



The "Rich Athenian Lady" Was Pregnant: The Anthropology of a Geometric Tomb Reconsidered

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THE "RICH ATHENIAN LADY" WAS PREGNANT THE ANTHROPOLOGY OF A GEOMETRIC TOMB RECONSIDERED

ABSTRACT

Recent reexamination of the cremated remains in the celebrated tomb of the "rich Athenian lady" brought to light the presence of a fetus four to eight weeks short of full term and established that the adult female died during pregnancy or premature childbirth. The physical anthropology of mother and child is reviewed and a facial reconstruction of the deceased woman presented. Other examples of pregnancy and death in the Greek world are discussed. The discovery of a fetus together with the adult female fundamentally changes the interpretation of this tomb and highlights the importance of skeletal evidence in the study of demography and social structure.

Birth, puberty, marriage, and death are, in all cultures, marked by ceremonies that may differ in detail but are universal in function. Arnold van Gennep was the first to note the regularity and significance of the rituals attached to the transitional stages of human life, and his phrase for these—*rites de passage*—has become a part of the language of anthropology and sociology.¹ Death is only one of the rites of passage described by van Gennep for an individual, a *social persona*, and it is, ironically, the most archaeologically visible. Archaeologists rarely view birth, puberty or initiation, and marriage with the same immediacy, although numerous scenes on Athenian and other local Greek styles of black- and red-figure pottery of the

1. See van Gennep 1960; see also Bell 1992. In the process of studying for final publication all of the material from the Early Iron Age tombs in the area of the later Athenian Agora, one of us (Papadopoulos) invited the other (Liston) to locate and study, or restudy, the human remains from the cremation tombs of the period, including those that had been previously analyzed by J. Lawrence Angel, and the few that had come to light since then. Such a study was deemed all the more impor-

tant since few of Angel's observations on the human remains of the Early Iron Age tombs in the Agora had ever appeared in print, and none were systematically presented. Moreover, significant results had been obtained from the restudy of Early Iron Age inhumations (e.g., Little and Papadopoulos 1998) and, as such, we thought that the cremation tombs might offer potentially new information on the physical anthropology of Early Iron Age Athenians. In the presentation of this

article we were mindful to incorporate the physical anthropology with the archaeology in the main body of the text rather than relegate it to an appendix or technical report at the end. Liston was largely responsible for the section on the physical anthropology of the "rich Athenian lady" and the fetus/neonate cremated with her, and Papadopoulos for the remainder, but both authors read each other's sections and worked closely together.

Archaic and Classical periods provide poignant representations of marriage and initiation for students of classical antiquity.² Among these rites of passage, birth is perhaps the most archaeologically—and iconographically—invisible. Birth and death, however, collide in a remarkable way in a number of tombs in the Greek world in which a woman is found inhumed or cremated together with a fetus or neonate. It is one such tomb—indeed, perhaps the best known of all tombs of the Geometric period³—that forms the basis of this study.

On June 14, 1967, after a break of some 35 years, excavation was resumed along the west end of the South Road near the area of the Classical Agora,⁴ a venerable thoroughfare closely following the line of an ancient road that led in from the Piraeus Gate and, skirting the foot of the Arciopagos (Figs. 1, 2), formed the southern boundary of the Classical market square. A few meters to the west of the area excavated in 1967, the road forks, a branch leading up along the middle slopes of the Arciopagos past the Mycenaean chamber tombs.⁵ This area along the north slope of the Arciopagos, close to the Athenian Acropolis, was one of the richest cemeteries of early Athens, in continuous use from the Mycenaean period well into the Geometric era.⁶ One of the objectives of the 1967 campaign was to complete the exploration of the lower road and a narrow strip, less than 3 m wide, that separated it from the line of the 1932 excavations in the angle formed by the two roads. In the first hours of digging, a new burial began to emerge less than a meter north of the 1932 section line and barely 15 cm beneath the floor of the large temenos, probably of the fourth century B.C., to the east of the triangular Hieron (Fig. 2).⁷ The burial appeared in the notebook as “Section K: Geometric cremation at 5/-Δ.” It was excavated between June 14 and 21, 1967, under the supervision of Gerald V. Lalonde. It was provided with a deposit number based on the Agora grid (H 16:6) and was ultimately dubbed and published by Evelyn Smithson

2. For marriage in the Greek world see, among many other contributions, Hague 1988; Oakley and Sinos 1993; Oakley 1995; Papadopoulou-Kanellopoulou 1997; Sabetai 1997, 1998 (all with references). For initiation the *choes* festival in Classical Athens is one of the archaeologically most visible rites of passage, thanks to the numerous representations on the *choes* themselves. As discussed below, a child at the age of three would be presented to the family clan, and it subsequently participated in the *choes* festival—or Anthesteria, the festival held in the spring on the 11th–13th days of the month Anthesterion—for the first time that same year (Deubner 1932; van Hoorn 1951; Burkert 1972, p. 221; Garland 1985, p. 82; Hamilton 1992; see also Green and Sinclair 1970). Indeed, the essential stages in the life of any Athenian—birth, *choes*, adolescence, and

marriage—are recorded in an inscription dating to the second century A.D., quoted below. An earlier rite of passage, the *amphidromia*, is less visible in Athenian iconography (see further Garland 1985, pp. 77–88). The *ephebeia*, on the other hand, is well represented both by inscriptions listing *ephebes* and by the numerous representations of youths in Athenian iconography.

3. The tomb was briefly noted in Thompson 1968, pp. 58–60, and fully published in Smithson 1968; in 1969 the tomb was featured as the cover story in *Archaeology* magazine (Smithson 1969), and the amphora and grave offerings are prominently displayed in the Agora museum.

4. For earlier excavation along the South Road (formerly Asteroskopceion Street), see Thompson 1956, pp. 47–57; also Shear 1933, pp. 469–470, fig. 18. The following description of the ex-

cavation of the tomb draws largely on the published reports by Smithson (1968) and Thompson (1968), though all details were thoroughly checked against the original excavation notebooks.

5. Excavation along this upper road (formerly Apollodoros Street) was begun in 1897 by Wilhelm Dörpfeld; six graves were uncovered (Dörpfeld 1897, p. 478). Some of the vases, which are EG I to MG I, are illustrated in Rhomaios and Pappaspyridi 1932, pl. 1, nos. 11–12; pl. 2, nos. 1–6. Three other graves, less than a meter distant, were cleared by the Agora Excavations in 1932 and 1947 (tombs I 18:1, I 18:2, and I 18:3); see Smithson 1974, pp. 327–329.

6. See Papadopoulos 1996; 2003, pp. 272–279.

7. See Smithson 1968, p. 78; Thompson 1968, p. 58; for the triangular Hieron, see Lalonde 1968.

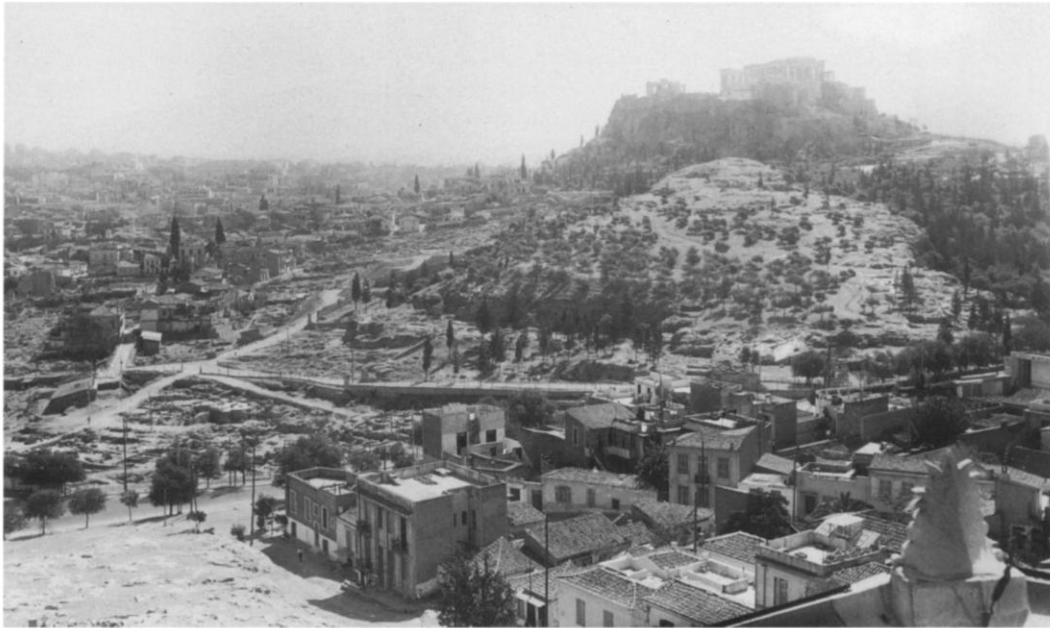


Figure 1. View of the Areiopagos, with the Acropolis in the background, from the northwest.

Courtesy Agora Excavations

as the “tomb of a rich Athenian lady, ca. 850 B.C.”⁸ Smithson described the tomb as follows:

The form of the tomb [Figs. 3, 4] . . . belongs to the familiar trench-and-hole type that was developed in Athens in the earliest Proto-geometric times. . . . The urn-hole was untouched, but the vertical faces of the pyre-trench had been obliterated and most of the pyre debris removed in grading for the fourth century temenos, if indeed inroads had not begun earlier. The debris was scattered, some of it near by to the south, but much of it had been carried off and dumped in the area of the Geometric House⁹ about 15 meters further south [Fig. 2]; the latest sherds in the dumped filling over the house were contemporary with the fourth century temenos. Finally, in the Hellenistic period, a bottle-shaped cistern [Figs. 3, 4] was sunk through the western floor of the pyre-trench, undercutting its floor, with its flaring sides narrowly missing the urn-hole. Still later, Roman, Byzantine, and modern activities threatened the remnants of the grave, but did not touch them.¹⁰

8. Smithson 1968; see above, n. 3, for references, and also Coldstream 1968, p. 14; 1995.

9. Burr 1933, pp. 542–567. From Burr’s catalogue of material from the “Geometric House,” nos. 47, 53–55, 73, 83, 86, 88–89, and 93 join pieces from the new pyre material from tomb H 16:6 excavated in 1967; many more joining pieces came from the 1932 context pottery. The possibility of joins was first considered and confirmed by the excavator, G. V. Lalonde, from a careful study of that publication. This

building has since been shown by Thompson (1968, esp. pp. 58–60; 1978) not to be a house. He argued that rather than a domestic structure—which would be unique and isolated in the area of the later Agora—the oval structure, together with the triangular enclosure only a short distance to the northwest, is better regarded as a small shrine that had its origins in the cult of the dead.

10. Smithson 1968, pp. 78–80. For similar trench-and-hole tombs in the area of the German excavations at

the Kerameikos, see *Kerameikos* V.1, pp. 7–11. Among the best-preserved examples in Attica is Eleusis grave Γ 16; see Mylonas 1955, pp. 74–76; 1975, vol. I, pp. 110–114, fig. 22; vol. III, pl. 241. For Athenian Proto-geometric trench-and-hole cremations and the earlier Final Mycenaean or Submycenaean cremations where the ash-urn was placed in a simple circular pit, see Kurtz and Boardman 1971, pp. 33, 37; Desborough 1972, pp. 137–138; Styrenius 1967, pp. 33, 91.

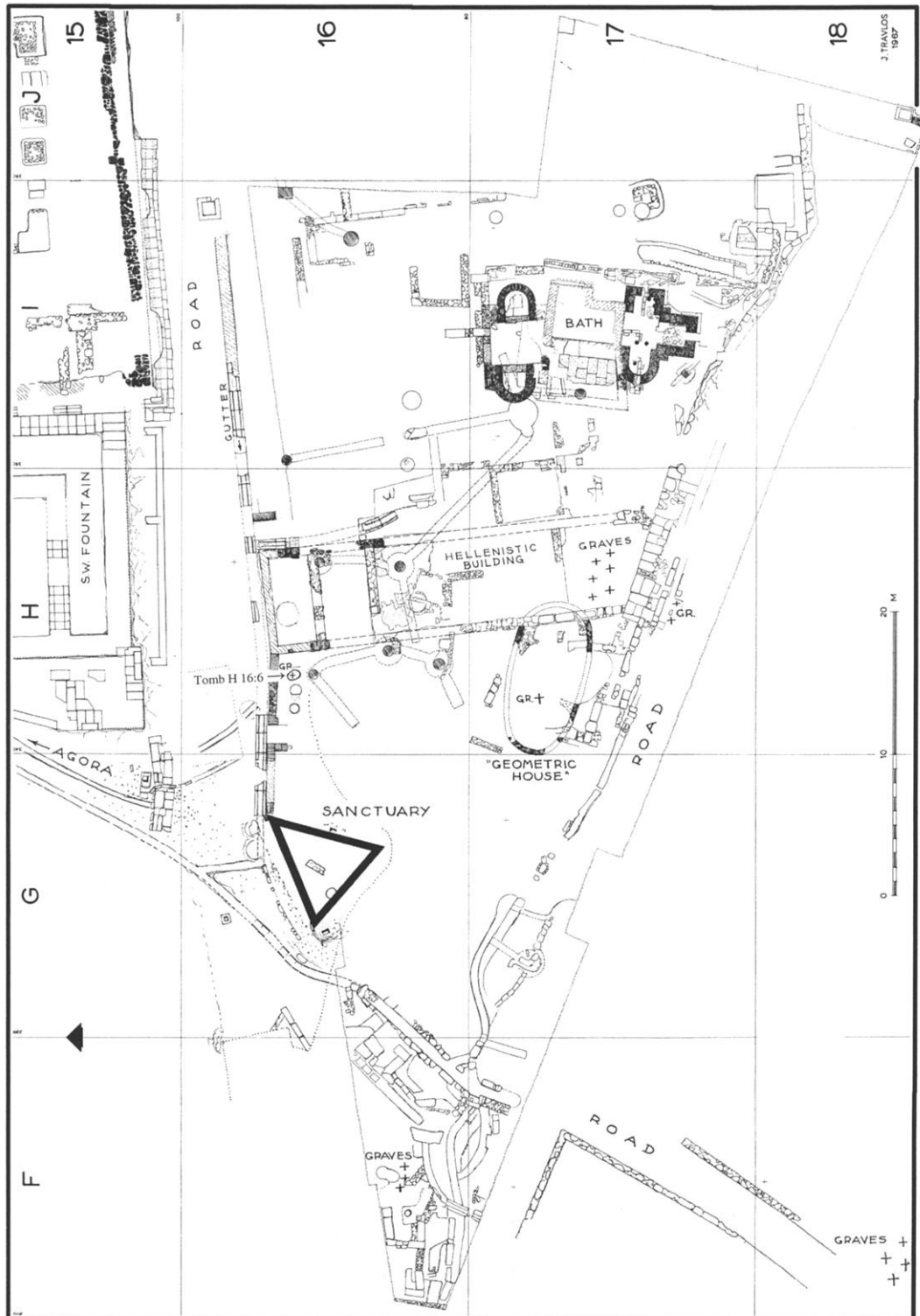


Figure 2. Plan of the area to the south of the southwest corner of the Agora showing the location of tomb H 16:6. J. Travlos (1967), with additions by J. K. Papadopoulos; courtesy Agora Excavations

Figure 3. Tomb H 16:6. Urn-hole with cinerary urn and offerings as found, looking north; the depression to the left is a Hellenistic cistern as first encountered. Courtesy Agora Excavations

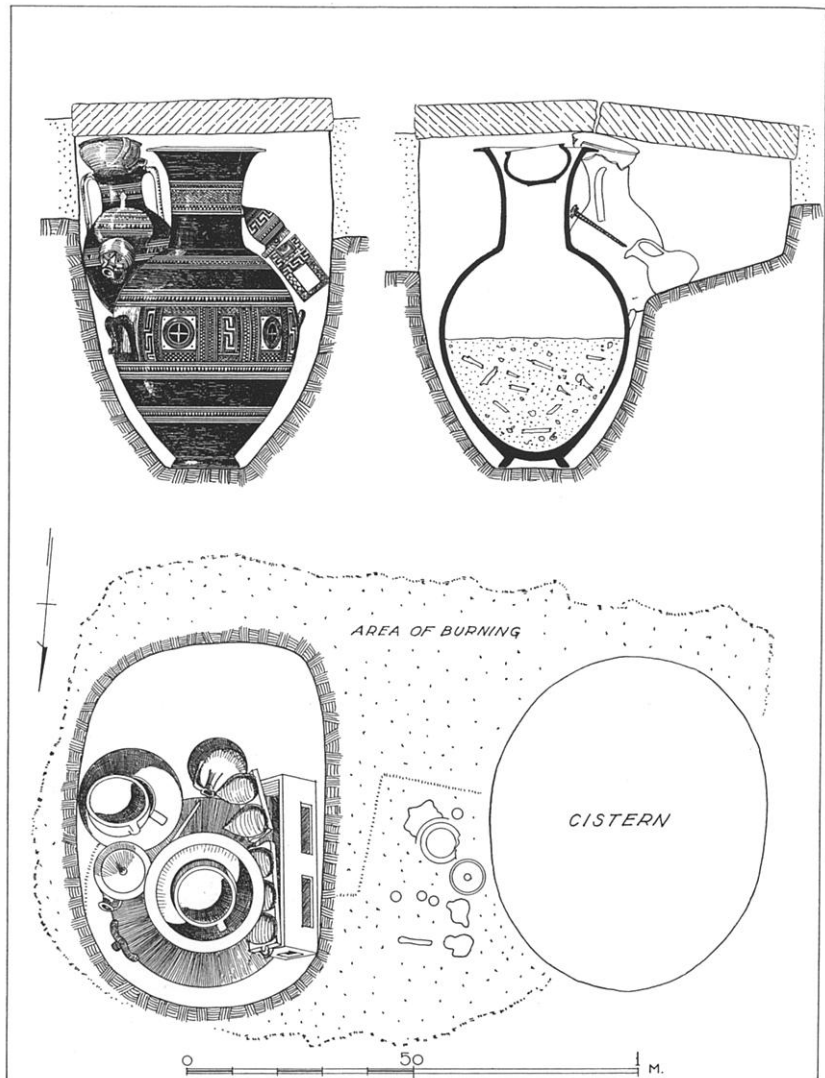


Figure 4. Tomb H 16:6. Plan and sections of the urn-hole with contents as found. W. B. Dinsmoor Jr. and J. Travlos, courtesy Agora Excavations



Figure 5. The cinerary urn of tomb H 16:6 (P 27629), containing the cremated remains of the so-called rich Athenian lady, together with those of a fetus or neonate.

Courtesy Agora Excavations

The mouth of the urn (Fig. 5) was closed tightly with an intact cup; no earth was found in its interior. This is an important point, establishing that there was no possibility of any intrusive material in the urn or contamination of its contents.

Tomb H 16:6 is the richest grave of post-Mycenaean times in the Agora area and perhaps the richest of its period in Athens.¹¹ As Smithson elaborated, “its contents, including granulated and filigreed gold jewelry, ivory stamp seals, faïence and glass beads, present a picture of imported luxury and local technical accomplishment that was hitherto barely hinted at for Athens in the middle of the ninth century B.C.”¹² Among the ceramic vessels, burned and unburned, from the grave was the celebrated chest with five model granaries (Fig. 6).¹³ In addition to other ceramic vessels, the tomb contained a number of wheelmade and painted cut-work kalathoi, as well as many pieces of Attic Fine Handmade Incised Ware, including pyxides and lids, hemispherical bowls, hollow clay balls, spindlewhorls, and

11. See Smithson 1968, p. 78. For other rich tombs in the Kerameikos, cf. *Kerameikos* V.1, pp. 235–239, tombs G 41, G 42, and G 43 (dating to the end of Early Geometric II). For another, somewhat later (Late Geometric) tomb of a woman, see von Freytag gen. Löringhoff 1974; unlike tomb H 16:6, this was an inhumation of a female described (p. 5) as “eine

junge Frau von ca. 1,60 m Größe in Rückenlage bestattet.” In commenting on the large number of pots deposited in this grave, von Freytag gen. Löringhoff (1974, p. 8) states: “Das neuaufgedeckte Grab vom Kerameikos ist nicht die Beigaben zahlenmäßig reichste spätgeometrische Bestattung aus Attika. Ein noch unpubliziertes (Kinder?)-Grab aus

Anavysos enthielt insgesamt sogar fünfundfünfzig Gefäße, die jedoch witzgehend in Miniatur ausgeführt sind und nicht die Qualität und die Variationsbreite der hier vorgelegten erreichen.”

12. Smithson 1968, p. 78.

13. For which see, most recently, Morris and Papadopoulos 2004.

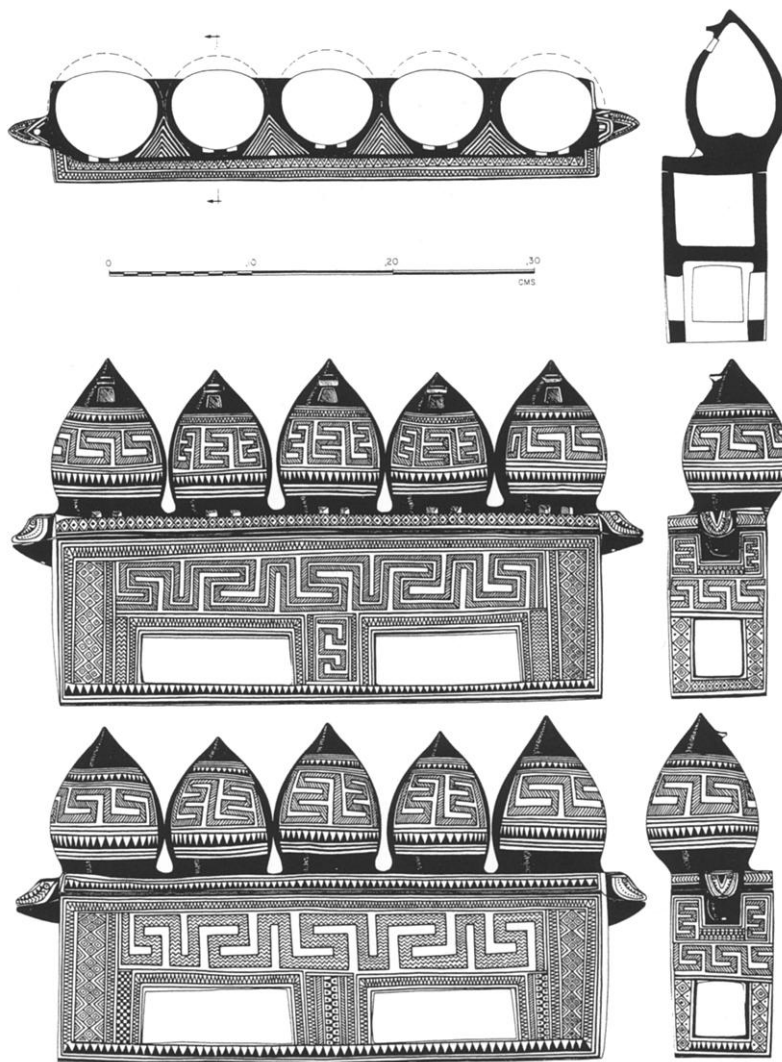


Figure 6. Chest and lid with five model granaries (H 16:6-23, P 27646a, b). W. B. Dinsmoor Jr., courtesy Agora Excavations

solid clay beads.¹⁴ The unburned pots include a neck-handled amphora, a cup, three small jugs, and a pyxis; a bronze pin lay around the shoulder of the urn on the east and south and a gold ring was found on bedrock in the southern half of the urn-hole. Of the vessels recovered from the urn-hole, the neck-handled amphora (Fig. 7) was the focus of much discussion during the 1967 season.¹⁵ It was remarked at the time of excavation that the neck-handled amphora was an unusual discovery in a woman's grave. This led Smithson to review the use of the shape in cremation tombs and to show that occasionally a woman's bones were deposited in neck-handled amphoras of normal size, a shape she believed was usually reserved for men.¹⁶ It was further suggested that this pot, its mouth closed by a cup like

14. For the cut-work kalathoi see Smithson 1968, pp. 98–103, pl. 28, nos. 28–34; for the Attic Fine Handmade Incised Ware see pp. 103–109, pls. 29–30, nos. 35–63; see further Smithson 1961; Bouzek 1974; Reber 1991. The handmade ware is strongly linked to females, as Karl Reber (1991)

has argued, and Agneta Strömberg (1993, pp. 97–99) reiterates that this type of pottery mainly appears in the burials of women, and sometimes in the graves of children. Despite these assertions as to the age and gender of the deceased, the human remains themselves in many of the tombs in Athens

and Attica containing such pottery have not been carefully studied for age and sex determination.

15. See Smithson 1968, p. 81, n. 19a.

16. For previous discussion, see Smithson 1961, p. 151; see further Strömberg 1993, p. 72.

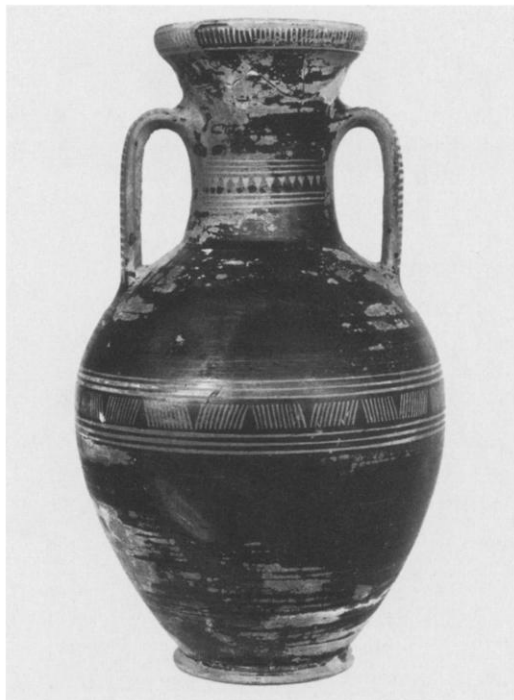


Figure 7. Neck-handled amphora from tomb H 16:6 (H 16:6-2, P 27630). Courtesy Agora Excavations

the urn, might have contained a fetus, all traces of which had vanished, although Smithson considered this highly unlikely.¹⁷

Smithson pointed out that tomb H 16:6 belongs with a group of exceptionally fine graves at the Kerameikos (including graves G 41, G 42, and G 43) that stand at the close of Early Geometric II and point the way to future developments. She also discussed the Oriental complexities of tomb H 16:6.¹⁸ Her perceptive comments, penned before the spectacular Early Iron Age finds from Lefkandi and Knossos were fully known, were to prove prescient.¹⁹ She also went on to speculate on the identity of the deceased, invoking Classical literature and the highest propertied class of *pentakosiomedimnoi* to suggest an aristocratic woman, perhaps even an archon's wife. Her comments are worth citing in full:

These tombs at the Kerameikos and in the Agora were graves of wealthy Athenians, the supervisors of extensive farm lands, and perhaps also the directors of an expanding overseas trade. The stamp seals in the new grave [tomb H 16:6] suggest that women, too, had responsibilities in economic affairs, though these may have been confined to domestic matters. It is suggested . . . that property qualifications may already have modified the definition of an aristocracy based solely on birth, and that the lady in our tomb may have been the daughter of a *pentakosiomedimnos*, who as a member of the highest propertied class was qualified to serve his community as a *basileus*, *polemarch* or *archon*. It is not impossible that she, herself, was an archon's wife: *γυνή Ἀρχόντου*, if we may follow for the moment the literary personifications which for later generations of Athenians enlivened the Dark Age.²⁰

17. See Smithson 1968, p. 81, n. 19a. The discussion of the neck-handled amphora possibly serving as the container for the bones of a fetus appears to have been added by Smithson after the remainder of her text had been typeset. As we shall see, this was not the only suspicion of a fetus in the tomb.

18. Smithson 1968, pp. 82–83.

19. See Morris and Papadopoulos 2004, pp. 225–226, for further discussion.

20. Smithson 1968, p. 83, with reference to the Athenian “King List” of Kastor of Rhodes, *FGrHist* 250 F4.

As for the contents of the ash-urn, Smithson noted:

Within it were the bones of a woman and a few animal bones, three straight pins, a pair of bronze fibulae, three gold rings, a pair of gold earrings, a necklace, two ivory stamp seals and an ivory disk. All were ornaments which the corpse must have worn at the *prothesis*. . . . But all were removed before burning, for none shows the ravages of the heat that reduced the bones to splinters.²¹

In a footnote Smithson stated that the bones—designated AA 302—were examined by J. Lawrence Angel in September 1967, adding: “There was no trace of a human child, infant or foetus.”²² It was clear that Smithson considered the possibility that the tomb was that of a pregnant woman, or that it contained, in addition to the woman, a child or infant. Although this possibility appears to have been raised with Angel, the latter found no trace of any human child, infant, or fetus. Angel’s examination, however, appears to have been limited to the larger pieces of bone; several bags of tiny fragments had never been sorted. As for the animal bones, Smithson noted that almost all were carbonized, and included lamb vertebrae, as well as two larger vertebrae, probably from a calf. In a more recent study of the faunal remains from the tomb, Deborah Ruscillo determined that there were the remnants of two young goats, and another older animal (*Ovis/Capra*, over three years old). Also recovered were three fragments of cattle tooth, as well as three fragments of an unidentifiable mammal bone. Most items were indeed burnt, including the tooth. Together these animals—and there were probably more animal bones in the pyre trench that were not recovered at the time of excavation—would have amounted to over 70 kg of meat, a considerable amount for any funerary feast.²³

Although Angel studied many of the extant human remains from the various Late Bronze and Early Iron Age tombs from the area of the later Athenian Agora, he was primarily concerned with typological analyses of the crania,²⁴ and much of the postcranial material was never cleaned or properly examined. As part of a new study of the Early Iron Age burials in the area of the Classical Agora, all of the human remains from the cremation and inhumation burials that were kept are being reexamined.²⁵ The recent analysis of the human remains from tomb H 16:6 provides additional information on the woman herself. The extraordinary care with which the Early Iron Age Athenians gathered her cremated remains led to the preservation of most of the facial structure, thus allowing a forensic facial reconstruction (see below). The examination of the postcranial remains from the tomb led to the identification of cremated bone fragments belonging to neither the adult woman nor to the animals burned on her pyre. The bones are from a human fetus, establishing that the “rich Athenian lady” was pregnant or had recently given birth when she died. Although shrinkage from cremation complicates the estimation of age, the fetus was probably at least one month less than full term. This new discovery permits a reassessment of status and burial in the period and adds a new dimension to the complex and intriguing story of human disposal in the Aegean Early Iron Age.

21. Smithson 1968, p. 81.

22. Smithson 1968, p. 81, n. 18.

23. Ruscillo’s more detailed account of the faunal remains from the Early Iron Age tombs in the area of the Athenian Agora will appear as part of a forthcoming volume in the *Athenian Agora* series (Papadopoulos and Smithson, in prep.).

24. See, e.g., Angel 1945.

25. The physical anthropology of the cremated remains is currently being studied by Liston. A preliminary study of the inhumation tombs, largely following Angel’s unpublished notes, has been prepared by Lisa Little. At least one of these inhumations has already yielded interesting results; see Little and Papadopoulos 1998; Papadopoulos 2000.

SKELETAL ANALYSIS

The following report of the anthropological analysis of tomb H 16:6 begins with a discussion of the process of cremation; we go on to discuss the biological characteristics of the adult female and fetus, and the cause of death, and conclude with a facial reconstruction of the cremated woman.

CREMATION

All of the preserved skeletal material was recovered from the burial amphora itself and not from the associated pyre deposits.²⁶ The skeleton was thoroughly cremated, similar to the degree achieved by a modern gas-fired crematory. The consistently white color indicates that all of the organic portions of the bone were burned, leaving only the inorganic matrix. The condition of the surviving bone and the complete combustion of the organic portions indicate that the pyre reached a sustained temperature of up to 700–800° C.²⁷ In an experimental cremation of a pig, designed to mimic the form of Early Iron Age pyres excavated in Greece, this degree of cremation occurred about six to seven hours after the pyre was lit.²⁸

Experimental studies and records of modern crematories suggest that approximately 643,000 kcal of heat is required to cremate an average 70-kg human body. This includes 134,000 kcal of heat given off by the combustion of the body itself and 509,000 kcal from an outside fuel source. To produce this external source of heat, a large amount of dried hardwood—1.8 m³ or 120 kg—is required if all of the heat is used efficiently. The female adult in tomb H 16:6 probably weighed less than 70 kg but, given the relative inefficiency of an open pyre, at least 120 kg fuel would have been required to achieve the complete combustion and calcination of the skeleton found in this burial.²⁹

An unusual feature of this burial is the extraordinary care taken in collecting the bone from the cremation pyre. The total weight of the preserved bone is 1,345 g. This figure equals or exceeds the weight of skeletons recovered from primary cremations at Vronda, near Kavousi in Crete, in which all of the grave soil was watersieved after excavation and the resulting residue sorted for bone fragments.³⁰ Every major skeletal element and most small bones are represented in the inventoried remains of the “rich Athenian lady.” All of the long bone shafts are present in the fragments, and many joint surfaces are preserved, although some cannot be assigned to the right or left side on account of the degree of fragmentation, and these are, therefore, not indicated in the plot of the identified bone (Fig. 8). The amount of facial bone preserved in this burial is most

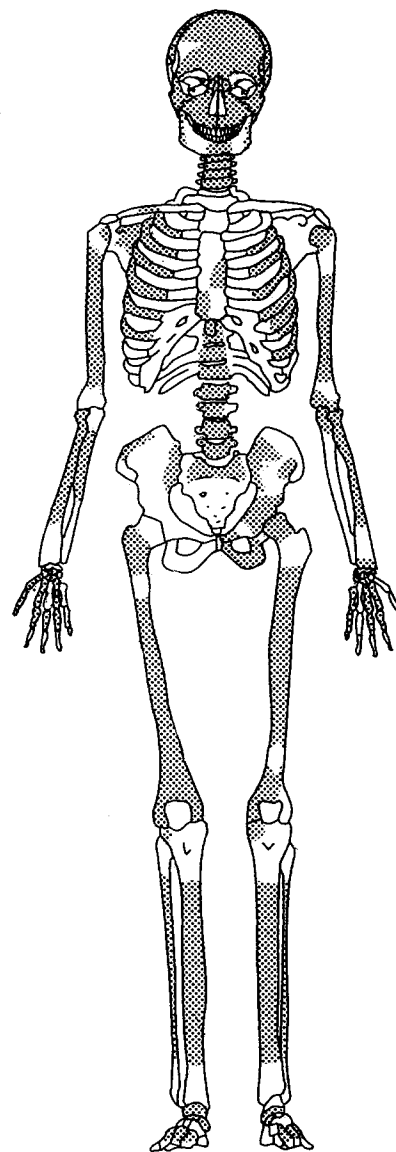


Figure 8. Athenian Agora skeletal specimen AA 302 (the “rich Athenian lady”). Shaded areas indicate preserved bone. M. A. Liston

26. Smithson 1968, p. 80.

27. Buikstra and Swegel 1989, pp. 255–256; Holck 1986, pp. 140–146.

28. As part of Liston’s dissertation research, a 95.3 kg (210 lb) adult pig was cremated on one of these pyres (Liston 1993, pp. 107–111). A second pyre experiment, described in more

detail below, was conducted in part to address questions about the cremation of fetuses, infants, and children in the Agora. It involved three piglets, weighing 2.5, 10.7, and 13.6 kg, respectively.

29. Holck 1986; DeHaan and Nurbakhsh 2001.

30. Liston 1993, pp. 82, 95.

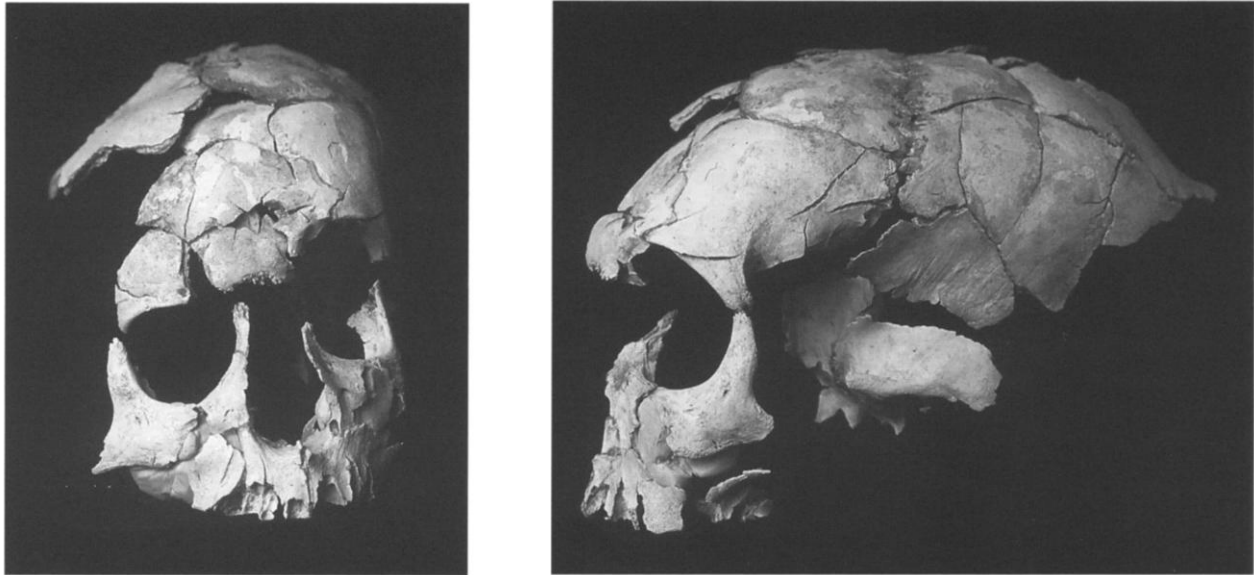


Figure 9. AA 302, reconstructed cranium, front and side views.

Photos M. A. Liston

unusual. Normally very little of the facial skeleton is found in a cremation burial, but in this case, while little of the mandible could be reconstructed, nearly all of the external structures of the upper face were recovered (Fig. 9).³¹

BIOLOGICAL CHARACTERISTICS

The skull and major limb bones are gracile and quite small even if we assume the maximum possible shrinkage in the bone. The skull is almost childlike, but the presence of sockets for erupted third molars (wisdom teeth) make it clear that the individual was an adult, older than 18–20 years. The delicate bone structure and the morphology of the temporal and frontal bones indicate a female. As is common in cremated remains, the bones of the pelvis are quite fragmentary, preserving joint surfaces, but they could not be reconstructed sufficiently to indicate the sex-specific characteristics with any clarity.³² The presence, however, of a fetus found with the remains also suggests a female.

Surviving portions of the auricular surface of the ilium, the pubic symphysis, and the sternal ends of the ribs all indicate an age of 30–35 years at death. One fragment of the pubic symphysis could indicate an age as advanced as 40 years.³³ Only the pubic symphysis technique for determining adult age was available to Angel when he initially examined these remains, and he too described the bones as those of a female in her 30s, with a maximum range of 24–40 years at death.³⁴

Determining race or major geographical group is one of the most difficult aspects of skeletal biology. The most reliable skeletal indicators of race are on the skull, particularly in the midfacial region of the nose and mouth.³⁵ In this case, the face is somewhat warped by heat, but the individual elements are present and relatively undamaged. The high, narrow upper nasal opening, prominent nasal bones, with a depressed nasal root at nasion, and the presence of a strongly developed nasal sill are distinctly Caucasian.

31. In more than 250 ancient European and North American cremations examined by Liston, only one other skeleton approached this degree of facial preservation.

32. Bass 1987, pp. 200–206.

33. Gilbert and McKern 1973, pp. 34–35; Lovejoy et al. 1985, pp. 22–26; Iscan and Loth 1986.

34. See Smithson 1968, p. 81, n. 18, for Angel's assessment.

35. Bass 1987, pp. 83–88.

There are no complete long bones preserved, but stature can be very roughly estimated from the preserved metacarpals of the hand, which were also measured by Angel and recorded in his field notes. Because they are only weakly correlated to total stature, metacarpals give a very wide range of estimated height. The estimate from the three best-preserved metacarpals indicates a mean stature of 155.90 cm, and a maximum estimated range of 149.89–161.12 cm.³⁶ Shrinkage of the bone due to burning is unquestionably present and impossible to quantify accurately; therefore, the estimation of stature is quite tentative. Angel was also aware of this, stating in his original notes “apparently short stature, light build . . . but beware effects of shrinkage.”³⁷

There is no observable evidence of disease, trauma, or excessive muscle strain on the preserved skeletal remains. The subchondral bone and margins of the joint surfaces are preserved in fragments, although most cannot be reconstructed or specifically identified and are therefore not noted on the inventory (Fig. 8). These joints lack even the normal age-related indications, such as incipient osteoarthritis or other joint wear typical of a woman in her 30s and commonly seen on skeletons from this time period, including other Agora cremations.³⁸ The major muscle attachments of the arms and legs show only normal development, with no strain or injury. The vertebral bodies show no evidence of disk herniation (Schmorl’s nodes) or other mechanical stress. The skeleton suggests a healthy woman, whose life probably did not include heavy physical labor associated with agricultural tasks or domestic activities such as carrying water or grinding grain. The absence of all normal age-related indications,³⁹ together with the unusually rich grave goods, supports the identification of an individual of high status.

FETAL REMAINS

In addition to the skeleton of the woman, there were a number of bones in the preserved remains that were clearly not those of an adult human. Indeed, in the original publication of the tomb, as noted above, Smithsonian speculated that the presence of the neck-handled amphora (Fig. 7) found with the grave goods might have contained a fetus, all traces of which had vanished.⁴⁰ Some of the additional bone recovered from the cinerary urn (Fig. 5) had previously been identified as cremated or burned animal remains, and more animal bone was identified in this study by Ruscillo (see above). Much of this bone, however, consisted of the partial remains of a human fetus, which had not been identified in previous work on this grave.⁴¹

Although not as complete as the adult skeleton, the fetus is represented by most major bones of the skeleton (Fig. 10). The bones are frag-

36. Musgrave and Harneja 1978, pp. 114–115.

37. Unpublished notes on the skeletal material from the Agora Excavations.

38. Iscan and Loth 1989, pp. 32–35;

Ortner and Putschar 1985, p. 419.

39. See n. 38. In his notes on this skeleton, Angel also emphasizes the lack of degenerative joint disease, repeatedly noting, and at times underlining, “no arthritis.”

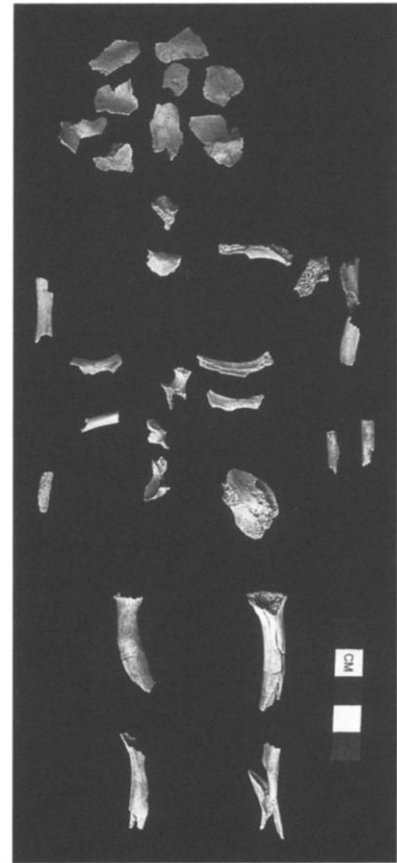


Figure 10. AA 302. Fetal remains found together with the cremated remains of the adult female.

Photo M. A. Liston

40. See above, n. 17.

41. After the original presentation of this paper at the 2002 Archaeological Institute of America annual meeting, and in subsequent presentations, we have been asked if there was any



Figure 11. Fragmentary cremated fetal femur shaft from tomb H 16:6 (right), shown with an unburned fetal femur shaft from Hellenistic well G 5:3. Photo M. A. Liston

mentary and warped by cremation, but the preserved fragments are unquestionably human. In addition to the cranial vault, the most readily identifiable elements include a femur shaft and a portion of the pelvis, both of which are unique in humans due to adaptations for bipedal locomotion and, therefore, not easily confused with animal remains. A fragmentary fetal femur shaft from the tomb, clearly cremated, is shown together with a fetal femur, estimated to be aged 34–36 weeks,⁴² from the Hellenistic “well of the babies” (well G 5:3) in Figure 11.⁴³

Unfortunately, there is no reliable way to determine sex from the bones of fetal or infant remains, but age can often be estimated quite accurately. Most techniques for determining age of fetal remains depend on the size of the bones, but fragmentation and shrinkage complicate the evaluation of cremated remains. A normal full-term pregnancy lasts 40 weeks or 10 lunar months. The maximum age range for this fetus based on measurements of the femur and ilium is 32 to 36 weeks, or eight to nine lunar months. The general size and condition of the other skeletal elements support this estimate. In addition, the petrous portion of the temporal bone, which surrounds the inner ear, lacks some of the developmental features that occur around the normal time of birth.⁴⁴ Based on this evidence, it is clear that this was not a neonatal or post-term infant, but was within four to eight weeks of a full-term pregnancy.

There is no way to determine if this fetus had been delivered, since the remains were gathered and mixed in the amphora with the adult bone. In a recent experimental cremation pyre created for this project, however, almost no identifiable bone was recovered from a 2.5-kg piglet burned for the six and a half hours required to calcine completely the skeletons of two piglets weighing 10.7 and 13.6 kg, respectively. Experimental cremations of human fetuses alone have been found to take only 20 to 55 minutes to destroy completely the soft tissue and incinerate the bones.⁴⁵ This suggests that the fetus may have been partially protected within the mother’s body during the cremation and supports the hypothesis that this was the cremation of a pregnant woman and not a woman with a recently delivered infant.

evidence for previous pregnancies in this woman. Earlier research (Stewart 1957, p. 13) has shown that stresses during childbirth on the ligamentous attachments in the anterior pelvis can result in scars on the dorsal surface of the *os pubis*. Angel (1969, p. 432) was the first to suggest that these marks were useful not only for indicating previous pregnancies, but also for suggesting the number of previous births. Angel, however, acknowledged that this was controversial and he even referred (1975, p. 176) to the evaluation of a number of pregnancies as “guessed.” Subsequent research has shown that while the presence of these

scars may indicate previous births, there are other causes as well, since they occasionally appear on male skeletons (see Kelley 1979; Suchey et al. 1979). There were no preserved scars on the dorsal surface of the pubic bones of the “rich Athenian lady,” suggesting, but not proving, that she died during the course of her first pregnancy. While there is no physical evidence to indicate a cause for this late pregnancy, a change in her marital status, including a second marriage following a first infertile union, is a possibility. A change in the woman’s own health status is also possible, but discussion of the myriad causes of

infertility and its reversal is beyond the scope of this paper.

42. Cf. Fazekas and Kósa 1978, pp. 261–263.

43. Located on the north side of the Kolonos Agoraios, well G 5:3 was closed sometime around 150 B.C.; see Rotroff 1999; Little 1999; Snyder 1999; Papadopoulos 2000. The well is discussed in more detail below. A fuller report on this well will be published by Rotroff, Little, and Snyder.

44. Scheur and Black 2000, pp. 74–79; Fazekas and Kósa 1978, pp. 137, 223–225, 260–263.

45. Fazekas and Kósa 1978, p. 359.

CAUSE OF DEATH

There are no observable signs of long-term disease or trauma that could have contributed to the death of the woman or the fetus, but it is difficult to determine the precise cause of death on the basis of human osteology. During pregnancy the immune system is suppressed in order to reduce the chance of the woman's body rejecting the fetus. As a result, women may be more susceptible to infectious disease while they are pregnant.⁴⁶ The age of the woman at 30–35 years may also have been a contributing factor in these deaths, particularly if she had not had previous pregnancies. A first pregnancy in a woman of this age often entails considerable risk even in modern developed nations, and could have posed a much greater risk of mortality in the Early Iron Age.

The risks of childbirth in ancient Greece are discussed by Nancy Demand, particularly the childbirth cases recorded in the Hippocratic *Epidemics*.⁴⁷ As Demand notes, the situation as described for early modern Europe would apply to Classical Greece, and she goes on to cite Roger Schofield:

A whole variety of conditions, such as hemorrhage, pelvic deformity, disproportion between the sizes of the child's head and the pelvis, severe abnormal presentations such as transverse lies, eclampsia and uterine inertia early in the labour, are likely to have posed problems which were beyond the capacities of those attending the birth to alleviate. . . . Furthermore, attempts to remove a dead child, especially by the old-fashioned hooks and crotchets in general use before the eighteenth century, probably severely threatened the mother's life.⁴⁸

Demand also cites records for modern developed countries before the 1930s—when maternal mortality began to drop appreciably because of the introduction of antibiotics—which show that 35–55% of maternal deaths were due to puerperal infection, 20% to toxemia, 20% to hemorrhage, and the remainder to various causes, especially abortion.⁴⁹ Archaeological studies have demonstrated ancient maternal mortality as high as 14%, although much lower rates are documented in rural undeveloped regions of the world today.⁵⁰

FACIAL RECONSTRUCTION

Ever since the discovery of tomb H 16:6, the issue of what the “rich Athenian lady” looked like has occupied the imagination of scholars. More particularly, the presence of so much jewelry, especially the earrings and finger-rings, prompted a number of attempts to visualize what the woman may have looked like with all of her finery. Consequently, the Agora archives contain several photographs, never published, of women wearing some of this jewelry, including a delightful photograph of Marian M. McCredie, the wife of the Director of the American School of Classical Studies at Athens between 1969 and 1977 (Fig. 12). Although providing a good idea of what the jewelry deposited in this tomb may have looked like

46. Ortner 1998, p. 88.

47. Demand 1994, pp. 71–86.

48. Demand 1994, p. 71, citing Schofield 1986, p. 235.

49. Demand 1994, pp. 71–72, citing Loudon 1991, p. 34.

50. Aufderheide and Rodríguez-Martín 1998, p. 296; see further Lancaster 1990, p. 281; Loudon 1991, p. 56.



Figure 12. Marian M. McCredie modeling some of the jewelry from the tomb of the “rich Athenian lady” shortly after its discovery. Courtesy Agora Excavations

worn by an adult female, the photograph is not, of course, the face of the “rich Athenian lady.”

The well-preserved cranium (Fig. 9) from this burial led us to attempt a facial reconstruction. The very fragile nature of the remains and the warping of some of the cranial bone due to cremation precluded an attempt at a three-dimensional reconstruction,⁵¹ but the use of two-dimensional reconstructions is common in modern forensic practice. From photographs taken for this purpose, a sketch of the face was prepared by Graham Houston, a professional artist and student of anthropology at the University of Waterloo. Using a series of drawings, he was able first to reassemble the various portions of the skull that did not actually meet due to warping of the bone. All of the facial bones except the mandible were represented on at least one side of the skull, allowing gaps to be filled by mirror imaging, producing a 1:1 drawing of the reconstructed skull. Portions of the mandible were missing, but the critical chin area was preserved. To reconstruct the mandible, the surviving fragments were used and the mandible of a Caucasian woman in the University of Waterloo collection whose palate measurements were nearly identical to those of the “rich Athenian lady” provided a model for the rest.

As an independent evaluation, a set of cranio-facial measurements taken by Angel was withheld until after the reconstruction of the skull was

51. For a useful overview of three-dimensional reconstructions of crania from the Greek world, including individuals from the Shaft Graves at Mycenae and the cremated individual found in the so-called tomb of Philip II at Vergina, see Prag and Neave 1997.



Figure 13. Facial reconstruction of the “rich Athenian lady.” Prepared by Graham Houston

completed; these were then used to check the accuracy of the drawing. In every case the cranial reconstruction was within 1 mm of Angel’s actual or estimated size. From the drawing of the restored skull the facial features were produced using standard forensic techniques developed for two-dimensional reconstructions.⁵² This facial reconstruction is based on average tissue depth measurements for 21 anatomical landmarks. The data are derived from a large series of subjects grouped by age, race, and height. Due to the woman’s late-stage pregnancy, tissue thickness data derived from heavy Caucasian women were used.⁵³ A neutral hairstyle and the earrings from the burial were then added. The resulting image (Fig. 13) is the average face that could have existed on these skeletal remains. It lacks the individualizing characteristics that are not apparent on the skeleton, but provides a general impression of the appearance of the individual that has come to be known as the “rich Athenian lady.”

PREGNANCY AND DEATH

The presence of a fetus together with the remains of the adult female fundamentally changes the interpretation of this tomb. Infant burials are common in the Greek world, as they are elsewhere during the premodern era, given the high infant mortality rate. Aristotle (*Hist. an.* 588a8) explicitly states that the majority of deaths in infancy occur before the child is a week old. The incidence of women dying in pregnancy or during child-

52. Taylor 2001, pp. 75–133, 261–417; Glassman, Gatliff, and McGregor 1989; Gatliff and Snow 1979.

53. Taylor 2001, p. 351. Extensive comparative data are provided in Rhine and Campbell 1980, pp. 854–855.

birth, by contrast, remains to a large extent archaeologically invisible. Demand laments the disappointing lack of skeletal evidence for women who have died in childbirth.⁵⁴

One of the best overviews on death and the disposal of infants and children in ancient Greece is provided by Robert Garland in his account of the “special dead,” particularly the *aiōroi* (see below).⁵⁵ It is clear that infants in the Greek world, as elsewhere, constitute a special category of the dead, a phenomenon that is widely recorded by anthropologists and social historians.⁵⁶ Garland cogently musters the evidence in literature—such as Hekabe’s lament for the dead infant prince Astyanax, who had not known youth or marriage or godlike sovereignty and had scarcely been introduced to his *psyche*⁵⁷—and in art, particularly funerary stelai of the later fifth century B.C. that often illustrate an infant or child together with an adult.⁵⁸ Of the latter, the stele of Ampharete (Fig. 14), dating to the late fifth century B.C., is a classic case in point, as it preserves not only the image of infant and adult, but an epigram, inscribed on the architrave, consisting of an elegiac couplet followed by a hexameter.⁵⁹ The inscription, as given by Werner Peek,⁶⁰ reads:

Τέκνον ἐμῆς θυγατρὸς τόδ' ἔχω φίλον, ὄμπερ ὅτε αὐγὰς
 ὄμμασιν ἦ | εἰλίο ζῶντες ἐδερχόμεθα,
 ἐχὼν⁷ ἐμοῖς γόνασιν καὶ νῦν φθίμενον φθιμένη ἔχω.

It is my daughter’s child that I hold here with love, the one whom I held on my lap while in life we looked on the light of the sun and now [still] hold, dead as I am dead.⁶¹

In any search for the disposal of fetuses, neonates, or infants in Greek antiquity, one of the most important and informative contexts is the Hellenistic well (well G 5:3) on the north side of the Kolonos Agoraios, in the area of the Athenian Agora, that was closed sometime around 150 B.C.⁶²

54. Demand 1994, p. 72. She cites the relative dearth of physical anthropological studies available for Classical Greece, but doubts that a redirection of archaeological focus to human remains will prove promising, citing problems with age and sex determinations and especially the use of pelvic scars to estimate numbers of births. She even states (pp. 72–73) that “the nature of the Greek soil makes it highly unlikely that fetuses will be found actually lodged in the pelvises of female skeletons.”

55. Garland 1985, pp. 77–88.

56. See King 1903; Hertz 1960; Stone 1977; Milner, Wood, and Boldsen 2000.

57. Garland 1985, p. 84, with reference to Euripides’ *Trojan Women* 1171–1172; the relevant lines are 1156–1178. Cf. King 1903, p. 84: “Virgil

(*Aen.* 6.427) speaks of the souls of infants dead before their time, bewailing their fate on the threshold of the world below.” Fairclough (1999, p. 563) notes that infants were placed near the entrance of Hades because they had died at the entrance of life.

58. Among a long list of these, Garland (1985, pp. 69, 84–85, figs. 13, 19) illustrates and discusses the stele of Ampharete with her grandchild, which was probably originally intended to commemorate a mother and her daughter (for further discussion, see Demand 1994, pp. 121–140), and the stele of Mnesagora and her baby brother Nikochares. See also Schlörb-Vierneisel 1964. For a detailed overview of Greek grave reliefs, see Schmaltz 1983 (see also Schmaltz 1970), and for a good overview of the

grave stelai of women in Athens, see Stears 1995.

59. Clairmont 1970, pp. 91–92, pl. 11, no. 23, with full bibliography; see also Kübler 1934; Peek 1934; *IG II/III²* 10650. For the location of the stele and tomb of Ampharete in relation to other tombs in the Kerameikos and in relation to the Sacred Way, see Schlörb-Vierneisel 1964, p. 104, fig. 6.

60. Peek 1934, p. 33.

61. The translation is Clairmont’s (1970, p. 91).

62. See Rotroff 1999; Little 1999; Snyder 1999. For a recent survey of the evidence for abortion in the ancient world, see Kapparis 2002; it should be noted, however, that in both Greek and Latin there is no clear way of differentiating “abortion” from “miscarriage” (for which see Kapparis 2002, p. 246, n. 10).



Figure 14. Stele of Ampharete from the Athenian Kerameikos, late fifth century B.C. H. 1.20 m. Courtesy Deutsches Archäologisches Institut, Athens (neg. no. Ker 2620)

The well contained the human remains of one adult male, a child aged about 11 years at death, and about 450 fetuses, neonates, or infants. The well also contained the faunal remains of more than 130 dogs. The well and its contents are currently being studied for final publication by Susan Rotroff, Lisa Little, and Lynn Snyder. In preliminary papers the authors speculated on various interpretations, including animal sacrifice and infanticide, in addition to listing other explanations canvassed in earlier scholarship, including epidemic, famine, and siege.⁶³ Rotroff, in particular, cogently pointed out that this deposit may reflect normal rather than abnormal conditions, and went on to state that an “infant was not accepted as a member of the family until the *amphidromia*, on the fifth or seventh day after birth” and that children “who died before that time would probably not receive formal burial.”⁶⁴ Although the distinction between infants and children in various parts of the world can often be unclear, in ancient Greece such distinctions could be quite precise. In Classical Athens, for example, when a child was no longer a baby, at the age of three, it would be presented to the family clan, the *phratry*, and subsequently would participate

63. Rotroff 1999; Little 1999; Snyder 1999.

64. Rotroff 1999, p. 285. Garland (1985, p. 81) states that the *amphidromia* was “the naming-ceremony for an Athenian child which was held on the fifth or tenth day after birth.”

in the *choes* festival for the first time that same year.⁶⁵ The essential stages, the rites of passage, in the lives of many Athenians are recorded in an inscription dating to the second century A.D.:

Γάμων, γεννήσεως, χοῶν, ἐφηβείας.

Marriage, birth, *choes*, adolescence.⁶⁶

Add death as the last in a long chain of social transitions,⁶⁷ as well as death before *choes* (or *amphidromia*), and an interesting pattern emerges in the study of Greek burial customs. Although bodies of adolescents and children over the age of three are commonly found in burial grounds along with adults, the incidence of infants under the age of two and a half to three years in Greek cemeteries is comparatively rare. Indeed, corpses of infants are commonly found buried within the home or settlement area, at least in certain periods within the Bronze and Early Iron Ages in Greece.⁶⁸ The Athenian Hellenistic well G 5:3 is, therefore, similar to the Irish *cillíní*, designated resting places for stillborn and unbaptized children and other members of society who were considered unsuitable for burial in consecrated ground from early Christian times into the 20th century.⁶⁹ The same is true in modern Greece, where unbaptized children cannot be buried in consecrated Orthodox cemeteries. In a similar vein, references in ancient literature and modern Greek folk songs make it clear that funeral rites for unmarried adults are different from those reserved for married individuals, as the penetrating analyses of John Lawson and others have shown.⁷⁰

The approximately 450 skeletons in well G 5:3 are, as far as we know, the largest single assemblage of fetuses, neonates, and infants in Greek

65. See above, n. 2. Burkert 1972, p. 221; Hamilton 1992.

66. *IG II/III*² 1368, line 130; Burkert 1972, p. 221, n. 28. Although the institution of *ephebeia* in Athens is restricted to male youths, the term τὰ ἐφήβια refers to the celebration upon reaching adolescence, and is related to ἐφήβαιον, as in hair of pubes, including ἐφήβια γυναικεία.

67. Metcalf and Huntington 1991, p. 108.

68. See Sourvinou-Inwood 1995, pp. 433–439; the incidence of child and infant burials in Athens, whether inhumations or cremations, is usefully gathered in Strömberg 1993, especially pp. 143–200. Perhaps the best evidence for intramural burial of infants and children in the context of Early Iron Age Athens are the 19 graves on the Acropolis published by Gauss and Ruppenstein (1998). Of these graves, 18 are cist tombs and one a pithos burial. Among these, seven tombs can be

assigned as Submycenaean with confidence and a further four are likely. Four of the remaining graves are assigned to the Middle Helladic period, as is the pithos burial. Most important, all but one of the burials assembled by Gauss and Ruppenstein are burials of infants or children; for further discussion see Papadopoulos 2003, pp. 299–300. The question of intra- as opposed to extramural burial in the Greek world, and the reasons for it, especially in the case of children, has been discussed at length elsewhere and represents an interesting avenue for further inquiry; see Young 1951; Sourvinou-Inwood 1983, p. 43; Nilsson 1955, p. 175; Burkert 1977, p. 295; Jordan and Rotroff 1999.

69. For which see Murphy and McNeill 1993; Hurl and Murphy 1996; Donnelly, Donnelly, and Murphy 1999.

70. Lawson [1910] 1964, pp. 556–557, 592; Rehm 1994. See also Garland 1985, p. 87, and Gardner 1896, esp. p. 115.

antiquity, but there are a number of other, earlier examples. The fetus in tomb H 16:6 is not the only fetus or newborn infant among the Early Iron Age tombs uncovered in the area of the later Athenian Agora. It is, however, the only fetus that is cremated, though cremated young children have been found within Early Iron Age cemeteries in the same area.⁷¹ Among the examples recovered from inhumation tombs, Angel identified several infants in pit tombs broadly dating to the phase spanning Final Mycenaean through earliest Protogeometric. The infant in tomb N 16:1 Angel described as “7 months fetal to newborn,” that in tomb O 17:8 as a “newborn infant,” and the one in tomb O 7:16 as “fetal, seven months.”⁷² Of these tombs, N 16:1 was located less than a meter to the north of tomb M 16–17:1, the inhumation of an adult female, and had much in common with it; the proximity and close similarity of these two tombs led Smithson to believe that tomb M 16–17:1 contained the mother of the infant inhumed in tomb N 16:1.⁷³ Slightly later, dating to developed or later Protogeometric, is the infant pot inhumation, tomb O 7:6, described by Angel as a “fetal six-month’s infant.”⁷⁴ This was one of the earliest examples in Athens of a pot inhumation, or *ἐγχυτρισμός*.⁷⁵ Pot burials of unburned bodies first appear in post-Bronze Age times in Attica in the later Protogeometric period and are primarily limited to infants, as opposed to children.⁷⁶ The common handmade two-handled cooking pot, with an average height of about 0.40 m and often fire-stained from domestic use, was the preferred container, but sometimes spectacularly decorated vessels, such as the celebrated Eleusis Amphora, the name-vase of the Polyphemos Painter, standing to a height of 1.42 m, could be used for the purpose.⁷⁷ Although no such infant burials have been reported from Early or Middle Geometric tombs, Late Geometric examples are numerous, and there are at least

71. Among the cremated remains of children is the individual in tomb deposit F 16:4 (skeletal specimen AA 283). This tomb contained the cremated remains of a small child, no more than two to three years old. The cinerary urn preserved 77.24 g of cremated bone. The remains were thoroughly cremated, sufficient to consume all of the soft tissue, but the burning was not continued until all of the bone was completely calcined. The bone had never been cleaned, although Angel had estimated the skeleton to be from an adolescent, 10–14 years old. The developmental stage of the skeleton, however, shown most clearly in the vertebrae, makes it clear that this child was less than three years old, and may have been less than two. Unfortunately, the teeth, which could have provided a more precise age estimation, were not recovered with the bone. There is no evidence of pathology, but at this age, stresses associated with weaning, together with the introduction of food-

borne diseases, are common causes of death in many societies. For a reportedly early-6th-century B.C. child cremation, see Schlörb-Vierneisel 1966, p. 14, no. 21 (hS 179); also 1967, p. 40. For other Geometric child cremations in and around Athens, see Stavropoulos 1961, p. 5 (Academy) and Theocharis 1951, pp. 122–123 (Palaia Kokkinia, Piraeus); it should be stressed that neither of the latter two examples is certain.

72. The human remains in tomb N 16:1 were designated AA 317, those in tomb O 17:8 AA 289, and those in tomb O 7:16 AA 130. Another pit tomb dating to the same period, tomb D 7:7 on the Kolonos Agoraios, was described by Angel in his unpublished notes as the grave of an “infant aged *ca.* 8–12 months at death (AA 318).”

73. All of these tombs will be published in detail in the forthcoming volume on the Early Iron Age burials from the Athenian Agora (Papadopoulos and Smithson, in prep.).

74. AA 131.

75. Pot burials in Early Iron Age Athens are discussed in more detail in Papadopoulos and Smithson 2002, pp. 184–185.

76. For the distinction between infants and children, which is an important one in the Greek world, see Papadopoulos 2000, p. 111. Another Protogeometric pot inhumation is tomb C 10:2. The burial pot, a handmade two-handled cooking jar, contained the inhumed remains described at the time of excavation as those of an infant, more specifically as “a few bits of bones—those of a baby” (Agora notebook ΠΘ III, p. 464). Unfortunately, the human remains from this tomb were not kept, nor were they inspected at the time of excavation by a physical anthropologist.

77. For the Eleusis Amphora see Mylonas 1957; 1975, vol. I, pp. 91–92; vol. III, pls. 222–224; Morris 1984, pp. 37–51, pl. 6.

39 pot burials from the various cemeteries in the area of the Classical Agora, the Kerameikos, and the cemetery on the Acropolis South Slope near the Odeion.⁷⁸

In comparison to the death of infants, the death of pregnant women is rarely documented archaeologically, but evidence does exist from many parts of the world. In 1975, Calvin Wells enumerated two cases from Egypt, one from early Saxon England, and two from medieval Europe.⁷⁹ Since then fetal remains associated with adult females, presumably the mothers, have been reported from a variety of other sites in North America, Europe, and Africa.⁸⁰ All of these examples were, however, inhumation burials in which fetuses or neonates were found either interred with their mothers or else actually lodged in the pelvises of female skeletons.⁸¹

Cremated fetal remains have been identified in at least two sites in Greece, at Kavousi in Crete and Torone in the Chalkidike, both of which await definitive publication. The Late Geometric cremation burials at the Vronda site near Kavousi contained cremated fetuses and neonatal remains in association with the skeletons of young adult females. The cremation graves at Vronda all have multiple burials within the same cist grave. Although many of the cremation burials were primary deposits of cremated bone, thus preserving an approximation of anatomical arrangement in the bones, the fetuses, and all but one of the neonatal infants, were not recognized during the excavation of the tombs; such remains were only recovered by watersieving the grave soils and sorting the resulting residue. No fetal remains were, therefore, found within the pelvic cavity of the females, but in nine tombs fetal bones were found in the same deposits as young adult females. In four other burials, cremated bones from neonatal infants were also found in the same grave as adult females. All of these may represent burials of women who died during pregnancy or childbirth, and there appears to be no difference in the treatment of these burials from that of others in the same grave or other graves at Vronda.⁸²

The closest known parallel—both in terms of tomb type and date—to the cremated mother and infant in tomb H 16:6 is a cremation tomb from the Early Iron Age cemetery on terrace V at Torone.⁸³ From the 134 tombs excavated—18 of which were inhumations and 116 cremations—the remains of six infants were discerned by Jonathan Musgrave.⁸⁴ Of these six infants, five were disposed of as full-fledged individuals cremated and interred in their own tombs. The only exception was the fetus or neonate in tomb 123, which appears to have been cremated along with a female young adult aged 18–25 years at death, surely the mother who died in pregnancy or during childbirth. A unique aspect of this tomb was that it contained the largest group of fragmentary handmade tripod cauldrons in the Early Iron Age cemetery at Torone. Handmade terracotta tripod cauldrons were recorded in a number of tombs at Torone. The vessels were always found in a broken state, never complete, and, with the exception of those in tomb 123, the fragments usually represented a solitary vessel per tomb. Moreover, the position of individual tripods was consistent neither with that of normal pot offerings nor with that of vessels that served as lids or covers. The circumstances of their finding and their fragmentary state indicated some connection with funerary ritual, conceivably in the preparation of food or the burning of incense.⁸⁵

78. Papadopoulos and Smithson 2002, p. 184, and see also the discussion in Smithson 1968, p. 81, n. 19a; 1974, p. 373.

79. Demand 1994, p. 73; Wells 1975, p. 1237.

80. Owsley and Bradtmiller 1983; Williams 1994. Other examples are summarized in Aufderheide and Rodríguez-Martín 1998, p. 295.

81. For further discussion of these examples, see Demand 1994, pp. 72–73.

82. Liston 1993, pp. 137–140.

83. Fully discussed in Papadopoulos, forthcoming.

84. Musgrave's detailed anthropological assessment of the Torone Early Iron Age tombs will appear in Papadopoulos, forthcoming.

85. For which see Bowra 1962, pp. 215–216; Burkert 1972, pp. 83–134, esp. p. 122.

The number of fragmentary tripods in tomb 123 at Torone was most unusual. In addition to fragments of at least four tripod cauldrons, the tomb also yielded a number of marine shells and two possible animal bone fragments.⁸⁶ As already noted, the cremated remains deposited inside the ash-urn, a small wheelmade vertical-handled amphoriskos, were of a young adult female and a fetus/neonate. The tomb represents the clearest instance in the terrace V cemetery of a mother dying in pregnancy or during childbirth, suggesting that the tripod cauldrons may have been associated with a taboo, or its aversion, and used in some purification ritual. The importance of purification in Greek religion is an enduring aspect of Greek literature,⁸⁷ and the tripods associated with the mother and child in tomb 123 at Torone suggest that the process of dying in pregnancy or during childbirth may have contributed to the unusual burial treatment.⁸⁸ Unfortunately, the association of death during pregnancy or childbirth and special burial rituals at Torone could not be established on a firmer statistical basis on account of the fragmentary state of many of the human remains and the fact that certain types of death leave no physical trace on the skeletal remains.

Burials of an adult female together with a fetus or neonate, however, are not unique to Torone, and that a tomb as celebrated as that of the “rich Athenian lady” can now be listed among cremation graves containing the remains of a mother and child suggests that such tombs may be more common than is currently realized. Moreover, the tripods in Torone tomb 123 bring into focus a related issue that may now be considered in the light of the better-known tomb H 16:6 in the Athenian Agora. Was the “rich Athenian lady” really rich, or were the many pots buried with her, together with the gold and bronze jewelry, a necklace made of faience and glass beads, and the ivory stamp seals and disk, among other exotic *kterismata*, deposited in her tomb precisely because she died during pregnancy or premature childbirth?

The sheer quantity of material interred with this burial has usually been connected—implicitly if not explicitly—with Joseph Tainter’s “energy expenditure principle,” by which it is argued that “higher social rank of a deceased individual will correspond to greater amounts of corporate involvement and activity disruption, and this should result in the expenditure of greater amounts of energy in the interment ritual.”⁸⁹ By dying during pregnancy or childbirth, the female in tomb H 16:6 would have upset the normal link between burial and property transmission, particularly if the child that accompanied her to the grave was her first, or her first male offspring. Essential to what has come to be known in mortuary analysis as the Saxe/Goldstein hypothesis was the use or control of crucial but restricted resources,⁹⁰ and more specifically the critical resource—whatever that may be—passing from parent to offspring or among various members of a community.⁹¹ The logic linking burials and property transmission has been thoroughly discussed by Ian Morris,⁹² and even earlier by Margaret Alexiou, particularly with reference to Classical Greece.⁹³ In discussing the phenomenon of ritual economy, Peter Metcalf refines the argument of the transfer of crucial resources, suggesting that where an emphatic claim

86. Full details will be presented in Papadopoulos, forthcoming. Only one other tomb, tomb 115, yielded more than one tripod cauldron; in that case the tomb contained two fragmentary fire-affected cauldrons.

87. See, among others, Parker 1983.

88. Consequently, this tomb may represent one of a growing number of burials throughout the Greek world that express the importance of social role, and more particularly unusual deaths, some associated with deviancy in mortuary behavior, for which see Binford 1972; Shay 1985; Little and Papadopoulos 1998; Papadopoulos 2000.

89. Tainter 1978, p. 125.

90. Saxe 1970, pp. 119–121; see also Saxe 1971.

91. Goldstein 1981, p. 61.

92. Morris 1991; 1992, pp. 21–22.

93. Alexiou 1974.

is to be made, the funerary ritual is held on a larger scale, whereas in those cases where less is at stake, a simpler affair serves the ritual function equally well.⁹⁴ In the case of tomb H 16:6, as with Torone tomb 123, not one but two individuals—parent and offspring—were laid to rest, thereby potentially necessitating a more lavish expenditure as part of the funerary ritual or ceremony.

Tomb H 16:6 was rich not only in the quantity of material deposited, but also in the quantity of material consumed by the living taking part in the funerary ritual. Indeed, later Greek literature contains many references to *nekrodeipna*, funerary feasts, and other forms of consumption that leave little trace in the archaeological record.⁹⁵ In the case of tomb H 16:6, for example, a large quantity of meat was distributed and consumed, witnessed by the animal bone remains recovered from the pyre debris of the tomb, which together amounted to at least 70 kg of meat. Moreover, there is the very real possibility of invisible energy expended away from the grave. In dealing with the burial customs of the Lodagaa of West Africa, Jack Goody was among the first to show that a great deal of wealth was not deposited in the tomb of the deceased (which might have been found by an archaeologist at some later date), but was distributed among the living by means of straightforward formulas of income and outlay.⁹⁶ In the Greek Geometric period, judging by funerary iconography, many aspects of the funerary ritual, including those involving the consumption of wealth, did not occur at the grave, but during the wake, *prothesis* (lying in state), and *ekphora* (procession).⁹⁷ In Homer (*Il.* 23) the funerary games for Patroklos—like those in which Hesiod competed—provide further evidence for lavish expenditure at death that is not directly associated with the tomb. It is also useful to remember that the Athenians on several occasions—sometime after Solon and again in 317 B.C. under Demetrios of Phaleron—had to legislate in order to stem expenditure on either the funerary ritual or monument.⁹⁸ Indeed, the restrictions included both the length of certain aspects of the funerary ritual—for example, a single day was prescribed for the *prothesis* by Solonian law, implying that at an earlier time the *prothesis* was a more extended affair—as well as a ban on all but the simplest form of burial marker. Tombs such as H 16:6 must surely represent early examples of lavish expenditure that ultimately resulted in the need for such legislation.

We do not know whether the “rich Athenian lady” was cremated and buried as a pregnant woman or as a mother with an infant, though there is some evidence supporting the first. There are, therefore, many different ways to understand the grave goods and elaborate ritual associated with tomb H 16:6. The grave can be viewed, first, in the light in which it has been viewed since its discovery: as that of a high-status female in which the infant is not reflected because it did not attain what can be termed “personhood.” Indeed, as the Vronda parallels demonstrate, the presence of a fetus in some cases might not have any particular impact on the form of burial for the adult mother. Similarly, the many fetuses found in the Hellenistic well G 5:3 might also bring into question their “personhood.” In other words, while the new evidence from tomb H 16:6

94. Metcalf 1981, p. 571.

95. See especially Burkert 1977, p. 297 (with references); Andronikos 1968, pp. 15–18, 106–107; Kurtz and Boardman 1971, pp. 64–67; Snodgrass 1971, pp. 190–192; Garland 1985, pp. 110–115. See also Stampolidis 1995, pp. 299–307; 1996, pp. 93–203; and, for the *Totenmahl*, Thönges-Stringaris 1965.

96. Goody 1962, pp. 156–182.

97. See Zschietzschmann 1928; Alexiou 1974, pp. 4–14; Ahlberg 1971; see also Ahlberg-Cornell 1992.

98. For Solon, see Ruschenbusch 1966; Martina 1968, fr. 465–476; for Demetrios of Phaleron, see Kirchner 1939; see further Alexiou 1974, pp. 14–23; Garland 1985, pp. 26, 107. See also the discussion in Shapiro 1991.

warrants reconsideration of the entire burial, it is equally important not to assume that the “richness” of the tomb has anything to do with the fetus.

Conversely, it may be the very presence of the fetus that not only complicates the burial of the adult female, but determines and defines the form that the tomb was to take. In light of the discussion presented above on death and property transmission, the rich burial may point to the status of the deceased infant rather than to that of the mother, representing the burial of an infant heir and his mother. Alternatively, it may be the life history of the adult female that is critical in understanding the final form of the grave, not that of the fetus or heir. Looked at from this perspective, the status of the female in life—or for that matter the status of the infant or neonate—is irrelevant. Rather, it is the personal history of the deceased woman, including the failed pregnancy and a life cut short, that assumes importance. As for Torone tomb 123, death during pregnancy placed the individuals buried in tomb H 16:6 in the category of the “special dead,” thus warranting a special ceremony, in this case the lavish outlay of funerary goods, together with the expense of the associated funerary ritual that took place near the grave and away from it.⁹⁹ Although there are many categories of the “special dead” in the Greek world—heroes, the war dead, the murdered dead and their killers, suicides, *diobletoi* (those struck by lightning), *deuteropotmoi* (the “second-fated ones” for whom an *ekphora* had been held and a tomb constructed on the assumption that they were dead), the *ataphoi* (the unburied dead),¹⁰⁰ and social outcasts¹⁰¹—the *aōroi*, as Garland notes, are “often lamented in tragedy and very commonly alluded to in epitaphs.”¹⁰² Their name literally referring to an “untimely” or early demise, the *aōroi* were accorded special funerary rites. The combination of mother and infant in tomb H 16:6—a double burial of two distinct individuals—may represent two such *aōroi*.¹⁰³

Whichever way one views the deceased in tomb H 16:6, the new evidence presented in this study highlights the need for a more nuanced theoretical framework for examining the age and gender of any burial. This framework must include not only the specific tomb contents and evidence for ritual behavior, as opposed to general indications of wealth, but also the physical remains of the individuals buried there.¹⁰⁴

Apart from the lavish outlay associated with the tomb of the so-called rich Athenian lady, there was nothing inherent in the tomb to signal clearly that this was the grave of a mother who died in pregnancy or childbirth. As was the case in Torone tomb 123, the only way to establish the identity of those cremated and interred in these tombs was through the study of the physical remains. In later periods such information is often clearly

99. For the “special dead,” see discussion in Garland 1985, pp. 77–103; Little and Papadopoulos 1998.

100. For all these see Garland 1985, pp. 88–103.

101. For which see Shay 1985; and full discussion in Little and Papadopoulos 1998. For a recent account of the poetry of illegitimacy in Greek lit-

erature, see Ebbott 2003, particularly for the manner in which *notboi* embody polarities such as legitimate/illegitimate, free/slave, fertile/sterile, and so on.

102. Garland 1985, pp. 77–88, esp. p. 77.

103. Although there are a number of double burials in Early Iron Age Athens, including several tombs con-

taining two adults, few if any of these approach the lavish outlay of tomb H 16:6, and many of these are not in any way distinguished from single burials. For a catalogue of such tombs, see Strömberg 1993, pp. 111–200.

104. For a useful discussion of gender and hierarchy in early Athens, see Whitley 1996.



Figure 15. Stele of Hediste from Demetrias-Pagasai, ca. 200 B.C. H. 0.73 m. Volos, Archaeological Museum. After Arvanitopoulos 1928, pl. II; reproduction of painting prepared by Émile Gilliéron père

105. See, among others, Friederichs 1885 (revised by Wolters); Wolters 1892; Michon 1905; *Kerameikos II*; Loraux 1981 (cf. Loraux 1986, p. 24; 1987); Vedder 1988, 1989; Demand 1994, pp. 121–130.

106. See Demand 1994, pp. 130–134, following a suggestion first made by Clairmont 1970.

107. Arvanitopoulos 1928, pp. 147–149, pl. II.

108. Arvanitopoulos 1928, p. 148.

signaled in the funerary marker. Indeed, a number of scenes on funerary stelai and stone lekythoi depicting a seated or collapsing woman, often with hair and clothing loosened, physically supported by a woman and sometimes attended by another figure, have been identified as representations of women in labor and even as portrayals of heroic female deaths,¹⁰⁵ though some scholars prefer to see some of these as memorials to midwives.¹⁰⁶ But arguably the most evocative gravestone of the later Classical and Hellenistic periods of a woman dying in pregnancy is the painted stele of Hediste from Demetrias-Pagasai now in the Volos Museum (Fig. 15).¹⁰⁷ Measuring 0.73 m in height, 0.536 m wide, and 0.137 m deep, and usually dated to about 200 B.C., the stele was found in two parts in 1907 and 1909. The front of the stele is decorated with a painted scene of the deceased woman, lying on a *kline*, with a youthful man—identified as her husband by Arvanitopoulos¹⁰⁸—to the left, and a standing older female attendant

behind holding the body of the dead child. Below the painted picture frame is an inscribed poem, transcribed by Arvanitopoulos:

Λυπρὸν ἐφ' Ἡδίστηι Μοῖραι τότε νῆμα ἀπ' ἀτράκτων
 κλῶσαν, ὅτε ὠδίνος νόμφη ἀπηντίασεν·
 σχετλίη! Οὐ γὰρ ἔμελλε τὸ νήπιον ἀγκαλιεῖσθαι,
 μαστῶι τε ἀρδεύσειν χεῖλος ἐοῖο βρέφους.
 Ἐν γὰρ ἐσεῖδε φάος καὶ ἀπήγαγεν εἰς ἓνα τύμβον
 τοὺς δισσοὺς, ἀκρίτως τοῖσδε μολοῦσα, Τύχη.

A painful thread for Hediste did the Fates weave from their
 spindles when,
 as a young wife she came to the throes of childbirth.
 Ah wretched one! For it was not fated that she should cradle
 the infant in
 her arms, nor moisten the lips of her new-born child at her breast.
 One light looks upon both and Fortune has brought both to a
 single tomb,
 making no distinction when she came upon them.¹⁰⁹

This remarkable stele is well described by Jerome Pollitt:

Hediste, whose grave the stele marked, died in childbirth, as did her infant. The painted scene on the stele shows the immediate aftermath of this tragedy. Hediste's pain-wracked body still lies on the bed and is contemplated by her grief-stricken husband. In the background of the bedchamber an old woman holds the body of the dead child. It is not just the sadness of death but its suddenness that interested the painter of the stele, and the poignant epitaph carved at its base leaves no doubt that it was Tyche who was seen as the author of this suddenness.¹¹⁰

Both iconographically and by means of the written word—the latter a work, according to Arvanitopoulos, of an important poet from Demetrius¹¹¹—the stele of Hediste conveys the pathos of a woman and child dying during pregnancy or childbirth. The physical anthropology of the tomb of the “rich Athenian lady” of the Areiopagos, like that of tomb 123 in the Early Iron Age cemetery at Torone, conveys a similar pathos in an era before writing and recorded history.

CONCLUSIONS

This study has highlighted the importance of the detailed analysis of the physical anthropology of any ancient grave. The identity of the deceased cannot be determined on the basis of grave goods alone and the only way to establish the identity of those interred in a tomb, whether a cremation or an inhumation, is through the study of the physical remains. Although many recent studies have used data from Geometric burials as an important part of the analysis of this period,¹¹² rarely do such studies include detailed information on the physical anthropology of the population of the cemetery. The point is well made by Ian Morris, who writes:

109. Translation provided by Pollitt 1986, p. 4.

110. Pollitt 1986, p. 4, with an illustration of the stele on p. 5, fig. 3, and further discussion on p. 194.

111. Arvanitopoulos 1928, pp. 147–148.

112. See, e.g., Morris 1987; Whitley 1991; Houby-Nielsen 1995; Haentjens 1999.

Classical archaeology generally lags behind prehistory in skeletal analysis. Even today it is not unknown for hundreds of skeletons to vanish after excavations, while associated vases are published in meticulous detail. Many fieldworkers seem unaware of the importance of this material for historians. . . . Although there is little to show so far, the potential of this work is enormous. The combination of textual and skeletal evidence allows us to pursue the history of mortality, disease and diet in individual communities over longer periods.¹¹³

In the case of the numerous Early Iron Age burials from the German excavations of the Athenian Kerameikos, for example, the published reports dealing with the human remains—a model for their time—were very detailed for the “Submycenaean” inhumations, whereas the report on the Protogeometric cremated remains was more circumscribed.¹¹⁴ Indeed, the study of cremations in Greece has generally lagged behind that of inhumations, though there are important exceptions, and, as Jonathan Musgrave has shown, a great deal can be learned from the study of cremated remains: so much more than “dust and damn’d oblivion.”¹¹⁵ In the case of some of the Early Iron Age tombs in the area of the later Athenian Agora, the published descriptions of the human remains were largely based on preliminary examinations that were never followed up with comprehensive analyses. Although the presence of a fetus is far from unusual in many Early Iron Age cemeteries, finding one in such a well-known and fully published tomb, several decades after excavation, highlights the need for the careful study—and restudy—of the human remains, no matter what their state of preservation. More than this, once the physical anthropology of tomb H 16:6 was known, the lavish grave goods deposited in it—like the tripods in Torone tomb 123—took on a new meaning. Indeed, the “wealth” of the so-called rich Athenian lady may have been a result of the fact that she died in pregnancy or childbirth rather than an undistorted gauge of her material wealth or status, or that of her immediate family, in life.

The reanalysis of this and other Early Iron Age burials from the area of the Classical Athenian Agora provides critical information, clarifying the biological and social identity of those interred in a grave and providing much needed data for interpreting the associated grave goods. A meaningful analysis of the demography and social structure of this and any other period cannot be accomplished until the human physical remains have been accurately evaluated. Only with the study of skeletal remains can we understand more clearly the *rites de passage*—what van Gennep saw so clearly in living communities—of any prehistoric society.

113. Morris 1992, p. 101. Morris’s chapter 3 (entitled “‘Dem bones’: Skeletal Remains”) provides a lucid overview of some types of information offered by skeletal remains if they are interrogated and interpreted by archaeologists.

114. See the reports by E. Breitin-

ger, in *Kerameikos I*: “Die Skelette aus den submykenischen Gräbern” (pp. 223–255), and “Die Brandreste aus den protogeometrischen Amphoren” (pp. 257–261).

115. See, e.g., Musgrave 1990a, 1990b, 1996.

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