The reference to the Dead Sea (Justin 36.3.6-7) at the end of Pompeius Trogus’ excursus on the Jewish people, its origins and its customs contains odd statements. The present paper will not elaborate on them, or on other aspects of the passage.¹ We will be content with addressing a textual-philological difficulty that has occupied scholars since the first editions of Justin’s epitome of Trogus’ work. We both are happy to dedicate this paper to Professor Ranon Katzoff, from whom Stéphanie learned so much throughout the years.

A few words on Pompeius Trogus and his historiographical work are required. Pompeius Trogus, a writer of Gallic origin, whose grandfather was granted Roman citizenship by Pompey, wrote forty-four books in Latin entitled Historiae Philippicae, a generic title probably inspired by the work of Theopompus on the times of Philip II of Macedon. Trogus’ work was written toward the end of the Augustan era, during the first decade C.E., and was the first endeavor in Latin literature to produce a “universal history” (excluding Roman history, which was already written in Latin). However, it was not an

¹ This paper is a snippet of a research project named “Augustan authors on the origin of the Jews, their customs, their history and their land”. The project is supported by the Israel Science Foundation (no. 825/10).

¹ On these questions see Bar-Kochva & Binder 2015.
original composition. The introduction to the first book, written by the epitomizer Justin, indicates that the work is a translation of accounts by Greek authors on the history of Greece and of the rest of the world (§6). Trogus’ work was lost, and has reached us only through Justin’s epitome. Justin is otherwise unknown and probably wrote the summary during the second century C.E.\(^2\)

The prologi to Trogus’ work are also still extant. They constitute summaries of the forty-four books, but their dating and authorship is disputed. In his introduction Justin declares that he omitted sections of Trogus’ work which did not teach moral lessons or could not give pleasure to the reader. From a comparison between the prologi and the epitome, it appears that he omitted, \textit{inter alia}, ethnographic and geographical descriptions that were of no interest to him.

Here is the passage on the Dead Sea, text and translation:

\begin{quote}
3.6 In ea regione latus lacus est, qui propter magnitudinem aquae et immobilitatem Mortuum Mare dicitur. 3.7 Nam neque uentis mouetur resistente turbinibus bitumine, quo aqua omnis stagnatur, neque navigationis patiens est, quoniam omnia uita carentia in profundum merguntur; nec materiam ullam sustinet, nisi quae lumine illustratur.
\end{quote}

3.6 In the same region there is a wide lake, which is called, because of the magnitude and immobility of its water, the Dead Sea. 3.7 Indeed, it is neither agitated by the winds, for the bitumen which resists the whirlwinds keeps all the water still, nor does it allow navigation, since all that is deprived of life sinks to the bottom; nor does it sustain any material unless it glitters in the light.\(^3\)

The transmission of the text does not present particular difficulties, except for the last two words. The reading of almost all the MSS., \textit{lumine illustratur} (“glittering from the light”), was rejected by all the editors, who suggested various readings. Two of them, \textit{alumine illustratur} (“glittering from the alum”) and \textit{alumine illinatur} (“coated with alum”),\(^4\) do not make sense. Alum is a crystallized salt which naturally dissolves in water. It served in antiquity for the preparation of medicines and in the process of dyeing cloth (Pliny, \textit{HN}, 35.52). This is probably why another correction, \textit{bitumine illinatur} (“coated with asphalt”),\(^5\) has been suggested. However, this emendation, adopted by most scholars, editors, philologists and translators, does not accord with the context: the sentence follows the explanation why navigating in the Dead Sea


\(^3\) As the sentence refers to metals in the light, “glittering” (or shining) for \textit{illustratur} is more accurate than “lightening” or “glowing”.

\(^4\) See Arnaud-Lindet 2003, XXXVI.6, note 12.

\(^5\) Ruehl 1884, p. 207.
is impossible – “since all that is deprived of life sinks to the bottom”. But asphalt was the common coating material used in the industry to prevent ships and boats from sinking. Another emendation – *incrustatur* (“incrusted”), is even more unacceptable.\(^6\)

First of all, let us have a look at the reading of the manuscripts. The dozens of manuscripts at our disposal were divided by editors into three or four families. All the MSS. read *illustratur* (“glittering”); in three MSS. of the second family, we find the plural (*illustrantur*).\(^7\) The reading *lumine* (“in light”) appears in all of them, save for one of the two sub-groups of the first family that reads *alumine* (“with alum”). The evidence of the manuscripts is thus unequivocal, and there is no justification for preferring the reading *alumine*. Both *lumine* and *alumine* are equally impossible. Accepting the reading *alumine* would mean that the water of the Dead Sea ‘sustains’ only materials “glittering from alum”. However, alum cannot affect the buoyancy of materials. As for the reading *lumine*, the text indicates that glittering materials do not sink at all in the Dead Sea, in contrast to other materials that do not glitter. But gold, for instance, the most famous of the glittering materials, carries an especially high density, and is therefore bound to sink in the Dead Sea.

As all the corrections suggested so far do not make sense, the next necessary step would be to try to trace Trogus’ source(s). It appears to us that it originated in a Greek adaptation of a passage by Hieronymus of Cardia on the Dead Sea. Hieronymus, who had been appointed by Antigonus Monophthalmus to organise the production of the asphalt in the Dead Sea (in his time, still called by Greeks the “Asphalt Lake”), wrote about the place as an eyewitness in the framework of his historical work on the Diadochi. Hieronymus’ work is lost, but his account of the Dead Sea has been partially preserved by Diodorus.\(^8\) Here is the relevant sentence (19.99.3):

---

\(^6\) LEEP 1858 ad. loc.

\(^7\) See surveys of the manuscripts: Seel 1972, pp. I-XVII, taken into account in the more recent Arnaud-Lindet 2003, Introduction.

\(^8\) There is no reason to doubt that Hieronymus was the only source for Diodorus Siculus’ two versions: Diodorus reports immediately after his account on the “Asphalt Lake” (100.1-2), that Antigonus Monophthalmus appointed Hieronymus as responsible for the region of the Asphalt Sea, for the preparation of proper watermark, and for the collection of the asphalt. The “one source” theory that rightly prevails concerning the Diodorian accounts thus points to Hieronymus, who was also Diodorus’ sole source for the history of the successors in books 17-20 of the Historical Library, as his only source for the report on the “Asphalt Lake”. Moreover, one sentence from Hieronymus’ description of the lake survived through Florentinus, the second century C.E. Roman doxographer, in his book *De Aquis Mirabilibus* (see the fragment in GLAJI, vol. I, no. 10). The wording is not exactly identical in Florentinus and Diodorus, but the contents are much the same and some expressions are common to both. Florentinus transmitted a compressed version while Diodorus preserved a rather detailed one. Finally, both Florentinus and Diodorus (according to the first version: 2.48.1) placed
This liquid (the heavy water of the Asphalt Lake) by its nature supports the weight of [every body] that has the power of growth or of breath, except for solids that have a density close to that of silver and gold and lead, and the like; and even they (καὶ τὰῦτα μὲν) sink much more slowly than [they do] when being cast into other lakes.\(^9\)

A lacuna in the Diodorian version can easily be discerned: nothing is said about sinking in the lake or floating abilities of bodies that do not breathe or do not grow, or of materials that do not have a high density. It would be rather difficult to believe that Hieronymus of Cardia, the man in charge of the lake, whose main interest was in effectively exploiting its resources, passed over such important practical data. Diodorus is known to omit sentences and passages of decisive significance for understanding the narrative. To mention only one example from his report on the Dead Sea: a rather long passage is dedicated to asphalt production and related data in his version in book 19 of the *Historical Library* (19.99.1-2), whereas it is entirely absent in the parallel account in the second book (2.48.6-9). The elaborate sentence about silver, gold, etc. and their density indicates by itself that Hieronymus also referred in detail to other materials.

It stands to reason that Hieronymus referred to the buoyancy of other materials in the lake, immediately after mentioning “[every body] that has the power of growth or breath”. The word ἕξω (“except for”) preceded the detailed reference to the sinking materials. One would imagine that Hieronymus distinguished between wood-planks and metals, heavy and light materials, and there are also other possible differentiations. Be that as it may, the surviving sentence about the dense materials came at the end. Of these materials it was said that they all sink in the Dead Sea, in contrast to living beings and plants. At the end of the passage, after mentioning silver, gold etc., the reservation is made that even such high density materials sink in the Dead Sea more slowly than in other lakes.\(^10\)

---

9 That is the right way to translate δοξεῖ…ἔχειν; there is no need for the comma that appears after στερεῶν in the Loeb edition.

10 ἕξω γὰρ τούτῳ τὸ υγρὸν παραδέχεται βάρος ὃ συμβαίνει μετέχειν αὐξήσεως ἢ πνεύματος, ἔξω τῶν στερεῶν ἃ τὴν πυκνότητα δοξεῖ παραπλησίαι ἔχειν ἀργύρῳ καὶ χρυσῷ καὶ μολύβδῳ καὶ τοῖς ὀμοίοις· καὶ ταῦτα μὲν πολὺ βραδύτερον καταφέρεται τῶν ἐν ταῖς ἄλλαις λίμναις ὑποπομένων.

11 Here is a possible reconstruction: […] ἢ πνεύματος, ἔξω τῶν [materials with a low density/weight and examples] [καὶ] τῶν στερεῶν ἃ τὴν πυκνότητα δοξεῖ παραπλησίαι ἔχειν ἀργύρῳ καὶ χρυσῷ καὶ μολύβδῳ καὶ τοῖς ὀμοίοις· καὶ ταῦτα μὲν πολὺ βραδύτερον κτλ..
It appears that the direct or indirect Greek source used by Pompeius Trogus had seen Hieronymus’ full report, and his adaptation was translated by Trogus in the words ommnia vita carentia in profundum merguntur, nec materiam ullam sustinet, nisi quae lumine illustratur—“all that is deprived of life sinks to the bottom (of the lake) and it (the lake) does not sustain any material unless it glitters”. Ommnia vita carentia (“all that is deprived of life”) and materiam ullam (“not any material”) refer to all the materials that sink to the bottom of the lake mentioned by Hieronymus. The category “glittering in the light” refers to silver and gold, etc., that appeared separately in Diodorus’ transmission of Hieronymus’ passage.

According to Pompeius Trogus/Justin, the water thus “sustains” only materials glittering in the light. However it is hard to believe that reasonable authors, even if they were not gifted with a technical or scientific approach, meant to say that high density materials such as gold do not sink in the Dead Sea. It therefore appears that the word sustinet should be understood in the given context as “delays”, one of its other connotations. That is to say: glittering materials sink relatively slowly in the Dead Sea. The Greek source of Trogus probably used some form of the multivalent verb ἐρείδω.

The statement of the Greek source, as translated by Pompeius Trogus, would thus indicate that all materials (except for animals, human beings and growing plants) that do not glitter sink in the Dead Sea quicker than glittering materials (like silver and gold). This is still a mistake, but not so embarrassing as saying that gold and the like do not sink at all. And one has to remember that the author never visited the Dead Sea (as is evident from his other mistakes, especially the statement that there was no navigation on the Dead Sea). This is certainly a forgivable mistake in comparison to the statement of Josephus, who lived three years in the Dead Sea region, that humans float in the Asphalt Lake because the water is light (BJ 4.476). The mistake of Trogus’ Greek source resulted from mere carelessness (cf. the phrasing of the delayed sinking), temporary “blackout”, or from the absence of one of the particles or the like in the manuscript of Hieronymus used by the adaptor. Thus an omission of the καί (in this case “even”), that usually was abbreviated in the MSS., could have caused misunderstanding.

The reader may find references to numerous examples of similar careless readings of previous research literature by a contemporary academic author in Bar-Kochva 1994. Modern scholars, when faced with sentences and internal contradictions in classical literature which do not make sense but which cannot be compared to their lost source, sometimes forget to draw the necessary conclusions from the low quality of reading and phrasing of certain contemporary writers to that of ancient historians. The occurrence of such statements in ancient literature seems to be by far more frequent than in modern scholarship because of the state of the manuscripts, the absence of research tools (e.g. indices) and other obvious obstacles.
Examination of the writings of the Greek source of Trogus exposes a similar, and even more astonishing mistake. In another paper we have shown that Timagenes of Alexandria was the only source of Trogus’ Jewish ethnographic excursus, including the geographical accounts. Now Strabo, in his survey of the wonders of India (15.1.57) says:

What is said by Timagenes is also a myth, that metal drips (from the sky) in drops of metal, and (then) is swept away (by the rivers). However Megasthenes says something more trustworthy, (that) the rivers carry away gold-dust [...]

Timagenes was certainly mistaken in understanding a statement by Megasthenes, the ambassador of Seleucus I at the Indian court, who was an inexhaustible source for Hellenistic authors. It would be a bit speculative to reconstruct the original text and thus to understand the reason for this ridiculous mistake; Strabo’s testimony is delivered in indirect speech and presumably phrased in his own vocabulary. However, the mistake of Timagenes may well have originated in another statement by Megasthenes. Be that as it may, no wonder Timagenes of Alexandria interpreted the statement of Hieronymus as he did.

Conclusions and explanations concerning the wonders of the Dead Sea which raise eyebrows are to be found more than once in Greek and Roman literature. We have already mentioned Josephus’ explanation for peoples’ floating in the lake: Pausanias (5.7.4) said that fish (coming from the Jordan) recoiled from entering the lake because living-beings did not sink but float on it; Pliny the Elder and Josephus, his contemporary, stated that the only way to cut bulks of asphalt was by pouring menstrual blood on them. We would note that Timagenes’ inclination to tell miracles and wonders is attested by Pseudo-Plutarch, On Rivers 6.1-3 (if the testimony indeed refers to Timagenes of Alexandria).

13 See Bar-Kochva 2015, ch. 6.
14 The word χαλκός in this context seems to designate metals in general. The word, first applied to copper, was used for bronze and iron, and afterwards for metals by and large.
15 μύθος δὲ καὶ τὸ ὑπὸ Τιμαγένους λεχθὲν, [ὡς] ὅτι χαλκός ὕοιτο σταλαγμοῖς χαλκοῖς καὶ σύροιτο. ἐγγυτέρω δὲ πίστεως φησιν ὁ Μεγασθένης, ὅτι οἱ ποταμοὶ καταφέροιεν ψῆμα χρυσοῦ [...]  
16 Galen attributes this opinion to “the ancient sophists” and rejects it; see GLAJJ, vol.2, no. 381, ll.14-15.
17 Pliny, HN 7.65; Josephus, BJ 4.480. Cf. Tacitus, Hist. 5.6.3, who actually does not accept it.
A PROBLEMATIC SENTENCE IN JUSTIN-POMPEIUS TROGUS’ *HISTORIAE PHILIPPICAE* 231