

XVII.—Sulphur for Broken Glass

(Martial 1.41.3–5)

H. J. LEON

THE UNIVERSITY OF TEXAS

In the 41st epigram of the first book Martial, in citing instances of coarseness and vulgarity, refers to "the Transtiberine peddler who trades pale sulphured articles for broken glass."

Transtiberinus ambulator
qui pallentia sulphurata fractis
permutat vitreis

There is no unanimity among the many commentators on this passage with reference to either the *sulphurata* or the broken glass. One editor, for example, writes: "It is uncertain whether the *sulphurata* were bits of sulphur to be used as cement, or tinder, i.e. bits of wood tipped with sulphur."¹ The latter alternative, that the *sulphurata* were sulphur-tipped pieces of wood to be used for lighting fires, is the usual one and, in my opinion, unquestionably the correct one.

The use of these firesticks, more fully designated as *ramenta sulphurata*, is described in M. H. Morgan's notable dissertation, *De Ignis Eliciendi Modis apud Antiquos*.² They were not ignited by friction like our matches,³ but were kindled at the hearth or any fire and were used in lighting fires elsewhere, most commonly in lighting lamps.⁴ That this interpretation of *sulphurata* is the correct one is confirmed by another reference in Martial, in which the fuller expression *sulphurato ramento* occurs, there also in connection with an exchange for broken glass.⁵ Furthermore, if mere pieces of sulphur were meant in our passage, we should expect the word *sulphur* itself

¹ Edwin Post's edition (Boston, 1908) *ad locum*.

² *HSPh* 1 (1890) 42f.

³ The first successful friction match dates from 1831, *Enc. Brit.*¹⁴ 15.45.

⁴ Cf. Sen. *Nat.* 1.1.8: *apud nos quoque ramenta sulphure aspersa ignem ex intervallo trahunt*; a parallel cited in connection with the assertion that particles from the earth rise to the clouds and kindle fires there. See also Hugo Blümner, *RE s.v.* "Schwefel" 799.

⁵ 10.3.3; see below, p. 234. In 12.57.14 Martial refers to the "sore-eyed hawker of sulphured ware" (*sulphuratae lippus institor mercis*).

and not *sulphurata*, which denotes sulphured objects, that is, things covered with sulphur.

This problem being settled, we must next ask: why does the huckster give the sulphured firesticks away in exchange for broken glass? The editor cited above⁶ offers the usual interpretation: "The broken glass vessels taken in exchange would be repaired with the sulphur and sold again."⁷ A difficulty with this interpretation immediately suggests itself. If the broken vessels were to be in a reparable condition, the huckster would need to receive all the pieces, but usually glass vessels do not break so conveniently; besides, if the vessel were broken into a few pieces which could readily be put together again, the owner would probably do the job himself instead of parting with the vessel for a few cheap firesticks. This would be all the more likely if the sulphur which he received actually were, as some of the commentators have suggested, to be used for cement.

It has also been proposed that the expression *fracta vitrea* might have been used for just trumpery or trash in general,⁸ a sense in which it obviously is used by Petronius (10.1): "What was I to do, you big fool, when I was dying of hunger? Was I to listen to his lecturing, a lot of broken glass and dream interpretations?"

Quid ego, homo stultissime, facere debui cum fame morerer? An videlicet audirem sententias, id est vitrea fracta et somniorum interpretationa?

The expression in Martial, however, seems to call for the literal interpretation, particularly in view of a few other passages in which the exchange of broken glass for sulphured sticks is alluded to as a regular thing. In 10.3 Martial refers to certain scurrilous poems so worthless that "the purchaser of broken Vatinian vessels wouldn't pay a sulphur match for them."

quae sulphurato nolit empta ramento
Vatiniorum proxeneta fractorum

While this passage shows clearly that the concept "as worthless as

⁶ In note 1.

⁷ This interpretation is found, for instance, in Ludwig Friedländer's edition (Leipzig, 1886): Verkäufer von Schwefelfäden, die diese auch gegen zerbrochenes Glas tauschten (welches dann wieder mit Schwefel gekittet wurde). So also Poteat's edition (New York, 1931); Smith, Wayte, Marindin, *Dict. Ant.* (1890) s.v. "Igniaria"; Blümner, *RE* (see note 4, above); Becker's *Gallus* (e.g. in Metcalf's translation [London, 1866] 43f. and note 7).

⁸ So Post; suggested but not approved by Mary Luella Trowbridge, *Philological Studies in Ancient Glass* (Univ. of Illinois diss., 1930) 107.

broken glass" was more or less proverbial, the reference to the exchange of such glass for sulphur matches points to a well-known practice.

Then there is a passage in Juvenal (5.48) in which the hapless client, partaking of a wretched meal at the table of his wealthy patron, is pictured as drinking from a cheap Vatinian goblet so badly broken that it "calls for sulphur."

iam
quassatum et rupto poscentem sulphura vitro

The scholiast on the passage wrongly interprets it as meaning that the vessel needed to be mended with sulphur, which was used as a cement (*ut solent sulphure calices fractos sive calvariolas componere*). While some of the modern commentators have followed this view,⁹ others seem, in the light of the passages in Martial, to have the correct explanation, that is, that a vessel so broken as the one from which the client drank should be turned in for the usual sulphur matches, since it was no longer fit for use.¹⁰

Still another illustrative passage is available in Statius (*Silv.* 1.6.73f.). Describing a celebration of the Saturnalia, the poet alludes to the "theatrical folk and those who exchange common sulphur for fragments of glass."

hic plebs scenica quique comminutis
permutant vitreis gregale sulphur

Statius' use of *comminutis* is of some significance here, since the word implies small fragments rather than vessels which could be glued back into a usable condition.

These passages are sufficient to prove that Martial's Transtiberine peddler exchanged his sulphured sticks for any broken glass whatever, and that these glass fragments were not to be glued back into complete vessels. Surely, however, this glass must have had some value if people made a business of collecting it and even giving something for it.

The clue to the problem is provided by the process of glassmaking, whether in ancient or in modern times. A recent work on glass has this information: "In all batches of material for making glass . . . it was found that the 'metal,' as the molten glass was called, had a

⁹ E.g. Maclean and Hart (Boston, 1885), Weidner (Leipzig, 1889), Friedländer (Leipzig, 1895), and Ramsay's Loeb translation. Lindsay (New York, 1890) and Hardy (London, 1891) suggest this as an alternative.

¹⁰ E.g. Pearson and Strong (Oxford, 1892), Wright (Boston, 1901), Wilson (Boston, 1903).

much better quality if there was added broken glass, even sometimes as much as one-quarter in bulk. This was called 'cullet,' and was constantly called for in advertisements, in both English and early American newspapers."¹¹ One additional quotation from the article "Glass Manufacture" in the *Encyclopaedia Britannica* gives information about the present-day process: "Waste glass or cullet is invariably added, first for economy, secondly because it assists in the melting. . . . The waste glass or cullet . . . constitutes from 20 to as much as 80% of the total mixture charged into the furnace."¹²

Since the basic processes of glassmaking were the same in ancient times as now, it is evident that the broken glass was used in the manufacture of new glass, although there seems to be no reference in ancient authors to this use.¹³ A passage in Gregory of Tours indicates that in the sixth century there was a demand for old glass, since a thief stole the glass windows of a church near Tours in order to melt and sell the glass.¹⁴

The collectors of broken glass in Rome had a ready market, since we learn from Strabo (16.2.25, p. 758) that a good grade of inexpensive glass was manufactured in Rome itself. The presence of a *Vicus Vitarius* in Region I between the Aventine and the Caelian may offer a clue to the location of this industry.¹⁵

From my own childhood days I recall a type of peddler who would drive through the streets calling for bones, which housewives would bring out in pans and buckets, receiving in exchange pieces of laundry soap, proportioned in size to the quantity of bones which they offered. The bones were used in the manufacture of other products. Thus the housewife received a useful article in exchange for the bones which she would otherwise have thrown into the garbage pail. It appears that the ancient Roman case is parallel. The old glass, which was an essential ingredient in the manufacture of new glass, was collected by hucksters, who offered a useful household commodity, sulphured firesticks, in exchange for something which would otherwise have been thrown out as worthless.

¹¹ N. Hudson Moore, *Old Glass* (New York, 1938) 10. Cf. Rhea Mansfield Knittle, *Early American Glass* (New York, 1927) 6, 112, 144.

¹² Fourteenth Edition, 10.415.

¹³ Cf. Trowbridge, *op. cit.* (see note 8) 106f., where Mart. 1.41 and Stat. *Silv.* 1.6.74 are cited as indicating a trade in old glass. Cf. p. 135.

¹⁴ *De Gloria Martyrum* 59, cited by Trowbridge, 107 and 189, note 17.

¹⁵ Jordan-Hülse, *Topographie der Stadt Rom im Alterthum* 1.3.219; cf. Trowbridge, 131.