a Coptic “c”](image)

Fig. 9

There is, however, nothing at all “odd” about this letter, it is a standardly rounded Paleo-Hebrew shin.

Next we comment on the following two letters in Fig. 10 that Caruso suspects are Coptic:

![shal? khi?](image)

Fig. 10

These would be immediately recognizable to any Hebrew language scholar as standard forms of Paleo-Hebrew mem and tav.

Caruso suspects the next letter in question in Fig. 11 is Coptic laula:

![laua?](image)

Fig. 11

---

The letter is more clearly stamped elsewhere on the Jordan lead books:

![Fig. 12](image1)

*Fig. 12*

*Jordan codex, detail*

The letter under consideration is not Coptic *laula* but Paleo-Hebrew *dalet*, and is inspired by a John Hyrcanus prutah (“mite”) that Caruso himself elsewhere has correctly documented as an inspiration for the codex passage (see Fig. 15). The string of four letters on the codex is derived from the word “Jews” (*y-h-w-d-y-m, yehudim*) on the Hyrcanus prutah in question:

![Fig. 13](image2)

*Fig. 13*

*h-w-d-y on a John Hyrcanus coin*  
*additional dalet from a John Hyrcanus coin*

The codex has a different style yod than exhibited by the prutah coin, and the letter Caruso suggests is Coptic *laula* is merely flipped and inverted Paleo-Hebrew *dalet* with an extremely abbreviated long vertical stroke, which makes it somewhat more similar to *dalet* forms attested on later Jewish War coinage (Fig. 14).

![Fig. 14](image3)

*Fig. 14*

*Meshorer Vol. II, p. 125, and Jordan codex dalet*

Fig. 15 features Caruso’s findings with regard to the Jordan lead books and the type of Hyrcanus prutah in question:
The Jordan Codices: Another Translation

In modern English, we often use “Old English” (or more accurately gothic typefaces) on diplomas and formal documents as an expression of tradition and elegance and typographers continue to re-invent new interpretations of them.

In the ancient world this was also the practice with Paleo-Hebrew and the most common place you would find interpretations of this script was on coins, such as these two prutot minted under John Hyrcanus I (135-104 BC).

Fig. 15

Often these forms of Paleo-Hebrew are rather distinct and can be traced to particular times and geographical locations in history, so when we see Hasmonaean Paleo-Hebrew side-by-side with other scripts, it becomes very suspicious.

FORGERY

The text above has been outlined.

So we can see that this specimen amongst the Codices is a fabrication, as there is virtually no way that such a mix of scripts would occur historically unless the creator were purposefully compiling them in such a manner without regard for their content and context. This is especially the case when several typefaces seem to be taken from coins.


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Pace Caruso, that a John Hyrcanus coin has served as the inspiration for a section of this particular Jordan codex does not prove the codex is modern, and even less that it is an intentionally deceitful forgery. Contextually considered, the codex’s cryptic citation of the Hyrcanus prutah textual snippet would instead arguably indicate that the codex’s creator considered Hyrcanus a worthy personage of Jewish history to preserve in an artfully esoteric fashion as part of the lead books’ overall summarizing and synthesizing review of Israeli history in its art and epigraphic forms stretching from the Maccabean to the Bar Kokhba revolts.

We turn next to Caruso’s supposed Coptic fai in Fig. 16:

The same letter that Caruso here presents as a candidate for Coptic fai he elsewhere (Fig. 17) identifies as a Nabatean/Palmyrene monument script letter:

As we have already demonstrated, clearer Jordan codex stampings of the identical letter reveal this character is not an example of Nabatean/Palmyrene monumental style, but that it is rather an unusually rounded Hasmonean he, a letter that in more standard forms appears on the Hyrcanus prutah already discussed.

Next, we turn to Caruso’s supposed Coptic qima in Fig. 18:
Although here he asks whether this is a possible Coptic qima, elsewhere (Figs. 15, 19) Caruso reconstructs the letter quite differently by adding a connecting vertical stroke (see in the yellow circle below, which we have added for clarity in Fig. 19b) apparently without notifying his readers that he has done so (Fig. 19a) and (n.b., correctly) identifies it as a het derived from the same Hyrcanus prutah discussed previously:

The letter in question appears more clearly in a different Jordan codex stamping in Fig. 20:

On the codex the usual connective vertical stroke has been oddly removed and the upper horizontal bar strangely elongated. In his Hyrcanus prutah post Caruso correctly identifies this letter as a Hasmonean het, from the word h-b-r (heber), “community,” “people” (Fig. 15). That Caruso reconstructs the very same letter in one instance as a possible Coptic qima and differently as Paleo-Hebrew het in another is perplexing.

Caruso’s misidentification of Paleo-Hebrew letters for Coptic characters is repeated in an online Thomas Verenna video (see Fig. 21):\(^\text{10}\)

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\(^{10}\) Thomas Verenna, *Jordan Lead Codices: Exposing the Fakes*  
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(https://www.youtube.com/watch?v=HGw0orL78I4). According to this film’s credits, involved in making the video were Steve Caruso, Dan McClellan, Jim Davila, Mark Goodcare, Jim West, Joel Watts, James McGrath, and David Meadows. Robert Deutsch and Peter Thonemann are also thanked in the credits.
III: The Mass Production of Ancient Artefacts

In Figs. 1 and 2 two Internet bloggers, Steve Caruso and Dan McClellan, ridicule the Jordan lead books because they have been “mass” produced by using stamps or moulds, the charge being that the use of stamps or moulds proves the artefacts are modern forgeries:

<http://aramaicnt.org/2012/06/27/more-lead-codices-more-stamps/>

Fig. 1

Dan McClellan also found another prominent stamp that was used on several other codices. Surprise surprise.

<https://tomverenna.wordpress.com/tag/jordan-lead-codices/>

Fig. 2
However, already in ancient cultures a plethora of artefacts were mass produced using various means, so that mass production in itself has little to nothing to do with the question of authenticity or forgery.\textsuperscript{11} Fig. 3 gives us an example of how ancient amulets were mass produced; the British Museum describes this artefact as a “portable trinket factory”:

![Fig. 3](http://www.britishmuseum.org/explore/highlights/highlight_image.aspx?image=ps002200.jpg&retpage=18996)

Stone mould for lead amulets, Sippar, southern Iraq, ca. 2250-1900 BCE

Figs. 4-5 give us typical examples of two separate Bar Kokhba coins struck from the same or very similar dies:

![Fig. 4](http://en.wikipedia.org/wiki/Bar_Kochba_Revolt_coinage)

![Fig. 5](http://www-ngccoin-com/news/viewarticle.aspx?NewsletterNewsArticleID=1487)

Fig. 6 supplies us with a quite representative example of ancient cylinders which were used not only for repeated official signatures, but also to mass produce amulets and everyday jewellery:

![Fig. 6](http://en.wikipedia.org/wiki/Cylinder_seal)

‘Mesopotamian limestone cylinder seal and impression—worship of Shamash, (Louvre)’

Ancient clay oil lamps were also regularly mass produced with the use of moulds:

\textsuperscript{11} On the mass production of ancient amulets, see Gideon Bohak, “Some ‘Mass-Produced’ Scorpion Amulets from the Cairo Geniza,” in Zuleika Rodgers, Margaret Daly-Denton, Anne Fitzpatrick McKinley, A Wandering Galilean: Essays in Honor of Seán Freyne (Leiden/Boston: Brill, 2009), pp. 35-49.
Lastly, for a less exact parallel but one still worth mentioning, the use of woodcuts continues into the modern era to produce copies of artwork, as Figs. 9-10 illustrate:

Fig. 9
Edvard Munch, *Melancholy*. Woodcut 1901
The British Museum

Fig. 10
Edvard Munch, *Melancholy I*. Woodcut 1896
Munch Museum, Oslo

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13 http://en.wikipedia.org/wiki/Melancholy_%28Edvard_Munch%29
V: Peter Thonemann and the Jordan Lead Books Madaba Abgar Inscription

In 2011 Oxford classical scholar Peter Thonemann made the airwaves claiming he had proven that the Jordan lead books are modern forgeries based on his examination of a line of Greek text from an ancient Jordanian funeral monument recovered in Madaba in the 20th century and subsequently transferred to The Jordan Museum in Amman, Jordan. Fig. 1 contains some of Thonemann’s central arguments:

The string of Greek letters Thonemann refers to in the two boxed excerpts above appears on the tablet in question as follows in Fig. 2:

First, Thonemann’s transcription is partially incorrect. The first alpha on the left is worn on the codex, and no cross-bar is visible. However, as Thonemann himself realized, this very same alpha appears in mirror writing on the right end of the same string of letters, yet there the alpha clearly shows a cross-bar (see Fig. 3), and therefore was not confused with a lambda by the codex’s creator. This alpha is further distinguished from

This is a stone tombstone from Madaba in Jordan, precisely dated to AD 516/7, on display in the Archaeological Museum in Amman.

The text on your bronze tablet, therefore, makes no sense in its own right, but has been extracted unintelligibly from another longer text (as if it were incised with the words: ‘to be that is the question, theft!’). The longer text from which it derives is a perfectly ordinary tombstone from Madaba in Jordan which happens to have been on display in the Amman museum for the past fifty years or so. The text on your bronze tablet is repeated, in part, in three different places, meaningless in each case.

The only possible explanation is that the text on the bronze tablet was copied directly from the inscription in the museum at Amman by someone who did not understand the meaning of the text of the inscription, but was simply looking for a plausible-looking sequence of Greek letters to copy. He copied that sequence three times, in each case mixing up the letters alpha and lambda.

This particular bronze tablet is, therefore, a modern forgery, produced in Jordan within the last fifty years. I would stake my career on it.

<https://danielomcclellan.wordpress.com/2011/03/31/peter-thonemann-on-the-lead-codices/>
the accompanying lambda by its clearly rounded apex (see Fig. 3), in contrast to the adjacent lambda’s pointed apex, another feature left uncommented by Thonemann:

![Fig. 3](image)

This finding is confirmed by clearer stampings of the Abgar inscription elsewhere in the Jordan lead books collection, as we see in Fig. 4:

![Fig. 4](image)

Upon closer examination, at least three of the other alphas seem to exhibit oblique cross-bars (see Fig. 5), although we cannot be certain of this on account of the codex’s obscuring patina:

![Fig. 5](image)

Even the second codex Thonemann commented upon possibly seems to display an oblique alpha cross-bar in at least one instance (see Fig. 6a, 6c), although again, no certainty can be had on account of the image’s quality. Curiously, one alpha has a break and displacement on the right bar at just the level where we would expect a cross-bar (see Fig. 6a, 6b):
What is certain and indisputable is that in its top inscription at least one of the crocodile codex’s *alphas* has a cross-bar, and at the codex’s bottom there are three *alphas* with cross-bar. The combination of *alphas* with and without cross-bar is in fact attested for the 1st-2nd cent. CE, which nicely agrees with the Madaba Abgar stele inscription’s dating. The following images are from a 1st-2nd cent. CE copy of Homer’s *Iliad* Book XIII, as we see in the elementary level text by E. M. Thompson, *An Introduction to Greek and Latin Palaeography* (Oxford, Clarendon Press, 1912), p. 129 (Figs. 7, 8, 9):

*Fig. 6, a, b, c*

Alpha without and with cross-stroke on the same line.

*Fig. 7*

Alpha with and without cross-stroke on the same line.

*Fig. 8*
Thompson (p. 130) remarks on the “oblique cross-stroke” of this Homeric scribe’s *alpha*, *epsilon* and *theta* that some “individual letters” are “archaistic in certain forms: e.g. *alpha* reverts to the old capital shape with cross-bar. . . . These peculiarities . . . must be regarded only as affectations of the scribe. . . .” We may say the same of the Jordan tablet’s mixture of *alphas* with and without cross-bars (or perhaps with oblique cross-bars), namely, this may simply reflect the scribe’s peculiar “affectations.” Some of the Jordan tablet’s apparent oblique *alpha* cross-bars arguably might seem to be similar to Thompson’s Homeric examples, as illustrated in Fig. 10:

Gardthausen documents a similar *alpha* without cross-bar for a slightly earlier period, as documented in Fig. 11:

A similar *alpha* without cross-bar appears in the 1st century CE, as we see in Fig. 12:

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14 <http://ccat.sas.upenn.edu/rak/courses/735/Papyri/papyrology.html>

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Second, Thonemann concludes the Jordan tablet in question is a modern forgery because the Abgar citation is a contextually meaningless snippet from a fuller text. However, ancient artefacts with contextually meaningless snippets of text are quite well known to experts, especially on ancient amulets and Aramaic magic bowls, which often also contain what scholars call “pseudo-script” or “gibberish.” Charles Häberl cites Henri Pognon on Mandaic magic inscriptions, who notes that some are not at all “interesting: they are filled with mistakes and inaccuracies, and some, composed of scraps of sentences borrowed from different formulas . . ., do not, so to speak, make any sense. Others contain so many mistakes that they would be nearly untranslatable if the formulae which are read in them were not found written more correctly in other inscriptions.”¹⁵

Third, Thonemann’s conclusion that the tablet’s creator must have copied the Abgar inscription in the modern era after its excavation and introduction to the Jordan Museum in Amman overlooks the possibility that such an inscription could have been read and copied already in ancient times, perhaps for some ritual purpose. There is no way to determine why this would have been done, but given the Bar Kokhba connection the lead books exhibit it might be that one of the artefacts’ creators conceivably may have had some sort of relation to the Abgar family memorialized on the bilingual Nabatean-Greek Madaba funeral monument. As Hannah M. Cotton remarks, the Nahal Ḥever Nabatean documents were “deposited there by refugees from the province of Arabia during the Bar Kokhba revolt (132-6 CE).”¹⁶ Lastly, even though the Madaba Abgar individual is unrelated to the celebrated Abgar dynasty, it still might conceivably be the case that the lead books’ interest in the name Abgar may have something to do with the Syrian Abgar dynasty, especially since Abgar VII had joined an anti-Roman rebellion in the time of Trajan, shortly before the Bar Kokhba revolt under Trajan’s successor Hadrian. These two options are admittedly speculative, but they are not presented as anything more than that.

Having said all of the above, the members of the Centre for the Study of the Jordanian Lead Books are aware that the copper codices in the photos Thonemann examined may be of modern production, and this was suspected by scholars working with the lead


books well before the creation of the Centre, even before the images were sent to Thonemann.

To summarize, not all of Thonemann's conclusions are necessary, and some are demonstrably incorrect and in any case they do not with certainty prove that a codex containing a snippet from an early 2nd-century Madaba grave stele must be of modern origin.

One aspect of the copper crocodile codex that suggests it may be modern is that it contains an image similar to a common Turkish tourist trinket whose design of a chariot and four horses (quadriga) has no precise precedent in ancient coinage (Fig. 13):

![Detail from crocodile codex](image1.png) ![Modern Turkish tourist trinket](image2.png)

Fig. 13

Yet the images in Fig. 13 display not only similarities, but also divergences from each other. Only disinterested numismatists, not polemical bloggers with their minds already made up, could possibly be able to determine whether the image on the crocodile codex is indeed based on the modern Turkish trinket.

The blogger William Hamblin states of the crocodile image on the copper codex (see Fig. 13a, bottom) that he knows of no “ancient object that would create this impression,” and he is suspicious of its "strongly articulated scales." Hamblin amusingly suggests that a modern plastic crocodile children's toy was used to create the codex's image. In fact, the codex's crocodile image is of virtually the same size and quite similar style as Fig. 13a's authenticated 64.5 mm Roman bronze crocodile brooch from ca. 2nd-3rd century CE.

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Other bloggers have ridiculed another Jordan metal book which surfaced together with the crocodile codex on account of its face’s goatee beard (Fig. 13b) which bloggers insist must be modern because many American Civil War Confederate soldiers had similar goatee beards.²⁰

However, the bloggers overlook that many ancient cultures cultivated goatee beards, as Fig. 13c documents.

Fig. 13a
Top: Authenticated Roman Bronze Crocodile Brooch, Ca. 2nd-3rd Cent. CE. 64.5 mm. Bottom: Jordan Crocodile Copper Codex

Fig. 13b

Goatee beards: Top row left-right: Egyptian Third Dynasty Depictions of Libyan Goatee Beard and Middle Eastern Full Beard; Judean from Egypt; Dacian Goatee, Vatican Museum; Head of Captive Gaul with Goatee. Bottom row, left-right: Vadfradad I; Justinian II Coin; Parthian Head; Roman Goatee.

The Abgar inscription (without any quadriga or crocodile) does appear on other Jordan lead (in contrast to copper) books that exhibit advanced corrosion and patina of the sort found to be consistent with ancient lead according to a number of metallurgical tests, beginning with an Oxford Materials Characterisation Services analysis conducted in cooperation with the Plasma Spectometry Team of the Swiss National Materials Laboratory in 2008. This raises the possibility that the Abgar text on the copper crocodile codex may have been created by copying it from older lead books that contain it. Alternatively, it may be that the person who created the copper codex is in possession of some of ancient moulds (including an Abgar inscription mould) that had been used to create the lead books in antiquity. We raise this possibility because the Oxford metallurgical test found the lead and corrosion of some of the Jordan lead books to be consistent with being of ancient origin, although this is admittedly not the same as proving the artefacts are in fact ancient. As the distinguished archaeo-metallurgist Dr. Peter Northover concluded: “The analysis of the two samples taken showed compositions consistent with a range of ancient lead, one recycled, one probably from ingot lead. The corrosion on the surface has built up over a period of time making it
clear that the book is not a recent production.” The report clearly concluded that the lead had been recycled in what was consistent with an ancient period. That the lead was recycled only in the last 30-40 years is a scurrilous Internet rumour circulated by hostile bloggers, some of whose own knowledge of Paleo-Hebrew is clearly suspect and problematic at best.

Another misleading impression circulating on the Internet in a Thomas Verenna video (see Fig. 14) interprets the same metallurgical report’s statement concerning the lead books, namely, “this is not characteristic of lead that has been buried,” as implying that the lead books are therefore to be dated as modern rather than ancient in origin:

Fig. 14

This, however, does not take into account that the Jordan lead books were not necessarily all buried in the ground in the first place, but may have been stored in cave wall niches and in a protective lead chest decorated with Paleo-Hebrew text, so that at least some of the lead books would have been preserved from heavy, though not all, pitting. Furthermore, the video’s creators and contributors (Steve Caruso, Dan McClellan, Jim Davila, Mark Goodcare, Jim West, Joel Watts, James McGrath, and David Meadows, with Robert Deutsch and Peter Thonemann being thanked in the closing credits) conveniently leave out the same report’s firm conclusion that regardless of how the artefacts were stored in antiquity, they are not “of recent production.” The

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24 The Centre for the Study of the Jordanian Lead Books possesses photographs of the cave wall niches and the lead chest.
metallurgist who authored the report, Dr Northover, was simply trying to reconstruct the past of the artefacts. Having concluded that they do not seem to have been buried, Northover surmises that they probably had been stored, to cite his exact words, “above ground or sealed in a jar below ground. A find of Late Bronze Age metalwork in Britain had been deposited in a sealed container so that the burial environment did not reach it and it had remained in stagnant air for 3000 years. The result was that the thickness of the corrosion layer on some of the bronze was less than 1 µm.” Thus Verenna’s Internet video in question gravely misrepresents the metallurgical report’s actual contents and conclusions.

Lastly, Verenna’s online video referenced above also claims that “[l]ead codices are not simply rare, they are unheard of . . .” (Fig. 15):

It may be so that the scholars who created the video in question have never heard of lead books, but that does not mean they did not exist in earlier ages, nor does it mean that lead books are not unheard of by other scholars. Jorunn Jacobsen Buckley personally examined a lead codex of the Book of John in Iran already in the 1970s, and as Charles Häberl reminded one of the Centre’s scholars in a personal communication, the Mandaeans still produce lead copies of Sidra d-Nišmatha as part of their baptismal rites. Moreover, legends about indecipherable books made of various metals found in caves have been rife in the Middle East and surrounding areas for well over a millennium. There is also a lead book (late antique or later) in the Epigraphic Museum

of the Baths of Diocletian in Rome, and the existence of additional lead books once in the same vicinity is indicated by older bibliographic data. Lastly, while not necessarily endorsing the authenticity of the Gabriel Stone, we can note that although it has no known parallel (neither did the Qumran Copper Scroll when it was first discovered), nevertheless, many respected scholars accept its authenticity despite its unusual unparalleled format.

27 See <https://ryanfb.github.io/etc/2015/02/10/a_curious_metal_codex_in_the_baths_of_diocletian.html>