CHAPTER 2

Hippocratic Surgeries and Surgical Tools¹

We first find descriptions of surgical procedures in the Hippocratic works of the later 5th and the 4th century BCE. Clearly, however, many of these operations were practiced long before they were actually recorded. Depiction of cupping vessels on a grave monument of the early 5th century BCE and the recovery of cups matching the depiction (see below) are material evidence for at least this intervention, well before its attestation in Hippocratic literature. Whereas an Homeric healer might proceed with an incantation or magic herb or potion (e.g. Iliad 4.217–19; Odyssey 19.455–58), Herodotus’ account of the renowned Democedes of Croton (3.131), said to have carried on without any tools at all, shows indirectly that physicians were expected to be equipped with an instrumentarium by the last quarter of the 6th century.

The Hippocratic Corpus is rich in the names of instruments as well as in descriptions of their shapes and functions. This contrasts sharply with the dearth of material survivals from the period in which the bulk of the Corpus was written; hence the central role of texts and the names they contain. In fact, the only instruments currently available that can be recognized as ‘Hippocratic’ are a number of cupping vessels, which, so far as is known, were recovered from graves. Graves, of course, are our chief material source for the instruments used by Greco-Roman practitioners. However, graves containing tools are in the main confined chronologically to the period of the Roman Empire; only then, it seems, did it occasionally happen that a deceased physician was buried with some or all of his instrumentarium. Still, in basic respects most Hippocratic instruments will not have differed appreciably from their Roman successors: a forceps is, after all, a forceps, and a cupping vessel, a cupping vessel. The corresponding Roman types can be found with illustrations under the appropriate sections of Tools of the Empire.

We can glean a few generalities about the Hippocratic instrumentarium from the surviving Corpus of Hippocratic writings. The author of Physician 2P states that all instruments should be well fitted for their use in size, weight, and fineness; furthermore, he stresses that copper alloy should be used only for them, as opposed to other equipment a doctor might have.² From Use of

¹ An earlier version of this chapter appeared under the title “The Hippocratic Surgical Instrumentarium, a Study in Nomenclature,” in Medicina nei Secoli 15/3 (2003) 403–440.
² Χαλκώματι δὲ πλὴν τῶν ὄργανων μηδενὶ χρήσθω.
Liquids

We learn that potable water is best for instruments of iron/steel and copper alloy (ποτὸν—σιδηρίοισι καὶ χαλκείοισι κράτιστον). These passages are particularly valuable, not just for information on how Hippocratic instruments were kept clean (and perhaps ritualistically pure) but as attesting the primary materials of which they were made. The only testimonium to storage of the tools is found in *Decorum* 9.8.8–9L where the physician is urged to have at hand a portable carrying case of the simpler type called *parexodos* (παρέξοδος ἢ λιτοτέρη—ἡ διὰ χειρέων) for making his rounds (πρὸς τὰς ἀποδημίας). *Decorum* may be a later work, but clearly instruments permanently at hand were every bit as valuable to the Hippocratic as to his successors and were, therefore, properly stored in the more elaborate cases that are presupposed in this passage. Likewise, it is very much in keeping with the world of *Epidemics* that some tools were ready packed in simple containers for work away from ‘the office.’ The term *parexodos* or ‘that brought away on the road’ is an appropriate name for just such a traveling kit.

It is possible that another Hippocratic name for the *parexodos* was *kulichnis* (κυλιχνίς). The name likely designated a container for instruments in the 3rd century BCE, as it occurs, several times in conjunction with a probe (μήλη), among the inscribed dedications to Asclepius in Athens. It could, therefore, have existed in this sense earlier. In fact *kulichnis* may actually have occurred in the *Hippocratic Corpus*. The case rests on Galen’s *Hippocratic Glossary* where the word *κυγχνίδα* is defined as a small cup or container used by doctors (κυγχνίδα· τὴν τε σμικρὰν κύλικα καὶ τὴν ἰατρικὴν πιθάκνην). If *κυγχνίδα* is a corrupt form of *κυλιχνίδα* (so Foës) then *kulichnis* did occur somewhere in Hippocratic literature. Unfortunately, even if this is the case, its precise meaning remains uncertain.

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3 As the smelting of iron and rendering of steel is described in *Diseases* 4 (7.55.29–35L) and *Regimen* 1.13Joly-Byl, keen blades of steel should have been available for the Hippocratic practitioner.


5 IG II² 1534B and 1535, lines 155 and 161 (244/3 BCE), as presented in Aleshire (1989) 263–264. See also p. 332 of the same work.

6 19.115K.

7 See M.J. Milne (1939) 284.

8 Aristophanes, *Knights* 906 and schol. (repeated by Suda, *Lexicon* kappa.2668) makes it a container for drugs or medications; Antiphanes Fr. 206 (Poetae Comici Graeci) makes clear the association with medicine but is no more specific: κατεσκευασμένος λαμπρότατον ἰατρεῖον