THE MINI-COLUMBARIUM IN CARTHAGE'S YASMINA CEMETERY

by

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(Under the Direction of N. J. Norman)

ABSTRACT

The Mini-Columbarium in Carthage's Roman-era Yasmina cemetery combines regional construction methods with a Roman architectural form to express the privileged status of its wealthy interred; this combination deploys monumental architectural language on a small scale. This late second or early third century C.E. tomb uses the very North African method of vaulting tubes, in development in this period, for an aggrandizing vaulted ceiling in a collective tomb type derived from the environs of Rome, the columbarium. The use of the columbarium type signals its patrons' engagement with Roman mortuary trends—and so, with culture of the center of imperial power— to a viewer and imparts a sense of group membership to both interred and visitor. The type also, characteristically, provides an interior space for funerary ritual and commemoration, which both sets the Mini-Columbarium apart at Yasmina and facilitates normative Roman North African funerary ritual practice, albeit in a communal context.

INDEX WORDS: Funerary monument(s), Funerary architecture, Mortuary architecture, Construction, Vaulting, Vaulting tubes, Funerary ritual, Funerary commemoration, Carthage, Roman, Roman North Africa, North Africa, Columbarium, Collective burial, Social identity.

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INTRODUCTION

The Mini-Columbarium is a curious tomb in Carthage's Roman-era Yasmina cemetery. Dating to the late second or early third century C.E., this private collective tomb has a unique form that points to engagement with both funerary fashions at Rome and contemporary developments in construction methods in North Africa. It thus provides evidence of how a group of private patrons positioned themselves within the dynamics of social identity in Roman Carthage. Its place in a private cemetery at Carthage allows us to view the monument in relation to its immediate funerary landscape, to its regional mortuary context, and to wider Roman imperial practice. Much scholarly work has interrogated the indigenous pre-Roman, Punic, and Roman elements of ancient funerary monuments in North Africa. Stone, Stirling, and Mattingly, among other scholars, have turned attention to how individual or group identity is conveyed with vocabulary (be it iconographic, architectural, or textual) blended from local and imperial cultures. Such an avenue of inquiry helps elucidate how individual choices in monument design reveal the dynamics of identity creation in imperial contexts, rather than providing signs of passive acculturation.[1]

Given that the Mini-Columbarium is a private collective tomb located within a private cemetery, the design of this tomb reflects not state-engagement, but private navigation of local and imperial (Rome-based) expressions of social identity by a wealthy group—perhaps a family,

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[1] For example: David J. Mattingly, *Imperialism, Power, and Identity: Experiencing the Roman Empire* (Princeton: Princeton University Press, 2011); *Mortuary Landscapes of North Africa*, ed. David Leigh Stone and Lea Margaret Stirling (Toronto: University of Toronto Press, 2007); David Leigh Stone, "Burial, Identity and Local Culture in North Africa," in *Articulating Local Cultures: Power and Identity under the Expanding Roman Republic*, ed. Peter A. R. Van Dommelen and Nicola Terrenato, JRA Supplement (Portsmouth (R.I.): Journal of Roman Archaeology, 2007).

perhaps another collective— at Carthage. Although in the form of columbarium, a tomb type that appears in early imperial central Italy, it is built in a typically North African fashion, with vaulting tubes. This study provides a detailed look at the Mini-Columbarium, contextualizing its architectural choices and considering the implications of those choices both for the messages communicated by the tomb and for a visitor's experience of the tomb. These choices are contextualized and considered with attention to both Roman and regional practices and are viewed as active choices which express the tomb's messages about its dead.

Chapter 1 sets the stage for the discussion of the Mini-Columbarium that follows. It briefly contextualizes the Yasmina cemetery within Carthage. It then describes the site's excavation, undertaken between 1992 and 1997 by the University of Georgia, layout, and use from the late first century to sixth century C.E. Lastly, it provides a brief overview of the cemetery's monuments and burials (cremation and inhumation), among which the Mini-Columbarium is situated.

In chapter 2, I concentrate on the construction of the Mini-Columbarium. The monument and its location within the Yasmina cemetery are described in detail, before attention turns to the tomb's tubular vaulting roofing method. This small tomb has a vaulted ceiling built with terracotta vaulting tubes (*tubi fittili*), a vaulting method that becomes ubiquitous in North African construction in the third century C.E. I survey recent research on vaulting tubes, describing their use, pre-third century C.E. origins, and contexts of their use in North Africa. The construction choice of vaulting tubes, as well as the decision to use a vaulted ceiling, reflects the small tomb's outsized monumental aspirations.

Chapter 3 looks at the monument's overall architectural form. The Mini-Columbarium is so-named because it is a small-scale columbarium. Columbaria were a tomb type in use from the

Augustan period into the second century C.E. in central Italy. They are characterized by their inward-looking form and their cremation burials of collective groups, united on lines other than kinship, in niches in their interior walls. After providing contextual details about columbaria in central Italy, I turn to evidence for columbarium-type tombs in North Africa. Finally, I discuss the Mini-Columbarium as a columbarium, considering how its internalized experience set it apart at Yasmina and what implications its collective character may have had.

Finally, I examine evidence for funerary cult ritual in chapter 4. Ritual offerings were important elements in both Roman funerary practice and cults of the dead venerated in North African cultures. This chapter provides a brief overview of Roman and North African "rites of commemoration" at the graveside. An examination of two typical furnishings for cultic ritual—offering tables and libation tubes—in cemeteries in the Roman provinces of North Africa follows. Finally, I turn attention to the Yasmina cemetery. Offering tables and libation tubes accompany tombs built in the first phase of the cemetery's use, suggesting that, as in most Roman-era cemeteries in North Africa, normative practices of graveside offerings at Yasmina took place outside tombs. The Mini-Columbarium's internal offering crypt makes it an outlier in form, but still accommodates the ritual offerings practiced at the other tombs.

Analysis of the Mini-Columbarium's construction, architecture, and ritual furnishings provides a holistic look at this funerary monument. This case study allows us to see the ways in which the social identities of the dead were constructed and presented on a regular basis to visitors to the tomb. It further reveals how such identities were engaged in both local and imperial terms of power, two sets of vocabulary integral to expressions of status in Roman-era Carthage.

CHAPTER 1: CONTEXT

<u>Carthage: Overview</u>

Carthage is located on the gulf of Tunis, in the modern nation of Tunisia. The ancient city was founded in the ninth or eighth century B.C.E. by Phoenicians from the city of Tyre. It was destroyed by the Romans in 146 B.C.E. during the Third Punic War. The first Roman plan to resettle the site of Punic Carthage came in the form of C. Sempronius Gracchus' abortive attempt to establish the colony of Junonia in 122 B.C.E. Carthage was finally resettled with Julius Caesar's establishment of the new Roman colony, Colonia Concordia Iulia Karthago. [2]

The development of Roman Carthage on the site began in earnest, however, in the reign of Augustus. In the Imperial period, its urban development included the leveling and consolidation of the Punic acropolis, Bysra Hill, into a large platform that served as both the city center and the intersection of the *decumanus maximus* and the *cardo maximus*. [3] By 35 B.C.E., Carthage served as the administrative and gubernatorial seat of the new province formed by the consolidation of Africa Vetus and Africa Nova into Africa Proconsularis.

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[2] B. D. Hoyos, *The Carthaginians* (Oxon: Routledge, 2010), 4-12, 218-220; Serge Lancel, *Carthage: A History* (Cambridge: Blackwell, 1995), 151; Naomi J. Norman, "Death and Burial of Roman Children: The Case of the Yasmina Cemetery at Carthage—Part I, Setting the Stage," *Mortality* 7, no. 3 (2002): 303-304; J. B. Rives, *Religion and Authority in Roman Carthage from Augustus to Constantine* (Oxford: Oxford University Press, 1995), 19-27; Edith Mary Wightman, "The Plan of Roman Carthage: Practicalities and Politics," in *New Light on Ancient Carthage: Papers of a Symposium*, ed. John Griffiths Pedley (Ann Arbor: University of Michigan Press, 1980), 34.
[3] Hoyos, 4-12, 218-220; Lancel, 151; Norman: 303-304; Rives, 19-27; David Soren, Aïcha Ben Abed Ben Khader, and Hédi Slim, *Carthage: Uncovering the Mysteries and Splendors of Ancient Tunisia* (New York: Simon and Schuster, 1990), 171; Wightman, 34. The actual date of the colony's establishment is unknown; the re-founding of Carthage seems to have been initiated by Caesar but carried out by Augustus early in his reign.

Roman Carthage prospered as the capital of the "most urbanized of Roman provinces." [4] This prosperity derived in large part from its extensive agricultural territorial holdings. Carthage was particularly prosperous beginning in the second century, as Africa Proconsularis' agriculture and shipping business en-riched its capital city and major port. Carthage's important place in the Roman Empire is also clear in its position as an intellectual center and as a hotspot for Christian activity.[5] In 439 C.E., Carthage was conquered by the Vandals; this first invasion was followed in 533 by that of Byzantine general Belisarius and, finally, in 698 by the Arabs.[6]

Carthage: Roman-Byzantine Cemeteries

Burial sites at Carthage have long attracted interest, as the potentially sensational aspects of the Punic-era *Tophet* captured the attention of ancient and modern writers alike.[7] Less luridly, the Yasmina cemetery (described in the following section), located in the southwest region of the city, is one of several excavated burial sites at Carthage that date to the Roman and Byzantine periods. With its use spanning from the first to sixth century C.E., it is the cemetery with the longest period of use.

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[4] Naomi J. Norman, "Death and Burial of Roman Children: The Case of the Yasmina Cemetery at Carthage-Part II, the Archaeological Evidence," *Mortality* 8, no. 1 (2003): 37; Susan Raven, *Rome in Africa*, 2nd ed. (London: Longman, 1984), 84-109.

[5] Norman, "Death and Burial of Roman Children: The Case of the Yasmina Cemetery at Carthage-Part II, the Archaeological Evidence," 37; Raven, 84-109; Rives, 19-27.

[6] Norman, "Death and Burial of Roman Children: The Case of the Yasmina Cemetery at Carthage—Part I, Setting the Stage," 303-304; Raven, xxi-xxii.

[7] Ancient sources: *e.g.* Diod. 20.14; Ennius, *Annales* 7.237; Pliny *N.H.* 36.4.39; Plutarch, *De Superstione* 171C-D (for additional references, see Glenn Markoe, *Phoenicians* (Berkeley: University of California Press, 2000), 132-136, 215). Modern writing: *e.g.* Susanna Shelby Brown, *Late Carthaginian Child Sacrifice and Sacrificial Monuments in Their Mediterranean Context*, JSOT/ASOR Monograph Series, No. 3 (Sheffield, England: JSOT Press for the American Schools of Oriental Research, 1991); Gustave Flaubert, *Salammbo*, trans., A.J. Krailsheimer, Penguin Classics (Harmondsworth: Penguin, 1977); Hoyos, 100-104; Lancel, 228; Edward Lipiński, *Dieux et Déesses de l'Univers Phénicien et Punique*, Orientalia Lovaniensia Analecta, 64 (Leuven: Uitgeverij Peeters: Dép. Oosterse Studies, 1995); Markoe, 132-136; Sergio Ribichini, "Beliefs and Religious Life," in *The Phoenicians*, ed. Sabatino Moscati (New York: Abbeville Press, 1988); Lawrence E. Stager, "The Rite of Child Sacrifice at Carthage," in *New Light on Ancient Carthage: Papers of a Symposium*, ed. John Griffiths Pedley (Ann Arbor: University of Michigan Press, 1980).

The Flavian- and Trajanic-era Cemetery of *Officiales* is located on the southwestern side of the city, near the amphitheater (fig. 1); epigraphic testimony identifies its burials as those of slaves and freedman of the Imperial bureaucracy. Now inaccessible under modern construction, its 1889 publication depicts tombs similar to those of the Yasmina cemetery.[8] Other excavated cemeteries include a Byzantine-era (seventh century) cemetery in southwestern Carthage between the circus and the Theodosian wall, an extra-mural cemetery at Le Kram in southern Carthage, a Vandalic-era cemetery near the city's north gate, a fifth- to sixth-century reuse of a villa in northern Carthage as a burial site (Falbe Point 90), a fourth- to sixth-century reuse of a bath at Bir el Jebbana in western Carthage as a cemetery, and cemeteries associated with the Christian basilicas of Bir el Knissa, Damous el Karita,[9] and Bir Ftouha.[10] Anna Leone has also recently discerned three types of burials among the isolated urban burials of fourth- to seventh-

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[8] A. L. Delattre, *Fouilles d'Un Cimetière Romain a Carthage en 1888* (Paris: E. Leroux, 1889); Raymond Etienne and G. Fabre, "Démographie et Classe Sociale: L'Exemple du Cimitière des Officiales à Carthage," in *Recherches sur les Structures Sociales dans L'Antiquité Classique*, ed. Claude Nicolet and Christian Leroy (Paris: Éditions du Centre national de la recherche scientifique, 1970), 81-97; Paul Lachlan MacKendrick, *The North African Stones Speak* (Chapel Hill: University of North Carolina Press, 1980), 32 fig. 2.3, 51; Norman, "Death and Burial of Roman Children: The Case of the Yasmina Cemetery at Carthage-Part II, the Archaeological Evidence," 39; Naomi J. Norman and Anne E. Haeckl, "The Yasmina Necropolis at Carthage, 1992," *Journal of Roman Archaeology* 6 (1993): 239.

[9] At Damous el Kartia, *memoria* were built over the remains of earlier graves and tombs, including third century elite monuments. Susan T. Stevens, "Commemorating the Dead in the Communal Cemeteries of Carthage," in *Commemorating the Dead: Texts and Artifacts in Context: Studies of Roman, Jewish, and Christian Burials*, ed. Laurie Brink and Deborah A. Green (Berlin: Walter de Gruyter, 2008), 100.

[10] Mohamed Khereddine Annabi, "Deux Nécropoles au Sud de la Ville," in *Pour Sauver Carthage: Exploration et Conservation de aa Cite Punique, Romaine et Byzantine*, ed. A. Ennabli (Paris: UNESCO, 1992), 183-187; S. P. Ellis and J. H. Humphrey, "Interpretation and Analysis of the Cemetery," in *The Circus and a Byzantine Cemetery at Carthage*, ed. John H. Humphrey (Ann Arbor: University of Michigan Press, 1988), 325-336; Norman, "Death and Burial of Roman Children: The Case of the Yasmina Cemetery at Carthage-Part II, the Archaeological Evidence," 39-44; Susan T. Stevens, *Bir El Knissia at Carthage: A Rediscovered Cemetery Church: Report No. 1*, Journal of Roman Archaeology (Ann Arbor, MI: Kelsey Museum, University of Michigan, 1993); Stevens, "Commemorating the Dead in the Communal Cemeteries of Carthage," 79-103; Susan T. Stevens and Mark B. Garrison, "Introduction," in *A Cemetery of Vandalic Date at Carthage*, ed. Susan T. Stevens, Mark B. Garrison, and Joann Freed (Portsmouth, R.I.: Journal of Roman Archaeology, 2009).

century Carthage: tombs close to churches, burial groups in abandoned structures, and small burial groups near living areas.[11]

Yasmina Cemetery: Introduction[12]

Location

The Yasmina cemetery, so-named from its location in the modern Yasmina suburb of Carthage, is situated just outside the Theodosian wall of ancient Carthage's southwest quadrant (fig.2). It is approximately 100 meters from the south cavea of the Roman circus, which was excavated by the University of Georgia (1982-83, 1985, 1987) in conjunction with the University of Colorado and the University of Michigan.[13] The circus appears to have been constructed in the late first or early second century.[14] Circus iconography on the funerary monuments of the Yasmina cemetery, such as on the Charioteer Monument (locus 2002/4002) and the Tertullus Tomb (locus 1003), suggests that the Yasmina cemetery and the Roman circus were connected by more than just their spatial proximity.

Like the Cemetery of the *Officiales* located near the amphitheater and the Byzantine cemetery also close to the circus, the Yasmina cemetery stood in close proximity to an entertainment structure. The Yasmina cemetery was, then, a prominent feature in the southwest region of Roman Carthage. Located outside the city's walls (and, before the construction of the

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[11] Anna Leone, "Changing Urban Landscapes: Burials in North African Cities from the Late Antique to Byzantine Periods," in *Mortuary Landscapes of North Africa*, ed. David Leigh Stone and Lea Margaret Stirling (Toronto: University of Toronto Press, 2007), 164-203.

[12] My account of the Yasmina Cemetery and its history is derived from the project's excavation reports and trench notebooks; sources supplementary to these are cited individually. These archival data include each season's site-wide final stratigraphic reports, the seasonal reports for trench 7xxx, conservation reports, and a preliminary draft of the overall stratigraphic report. I cite them here, *en masse*, for sake of clarity.

[13] Naomi J. Norman, "University of Georgia Excavations in the Roman Circus," *Archaeological News* 15, no. 1-4 (1990): 17; Norman and Haeckl, "The Yasmina Necropolis at Carthage, 1992," 238 n.4.

[14] J. Marilyn Evans, "The Tertullus Monument: A Funerary Monument from Roman Carthage" (University of Georgia, 2006), 9-10; Naomi J. Norman, "The Architecture of the Circus in the Light of the 1982 Season," in *The Circus and a Byzantine Cemetery at Carthage*, ed. J. H. Humphrey (Ann Arbor: University of Michigan Press, 1988), 11; Norman, "University of Georgia Excavations in the Roman Circus," 17, 23.

walls, outside the *pomerium*) but in a visual relationship with the circus, its monuments would

have also been visible from the approaches in and out of Carthage's south gate.[15]

Rescue Work

The Yasmina cemetery was first identified as an archaeological site during the 1981 construction

of a road intended to delineate an archaeological zone in the area. After ashlar blocks and a

marble statue of a charioteer, which dated to the early third century C.E., were unearthed by a

bulldozer, M.K. Annabi led rescue excavations that revealed the presence of funerary

monuments.[16] After this initial rescue operation, the excavated area was backfilled and covered

with a thin concrete cap for protection.[17]

History and Goals of Excavation

The Yasmina cemetery was excavated in 1992-1995 and 1997 by the University of

Georgia. The close spatial and visual relationship of this site to the Roman circus as well as the

discovery of the charioteer statue prompted the involvement at Yasmina of the University of

Georgia excavators of the Roman circus. A brief probe of the Yasmina *sondage* site in 1990

preceded the decision to return to southwest Carthage in 1992 to excavate the cemetery.

The University of Georgia project at the Yasmina cemetery commenced in 1992 on a

limited scale, with the permission of both Annabi and A. Ennabli, the conservator of ancient

Carthage. The initial goal for 1992 was to contextualize the findings of the 1981 *sondage* in a

short season of a few weeks; however, recognition of the site's complexity prompted a re-

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[15] Evans, 9.

[16] Mohamed Khereddine Annabi, "Découverte d'un Édifice et d'une Sculpture Près du Cirque Romain," *CEDAC* 4, (1981): 3; Norman and Haeckl, "The Yasmina Necropolis at Carthage, 1992," 238.

[17] Evans, 4; Norman and Haeckl, "The Yasmina Necropolis at Carthage, 1992," 238.

conception of the project as a full-scale excavation, rather than as the originally intended rescue operation.[18]

With this change, several new goals supplemented the original objective of contextualizing the 1981 discoveries by stratigraphic excavation. These goals included mapping the contours of the area, recovering the site's extent and histories of occupation, character, and function, conserving the site's monuments, studying the evidence for death and burial practices, and, finally, situating the site and its material with respect to both the urban history of the southwest quadrant of Carthage and the material from other excavated Roman cemeteries at Carthage.[19]

The 1992 area of excavation followed the east-west cut made in 1981 by the road-building activity and extended to the north by the original Tunisian rescue *sondage*. The grid of four squares established in 1992 centered on the ashlars of the Charioteer Monument (locus 2002/4002) that were detected in 1981. This grid covered an area approximately 15 by 15 meters. In all, five trenches[20] were opened in 1992. [21] This first season revealed additional large funerary monuments, as well as additional cremation and inhumation burials.[22]

In the 1993 season the excavation area was expanded to the north, east, and west, now covering an area of 21.5 meters (N-S) by 10.5 meters (E-W). As a result of this expansion, the excavation grid was slightly reorganized.[23] Excavation in 1993 revealed more tomb

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[18] Evans, 4; Naomi J. Norman, "Excavations in the Yasmina Necropolis, the 1993 Season," *CEDAC* 14 (1994): 12; Norman and Haeckl, "The Yasmina Necropolis at Carthage, 1992," 238-239.

[19] Norman and Haeckl, "The Yasmina Necropolis at Carthage, 1992," 239.

[20] Trenches 1 and 3, located the north of the original bulldozed zone and consolidated in 1993 as Trench 7, and Trenches 2 and 4 in the south, consolidated as Trench 6, were joined midseason by Trench 5 to the south of the original bulldozed zone.

[21] Evans, 6-7; Norman and Haeckl, "The Yasmina Necropolis at Carthage, 1992," 239.

[22] Norman and Haeckl, "The Yasmina Necropolis at Carthage, 1992," 239-250.

[23] Consolidation of four 1992 trenches yielded Trenches 6 and 7, and an additional trench, Trench 8, was added to the north of Trench 7. In addition, four *sondages* were undertaken outside the main excavation area in support of the goal of determining the cemetery's extent (Trenches 9 and 11, located to the north of Trench 8; Trench 1, located

monuments,[24] and the discovery of sixth century inhumations proved that use of the site as a cemetery continued at least until that time.[25]

The 1994 season saw the implementation of conservation goals alongside the excavation objectives. Conservation work on the tomb monuments commenced. The area of excavation was expanded again in order to determine the southern and northern boundaries of the cemetery.[26] Fieldwork in 1994 yielded additional monuments, more precise information about the monuments' relative chronology, the identification of a child burial precinct, and study of the Tertullus Tomb.[27] Evidence was found for consolidation and stabilization of the cemetery following a devastating geological event in the fifth century.

The goal of the 1995 season was the procurement of secure stratigraphic dates for major monuments. Accordingly, excavation focused on five trenches[28]; no new areas of the cemetery were excavated. Conservation efforts also continued in 1995.

The same goals carried over to the 1997 season. This final season of excavation focused on three trenches,[29] as secure stratigraphic dates were sought especially for the Charioteer Monument (locus 4002; in Trench 6), the monuments of Trench 7, and the Eros Monument (locus 1038; in Trench 8). Excavation revealed strong indications of a founding date for the cemetery in second half of the first century.

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to the east of Trench 7; Trench 12, located west of Trench 7). See below, in "*Site Description: Terrain and Trenches of the Yasmina cemetery*."

[24] These monuments include the Eros Mausoleum (locus 1038; located at the end of the 1992 season) and the Libation Tube Monument (locus 7047).

[25] Evans, 5; Norman, "Excavations in the Yasmina Necropolis, the 1993 Season," 12-14.

[26] Trench 13 to the south; Trenches 14 and 15, later consolidated as Trench 16, to the north.

[27] Evans, 5-6; Naomi J. Norman, "The Yasmina Necropolis of Ancient Carthage: The 1994 Season," *OWAN* 18, no. 3 (1995): 16-19.

[28] Trenches 6, 7, 8, 13, 16.

[29] Trenches 6, 7, and 8.

Site Description: Terrain and Trenches of the Yasmina cemetery

The site of the Yasmina cemetery was originally characterized by a high bluff in the north and an area of lower elevation in the south. In the course of its use as a cemetery, this terrain was reshaped into three terraces, which descend from north to south: the southern terrace was originally located at the foot of the bluff, whose southern elevation was cut back to create a vertical face, while the higher ground was divided into a central and a northern terrace. The central terrace was the earliest location of funerary activity at the site, which eventually extended to all three terraces. Several landfilling operations during the cemetery's use altered ground levels: these include infilling in the fourth and fifth centuries that brought the southern and central terraces to same elevation and a final, seventh-century filling operation across the entire site.

A significant topographical feature in the Yasmina cemetery is a large sinkhole (locus 10001/3002). The sinkhole is located in the middle of the cemetery; it extends from the northern part of the central terrace to the northern terrace. This feature was first interpreted as a robber's pit prior to recognition of its geological character. It consists of an inner, sunken pit surrounded by an outer "halo." The subsidence that resulted in this sinkhole began in antiquity and was renewed in the outer halo during excavation. This sinkhole damaged several monuments and their stability both in antiquity and during excavation; as such, the sinkhole made conservation measures a priority and posed challenges to stratigraphic excavation. The initial subsidence event which caused the sinkhole formation likely took place in the fifth century.

The Yasmina cemetery was excavated using a "baulk-less" open-trench system. The trench organization is as follows (fig. 3): Trench 13, added in 1994, represents the southernmost area of excavation; it measured 3.0 meters (N-S) by 10.5 meters (E-W). Immediately to its north lies Trench 5, the 1992 mid-season addition of 9.50 meters (N-S) by 3.0 meters (E-W). North of

Trench 5 is Trench 6, which represents the combination of Trenches 2 and 4; its dimensions were 6.5 meters (N-S) by 11.5 meters (E-W). Trenches 13, 5, and 6 represent the lowest of the three man-made terraces; the lowest (elevation-wise) of the burial precincts, the "Charioteer" precinct, is located in Trench 6.

Trenches 1 and 3 of 1992 were combined as Trench 7, located north of Trench 6. This new trench was 7.0 meters (N-S) and 10.0 meters (E-W). Trench 7 represents the central of the three manmade terraces and is the location of the "Vibius" and "Scribonia" burial precincts. The Mini-Columbarium (locus 3006) is located in Trench 7; the "3xxx" form of its locus number refers to the original designation of its location as Trench 3.

Trench 8, measuring 5.0 meters (N-S) by 10.0 meters (E-W), was added to the north of Trench 7 in 1993. Trenches 14 and 15, consolidated as Trench 16, were added north of Trench 8 (but extending westward) in 1994 and were excavated in 1994 and 1995; its dimensions were 5.0 meters (N-S) by 8.0 meters (E-W).[30] Trenches 8 and 16 are located on the terrace of highest elevation; the "Eros" precinct is located in Trench 8.

Phases of Use

The Yasmina cemetery underwent three major phases of use from the second half of the first century C.E. to the sixth century; these were followed by a final, post-cemetery phase in the seventh century.

The first phase, which began in the second half of the first century C.E. and extended into the early third century C.E., represents the most intensive use of the cemetery. Phase I activity was concentrated in the central terrace, where two funerary precincts, the Vibius and Scribonia Precincts (respectively on the east and west), each developed around a major tomb monument.

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[30] Evans, 7.

Burials continued to be oriented around the early monuments: in particular, they focused around the Tertullus Tomb in the Vibius Precinct and formed two rows of monuments in the Scribonia Precinct.

The second phase of use occurs in the third century. In this phase, the construction of the Charioteer Monument (locus 2002/4002) on the southern terrace and the Eros Mausoleum (locus 1038) on the northern terrace give rise to two new, large precincts flanking the central terrace to the south and north. In addition, child inhumations were placed in the Vibius Precinct.

The cemetery's third phase spans the fourth to sixth century. Throughout this phase, inhumation burials were interred in the cemetery; in addition, the Scribonia Precinct was remodeled into the "Mudbrick Temenos," and a geological event caused a sinkhole to appear in the center of the cemetery.

The fourth and final phase of the cemetery area, in the seventh century, saw the in-filling and repurposing of the area for non-cemetery use.

Yasmina Cemetery: Burials

The burials in the Yasmina cemetery take a variety of forms; this is particularly true for the structures housing burials. These monuments include cupola tombs, cippi, a tower tomb, and a small-scale columbarium, and two large monuments. The cemetery also contained "independent" cremations, often set in small installations, as well as inhumations. Very few grave goods were found in association with the burials in the Yasmina cemetery.[31]

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[31] Norman, "Death and Burial of Roman Children: The Case of the Yasmina Cemetery at Carthage—Part I, Setting the Stage," 308. An exception is a small amount of jewelry found in association with the child inhumations (described below): a lead medallion, a bracelet of shells and bronze balls (Burial 20), and a pair of silver loop earrings (Burial 81) each were found with a different child burial. These three finds constitute all grave goods found at Yasmina.

Funerary Monuments

Two tombs from the earliest phase of the Yasmina cemetery are cupula tombs. Cupula tombs, which are typically characterized by their long, rounded, half-cylindrical form, were popular in the later second and third centuries C.E. across the Mediterranean.[32] In the Yasmina cemetery, Cupola 1 (locus 7699) has a first century C.E. terminus ante quem.[33] The cemetery's second cupula tomb, Cupola 2 (locus 7244), has a less certain date but is likely approximately contemporary; it lies under a tomb (the Mini-Columbarium) of a late second to early third century date.

The principle tomb monument type in the Yasmina cemetery is the cippus, a funerary monument form described by Stirling as "squared, altar-like monuments that displayed inscriptions."[34] The typical cippus at the Yasmina cemetery is indeed rectangular, with exterior stucco surfaces, a rubble-concrete core which housed cremation urns, and one or more libation tubes that provided access to the interior of the tomb from the top surface. Many are accompanied by offering tables; several have inscriptions extant in their facades, which identify the deceased.[35] Such cippi are characteristic of Phase I and particularly (but not exclusively) of the Scribonia Precinct on the central terrace.

There are four larger, unique tomb monuments in the Yasmina cemetery: the Tertullus Tomb and the Mini-Columbarium, which both belong to Phase I, and the monumental Phase II funerary structures, the Charioteer Monument and the Eros Mausoleum.

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[32] Lea M. Stirling, "The Koine of the Cupula in Roman North Africa and the Transition from Cremation to Inhumation," in *Mortuary Landscapes of North Africa*, ed. David Leigh Stone and Lea Margaret Stirling (Toronto: University of Toronto Press, 2007), 110, 119-121.

[33] The Marcus Vibius Tertullus Tomb ("MVT Tomb," locus 7663), built atop Cupola 1, contained a Flavian era funerary inscription.

[34] Stirling, 124.

[35] For example, the Felix Cippus (locus 7107) and the Scribonia Cippus (locus 3025) both have extant inscriptions.

The Tertullus Tomb (locus 1003) is a rectangular tower tomb with a rubble-concrete core, which contained cremation urns. It stood at least three stories tall; its four sides were decorated on the lower two stories with circus- and funeral-related figural relief panels and architectural decorations. It was accompanied by Offering Table 1 (locus 7390), located 0.50 meters to its west. The Tertullus Tomb served as an "anchor" monument for the Vibius Precinct, the family burial precinct located on the east side of the central terrace, in which it was the dominant feature. It dates to the second half of the second century C.E., in the first phase of the cemetery's use.

The Mini-Columbarium (locus 3006) is the only columbarium-style tomb in the cemetery. It is also located on the central terrace in Scribonia Precinct, to the west of the Vibius Precinct. This small-scale columbarium has walls of mortared sand- and limestone cobbles, which are covered with stucco on the interior and exterior; along the interior walls are eight niches for the installation of cremation urns. The columbarium's northward orientation is signaled by a post-and-lintel doorway in the structure's north façade. Its ceiling is vaulted on the interior with terracotta vaulting tubes, and its exterior roof is pitched, covered with plaster molded in the shape of pan tiles. It will be described in greater detail in chapter 2.

The Charioteer Monument (locus 2002/4002) is a temple tomb. It is also the largest tomb in the cemetery, more than twice the size of the Tertullus Tomb. The structure survives as a high rubble-concrete core; one course of local limestone ashlar blocks is extant atop this core. Two life-sized, white marble portrait statues, a male *sparsor* dressed as a charioteer and a female in draped clothing, found in strata associated with the monument's collapse, adorned the structure. The location of its entrance is unclear, but was likely located on its west, or, otherwise, south

side. The Charioteer Monument is dated to the second phase of the Yasmina cemetery's use, in

the early third century C.E. It is located on the southern terrace of the cemetery.

The Eros Mausoleum (locus 1038) stands on the northern terrace. Like the Charioteer

Monument, its structure consisted of a rubble-concrete core topped by local limestone ashlar

courses; five of these courses are extant. The ashlars were plaster-faced; stucco erotes leaning on

torches flank the mausoleum's entrance. It was built directly atop the Pre-Eros Cippus, which

was incorporated into the larger monument's southeast corner. The mausoleum's entrance is

centered in its south wall and faces the entrance to the Mini-Columbarium over a small forecourt.

Excavation of the Eros Mausoleum was hampered by the sinkhole and conservation concerns:

this combination of factors only permitted the excavation of use-layers from the south. The Eros

Mausoleum is also dated to Phase II, in the early third century.

Cremations

Burials from the cemetery's founding through the third century C.E. in Yasmina were

cremations, typically housed in urns; child inhumations in the third century constitute an

exception (see below). This early dominance of cremations is consonant with the burial

preference for cremation across the Roman world in the first centuries C.E.

The cremations belonging to the tomb structures described above were typically housed

in urns and either placed within the tomb structure or in a niche in a tomb's exterior wall.[36] In

addition, the Yasmina cemetery yielded a number of "independent cremations" of less

monumental status. Some of these independent cremations were placed in cist tombs, such as

Independent Cremation 4 (locus 7108), while others were located in less aggrandized structures,

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[36] Norman, "Death and Burial of Roman Children: The Case of the Yasmina Cemetery at Carthage—Part I, Setting the Stage," 305. The Mini-Columbarium is an exception to this practice, as the niches are on the interior walls.

such as the wall-like construction (locus 7701) by the Tertullus Tomb that housed Independent Cremations 1 and 2; Independent Cremation 2, like several others, consisted of a urn placed in a ring footing of cobblestones. In the Vibius Precinct, these independent cremation burials are clustered around the Tertullus Tomb; their placement helped to define the area around the larger tomb as a formal precinct.   Similarly, beginning in the late second to early third century, independent cremations were also placed among the two rows of funerary monuments (cippi and Mini-Columbarium) of the Scribonia Precinct.[37]

A single cremation (Burial 72) in Cippus 5 is the only cremation dating to the third phase.

Inhumations

The change from the practice of cremation to inhumation as a normative practice in the Roman world began in earnest in the second century C.E. In Roman North Africa, both cremation and inhumation were practiced in the later second century C.E., and inhumation began to eclipse cremation in the third century, becoming the firmly dominant practice in the fourth century.[38] Such dates are reflected in the practice of inhumation at the Yasmina cemetery.[39]

The second phase of use, the third century, at Yasmina yields an exceptional group of child inhumations; these are the only attested burials of this phase. Four child inhumations (Burials 53, 54, 55, 57) were placed in the southern temenos, a burial area defined in the early third century around the monuments of the Vibius Precinct. These inhumations were all simple burials in shallow, unlined pits, capped with fieldstones. They were clustered in the southwest corner of the temenos and the precinct, focused specifically around the Tertullus Monument,

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[37] *E.g.*, Independent Cremations 5, 6, 7, and 8.

[38] Valerie M. Hope, *Roman Death: Dying and the Dead in Ancient Rome* (London: Continuum, 2009), 80-82; Arthur Darby Nock, "Cremation and Burial in the Roman Empire," *The Harvard Theological Review* 25, no. 4 (1932): 321-331.

[39] Norman, "Death and Burial of Roman Children: The Case of the Yasmina Cemetery at Carthage—Part I, Setting the Stage," 305.

Cippus 4, and the precinct's south (locus 1007) and west (locus 7400) walls. In the newly defined north temenos of the Vibius Precinct was a dog inhumation (Burial 70), whose burial resembled the child inhumations; an additional inhumation (Burial 67) was unable to be excavated due to the presence of the sinkhole.

In Phase III, running from the fourth to sixth century C.E., child (including infants and neonates) inhumations were joined by adult inhumations. These adult inhumations were also simple burials in trenches, sometimes lined with stones, sometimes capped with roof tiles or amphora fragments. No grave goods or markers were found in association with these burials.[40] The child inhumations were largely placed in grave cuts, sometimes capped with pantiles or cobbles; in a few instances (Burials 25, 26, 73, 74, and 88), children were interred in amphorae.

In the fourth to early fifth century, the ground level in some areas of the cemetery was raised for the insertion of some of these burials. Additionally, inhumations were placed in and around the earlier cremation monuments: the Mini-Columbarium was filled with earth and two inhumations[41] were placed side-by-side in the fill, and inhumations were also clustered around the Tertullus Tomb, the Scribonia Cippus, and the Eros Mausoleum. A large number of these inhumations were children, infants, or neonates, but adults were inhumed as well. The child inhumations continued to cluster around the earlier tomb monuments, including around the Scribonia Cippus (Burials 3 and 18) and the Tertullus Tomb (Burials 5, 7, 8, and 17).

In the later fifth and sixth century, following both the development of the sinkhole (described above) in the cemetery's center and the massive site-wide landfilling, which served to stabilize the area and prepare the ground for additional burials, new inhumations[42] of adults and

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[40] Ibid.

[41] The bisomum burial was locus 3012, and contained two side-by-side skeletons: skeleton locus 3020 to the west and skeleton locus 3021 to the east.

[42] *E.g.*, Burials 16, 24, 25, 26.

children were placed across the cemetery and outside the area of the former precincts. Such inhumations represent the final use of the area as a cemetery.

Yasmina Cemetery: Conservation

The major goals of the University of Georgia project at Yasmina included the conservation of the site and its monuments. The project took a "site conservation" approach, focusing on "the *in situ* preservation of architectural remains uncovered through excavation:" special attention was paid to architectural conservation rather than to object conservation alone.[43] Conservation first focused on the stabilization of funerary monuments, particularly those whose structures were damaged by geological activity and the subsidence of the cemetery's sinkhole. Following stabilization of masonry, conservation work focused on treating the extant wall-plaster and stucco of the major funerary monuments. Lastly, conservation efforts took the form of site protection measures.

Practical implementation of the site conservation objections began in the 1994 field season, with conservation work on the cemetery's major funerary monuments. Work in 1994 focused particularly on the Mini-Columbarium, which was badly damaged by the large sinkhole in the cemetery center. Conservation continued in the field seasons of 1995 and 1997; the Eros Mausoleum also received significant conservation attention. Two additional seasons of conservation work, during which season the site served as a conservation student training worksite, took place in 1999 and 2000; much of the conservation work was directed at the

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[43] Thomas C. Roby, "Site Conservation During Excavation: Stabilization and Consolidation of Roman Funerary Monuments in Carthage," *CEDAC* 19 (1999): 44.

Tertullus Monument and its reliefs. A perimeter fence was erected, first in 1997 and strengthened in 1998 and 1999, to prevent vandalism.[44]

Chapter 1: Conclusion

This overview has served to provide the context of both Carthage and the Yasmina cemetery for further discussion of the Mini-Columbarium in Chapters 2 and 3. The Yasmina cemetery is unique among Carthage's excavated cemeteries in its long, nearly continuous history of use;[45] it is also one of the few excavated at Carthage itself whose use predates the Vandalic and Byzantine periods. The Mini-Columbarium provides a good lens through which to see the "life" of the Yasmina cemetery, for it was a landmark from its construction in the late second or early third century until it was buried in the fifth or sixth century. The tomb was significant within the Scribonia Precinct, where it was one of the core monuments around which the precinct was organized. Its prominence was also cemetery-wide; this is clear from its acknowledgement by the orientation of the north terrace's Eros Mausoleum, whose doorway was aligned with that of the Mini-Columbarium, and by its attraction of later inhumations burials. It offers evidence of the effects of the geological subsidence in the cemetery, in terms of structural damage as well as of the resulting reuse of older monuments to house interloping burials. The large size and unique form of the Mini-Columbarium was certainly a factor in its prominence. The monument will be described in detail in chapter 2, in service of the architectural analysis of the tomb that follows.

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[44] Naomi J. Norman and Thomas C. Roby, "The University of Georgia Excavations at the Yasmina Cemetery, Carthage: Conservation Work and Future Plans," *CEDAC* 19 (1999): 50-53; Roby: 44-49.

[45] Norman, "Death and Burial of Roman Children: The Case of the Yasmina Cemetery at Carthage—Part I, Setting the Stage," 304-305.

CHAPTER 2: DESCRIPTION, LOCATION, AND CONSTRUCTION OF THE MINI-COLUMBARIUM

Description of the Mini-Columbarium

The Mini-Columbarium (locus 3006) is located in trench 7 of the Yasmina cemetery (figs. 4-8), in the Scribonia Precinct, the easternmost of the two burial precincts on the central terrace of the cemetery. Built toward the end of the cemetery's first of four phases of use, the structure was constructed directly on top of Cupola 2 (locus 7244) and is flanked by Cippus 3 (locus 7247) to the east and Independent Cremation 4 (locus 7108) to the west.

This small funerary monument measures 1.4 m (north-south) by 1.6 m (east-west) (fig. 8). It has an opus signinum floor (fig. 9) and walls of mortared sandstone and limestone cobbles. Both the interior and exterior walls are covered with fine stucco. The interior walls contained eight niches, each of which contained a cremation urn. The niches were placed in a row at the same elevation around the monument; the urns were secured into the niches with plaster. One niche is located in the monument's north wall,[46] three niches in the west wall,[47] and four niches in the south wall (fig. 10).[48] Because not all the urns and their fills contained burnt bone, the excavators surmised that the burials had been disturbed in antiquity.[49] The exterior walls provided no trace of cuttings for inscriptions.

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[46] The niche in the north wall contained an urn (locus 7161) with fill (locus 7162).
[47] The west wall niches (north to south) contained: Urn (locus 7195) with fill (locus 7196); Urn (locus 7169) with fill (locus 7170); Urn (locus 7242) with fill (7243).
[48] The south wall niches (east to west) contained: Urn (locus 7236) with fill (locus 7237); Urn (locus 7239) with fill (locus 7238); Urn (7192) with fill (locus 7191); Urn (locus 7241) with fill (locus 7240).
[49] The tomb was also reused for later inhumation burials. The presence of these niches and urns prompted the excavators to identify the tomb as a small columbarium-type tomb; see chapter 3 for further discussion.

Ingress to the tomb is provided by a small post-and-lintel doorway of an approximately

0.55-m span, located, off-center, in the eastern portion of the tomb's north wall (figs. 10-11).

The doorposts, lintel and threshold blocks are limestone. The doorposts are each approximately

0.15 m wide and approximately 1.10 m tall from threshold to lintel, with several holes chiseled

in them (fig. 11); several iron bolts were found in the fill by the doorway. These finds suggested

to the excavators that a wooden hinged door originally closed the tomb monument. The lintel

block is cracked; this damage was caused apparently by the subsidence and sinkhole activity

directly to the north of the tomb. In addition, there is a large crack in the middle of the tomb's

east wall (fig. 7), a crack between the floor and the south wall (fig. 12), and a cavity under the

monument (visible in figs. 5 and 6); all this damage should probably be attributed to the sinkhole

or perhaps seismic activity.

Excavation revealed a hollow, rectangular space at the base of the south wall, accessible

from the monument's interior (figs. 10 and 12). When excavated, this space was covered by a

pantile with a circular hole and contained three bricks, arranged, according to the excavator, as

"a sort of a container for offerings." A libation tube was also inserted from the top of the space.

It is likely that this is an installation for funerary offerings.[50]

The interior ceiling of the tomb was vaulted. The vault was covered with terracotta roof

tiles so that the exterior roof of the tomb was pitched and gabled. When the monument was first

excavated in 1992, two rows of pantiles (each row comprised of approximately six tiles) were

preserved on the extant south portion of the roof (none were preserved on the north), while

portions of the vault—in the form of both the cement vault and vaulting tubes preserved in situ—

survived from where the vault sprang from the north and south walls (figs. 8 and 10). This

collapse of the vault and the pitched roof occurred in antiquity. A "nest" of vaulting tubes was

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[50] See chapter 4 for further discussion.

found in the sinkhole, suggesting to the excavators that the collapse should be associated with the subsidence activity. Furthermore, fills excavated from inside the tomb contained very little roof debris, indicating to the excavators that the collapsed roof was cleared out before the monument was filled and re-purposed to house new, later burials.

The Mini-Columbarium had a close structural relationship to Cippus 3 to the east and Independent Cremation 4 to the west. These three typologically distinct burial installations were built in quick succession and depended on one another for structural support. The western wall of Cippus 3, which was constructed with a salmon-colored mortar, was incorporated into the eastern face of the Mini-Columbarium as a partially shared wall; the Mini-Columbarium, which used a yellow-colored mortar, extended above Cippus 3 by a single course. Independent Cremation 4 was installed after the construction of the Mini-Columbarium; nevertheless, the Mini-Columbarium draws structural support for its "paper-thin" west wall, from Independent Cremation 4's cobble foundation courses, which were mortared against the Mini-Columbarium's west wall. The larger tomb's structural dependence on Independent Cremation 4 became clear during the 1995-season conservation efforts: the removal of several cobbles from the foundations of Independent Cremation 4 revealed a crack in the west face of the Mini-Columbarium, through which one of the cremation urns was visible.

Together, these three funerary monuments—Cippus 3, the Mini-Columbarium, and Independent Cremation 4—constitute the northern row of monuments in the Scribonia Precinct. This row was constructed against the rear of the original, south-facing row of monuments which grew up around the location of the Pre-Scribonia Monument (see fig. 3 for site plan). The north-facing orientation of the Mini-Columbarium not only responded to practical space constraints— this trio of monuments was located too close to the original, southern row of monuments to allow

meaningful access from the south—but also helped to define these two rows of monuments as a

compact block. Such close construction of monuments implies that the Scribonia Precinct was

thought of as a unit, perhaps in competition with the large and elaborate Tertullus Tomb in the

neighboring precinct to the west.

As noted in chapter 1, the Mini-Columbarium is larger than the other monuments in the

Scribonia Precinct; its size allowed it to serve as a landscape marker for that precinct throughout

the life of the cemetery. In the early third century, the Eros Mausoleum was built on the

cemetery's upper terrace (fig. 13; also see the large monument in Square 8 in the fig. 3 top plan).

Like that of the Mini-Columbarium, its doorway used ashlar blocks in its post-and-lintel

construction; it is the only other monument in the Yasmina cemetery with such a doorway. The

doorway of the Eros Mausoleum not only has the same entrance form as the Mini-Columbarium

has, but also faces it. Even more, these similar doorways share an axis, as is visible in the site

plan (fig. 3): a sightline runs between the entryways. This visual acknowledgement places the

largest monument of the Scribonia Precinct in dialogue with the largest monument of the Eros

Precinct, as well as the two precincts in dialogue with one another. An aspect of this dialogue is

how the spatial relationship between the monuments defines a visitor's experience: after the

newer monument's construction, a visitor exiting the Mini-Columbarium[51] would have had a

view of the larger Eros Mausoleum towering above, a view which would force that viewer to

notice the expansion of the cemetery with this new structure. Likewise, a visitor to the Eros

Mausoleum would see the Mini-Columbarium amongst the early core of the cemetery. The

similarity of the entrances formally connects the Eros Mausoleum to the earlier monument,

binding the newer structure into the existing fabric of the cemetery and asserting a relationship

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[51] See chapters 3 and 4 for discussion of the tomb's interior space.

with the older monuments, while also helping to highlight the monumentality of the newer construction against the smaller size and lower elevation of the Mini-Columbarium.

In the fourth or early fifth century, mudbrick walls were constructed that redefined the earlier Scribonia Precinct area into a new, smaller precinct, labeled the Mudbrick Temenos by the excavators. At that time, the eastern faces of the Scribonia Crippus and the Mini-Columbarium were used to dictate the alignment of the western extent of the Mudbrick Temenos. While such a use shifted attention away from these earlier monuments, this change effectively appropriated and incorporated them into the later precinct as significant landscape elements of an earlier era; similarly, the later precinct was defined, in part, in relation to the earlier one.

After the roof of the Mini-Columbarium was damaged, the tomb proper went out of use and was packed with a fill. Into that fill was placed a fourth- or fifth-century *bisomum* inhumation. This later burial (locus 3012) contained two skeletons[52] placed side-by-side, with a large conical, footed bowl placed between them; this bowl was filled with ash and burnt bone and sealed with plaster. Skeleton 3020 lacked a skull, neck, upper vertebrae, and femurs, while Skeleton 3021, which lay very flat over the southeast corner of the Mini-Columbarium, was more complete but in poor condition (including a crushed skull). This re-use speaks to the Mini-Columbarium's role as an older element of the funerary landscape, visible enough at this late date to provide both a preexisting structure to facilitate entombment and a sense of aggrandizement to relatively modest inhumations. The Mini-Columbarium's relevance to the later life of the Yasmina Cemetery ceased with its visibility when it was covered-over in the fifth or sixth century, as part of the ground-level raising operation following sinkhole subsidence.

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[52] The westernmost skeleton is locus 3020; the easternmost is locus 3021.

Vaulting Tube Construction

Vaulting Tubes and Construction Method

One of the most distinctive features of the Mini-Columbarium is its use of vaulting tubes

to construct its vaulted ceiling (visible in fig. 10). This construction method used hollow

terracotta tubes (*tubi fittili*)[53] as permanent centering for vaults.[54] Tubular vaulting became

particularly popular in North Africa in the third century C.E. The cylindrical terracotta tubes, in

their standardized form[55] most visible in North Africa, narrow at one end into a nozzle-shape,

which has a clearly defined shoulder, while the other end of the tube remains open (figs. 14 and

15). On most vaulting tubes, the exterior surface (and sometimes the interior surface) is

"threaded" or corrugated, usually by the potters' fingers; such "threading" helped provide "grip"

for mortar. These tubes are typically approximately 6 cm in diameter, but can range from 5 to 11

cm; they range in length from approximately 7 to 32 cm (Wilson finds most tubes 12 to 20 cm in

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[53] R. J. A. Wilson, "Roman Vaulting Tubes (*Tubi Fittili*) from Chesters," *Archaeologica Aeliana* 30 (2002): 182. The term "*tubi fitilli*" is the Italian term for terracotta vaulting tubes and is commonly used in non-Italian-language archaeological scholarship in lieu of the English "vaulting tubes."

[54] Lynne C. Lancaster, "Terracotta Vaulting Tubes in Roman Architecture: A Case Study of the Interrelationship between Technologies and Trade in the Mediterranean," *Construction History* 24 (2009): 3; Alexandre Lézine, "Les Voutes Romaines á Tubes Emboités et les Croisées d'Ogives de Bulla-Regia," *Karthago* 5 (1954): 169.

[55] See below, in "Origins of Vaulting Tubes," for discussion of "bullet-shaped" non-standard vaulting tube forms. The standard form described developed in North Africa by about 170 C.E.: Lynne C. Lancaster, "Ash Mortar and Vaulting Tubes: Agricultural Production and the Building Industry in North Africa," in *Les Chantiers de Construction de l'Italie et des Provinces Romaines: 3e Rencontre. L'économie des Chantiers (Paris, Ecole Normale Supérieure, 10-11 Décembre 2009)*, ed. Stephano Camporeale, Helene Dessales, and Antonio Pizzo (Madrid: 2012), 154. Wilson (1992, 97-98) does note that "any significant variations in size occur between batches rather than within batches: the tubes employed in any one vault are usually of the same approximate size." Vaulting tubes could have become standardized for manufacturing or construction reasons; it is possible that the smaller size allowed more versatility in vault construction. Unfortunately, scholarship discussing standardization of construction materials is sorely lacking, and it is difficult to understand standardization of terracotta building materials without a more firm understanding of the organization of the North African ceramic industry. As such, the standardization of vaulting tubes falls beyond of the scope and scale of the current project. It is worth noting that the sizes of Roman bricks (another clay-based construction material) were standardized, seemingly for ease of construction, by the first century C.E: they were divided into three sizes: *bessales* (two-thirds ft. or 19.7 cm in length); *sesquidedales* (1.5 ft. or 44.4 cm); and *bipedales* (2 ft. or 59.5 cm): Jean Pierre Adam, *Roman Building: Materials and Techniques*, trans., Anthony Matthews (Bloomington: Indiana University Press, 1994), 147-148. For discussions of Roman construction materials and production in general, see ibid., as well as Janet DeLaine, *The Baths of Caracalla: A Study in the Design, Construction, and Economics of Large-Scale Building Projects in Imperial Rome* (Portsmouth (R. I.): Journal of Roman Archaeology, 1997), 85-130; Janet DeLaine, "Building the Eternal City: The Construction Industry of Imperial Rome," in *Ancient Rome: The Archaeology of the Eternal City*, ed. Jon C. N. Coulston and Hazel Dodge (Oxford: Oxford University School of Archaeology, 2000).

length, while Lezine identified the most common length range as 10 to 15 cm).[56] The ceramic

fabrics of the vaulting tubes differ, likely in accordance with local production centers; vaulting

tubes from Carthage are often a buff with a whitish surface.[57]

In order to form a barrel vault, tubes were assembled into an interlocking curve or arch

(fig. 16). The nozzle of one tube fit into the open end of the next; stacked together, the tubes

interlocked to form a row of tubes. The narrowness of a tube's nozzle, once inserted into the

open end of the next, allowed the row of tubes to describe the curvature requisite for a vault. The

tubes were secured together with a light, quick-drying gypsum mortar.[58] A "key-stone" tube

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[56] Mensun Bound, "Tubi Fittili (Vaulting Tubes) from the Sea. The Roman Wreck at Punta Del Fenaio, Island of Giglio," *International Journal of Nautical Archaeology and Underwater Exploration* 16 (1987): 187-188; Lancaster, "Terracotta Vaulting Tubes in Roman Architecture: A Case Study of the Interrelationship between Technologies and Trade in the Mediterranean," 3; Lancaster, "Ash Mortar and Vaulting Tubes: Agricultural Production and the Building Industry in North Africa," 151-155; Lézine: 169-170; R. J. A. Wilson, "Brick and Tiles in Roman Sicily," in *Roman Brick and Tile: Studies in Manufacture, Distribution and Use in the Western Empire*, ed. Alan McWhirr, BAR International Series (Oxford: British Archaeological Reports, 1979), 32; R. J. A. Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," *Journal of Roman Archaeology* 5 (1992): 97-100.

[57] Bound, 197; Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 120 n.107. Lancaster notes that production of vaulting tubes occurred usually occurred relatively near to the sites of their use (the quantity needed to construct a single vault would have made their transportation over long distances impractical). Such impracticality may factor into the lack of evidence for vaulting tubes as export items. Even when used outside of North Africa in the western Mediterranean, they are locally made. The small quantities of vaulting tubes found in shipwrecks (or, in harbors, as at Caesarea Maritima, for example) are likely remnants of shipboard constructions rather than export items. As Lancaster suggests, "Given the [large] number of tubes necessary for an average size vault, they would not have made an economical export item since the tubes are only valuable when acquired in quantity, unlike the fine ware and lamps that have individual worth." Bound: 187-200; Lancaster, "Terracotta Vaulting Tubes in Roman Architecture: A Case Study of the Interrelationship between Technologies and Trade in the Mediterranean," 10, 14; Robert L. Vann, "Vaulting Tubes from Caesarea Maritima," *Israel Exploration Journal* 43, no. 1 (1993): 29-34; Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 129.

[58] Gypsum was available in plentiful deposits in North Africa, especially Tunisia's southern chotts (salt flats) and in the north at Djebel Amar near Carthage (these gypsum quarries are located about 4 km north of the village of Sebbas) and at Djebel Azeis near Thurbubo Maius. It was not commonly used for wall mortars, due to its water solubility, but instead was used as a plaster or as a mortar with items like vaulting tubes that were less exposed to the elements : Lancaster, personal communication to Naomi J. Norman, June 13, 2013; R.G. Bullard, "The Environmental Geology of Roman Carthage," in *Excavations at Carthage 1975 Conducted by the University of Michigan*, ed. J. H. Humphrey (Ann Arbor: Kelsey Museum, University of Michigan, 1978), 21; Lancaster, "Terracotta Vaulting Tubes in Roman Architecture: A Case Study of the Interrelationship between Technologies and Trade in the Mediterranean," 7; Lancaster, "Ash Mortar and Vaulting Tubes: Agricultural Production and the Building Industry in North Africa," 151; Alexandre Lézine, *Architecture Romaine d'Afrique: Recherches et Mises au Point* (Paris: Presses universitaires de France, 1961), 140; Robert L. Vann, "Pre-Cast Gypsum as a Building Material," in *Studia Pompeiana & Classica in Honor of Wilhelmina F. Jashemski*, ed. Robert I. Curtis(New Rochelle, New York: A.D. Caratzas, 1989). For possible analogies in extraction organization, see Alfred Michael Hirt, *Imperial Mines and Quarries in the Roman World: Organizational Aspects, 27 BC - AD 235* (Oxford; New

with two open ends, rather than a nozzle, was used to connect two curving rows of tubes, whose

nozzles pointed up, to form an apex (fig. 17). This arch could then be positioned on the wall

from which the vault was to spring; a ledge often supported the springing line of the tubular

vault. After a sufficient number of arches made of vaulting tubes was assembled and put into

position, the resulting framework of vaulting tubes was plastered on its underside (forming the

intrados of the vault) and was overlaid by concrete on its upperside (creating the concrete vault

and its extrados) (fig. 18).[59] Vaulting tubes could also be used to construct more complex vault

types and domes.[60]

Vaulting Tubes in the Mini-Columbarium

Vaulting tubes provided internal support to the Mini-Columbarium's barrel vault, which

was covered on the tomb's exterior by a pitched roof. The vaulting tubes were oriented in a

north-south direction; clusters of tubes, springing from the north and south walls of the

monument, were still extant during excavation (figs. 8 and 10). Exact measurements for the tubes

from the Mini-Columbarium are not available, but they have diameters of approximately 9 cm—

York: Oxford University Press, 2010). However, as Vann (1989, 245) states, "The demand for gypsum does not appear to have been great enough to warrant a larger industry" than the fairly localized extraction he finds near Thurbubo Maius. For discussion of pre-made cast gypsum blocks as a building material in North Africa, see Vann (Vann, "Pre-Cast Gypsum as a Building Material.").

[59] Bound, 187; Lancaster, "Terracotta Vaulting Tubes in Roman Architecture: A Case Study of the Interrelationship between Technologies and Trade in the Mediterranean," 3; Lancaster, "Ash Mortar and Vaulting Tubes: Agricultural Production and the Building Industry in North Africa," 151-155; Wilson, "Brick and Tiles in Roman Sicily," 32; Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 97-100.

[60] For experimental reconstructions of tubular vaulting, see Albéric Olivier and Sebastian Storz, "Analyse et Restitution d'un Procédé de Construction Antique: Réalisation d'une Voûte d'Arête sur Coffrage Perdu en Tubes de Terre Cuite," in *Recherches Archéologiques Franco-Tunisiennes à Bulla Regia*, ed. Azedine Beschaouch (Rome: École française de Rome, 1983); Sebastian Storz, *Tonröhren im Antiken Gewölbebau: Mit einer Rekonstruktion des Schalungstragwerkes für die Trompengewölbe der Kobbat Bent El Rey in Karthago* (Mainz am Rhein: P. von Zabern, 1994); Sebastian Storz, " Le Tecnica Edilizia Romana e Paleocristiana delle Volte e Cupole a Tubi Fittili," in *Lo Specchio del Cielo: Forme, Significati, Tecniche e Funzioni della Cupola dal Pantheon al Novecento*, ed. Claudia Conforti (Milano: Electa, 1997).

making them larger than the standardized North African vaulting tubes of the third century (see fig. 14). Their fabric was that of a local buff coarse ware.

Origins of Vaulting Tubes

The second half of the second century or early third century C.E. date of the Mini-Columbarium places its vaulting tubes relatively early in the expansion of vaulting tube use. However, vaulting tube technology was used sporadically in in the western Mediterranean prior to its third century C.E. expansion, which was centered in North Africa. The use of terracotta tubes as permanent centering in vault construction is first documented at Morgantina, Sicily (fig. 19).[61] There, in a bath building dating to the third century B.C.E., vaulting tubes measuring 60-70 cm in length were used to construct a dome with a span of 5.75 m as well as two barrel vaults (of spans of 5.00 and 5.50 m) (fig. 20). These tubes, unlike the "standardized" tubes of the third century C.E., are bullet-shaped (tapering into a rounded end rather than having a more formalized nozzle projecting from a "shoulder"), smooth, and were hand-made, rather than wheel-made (fig. 21). Some tubes were fastened together with iron pins. The tubes at Morgantina are much larger than examples from the Roman Imperial period (see fig. 14). Despite these differences, as Lancaster notes, "the principle is the same."[62]

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[61] Hubert L. Allen, "Excavations at Morgantina (Serra Orlando), 1970-1972: Preliminary Report XI," *American Journal of Archaeology* 78, no. 4 (1974): 376-379; Lancaster, "Terracotta Vaulting Tubes in Roman Architecture: A Case Study of the Interrelationship between Technologies and Trade in the Mediterranean," 3; Lancaster, "Ash Mortar and Vaulting Tubes: Agricultural Production and the Building Industry in North Africa," 151-152; Wilson, "Brick and Tiles in Roman Sicily," 32; Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 106-107.

[62] Lancaster, "Ash Mortar and Vaulting Tubes: Agricultural Production and the Building Industry in North Africa," 151-152; Sandra K. Lucore, "Archimedes, the North Baths at Morgantina and Early Developments in Vaulted Construction," in *The Nature and Function of Water, Baths, Bathing and Hygiene from Antiquity through the Renaissance*, ed. C. Kosso and A. Scott, Technology and Change in History (Leiden: Brill, 2009), 43-59; Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 106-107.

The next recorded use of vaulting tubes occurs in Spain, in a mid-second century B.C.E. bath at Cabrera del Mar (near Barcelona). The tubes are used in a barrel vault with 5.00 m span and in a dome with a 3.00 m span. These vaulting tubes are approximately 22 cm in length and were wheel-made with slight threading, but have a similar bullet-shape to those from Morgantina (fig. 14); additionally, iron pins were used more extensively for structural reinforcement at Cabrera del Mar than at Morgantina. [63]

A similar vaulting technique appears at Pompeii (thus, with a *terminus ante quem* of 79 C.E.): in the House of Fabius Rufus a vaulted ceiling was constructed using terracotta water pipes (fig. 14). As Lancaster notes, this water-pipe vault differs from other tubular vaulting, in that the vaulting materials were not made specifically for their construction context.[64]

Similar principles of tubular vaulting have been discerned in a ceramic kiln construction method that uses interlocking pots to create the kiln roof (fig. 22; also see fig. 14). Wilson and Storz have located the origins of vaulting tubes in this type of kiln construction.[65] The earliest documented example of an interlocking-pot kiln roof, discovered near Chiusi, Italy, dates to the second half of the second century B.C.E.[66] Wilson suggests that this practice may have developed out of potters' use of waster vessels to build a temporary, heat-resistant dome for the kiln firing chamber.[67] Examples of interlocking vaulting pots as kiln roofs appear in the late second to early first century B.C.E. at Ordona, Italy, in the first two decades of the first century

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[63] Lancaster, "Ash Mortar and Vaulting Tubes: Agricultural Production and the Building Industry in North Africa," 152; Lucore, 54, 56-57.

[64] Lancaster, "Terracotta Vaulting Tubes in Roman Architecture: A Case Study of the Interrelationship between Technologies and Trade in the Mediterranean," 4; Lancaster, "Ash Mortar and Vaulting Tubes: Agricultural Production and the Building Industry in North Africa," 152.

[65] Lancaster, "Ash Mortar and Vaulting Tubes: Agricultural Production and the Building Industry in North Africa," 152-154; Storz, *Tonröhren im Antiken Gewölbebau: Mit einer Rekonstruktion des Schalungstragwerkes für die Trompengewölbe der Kobbat Bent El Rey in Karthago*, 4-7, 10; Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 107-108.

[66] Lancaster, "Ash Mortar and Vaulting Tubes: Agricultural Production and the Building Industry in North Africa," 154.

[67] Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 107-108; Wilson, "Roman Vaulting Tubes (*Tubi Fittili*) from Chesters," 181.

C.E. at Sallèles d'Aude, southern France, as well as at Mainz, Germany, and at two kilns at Pompeii (thus, with a terminus ante quem of 79 C.E.), and at first- through third-century C.E. sites near Rhine legionary bases.[68] *Contra* Wilson and Storz, Lancaster argues that the tubular vaulting at the Morgantina baths was probably "not inspired by the use of vaulting pots in kilns but rather that the idea was later further developed and spread via the pottery industry."[69]

Contexts of Vaulting Tubes

Whatever the origins of the vaulting tube phenomenon, vaulting tubes became popular in North African construction in the third century; along with the standardization of their shape and size, "true proliferation [of vaulting tubes] began in the area of modern Tunisia during the 3rd century and remained rare outside of North Africa until the 4th century."[70] Although tubular vaulting does appear in Italy and Sicily (among other Mediterranean and European sites[71]), it may be viewed as a particularly North African regional construction technique: the bulk of examples come from North Africa, and it is there that the form matured before disseminating. As Wilson notes, in their Imperial-era period of intense use, vaulting tubes were used particularly in three types of venues: baths, religious architecture (churches), [72] and in domestic architecture.[73]

Vaults, whether constructed with vaulting tubes or with temporary wooden centering, were common ceiling choices for these three architectural contexts, especially for baths and

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[68] Lancaster, "Terracotta Vaulting Tubes in Roman Architecture: A Case Study of the Interrelationship between Technologies and Trade in the Mediterranean," 5-6; Lancaster, "Ash Mortar and Vaulting Tubes: Agricultural Production and the Building Industry in North Africa," 152-154; Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 107-108.

[69] Lancaster, "Ash Mortar and Vaulting Tubes: Agricultural Production and the Building Industry in North Africa," 152-154.

[70] Ibid., 154.

[71] For list of sites with tubular vaulting, see Appendix in Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 125-129.

[72] Roman-era temples in North Africa do not seem to have made common use of vaults; however, this impression may derive from the non-extant nature of much temple roofing. The temple of Saturn at Thugga (modern Dougga) did, however, have three vaulted apsidal cellae: MacKendrick, 69.

[73] Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 102-104.

churches. Indeed, concrete vaulting had been used in aggrandized public structures in Roman

architecture to create both impressions of structured monumentality and spaces suitable for

utilitarian functions.[74] As Lancaster states,

> The Romans took the idea [of exterior grandeur] and shifted the emphasis to the interior
> by creating grand spaces covered by concrete vaults, the curving form of which brought
> the added benefit of celestial analogies. From at least the first century C.E., the idea of
> vaults, and particularly domes, was used to invoke an image of the heavens.[75]

Vaults brought this same grandeur to bathing complexes, which "occupied a vanguard position in

the development of Roman building technology;" such roofing facilitated the enclosure of large

spaces with both practical uses and social/cultural connotations.[76] The use of vaults in baths was

not only practical in providing a suitable alternative to heat- and moisture-susceptible timber

roofing and in efficiently covering large spaces, but also effectively conveyed messages of

Roman imperial monumentality to visitors.

Baths in North Africa made extensive use of the architectural vocabulary of vaults. As

baths are a very frequent architectural context for vaults in general,[77] it is logical that baths are

the most common and largest-scale context for vaulting tube use in North Africa. One of the first

datable uses of vaulting tubes in North African baths occurs in the last decade of the second

century C.E. in the "lesser" rooms, rather in the main frigidarium, of Bulla Regia's Baths of

Memmia. As tubular vaulting became widely employed in the third century, vaulting tubes were

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[74] From the Porticus Aemelia and the Sanctuary of Fortuna Primigenia at Praeneste (Palestrina), of the late second century B.C.E. (or, perhaps, the 80s B.C.E.), to, for example, the Tabularium (78-65 B.C.E.) at the Forum Romanum, the use of concrete vaults was at first practical and utilitarian. Axel Boëthius, Roger Ling, and Tom Rasmussen, *Etruscan and Early Roman Architecture* (New Haven: Yale University Press, 1978), 144-145, 155-156; Lynne C. Lancaster, *Concrete Vaulted Construction in Imperial Rome: Innovations in Context* (Cambridge: Cambridge University Press, 2005), 3-21, 166-181.

[75] Lancaster, *Concrete Vaulted Construction in Imperial Rome: Innovations in Context*, 174.

[76] ibid., 169, 172; Fikret Yegül, *Baths and Bathing in Classical Antiquity* (New York and Cambridge: Architectural History Foundation and MIT Press, 1992), 2.

[77] Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 104; Yegül, 192-196. The monumental Antonine Baths at Carthage were built ca. 145 C.E. and thus date just before the period of tubular vaulting popularity; they used concrete vaults extensively.

used to span larger and more major bath spaces, as in their use over the central frigidarium at the baths of Thelepte (a 12.20-m span; fig. 23), in the fort baths of Bu Ngem (201/2 C.E.; in Libya), and in the Licinian Baths at Dougga (253-68 C.E.), among many other baths in North African cities.[78]

Christian churches and chapels are the second major venue in which tubular vaulting appeared in North Africa with greatest frequency in the late Roman and Byzantine periods. Vaulting tubes were used at Christian churches and related structures in Tunisia at Sufetula, Thepelte, Hadjeb el-Aioun, Haidra, Junga (Macomedes Minores), La Skhira, Sidi-Mohammed El-Guebiou, and Damous el-Karita in Carthage, and in Algeria at Castiglione, Oued Rhezel, and Thibilis (Announe). Outside of North Africa, churches with tubular vaulting include the church of the Annunziata in Nazareth (Israel),[79] and churches in Italy, particularly in Ravenna (fig. 24) and Rome.[80] Vaults brought similar connotations of grand monumentality to religious spaces as they brought to baths, with additionally direct celestial imagery on offer in the form.

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[78] Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 102-103, 105, 125-129; Yegül, 184-249, 396-413. Vaulting tubes seem to be used predominantly in public, rather than private, baths. While it is true that some baths, like the mid-third century C.E. baths of the Laberii at the Maison Laberii at Uthina (modern Oudna), appear to be part of private homes, the public or private status of some baths is still disputed. For example, the bath house at Bir el Jebbana on the west side of Carthage, whose furnace chamber was roofed with vaulting tubes, was once thought to be part of the "Villa of Scorpianus" but the entire "villa" has been reinterpreted as a public bath complex. Accordingly, it is difficult to parse out the public vs. private preference for vaulting tubes in baths. MacKendrick, 65-67; J. J. Rossiter, "A Roman Bath-House at Bir El Jebbana : Preliminary Report on the Excavations (1994-1997)," in *Carthage Papers* (Journal of Roman Archaeology, 1998), 103, 108, 113-115; Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 126.

[79] Nazareth is the only site in the eastern Mediterranean reported to have vaulting tubes. Tubes appear in the vault of a bath's *frigidarium* at Dura Europos, but they seem to be used as *caementa*, embedded within the concrete, rather than as permanent centering. Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 112. The regional preference for tubular vaulting seems to be a preference of construction *choice*; see "Use of Vaulting Tubes" section below.

[80] Lancaster, "Terracotta Vaulting Tubes in Roman Architecture: A Case Study of the Interrelationship between Technologies and Trade in the Mediterranean," 11-15; Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 102-104. Churches in Italy constructed with tubular vaulting include: S. Severo (in Classe); S. Vittorio in Ciel d'Oro, S. Aquilino, and S. Simipliciano in Milan; S. Michele in Perugia; S. Eusebio in Vercelli; S. Michele in Arcevoli in S. Angelo di Romagna; the Basilica Ursiana, Orthodox Baptistry, S, Agata, S, Apollinare Nuovo, and S. Vitale in Ravenna; and S. Agata dei Goti, S. Anastasia, S. Croce in Laterano's oratory, S. Cosma and Damiano, and S. Stefano Rotondo in Rome.

The third major context type of tubular vaulting in North Africa is domestic architecture of the third and fourth century. Vaulting tubes were used "in particular to roof corridors around peristyles" and probably "in conventional domestic architecture as well."[81] Peristyles commonly served as semi-public areas in Imperial-era versions of what Ellis terms "houses of pretension," those domestic structures with aristocratic elements.[82] Zanker identifies the peristyle as a feature that lent a "villa character" to urban Pompeian homes.[83] In North African homes, for example, the House of Dionysos and Ulysses and the House of the Gorgon at Dougga used tubular vaulting in their peristyles.[84] Vaults brought an aggrandized, public feel into the private spaces of elite homes, especially those spaces on view to visitors and clients; when used in peristyles, these vaults accentuated the grandness of a domestic area already imbued with a slightly "public" character. Tubular vaulting also was used at Bulla Regia to roof underground rooms in private homes: vaults in eight of nine underground rooms were constructed with vaulting tubes (fig. 25). The underground locations of these rooms offered cooler dining and sleeping spaces than those rooms aboveground. The tubular vaulting eliminated the necessity of removing wooden centering from these tight underground spaces after the vault was in place; the concrete lain over the tubes served also as the ground floor of the building.[85] Vaulting tubes in the underground homes at Bulla Regia facilitated construction of recreational spaces intended to mitigate space constraints in construction and the intense heat. [86]

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[81] Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 102-104.
[82] Simon P. Ellis, *Roman Housing* (London: Duckworth, 2000), 22-23, 31-35, 47-48.
[83] Paul Zanker, *Pompeii: Public and Private Life* (Cambridge, Mass.: Harvard University Press, 1998), 163-165.
[84] Claude Poinssot, *Les Ruines de Dougga* (Tunis: Secrétariat d'État à l'éducation nationale, Institut national d'archéologie et arts, 1958), 21-22, 46, 57; Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 125.
[85] Lancaster, "Terracotta Vaulting Tubes in Roman Architecture: A Case Study of the Interrelationship between Technologies and Trade in the Mediterranean," 10-11.
[86] Two more location-types of vaulting tubes are worth noting. As noted above, vaulting tubes have been found on or in association with shipwrecks. According to Bound, these finds are concentrated primarily around Sicily. While it is possible that the terracotta tubes were themselves exports or were used as space-fillers to stabilize other cargo,

Use of Vaulting Tubes

Why use vaulting tubes to construct a vault or dome? The role of vaulting tubes was primarily structural (fig. 18): tubular vaulting obviated the need for temporary wooden centering and frameworks (fig. 26) in the vault-construction process, offering instead permanent structural support that quickly was set in place by quick-drying gypsum mortar.[87]

Scholars seeking to explain the vaulting tube phenomenon have proposed additional advantages of tubular vaulting over more typical concrete vault construction methods. For example, tubular vaulting is often explained as a means of lightening a vault.[88] However, this interpretation likely results from confusion with the use of amphorae in vaults. Moreover, as Lancaster argues, the innovation of amphorae in vault construction probably originally had more to do with saving on materials by reusing ceramics as building material than with load-lightening. [89] The systematic use of amphorae as *caementa* only gains popularity beginning in the later third century C.E., at which time vaulting tubes were already in widespread use in North Africa.[90] Interestingly, the technologies are combined, as Wilson points out, at the Maison du Trésor at Bulla Regia (fig. 27).[91] It appears that vaulting tubes were not generally used for load-

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the low number recovered and their inexpensive character make it more likely that the tubes were used to construct small shipboard structures, such as piping or fireproof structures. The final relevant context-type, mortuary contexts, will be addressed below. Bound, 192, 195-197; Lancaster, "Terracotta Vaulting Tubes in Roman Architecture: A Case Study of the Interrelationship between Technologies and Trade in the Mediterranean," 14; Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 119-120.

[87] Lancaster, "Terracotta Vaulting Tubes in Roman Architecture: A Case Study of the Interrelationship between Technologies and Trade in the Mediterranean," 3. See, for discussion of vault centering and framework, Lancaster, *Concrete Vaulted Construction in Imperial Rome: Innovations in Context*, 22-48.

[88] Noted in Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 109, n. 43.

[89] Lancaster, *Concrete Vaulted Construction in Imperial Rome: Innovations in Context*, 68-85; Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 109.

[90] Lancaster, *Concrete Vaulted Construction in Imperial Rome: Innovations in Context*, 68-85; Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 109. Prior to this time, there are two mid-second century C.E. examples of amphorae in vaults near Rome: Magazzini "Traianei" at Ostia and the Villa alla Vignaccia on the Via Latina. Lancaster, *Concrete Vaulted Construction in Imperial Rome: Innovations in Context*, 69-70.

[91] Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 109.

lightening until they were used to form vaults independently, that is, without the addition of concrete shells, as at Ravenna's San Vitale (fig. 24) and Neon Baptistry.[92]

Peacock and others attribute a non-structural role to tubular vaulting, positing that the tubes instead served "as insulation or to counter condensation."[93] As the earliest known contexts of tubular vaulting were bath buildings (Morgantina and Cabrera del Mar), it is possible that a roofing method that produced the desired form (vaults and domes) while mitigating the effects of heat and moisture on the structure could have prompted the choice of terracotta tubing. As Wilson argues, terracotta tubes were better suited than wooden roofing to heat and moisture of the baths (prior to the use of concrete in Sicily), and the use of tubular vaulting in baths was possibly a "transferal […] of scale" from the heat resistant use of interlocking vessels in kiln roofs.[94] As Bound acknowledges, the static air in the terracotta tubes *could* have provided some insulation.[95] However, these insulation and heat/water-resistance effects were unlikely to have ever been primary reasons for choosing to use vaulting tubes. Indeed, tubular vaults frequently span spaces (churches and domestic buildings) where concerns of moisture and heat were lesser than in baths, and concrete vaults, once in use, were also less susceptible than wooden roofs to the effects of heat and moisture.

The decision to use vaulting tubes was likely primarily a choice between construction techniques; any secondary benefits, such as insulation, were probably indeed secondary. The main aspect of tubular vaulting that distinguishes it from traditional means of concrete vaulting is its replacement of wooden centering and formwork. As Wilson notes, the use of tubular vaulting

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[92] Lancaster, "Terracotta Vaulting Tubes in Roman Architecture: A Case Study of the Interrelationship between Technologies and Trade in the Mediterranean," 11-13.

[93] D. P. S. Peacock, "Ceramic Building Materials," in *Excavations at Carthage: The British Mission*, ed. D. P. S. Peacock and M.G. Fulford (Sheffield: The British Academy, 1984), 245.

[94] Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 107-108.

[95] Bound: 190; Peacock, 245; Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 108.

likely saved both time and money, by reducing expenditure on carpentry labor (to construct, set, and strike the temporary centering and framework) and materials (especially timber).[96] Lancaster's recent look at the relationship between North African agricultural and ceramic production[97] in the late first and second centuries C.E. suggests a scenario in which permanent terracotta centering became more economically sensible in North Africa than traditional temporary wood centering and, thus, may have facilitated the proliferation of tubular vaulting in North Africa.[98]

Beginning particularly in the second century C.E., liquid foodstuffs (fish products and especially olive oil) increasingly joined grain among Africa's exports as the region's economy became more mixed.[99] This productivity may have resulted in part from the imperial administration's successful incentivization of long-term investment in crops such as olive trees, vines, and fig trees as well as reclamation of marginal, dry lands, which were better suited toward the cultivation of such crops than to the production of grain, in North Africa. Tenant farmers on imperial lands were offered rent remittance and rights to the land in exchange for cultivation of these slow-maturing crops and reclamation of neglected or uncultivated lands.[100]

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[96] Lancaster, *Concrete Vaulted Construction in Imperial Rome: Innovations in Context*, 22-50; Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 100, 108.

[97] Lancaster follows Carandini in connecting increases in North African agricultural and ceramic production/exports. A. Carandini, "Produzione Agricola e Produzione Ceramica Nell'Africa di Età Imperiale," in *Omaggio a Ranuccio Bianchi Bandinelli* (de Luca, 1970); A. Carandini, "Pottery and the African Economy," in *Trade in the Ancient Economy*, ed. P. Garnsey, K. Hopkins, and C. R. Whittaker(London: Chatto & Windus, 1983).

[98] Lancaster, "Terracotta Vaulting Tubes in Roman Architecture: A Case Study of the Interrelationship between Technologies and Trade in the Mediterranean."; Lancaster, "Ash Mortar and Vaulting Tubes: Agricultural Production and the Building Industry in North Africa."

[99] Lancaster, "Terracotta Vaulting Tubes in Roman Architecture: A Case Study of the Interrelationship between Technologies and Trade in the Mediterranean," 6-10; Lancaster, "Ash Mortar and Vaulting Tubes: Agricultural Production and the Building Industry in North Africa," 154-160; D. J. Mattingly, "Oil for Export ? A Comparison of Libyan, Spanish and Tunisian Olive Oil Production in the Roman Empire," *Journal of Roman Archaeology* 1 (1988); David J. Mattingly, *Tripolitania* (London: B.T. Batsford, 1995), 138-159; Mattingly, *Imperialism, Power, and Identity: Experiencing the Roman Empire*, 146-159; Raven, 92, 94-100. See especially Mattingly's work for a more detailed view of the olive oil trade.

[100] Lancaster, "Terracotta Vaulting Tubes in Roman Architecture: A Case Study of the Interrelationship between Technologies and Trade in the Mediterranean," 6-10; Lancaster, "Ash Mortar and Vaulting Tubes: Agricultural Production and the Building Industry in North Africa," 154-160; Raven, 92, 94-100. A Trajanic-era (dating to 116-

The resultant rise in cultivatable land and cultivation of olives contributed to an increase in African agricultural exports: in particular, olive oil flourished as an export. The great quantity of agricultural products for export—importantly including liquid foodstuffs—stimulated the supporting ceramic industry: amphorae were needed to contain the liquid products once at port. Thus, infrastructure—of both transportation and ceramic production—was expanded to support the shipping of the agricultural products from inland to the coast and from coast to importing market. Accompanying the increased volume of agricultural trade, North African fine ware (African Red Slip (ARS) or Terra Sigillata Africana) began to dominate the Mediterranean market: ceramics, too, became an export in their own right.[101] Accordingly, there is evidence for a dramatic increase in ceramic production (of amphorae, fine ware, course ware, cook ware, and lamps) in North Africa (particularly in modern Tunisia) by the early third century. In this context, vaulting tubes could be cheaply and quickly produced in amphora and fine ware

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117 C.E.) inscription from Henchir-Mettich, in the Medjerda River valley refers to the *lex Manciana*, whose regulations for sharecroppers include the abovementioned rent remittance; additionally, two later inscriptions from Aïn-el Djemela and Aïn Wassel (dating, respectively, to 117-138 C.E. and 198-209 C.E.) both refer to the *lex Hadriana de rudibus agris*, a law which encouraged land reclamation for cultivation, including with a 10-year tax remittance for planting olive trees. For more on the "Mancian tenure" sharecropping (a term which implies nothing about the socio-economic status of the tenant farmer, but rather indicates the terms of rent) type and farm tenancy in Roman North Africa, see also Leslie Dossey, *Peasant and Empire in Christian North Africa* (Berkeley: University of California Press, 2010), 15; Elizabeth Fentress, "Romanizing the Berbers," *Past and Present* 190 (2006): 26-27; Dennis P. Kehoe, *The Economics of Agriculture on Roman Imperial Estates in North Africa* (Göttingen: Vandenhoeck & Ruprecht, 1988), esp. 154-187; Dennis P. Kehoe, *Investment, Profit, and Tenancy : The Jurists and the Roman Agrarian Economy* (Ann Arbor: University of Michigan Press, 1997), esp. 137-236; Dennis P. Kehoe, "The Early Roman Empire: Production," in *The Cambridge Economic History of the Greco-Roman World*, ed. Walter Scheidel, Ian Morris, and Richard P. Saller (Cambridge; New York: Cambridge University Press, 2007), 557-559; Mattingly, *Imperialism, Power, and Identity: Experiencing the Roman Empire*, 152-155.

[101] Carandini, "Produzione Agricola e Produzione Ceramica Nell'Africa di Età Imperiale."; Carandini, "Pottery and the African Economy"; Dossey, 16, 23-24, 44-46; Elizabeth Fentress and Philip Perkins, "Counting African Red Slip Ware, V," in *L'Africa Romana. Atti Del V Convegno di Studio, Sassari, 11-13 Dicembre 1987* (1988); Kehoe, "The Early Roman Empire: Production," 556, 559-560; Lancaster, "Terracotta Vaulting Tubes in Roman Architecture: A Case Study of the Interrelationship between Technologies and Trade in the Mediterranean," 8-10; Lancaster, "Ash Mortar and Vaulting Tubes: Agricultural Production and the Building Industry in North Africa," 155-160; Mattingly, "Oil for Export ? A Comparison of Libyan, Spanish and Tunisian Olive Oil Production in the Roman Empire," 52-54; J. Theodore Peña, "The Mobilization of State Olive Oil in Roman Africa: The Evidence of Late 4th-C. Ostraca from Carthage," in *Carthage Papers* (Journal of Roman Archaeology, 1998), 216; David Williams and César Carreras, "North African Amphorae in Roman Britain: A Re-Appraisal," *Britannia* 26 (1995). Interestingly, Fentress and Perkins (1988, esp. 110-112, fig. 4) observe a close correlation between building and fine ware production in fourth century North Africa.

production workshops, using already-present production equipment and labor, along with coarse

wares and cook wares as a another secondary product.[102]

Lancaster notes that the imperial agricultural policies encouraged reclamation of land—

both disused and forested—for cultivation; citing Tertullian's description of deforestation and

land reclamation for villas and agriculture (*De Anima* 30.3), Lancaster suggests that there may,

indeed, have been a reduction in available timber, while the availability of ceramic production

equipment as well as the organic refuse from olive oil production (encouraged by the same

agricultural legislation) used to fuel kilns were in plentiful supply.[103] Thus, despite Wilson's

objections to considering a decreased timber supply as a major motivation for the choice of

vaulting tubes,[104] Lancaster's research strongly suggests that such interplay of environmental,

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[102] Michel Bonifay, *Etudes sur la Céramique Romaine Tardive d'Afrique* (Oxford, England: Archaeopress, 2004), 74, 86, 463-475, 477-489; Carandini, "Produzione Agricola e Produzione Ceramica nell'Africa di Età Imperiale"; Carandini, "Pottery and the African Economy"; Kehoe, "The Early Roman Empire: Production," 559-564; Lancaster, "Terracotta Vaulting Tubes in Roman Architecture: A Case Study of the Interrelationship between Technologies and Trade in the Mediterranean," 8-10; Lancaster, "Ash Mortar and Vaulting Tubes: Agricultural Production and the Building Industry in North Africa," 155-160; Michael Mackensen and Gerwulf Schneider, "Production Centres of African Red Slip Ware (3rd-7th c.) in Northern and Central Tunisia: Archaeological Provenance and Reference Groups Based on Chemical Analysis," *Journal of Roman Archaeology* 15, no. 1 (2002); Michael Mackensen and Gerwulf Schneider, "Production Centres of African Red Slip Ware (2nd-3rd c.) in Northern and Central Tunisia: Archaeological Provenance and Reference Groups Based on Chemical Analysis," *Journal of Roman Archaeology* 19, no. 1 (2006); David J. Mattingly et al., "Leptiminus (Tunisia): A 'Producer' City?," in *Economies Beyond Agriculture in the Classical World*, ed. David J. Mattingly and John Salmon (London and New York: Routledge, 2001), esp. 75-79; D. P. S. Peacock, Fethi Bejaoui, and N. Ben Lazreg, "Roman Pottery Production in Central Tunisia," *Journal of Roman Archaeology* 3 (1990); D. P. S. Williams D. F. Peacock, *Amphorae and the Roman Economy: An Introductory Guide* (London; New York: Longman, 1986), 41. These North African ceramics are found abundantly throughout the Roman empire; whoever the consumers of ceramic vessels were—in North Africa or elsewhere—the ceramic workshops were active and able to produce vaulting tubes as secondary products. The organization of the North African ceramic industry is still unclear: while an estate production model was once favored (i.e., see Peacock and Williams 1986, 41; Peacock et al. 1990, 82-83), the excavation of both rural and urban workshops suggests that ceramic production centers were mixed in type. As Kehoe (2007, 563-564) states regarding ARS, "The identity and status of the producers of this [African red-slip ware] pottery are uncertain, but it is noteworthy that the dominance of African red-slip ware coincides with the emergence of Africa as a major producer of olive oil and at the same time as a major contributor to the ruling class of the Roman empire." Also, for different models of ceramic production, see D. P. S. Peacock, *Pottery in the Roman World: An Ethnoarchaeological Approach* (London; New York: Longman, 1982).

[103] Lancaster, "Terracotta Vaulting Tubes in Roman Architecture: A Case Study of the Interrelationship between Technologies and Trade in the Mediterranean," 8-10; Lancaster, "Ash Mortar and Vaulting Tubes: Agricultural Production and the Building Industry in North Africa," 155-160.

[104] Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 108; Wilson, "Roman Vaulting Tubes (*Tubi Fittili*) from Chesters," 181. Wilson points out that vaulting tubes were used in Britain and other regions which did not lack timber resources. Sallares notes that there is currently little scholarly consensus

legislative, and economic factors made vaulting tubes viable vault-construction materials within the context of ceramic production in North Africa and helps explain the vaulting technique's ubiquity in the region. Wilson's argument that "convenience, fashion, and familiarity of individual architects with their use are more likely to have been the deciding factors" is likely true as the vaulting method gained popularity in North Africa and spread in western Mediterranean architecture.[105]

Mortuary Comparanda

Comparative evidence for vaulting tubes in funerary monuments is indeed scanty. Vaulting in general was does not appear to have been a North African particularly preference in roofing funerary monuments.[106] Rather, mausolea in Africa Proconsularis more often took the form of tower-tombs or temple-tombs, which, respectively, had pyramidal roofs and pedimented and pitched roofs.[107] As such, there are very few examples of tubular vaults from mortuary contexts, which perhaps is due to the fact that tombs tend to be small-scale structures.

In addition to our own Mini-Columbarium, only five mortuary sources of vaulting tubes are reported. A vaulting tube (fig. 15.5 and 28) was found at the Bou Krama necropolis near Utica, Tunisia, which has a *terminus post quem* of the early second century C.E. This tube

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over whether large-scale deforestation in the ancient Mediterranean occurred, and, if it did, where or when it occured : Robert Sallares, "Ecology," in *The Cambridge Economic History of the Greco-Roman World*, ed. Walter Scheidel, Ian Morris, and Richard P. Saller (Cambridge; New York: Cambridge University Press, 2007), 21-22, 25-26.

[105] Lancaster, *Concrete Vaulted Construction in Imperial Rome: Innovations in Context*, 68; Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 109.

[106] Admittedly, this impression may have to do with the incomplete preservation of roofs and ceilings of most tombs. In any case, columbarium-type tombs were also not common. See chapter 3 for discussion and a few examples of other vaulted mortuary monuments.

[107] Jennifer P. Moore, "The 'Mausoleum Culture' of Africa Proconsularis," in *Mortuary Landscapes of North Africa*, ed. David Leigh Stone and Lea Margaret Stirling (Toronto: University of Toronto Press, 2007), 76. The continued preference for such roofing perhaps speaks to the staying power of these more traditional types of funerary monuments. Another common tomb type of the Roman period, the cupula, is solid and has no interior space, and, therefore, no interior to be roofed. See chapter 3 and 4 for cupulae, as well as Stirling.

measured approximately 9 cm in external diameter, with a length of approximately 24 cm.

However, the tube's specific find-context is unknown.[108] Vaulting tubes (fig. 29) were also used

at a mausoleum in Tipasa, Algeria (near Ceasarea, modern Cherchell, in Mauretania

Caesariensis; fig. 30). This mausoleum, "Monument K" (fig. 31 and 32), dating to the second

half of the second century, was located approximately 200 m west of Tipasa's Necropolis of the

Port of Caesarea, and was, intriguingly, adjacent to a columbarium. Many ("plusieurs dizaines")

vaulting tubes were found, mixed together with rubble, in the upper portion of the fill inside the

mausoleum's crypt; these vaulting tubes measured approximately 23 cm in length and 8 cm in

external diameter.[109] Many vaulting tube fragments of local manufacture were found at the late

second to fourth century C.E. cemetery, Site 10, at Leptiminus (Lamta), Tunisia. However, these

tubes seem to be a component of fill imported into the cemetery; there is no evidence that they

were used in the burials.[110] The final two mortuary contexts of vaulting tubes are outside North

Africa. Vaulting tubes were used to roof a fourth century C.E. circular mausoleum associated

with the church and cemetery at S. Rufina, Italy; vaulting tubes, found as 135 fragments, were

threaded, with a length of ca. 20.0 cm long, a diameter of 5.5 cm and a thicknesses of 0.7 cm, in

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[108] Lézine, "Les Voutes Romaines á Tubes Emboités et les Croisées d'Ogives de Bulla-Regia," 180; Francesco Tommasello, "Volte 'Leggere' a Tubuli Fittili. Tra Sicilia e Africa," *Sicilia Antiqua* 2 (2005): 150; Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 104.

[109] Serge Lancel, "Tipasitana IV: la Nécropole romaine occidentale de la porte de Césarée--Rapport préliminaire," *Bulletin d'Archéologie Algérienne* 4 (1970): 205-211; Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 104, 126-128.

[110] Hazel Dodge, "Selected Finds, Site 10, 1991: Building Materials," in *Leptiminus (Lamta): Report No. 2: The East Baths, Cemeteries, Kilns, Venus Mosaic, Site Museum and Other Studies*, ed. Lea Margaret Stirling, D. J. Mattingly, and N. Ben Lazreg (Portsmouth, R.I.: Journal of Roman Archaeology, 2001), 212; David J. Mattingly, Nigel Pollard, and Nejib Ben Lazreg, "Stratigraphic Report, Site 10, 1991," in *Leptiminus (Lamta): Report No. 2: The East Baths, Cemeteries, Kilns, Venus Mosaic, Site Museum and Other Studies*, ed. Lea Margaret Stirling, D. J. Mattingly, and N. Ben Lazreg (Portsmouth, R.I.: Journal of Roman Archaeology, 2001), 107.

a cream- or pink-colored ceramic fabric.[111] The final example is from a possible catacomb (or

dump) at Priolo, Sicily.[112]

The vaulting tubes from Bou Krama and Tipasa, with diameters of 9 cm and 8 cm,

respectively, are larger than the later standardized vaulting tubes (whose diameters are usually

approximately 5 cm). The fact of their larger, unstandardized sizes is consonant with the second

century dating of their contexts. Furthermore, the sizes and dates matches well with the larger

size of the tubes from Yasmina's Mini-Columbarium, which also has an early date, relative to

the development and standardization of North African vaulting tubes. Lancaster noted that the

example from Bou Krama has a less-defined shape than later vaulting tubes, positing that it may

represent a transitional vaulting tube shape (particularly with the less-articulated shoulder).[113]

The vaulting tube from Tipasa's Monument K has, despite its similar size to the Bou Krama

example, a more defined shape; this makes it likely that it falls later in the typological

development of vaulting tubes. The paucity of other funerary monuments constructed with

vaulting tubes—only one secure example in Roman North Africa, at Tipasa—highlights the

distinctive architecture of the Mini-Columbarium.

The Vault in the Mini-Columbarium

The use of vaulting tubes in the Mini-Columbarium's vaulted ceiling helped to

aggrandize the monument. Given its small size, there was no need to vault the space; indeed, a

flat or pitched wooden roof would have easily sufficed. Instead, the presence of a vault helped

convey a grand idea despite the relatively small scale, calling to a visitor's mind expansive

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[111] Neil Christie, *Three South Etrurian Churches: Santa Cornelia, Santa Rufina and San Liberato* (London: British School at Rome, 1991), 236-244, 263-264, 308, 356, fig. 69; Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 104, 126-128.
[112] Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 104, 126-128.
[113] Personal communication to Naomi J. Norman, 2011.

public spaces like those in baths and churches. A flat or pitched ceiling would not have provided such monumental connotations, which were clearly a goal of the tomb's design. The fact that the vault was only visible from the inside of the tomb structure is intriguing. As mentioned above, the exterior of the roof was tiled and pitched, and, therefore, did not express the interior form; the interior vault would have been apparent only upon entrance to the tomb. Such intentional shaping of interior space suggests that interior access was a key element in the tomb's design.[114] Additionally, a vault's concavity and apex help to open up a space: in addition to suggesting visually to a visitor that the space was larger than it was, the vault may have actually allowed the ceiling to be higher in this small monument, permitting a visitor to stand more comfortably in the small space.[115] The vault, an architectural form closely associated with both aggrandized public spaces and non-civic spaces with elite pretensions, helped bring such connotations to this small mausoleum.

The choice of vaulting tubes in particular is also consonant with these messages. As we have seen, vaulting tubes were not commonly used in funerary structures: a ceiling of vaulting tubes was not an obvious choice for the patrons or builders of the Mini-Columbarium. The tomb uses vaulting tubes relatively early (the late second or early third century) in the course of vaulting tube experimentation and development in North Africa. The construction choices made for the Mini-Columbarium, then, appear to have taken part in a construction innovation that was both *contemporary* and *regional*. Lancaster suggests the importance in the high imperial period of "[a]certain level of 'conspicuous consumption' in construction" that is applicable here.[116] The use of this new construction method—plausibly recognizable as new and innovative within the

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[114] See chapter 3 for further discussion of the tomb's interior space.

[115] Rudolf Arnheim, *The Dynamics of Architectural Form: Based on the 1975 Mary Duke Biddle Lectures at the Cooper Union* (Berkeley: University of California Press, 1977), 94. See further discussion of the vault and the interior space in chapter 3.

[116] Lancaster, *Concrete Vaulted Construction in Imperial Rome: Innovations in Context*, 83.

region—would have been visible during the tomb's construction: the interior space was not only impressive to a viewer, but the tomb was also state-of-the-art down to the core (of its ceiling). The choice of the columbarium-tomb type, typically used for more monumental funerary structures, is also unexpected and will be further discussed in the next chapter. Such a combination of a large-scale tomb-type with an innovative and developing construction method atypical for its context further supports the interpretation of the tomb's design as particularly grand in intention.

CHAPTER 3: COLUMBARIA

The excavators of the Yasmina cemetery identified the Mini-Columbarium as a columbarium-type tomb based on the presence of niches for cremation urns that line its interior walls. This chapter begins with a discussion of the columbarium as a tomb type in Italy that is inward-looking and designed to facilitate collective burial. A discussion of the evidence for columbaria in Roman-era North Africa follows. Finally, this chapter considers the implications of the choice of a "mini-columbarium" design for the monument in the Yasmina cemetery.

Columbaria

Terminology and Definition

Ancient use of the term "columbarium" in reference to burials is limited to epitaphs. This use is an extension of the original sense of the word, "dovecote" or "pigeon-house" (fig. 33), which is the only definition in Latin literary use.[117] For example, Varro (*Rust*. 3.7.3-4) describes the building housing pigeons or doves (*columbae*) as a *peristeron* or a *peristerotrophion*, in which there should be "rounded columbaria made for each pair [of doves] in close rows, rows which can be as many as possible from the floor up to the ceiling."[118] In this husbandry context,

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[117] John Bodel, "From *Columbaria* to Catacombs: Collective Burial in Pagan and Christian Rome," in *Commemorating the Dead: Texts and Artifacts in Context: Studies of Roman, Jewish, and Christian Burials*, ed. Laurie Brink and Deborah A. Green (Berlin: Walter de Gruyter, 2008), 195, including nn. 35-36.

[118] Varro, *Rust*. 3.7.4: *Singulis paribus columbaria fiunt rotunda in ordinem crebra, ordines quam plurimi possunt a terra usque ad camaram*. The Latin text is derived from Loeb edition: Cato and Varro, *De Re Rustica*, Loeb Classical Library (Cambridge: Harvard University Press, 1979). All translations are my own, unless otherwise indicated.

"columbarium" refers to a niche for nesting doves (in pairs) set in the interior walls of a purpose-built structure; these nesting niches could appear on the structure's exterior as well.[119]

In mortuary contexts, the word "columbarium" transferred the image of numerous niches for doves to niches for cremains in tomb monuments. The term appears as a descriptor of niches in approximately 40 epitaphs; all of these inscriptions report the purchase or ownership of columbaria (niches) and *ollae* (urns).[120] As Bodel notes, modern scholarly use of the term "columbarium" (followed in this study) differs slightly from its ancient epigraphic (specifically, epitaphic) meaning: in antiquity, a columbarium in a mortuary context was a "niche for an ash urn" or a "bipartite niche for a pair of urns," whereas modern scholarship uses the term "columbarium" synecdochically to refer to the structure containing the niches, rather than to the niche itself.[121] As such, it is worth reiterating that there is no ancient term specific to the tomb type known today as a columbarium.

The type scholars now consider the "columbarium" gains its label and its typological indicators from its interior elements, the burial niches. Some scholars' definitions of columbaria, however, take into account criteria such as size, number and arrangement of niches, location (below or above ground), date, identity or class of the interred, means of burial administration, and patronage.[122] The broader definition followed in this study identifies a columbarium as a

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[119] Mordechai Aviam, "Columbaria in the Galilee," in *Jews, Pagans, and Christians in the Galilee: 25 Years of Archaeological Excavations and Surveys: Hellenistic to Byzantine Periods* (Rochester: University of Rochester Press, 2004); E. M. Husselman, "The Dovecotes of Karanis," *Transactions of the American Philological Association* 84(1953). http://www.lib.umich.edu/papyrus-collection/dovecotes-karanis (accessed May 13, 2013); John Martin Robinson, *Georgian Model Farms: A Study of Decorative and Model Farm Buildings in the Age of Improvement, 1700-1846* (Oxford: Clarendon Press, 1983), 105-106, figs. 99-109.

[120] Bodel, 195, n. 36. The examples from outside Rome and Ostia are from Spain (*CIL* 2.2002) and Antium, Italy (*CIL* 10.8299).

[121] ibid., 195; Kinuko Hasegawa, *The Familia Urbana During the Early Empire: A Study of Columbaria Inscriptions*, BAR International Series (Oxford: Archaeopress, 2005), 4 n.1. Also see Dorian Borbonus, "Textual and Visual Commemoration in Columbarium Tombs of Early Imperial Rome" (Ph.D., University of Pennsylvania, 2006), 30-31.

[122] For an overview of different scholars' criteria for columbaria, see Bodel, 207-208; Borbonus, 31-35. As Borbonus suggests, some of these criteria "beg the question" of membership, patronage, or administration, for

tomb whose interior walls are lined with rows of niches, which housed cremation urns, *ollae*.[123]

This definition is grounded in architectural form and arrangement, assumes less interpretation than the example criteria noted above, and, furthermore, remains in touch with the original sense of the "columbarium" as a niche or pair of niches.

Niches in columbaria were typically rectangular or arched.[124] A single niche usually contained two urns, sometimes one, and, rarely, three. Terracotta cremation urns were frequently placed into cavities in the bottom of their niche, so "that the opening of the urn opened into the bottom of the niche and could be covered with a terracotta lid;"[125] a cremation urn would be simply placed within the niche if there was no depressed cavity to hold it (cavities for urns appeared in later columbaria).[126]

According to Borbonus, the number of niches in a row was typically between one and ten.[127] The arrangement of niches in rows is usually seen as a decisive factor in a tomb's identification as a columbarium. For example, Bodel views a "regimented order and symmetry [as] characteristic of the [columbarium] form;" for him, this order derives from the row of niches.[128] In general, the fact that the arrangement of niches is orderly "counts more" for a tomb's identification as a columbarium than do the specifics of the actual arrangement of the

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example, and provide interpretation prior to identification of the form. See, for example, a constrained definition in Maria Letizia Caldelli and Cecilia Ricci, *Monumentum Familiae Statiliorum: Un Riesame* (Roma: Quasar, 1999), 64. For a broader definition similar to the one used in this study, see Michael Heinzelmann, *Die Nekropolen Von Ostia: Untersuchungen zu den Gräberstrassen vor der Porta Romana und an der Via Laurentina* (München: F. Pfeil, 2000), 63-72; Michael Heinzelmann, "Grabarchitektur, Bestattungsbrauch und Sozialstruktur: Zur Rolle der Familia," in *Römischer Bestattungsbrauch Und Beigabensitten: In Rom, Norditalien Und Den Nordwestprovinzen von der Späten Republik bis in die Kaiserzeit= culto Dei Morti e Costumi Funerari Romani: Roma, Italia Settentrionale e Province Nord-Occidentali dalla Tarda Repubblica all'Età Imperiale*, ed. Michael Heinzelmann (Wiesbaden: Reichert, 2001), 184-185.

[123] Bodel, 195-197; Hasegawa, 4.

[124] Borbonus, 51-53; Keith Hopkins, *Death and Renewal*, Sociological Studies in Roman History (Cambridge: Cambridge University Press, 1983), 216.

[125] Borbonus, 51-53.

[126] Moore, 81-82.

[127] Borbonus, 51-53.

[128] Bodel, 196.

rows; there is no standardized number of niches in a row, or number of rows. Inscribed epitaphs accompanied many, but not all, niches. As the illustrations from the excavation of the Columbarium 1 in the Vigna Codini (on the Via Appia) suggest, these epitaphs were placed above their niches (fig. 34).[129] All columbaria share a feature in addition to rows of niches: they are inward-looking monuments that must be entered in order to be understood fully as funerary structures (see below).

Some scholars consider a large size and burial capacity to be requisite features for identifying a tomb as a "columbarium," in keeping with the 18th century application of the term to the largest examples of this tomb type. However, Borbonus, who has estimated the burial capacity of various columbaria, shows that the monuments exhibit great range. This is clear in the difference between the immense size and capacity of the columbarium of the household of Livia (the *Monumentum Liviae* or *Monumentum libertorum Liviae*; fig. 35), whose main chamber held approximately 1092 burials in nine rows (a greater capacity than that of any other single columbarium), and the small capacity of a columbarium at no. 383 Via Nomentana, whose two rows of 14 niches provided for a total of 28 burials.[130]

Lastly, columbaria do not have a standard floorplan. Borbonus does identify two general footprint types among the subterranean columbaria which constitute his data set: the chamber type (those with rectangular burial chambers) and the cryptoporticus type (those for whom corridors constitute the ground plan). Barrel vaults typically roofed the latter type.[131]

As this discussion has shown, columbaria are not best defined by their size or floorplan. Instead, their use of rows of niches set in interior walls is their most universal characteristic

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[129] Hanne Sigismund Nielsen, "The Physical Context of Roman Epitaphs and the Structure of the 'Roman Family,'" *Analecta Romana Instituti Danici* 23 (1996): 40, figs. 1, 3a.
[130] Bodel, 196; Borbonus, 53, table 2-1, cat 24.
[131] Borbonus, 43.

element. This arrangement contributes to their interior focus and to the facilitation of collective cremation burial. To illustrate the distinguishing features of the columbarium in Rome, I describe below the *Monumentum Liviae*, which is perhaps the best known columbarium of the capital city.

The Monumentum Liviae

The columbarium of the household of Livia in the Vigna Benci by the Via Appia, in the suburban outskirts of Rome, is a classic example of a columbarium (fig. 35).[132] As noted above, the *Monumentum Liviae* is the largest of the columbaria, containing ca. 1092 burials in nine rows in its main chamber alone.[133] Discovered in 1725 and excavated in 1726, this columbarium was largely subterranean and consisted of two rooms built in *opus reticulatum*. The main chamber was rectangular, with six apsidal recesses (alternatingly semicircular and apsidal). Attached to the main chamber was a rectangular antechamber, which contained ca. 540 burials.

The columbarium was built in the Julio-Claudian period and, as is clear from epigraphic evidence, used through the reign of Claudius, although there is some evidence of use (or re-use) into the second century C.E. No longer preserved, the columbarium was extant to ground level when discovered (according to Borbonus, the original barrel-vaulted roof of the main chamber likely extended above ground) but was essentially destroyed during and/or after excavation.[134] At least 247 inscriptions were associated with the columbarium (*CIL* 6.3926-4326). Both the distinguished pedigree of its patron and the volume of inscriptions (and burials) from the

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[132] ibid., 238-240, cat 03; Maria Raina Fehl, "Archaeologists at Work in 1726: The Columbarium of the Household of Livia Augusta," in *Ultra Terminum Vagari: Scritti in Onore di Carl Nylander*, ed. Carl Nylander and Börje Magnusson(Roma: Quasar, 1997); M. Macciocca, s.v. "Liviae Augustae Libertorum Et Servorum Monumentum," in *Lexicon Topographicum Urbis Romae: Suburbium*, ed. Adriano La Regina(Roma: Quasar, 2005); Susan Treggiari, "Jobs in the Household of Livia," *Papers of the British School at Rome* 43 (1975).

[133] Bodel, 196; Borbonus, 53, table 2-1, cat 24.

[134] Bodel, 210-212; Borbonus, 238-240, cat 03; Fehl, 89; Hasegawa, 22-27; Hopkins, 214-216.

columbarium has garnered much scholarly attention.[135] The *Monumentum Liviae* will be considered again in the discussion of collective burial.

Inward-looking Form

Although ancient and modern dovecotes can have niches for nests on either the structure's interior or exterior,[136] only tombs with interior niches are considered columbaria. Tombs with accessible niches on the exterior are not typologically similar enough to columbaria (tombs with niches on the interior) to be usefully considered the same tomb-type. Furthermore, the experience of visiting or viewing a tomb with external niches is different from visiting or viewing a columbarium: tombs with external niches allow a viewer to situate the dead in the wider landscape, whereas columbaria enclose the interred and direct a viewer's focus inside the tomb, in a space cut off from the wider world.

Columbarium designs deemphasize external appearance in favor of internal elaboration. It is true that subterranean columbaria would have been identifiable and visible as monumental structures from an aboveground viewpoint: their vaulted roofs and means of ingress stood at ground level. Nevertheless, there is no evidence that the aboveground portions of these structures were elaborated in any way, such as with additional aboveground structures or sculptured decoration, or that they were labeled with inscriptions.[137] What was above ground did not advertise the tombs' presence in the landscape.[138] Moreover, these tombs' locations on

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[135] Borbonus, 238-240, 275.

[136] Aviam; Husselman; Robinson, 105-106, figs. 99-109.

[137] Borbonus, 64-75.

[138] The subdued effect of columbaria is contrary to Purcell's observation that, usually, "[t]omb architecture in Rome is designed to contribute to the landscape of the suburb." Nicholas Purcell, "Tomb and Suburb," in *Römische Gräberstrassen: Selbstdarstellung, Status, Standard. Kolloquium in München vom 28.-30. Oktober 1985*, ed. Henner von Hesberg and Paul Zanker (München: Verlag der Bayerischen Akademie der Wissenschaften: in Kommission bei der C.H. Beck'schen Verlagsbuchhandlung, 1987), 32. In this way, subterranean columbaria were much less obtrusive in appearance than aggrandized Republican-era tombs. Borbonus, 64-75.

secondary access roads in the Roman suburb, rather than on major thoroughfares, limited their visibility and accessibility.[139] They were not located to maximize viewership; as Borbonus states, "the external viewer of columbarium monuments is no passer-by."[140] Aboveground columbaria (sometimes called "house tombs"), such as those in Ostia's cemeteries, bore more external decoration, such as decorative cornices, plaques, and epitaphs. However, the placement of these decorative elements around the tombs' doorways focused attention on the entrances, the most striking features of what Heinzelmann calls the "conspicuously restrained" ("*auffallend zurückhaltend*") exterior designs.[141] The prominence of these doorways draws a viewer inside, into elaborately decorated and furnished interior chambers. Furthermore, like subterranean ones, aboveground columbaria at Ostia avoided prominent street-side locations.[142] Despite the greater attention aboveground columbaria devoted to external appearance, they match subterranean columbaria in their emphasis on the interior as *the* important display space.

The fact that the burials and commemorative inscriptions appear inside the columbarium gives the tomb type its inward-looking character. Buriers had to enter the tomb to inter the deceased; mourners had to enter the tomb to perform rituals in their honor; and visitors had to enter to find out who was buried in them. In addition, epigraphic commemoration appears on the interior—not the exterior— of most columbaria. These epitaphs were meant to be read by those

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[139] Borbonus, 64-75.

[140] Ibid., 75.

[141] Eve D'Ambra, "A Myth for a Smith: A Meleager Sarcophagus from a Tomb in Ostia," *AJA* 92, no. 1 (1988); Heinzelmann, *Die Nekropolen von Ostia: Untersuchungen zu sen Gräberstrassen vor der Porta Romana und an der Via Laurentina*, 63-65; Valerie M. Hope, "A Roof over the Dead: Communal Tombs and Family Structure," in *Domestic Space in the Roman World: Pompeii and Beyond*, ed. Ray Laurence and Andrew Wallace-Hadrill (Portsmouth, RI: Journal of Roman Archaeology, 1997), 73-82; J. M. C. Toynbee, *Death and Burial in the Roman World* (Baltimore: John Hopkins University Press, 1996), 135-136. Heinzelmann (65) notes that the entryways of the tombs at Ostia's Via Laurentina cemetery are deemphasized in the first half of the first century C.E., but are once again elaborated, *relative to the restrained form*, in the second half of the first century C.E.

[142] Heinzelmann, *Die Nekropolen von Ostia: Untersuchungen zu sen Gräberstrassen vor der Porta Romana und an der Via Laurentina*, 65.

inside the tomb, rather than by external viewers.[143] Even when columbaria had external

inscriptions, the space for funerary ritual was *inside* the tomb.[144] This designated space for

funerary commemoration[145] was only visible to those with access to—and possibly some form of

membership[146] in—the tomb.

The space for burial and commemorative activities was visually and structurally

separated from the outside world by a columbarium's walls, by virtue of its internal location.

Enclosed by the tomb structure, this interior space became the only space important or visible to

a viewer. In subterranean columbaria, this separation was enhanced by the depth of the burial

area. Such separation grouped together the columbarium's dead both visually and conceptually,

at the same time separating them from those outside the tomb. The inward-looking form helped

define those buried within as belonging to a distinct community.

Collective Burial

Columbaria were built to contain multiple— and sometimes many—burials of individuals

who could be connected by kinship or by other social ties. Indeed, collective burial is an

important feature of the columbarium. As Yasin argues, the early empire saw a rise in collective

burial and emphasis on group identity and membership within that group.[147] Columbaria

represent an important venue for collective burial in this period, a venue whose collective aspect

derives both from housing numerous burials in a single tomb and from the type's interior-

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[143] Nielsen, 37. As Nielsen suggests, "there must be significant differences between *tituli* inscriptions placed on family tombs designed as a social display for every passer-by to read and small slabs put up in a dark subterranean columbarium."

[144] The aboveground columbaria at Ostia have their own triclinia, fountains, and hearths inside the tomb, and own ustrina inside the tomb's enclosure. Heinzelmann, *Die Nekropolen von Ostia: Untersuchungen zu sen Gräberstrassen vor der Porta Romana und an der Via Laurentina*, 64-65.

[145] Borbonus, 67.

[146] See discussion below.

focused form. This section discusses the different kinds of collectives associated with columbaria before considering how the tomb type enhances a collective mentality.

Collective Burial: Collectives

Three types of collectives are usually associated with columbaria: slave and freed dependents of Roman households/*familiae*, collegia, and, lastly, the individuals buried together without apparent kinship or professional ties. Association of these group types with columbaria is largely based on epigraphic evidence. It is notable both that none of them are united solely on ties of kinship and that they bleed into one another (particularly the *familiae* into collegia).

The first demographic group associated with burial in columbaria is the dependent and servile component of the Roman *familia*, the slave and freed staffs of aristocratic households. While Hopkins has compared the social structure of columbaria to *insulae* and Purcell has associated it with the Roman *domus*, Bodel views columbaria containing burials of household staff members as reflective of the slave household's separation from the family and, thus, as the burial parallel to households' separate *lararia* for family and slaves; in his model, a columbarium is parallel to the slaves' *lararium*.[148] Bodel's more nuanced model has the advantage of not assuming a correlation between living and burial spaces and of acknowledging the demographic evidence for the interred.

Scholars' attention to the demographic composition and, specifically, to the slave, freed, or free statuses of those buried in columbaria is fueled in large part by epigraphic evidence.[149]

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[147] Ann Marie Yasin, "Funerary Monuments and Collective Identity: From Roman Family to Christian Community," *Art Bulletin* 87, no. 3 (2005): 436-439.

[148] Bodel, 210-219, especially 216; Hopkins, 212-216; Purcell, 39.

[149] Borbonus, 171-213; Kinuko Hasegawa, "The « collegia Domestica » in the Elite Roman Households: The Evidence of Domestic Funeral Clubs for Slaves and Freedmen," *Latomus: Studies in Latin Literature and Roman History* 12 (2005); Hasegawa, *The Familia Urbana During the Early Empire: A Study of Columbaria Inscriptions*; Nielsen; Lindsay Penner, "Gender, Household Structure and Slavery: Re-Interpreting the Aristocratic Columbaria of

However, legal statuses are not always recorded in commemorative epitaphs from columbaria; epitaphs (either from columbaria or other kinds of tombs) do not consistently report legal statuses of the deceased. Nevertheless, Borbonus notes that of the approximately 30% of burials with legal status recorded in columbaria, "slaves and ex-slaves decidedly outweigh the freeborn population;" in addition, many burials whose inscriptions do not record legal status lack the Roman *tria nomina*, which suggests that they mark the interments of slaves.[150] According to Purcell, "[t]his type of tomb reflects not the mass society of Rome but the growth of the huge *familiae* of freedman, slaves, and free dependents which characterized the Roman aristocracy between 50 B.C. and A.D. 150."[151]

The *Monumentum Liviae* (fig. 35) is the classic example of a columbarium that housed burials of the staff of an aristocratic household. Its 247 epitaphs mark burials of the staff of the Imperial household—primarily of Livia's household, but also of servants of Augustus, Tiberius, Drusus and Antonia, and several other imperial relatives.[152] The *Monumentum Liviae* is not the only columbarium whose epigraphic evidence points to its use by servile members of an aristocratic, or even imperial, household.[153] Although there is clear evidence that most of those buried in that columbarium belonged to Livia's household, the exact mechanisms for managing the collective are unclear. The *Monumentum Liviae* seems to have been administered by a collegium of the household staff, but we cannot say if the collegium was established at Livia's

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Early Imperial Rome," in *Families in the Greco-Roman World*, ed. Ray Laurence and Agneta Strömberg, The Family in Antiquity (London and New York: Continuum, 2012); Treggiari.

[150] Borbonus, 219-220.

[151] Purcell, 39.

[152] Bodel, 210-212; Borbonus, 238-240, 275; Hasegawa, *The Familia Urbana During the Early Empire: A Study of Columbaria Inscriptions*, 22-26; Treggiari: 48-49.

[153] Other aristocratic household columbaria include columbaria of the Statilii, the Arruntii, and the Volusii: Borbonus, 122-133. In addition, some of Livia's slaves and freedmen were buried in columbaria of other imperial family members' households, e.g. that of Drusus's family: Bodel, 211.

behest in a patron role or on the volition of the collegium's members.[154] Either way, the use of

the columbarium structure by such household collectives emphasized or recast in death the

interred individuals as part of a great household.[155] Furthermore, as Bodel argues,

> In creating separate tombs for a group that, by definition, had no legally recognized
> kinship relations and thus no familial hierarchy to govern the distribution of burial spaces
> within a collective monument, the aristocratic slave owners who provided (or at least
> allowed) these structures made possible the creation of a new system of "tomb
> management" based on other principles than those that governed the administration of
> familial monuments.[156]

Such non-familial funerary arrangements carried over into non-household columbaria.

Other collegia also used columbaria as communal funerary structures for their members.

Such voluntary associations were organized on non-kinship lines, such as the tutelage of a

particular deity, a particular ethnicity, profession, or trade.[157] As Borbonus states, "*collegia*

should probably be thought of as social clubs, bringing together members with a common ethnic,

religious, or professional background or interest."[158] Hopkins argues that they provided a means

for community building in a growing mass, urban society by uniting a disparate group within the

context of funerary practice and commemoration.[159] Patterson takes a slightly different angle in

asserting that, in some ways, early imperial collegia "can be seen to fill a gap left by traditional

types of patronage of the individual," which typically did not extend to mortuary support except

in patron-freedmen relationships.[160]

Epigraphic and documentary evidence preserving rules and regulations of collegia

suggest that, among other activities (including feasting), providing proper burial was an

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[154] Bodel, 211-212; Borbonus, 121.
[155] Hopkins, 212-216.
[156] Bodel, 217.
[157] Hopkins, 211-216; John R. Patterson, "Patronage, *Collegia* and Burial in Imperial Rome," in *Death in Towns: Urban Responses to the Dying and the Dead, 100-1600*, ed. Steven Bassett (Leicester: Leicester University Press, 1992), 19-23.
[158] Borbonus, 165.
[159] Hopkins, 211-217. As Hopkins states, "[c]ollective tombs were an attempt to cope with burial in a mass society."
[160] Patterson, 19-23.

important function of collegia.[161] Such a view also derives in part from the notion of burial clubs (Mommsen's "*collegia funeraticia*," a modern term), and has led to the interpretation that collegia primarily functioned as a form of "burial insurance" for the poor, who, according to Hopkins, could avoid anonymity in death through such membership. Ausbüttel and others, by contrast, argue that the burial function of collegia is only one activity that bound the group together.[162] Additionally, membership of such clubs seems to have included slaves, freedmen, and freeborn Romans, in short, all but the very poorest members of the population who could not afford even a club's monthly dues.[163]

Collegia of household dependents, such as the one that filled the *Monumentum Liviae*, then, should be seen as a special case of collegia. Hasegawa argues that collegia of the slaves and freedmen of particular aristocratic households or *gens*, the "so-called *collegia domestica*," differed slightly from other collegia by providing burials beyond the financial means of many slaves, and, in so doing, "acted on the behalf of the aristocratic masters who should have been responsible for the burial of their domestics."[164] Furthermore, the burial of a collegium domesticum in a columbarium immortalized the master-slave/freedmen relationship. The extent of influence of aristocratic patrons—of collegia of households and of other sorts—in management of columbaria is under debate. Hasegawa sees the aristocratic masters of interred slaves and freedmen as active in their patron-benefactor roles and having some involvement and

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[161] Hope, "A Roof over the Dead: Communal Tombs and Family Structure," 71-73; Hopkins, 211-217; Patterson, 19-23.

[162] Frank M. Ausbüttel, *Untersuchungen zu den Vereinen im Westen des Römischen Reiches* (Kallmünz: M. Lassleben, 1982); Borbonus, 164-166; Hopkins, 211-217; Patterson, 20; Akira Sakaguchi, "On the So-Called « collegia Funeraticia » (Funeral Clubs)," *Journal of Classical Studies* 50 (2002): 149-150.

[163] Borbonus, 165; Patterson, 21. For discussion of mortuary practices for Rome's urban poor, see John Bodel, "Dealing with the Dead: Undertakers, Executioners and Potter's Fields in Ancient Rome," in *Death and Disease in the Ancient City*, ed. Valerie M. Hope and Eireann Marshall (London, New York: Routledge, 2000), 128-135.

[164] Hasegawa, "The « collegia Domestica » in the Elite Roman Households: The Evidence of Domestic Funeral Clubs for Slaves and Freedmen," 250-251, 258-261.

decision-making power in burial activities.[165] Bodel views these patrons' control as limited or at

least seldom exerted, for the use of collegia by household groups was a sort of "outsourcing" of

the responsibility and administrative role of elite families to provide burial spaces for their

familiae members.[166] Even beyond the household collegia, whose pool of potential patrons is

obvious, our knowledge of the specifics of patronage is limited. As Borbonus states, there is no

positive evidence for these details or about the benefaction of columbaria; indeed, "[w]hat is not

known for any columbarium tomb is who actually built and paid for the monument."[167]

However, we do know that, in general, the administration—such as organizing burial, admitting

members, etc.— of the columbaria that housed collegia was carried out by officers of the

collegia, as is clear from epigraphic records of office-holding.[168]

Lastly, some columbaria contain burials of people buried together with no clear

relationship—kinship or otherwise. As Nielsen notes, not all columbaria were owned by

aristocratic families or collegia: some were owned privately, and "[t]he loculi and ollae of this

latter type of columbarium could be sold and bought quite freely."[169] Private ownership of

specific niches is recorded in inscriptions.[170] Columbarium 1 in the Vigna Codini (fig. 34) is an

example of this type of columbaria, which Borbonus refers to as an "open-access" tomb.[171] The

existence of this final type of collective suggests that financial considerations, rather than social

ties, may have prompted some to inter the deceased in a columbarium.

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[165] Ibid., 261-265.
[166] Bodel, "From *Columbaria* to Catacombs: Collective Burial in Pagan and Christian Rome," 217, 227-232.
[167] Borbonus, 166-170.
[168] Bodel, "From *Columbaria* to Catacombs: Collective Burial in Pagan and Christian Rome," 227-232; Borbonus, 166-170.
[169] Bodel, "From *Columbaria* to Catacombs: Collective Burial in Pagan and Christian Rome," 215; Nielsen: 35, 40-44.
[170] See discussion in Nielsen, esp. 40-44.
[171] Borbonus, 167, 169, 224-246, cat 08; Nielsen, 35, 40.

Collective Burial: Form and Inclusion/Exclusion

Whether those buried in columbaria were united in life by professional or social relationships or not, their burial together in a single tomb marked them as belonging to a particular burial community. The inward-looking architectural form of the columbarium underscores this collective burial strategy.[172] As Hillier and Hanson state, "space [is…] determined by two kinds of relations, rather than one: the relations among the occupants and the relations between occupants and outsiders."[173] The enclosed form of the columbarium differentiates and defines occupants (the dead and their mourners) together against those without access to the tomb.

The rows of niches holding individual cremations visually emphasize the membership of these individual burials in a group, a collective of essentially identical burials in a columbarium. This arrangement further demands that a viewer (whether burying, mourning, or performing recurring commemorative rituals for the deceased) locate a niche among many: individuals' burials are immediately and visually contextualized by other members of the larger group. Such an arrangement fosters "spatial solidarity" (in Hillier and Hanson's terms) *within* the columbarium by visually stressing a sense of "contiguity" between units (the niches) separated by "weak" boundaries; this arrangement helps mark a niche as being "one among many."[174]

The collective group is visually, spatially, and architecturally defined as those inside the tomb structure. Borbonus is correct in stating that "[t]he strategy is inclusive, focusing on the collective in the monument as the defining social group;" however, as Bodel well notes, there is

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[172] Bodel, "From *Columbaria* to Catacombs: Collective Burial in Pagan and Christian Rome," 210-214.

[173] Bill Hillier and Julienne Hanson, *The Social Logic of Space* (Cambridge and New York: Cambridge University Press, 1984), 15. See also 19-20, 143-147.

[174] Ibid., 40-41, 145, 159, 161; Ruth Westgate, "The Greek House and the Ideology of Citizenship," *World Archaeology* 39, no. 2 (2007): 240.

a strong exclusive aspect that works in tandem with this inclusivity.[175] He identifies the

columbarium type as a "closed" architectural form, which implies a design "to house a

predetermined and fixed number of burials."[176] The space, number of niches, and, thus,

possibility for membership in the collective was finite in any given columbarium. In the

Monumentum Liviae, inscriptions bear evidence for reuse of burial spaces: many epitaphs were

either re-inscribed or had "two independent names in the nominative," suggesting "that

individual *ollae* were used for more than one burial […] and were being reused."[177] Bodel

interprets this reuse of *ollae* and inscriptions as evidence of the great desire to be included in the

face of limited group membership.[178] There was a difference—one which carried some cachet—

between belonging and not belonging.

This inside/outside dichotomy extends beyond those interred/not interred to the living:

the inward-looking form limits viewership of the burials to those with privileged access into the

tomb. The form makes no provision for an external viewer to view and take part in the

commemoration. The decorative scheme, juxtaposing restrained external decoration with

elaborate interior furnishing and ornamentation, further excludes external viewers from the

important display space.

Moreover, viewers entered a space shared with the interred and separated from all others.

Entering a columbarium gave viewers, even if temporarily, membership in the burial community

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[175] Bodel, "From *Columbaria* to Catacombs: Collective Burial in Pagan and Christian Rome," 210-214; Borbonus, 67.
[176] Bodel, "From *Columbaria* to Catacombs: Collective Burial in Pagan and Christian Rome," 209.
[177] Ibid., 211, incl. n. 65. Bodel identifies the following examples of double burials in an *olla*: *CIL* 6.3945, 3946, 3992, 8944.
[178] Ibid., 210-214. Bodel (211) explains: "Evidently the nearly 1,100 spaces set aside for Livia's staff and their dependents were insufficient to house the remains of those eligible for burial in the monument, and the desire to be included among that group apparently outweighed fear of the consequences of violating burial of another. Nothing could illustrate more clearly the comparative pull on funerary behavior of the competing social forces of solidarity with fellow members of a corporate group (the staff of Livia) and social ambition for individual representation within a privileged community."

through their physical incorporation into that collective's space, bounded[179] by the columbarium's walls. Participation in burial and commemorative activities inside a columbarium as well as the act of entering itself could reinforce a collegium member's sense of membership in the club. That this access was restricted reinforced both the privileged identity of the collective and the privileged ties of viewers to the burial group (in opposition to non-members). In other words, the architectural form fostered the perception that the deceased shared a collective identity.

The Columbarium as a Roman and Italian Phenomenon of the Early Empire

The preceding discussion of columbaria traits derives from the picture provided by central Italy. Columbaria are a mortuary phenomenon *largely* centered at the city of Rome and its ports (Ostia, Portus, and Puteoli).[180] All but two of the epitaphs that mention a "columbarium" in a mortuary context come from Rome or Ostia; as Bodel explains, the "extended usage [of the term for mortuary contexts], like the form itself, evidently originated at the capital and was virtually restricted to its environs."[181]

Columbaria appear in suburban Rome beginning in the Augustan period.[182] The dates for their use, provided by epigraphic evidence, are concentrated in the Julio-Claudian period. [183] The mid-first century C.E. saw the end of construction of fully subterranean columbaria and the increased construction of aboveground columbaria.[184] Columbaria continue to be used into the second century C.E., to approximately the reign of Hadrian.[185]

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[179] For boundaries and visitors versus strangers, see Hillier and Hanson, 146.

[180] Borbonus, 67, 216-217.

[181] Bodel, "From *Columbaria* to Catacombs: Collective Burial in Pagan and Christian Rome," 195.

[182] Borbonus, 54-64, table 2-2.

[183] Ibid; Hasegawa, *The Familia Urbana During the Early Empire: A Study of Columbaria Inscriptions*, 4.

[184] Borbonus, 14, 63, 230-231; Heinzelmann *Die Nekropolen von Ostia: Untersuchungen zu den Gräberstrassen vor der Porta Romana und an der Via Laurentina*, 62-72; Hope, "A Roof over the Dead: Communal Tombs and Family

The columbarium-type tomb may be a response to changing funerary behavior in Augustan-era Rome. Prompted in part by the precedent set by the Mausoleum of Augustus, aggrandized funerary monuments for individuals became the province of the Imperial family. As a result, private citizens began to build less ostentatious tombs; many of these more modest monuments also housed collective burials.[186] At the same time, because Roman funerary practice still demanded that gravesites be accessible for ritual visitations, these less elaborate tombs continued to fill the finite amount of space in the Roman suburb.[187] As Hope states, "[t]he first century AD saw a shift from large self-glorying memorials which focused on the individual to an increasing emphasis on communal tombs oriented around the household or common work and employment."[188] The columbarium was not the only tomb type in use in the early Imperial period that was simpler than the elaborate tombs of the late Republic, but it is notable in also matching other early imperial funerary trends.

At the same time as tomb appearances became relatively simplified, funerary behavior gained a new private and interior focus. Wallace-Hadrill sees a shift in imperial-era Italy from an emphasis on external functions in late Republican tombs to an internal focus and interior elaboration in high imperial tombs.[189] The changes in balance between the external and internal

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Structure," 73; Nielsen, 37; Toynbee, 132-143. Aboveground columbaria, sometimes considered "house tombs," can especially be found at Ostia's cemeteries. They tended to be smaller in scale than the largest of the subterranean columbaria; they were often multistoried and contained spaces for funerary banquets and other ritual commemorative activities. See "Inward-looking Form" section above for discussion of external/internal appearance.

[185] Bodel, "From *Columbaria* to Catacombs: Collective Burial in Pagan and Christian Rome," 196; Borbonus, 54-64, table 2-2.

[186] Ian Morris, *Death-Ritual and Social Structure in Classical Antiquity*, Key Themes in Ancient History (Cambridge: Cambridge University Press, 1992), 44, 46; Yasin: 436; Paul Zanker, *The Power of Images in the Age of Augustus*, trans., Alan Shipiro (Ann Arbor: University of Michigan Press, 1988), 291-292.

[187] Bodel, "From *Columbaria* to Catacombs: Collective Burial in Pagan and Christian Rome," 194-195; Yasin: 436-439.

[188] Valerie M. Hope, "Constructing Roman Identity: Funerary Monuments and Social Structure in the Roman World," *Mortality* 2, no. 2 (1997): 110.

[189] Andrew Wallace-Hadrill, "Housing the Dead: The Tomb as House in Roman Italy," in *Commemorating the Dead: Texts and Artifacts in Context: Studies of Roman, Jewish, and Christian Burials*, ed. Laurie Brink and Deborah A. Green (Berlin: Walter de Gruyter, 2008).

functions of tombs parallel the reduction in scale and privatization of funerary practices. Bodel argues that performance of funerary ritual moved from the public and civic sphere, which housed it in the Republic, into the private sphere.[190] These wider trends suggest that funerary commemoration, including that which took place in columbaria, began to be focused on a more narrow audience. This audience was not the public at large but smaller, more intimately defined groups of mourners or commemorators. Columbaria—for which "[c]ommemoration is now purely internal"—fit in well with the movement of funerary activity to the private sphere and interior space.[191] As argued above, their architectural form physically and conceptually limited access to the burial community, and, in so doing, more explicitly expressed a collective (albeit limited) identity for those buried in and those with access to columbaria. Furthermore, the columbarium form moved the venue for viewing and commemorating the dead inside.

Given these broader trends, most scholars argue that the columbarium type developed and gained popularity specifically in response to social conditions and needs of the city of Rome. For example, Borbonus sees the spatial distribution of the form—i.e., its near restriction to Rome and its ports—as a signifier of the tomb type's enmeshment in the social conditions of the city of Rome:

> It indicates that they responded to a need that was specific to the social environment of metropolitan Rome in the early Imperial period. It seems that the conditions in the ports, standing in close contact to the capital, were similar enough to warrant the description of a similar commemorative habit. [192]

In his view, this local Roman and Italian social environment prominently included the new and emerging social group of slaves and freedman of the imperial and municipal bureaucracies in the early Empire, whose presence and "non-competitive" commemorative strategies were manifested

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[190] John Bodel, "Death on Display: Looking at Roman Funerals," in *The Art of Ancient Spectacle*, ed. Bettina Ann Bergmann and Christine Kondoleon (Washington, D.C.: Yale University Press, 1999), 259, 263, 265, 270-271, 276.
[191] Borbonus, 67.
[192] Ibid., 216-217.

in the columbarium form.[193] For other scholars, other changing social relations in urban Rome—

alienation in a "mass society"[194] and/or changing patronage networks[195]—led to the formation of

collegia and collective burial. Bodel views the phenomenon of collective burial administered by

collegia more broadly than Borbonus:

> The funerary role of the *collegium*, ironically, was born to meet one social need — the
> proper burial of groups too large or too amorphous and heterogeneous to be
> accommodated directly by the traditional familial and patronal mechanisms of support —
> but grew up to address another, the desire for self-defining communities to express
> solidarity and corporate unity within a recognizable and acceptable (if always to a certain
> extent controversial) institutional framework.[196]

These social demands and topographical limitations on tombs in the Roman suburb contributed

to the development of the columbarium's efficient use of space and definition of new

communities. However, the ability of columbaria to express and reinforce collective identity

remained in play in columbaria outside of Italy.

Columbaria in North Africa

As noted in chapter 2, mausolea in Africa Proconsularis more often took the form of

tower-tombs or temple-tombs.[197] Romanelli states that columbaria like those found in Rome are

not known in North Africa; he presumably has in mind the size of the classic Roman examples,

such as the *Monumentum Liviae*. Nevertheless, he suggests that some Roman-period North

African chamber tombs—both aboveground and subterranean—are analogous.[198] Indeed, a small

number of tombs identified as columbaria in the Roman provinces of North Africa, particularly

in the west, have been published or noted. Poor superstructure preservation or limited description

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[193] Ibid., including 228.
[194] Hopkins, 211-217.
[195] Patterson, 19-23.
[196] Bodel, "From *Columbaria* to Catacombs: Collective Burial in Pagan and Christian Rome," 229.
[197] Moore, 76.
[198] Pietro Romanelli, *Topografia e Archeologia dell'Africa Romana* (Torino: Società editrice internazionale, 1970), 268-269.

in reports of these tombs hampers more secure identification, let alone dating, of many of these tombs as columbaria.[199] Nevertheless, it is useful to account here for some of the regional comparanda to both Yasmina's Mini-Columbarium and examples from central Italy.

Tunisia

Several are reported in the region of modern Tunisia. A columbarium reportedly was found under the foundation of a chapel by the west door of the basilica Damous el-Karita at Carthage, but was not described in detail.[200] A columbarium at Bordj el Ain was originally two-storied; the extant lower level was semi-circular, and housed twelve niches—seven with an arched opening and five with a rectangular opening. A columbarium at Ain Trab was rectangular and was augmented by a terrace-forecourt and adjacent rooms.[201] A columbarium at Utica, Tunisia, (fig. 36) lays to the south of the city's Grand Baths and follows its orientation.[202]

A columbarium on the island of Djerba located between the modern villages of Sedouikech and Beni Maaguel, is known locally as Dar Al Ghoula or Ksar Al Ghoula ("house" or "castle of the ogress;" figs. 37-39).[203] Akkari-Weriemmi describes it well. The tomb is 7 m² in its external measurements and approximately 4.5 m² inside; it is preserved to a height of 3 m. Eight niches, in groups of two, originally lined the base of its walls; these niches are rectangular in plan and have rounded tops and straight walls. The niches are approximately 2.25 m apart and are located approximately 0.80 m from the chamber's corners; the niches themselves are 0.76 m tall by 0.45 m wide by 0.42-0.45 m deep. The remains of the roofing indicate that a rubbled-

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[199] This frustration is also noted by Jenina Akkari-Weriemmi, "Le Columbarium de Dar Al Ghoula à Djerba (Tunisie)," *Africa* 20 (2004): 22 n.23.
[200] Raymond Lantier, "Notes de Topographie Carthaginoise. Cimetières Romains rt Chrétiens de Carthage," *Comptes-rendus des séances de l'Académie des Inscriptions et Belles-Lettres*, (1922): 25 n.2.
[201] Romanelli, 268-269.
[202] Alexandre Lézine, *Utique* (Tunis: Société tunisienne de diffusion, 1970), 18-19, fig. 5.
[203] Akkari-Weriemmi: 17-19.

concrete vault roofed the tomb. The interior of the walls offer traces of white plaster.[204] Akkari-Weriemmi estimates a date between the second and end of the fourth centuries C.E. for the construction and use of the columbarium. The primary evidence for the date are the ceramics from the tomb; the date also accords well with the choice of cremation, rather than inhumation, for the tomb's burials.[205] Akkari-Weriemmi also mentions unpublished columbaria at Meninx (Henchir El Kantara, on Djerba; fig. 40) and near Moknine at Bennane (fig. 41), as well as one with five niches at the Wadi Mellègue near Kef.[206]

The Columbarium of the Remmii, on the outskirts of Thugga (modern Dougga), is dated approximately to the second or third century C.E. A large structure ("de grandes dimensions"), this (presumably aboveground) columbarium had multiple rooms roofed with barrel vaults. The central room was apsidal and roofed with a semi-dome; in the apse were three niches, at the bottom of which were cremation urns "en forme d'auge." The central of three urns was labeled "C. Remmius Sallustianus;" the burials of other members of the Remmii in Thugga's west necropolis are marked by cippi.[207]

Algeria

As noted in chapter 2, a columbarium at Tipasa (near Caesarea, modern Cherchell, in Mauretania Caesariensis; figs. 30-31) was located next to Monument K, a mausoleum roofed with vaulting tubes. These tombs are located approximately 200 m west of Tipasa's Necropolis of the Port of Caesarea.[208] Lancel and Bouchenaki also refer to the presence other large,

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[204] Ibid., 19-21.
[205] Ibid., 22-23.
[206] Ibid., 22, especially n.23, figs. 18-19.
[207] Poinssot, 72.
[208] Lancel, "Tipasitana IV: La Nécropole Romaine Occidentale de la Porte de Césarée--Rapport Préliminaire," 205-211; Serge Lancel and Mounir Bouchenaki, *Tipasa de Maurétanie* (Alger: Sous-direction des beaux-arts et

rectangular mausolea in that cemetery, some of which contained niches for collective burial use in subterranean burial chambers; several provided for up to 20 or 30 burials.[209] These may include some of the several large funerary monuments —larger than the most common tomb type, cupulae—at the Necropolis of the Port of Caesarea which had square or rectangular floor plans and wall niches in their burial chambers; some feature benches around their interior walls.[210] Of these, Tomb 93 and Tomb A both had square subterranean burial spaces underneath stepped-bases, which were topped with pillar-shaped cippi. Tomb 93 (figs. 42-45) contained six irregular loculi; at least 11 urns, however, were placed in the tomb (the additional five were clustered in the northeast corner of the tomb).[211] Tomb A (figs. 46-47) has six niches, but held 25 urns, piled atop each other in niches and on the floor of the tomb.[212] We see a similar, though less orderly, expansion of the burial group to numbers unanticipated in the tomb's original design as occurs in the *Monumentum Liviae*.

Lancel describes an additional two larger, rectangular, vaulted funerary monuments at the Necropolis of the Port of Caesarea. Tomb 61 (fig. 48), which Lancel postulates dates to the Flavian era, contained five niches arranged at the top of the tomb's preserved interior walls; the remains suggest that the tomb was vaulted with rubbled-concrete.[213] Lastly, a similar tomb, Tomb 406 (fig. 49), contained 11 niches (arched in section) placed about midway up the interior walls. Tomb 406 was roofed with a barrel vault, built on an armature of reeds, and contained an

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antiquités, 1971), 56; Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," 104, 126-128.

[209] Lancel and Bouchenaki, *Tipasa De Maurétanie*, 56.

[210] Lancel, "Tipasitana IV: La Nécropole Romaine Occidentale de la Porte de Césarée--Rapport Préliminaire," 184-195.

[211] Ibid., 184-185, figs. 34-37.

[212] Ibid., 188-190, figs. 41, 44.

[213] Ibid., 192-193, fig. 46.

additional four rectangular niches in the lower portion of the barrel vault (two in the north and two in the south portions).[214]

Using archival materials Leveau identifies a columbarium (fig. 50) near ancient Iol/Caesarea, modern Cherchell. Leveau, quoting Leschi, says it is not far from the east port of ancient Caesarea and near a Roman road ("non loin de la porte Est de l'antique Caesarea […] en bordure de la voie romaine"), by the wadi Nsara.[215] According to Leveau's reconstruction, this rectangular columbarium was built in *opus reticulatum* and measured 3.55 by 2.10 m. Four niches were present in the tomb's north wall; each was 50 cm wide, 35 cm in height, and 40 cm deep. Each niche contained a cremation urn and ceramic grave goods and was marked by Latin inscriptions.[216] Leveau estimates that the tomb was constructed in the mid-first century C.E., and associates it, based on epigraphic evidence, with the freedmen of the family of Juba and Ptolemy, the deposed rulers (and client-kings to the Romans) of Mauretania.[217] This epigraphic evidence is admittedly somewhat circumstantial, as the inscriptions in question were found in the environs of the tomb, rather than in situ in the tomb; nevertheless, Leveau reads the names and positions of at least two servants of the Ptolemies in these fragmentary inscriptions (in particular, nos. 5 and 7; figs. 51-52).[218]

Leveau describes two additional tombs in Cherchell's west necropolis near the wadi el Kantara; these mausolea for collective cremation burial can be considered fruitfully with the

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[214] Ibid., 192-195, fig. 47.

[215] Philippe Leveau, "Trois Tombeaux Monumentaux a Cherchel," *Bulletin d'Archéologie Algérienne* 4 (1970): 101-120; Leschi quoted on p.101, see 101 n.2; Philippe Leveau, *Caesarea de Maurétanie: Une Ville Romaine et Ses Campagnes* (Rome; Paris: Ecole française de Rome; Diffusion de Boccard, 1984), 111.

[216] Leveau, "Trois Tombeaux Monumentaux a Cherchel," 103-120; Leveau, *Caesarea de Maurétanie: Une Ville Romaine et Ses Campagnes*, 111.

[217] Leveau, "Trois Tombeaux Monumentaux a Cherchel," 114, 117, 120.

[218] Ibid. No. 5: line 1: ---]NARCISSVS*; line 2: ---]AI*L*CVBV//; line 3: ---]//OTA//V//, which Leveau reconstructs as "*Julius]Narcissus/[Ptolem]ai l(libertus)/cubu/[culariu]s OTA LV/---.*" No. 7: line 1: ---]O*CELLARI*; line 2: PTOLOMAEI; line 3: ANTVSA*FECIT, which Leveau reconstructs as "*Serv]o cellari(o) / Ptolomaei / Antusa fecit.*"

columbaria. The first of these is an octagonal tower tomb (figs. 53-55). This tomb is set on a high podium and has a rectangular burial chamber beneath the tower. The north, west, and south interior walls of the burial chamber each contained six niches (in two rows of three niches); the east wall has niches only in its northern corner, as the southern portion of the wall is occupied by the entrance to the chamber. All the niches were rectangular in both section and footprint, approximately 50 cm in height, and were covered by a flat tile; only one cremation urn was recovered from the niches. Leveau also gives this tomb a mid-first century C.E. date.[219] The second tomb is not quite a columbarium (fig. 56): it has a cruciform footprint and combines niches with acrosolia, arched recesses for burial (typically for inhumation). Its north, south, and east interior walls each contain an acrosolium, and access to the chamber is provided by steps descending from the west; the north wall also contains a single niche, while the south wall has five niches within its acrosolium. These niches are rectangular in form and are covered by small masonry vaults.[220]

Leveau also notes the presence of another columbarium-like tomb at Cave-Hardy on the coast east of Caesarea (figs. 57-58). This tomb, roofed by a rubbled-concrete vault, had external measurements of 4.90 m by 5.35 m and internal measurements of 3.20 m by approximately 1.70 m. It has two niches, with depressions for cinerary urns, still visible in its interior walls.[221] He reports yet another columbarium-like tomb west of wadi Sidi-Ghilès, also east of Caesarea, which contained five or six inscribed cremation urns; this tomb was reused for inhumation.[222]

A tower-tomb at Setif (Setifis) combines a cremation-burial chamber in a lower story, whose eight semi-circular niches contained urns, with a tower-tomb upper story; Toynbee states

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[219] Ibid., 121-139.
[220] Ibid., 140-146.
[221] Leveau, *Caesarea de Maurétanie: Une Ville Romaine et Ses Campagnes*, 295-297, figs. 102-104, 304, 414, 416.
[222] Ibid., 291-292 including n. 99, 295-297, figs. 102-104, 304, 414, 416. Unfortunately, Leveau says nothing about the inscriptions.

that tower tombs "at Lambaesis, Morsott (near Tebessa), and Mdaourouch (Maduri)" have similar architecture, but does not make it clear if this similarity extends to the collective cremation burial chambers. However, a comparable tomb at Henchir el Hamman, whose inscription reports that it was built by Flavius Sedatus and Flavius Urbicus, retains its vaulted, hypogeal burial chambers; three lateral chambers which project off of the main chamber each contain eight semicircular niches for urns in its walls.[223]

Morocco

Another columbarium is located outside the fortification walls of Volubilis in Morocco (figs. 59-60). This columbarium is a small structure: an entrance corridor, 1.35 m long and 0.48 m wide, leads to a burial chamber, measuring 1.20 m by 0.86 m. The entrance corridor is accessible by steps; four large slabs comprise the walls of the chamber. The main chamber is built of rubble masonry and has a total of ten niches in three of the interior walls: two rows of two on both the east and west walls, and two (stacked vertically) in the back wall, opposite the entrance corridor. These niches are approximately 0.50 by 0.50 by 0.45 m, and are divided vertically by slabs and covered by small masonry vaults. The tomb was opened (from the top) and looted. As a result, dating evidence is limited to two pre-Constantinian coins.[224] In addition, what is very likely a second columbarium near Volubilis was reported by La Martinière as having six niches and a concrete-vault roof.[225]

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[223] Toynbee, 166-167.

[224] M. Ponsich, "Volubilis. Dégagement d'un Columbarium et d'une Tombe," *Bulletin d'Archéologie Marocaine* 5 (1964): 343-349.

[225] Maximilien Antoine Cyprien Henri Poisson de La Martinière, *Souvenirs du Maroc* (Paris: Plon, 1919), 315; Ponsich, 343.

Observations about Columbaria in Roman North Africa

These columbaria-style tombs all participate in an architectural idiom of the Roman center. Nothing, however, in the North African Roman provinces is on the massive scale as some of the central Italian examples. The use of this burial type in North Africa deploys Roman architectural vocabulary to accommodate collective burial in locally legible ways.

The columbarium-aspects of these North African tombs do not keep these burials from participating in regional mortuary practices: collective cremation burial has non-columbaria precedents in North Africa. For example, tower tombs were common funerary monuments across most of pre-Roman and Roman North Africa, including as far west as Siga (Algeria) and east as Sabratha (Libya).[226] They, like columbaria, were monumental structures capable of containing multiple burials. Furthermore, as Moore notes, the earliest known Roman-period mausolea of Africa Proconsularis, the three Augustan- or Julio-Claudian-period tower tombs at Thuburnica and Zanfour, contained cremations; the niches of these tombs had flat floors onto which the cremation urns were set, rather than the cavities which become common later.[227] These early Roman-era tower tombs used similar internal elements as columbaria to facilitate collective burial, but differed in having highly decorated exteriors. Additionally, the use of cremation for the disposal of bodies was consistent with contemporary practice in the region.

The North African columbaria should not be seen as mere imitations of funerary architecture of the imperial center; in fact, they often use a hybrid architectural form. The mixed architectural style, for example, of the first tomb (figs. 53-55) in the wadi el Kantara near Cherchell combines an octagonal tower upper story with a columbarium-style lower story.[228] This hybrid form couples the regional preference for the tower tomb, a type that is particularly

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[226] Evans, 19-68; Moore, 76-109, esp. 77-80.
[227] Moore, 81-82.
[228] Leveau, "Trois Tombeaux Monumentaux a Cherchel," 121-139, 140-146.

powerful in its visibility in the landscape, with the Rome-based, inward-looking columbarium form, which helps to impart a sense of corporate solidarity to the interred and visitors alike. The tomb, then, expresses status in both local and imperial/center-based formal terms. Sculptural decoration on North African tombs employs a similar hybridity, such as on the relief sculpture of the tombs at Ghirza, which redeploy Roman artistic imagery to create "an image pool to support the legitimacy of power in a provincial society" in conjunction with local mortuary expressions of status.[229] Such mixing is also seen with disposal types, as seen in the second tomb (fig. 56) in the wadi el Kantara, which juxtaposes cremation and inhumation burial spaces.[230]

The columbarium form, even in combination with other styles of funerary architecture, does more for these monuments than merely facilitate multiple burials in a single tomb. As argued above, the enclosed interior space of the columbarium form emphasizes the privileged membership of the interred and visitors in a burial community. This internalization of experience contrasts the external emphasis of tomb types more common in North Africa, whose messages are directed at external viewers. Tower- and temple-tombs types advertise their presence as mortuary landmarks in the landscape with highly visible upper stories. It is these upper stories that broadcast the tombs' messages about the dead to any passer-by.[231] Cupulae are also very common in Roman North African cemeteries.[232] These tombs are small, solid structures which have no open interior space; because they may be completely viewed from the outside, all viewers have the same experience and level of engagement with those buried within. In this way, they are very similar to tower- and temple-tombs.

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[229] Mattingly, *Imperialism, Power, and Identity: Experiencing the Roman Empire*, 267-268.
[230] Leveau, "Trois Tombeaux Monumentaux a Cherchel," 121-139, 140-146.
[231] Moore, 81-85, 91-94.
[232] Stirling.

This inclusive/exclusive element may particularly be at play in the form of Tomb 406, located slightly outside the main area of the cemetery, in the northern portion of Tipasa's Necropolis of the Port of Caesarea (fig. 49).[233] Its vaulted roof possibly resembled a very large version of a cupula, the most common tomb type in this cemetery. Unlike the regular cupulae, however, the tomb was large enough to accommodate visitors inside its burial chamber, whose entrance was on its north side, and so provided an internal visiting experience.[234] The use of the same shape as nearby cupulae throws Tomb 406's unique provision into high relief, emphasizing its larger size and the fact that *its* visitors could engage more intimately with the deceased.

The published dating evidence for these tombs is scanty. However, some very tentative trends may be suggested. The earliest of the tombs with chronological evidence are two near Cherchell— the columbarium in the wadi Nsara (fig. 50) and the combination columbarium-octagonal-tower-tomb in the wadi el Kantara (figs. 53-55) —both of which are usually given a mid-first century C.E. date.[235] These tombs are in an area that, at that time, was securely in the Roman political sphere: Iol/Caesarea was the capital of the kingdom of Mauretania ruled by Juba II (a client-king to the Romans, raised in Rome, and married to the Ptolemaic Cleopatra Selene) before it became the capital of Roman Mauretania Caesariensis. Prior to its official incorporation into the Roman empire, Caesarea was engaged in the political network of the Hellenistic world and was certainly in Rome's sphere of influence during the time of Julius Caesar; it was finally made a colony under the emperor Claudius.[236] If Leveau's interpretation of the inscriptions[237]

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[233] Lancel, " Tipasitana IV: La Nécropole Romaine Occidentale de la Porte de Césarée--Rapport Préliminaire," 195.
[234] Ibid.
[235] Leveau, "Trois Tombeaux Monumentaux a Cherchel," 103-139; Leveau, *Caesarea de Maurétanie: Une Ville Romaine et Ses Campagnes*, 111.
[236] J. Lassus, s.v. "Iol, Later Caesarea (Cherchel), Algeria," in *The Princeton Encyclopedia of Classical Sites*, ed. Richard Stillwell, William L. MacDonald, and Marian Holland McAllister (Princeton, N.J.: Princeton University Press, 1976); MacKendrick, 205-209.
[237] Leveau, "Trois Tombeaux Monumentaux a Cherchel," 114, 117, 120. See above discussion for inscriptions nos. 5 and 7.

associated with the wadi Nsara columbarium as belonging to freedmen of the family of Juba,[238] is correct, this columbarium may not only use the architectural form but also follow the demographic patterns of central Italian columbaria by using the form for the communal burial of the staff of an elite household. It is plausible that the appearance of columbarium-type tombs at Iol/Caesarea reflects conscious participation in funerary trends of the seat of imperial power by locals already enmeshed in Roman politics. The use of a center-looking form gains force by signaling awareness of and, thus, association with the fashion at Rome and co-opts from Rome the interiorized and exclusionary viewing experience provided by the columbarium-tomb type. Such participation is one-upped by adaptations of columbarium-octagonal-tower-tomb in the wadi el Kantara, which uses both the center-looking columbarium form *and* combines it with a monument form that clearly connotes power in a regional form.

Yasmina's Mini-Columbarium

The mausoleum, locus 3006, at the Yasmina cemetery is reasonably identified as a small-scale columbarium. Its plan is rectangular, and the north, west, and south interior walls of the tomb contained a total of eight niches, into which cremation urns were placed and plastered over (figs. 10-11).[239] All these details are consistent with characteristics of columbaria (see above).[240] There is no evidence that any of the Mini-Columbarium's niches were labeled or bore epitaphs; no inscriptions were found in situ in the tomb structure. Moreover, none of the tomb's well-preserved interior or exterior plastered walls had cuttings for inscriptions.

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[238] Ibid.
[239] See chapter 2 for locus numbers and further description.
[240] Even its small number of niches (eight) in a single row conforms to the columbarium type, as several columbaria have a low number of burials in a single row of niches; one Roman example has only a single niche. Borbonus, 51-52 n. 125; Nielsen, 37.

The Mini-Columbarium's emphasis on its internal space fits the inward-looking quality of columbaria. Its external appearance was relatively unassuming: there is no evidence that its external decoration extended beyond a well-preserved plaster finish on the walls. The doorway, although small, in the tomb's north wall—the most visible and accessible face—advertised the presence of an enterable interior space, which, with niches and a vault, was more elaborate. As argued in chapter 2, its vaulted ceiling aids in the aggrandizement of its interior space, by imparting an impression of grandeur which sharply contrasts the simple exterior of the tomb. Indeed, the exterior roofing, as suggested in the previous chapter, deliberately masked the vaulted ceiling of the interior. This monumental sense was important in countering the effect of the tomb's small size. Measuring only 1.4 by 1.6 m, the room inside the burial chamber is very limited. It is a small tomb, even considering that not all columbaria in central Italy are on the scale of the *Monumentum Liviae*. However, the vault not only connoted elite pretensions, but also provided, through its concave apex, a spatial suggestion of a larger interior and an expanding space: as Arnheim suggests, "concave boundaries […] give visual expression to the fact that in an interior, the hollow matters more than the material walls."[241] Furthermore, the use of the structural characteristics of central Italian columbaria in the Mini-Columbarium creates what Hillier and Hanson call a "transpatial solidarity"—the connection between their similar elements across time/space and the "*structural comparability* to others of its type"— that places the Mini-Columbarium within the same discourse of mortuary fashion as tombs at the imperial

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[241] Arnheim, 94. Arnheim (97) further states regarding concavity: "Although man does not commonly shape his abode by creating a hollow with his own body, a strongly concave interior behaves as though he wielded some such power. The occupant feels elevated and expanded as he reaches out to the confines of the room […] Standing in the Pantheon in Rome, one feels stretched vertically toward the upper limits of the cupola and through the oculus into the sky. Under special circumstances the main axis of such an extension can also run along a horizontal path. This happens when one walks through a cylinder, for example, through the tubular passages of the London underground."

center.[242] The designer's choice of tomb type makes grand claims of imperial—cosmopolitan, but also specifically Roman—awareness for the small tomb.

The Mini-Columbarium only provided space for burying, viewing, and commemorating the dead on its inside. Unlike many of the tombs in the Scribonia Precinct, the Mini-Columbarium had no associated external offering table, nor a libation tube protruding from the tomb's exterior. It was possible—and necessary—to enter the tomb to commemorate those interred within and perform the funerary rituals for them (see chapter 4). It is this interior strategy that makes the Mini-Columbarium (and other columbaria in North Africa) stand out against other tombs that also house multiple burials.

Tower-tombs, temple-tombs, and other types of mausolea were also used in North Africa for collective burials; however, their architectural idioms emphasize the exterior appearance of the monument. Moore's discussion of tower and temple mausolea in Africa Proconsularis of the second and third centuries C.E rightly places emphasis on the external appearance of these tombs.[243] After all, these tomb types are defined by the appearance of their upper stories, whose design seems intended to make the tombs visible from afar. Highly visible and memorable exteriors supported the effectiveness of these tombs as expressions of familial status, celebrations of ancestors, and boundary markers of both property and the extent of family influence.[244]

The Tertullus Tomb (figs. 61-63; also see figs. 3-7), the most prominent tomb of the Vibius Precinct of the Yasmina cemetery, participates in this idiom of external emphasis. This tower tomb was the tallest in the cemetery and features an abundance of relief sculpture on each

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[242] Hillier and Hanson, 40-41, 145, 159, 161; Westgate, 240.
[243] Moore, 81-85.
[244] Evans, 55-57; R. Bruce Hitchner, "The Culture of Death and the Invention of Culture in Roman Africa," *Journal of Roman Archaeology* 8 (1995): 496-497; Moore, esp. 87-90, 94.

of its four exterior faces.[245] Furthermore, it has no internal burial chamber. Its nine cremation

burials are split across the middle story of three sides of the tomb: three niches for cremation

urns appear in external faces of the north, south, and east sides.[246]

At Yasmina, the different architectural forms of the Mini-Columbarium and the Tertullus

Tomb embody different experiences of viewing and visiting the dead. The externalized

commemoration of the Tertullus Tomb keeps viewers at a distance from the tomb and from those

interred within its faces. A visitor's experience is one of observation and intellectual

engagement: the viewer must read the inscription, look at the images in the reliefs, and interpret

text and image together to experience the tomb fully and to understand its messages about the

dead. There is an active element in this commemorative strategy, for such comprehension of the

monument can only be gained by walking around the exterior of the tomb, as the relief panels

lead the viewer to do.[247] Moreover, the interments in the Tertullus Tomb were divided into three

groups, three on each of three sides of the tomb, and are absent from the west face, which, with

its inscription and image of Tertullus, was iconographically the most important.[248] Although they

were contained in a single structure, the viewer could never see all nine burials at the same time

from a single location. It was the action of the viewer walking around the tomb's exterior that

knit the nine burials into a single group.

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[245] Evans, 64, 111-116. The reliefs on the bottom story depict a cloaked horseman and his horse: the east façade
depicts the horseman and the horse facing each other; the north façade depicts the horseman slowly riding the horse
to the proper right; the reliefs on both the west facades depict the horseman galloping toward the left. The reliefs on
the middle story has varied scenes: a winged Eros figure stands is depicted on the east façade, and was probably
originally accompanied by a pedant, second Eros; the southern façade shows two pigs walking between two trees;
the western façade features both the Marcus Vibius Tertullus' funerary inscription as well as a relief depicting a
seated togate figure holding a scroll and with a she-wolf suckling twins standing in front of him; of the poorly
preserved northern façade, the only extant decoration is the cloven hoof of an animal (Evans, 12-17; see Evans for
more detailed description, including of architectural decorative details).
[246] Ibid., 13-16, 66.
[247] Ibid., 64, 111-116.
[248] Ibid., 93-94.

Despite this active engagement, a visitor's spatial experience of the Tertullus Tomb was still completely external and, therefore, somewhat distanced from the dead. Because all the information is on the outside, viewing the Tertullus Tomb is the same for all viewers: the messages of the reliefs were potentially visible to all passers-by. However, the encroachment of other funerary monuments upon the Tertullus Tomb gradually obstructed the view of the Tertullus Tomb's reliefs, compromised a viewer's ability to comprehend the tomb, and recast the tomb's messages—dramatically changing the experience of the Tertullus Tomb. Early on, visitors to the Vibius Precinct could get close to the tomb and enjoy a more intimate and detailed view of the relief panels and inscription in a way that visitors to the Mini-Columbarium could not without entering the burial chamber. But as the Tertullus Tomb was hemmed in by later monuments, which sometimes used the larger tomb's decorative panels as markers for their own burials, visitors could only read the tomb from afar.

By contrast, a viewer could ascertain almost no information about the Mini-Columbarium from its exterior: the tomb's unelaborated, plastered exterior walls and pitched roof provided no sense of the burial group. This tomb, like other columbaria, needed to be experienced from the inside, where there was space available for engaging with the dead. The disjunction between simple exterior and elaborate interior appearances[249] matches the disjunction between exterior and interior experience. The vaulted space, visual engagement provided by the cremation niches, and space for interaction via the offering crypt[250] were only accessible to visitors to the Mini-Columbarium's interior. Furthermore, enclosed by the tomb's walls and their burial niches, the internal viewer could see the burials and was temporarily incorporated into their collective. Indeed, the apex of a vaulted ceiling draws a viewer into the center of the hollow, spanned space,

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[249] For discussion of interior/exterior disjunctions, see Arnheim, 101-109.
[250] See chapter 4.

while the tomb's walls bound the interior and the viewer, too, to the community buried within. The difference between the external and internal visits to the Mini-Columbarium creates a hierarchy of experience dependent on access to the interior. Entering the tomb made a viewer privy to funerary commemorative activities not accessible from the outside. Additionally, holes chiseled in the Mini-Columbarium's doorposts and iron bolts found in a fill by the doorway suggest that a wooden, hinged door probably sealed the tomb and visually signaled that entrance to the burial chamber was restricted. The small size of the doorway (approximately 0.55 m wide and 1.10 m tall) restricted access even more. The tomb expresses a very interesting tension between its grandiose form and diminutive size.

The juxtaposition of the two very different ways of experiencing funerary commemoration embodied by the Tertullus Tomb and the Mini-Columbarium is suggestive of competition between the tombs. As detailed in chapter 2, the Mini-Columbarium was built very close to the larger Tertullus Tomb (figs. 3-7); it was constructed in concert with Independent Cremation 4, which was wedged in-between the larger monuments. As a result, the Mini-Columbarium was one of the first monuments to encroach upon the Tertullus Tomb and reduce its dominance of the funerary landscape at Yasmina. The Mini-Columbarium was the major monument in the Scribonia Precinct, just as the much taller Tertullus Tomb was the major monument in its own precinct.

Despite Borbonus' assessment of early Imperial columbaria at Rome as having a partially "non-competitive" character,[251] the Mini-Columbarium can be interpreted as taking part in competitive display at Yasmina, particularly by virtue of its location and the contrast of its appearance with that of the Tertullus Tomb. One could say that Mini-Columbarium's lack of exterior decoration was as noticeable as the image-rich exterior of the Tertullus Tomb. The

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[251] Borbonus, 38.

Tertullus Tomb's height and copious relief sculpture clearly signaled to external viewers that it was to be looked at; given that that tomb has no interior space, there could be no internal viewers. By contrast, the Mini-Columbarium's conspicuously "minimalist" exterior—including its conspicuous lack of external reliefs—and prominent (albeit small) doorway drew attention to the smaller tomb's interior space and to the exclusivity it implied. The tomb's appearance signaled a different and more restricted viewing experience than that of its taller neighbor.

This competition is made more likely given the tombs' locations in the middle of a cemetery. The Mini-Columbarium's location in the suburban surroundings of Carthage parallels the location of columbaria in the Roman suburb.[252] However, as the locations of many of the comparanda discussed above suggest, few North African columbaria appear to have stood in the core of cemeteries: more often they were located slightly outside of urban sites or slightly away from main cemeteries, sometimes clustered with a few other tombs.[253] Such avoidance of the core emphasized the particularity of these tombs, literally setting them apart from the rest. Additionally, in their slightly removed locations, these examples matched the placement of other large mausolea containing multiple burials; indeed, most North African mausolea stood in isolated locations, visible from transportation routes but away from urban sites. Such tombs— particularly those emphatically visible types such as tower tombs—may have served to mark boundaries or advertise ownership of land.[254] The Mini-Columbarium can be seen as doing this on a very small scale—advertising the presence and extent of the Scribonia Precinct against that of the neighboring Vibius Precinct. In some ways, the housing of multiple burials in columbaria

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[252] Purcell.

[253] Such clustering likely indicates an intention to associate the burials, whether a columbarium and its burial community with pre-existing burials, or new burials with an existing columbarium (and its burial community): such association may have been driven by family ties, collegial ties, or other, possibly status-related ties. See chapter 1 for clustering of burials in the Yasmina cemetery.

[254] Moore, esp. 87-90.

and other mausolea situated in the rural landscape can be considered a creation of a communal cemetery within an architectural structure. A columbarium inside a cemetery, such as the Mini-Columbarium, created and demarcated an even smaller community. Furthermore, a columbarium's location in a cemetery sharpened the sense of group membership by bringing into focus the exclusivity of the burial group, measured against the neighboring burials which were *outside* the columbarium.

We have no evidence of what relationships bound those interred in the Mini-Columbarium. As discussed above, columbaria are defined in part by their collective quality, but the natures of their collectives are not always clear: families, servile *familiae*, *collegia* united on professional or social lines, and those without any ties at all were all buried in columbaria. In any case, the columbarium form, which may have been strongly associated with Rome, the center of the Roman world, was not necessarily used for the same purpose(s) in Carthage as in Rome. The transmission of a form from one context to another does not necessarily imply transmission of meaning. For example, Mattingly, in examining tombs of the late third and fourth centuries C.E. at Ghirza in the Libyan pre-desert, argues that the presence of elements of Roman iconography and Latin inscriptions does not constitute mere emulation of Roman visuals and concepts, but instead constitutes a redeployment of Roman idioms in a Libyan context, a redeployment that taps into Roman iconography's connotations of power and uses them to express local and regional concepts. Mattingly also effectively points to a Latin inscription from Ghirza that describes a huge sacrifice and labels it a *parentalia*. He argues that it is unlikely that the Roman festival was imported, but rather that the term was applied to a Libyan practice: a *parentalia* is not the same event at Ghirza that it is in Rome itself.[255] Therefore, it is possible that the Mini-

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[255] Mattingly, *Imperialism, Power, and Identity: Experiencing the Roman Empire*, 246-268, esp. 265.

Columbarium housed the burials of freedmen or slaves, of members of a collegium,[256] or of other unconnected individuals. However, it is just as possible that the tomb type was selected for its recognizably center-looking connotations (expressing an awareness of popular funerary styles at Rome) and for its ability to facilitate inclusion/exclusion with regards to its burial community. For the Mini-Columbarium, the primary referent for the type was Rome, not necessarily the status of Roman collectives. In this regard, it functions like the relief of the *lupa Romana* on the Tertullus Tomb.

Rome's she-wolf appears on the second story of the Tertullus Tomb's west face (figs. 61-63); she is shown standing before a seated, togate man (who reads a scroll) as she suckles the twins. Given that an inscription detailing Marcus Vibius Tertullus' life is set above this relief, the togate man is presumably Tertullus himself. Evans argues that this panel expresses Tertullus' *romanitas* and involvement in Romano-Carthaginian politics.[257] The builders and occupants of the Mini-Columbarium likely expressed a similar affinity for the Roman center through the more subtle decision to build a columbarium tomb.

The use of the Roman columbarium-tomb type for the design of the Mini-Columbarium highlighted the collective grouping of those interred within the tomb. This burial group, whether familial, collegial, or otherwise, was physically grouped together and separated from the other burials in the Scribonia Precinct and in the cemetery at large. The monumental aspirations of the tomb's interior space implied that its occupants carried grand status and afforded visitors a privileged commemorative space, in contrast to the nearby Tertullus Tomb. Furthermore, the tomb type subtly identified the tomb's occupants and visitors with mortuary practices of the Roman center, the place of the columbarium type's origin and most frequent use. The

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[256] Perhaps, based on the state-of-the-art construction using vaulting tubes (see chapter 2), as Norman speculates (pers. comm.), of a collegium of builders.
[257] Evans, 99-111, esp. 104-105, 107-111.

aggrandizing effect of the vault and the evocation of the Rome-centered tomb type help mitigate the small size of the tomb. The choice of this monument type was slightly conservative, as the type had, by the late-second to early third-century C.E. date of the Mini-Columbarium's construction, been in long use at Rome. Such a choice, then, may have further suggested the tomb occupants' participation in longstanding Roman practices.

CHAPTER 4: RITUAL COMMEMORATION AND THE MINI-COLUMBARIUM

The excavation of other tombs in the Yasmina cemetery yielded furnishings for ritual offerings, in the form of offering tables and libation tubes, as well as evidence for ritual burning of offerings. This evidence suggests that this ritual commemoration occurred outside the tomb. The interior of the Mini-Columbarium, by contrast, has a unique installation for offerings which matches its internal commemorative strategies, discussed in the previous chapter. This chapter summarizes relevant evidence for commemorative rites at the graveside in Rome proper and in North Africa, discusses North African evidence of offering tables and libation tube installations, and considers the evidence for ritual funerary offerings at the Yasmina Cemetery.

Roman Funerary Ritual: "Rites of Commemoration"

Knowledge of Roman funerary rites is drawn from textual, visual, and archaeological sources. As Lindsay concedes,[258] the composite view of funerary rites at Rome (such as that provided by Toynbee [259]) that may be drawn from these sources—especially the antiquarian epitomic sources[260]— may be just that: composite, overly universalizing, and overly synchronistic; furthermore, the picture they sketch belongs to the Rome-centered elite. I briefly describe a few comparable aspects of Roman funerary rites at Rome in order to contextualize the

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[258] Hugh M. Lindsay, "Eating with the Dead: The Roman Funerary Banquet," in *Meals in a Social Context: Aspects of the Communal Meal in the Hellenistic and Roman World*, ed. Inge Nielsen and Hanne Sigismund Nielsen, Aarhus Studies in Mediterranean Antiquity (Aarhus: Aarhus University Press, 1998), 69.

[259] Toynbee, 43-64.

[260] See Lindsay, esp. 69; Lea M. Stirling, "Archaeological Evidence for Food Offerings in the Graves of Roman North Africa," in *Daimonopylai: Essays in Classics and the Classical Tradition Presented to Edmund G. Berry*, ed. Rory B. Egan and Mark A. Joyal (Winnipeg, Manitoba: University of Manitoba Centre for Hellenic Civilization, 2004), esp. 430.

discussion of North African evidence that follows. Stirling distinguishes between "rites of disposal" ("activities taking place during the inhumation of the body, its cremation, or the redeposition of ashes") and "rites of commemoration" (activities occurring after —whether immediately or much later— the tomb was sealed).[261] As suggested in chapter 3, the location of tombs near the city (of Rome, and, perhaps, in the case of the Yasmina cemetery, of Carthage) facilitated holding rites of commemoration at gravesides; regular visitors were an important audience for tombs.[262] I focus here on the latter category of "rites of commemoration" at the graveside.

In traditional Roman funerary practice, a *silicernium* banquet (so named after the *silicernium* sausage in the meal) was held at the graveside on the day of burial as an end to funerary activities. Following this initial celebration, other banquets celebrated at the graveside include the *novemdial sacrificium* or the *cena novendialis*, on the ninth day following the funeral, as well as one on the fortieth day following the death of the deceased, and annually on the deceased's birthday.[263] The *novemdial sacrificium* included a sacrifice in addition to the graveside feast, which had a prescribed menu. The deceased received unmixed wine "as part of the process of settling his soul" in addition to water, milk, and blood (of the sacrificial victim) libations.[264]

In addition to those graveside activities celebrated on an individual/familial basis, the *parentalia* at Rome, celebrated annually on February 13th to 21st, combined a formal period for

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[261] Stirling, "Archaeological Evidence for Food Offerings in the Graves of Roman North Africa," 427-428. See that chapter for discussion of rites of disposal and evidence for food offerings in North African graves, especially at Leptiminus, Tipasa, and Sétif.
[262] Yasin: 439.
[263] Robin M. Jensen, "Dining with the Dead: From the *Mensa* to the Altar in Christian Late Antiquity," in *Commemorating the Dead: Texts and Artifacts in Context: Studies of Roman, Jewish, and Christian Burials*, ed. Laurie Brink and Deborah A. Green (Berlin: Walter de Gruyter, 2008), 117-118; Lindsay, 72-74; Stirling, "Archaeological Evidence for Food Offerings in the Graves of Roman North Africa," 430.
[264] Serv. *Ad Aen*. 5.78; Tac. *Ann*. 3.2, *Hist*. 6.5; Lindsay, 73, 79 nn.45-46.

private celebrations of the dead by family members with a final day of public ceremonies, the
Feralia. As Toynbee states, the *parentalia* was focused on the family and ancestors (rather than
on notions of the dead in general).[265] Ovid's account of the *parentalia* in the *Fasti* indicates that
food, flowers, and gifts were offered to the deceased during the festival.[266]

Lucian's comments on the tradition of providing the dead with offerings at the tomb
implies that these periodic activities served to *feed* the deceased: "They get their nourishment,
naturally, from the libations that are poured out in our world and the burnt-offerings at the tomb;
so that if anyone has not left a friend or a kinsman behind him on earth, he goes about his
business there as an unfed corpse, in a state of famine" (Lucian, *Luct*.9).[267] In addition to food
consumed at the graveside in these celebrations, there is textual and physical evidence of grain,
wine, oil, incense, and flowers placed around or in the tomb as offerings to the dead.[268] In
particular, many Latin epitaphs discuss offerings left at the graveside, especially wine offerings;
others include honey, incense, perfume, and meals in general.[269]

Regular commemoration of dead family members was an important part of Roman
funerary practice. As noted above, this necessity contributed to the choice of burial locations and
to the definition of audienceship for burial spaces and commemorative means: a major audience
for a given Roman tomb included those family members and friends of the deceased who would
regularly visit the graveside, not just passers-by.[270] Lindsay connects the Roman elite practice of
displaying wax masks of ancestors, or *imagines*, in a house's atrium (Polybius 6.53) to the

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[265] Jensen, 117-118; Toynbee, 63-64.
[266] Ovid *Fast*. 2.535-43; Stirling, "Archaeological Evidence for Food Offerings in the Graves of Roman North Africa," 431 incl. n.13.
[267] As noted by ibid., 430. Translation from Greek drawn from the Loeb edition: Lucian, trans., A. M. Harmon, Loeb Classical Library, vol. 4 (Cambridge: Harvard University Press, 1925).
[268] Jensen, 117-118.
[269] Richmond Lattimore, *Themes in Greek and Latin Epitaphs* (Urbana: The University of Illinois Press, 1942), 132-134, incl. n.304.
[270] Yasin, 439.

Roman interest in and commemoration of ancestors. [271] Noting a distinction between ancestor worship and cults of the dead, and between commemoration and worship, he suggests that strong elements of ancestor worship (rather than mere commemoration) were present in Roman domestic religion.[272] There is some evidence to suggest that the funerary rituals of pre-Roman and Roman populations in North Africa also included strong elements of ancestor worship; this likely allowed similarity in the external signifiers of the traditional Roman and Roman North African funerary cult practice.

Funerary Ritual in Roman North Africa

This section discusses evidence for ritual funerary practices and infrastructure known in Roman-era North Africa. Some of these particular practices and funerary furnishings appear elsewhere in the Roman empire, but I focus here on the micro regional view rather than on the macro view.

Cults of the dead (specifically, ancestor worship) appear to be a continuous element in North African treatment of the dead, from indigenous pre-Roman practice through the Roman period and extending even into the Islamic period. Mattingly states:

> The veneration of the dead has been a common trait in successive North African cultures and was a feature of [the Libyan god] Ammon worship. This veneration has taken many forms, from ancestor worship to the consultation of their spirits at elaborate ceremonies held at their tombs. Funerary monuments were frequently elaborate and betray a greater than usual respect for the observance of rites at the tomb in the future … Even in early Christian times, similar practices continued. The activities of the Circumcellions, during the Donatist schism, are well known. Their name suggests an association with small shrines or tombs and they are known to have venerated martyrs. Such practices

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[271] Hugh M. Lindsay, "The Romans and Ancestor Worship," in *Religion in the Ancient World: New Themes and Approaches*, ed. Matthew Dillon (Amsterdam: Adolf M. Hakkert, 1996); Lindsay, "Eating with the Dead: The Roman Funerary Banquet," 76.

[272] Lindsay, "The Romans and Ancestor Worship," esp. 274.

undoubtedly have a long history in North Africa; in Islamic times for instance, one can trace the tendency in the creation of saints or *marabouts*.[273]

Classical authors and archaeological evidence speak to continuous ancestor veneration in North Africa. One practice of interest is incubation: dream divination accomplished by sleeping at ancestors' tombs. Herodotus (4.172) says that the Nasamones followed the practice, as did the Augilae, as recorded by Pomponius Mela (*De Situ Orbis* 1.8.45).[274] Furthermore, space is provided for incubation, as well as other ritual practices (such as sacrifice and feasting) in the north Saharan tomb type, the chapel tumulus (*tumulus à chapelle*). This type appears from at least the 1st century B.C.E. (and possibly from the 5th century B.C.E., given Herodotus' comments); it continues through the 5th century C.E. These monuments varied in shape (from circular to rectangular) but all feature a chamber for incubation, as well as for ritual sacrifices and meals, as indicated by the presence of hearths, ash layers, and stone vessels in the chambers; Camps labels these chambers "sanctuaries" or, if roofed, "chapels."[275] He argues that these monuments appear across the western portion of North Africa, while Mattingly has also noted the presence of chambers (with benches) for incubation connected to mortuary chambers at Ghirza in Libya.[276] Brett and Fentress also strongly associate the ancestor cult with fertility, suggesting that the cult of the dead "was one of the distinguishing characteristics of the Berbers in antiquity."[277]

Evidence of other practices of ancestor worship in North Africa is available. This evidence is often described or formulated in more "Roman" terms as a means of participating in

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[273] Mattingly, *Tripolitania*, 39.

[274] Michael Brett and Elizabeth Fentress, *The Berbers* (Oxford, UK; Cambridge, USA: Blackwell, 1996), 35; Gabriel Camps, "Funerary Monuments with Attached Chapels from the Northern Sahara," *The African Archaeological Review* 4 (1986): 163; Mattingly, *Imperialism, Power, and Identity: Experiencing the Roman Empire*, 263; Stone, 129, 140.

[275] Camps, 151-164.

[276] Mattingly, *Imperialism, Power, and Identity: Experiencing the Roman Empire*, 262-267. These chambers appear in monuments NG and SB of Ghirza's northern and southern cemeteries, respectively.

[277] Brett and Fentress, 34-36; Stone, 140.

the Roman discourse of power.[278] As briefly noted in chapter 3, Mattingly has drawn attention to

an Latin inscription from Ghirza which describes an enormous sacrifice of 51 bulls and 38 goats

for an event labeled a *parentalia*. He suggests that this Latin term was applied to practices of the

ancestor cult: this sacrifice was clearly on a larger scale than the intimate family-oriented Italian

parentalia and probably involved the wider tribe. Although reported with a Latin term, this

celebration did not take on a "Roman" character; as Mattingly states, regarding both the visual

appearance of the tombs and the inscription, "the adoption of the so-called Romanized style also

facilitated the *continuation* of indigenous traditions" rather than replacing them.[279]

Moore also considers the cult of the dead in her examination of Roman-period tower- and

temple-mausolea of Africa Proconsularis. As she states, "[b]ased on appearances, the mausolea

were designed for worshipping the dead interred within."[280] Moore believes that formal *areae*

enclosures or podia which accompanied the mausolea, as well as the sacred language of epitaphs

exceeded "normal rites of the dead."[281] Nevertheless, she notes that the actual evidence for ritual

worship at these mausolea is limited.[282] Furthermore, she suggests that given the small interiors

of the mausolea, rituals performed for regular visits probably took place outside the tombs.[283]

Additionally, given these tombs' isolated locations in the rural landscape, she postulates that

many ritual practices depicted on reliefs, such as sacrifices and feasts, likely were held

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[278] Mattingly, *Imperialism, Power, and Identity: Experiencing the Roman Empire*, 246-268, esp. 265; Stone, 126-144.

[279] Mattingly, *Tripolitania*, 39, 207; Mattingly, *Imperialism, Power, and Identity: Experiencing the Roman Empire*, 246-268, esp. 265.

[280] Moore, 90.

[281] Ibid., 91-92.

[282] Ibid., 92-94. Admitting the presence of altars and libation tubes at some sites, she notes that it is not clear whether the altars were functional or commemorative. She also notes that the pottery one would expect around mausolea if offerings were regularly made is lacking, "suggesting that offerings were made there on neither a large-scale nor a frequent basis."

[283] Ibid., 93 n.62.

elsewhere; nevertheless, the appearance of cult at the burial site was important enough to merit expression in the tomb form, in inscriptions, and in relief decoration.[284]

Active veneration of the dead and making offerings to them continued in the Roman era. North African sources indicate that feasting and making offerings at the graveside were traditional practices in Roman North Africa. Augustine (*Conf.* 6.2), for example, describes how his mother, Monica, ceased her practice of bringing food and wine offerings to martyr shrines "just as she was accustomed to do in Africa" ("*sicut in Africa solebat*") at the order of the bishop of Milan, Ambrose; his prohibition of such commemorative practices by Christians was made for fear of Christian inebriation and because the practice was too similar to the pagans' practice of the *parentalia* ("*et quia illa quasi parentalia superstition gentilium essent simillima*").[285] Earlier, Tertullian (*e.g. De Anim.* 4) had expressed a smilar fear of drunkenness during commemorative graveside events; both of these Christian authors are concerned with Christians partaking in activities too similar to pagan traditions which are presented as traditional in the funerary practice of Roman North Africa.[286]

There is archaeological evidence for such ritual offerings at graves on smaller scale than the so-called *parentalia* at Ghirza. As Stirling suggests, it is difficult to identify remains of ritual offerings left after a tomb was sealed.[287] However, despite the difficulties with evidence for offerings themselves, there are remains of two kinds of furnishings for offerings and sacrifices that stand out in association with Roman-period funerary monuments of North Africa: offering tables and libation tubes.

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[284] Ibid., 94.

[285] Augustine, *Confessions: Vol. 1, Books 1-8*, trans., William Watts, Loeb Classical Library (Cambridge: Harvard University Press, 1912); Stirling, "Archaeological Evidence for Food Offerings in the Graves of Roman North Africa," 429-430, 444.

[286] Jensen, 121-123; Stirling, "Archaeological Evidence for Food Offerings in the Graves of Roman North Africa," 428-429, incl. n.3. Also see Tertullian, *Cor.* 3, *Test.* 4, *Spec.* 13.

[287] Stirling, "Archaeological Evidence for Food Offerings in the Graves of Roman North Africa," 428, 434-436.

Offering Tables

Offering tables typically take the form of low, rectangular and square tables; these tables are either attached to their tombs, or are free standing. Their surfaces sometimes have depressions for holding food or liquid offerings, and they occasionally preserve evidence of burning on the surface.[288] Jensen, discussing offering tables in Roman-era cemeteries, notes that sometimes the depressions took the shape of the food, especially bread and fish, that would have been placed in them (fig. 64).[289] Scholars sometimes refer to these offering tables as *mensae*.[290] However, the term "*mensa*" can connote sigma- or "U"-shaped banqueting tables used for Christian funerary feasting at the graveside (particularly, the practice of *refrigerium*); sometimes, in epitaphic use, the term is used more broadly to describe the burial and funerary feasting location, rather than to a specific table structure.[291] For clarity's sake, the term "offering table" will be used in this chapter, connoting nothing about Christian funerary practice.

Offering tables are well documented at multiple cemeteries in the Roman provinces of North Africa. Rectangular offering tables are present at the Roman-era cemetery at Hadrumetum (modern Sousse, Tunisia), often in alignment with cupulae (figs. 65a-b). One offering table at Hadrumetum doubled as a tomb: a rectangular, rubbled-masonry construction with a concave

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[288] N. Ben Lazreg, D. J. Mattingly, and Lea M. Stirling, "Summary of Excavations in 1990 and Preliminary Typology of Burials," in *Leptiminus (Lampta): A Roman Port City in Tunisia: Report No. 1*, ed. N. Ben Lazreg and D. J. Mattingly, JRA Supplementary Series (Ann Arbor: Journal of Roman Archaeology, 1992), 316 n. 22; Jensen, 118; Stirling, "Archaeological Evidence for Food Offerings in the Graves of Roman North Africa," 433.

[289] Jensen, 118; Stirling, "Archaeological Evidence for Food Offerings in the Graves of Roman North Africa," 433.

[290] Stirling, "The Koine of the Cupula in Roman North Africa and the Transition from Cremation to Inhumation," 116 n.26.

[291] X. Barral i Altet, "Mensae et Repas Funéraire dans les Nécropoles d'Époque Chrétienne de la Péninsule Ibérique. Vestiges Archéologiques, II," in *Atti del IX Congresso Internazionale di Archeologia Cristiana (Roma, 21-27 Settembre 1975)*(1978); Aïcha Ben Abed and Marc Griesheimer, "Les Supports des Offrandes Funéraires dans la Nécropole de Pupput (Hammamet, Tunisie)," in *Paul-Albert Février, De l'Antiquité au Moyen Âge* (Publications de l'Université de Provence, 2004), 310; Mounir Bouchenaki, *Fouilles de la Nécropole Occidentale de Tipasa (Matarès), 1968-1972* (Alger: Société nationale d'édition et de diffusion, 1975), 170-171; P. A. Février, "Le Culte des Martyrs en Afrique et Ses Plus Anciens Monuments," *Corsi di cultura sull'arte ravennate e bizantina* 17 (1970): 191-215; P. A. Février, "A Propos du Repas Funéraire. Culte et Sociabilité," *Cahiers Archéologiques* 26 (1977): 29-45; Jensen; R. Krautheimer, "Mensa-Coemeterium-Martyrium," *Cahiers Archéologiques* 11 (1960): 31-32, 35-37.

surface, it also contains a libation tube leading to a cremation urn.[292] The five (perhaps six)

offering tables at the cemetery (Site 10) at Leptiminus (modern Lamta/Lemta, Tunisia) are nearly

square (measuring 35-65 cm), and have raised lips on two sides of the top surface, creating a

depression. All were located on the north or east faces of their tombs.[293]

A large number of offering tables (fig. 66) survive at the Roman cemetery at Pupput

(modern Hammamet, Tunisia). At least 156 offering tables were found at Pupput by 2000; at that

time, 1292 tombs had been found, 721 of which were cupulae. Offering tables at Pupput are

primarily associated with the cupulae that contain cremation, rather than inhumation, burials.

The tables seem to date from the first part of the second century C.E. to the first third of the third

century C.E. These tables take a fairly standardized form: each is a solid masonry structure with

a stone- and ceramic-rubble in a lime mortar, measuring 50-60 cm long, 40 cm wide, and 15-20

cm tall. They are concave in cross-section with a dip in the middle; thus, even when positioned

against the step of a cupula (and thus having three raised edges), these offering tables could not

contain liquids. In this way, as Ben Abed and Griesheimer note, they differ from other North

African offering tables that have depressions in their upper surface or raised edges that allow

them to contain liquid offerings.[294]

Despite their standardized shape and size, the locations of the offering tables at Pupput

vary: usually located against the short side of a cupula, the data Ben Abed and Griesheimer

collected indicated that there was a strong preference for placement on the south side of cupulae

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[292] (Capt.) Ordioni and (Lt.) Maillet, "Un Coin de la Nécropole d'Hadrumète," *Bulletin Archéologique du Comité des Travaux Historiques et Scientifiques* (1903): 547, Pl. XLV; (Capt.) Ordioni and (Lt.) Maillet, "Fouilles dans la Nécropole Romaine d'Hadrumète," *Bulletin Archéologique du Comité des Travaux Historiques et Scientifiques*, (1904): 432, 444, 450, Pl. LV; Stirling, "The Koine of the Cupula in Roman North Africa and the Transition from Cremation to Inhumation," 116.
[293] Ben Lazreg, Mattingly, and Stirling, 315-316.
[294] Aïcha Ben Abed and Marc Griesheimer, "Fouilles de la Nécropole Romaine de Pupput (Tunisie)," *Comptes-rendus des séances de l'Académie des Inscriptions et Belles-Lettres* 145, no. 1 (2001): 583-589; Ben Abed and Griesheimer, "Les Supports des Offrandes Funéraires dans la Nécropole de Pupput (Hammamet, Tunisie)," 309-324.

that were oriented north-south, and a moderate preference for placement on the east of cupulae

oriented east-west. Rarely is a single offering table associated with more than one tomb; when

the use of one offering table for more than one burial is clear, it usually occurs in enclosures

containing multiple tombs. Additionally, offering tables at Pupput also seem almost exclusively

to be an external feature: an offering table is found in only a single mausoleum (Mausoleum 19).

These offering tables do bear some traces of ritual activity: sometimes their surfaces are

blackened, and deposits of ash and paterae (always broken, as if dropped and crushed) are

frequently found nearby.[295] Ben Abed and Griesheimer view Pupput's large number of offering

tables, low number of libation tubes, and evidence of burning and broken paterae as reflective of

local preferences in the practice of funerary ritual for offerings made at offering tables rather

than poured directly into the burial.[296]

Février and Guéry record the use of offering tables (as well as stelae attached to graves,

with slabs functioning as offering tables: fig. 67) at the western cemetery at Sétif, Algeria.[297] In

Tipasa's western cemetery at Matarès, Bouchenaki describes small offering tables accompanying

cupulae, as well as other offering tables, including large decorated and sigma-/"U"-shaped tables

that he associates with Christian practices.[298] Offering tables also appear in Tipasa's Necropolis

of the Port of Caesarea (fig. 68).[299]

Similar offering tables (figs. 69-70) were especially common for burials of the classic

Garamantian period (first through fifth centuries C.E.) in the Fazzan, Libya, which was not part

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[295] Ben Abed and Griesheimer, "Fouilles de la Nécropole Romaine de Pupput (Tunisie)," 583-589; Ben Abed and Griesheimer, "Les Supports des Offrandes Funéraires dans la Nécropole de Pupput (Hammamet, Tunisie)," 309-324.

[296] Ben Abed and Griesheimer, "Fouilles de la Nécropole Romaine de Pupput (Tunisie)," 583-589; Ben Abed and Griesheimer, "Les Supports des Offrandes Funéraires dans la Nécropole de Pupput (Hammamet, Tunisie)," 309-324.

[297] P. A. Février and R. Guéry, "Les Rites Funéraires de la Nécropole Orientale de Sétif," *Antiquités Africaines* 15 (1980): 104, 111-112, 114.

[298] Bouchenaki, 16-19, 168-171.

[299] Lancel, " Tipasitana IV: La Nécropole Romaine Occidentale de la Porte de Césarée--Rapport Préliminaire," 166-167.

of the Roman empire. Usually located on the eastern side of Garamantian stelae or tombs (in alignment with the east-west orientation of inhumations), one standard type (Mattingly's type 4) was typically rectangular and had depressions in the surface to receive liquids and foods. As Mattingly states regarding those from Garamantian contexts, "features [such as offering tables] suggest that contact was maintained between the living and the dead."[300] El-Rashdy interprets the appearance of these installations across north-west Africa as evidence for the influence of the long Egyptian tradition of funerary offering tables; he also suggests that they reflect the blending of external influence and Garamantian practice characteristic in the Fazzan.[301] Mattingly further interprets them as additional evidence of a particularly regional North African interest in ancestor worship.[302]

Offering tables are simple structures that provided a surface for the deposition of ritual offerings. That they were used for offerings seems clear from the depressions, decoration (such as at Timgad, see fig. 64), and burning on their upper surfaces. They were likely used to leave food, flower, and other offerings or to burn sacrifices during regular commemorative rituals. Offering of foodstuffs at the graves is consistent with Roman, Punic, and indigenous North African practice.[303] As Ben Abed and Griesheimer note, offering tables without depressions or raised edges would not have accommodated wine or other liquids. However, libation tubes allowed liquid offerings to be channeled directly into the burial space.

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[300] David J. Mattingly, "The African Way of Death: Burial Rituals Beyond the Roman Empire," in *Mortuary Landscapes of North Africa*, ed. David Leigh Stone and Lea Margaret Stirling (Toronto: University of Toronto Press, 2007), 149-150, 159.

[301] F. El-Rashdy, "Garamantian Burial Customs: Their Relation to Those of Other Peoples of North Africa," in *Libya Antiqua: Report and Papers of the Symposium Organized by Unesco in Paris, 16 to 18 January 1984*, ed. UNESCO, The General History of Africa: Studies and Documents (Paris: UNESCO, 1986), 94-98; Jensen, 118; Mattingly, "The African Way of Death: Burial Rituals Beyond the Roman Empire," 149-150, 159.

[302] Mattingly, "The African Way of Death: Burial Rituals Beyond the Roman Empire," 149-150, 159; Stirling, "Archaeological Evidence for Food Offerings in the Graves of Roman North Africa," 444.

[303] See above for Roman practices. Also see Stirling, "Archaeological Evidence for Food Offerings in the Graves of Roman North Africa," 444. She notes that Punic tombs have yield bird, fish, and other animal bones, as well fruits and pinecones (at Carthage and Kerkoukane, for example), while Garamantian tombs have yielded food offerings such as dates.

Libation Tubes

Libation tubes are a common feature for ritual offerings of liquids. These tubes were most often made of terracotta, but were sometimes lead. They were built into tombs or grave markers, extending from the exterior into the structure (fig. 71); they often emptied directly into a cremation urn within the burial installation or into a vessel that received the liquids.[304] They were "often made from the necks of broken or even buried amphorae which held the remains (both cremated and inhumed) of the deceased."[305] Sometimes, instead of actual tubes, simple holes in the structure or channels directed liquid offerings into the burial space; these libation holes are recorded, for example, at Leptiminus and Tipasa.[306] As Stirling explains, "[a]lthough libation tubes were designed for liquid offerings, other items are sometimes found in them." Concerning the bones, lamps, coins, and curse tablets found in libation tubes at Carthage, she notes that it is impossible to determine if they were deposited in the course of funerary or magic practice or during non-funerary, post-cemetery activities.[307]

Libation tubes are geographically widespread; Wolski and Berciu, who surveyed the use of libation tubes and other libation devices, found them in Roman imperial-era funerary contexts in North Africa (especially at Carthage), Syracuse, Sardinia, Italy (including Rome and Pompeii), Spain, the Ligurian coast, Côte d'Azur, as well as at a few sites in Gaul, Germany, England, and Dacia. They postulate that libation tubes originated in the eastern Mediterranean, but their desire to use libation tubes as a marker of ethnicity seems inadequately supported, given

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[304] Ibid., 433.
[305] Jensen, 118.
[306] Ben Lazreg, Mattingly, and Stirling, 316 n.22; Lancel, " Tipasitana IV: La Nécropole Romaine Occidentale de la Porte de Césarée--Rapport Préliminaire," 176.
[307] Stirling, "Archaeological Evidence for Food Offerings in the Graves of Roman North Africa," 436.

that libation tubes facilitated a practice (libation pouring) that was by no means restricted to Asia Minor.[308]

Libation tubes are not known from Punic cemeteries.[309] They are, however, well documented in Roman-era cemeteries and burials in North Africa. For example, libation tubes are present in many cippi at Carthage's cemetery of the *Officiales* (fig. 71). Sometimes instead of a tube, a small niche in the tomb's masonry provides direct access to the urn's opening; Delattre also suggests that the tubes sometimes allowed additional burials to be added to a tomb, serving as a conduit for ashes.[310] At Hadrumetum, the libation tubes often were located in the side of the tomb with the head (when associated with inhumations), or reached directly into the neck of a cremation urn, and were positioned in tombs to face associated offering tables.[311] Five libation tubes appear at Pupput (for example, in Tomb 1167: fig. 72); as noted above, this low number in comparison to the high number of offering tables and broken paterae leads Ben Abed and Griesheimer to suggest that local preferences placed greater emphasis on ritual offerings presented at the graveside, rather than conducted directly to the deceased.[312] As noted above, libation tubes and holes are also recorded at Leptiminus.[313] In North Africa, libation tubes are also found as far east as Thaenae.[314]

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[308] W. Wolski and I. Berciu, "Contribution au Problème des Tombes Romaines à Dispositif pour les Libations Funéraires," *Latomus* 32 (1973).

[309] Jacques Debergh, "La Libation Funéraire dans l'Occident Punique. Le Témoignage des Nécropoles, III," in *Atti del I Convegno Internazionale di Studi Fenici e Punici (Roma, 5-10 Novembre 1979)*(CNR, 1983), 760. Debergh also indicates that libations certainly were made at the time of burial in Punic burials, but that only circumstantial evidence, rather than proof, is known for making libations at the tomb on later occasions.

[310] Delattre, 6, 8-9.

[311] Ben Lazreg, Mattingly, and Stirling, 316 n.22; Ordioni and Maillet, "Un Coin de la Nécropole d'Hadrumète," 540, 544, 546-548; Ordioni and Maillet, "Fouilles dans la Nécropole Romaine d'Hadrumète," 432, 449-450; Stirling, "The Koine of the Cupula in Roman North Africa and the Transition from Cremation to Inhumation," 116.

[312] Ben Abed and Griesheimer, "Fouilles de la Nécropole Romaine de Pupput (Tunisie)," 585; Aïcha Ben Abed and Marc Griesheimer, *La Nécropole Romaine de Pupput* (Rome: Ecole francaise de Rome, 2004), 137-139, figs. 88a-b, 89-90.

[313] Ben Lazreg, Mattingly, and Stirling, 316 n.22.

[314] Wolski and Berciu: 375.

Further west, in Algeria, 19 of 25 intact cupulae in Tipasa's Necropolis of the Port of

Caesarea had libation tubes, most of which were located on top of the western portion of the

tomb (the same side as the inhumed subject's head).[315] Additionally, libation tubes and holes are

recorded at the Matarès cemetery at Tipasa, at Cherchell, and at the western cemetery at

Sétif.[316]

Libation tubes are common features in Roman-era cemeteries. They provide further

evidence of continuing ritual offerings at the grave-side in Roman-era funerary behavior in at

least the western portion of North Africa. Although there is no secure proof of Punic ritual

libation-pouring rites of commemoration at the graveside, it is reasonable to postulate, as

Debergh does, given circumstantial evidence, the possibility of such commemoration.[317]

Pouring libations for the deceased also fits in well with Roman funerary practices and the

indigenous North African interest in venerating the dead and ancestors. Even if libation tubes

were funerary furnishings imported from elsewhere, they may have facilitated either new or old

forms of offerings.

Funerary Ritual in the Yasmina cemetery

Evidence of Funerary Ritual in the Yasmina cemetery

Libation tubes, offering tables, and evidence for ritual fires all offer evidence of funerary

rituals in the Yasmina cemetery (fig. 3). The permanent offering installations of libation tubes

and offering tables were only built in the first phase of the cemetery's use, the second half of the

first century to the early third century C.E.[318] Most of the early cippi were equipped with libation

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[315] Lancel, " Tipasitana IV: La Nécropole Romaine Occidentale de la Porte de Césarée--Rapport Préliminaire," 176.
[316] Ben Lazreg, Mattingly, and Stirling, 316 n.22; Bouchenaki, 168-169; Février and Guéry, " Les Rites Funéraires de la Nécropole Orientale de Sétif," 112.
[317] Debergh.

tubes; this is consistent with the many cippi with libation tubes of the first and second century

C.E. cemetery of *Officiales* in Carthage.[319]

The earliest evidence for offering installations comes with the Marcus Vibius Tertullus

Tomb (the MVT Tomb; locus 7663), located in the western portion of the cemetery. This tomb,

built in the earliest stage of the cemetery's use, dates to the second half of the first century

through the first half of the second century C.E. and likely had a libation tube: jug pierced to

function as a libation tube overlay Independent Cremation 10 (cremation urn 7689 and cremains

7683), which was likely part of the damaged MVT Tomb. The next ritual installation into this

portion of the cemetery, formalized as the Vibius Precinct, was the Offering Table 1 (locus

7390), which accompanied the Tertullus Tomb. It stands 0.50 m west of the tomb's west face.

Rubble formed the core of offering table; its exterior surface was made of beaten earth and

metalled. The east face of Tertullus Tomb also contained a libation tube, located under the

cornice of the bottom story and decorated with plaster molding to form a flower-shape at its

mouth (fig. 73).[320] The tomb and its offering table date to the second half of the second century

C.E. However, a new tomb, Cippus 4 (locus 7177), was built over Offering Table 1 in the late

second or early third century C.E. This tomb contained two burials in amphorae and was served

by a libation tube. It appears that Cippus 4 may have doubled as an offering table as well:

burning on its top surface, covered by an ash layer, and a nearby ash layer suggest the

performance of ritual activities involving burning.

In the Scribonia Precinct, Offering Table 2 (locus 7618) is the earliest offering

installation, dating to the second half of the second century C.E. It was located 0.45 m to the

south of the Pre-Scribonia Cippus (locus 7040) and also had a mortared-rubble core. Given its

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[318] See chapter 1 for brief overview of cemetery's phases.
[319] See above. Delattre, 6, 8-9.
[320] Evans, 12.

proximity, it may have also served as the offering table for Cippus 1 (locus 7194) that was built against the east face of the Pre-Scribonia Cippus but had no offering table of its own. It presumably also served the Scribonia Cippus (locus 3025), which was built directly on top of the Pre-Scribonia Cippus and Cippus 1. Additionally, Cippus 1 and the Scribonia Cippus had their own libation tubes. The next offering table built in the Scribonia Precinct belonged to the Felix Cippus (locus 7107). The Felix Cippus was constructed against the west face of the Pre-Scribonia Cippus (and was built after the Tertullus Tomb, just to its east). Offering Table 3 (locus 7568) was built 0.45 m south of the Felix Cippus. Offering Table 3's core was rubbled-concrete; its exterior surface was "metalled mud plaster" and had two small cup-shaped depressions on top. These first tombs of the Scribonia Precinct form a row of south-facing cippi, while the two offering tables also form a row located approximately 0.45 m to the tombs' south. In the space between the cippi and the offering tables, 16 layers of ash separated by layers of aeolian sediments provide evidence of repeated burning; the stratigraphy indicates that the earliest ash layer is contemporary with the Pre-Scribonia Cippus. The excavators reasonably interpreted these layers as residue from ritual burning for funerary rites on the offering tables.

In the late second century to early third century C.E., Offering Table 4 (7637=7456) was built with Cippus 2 (7047), which abuts the east face of Cippus 1. It is located 0.50 m to the tomb's east. Cippus 2 is rectangular and held two cremation urns in its rubble-concrete core; each urn had its own libation tube (fig. 74).[321] Offering Table 5 (locus 7420) was the final offering table constructed at Yasmina. Serving Cippus 3 (7247),[322] it is located 0.25 m east of the cippus. This offering table is also constructed of mortared cobbles; its metalled upper surface has

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[321] Only one of the two libation tubes was preserved in situ, that associated with Burial 35, the northern of the two urns; the other libation tube's presence is clear from a mark in the mortar. Interestingly, the libation tube in Cippus 2 appears to be a vaulting tube.
[322] Cippus 3 is located directly east of the Mini-Columbarium; they were constructed at the same time, along with Independent Cremation 4.

a small depression in the center, which has a burnt patch. Additionally, Cippus 3 was equipped with a libation tube; the scar for the tube is preserved, but the tube itself is no longer extant.

The Mini-Columbarium

The Mini-Columbarium has a different installation for receiving offerings than the other tombs at Yasmina. Instead of an offering table, there is a unique crypt within its south wall that seems connected to ritual use. As described in chapter 2, a hollow space is located at the interior base of the south wall (figs. 10 and 12). This crypt space was open to the interior of the tomb. A pantile with a circular hole covered it. The crypt also contained three bricks arranged together as "a sort of container for offerings," according to the excavation report. A libation tube was inserted into the top of the crypt space. No residue of offerings was recorded in the Mini-Columbarium (or elsewhere in the cemetery, save the mentioned ash layers); however, this is to be expected in a tomb that was both unsealed and repurposed.

Although built in conjunction with a tomb equipped with both a libation tube and an offering table (Cippus 3), the Mini-Columbarium breaks from the other tombs with offering installations. This crypt offering space is unique, both at Yasmina and elsewhere in the region. While the presence of offerings made inside a tomb (relative to the general rarity of grave goods in Roman-period Tunisia and Algeria) [323] or the use of benches or tables for offerings would be unsurprising, such a crypt space for such offerings is without parallel among the tombs I surveyed. The captions of Akkari-Weriemmi's images of the columbarium Dar al Ghoula indicate that niches in that tomb contained offerings but provide no further details (fig. 39). [324] In

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[323] Stirling, "Archaeological Evidence for Food Offerings in the Graves of Roman North Africa," 435.
[324] Akkari-Weriemmi: 26-27, figs.2-3.

any case, those offerings were made in individual niches, rather than a communal offering repository.

Moreover, the Mini-Columbarium brings the repositories for ritual offerings inside the tomb, whereas the other tombs allow ritual offerings to be made outside. This fact is consistent with the inward-looking character of columbaria. Moreover, although it has a libation tube like other tombs at Yasmina, the Mini-Columbarium interestingly uses this device and the space for offerings in a communal way.

Libation tubes typically direct the offerings directly to the deceased's remains. The excavators at both Hadrumetum and Tipasa noted that libation tubes were primarily located near the deceased's head when providing a conduit into inhumation burials;[325] when serving cremation burials, the libation tubes reach directly into the cremation urn or vessel. By contrast, the libation tube in the Mini-Columbarium directs libations to none of its cremations. Additionally, the Mini-Columbarium has a single offering space for eight cremations: each burial shared the same repository for funerary offerings. The collective character of this offering space contrasts the more individual arrangements of the most other tombs at Yasmina. Cippus 2, for example, had a libation tube for each of its cremations. The communal character of the furnishings for ritual practice enhances the collective sense of the columbarium form: the deceased are spatially and architecturally grouped together, and, moreover, all receive offerings together.

The only other tomb with a comparable communal provision for libations is the Tertullus Tomb, whose libation tube was located in the bottom story of its eastern façade (fig. 73). This

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[325] Ben Lazreg, Mattingly, and Stirling, 316 n.22; Lancel, "Tipasitana IV: La Nécropole Romaine Occidentale de la Porte de Césarée--Rapport Préliminaire," 176; Ordioni and Maillet, "Un Coin de la Nécropole d'Hadrumète," 540, 544, 546-548; Ordioni and Maillet, "Fouilles dans la Nécropole Romaine d'Hadrumète," 432, 449-450; Stirling, "The Koine of the Cupula in Roman North Africa and the Transition from Cremation to Inhumation," 116.

libation tube served nine cremations and fed into the tomb structure rather than into an urn. However, installation of Independent Cremation 4 between the Mini-Columbarium and the Tertullus Tomb blocked the east side of the tower-tomb's lower story, presumably restricting access to the libation tube. Additionally, the entire tomb (and all of its burials) used a single offering table (Offering Table 1).

By the time of this use of the cemetery, these are the only two tombs with more than two (or four[326]) burials; as collective burial monuments, it is reasonable that they both would have provisions for communal commemoration. Furthermore, the placement of these offering installations is consistent with each tomb's commemorative strategies, as discussed in chapter 3. The Tertullus Tomb has an exterior offering table and a decorated libation tube, both visible and potentially accessible an external viewer; by contrast, the Mini-Columbarium restricts access to its ritual installations—and thus to offering-making—to those with access to the tomb. Furthermore, while the presence of a single libation tubes enhances the Tertullus Tomb's design's already present focus on a single patron, the Mini-Columbarium provides no indication of a hierarchy or that the single commemoration space privileged one patron over the other cremations. Its single crypt and tube are best interpreted as emphatically communal.

Conclusions

The construction of offering tables and libation tubes at Yasmina is consistent with the evidence from other imperial-era cemeteries in North Africa. The presence of these furnishings (and the Mini-Columbarium's crypt) attests to the importance of providing for the cult of the dead when building funerary monuments. The greater number of funerary monuments in the

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[326] The MVT Tomb may have held four cremation burials, but the tomb's damaged state does not allow absolute certainty as to the number of burials in it.

Scribonia Precinct is matched by the greater number of offering installations there. There is no evidence for offering tables or libation tubes in later phases of the cemetery's use. This matches the general tendency, save with the large Phase II monuments (the Eros Mausoleum and Charioteer Mausoleum), for Yasmina's Phase II and III burials to take less aggrandized forms and to cluster around the Phase I core monuments of the Vibius and Scribonia Precincts. In addition to using these earlier monuments as markers, these new burials may have reused their offering tables and other structures, while they were still visible. In the third phase of the cemetery's use, in the fourth through early fifth centuries C.E. a possible new offering installation (locus 7399=7402) was constructed over Offering Table 5. This installation, constructed of plaster and mudbrick with a mud mortar, was curved, measuring approximately 0.60 m (east-west) and 0.40 m (north-south) and standing to a height of approximately 0.10 m. A layer of ash on this installation suggests that it may have served as an offering table for the new inhumation burials of this phase. While the construction of permanent furnishings for ritual offerings seems of less importance in later use of the cemetery, this structure suggests that making offerings was still necessary.

It is most reasonable to suggest that this attention to ritual furnishings reflects the priorities of the Yasmina cemetery's users in its first phase of use. Their interest in tending the dead is reflected in the installations they built for burial and for offerings. The builders of the Mini-Columbarium, although constructing a unique tomb, equipped that tomb with a space for offerings that was consistent with its collective and inward-looking character. While it is not possible to read specifically "Roman" or "African" (or "Punic") elements in this evidence, the consistency of provision for offerings in Roman North African cemeteries suggests that Romano-African funerary practice included making regular offerings at the graveside. Such ritual

offerings appear to be consistent with both Roman and African cults of the dead, and are, in all

likelihood, reflective of the blending of practices (and furnishings for performing them) in

Roman-period North Africa.

CONCLUSION

The Mini-Columbarium has a very "Roman" form and a very "North African" core: it uses contemporary North African methods and materials (terracotta tubular vaulting) to construct a central Italian tomb type (the columbarium). This vault construction method, which becomes ubiquitous in North Africa in the following century, is not yet the "default" choice for vault construction in late second or early third century Carthage. The innovative and structurally unnecessary choice of vaulting tubes speaks to the grand intentions of the Mini-Columbarium's builders: this tomb was to be a state-of-the-art construction, even if its scale was small enough to fit into the Scribonia Precinct. More visible to a visitor to the tomb, post-construction, than the vaulting tubes themselves is the vaulted ceiling that they support. Such a ceiling was also not a "default" choice for spanning a small mortuary space—nor was it structurally necessary to cover the small interior. It works to visually expand and monumentalize the Mini-Columbarium's small interior space.

This aggrandizing architectural element, however, was only visible from the interior. The Mini-Columbarium was a columbarium-style tomb, whose typical un-emphatic exterior, prominent doorway, and row of niches in the interior walls all bring both the interred and the viewers inside the tomb and, moreover, together into the same space. Columbarium tombs in central Italy, often used by non-kin-based collectives, delineate group membership through their architectural form and placement of decoration: those inside the elaborated internal burial chamber belong, and those outside do not. In this way, the Mini-Columbarium type's inward-

looking form complements the effect of the vault, emphasizing the interior burial chamber and reinforcing the collective membership of the deceased.

This interior space was, atypically for Yasmina's burials, also the focus of funerary cult ritual practice. An offering crypt was located inside the tomb, which did not have the offering tables common to Yasmina and other cemeteries in Roman-era North Africa. This unique provision sets the Mini-Columbarium apart from other monuments at Yasmina by necessitating entry to perform the requisite offerings, connecting the visitor who is inside the tomb, performing cult ritual, more intimately to the burial group. Additionally, the presence of a single crypt and single offering tube makes any offering communal, further emphasizing the sense of the group. Simultaneously, this crypt brings the tomb into conformity with the other monuments by providing a space for those offerings to be made, albeit on a communal basis, through the typical libation tube apparatus.

The Mini-Columbarium's architecture, then, elevates the status of its interred by suggesting their difference from others buried at Yasmina. This elevation is supported by the connotations of the form, which references Roman trends to express the monument's local importance. The tomb blends local/regional practices with imperial fashion, using architectural and technical idioms of both to curate a viewer's impression of its occupants. The monument's type subtly suggests affiliation with the imperial center of power, Rome, to a viewer familiar with Roman mortuary trends; for a viewer unfamiliar with columbaria, the tomb's inward-looking design still differentiates it from neighboring monuments and indicates its exclusivity by emphasizing the presence of a privileged interior commemorative space that separated its interred and its visitors from the wider Yasmina necropolis. Either way, the Mini-

Columbarium's form presented a positive image of its occupants' status; in this imperial context, status is predicated in part on local elites' engagement with the powerful Roman political center.

As detailed in chapter 3, the Mini-Columbarium is by no means the only tomb to signal its occupants' engagement with the imperial center: its neighbor in Yasmina, the Tertullus Tomb, used iconographic means (sculptural reliefs) to connect its occupants with Rome, expressing its patron's position as a Roman Carthaginian aristocrat. The Mini-Columbarium takes an opposite tact by using formal means to suggest "transpatial solidarity" with monuments at Rome from its Carthaginian location. These different means of asserting engagement with the culture of the imperial power go hand-in-hand with the different experiences the tombs offer their visitors. The decision to create a different, internalized ritual experience for the visitors of the Mini-Columbarium also may be seen as a move in the competition between the Vibius and Scribonia Precincts. The Mini-Columbarium may have been smaller than the Tertullus Tomb, but its visitors engaged in a more exclusive and rarified ritual experience, which reflected upon both the tomb's deceased and the precinct's other burials.

In his recent book, Mattingly urges the use of Said's concept of "discrepant identity" as a useful concept through which to view the heterogeneity of experiences of the Roman Empire.[327] For Mattingly the notion of "discrepancy" foregrounds the varied and dynamic characters of experiences of and reactions to imperialism. On a small scale, we see heterogeneous responses in the different ways the Tertullus Tomb and the Mini-Columbarium reference Roman cultural and architectural vocabulary to articulate status. The tombs' designers made different choices to express the users' status and wealth to a local, private audience. That this status and wealth was expressed through legible elements of Roman visual and spatial vocabulary signals not simple

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[327] Mattingly, *Imperialism, Power, and Identity: Experiencing the Roman Empire*; Edward W. Said, *Culture and Imperialism* (New York: Vintage Books, 1994), 31-43.

emulation but conscious engagement in the values and terms of the imperial power structure. At the same time, the tombs made provisions for normative regional mortuary practice. As such, the use of Roman idioms constitutes not a replacement of local cultural practice but a redeployment of imperial vocabulary to create local content. The use of Roman visual and formal language gains its force (and connotations of power) by situating its immediate local context, the tomb, within the wider imperial landscape. Simultaneously, this imperial evocation is effective precisely because of its local context. These tombs presented different messages about their occupants in Carthage than they would have expressed were they located in Rome itself: Rome has a different meaning as a referent from a North African point of view than from that city itself.

As unique as the Mini-Columbarium is at Yasmina, it was not the only columbarium-type tomb built in Roman-era North Africa. Though the columbarium form does not visually announce familial influence and the presence of an important burial in a rural landscape as do the more usual temple- and tower-tombs of Roman North Africa's "mausoleum culture,"[328] columbaria-like tombs are found across the western portion of North Africa. The decision to use the columbarium form (or to combine columbarium elements with other tomb types) is a choice that privileges the tomb's interior space (and those inside) over the external visibility crucial to the messages of types like temple- and tower-tombs. The regional resonance of tombs that were visible in the rural landscape may help explain why columbaria did not become widely used in the African provinces. The traditional North African function of funerary monuments in advertising familial status and influence over a wider landscape was met with difficulty by a form that eschewed external elaboration. Hybrid monuments, such as the octagonal-tower-columbarium at Wadi el-Kantara (fig. 53-55), show how this impetus toward visibility is

[328] Moore.

combined with an interior emphasis on its internalized collective burial. While this external elaboration may have lessened the emphasis on the tomb's internal collective mentality, viewed more broadly, this combination makes more explicit its use of both architectural forms as terms of power and status. The heterogeneous uses of the columbarium form that we see in North Africa gesture at the ways in which tomb types are elements in a mortuary vocabulary. The form connotes collectivity, differentiation and thus exclusivity, and, outside of central Italy, the Roman culture of the empire's center; these connotations are legible even in differing mortuary contexts and when the form is combined with other architectural choices.

Negotiations between local, regional, and imperial identities, between North Africa, Punic, and Roman traditions and terms were dynamic processes requiring active choices. As Stone has urged for study of the late first millennium B.C.E. in North Africa, interrogation of different cultural elements should not end with determinations of what cultural traditions were present or developed, but should consider what are the implications of "choices made about how to communicate identity within local cultures in a colonial environment."[329] Though the Mini-Columbarium's form and construction may be more easily parsed into "Roman" and "North African" elements, the evidence the tomb provides for ritual offerings does not permit clean divisions regarding conformity with regional versus center-based practice. The tomb's installation is unique but allowed practices consistent both with regional cultic emphases on offerings to deceased ancestors and with traditional Roman attention to graveside offerings. In this way, the evidence that the Mini-Columbarium provides for ritual practice reminds us that such architectural forms may accommodate both varied and blended practices, and that such blending and, as Stone suggests, "creation of new cultural meanings"[330] are reasonable results of

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[329] Stone, 141.
[330] Ibid., 127.

dynamic negotiation in colonial or imperial situations. As such, the blending of forms we see in the Mini-Columbarium's design and construction speaks to the tomb's wealthy patrons' engagement with contemporary language of social status in Roman-era North Africa, in which Rome, as the imperial center, denoted power and status, but was not the sole means of signaling power. The Mini-Columbarium sits comfortably in both the wider Roman funerary sphere and its more immediate North African mortuary context. As such, it is perhaps best to view the Mini-Columbarium as a very Roman North African monument, whose design and construction provides an example of the terms through which status could be communicated in Roman-era Carthage.

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FIGURES
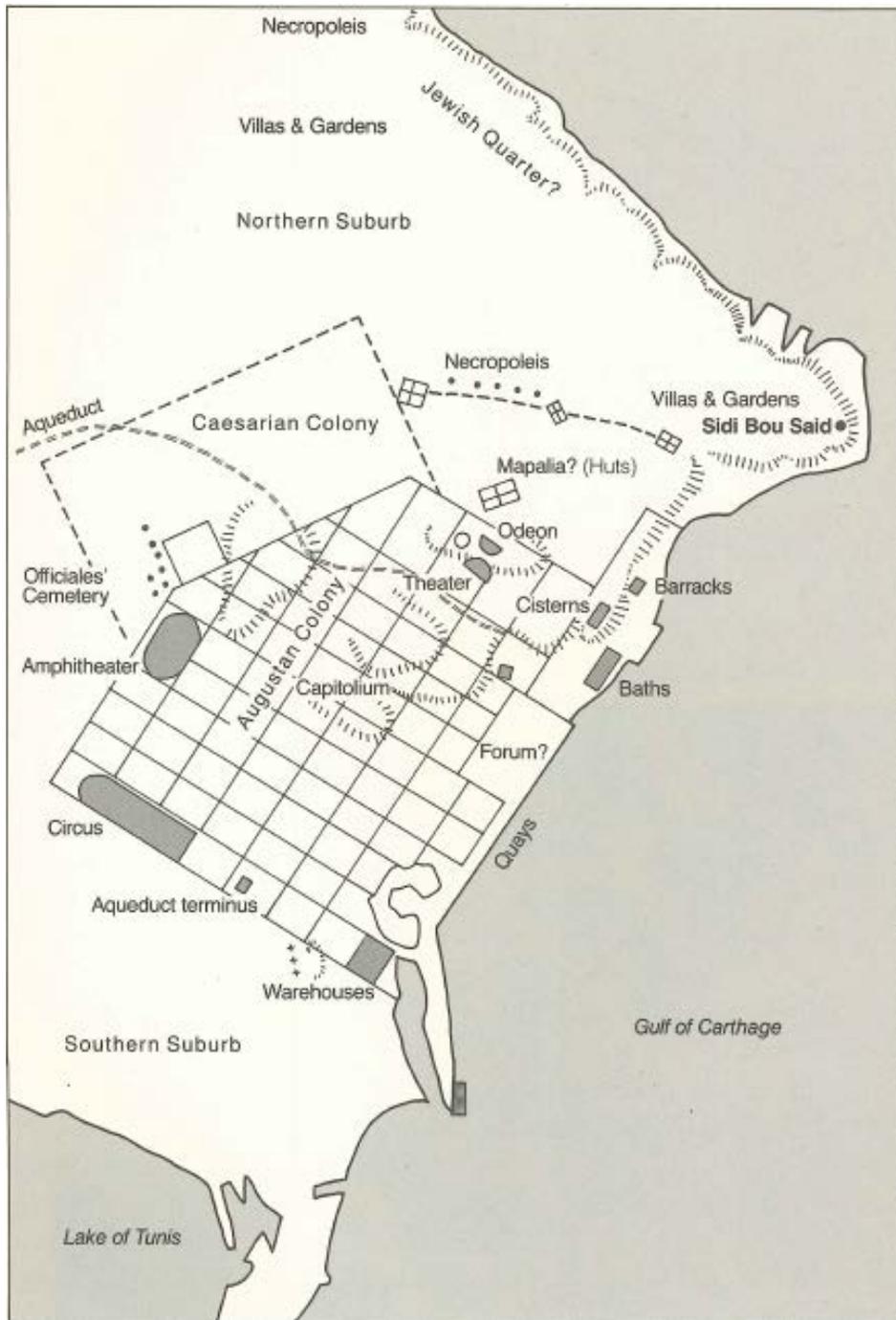
Figure 1: Plan of Carthage.
Reprinted from P. L. MacKendrick, *The North African Stones Speak* (Chapel Hill, 1980), 32,
Fig. 2.3.
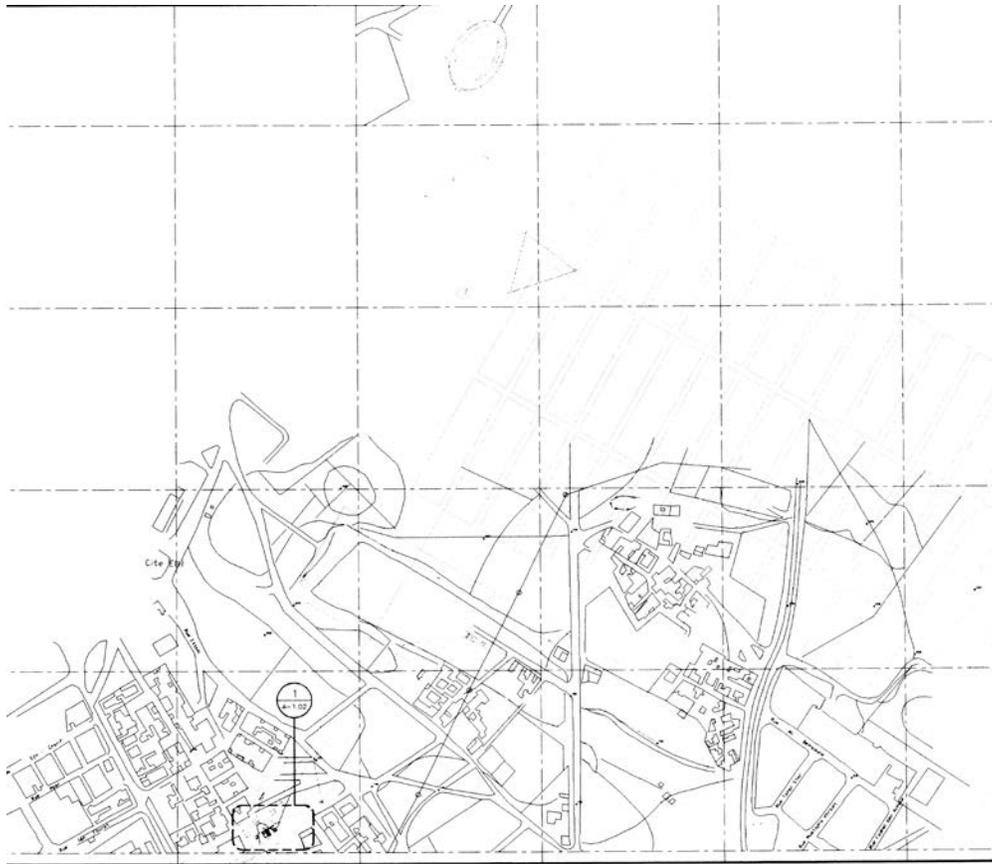
Figure 2: Location of Yasmina cemetery within the urban fabric of Carthage.
Image source: UGA Yasmina Excavation Archive.
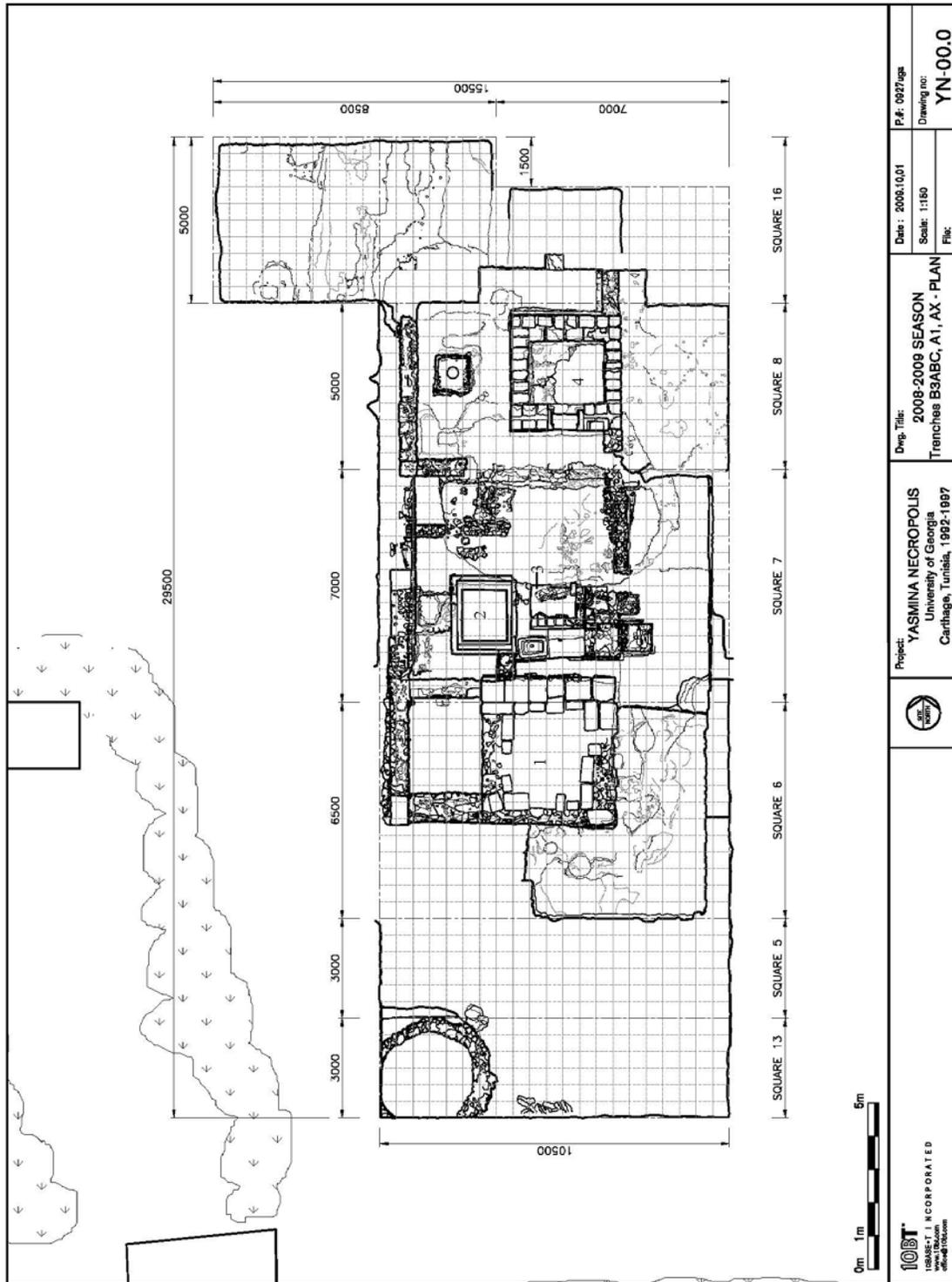
Figure 3: Site Plan of Yasmina Cemetery with major monuments identified. 1: Charioteer
Monument; 2: Tertullus Tomb; 3: Mini-Columbarium; 4: Eros Mausoleum
Image Source: UGA Yasmina Excavation Archive

Figure 4: View of Yasmina Cemetery, looking south. Mini-Columbarium at center; Tertullus Tomb at right.
Image Source: UGA Yasmina Excavation Archive

Figure 5: Yasmina Cemetery, looking southeast. Mini-Columbarium at left; Tertullus Tomb at right.

Image Source: UGA Yasmina Excavation Archive

Figure 6: Yasmina Cemetery, looking southeast.
Image Source: UGA Yasmina Excavation Archive

Figure 7: Mini-Columbarium, looking southwest.
Image Source: UGA Yasmina Excavation Archive

Figure 8: Plan of Mini-Columbarium (J.L. Rivard).
Image Source: UGA Yasmina Excavation Archive
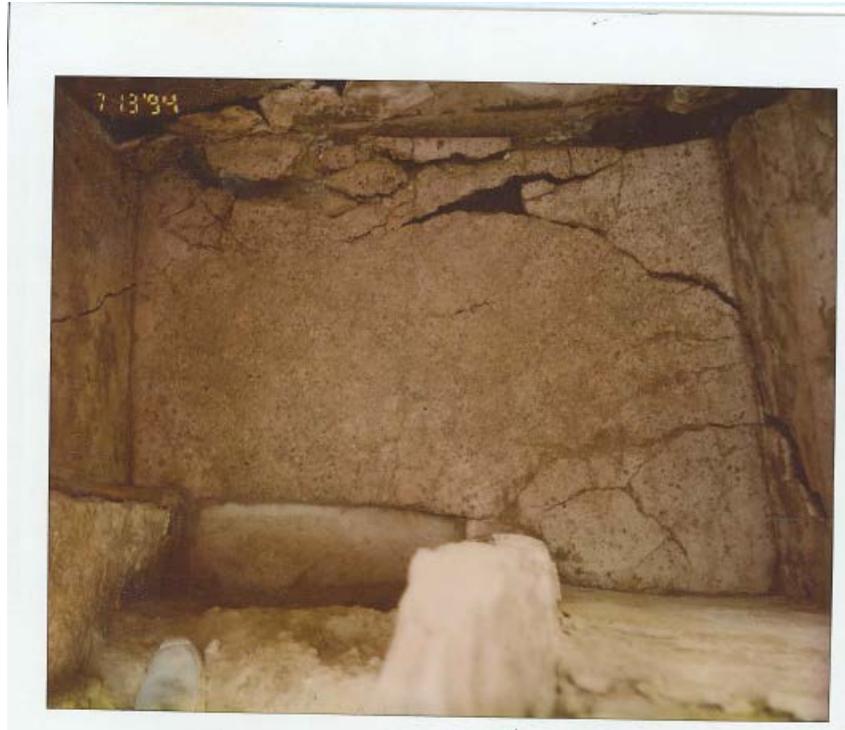
Figure 9: Floor of Mini-Columbarium, looking toward south wall.
Image Source: UGA Yasmina Excavation Archive
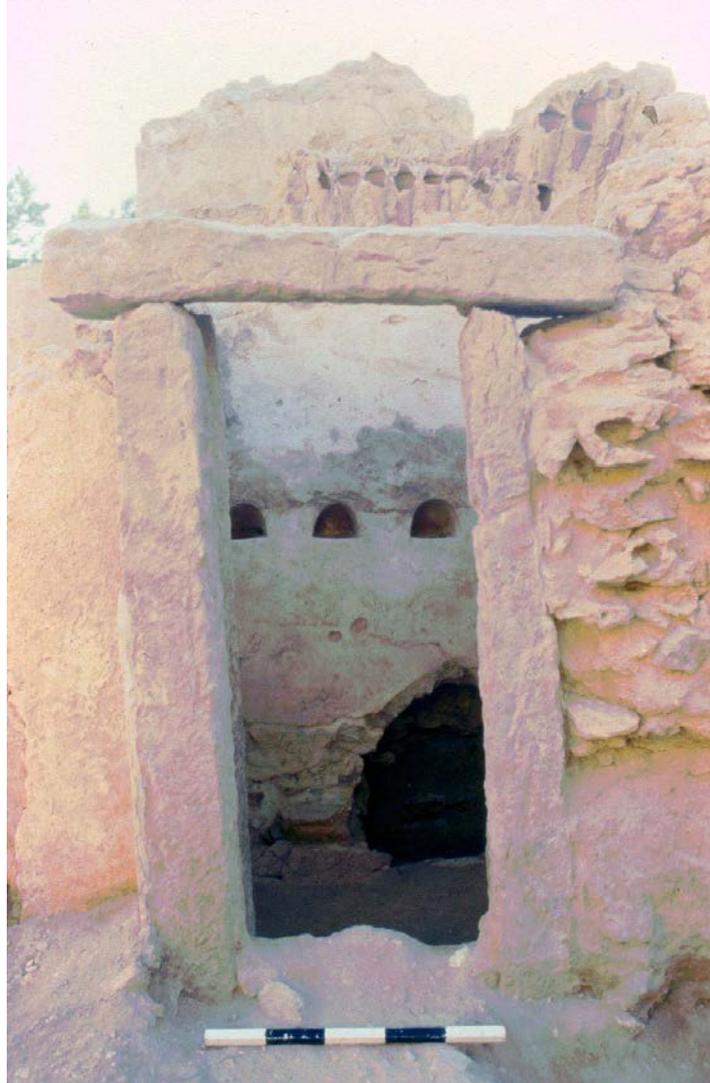
Figure 10: Doorway of Mini-Columbarium, looking south. Vaulting tubes visible on south wall.
Image Source: UGA Yasmina Excavation Archive
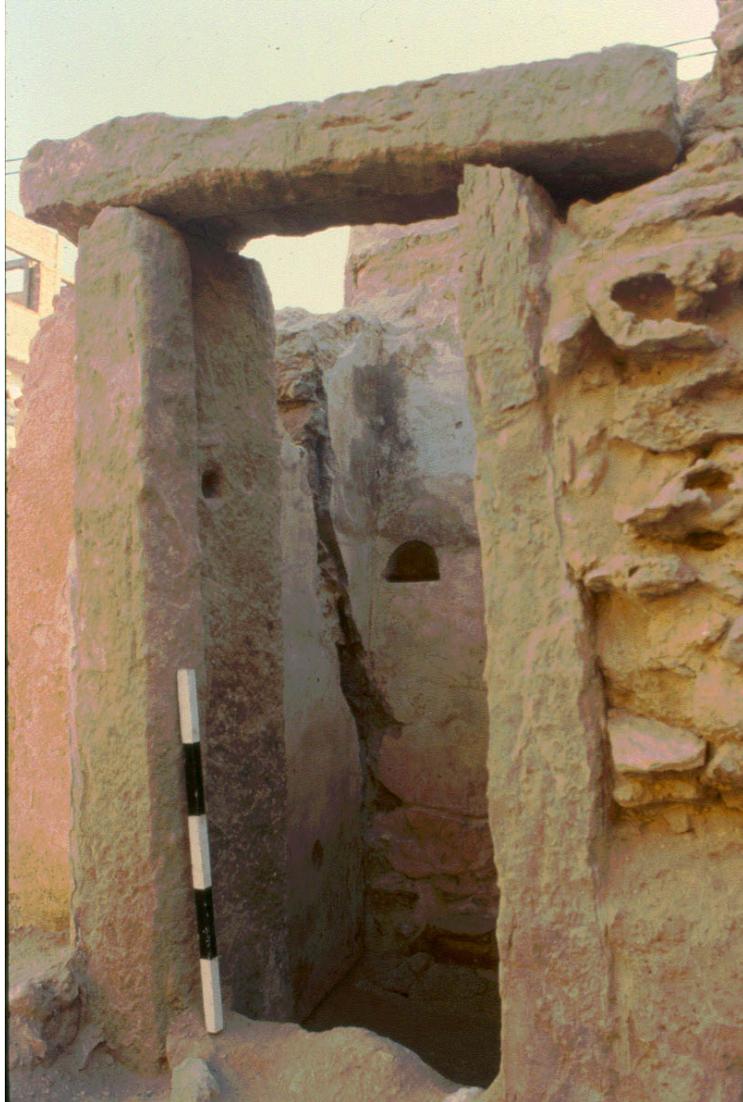
Figure 11: Doorway of Mini-Columbarium, looking southeast.
Image Source: UGA Yasmina Excavation Archive

Figure 12: Crack in floor and south wall of Mini-Columbarium, looking south.
Image Source: UGA Yasmina Excavation Archive

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Image Source: UGA Yasmina Excavation Archive
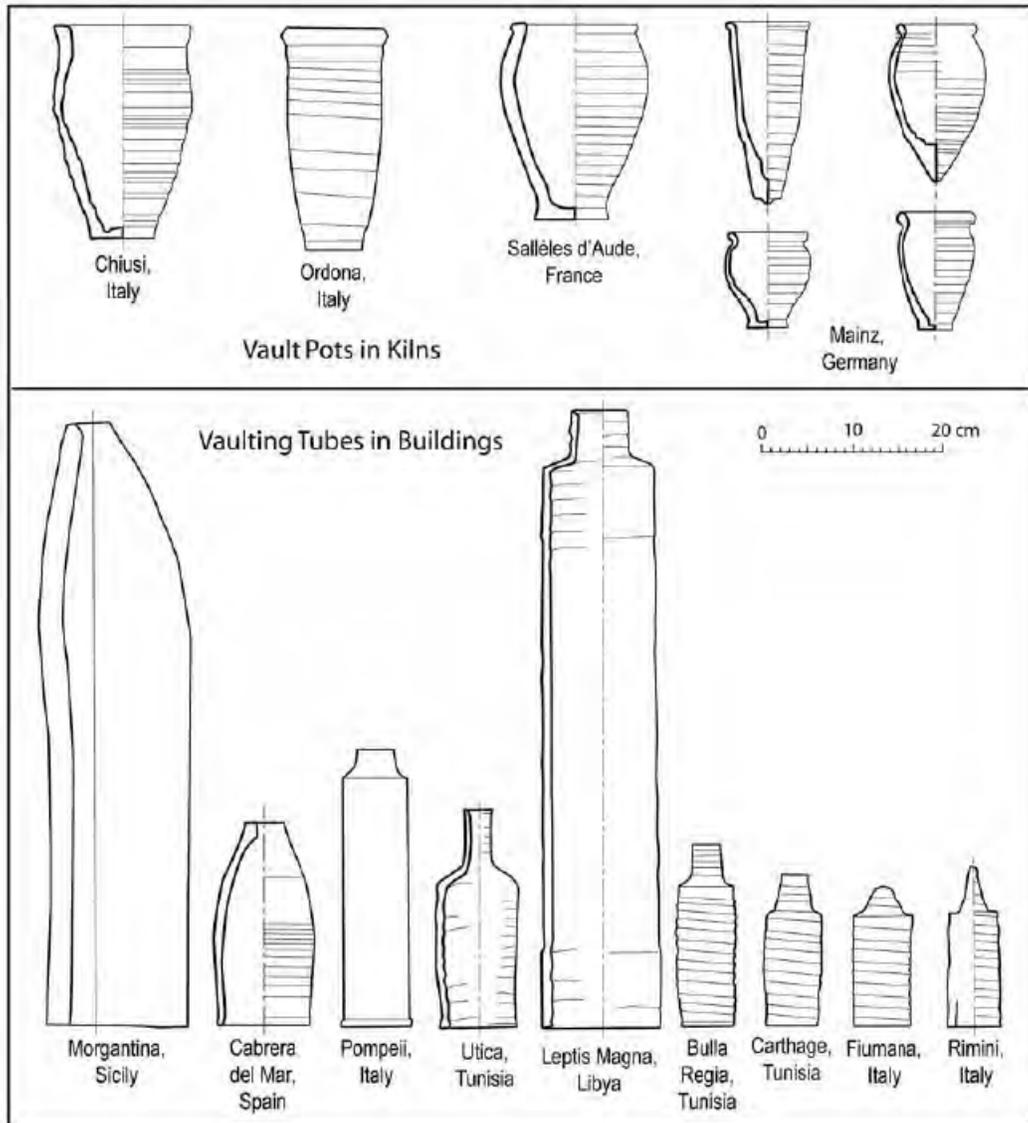
Figure 14: Chart of Vaulting Pots and Vaulting Tubes from various sites.
Reprinted from L. C. Lancaster, "Ash Mortar and Vaulting Tubes: Agricultural Production and the Building Industry in North Africa" (Madrid, 2012): 153, fig. 9).
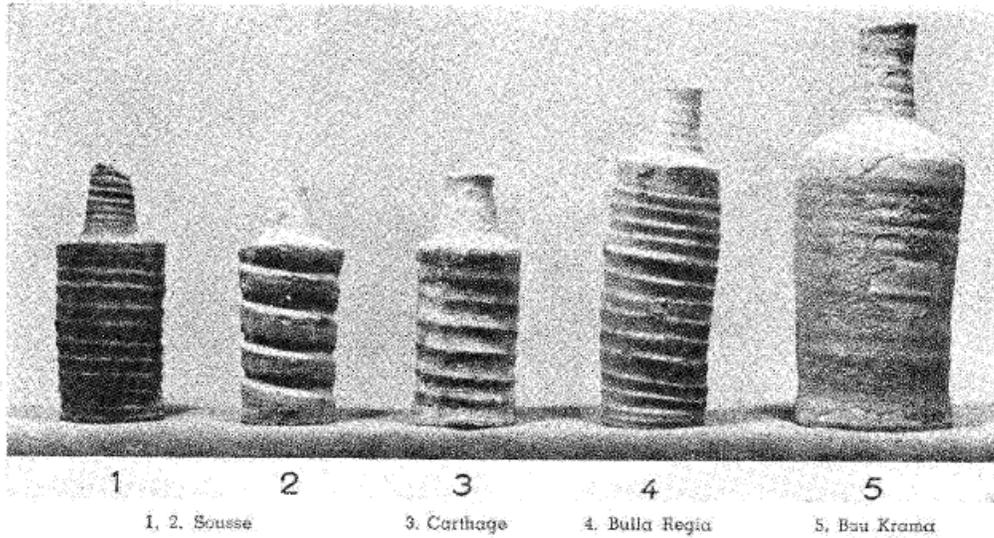
Figure 15: Various vaulting tubes from North Africa.
Reprinted from A. Lézine, "Les Voutes Romaines á Tubes Emboités et les Croisées d'Ogives de Bulla-Regia," *Karthago* (1954): fig. 11.
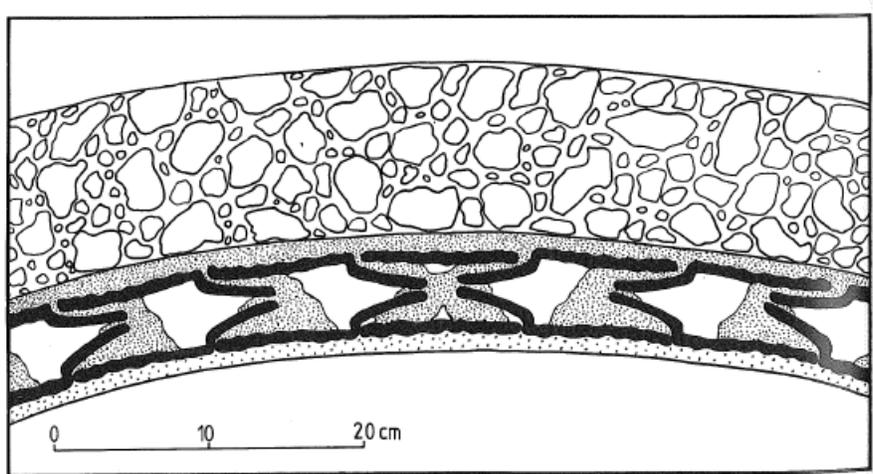
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Reprinted from M. Bound, "Tubi Fittili (Vaulting Tubes) from the Sea–The Roman Wreck at Punta Del Fenaio, Island of Giglio," *International Journal of Nautical Archaeology and Underwater Exploration* (1987): 190, fig. 6.
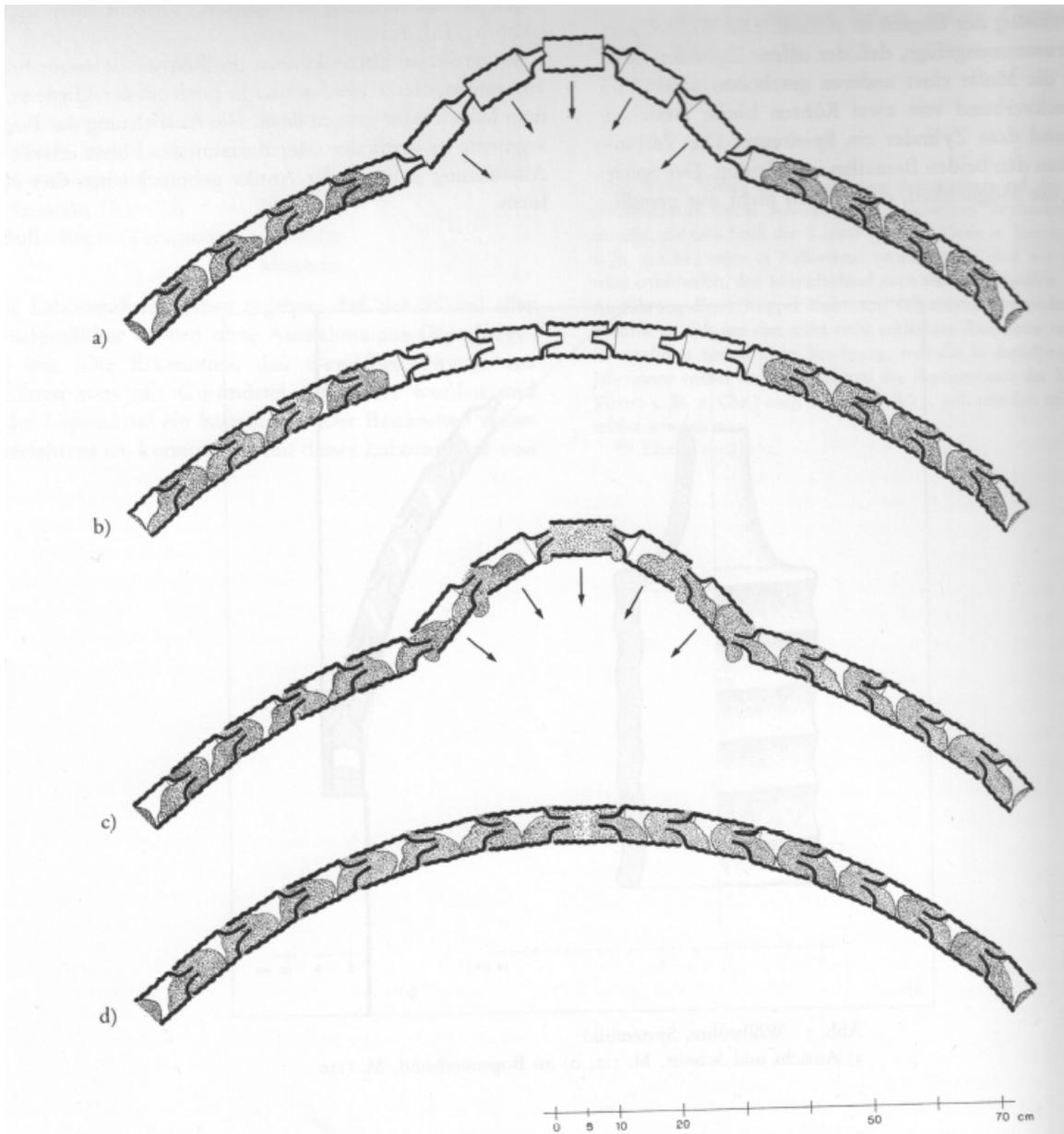
Figure 17: Hypothetical assembly of vaulting tubes.
Reprinted from S. Storz, *Tonröhren Im Antiken Gewölbebau* (Mainz am Rhein, 1994): 40, Abb. 2.
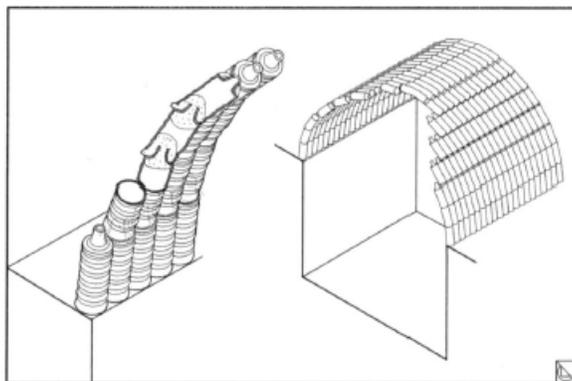
Figure 18: Reconstruction of barrel vault constructed with vaulting tubes.
Reprinted from L.C. Lancaster, Terracotta Vaulting Tubes in Roman Architecture: A Case Study of the Interrelationship between Technologies and Trade in the Mediterranean," *Construction History* (2009): 4, fig. 2.

Figure 19: Vaulting tubes during excavation, Morgantina.
Reprinted from R.J.A. Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution." *Journal of Roman Archaeology* (1992): 106, fig. 14.
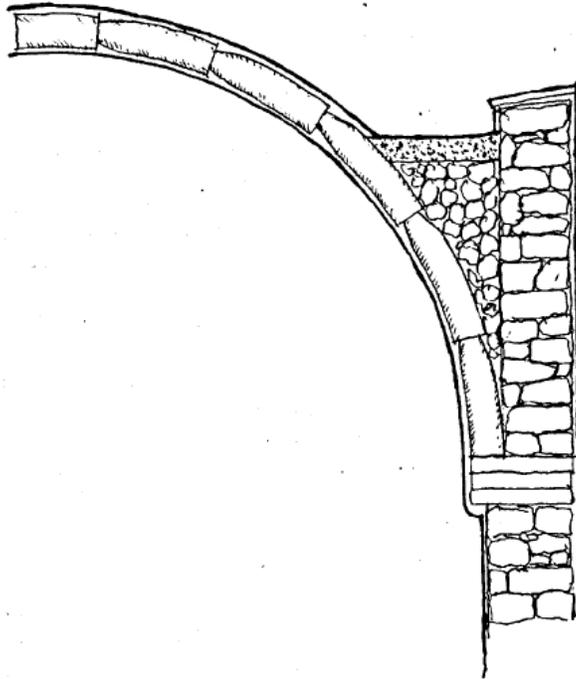
Figure 20: Vault and wall construction of Room 8, Morgantina North Baths.
Reprinted from S. Lucore, "Archimedes, the North Baths at Morgantina and Early Developments in Vaulted Construction" (Leiden, 2009): 49, fig. 4.
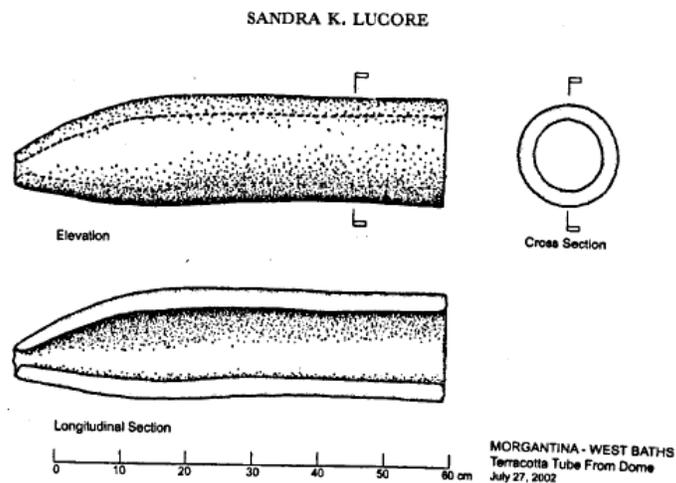
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Reprinted from S. Lucore, "Archimedes, the North Baths at Morgantina and Early Developments in Vaulted Construction" (Leiden, 2009): 48, fig. 3.
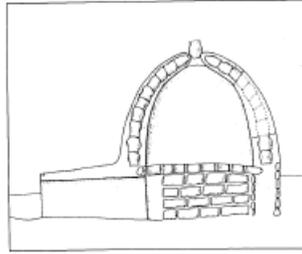
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Reprinted from R.J.A. Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," *Journal of Roman Archaeology* (1992): 106, fig. 15.

Figure 23: Vaulting tubes in barrel vault, in east wall of frigidarium at Thelepte's baths, Tunisa.
Reprinted from R.J.A. Wilson, "Terracotta Vaulting Tubes (*Tubi Fittili*): On Their Origin and Distribution," *Journal of Roman Archaeology* (1992): 104, fig. 12.
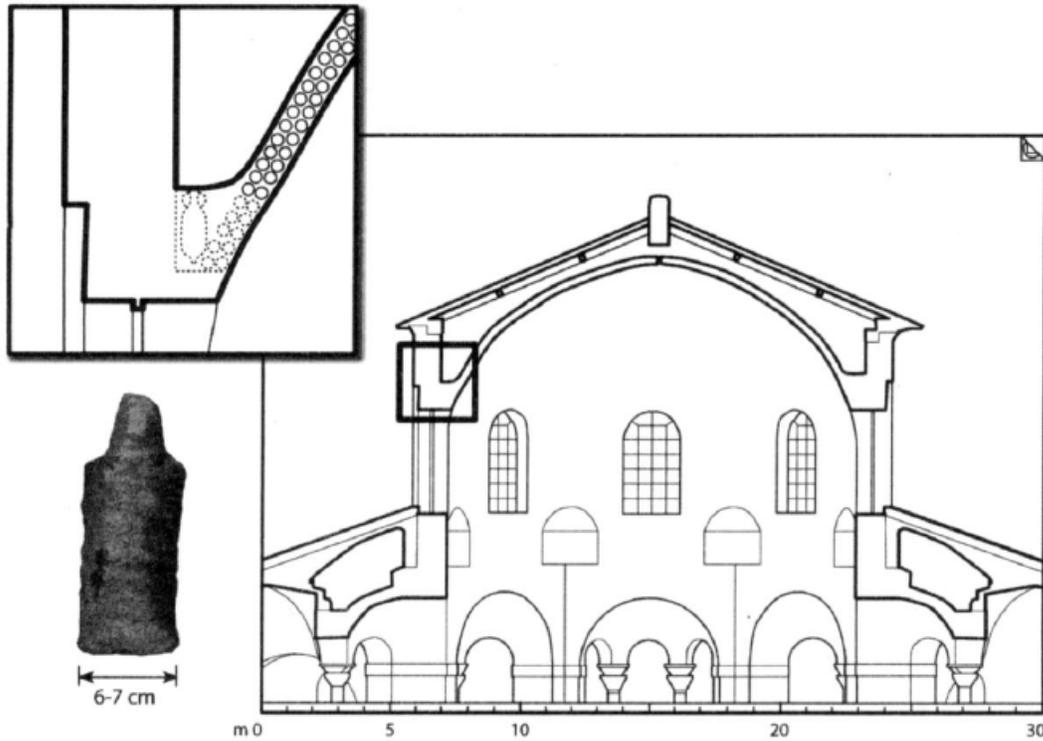
Figure 24: Section of dome, built with vaulting tubes, of San Vitale, Ravenna, Italy.
Reprinted from L.C. Lancaster, Terracotta Vaulting Tubes in Roman Architecture: A Case Study
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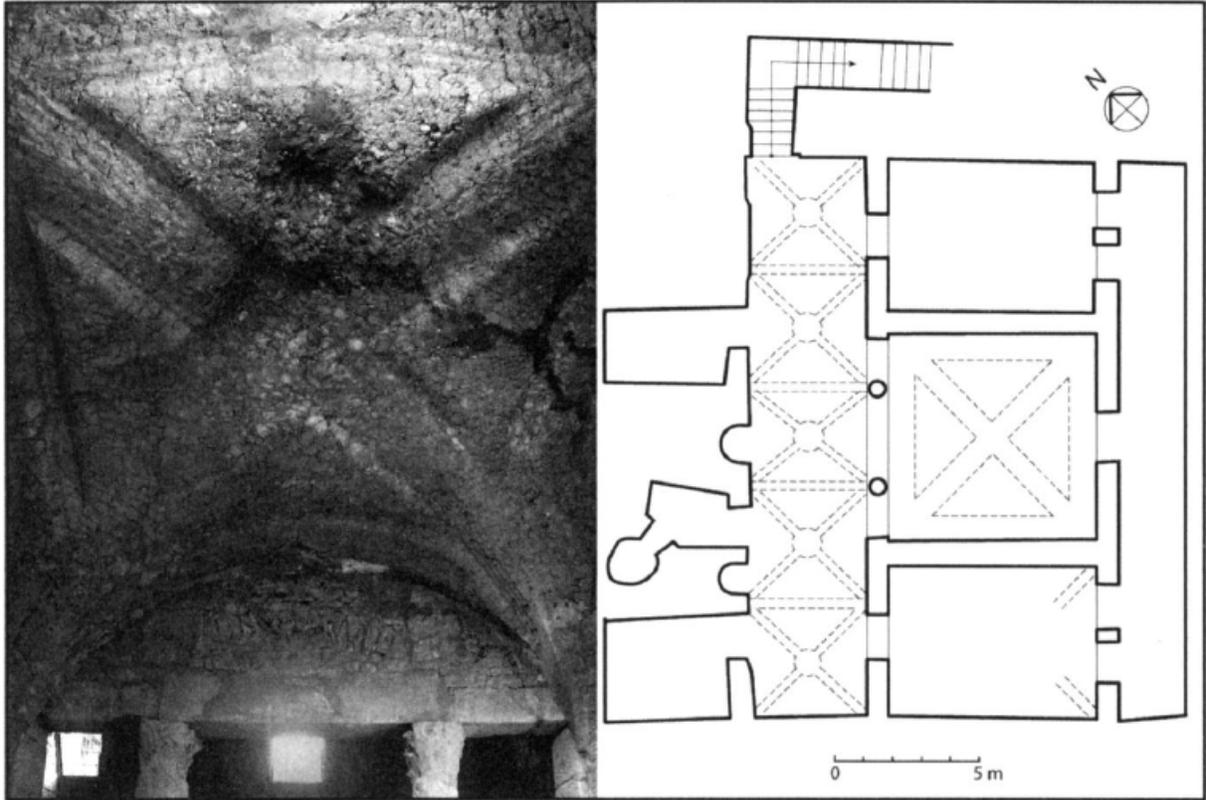
Figure 25: House of Amphitrite, Bulla Regia, Tunisa. Vault with impressions of fallen vaulting tubes; plan of underground level ceilings, with vault patterns indicated.
Reprinted from L.C. Lancaster, Terracotta Vaulting Tubes in Roman Architecture: A Case Study of the Interrelationship between Technologies and Trade in the Mediterranean," *Construction History* (2009): 11, fig. 7.
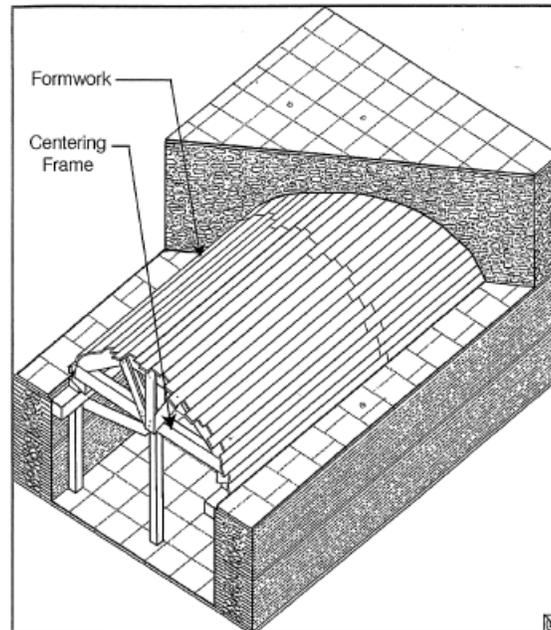
Figure 26: Reconstruction of traditional wooden centering scheme for a barrel vault.
Reprinted from L.C. Lancaster, *Concrete Vaulted Construction in Imperial Rome: Innovations in Context* (Cambridge, 2005), 23, fig. 8.

Figure 27: Vaulting tube framework with broken amphorae caementa above, Maison du Trésor, Bulla Regia.
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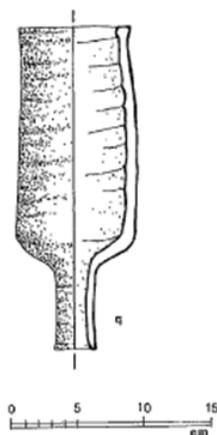
Figure 28: Vaulting tube from Bou Krama necropolis.
After F. Tommasello, "Volte 'Leggere' a Tubuli Fittili tra Sicilia e Africa," *Sicilia Antiqua* (2005): 151, fig. 3q.
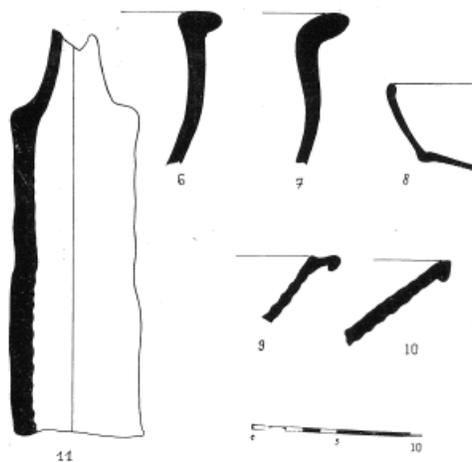
Figure 29: Vaulting tube from Monument K, Tipasa, Algeria.
Reprinted from S. Lancel, "Tipasitana IV: La Nécrople Romaine Occidentale de la Porte de Césarée--Rapport Préliminaire," *Bulletin D'Archéologie Algérienne* (1970): 209, fig. 61.11
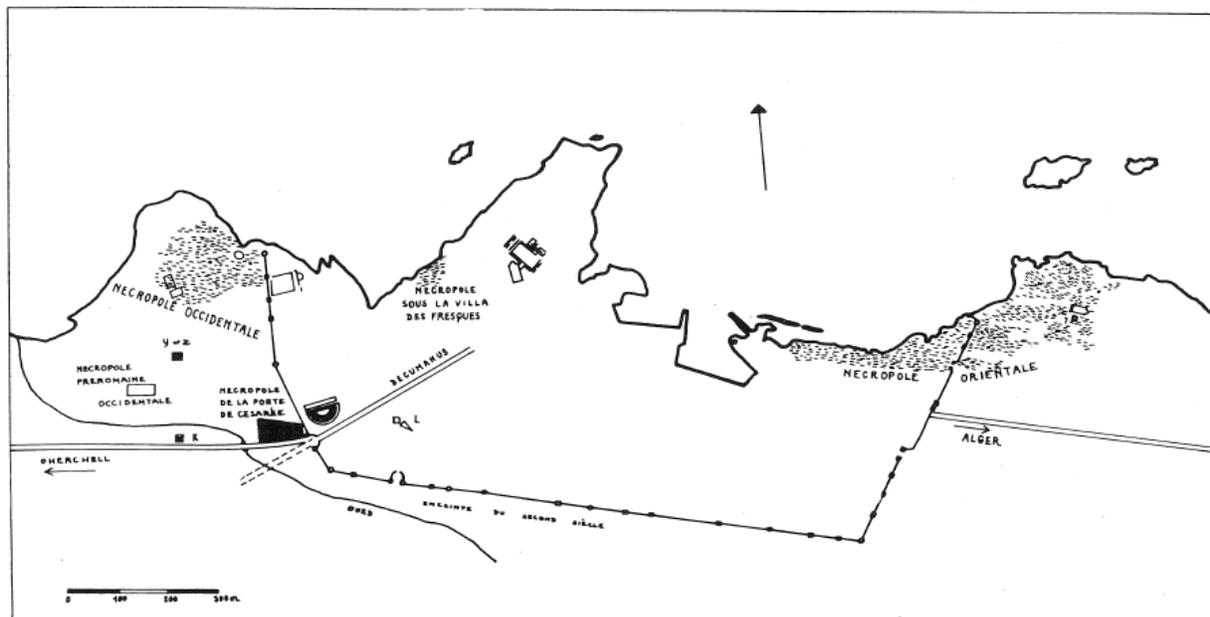
Figure 30: Map of Tipasa, Algeria, showing location of Monument "K."
Reprinted from S. Lancel, "Tipasitana IV: La Nécrople Romaine Occidentale de la Porte de Césarée--Rapport Préliminaire," *Bulletin D'Archéologie Algérienne* (1970): 150, fig. 1.
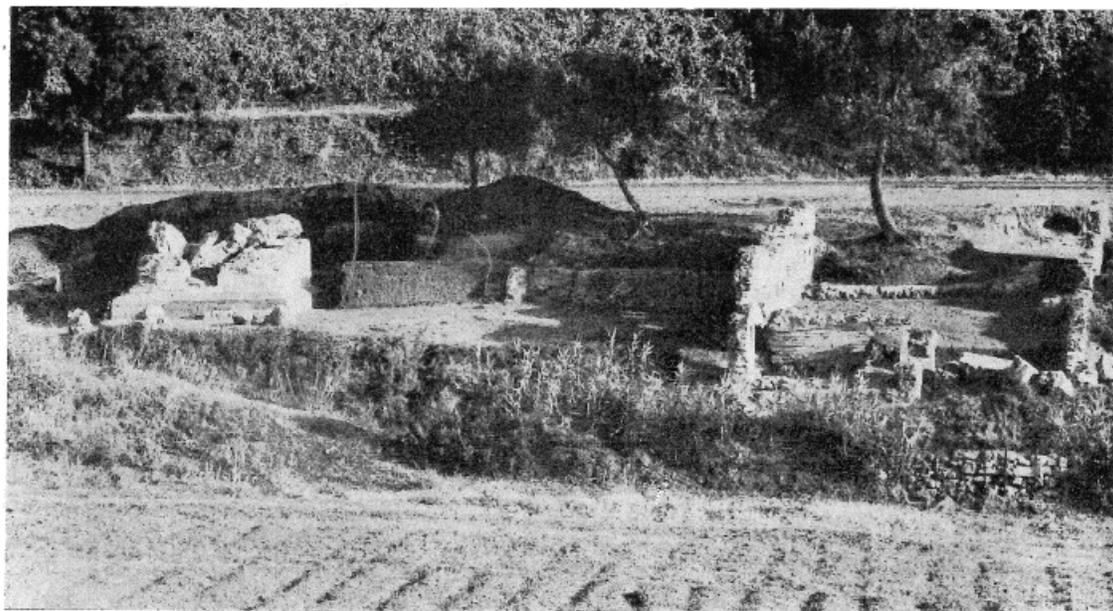
Figure 31: Monument K (on left); a partially excavated columbarium (on right), Tipasa, Algeria.
Reprinted from S. Lancel, "Tipasitana IV: La Nécrople Romaine Occidentale de la Porte de Césarée--Rapport Préliminaire," *Bulletin D'Archéologie Algérienne* (1970): 204, fig. 57.
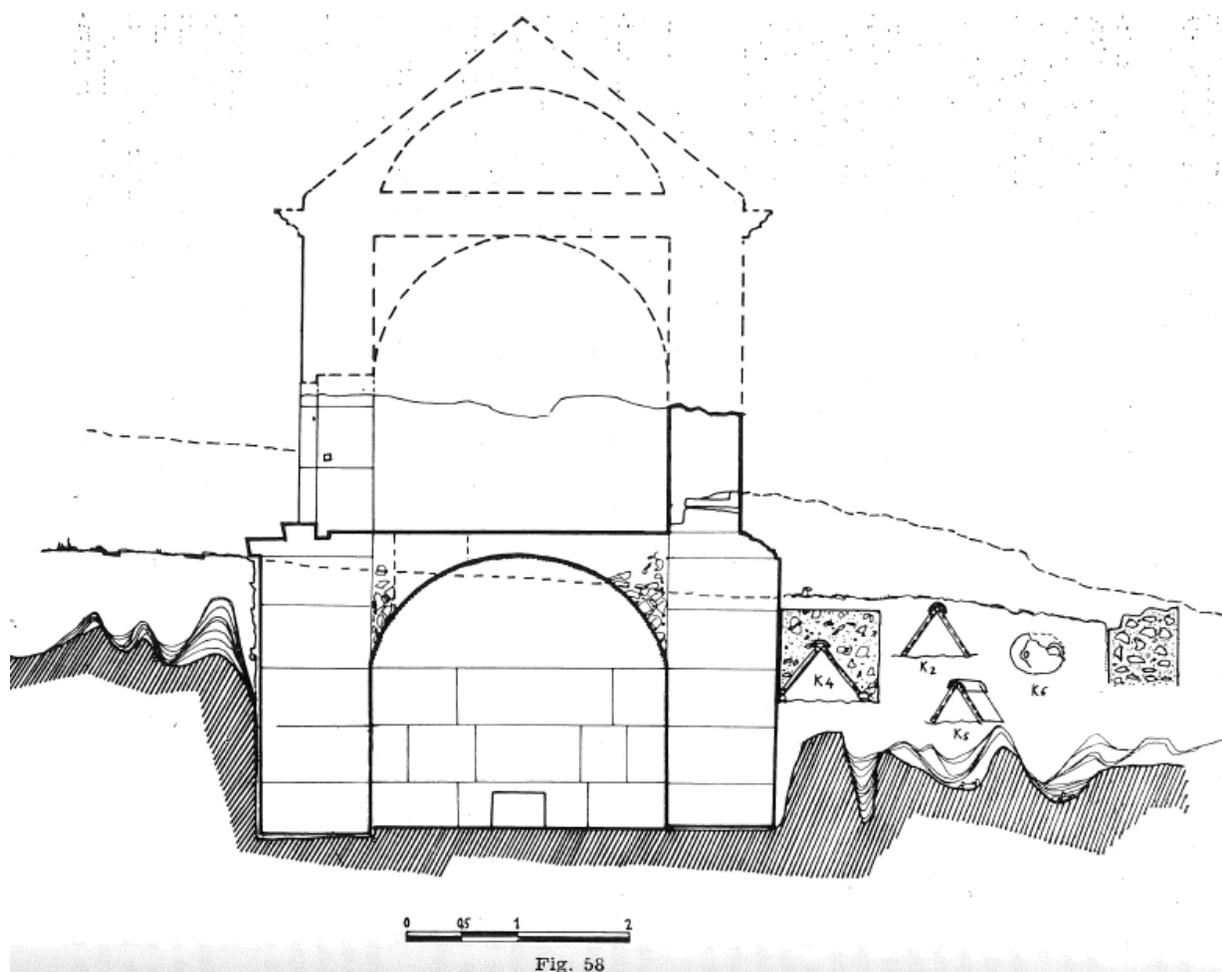
Fig. 58

Figure 32: Reconstructed elevation of Monument K, Tipasa, Algeria.
Reprinted from S. Lancel, "Tipasitana IV: La Nécrople Romaine Occidentale de la Porte de Césarée--Rapport Préliminaire," *Bulletin D'Archéologie Algérienne* (1970): 206, fig. 58.

Figure 33: Ancient dovecote at Karanis, Egypt.
Reprinted from E. M. Husselman, "The Dovecotes of Karanis," *Transactions of the American Philological Association* 84 (1953). http://www.lib.umich.edu/papyrus-collection/dovecotes-karanis (accessed May 13, 2013)

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Scala di Palmi Romani
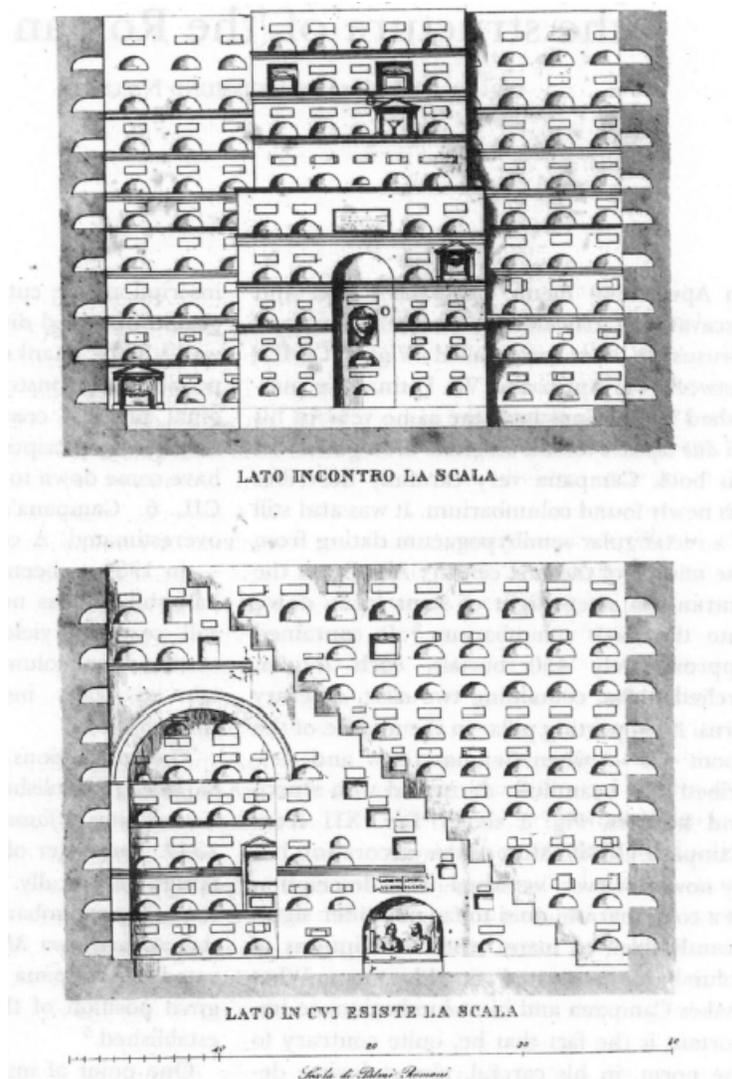
Figure 34: Illustration of Columbarium 1 in the Vigna Codini on the Via Appia, Rome. From P. Campana, Di due sepolcri romani del secolo di Augusto (Roma 1940) Plan XII. Reprinted from Hanne Sigismund Nielsen, "The Physical Context of Roman Epitaphs and the Structure of the 'Roman Family,'" *Analecta Romana Instituti Danici* 2 (1996): 40, fig. 1.
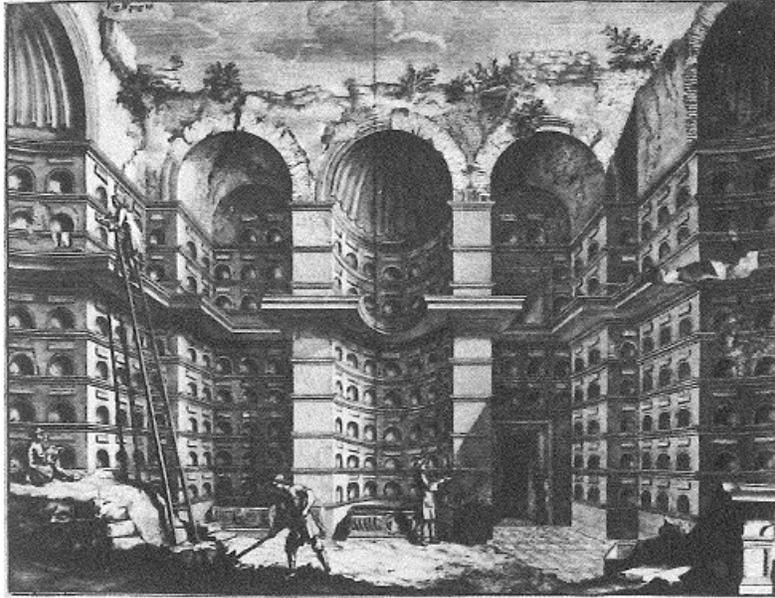
Figure 35: Drawing by Antonio Buonamici of the columbarium of the household of Livia. Reprinted from John Bodel, "From *Columbaria* to Catacombs: Collective Burial in Pagan and Christian Rome," in *Commemorating the Dead: Texts and Artifacts in Context: Studies of Roman, Jewish, and Christian Burials*, ed. Laurie Brink and Deborah A. Green (Berlin: Walter de Gruyter, 2008), 197, fig. 6.1.
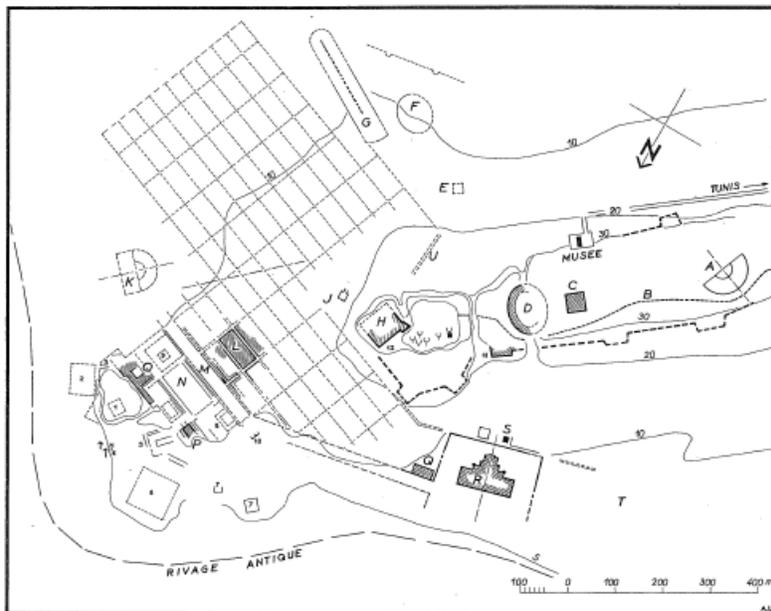
5 - Plan d'Utique en 1957

Figure 36: Plan of Utica in 1957; "S" is the Columbarium.
Alexandre Lézine, *Utique* (Tunis: Société tunisienne de diffusion, 1970), 19, fig. 5.
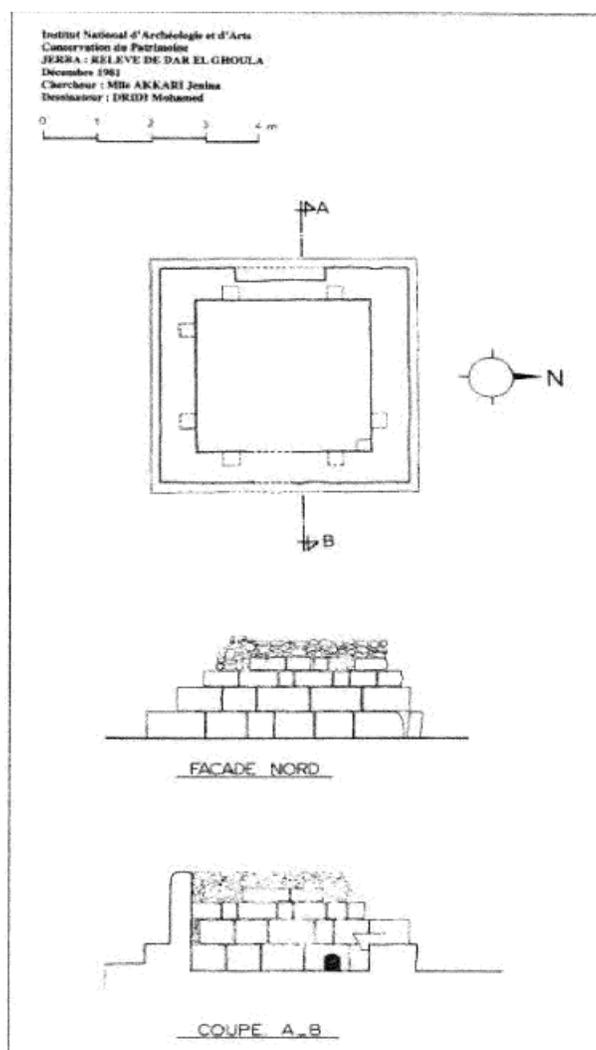
Figure 37: Plan, elevation, and cross-section of Columbarium Dar El Ghoula.
Reprinted from J. Akkari-Weriemmi, "Le Columbarium de Dar Al Ghoula à Djerba (Tunisie),"
Africa 20 (2004): 35.

Figure 38: View of Columbarium Dar El Ghoula.
Reprinted from J. Akkari-Weriemmi, "Le Columbarium De Dar Al Ghoula À Djerba (Tunisie),"
Africa 20 (2004): 26, fig. 1.

Fig. 3 : Vue d'une niche, objet d'un culte rural (dépôt d'offrandes)
Figure 39: Niche with offering deposit in Columbarium Dar El Ghoula.
Reprinted from J. Akkari-Weriemmi, "Le Columbarium De Dar Al Ghoula À Djerba (Tunisie),"
Africa 20 (2004): 27, fig. 3.
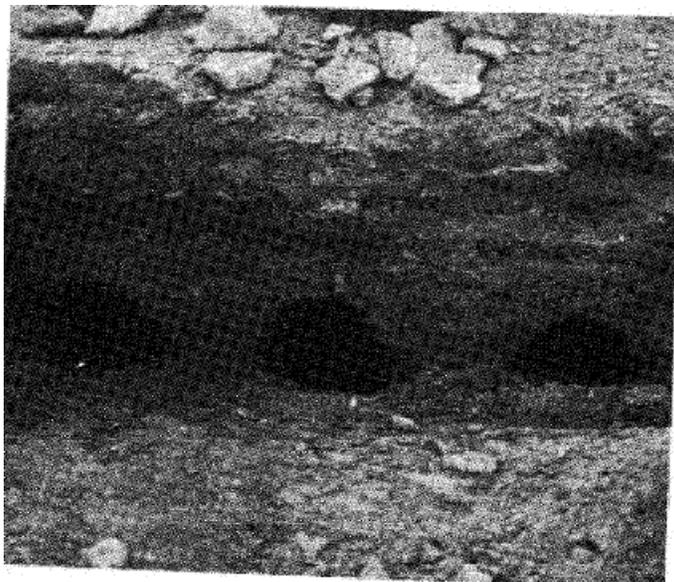
Figure 40: Unpublished columbarium at Henchir El Kantara- Meninx.
Reprinted from J. Akkari-Weriemmi, "Le Columbarium De Dar Al Ghoula À Djerba (Tunisie),"
Africa 20 (2004): 34, fig. 18.
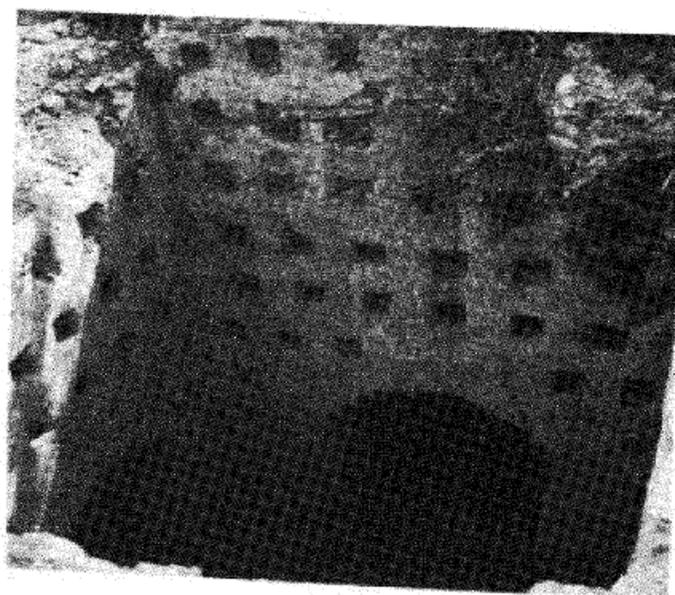
Figure 41: Unpublished columbarium near Bannane.
Reprinted from J. Akkari-Weriemmi, "Le Columbarium De Dar Al Ghoula À Djerba (Tunisie),"
Africa 20 (2004): 34, fig. 19.

Figure 42: View of Tomb 93, Necropolis of the Port of Caesarea, Tipasa, Algeria.

Reprinted from Serge Lancel, "Tipasitana IV: La Nécropole Romaine Occidentale de la Porte de Césarée--Rapport Préliminaire," *Bulletin d'Archéologie Algérienne* 4 (1970): 183, fig. 34.
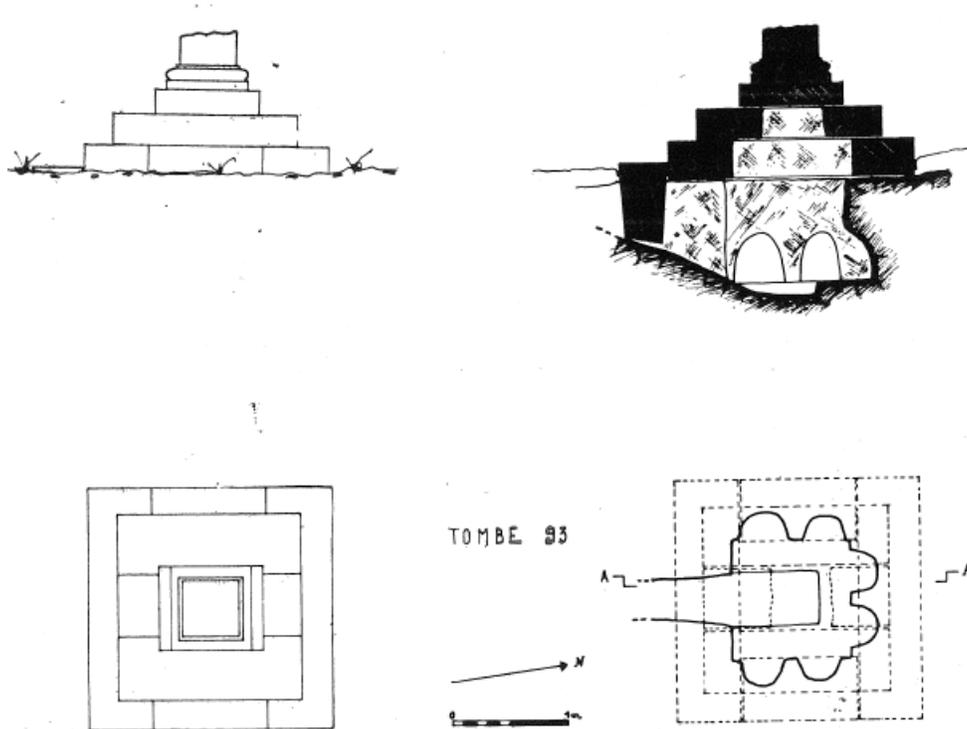

Figure 43: Elevation, section, and plans of Tomb 93, Necropolis of the Port of Caesarea, Tipasa, Algeria.
Reprinted from Serge Lancel, "Tipasitana IV: La Nécropole Romaine Occidentale de la Porte de Césarée--Rapport Préliminaire," *Bulletin d'Archéologie Algérienne* 4 (1970): 184, fig. 35.

Figure 44: View of niches and urns in Tomb 93, Necropolis of the Port of Caesarea, Tipasa, Algeria.
Reprinted from Serge Lancel, "Tipasitana IV: La Nécropole Romaine Occidentale de la Porte de Césarée--Rapport Préliminaire," *Bulletin d'Archéologie Algérienne* 4 (1970): 186, fig. 36.
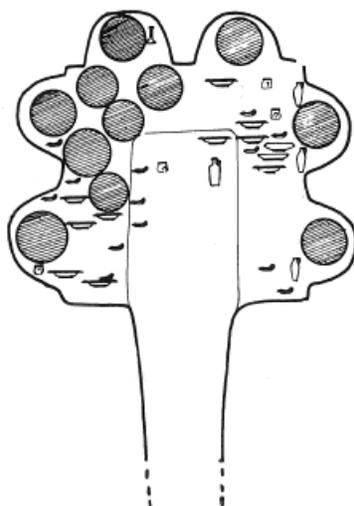
Figure 45: Plan of niches, urns, and grave goods in Tomb 93, Necropolis of the Port of Caesarea, Tipasa, Algeria.
Reprinted from Serge Lancel, "Tipasitana IV: La Nécropole Romaine Occidentale de la Porte de Césarée--Rapport Préliminaire," *Bulletin d'Archéologie Algérienne* 4 (1970): 186, fig. 37.
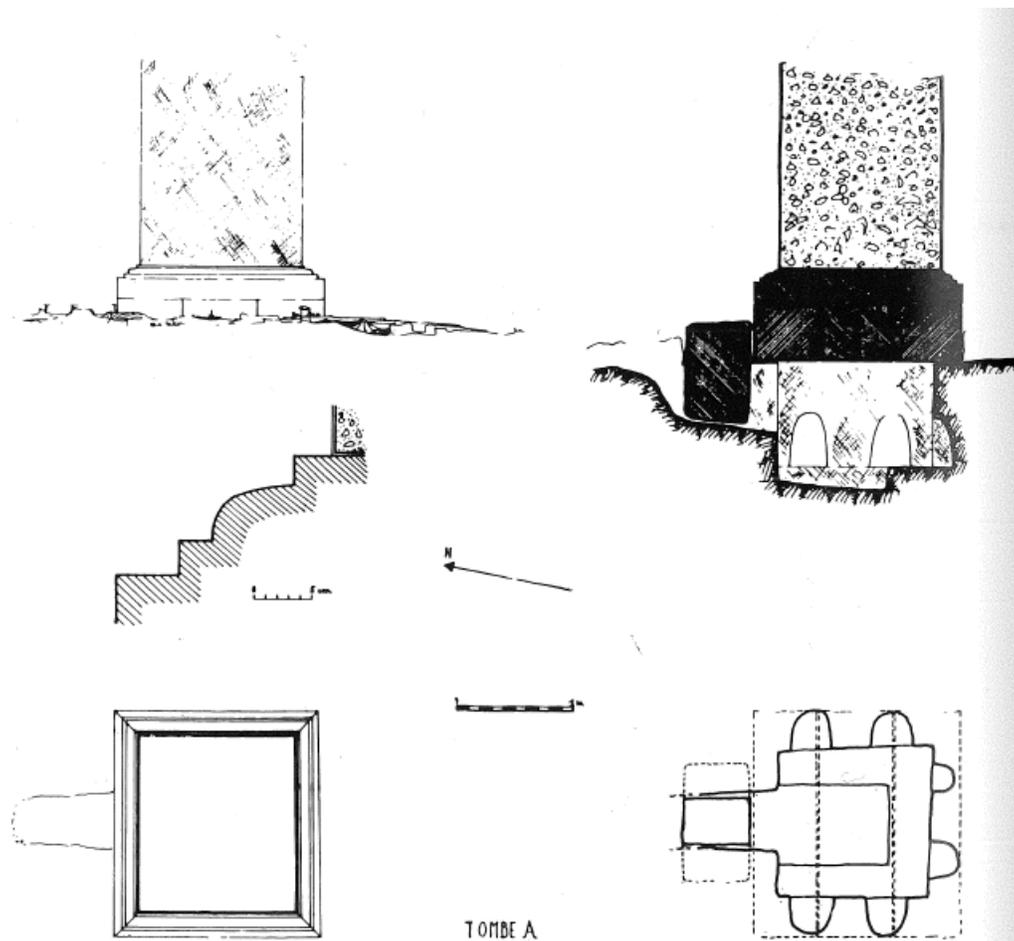
Figure 46: Elevation, section, and plans of Tomb A, Necropolis of the Port of Caesarea, Tipasa, Algeria.
Reprinted from Serge Lancel, "Tipasitana IV: La Nécropole Romaine Occidentale de la Porte de Césarée--Rapport Préliminaire," *Bulletin d'Archéologie Algérienne* 4 (1970): 188, fig. 41.
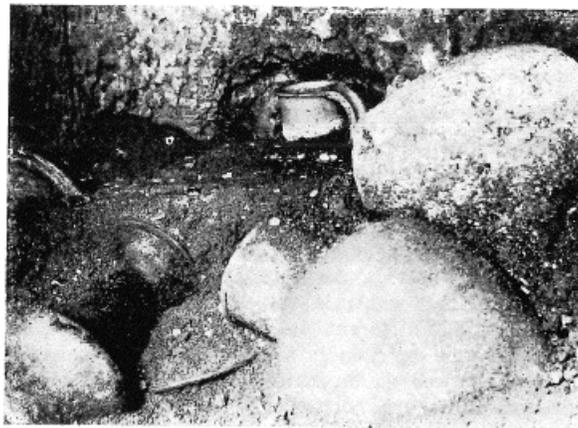
Figure 47: Urns piled in Tomb A, Necropolis of the Port of Caesarea, Tipasa, Algeria. Reprinted from Serge Lancel, "Tipasitana IV: La Nécropole Romaine Occidentale de la Porte de Césarée--Rapport Préliminaire," *Bulletin d'Archéologie Algérienne* 4 (1970): 190, fig. 44.
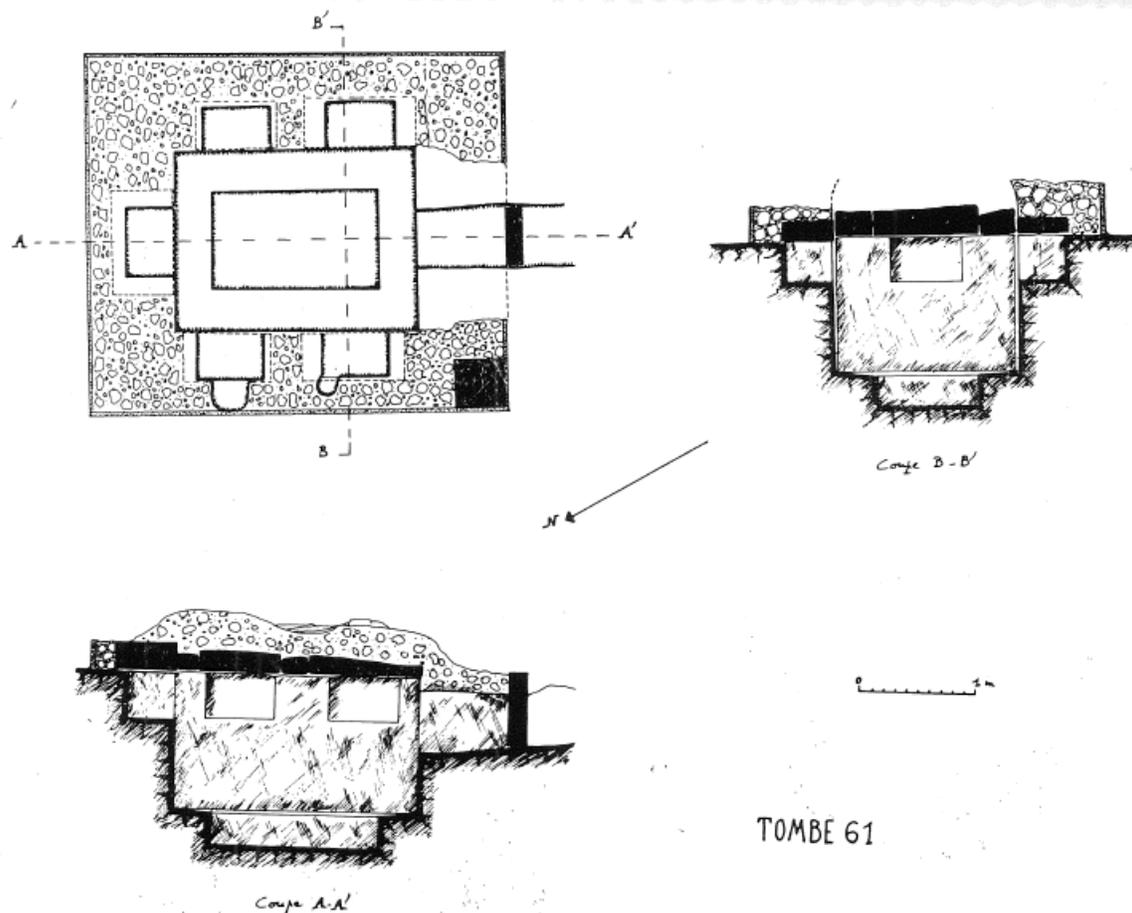
Figure 48: Plan and sections of Tomb 61, Necropolis of the Port of Caesarea, Tipasa, Algeria. Reprinted from Serge Lancel, "Tipasitana IV: La Nécropole Romaine Occidentale de la Porte de Césarée--Rapport Préliminaire," *Bulletin d'Archéologie Algérienne* 4 (1970): 193, fig. 46.
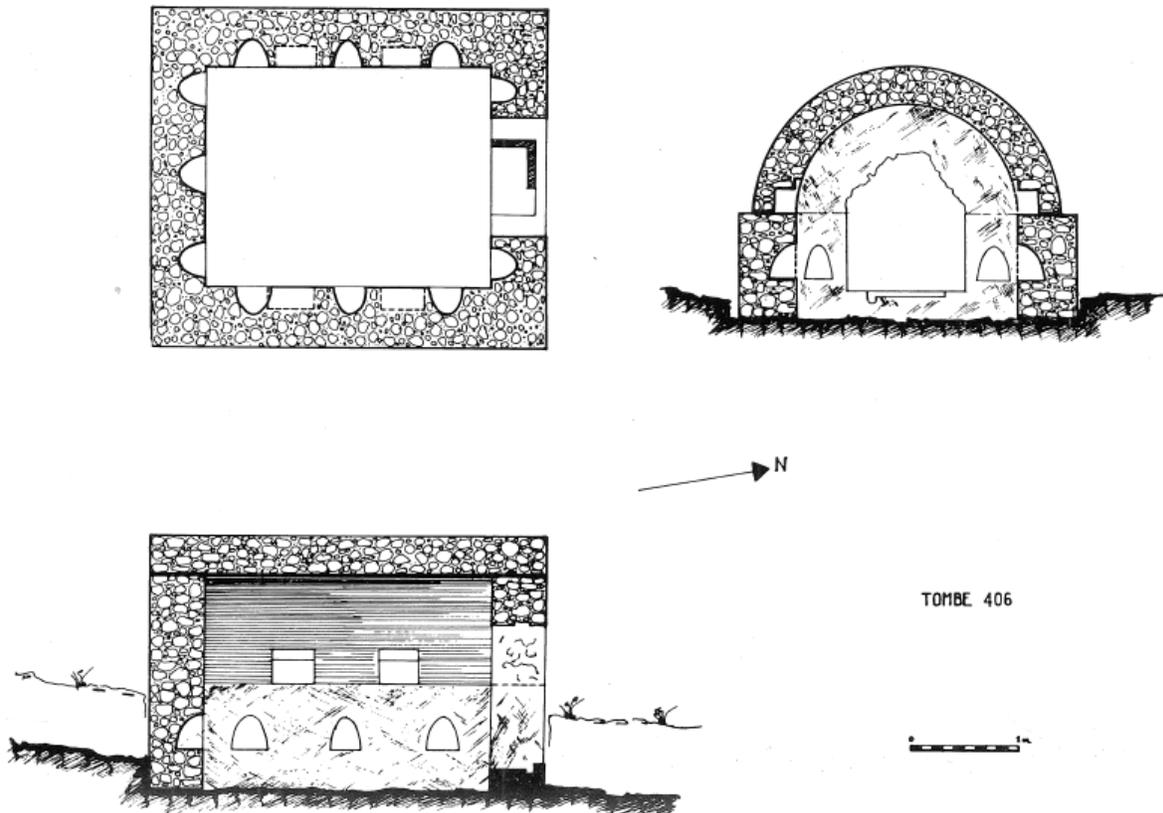
Fig. 47

Figure 49: Plan and sections of Tomb 406, Necropolis of the Port of Caesarea, Tipasa. Reprinted from Serge Lancel, "Tipasitana IV: La Nécropole Romaine Occidentale de la Porte de Césarée--Rapport Préliminaire," *Bulletin d'Archéologie Algérienne* 4 (1970): 194, fig. 47.
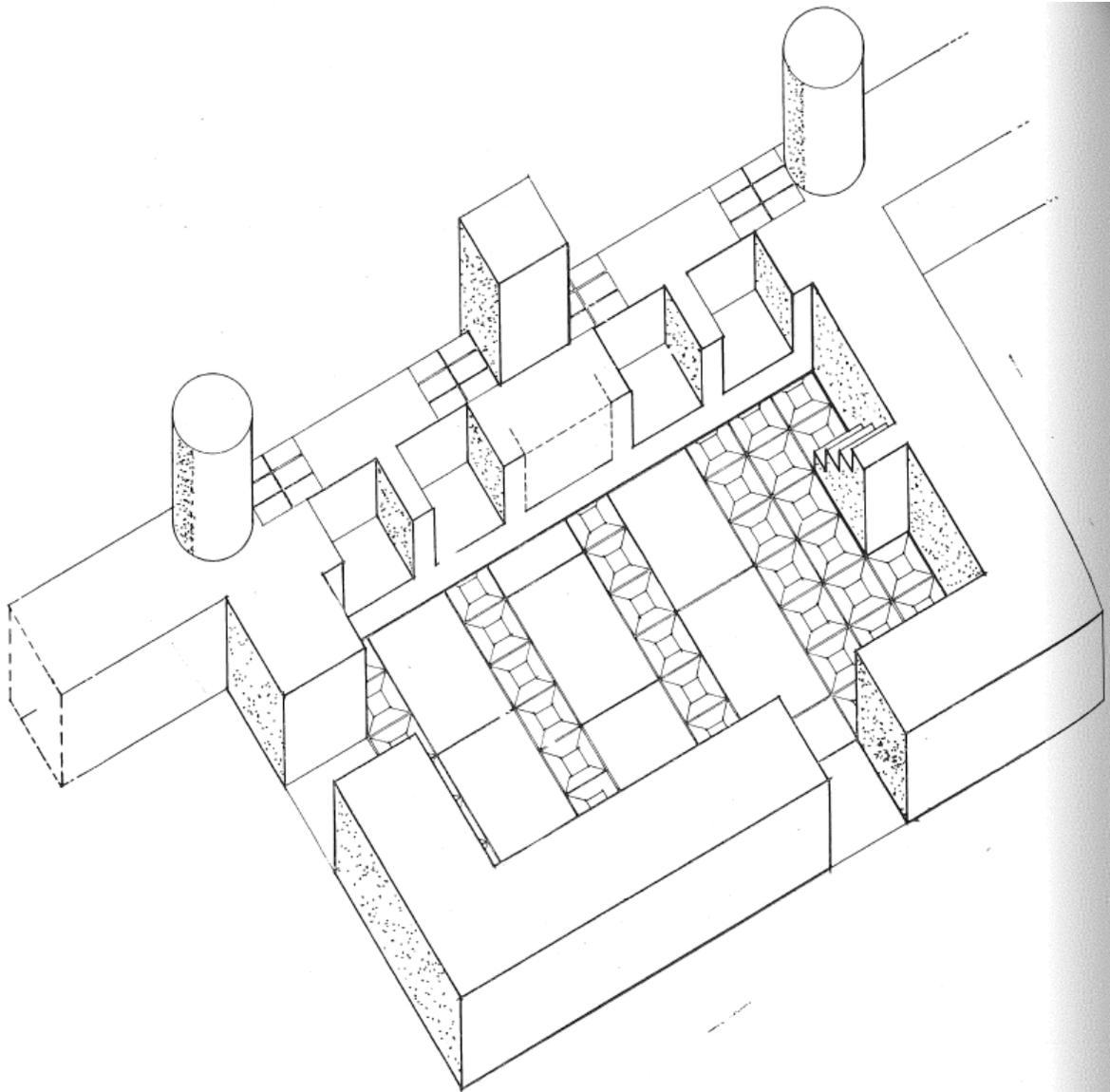
Figure 50: Reconstruction of columbarium by Wadi Nsara, near Iol/Cherchell, Algeria. Reprinted from Philippe Leveau, "Trois Tombeaux Monumentaux a Cherchel," *Bulletin d'Archéologie Algérienne* 4 (1970): 104, fig. 3.
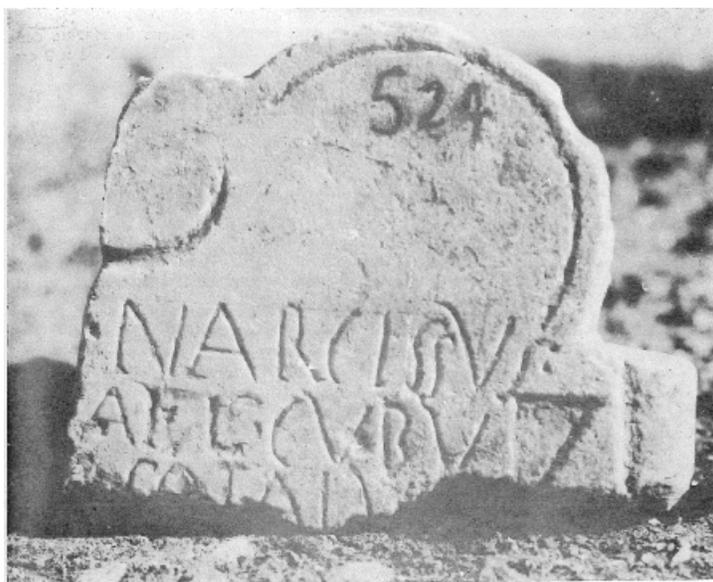
Fig. 12. — Inscription n° 5

Fig. 13. — Inscription n° 5

Figure 51: Photo and line-drawing of Inscription no. 5.

Reprinted from Philippe Leveau, "Trois Tombeaux Monumentaux a Cherchel," *Bulletin d'Archéologie Algérienne* 4 (1970): 115, figs. 12-13.

Figure 52: Photo of Inscription no. 7.
Reprinted from Philippe Leveau, "Trois Tombeaux Monumentaux a Cherchel," *Bulletin d'Archéologie Algérienne* 4 (1970): 117, figs. 16.
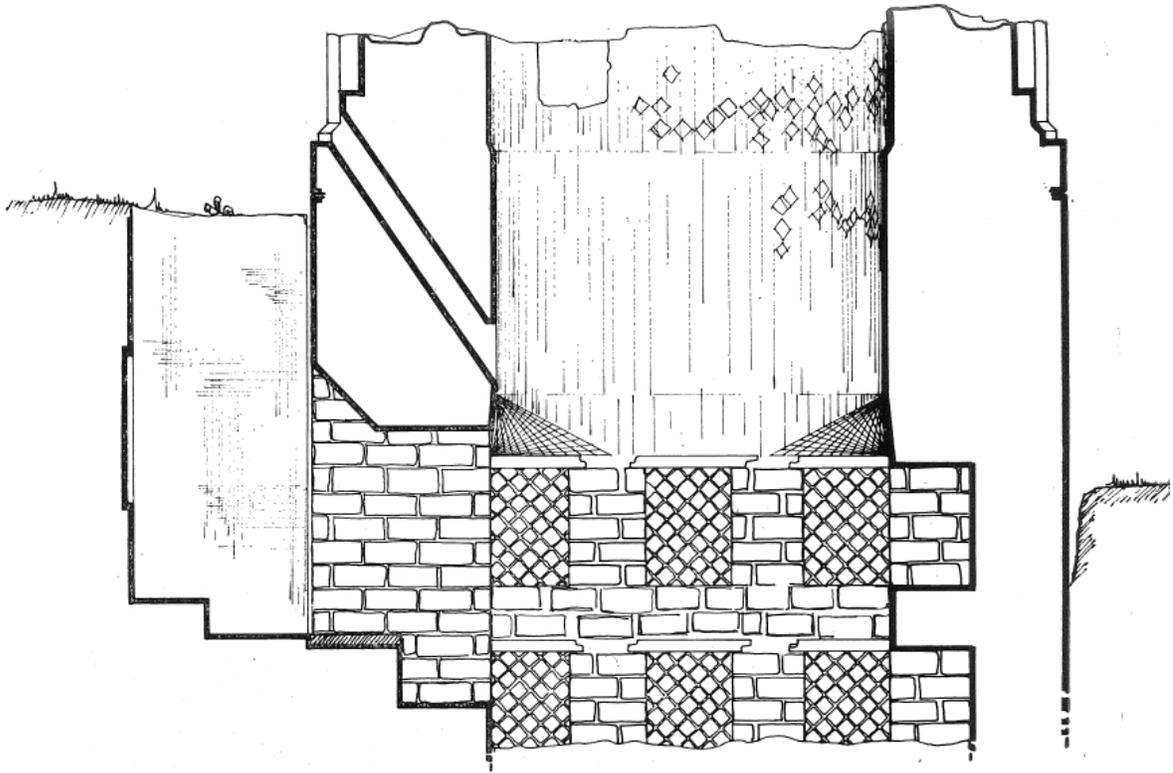
TOMBEAU N. II COUPE EST OUEST

Figure 53: Cross-section of octagonal tower tomb, Wadi el Kantara near Cherchell. Reprinted from Philippe Leveau, "Trois Tombeaux Monumentaux a Cherchel," *Bulletin d'Archéologie Algérienne* 4 (1970): 127, fig. 25.

TOMBEAU N.II PLAN DE LA CHAMBRE FUNERAIRE
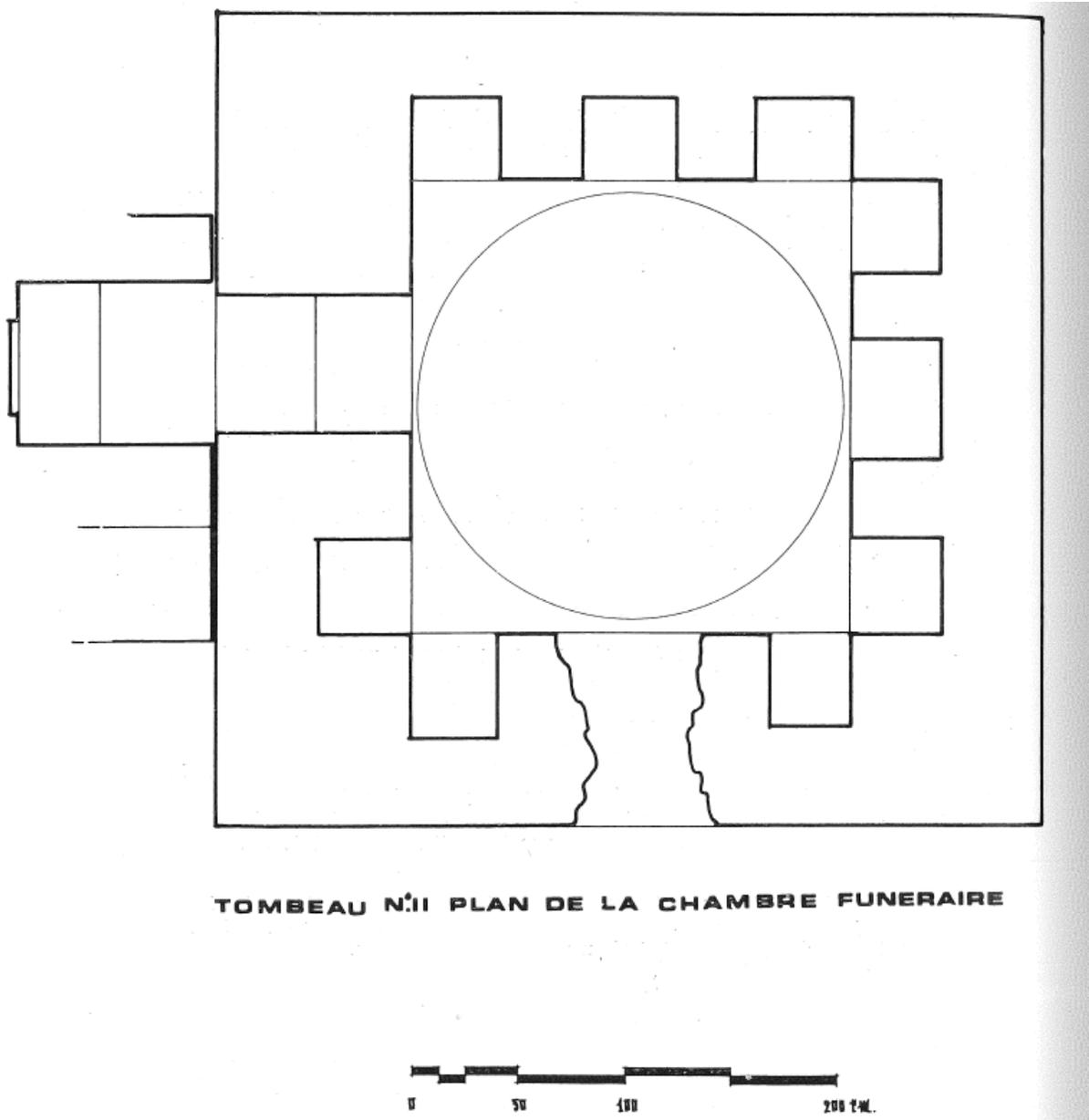
Figure 54: Plan of burial chamber of octagonal tower tomb, Wadi el Kantara near Cherchell. Reprinted from Philippe Leveau, "Trois Tombeaux Monumentaux a Cherchel," *Bulletin d'Archéologie Algérienne* 4 (1970): 130, fig. 28.
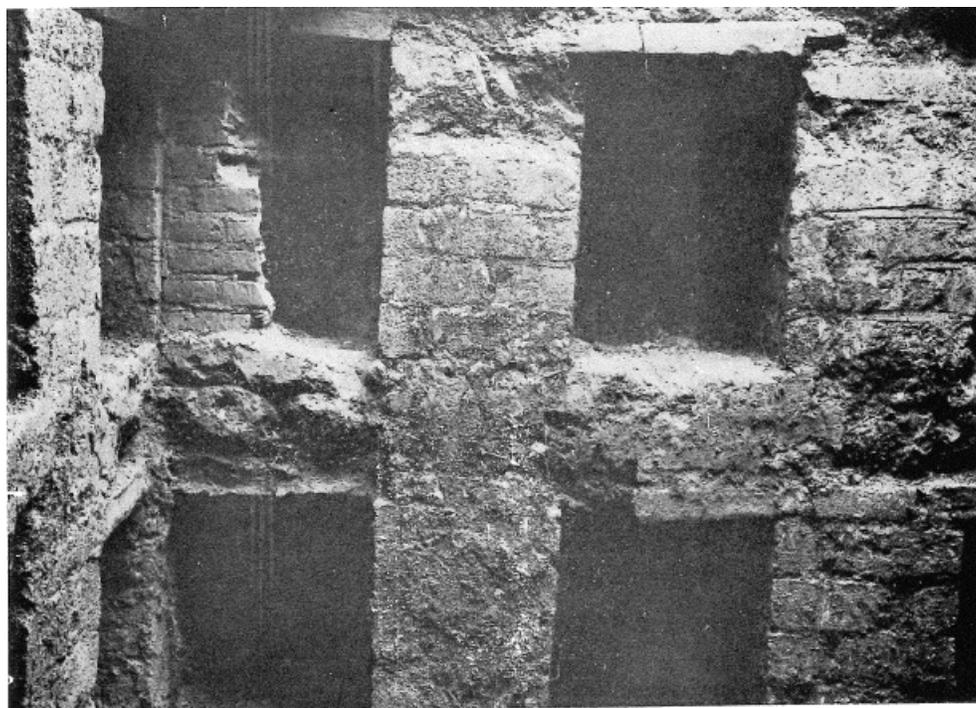
Fig. 31. — Tombeau n° II ; intérieur de la chambre funéraire ; vue du mur ouest ; en haut, à gauche, la niche où se trouvait l'urne (a).

Figure 55: Photo of niches in west all of octagonal tower tomb, Wadi el Kantara near Cherchell. Reprinted from Philippe Leveau, "Trois Tombeaux Monumentaux a Cherchel," *Bulletin d'Archéologie Algérienne* 4 (1970): 133, fig. 31.
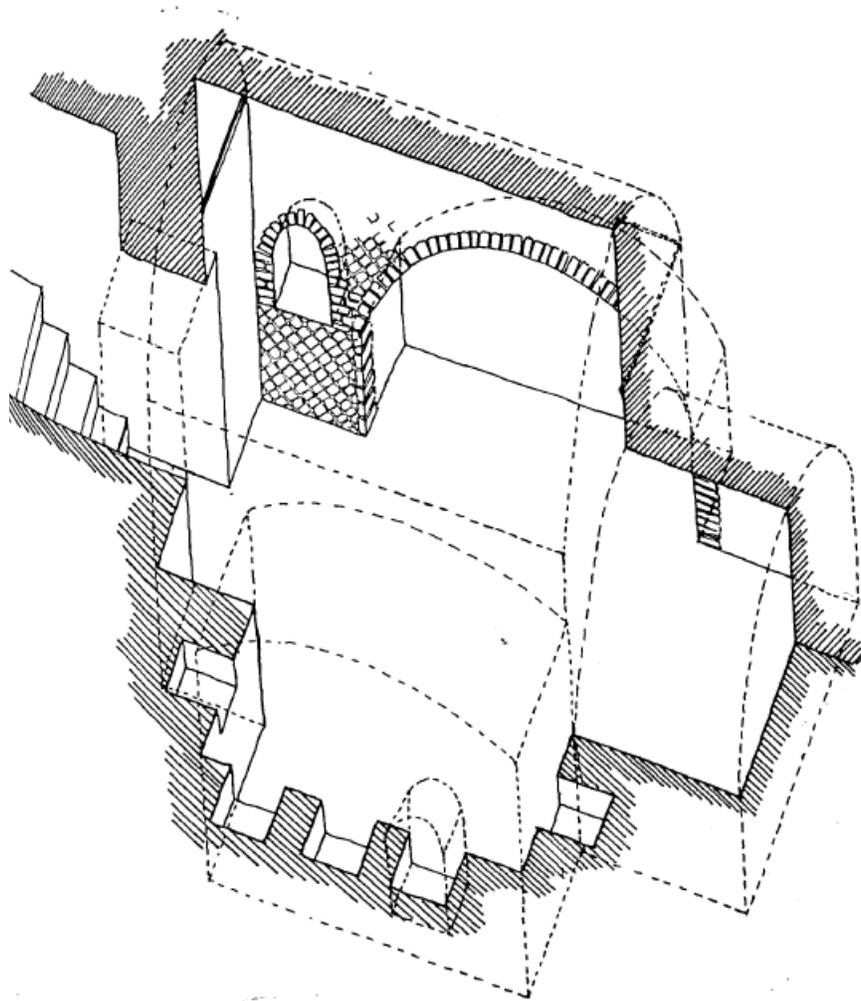
TOMBEAU N.III

Figure 56: Reconstruction of tomb with cremation niches and acrosolia, Wadi el Kantara near Cherchell.
Reprinted from Philippe Leveau, "Trois Tombeaux Monumentaux a Cherchel," *Bulletin d'Archéologie Algérienne* 4 (1970): 143, fig. 39.
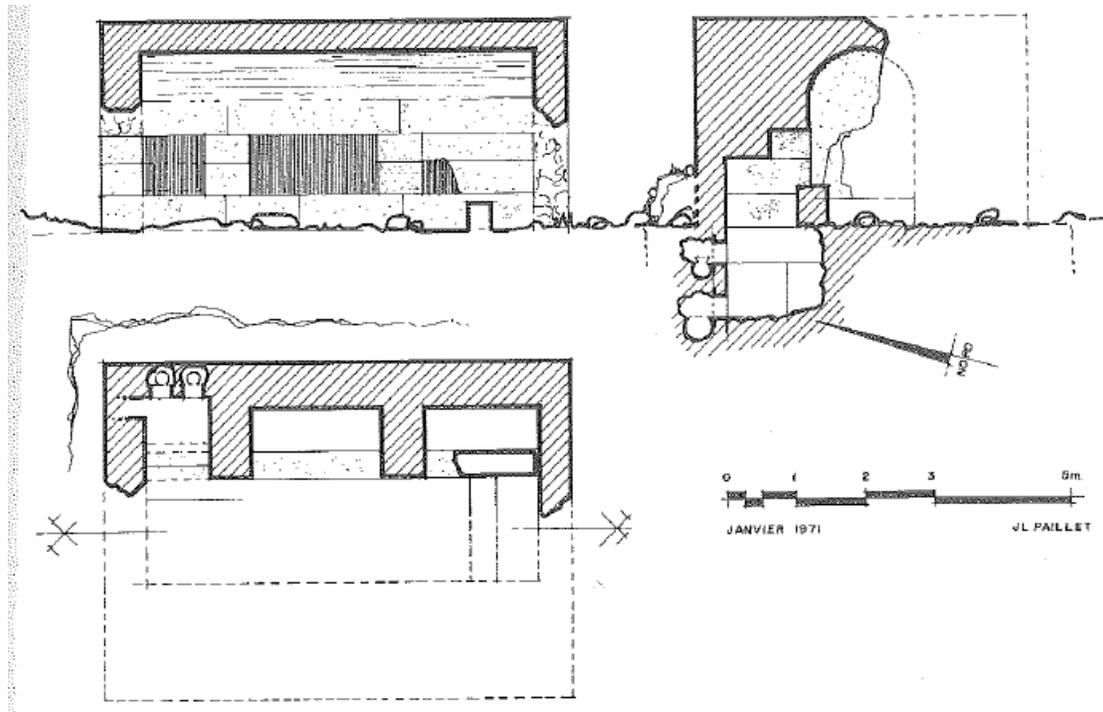
Figure 57: Cross-sections and plan of columbarium at Cave-Hardy, Algeria.
Reprinted from Philippe Leveau, *Caesarea de Maurétanie: Une Ville Romaine et Ses Campagnes* (Rome; Paris: Ecole française de Rome; Diffusion de Boccard, 1984), 297, fig. 102.

Figure 58: Niches in columbarium at Cave-Hardy.
Reprinted from Philippe Leveau, *Caesarea de Maurétanie: Une Ville Romaine et Ses Campagnes* (Rome; Paris: Ecole française de Rome; Diffusion de Boccard, 1984), 297, fig. 104.
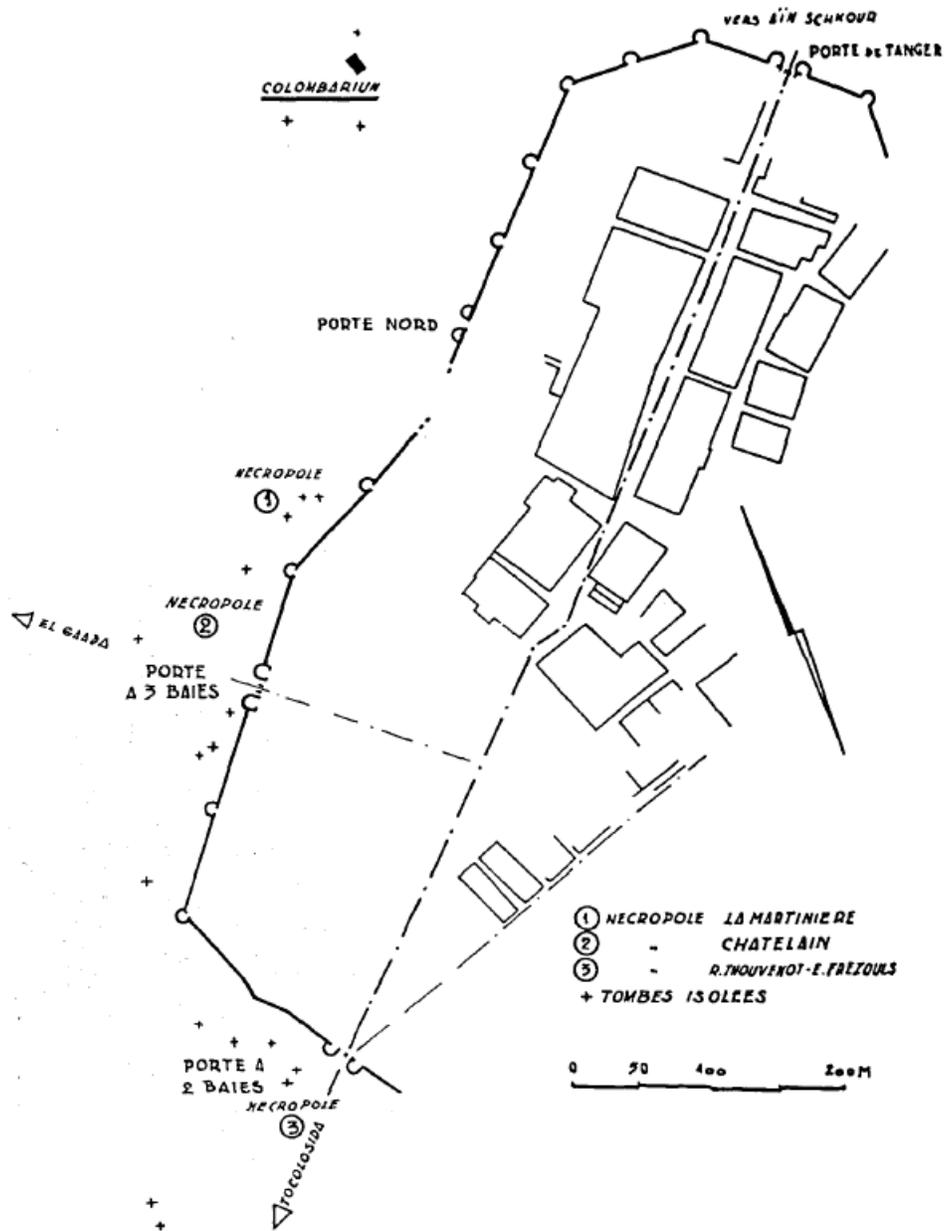
Figure 59: Plan of Volubilis and location of columbarium (upper left).
Reprinted from M. Ponsich, "Volubilis. Dégagement d'un Columbarium et d'une Tombe,"
Bulletin d'Archéologie Marocaine 5 (1964): 334, fig. 1.
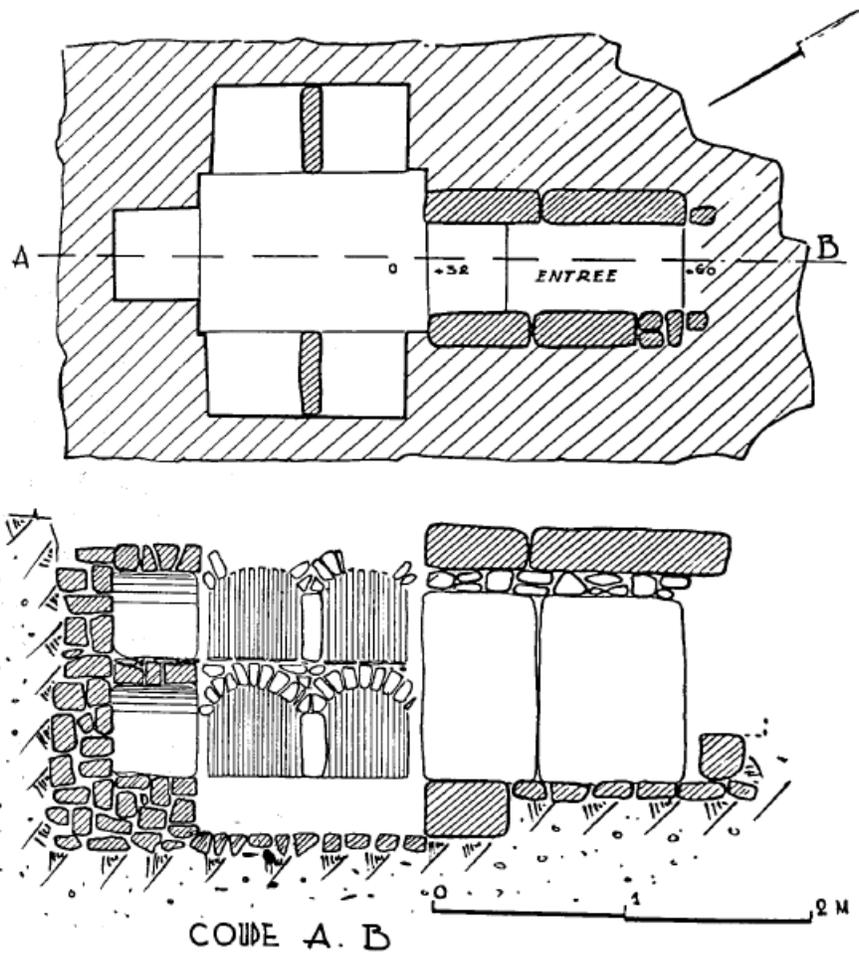
Figure 60: Plan and section of columbarium at Volubilis.
Reprinted from M. Ponsich, "Volubilis. Dégagement d'un Columbarium et d'une Tombe,"
*Bulletin d'Archéologie Marocaine* 5 (1964): 346, fig. 2.
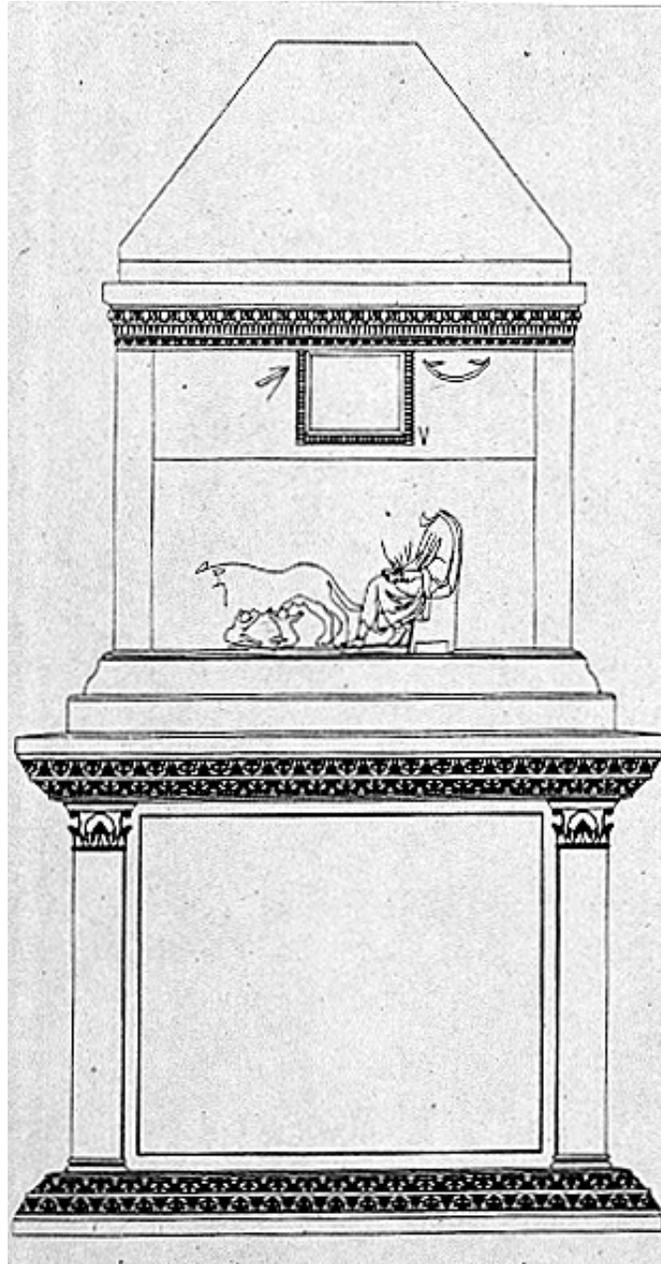
Figure 61: West elevation of Tertullus Tomb, Yasmina Cemetery.
Image Source: UGA Yasmina Excavation Archive

Figure 62: West face, middle story of Tertullus Tomb, Yasmina Cemetery: Inscription and Lupa scene.
Image Source: UGA Yasmina Excavation Archive

Figure 63: Detail of lupa scene on west face of Tertullus Tomb, Yasmina Cemetery.
Image Source: UGA Yasmina Excavation Archive

4.8. *Mensa* from Algeria, from area of Timgad. (photo: Michael Flecky)

Figure 64: Offering table with offering-shaped depressions on surface, from environs of Timgad, Algeria.
Reprinted from Robin M. Jensen, "Dining with the Dead: From the *Mensa* to the Altar in Christian Late Antiquity," in *Commemorating the Dead: Texts and Artifacts in Context: Studies of Roman, Jewish, and Christian Burials*, ed. Laurie Brink and Deborah A. Green (Berlin: Walter de Gruyter, 2008), 119, fig. 4.8.

65a.
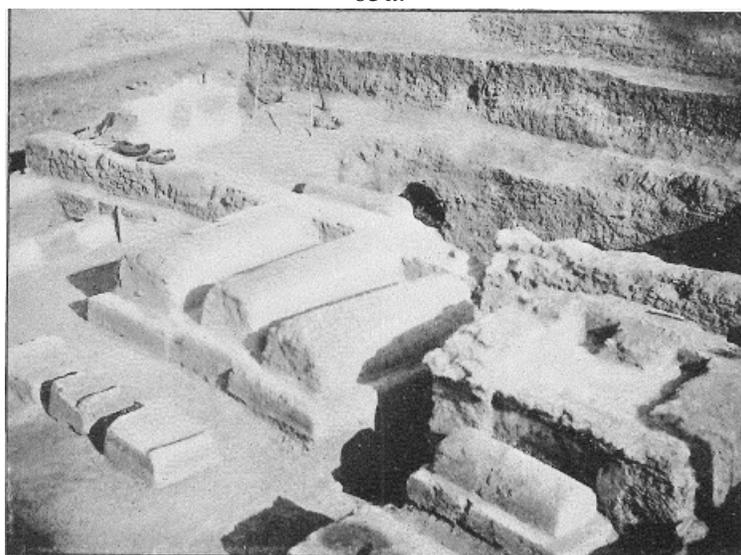
65b.

Figure 65a-b: Cupulae with offering tables, cemetery at Hadrumetum (Sousse, Tunisa).
Reprinted from (Capt.) Ordioni and (Lt.) Maillet, "Un Coin de la Nécropole d'Hadrumète,"
Bulletin Archéologique du Comité des Travaux Historiques et Scientifiques (1903): 538, Pl.
XLV.
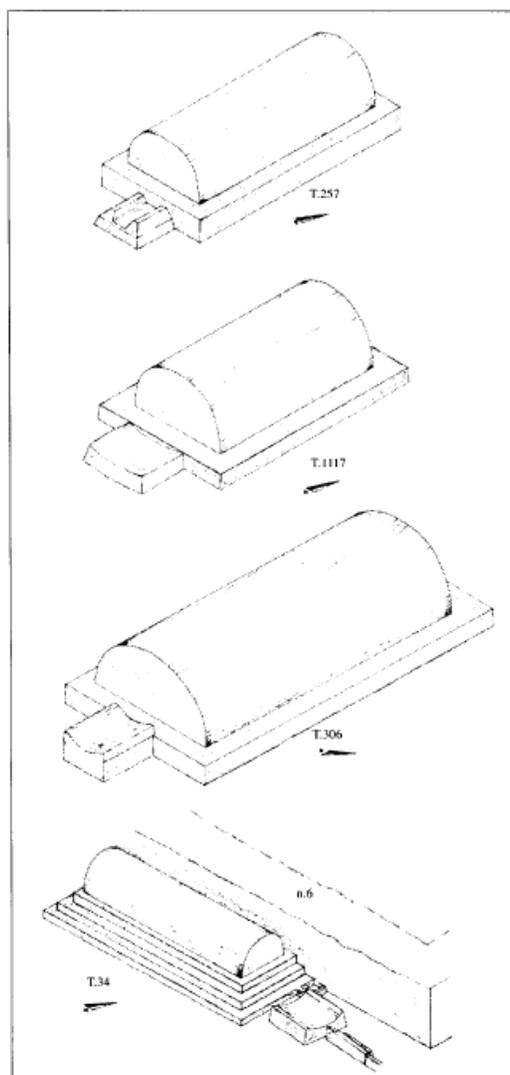
Fig. 2. Pupput, les caissons 257, 1117, 306, 34 et leurs mensae
(Relevés et dessins de F. Giomblanco).

Figure 66: Drawings of cupulae (no. 257, 1117, 306, 34) with offering tables, cemetery at Pupput (Hammamet, Tunisa).
Reprinted from Aïcha Ben Abed and Marc Griesheimer, "Les Supports des Offrandes Funéraires dans la Nécropole de Pupput (Hammamet, Tunisie)," in *Paul-Albert Février, De l'Antiquité au Moyen Âge* (Publications de l'Université de Provence, 2004), 319, fig. 2.

FIG. 19. — Type II-A, tombe nº 158 ouverte et photographiée du sud-est. En arrière de la table d'offrande et de la stele, le matériel placé à l'est du foyer dont les limites, bien visibles, sont oblitérées à l'ouest par une inhumation tardive III-B. (Cliché P.-A. Février).

Figure 67: Stela with slab serving as offering table, western cemetery, Sétif, Algeria.
Reprinted from P. A. Février and R. Guéry, "Les Rites Funéraires de la Nécropole Orientale de Sétif," *Antiquités Africaines* 15 (1980): 111, fig. 19.

Fig. 13

Figure 68: Offering table, Necropolis of the Port of Caesarea, Tipasa, Algeria.
Reprinted from Serge Lancel, "Tipasitana IV: La Nécropole Romaine Occidentale de la Porte de Césarée--Rapport Préliminaire," *Bulletin d'Archéologie Algérienne* 4 (1970): 167, fig. 13.
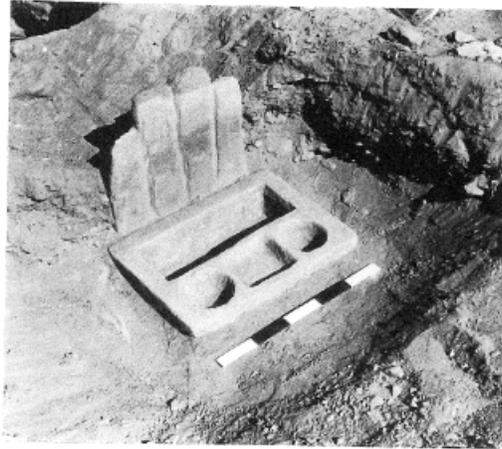
FIG. 20. Hand-like stela and offering table from a Roman date grave at Zinchecra Necropolis (after Daniels).

Figure 69: Offering table from with stela from Roman-era grave, Zinchecra Necropolis, Libya. Reprinted from F. El-Rashdy, "Garamantian Burial Customs: Their Relation to Those of Other Peoples of North Africa," in *Libya Antiqua: Report and Papers of the Symposium Organized by Unesco in Paris, 16 to 18 January 1984*, ed. UNESCO, The General History of Africa: Studies and Documents (Paris: UNESCO, 1986), 92, fig. 20.
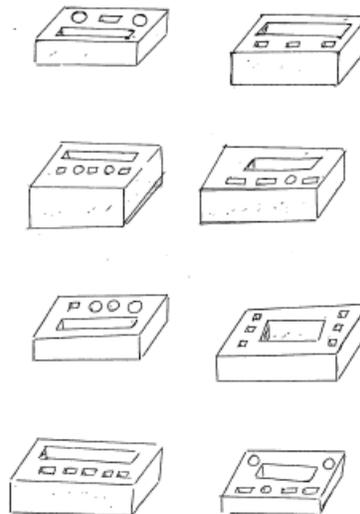

FIG. 23. Typical Garamantian offering table at Sebha Museum.

Figure 70: Garamantian offering table types found at the Sebha Museum, Libya. Reprinted from F. El-Rashdy, "Garamantian Burial Customs: Their Relation to Those of Other Peoples of North Africa," in *Libya Antiqua: Report and Papers of the Symposium Organized by Unesco in Paris, 16 to 18 January 1984*, ed. UNESCO, The General History of Africa: Studies and Documents (Paris: UNESCO, 1986), 99, fig. 23.
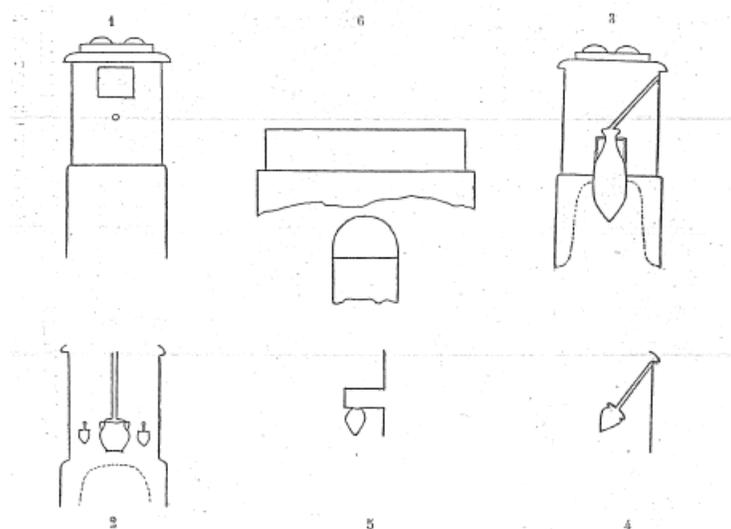
Figure 71: Libation tube arrangements, from the Cemetery of the Officiales, Carthage, Tunisia. Reprinted from A. L. Delattre, *Fouilles d'Un Cimetière Romain a Carthage en 1888* (Paris: E. Leroux, 1889), 8, fig. 1.
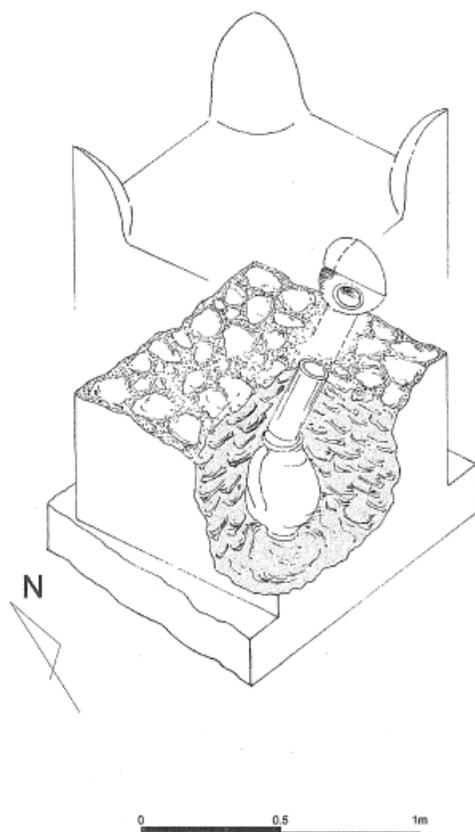
Figure 72: Axonometric view of libation tube in Tomb 1167, Roman cemetery, Pupput (modern Hammamet, Tunisia).
Reprinted from Aïcha Ben Abed and Marc Griesheimer, *La Nécropole Romaine de Pupput* (Rome: Ecole francaise de Rome, 2004), 138, fig. 88b.

Figure 73: Libation tube in east face of Tertullus Tomb, Yasmina cemetery, Carthage, Tunisa.
Image Source: UGA Yasmina Excavation Archive.

Figure 74: Cippus 2, Yasmina Cemetery, Carthage, Tunisa. Libation tube visible on right
portion of the cippus; offering table visible in foreground.
Image Source: UGA Yasmina Excavation Archive.