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Left: moldmade bowl from Dora (article by R. Rosenthal-Heginbottom, cat. no. 1, photo by G. Laron); right: Jerusalem, photomicrograph of roof tile (article by F. Vukosavović et al., fig. 5).
Cover images, book back:
Left: Salamis, sanctuary of Dionysos and Demeter (article by Y. Chairetakis, fig. 10; photo by M. Ntourakis); right: Pyla-Koutsopetria, ceramic floor assemblage (article by B. R. Olson et al., fig. 2).

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Content

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Abbreviations

Ancient Sources

The abbreviations for ancient authors and their works follow the list published in the ›Der Neue Pauly‹ (DNP) and the citation system of the ›Thesaurus Linguae Latinae‹, 2nd edition 1990, as published in the internet by wikipedia:

https://de.wikipedia.org/wiki/Liste_der_Abkürzungen_antiker_Autoren_und_Werktitel

Journals, Series and Frequently Cited Publications

The abbreviations used for periodicals and often cited works are based on already established and well-known abbreviation systems. The list is regularly updated and expanded.

AA	Archäologischer Anzeiger
AAA	Αρχαιολογικά Ανάλεκτα εξ Αθηνών
AAJ	s. ***ADAJ***
AAS	Les annales archéologiques arabes syriennes
AASOR	The Annual of the American School of Oriental Research
ActaArch	Acta archaeologica. København
ActaHyp	Acta hyperborea. Danish Studies in Classical Archaeology
ADAJ	Annual of the Department of Antiquties of Jordan
ADelt A	Αρχαιολογικόν Δελτίον Μελέτες
ADelt B	Αρχαιολογικόν Δελτίον Χρονικά
AEphem	Αρχαιολογική Εφημερις
AErgoMak	Το Αρχαιολογικό Έργο στη Μακεδνία και Θράκη
AF	Archäologische Forschungen
Agora	The Athenian Agora
AgoraPB	Excavations of the Athenian Agora. Picture Book
AHL	Archaeology and History in Lebanon
AJA	American Journal of Archaeology
AM	Mitteilungen des Deutschen Archäologischen Instituts, Athenische Abteilung
AMA	Antičnyi mir i arkheologija (Ancient World and Archaeology)
AmJNum	American Journal of Numismatics
AnnIstItNum	Annali. Istituto italiano di numismatica
ANRW	Aufstieg und Niedergang der römischen Welt
AntCl	L'antiquité classique
AnthrAChron	Ανθωπολογικά και Αρχαιολογικά Χρονικά
AntK	Antike Kunst
Archaeometry	Archaeometry. Bulletin of the Research Laboratory for Archaeology and History of Art, Oxford University
ArchCl	Archeologia classica

ArchEubMel	Αρχαίον Ευβοϊκών Μελετών
ArchPF	Archiv für Papyrusforschung und verwandte Gebiete
ArchRep	Archaeological Reports
ASAE	Annales du Service des antiquités du l'Égypte
ASAtene	Annuario della scuola archeologica di Atene e delle missioni italiane in Oriente
ASOR Reports	American Schools of Oriental Research Archaeological Reports
Atiqot	ʿAtiqot. Journal of the Israel Department of Antiquities
AtiqotHeb	ʿAtiqot. Journal of the Israel Department of Antiquities. Hebrew Series
Atlal	Atlal. The Journal of Saudi Arabian Archaeology
Atlante	Atlante delle forme ceramiche. Enciclopedia dell'arte antica classica e orientale, suppl.
AttCItRom	Atti. Centro studi e documentazione sull'Italia romana
AvP	Altertümer von Pergamon
BA	Biblical Archaeologist
BAAL	Bulletin d'archéologie et d'architecture libanaises
BABesch	Bulletin anteke beschaving. Annual Papers on Classical Archaeology
BAIAS	Bulletin of the Anglo-Israel Archaeological Society
BaM	Baghdader Mitteilungen
BAngloIsrASoc	Bulletin of the Anglo-Israel Archaeological Society; since 2009: ***Strata***
BAProv	Bulletin archéologique de Provence
BAR	British Archaeological Reports. British Series
BARIntSer	British Archaeological Reports. International Series
BASOR	Bulletin of the American School of Oriental Research
BCH	Bulletin de correspondance hellénique
BCom	Bullettino della Commisione archeologica comunale di Roma
BdA	Bollettino d'arte
BdE	Bibliothèque d'études, Institut français d'archéologie orientale, Cairo
BeitMikraJSBW	Beit Mikra. Journal for the Study of the Bible and its World (Hebrew)
BerlMus	Berliner Museen
BibAr	The Biblical Archaeologist. The American Schools of Oriental Research
BibArchRev	Biblical Archaeological Review
BIFAO	Bulletin de l'institut française d'archéologie orientale
BMB	Bulletin du Musée de Beyrouth
BMCR	Bryn Mawr Classical Review
BMetMus	Bulletin of the Metropolitan Museum of Art
BOntMus	Bulletin of the Royal Ontario Museum of Archaeology, University of Toronto
Boreas	Boreas. Münsterische Beiträge zur Archäologie
BoreasUpps	Boreas. Uppsala Studies in Ancient Mediterranean and Near Eastern Civilization
BSA	The Annual of the British School at Athens
BSR	Papers of the British School at Rome
BSS	Black Sea Studies
CahPEg	Cahier de recherches de l'institut de papyriologie et d'égyptologie de Lille. Sociétés urbaines en Égypte et au Soudan

Cathedra	Cathedra: For the History of Eretz Israel and Its Yishuv (Hebrew)
CCE	Cahiers de la céramique égyptienne
CEFR	Collection de l'École française de Rome
CENiM	Cahiers »Égypte Nilotique et Méditerranéenne«
Conspectus	E. Ettlinger et al., Conspectus formarum terrae sigillatae Italico modo confectae, Materialien zur römisch-germanischen Keramik 10 (Bonn 1990)
Corinth	Corinth. Results of Excavations Conducted by the American School of Classical Studies at Athens
ChronEg	Chronique d'Égypte. Bulletin périodique de la Fondation Égyptologique Reine Elisabeth
ClQ	The Classical Quarterly
CIS	Corpus Inscriptionum Semiticarum
CVArret	A. Oxé – H. Comfort, Corpus Vasorum Arretinorum. A Catalogue of the Signatures, Shapes, and Chronology of Italian Sigillata (Bonn 1968)
Dacia	Dacia. Revue d'archéologie et d'histoire ancienne
Daremberg–Saglio	Dictionnaire des antiquités grecques et romaines d'après les textes et les monuments. Ouvrage rédigé sous la direction de Ch. Daremberg et E. Saglio
Délos	***= EAD***
DJD	Discoveries in the Judean Desert
DNP	Der Neue Pauly. Encyklopädie der Antike
DossAParis	Les dossiers d'archéologie
DSD	Dead Sea Discoveries
Dura-Europos	The Excavations at Dura-Europos Conducted by Yale University and the French Academy of Inscriptions and Letters
EAD	Exploration archéologique de Délos faite par l'école française d'Athènes
EllKer 1	Α' Επιστημονική Συνάντηση για την Ελληνιστική Κεραμική, Ιωάννινα 6 Δεκεμβρίου 1986 (Rhodes 2000)
EllKer 2	Β΄ Επιστημονική Συνάντηση για την Ελληνιστική Κεραμική, Χρονολογικά προβλήματα της ελληνιστικής κεραμεικής, Ρόδος 22–25 Μαρτίου 1989 (Rhodes 1990)
EllKer 3	Γ' Επιστημονική Συνάντηση για την Ελληνιστική Κεραμική. Χρονολογημένα σύνολα – εργαστήρια 24–27 Σεπτεμβριου 1991 Θεσσαλονικη (Athens 1994)
EllKer 4	Δ' Επιστημονική συνάντηση για την Ελληνιστική κεραμική. Χρονολογικά προβλήματα κλείστα σύνολα – Εργασηρια, Μυτιλήνη, Μάρτιος 1994 (Athens 1997)
EllKer 5	Ε' Επιστημονική Συνάντηση για την ελληνιστική κεραμική. Χρονολογικά προβλήματα, κλειστά σύνολα, εργαστήρια (Athens 2000)
EllKer 6	ΣΤ' Επιστημονική Συνάντηση για την Ελληνιστική Κεραμική, προβλήματα χρονολόγησης κλειστά σύνολα - εργαστήρια, Βόλος 17–23 Απριλίου 2000 (Athens 2004)
EllKer 7	Ζ' Επιστημονική Συνάντηση για την Ελληνιστική Κεραμική, Αιγίο 4–9 Απριλίου 2005 (Athens 2011)
EllKer 8	Η' Επιστημονική συνάντηση για την Ελληνιστική κεραμική, Ιωαννινα 5–9 Μαΐου 2009 (Athens 2014)
EllKer 9	Θ' Διεθνής Συνάντηση για την Ελληνιστική Κεραμική, Θεσσαλονίκη, 5–9 Δεκέμβριος 2012, in press
EllKerAigaean	Ελληνιστική Κεραμική από το Αιγαίο (Mytilene 1994)
EllKerCrete	Ελληνιστική Κεραμική από την Κρήτη (Chania 1997)
EllKerEpirus	Ελληνιστική Κεραμική από την αρχαία Ήπειρο, την Αιτωλο-ακαρνανία και τα Ιόνια Νησιά (Ioannina 2009)

EllKerMacedonia	Ελληνιστική Κεραμική από τη Μακεδονία (Thessaloniki 1991)
EllKerMacedonia 2	Θέματα της Ελληνιστικής Κεραμικής στην Αρχαία Μακεδονία (Athens 2012)
EllKerPeloponnes	Ελληνιστική Κεραμική από την Πελοπόννησο (Aigio 2005)
EllKerThessaly	Ελληνιστική Κεραμική από τη Θεσσαλία (Volos 2000)
Eretria	Eretria. Fouilles et recherches
Eretz-Israel	Eretz-Israel. Archaeological, Historical and Geographical Studies
ESI	= ***ExcIsr***
EtAlex	Études Alexandrines
EtTrav	Études et travaux. Studia i prace. Travaux du Centre d'archéologie méditerranéenne de l'Académie des sciences polonaise
EurAnt	Eurasia antiqua
ExcIsr	Excavations and Surveys in Israel
FACTA	FACTA. A Journal of Roman Material Culture Studies
FGH / FGrHist	F. Jacoby, Die Fragmente der griechischen Historiker
FHG	Fragmenta historicorum Graecorum
FiA	Forschungen in Augst
FiE	Forschungen in Ephesos
FuB	Forschungen und Berichte. Staatliche Museen zu Berlin
Glasnik	Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu
HA-ESI	Hadashot Arkheologiyot – Excavations and Surveys in Israel
Hama	Hama. Fouilles et recherches de la Fondation Carlsberg
HEROM	Journal of Hellenistic and Roman Material Culture
Hesperia	Hesperia. Journal of the American School of Classical Studies at Athens
IAA Reports	Israel Antiquities Authority Reports
IARPotHP	International Association for Research on Pottery of the Hellenistic Period
IEJ	Israel Exploration Journal
IG	Inscriptiones Graecae
IGLS	Inscriptions grecques et latines de la Syrie
IGRom	Inscriptiones Graecae ad res Romanas pertinentes
IIMK	Institut istorii materialnoj kultury (Institute for the History of Material Culture, Russian Academy of Science) Moscow
Iliria	Iliria. Revistë arkeologjike
IOSPE	Iscriptiones antiquae Orae Septentrionalis Ponti Euxini
IsrMusStA	Israel Museum Studies in Archaeology
IsrNumJ	Israel Numismatic Journal
IsrNumR	Israel Numismatic Research
JASc	Journal of Archaeological Science
JAncEgInter	Journal of Ancient Egyptian Interconnection
JbBerlMus	Jahrbuch der Berliner Museen
JbÖByz	Jahrbuch der Österrreichischen Byzantinistik
JbRGZM	Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz
JdI	Jahrbuch des Deutschen Archäologischen Instituts
JEA	The Journal of Egyptian Archaeology
JGS	Journal of Glass Studies

JHP	Journal of Hellenistic Pottery and Material Culture
JHS	The Journal of Hellenic Studies
JMedA	Journal of Mediterranean Archaeology
JNG	Jahrbuch für Numismatic und Geldgeschichte
JPOS	The Journal of the Palestine Oriental Society
JRA	Journal of Roman Archaeology
JRASS	Journal of Roman Archaeology Supplement Series
JRS	The Journal of Roman Studies
JWaltersArtGal	The Journal of the Walters Art Gallery
KAI	Kanaanäische und aramäische Inschriften
Kerameikos	Kerameikos. Ergebnisse der Ausgrabungen
Klio	Klio. Beiträge zur aten Geschichte
Kokalos	Κώκαλος. Studi pubblicati dall'Istituto di storia antica dell'Università di Palermo
KSIA	Kratkie soobščenija o dokladach i polevych issledovanijach Instituta archeologii
Kush	Kush. Journal of the National Corporation for Antiquities and Museums (NCAM)
LGPN	A Lexicon of Greek Personal Names (https://www.lgpn.ox.ac.uk/)
LibyaAnt	Libya antiqua
LIMC	Lexicon iconographicum mythologiae classicae
LRCW	Late Roman Coarse Wares, Cooking Wares and Amphorae in the Mediterranean. Archaeology and Archaeometry.
LSJ	H. G. Liddle & R. Scott & H. S. Jones, A Greek-English Lexicon (Oxford 1925–1940)
Maarav	Maarav. A Journal for the Study of the Northwest Semitic Languages and Literatures
Makedonika	Μακεδονικά. Σύγγραμμα Περιοδικόν της Εταιρείας Μακεδονικών Σπουδών
MatIsslA	Materialy i issledovanija po archeologii SSSR
MDAIK	Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo
MedA	Mediterranean Archaeology
MEFRA	Mélanges de l'École française du Rome. Antiquité
MelBeyrouth	Mélanges de l'Université Saint-Joseph
MemAmAc	Memoirs of the American Academy in Rome
MetrMusJ	Metropolitan Museum Journal
Mnemosyne	Mnemosyne. A Journal of Classical Studies
MonPiot	Monuments et mémoires. Fondation E. Piot
NEA	Near Eastern Archaeology
NEAEHL	The New Encyclopedia of Archaeological Excavations in the Holy Land
NGSBAArchJ	Nelson Glueck School of Biblical Archaeology. Archaeology Journal
NGWG	Nachrichten von der Gesellschaft der Wissenschaften zu Göttingen. Philologisch-Historische Klasse
Nikephoros	Nikephoros. Zeitschrift für Sport und Kultur m Altertum
NNM	Numismatic Notes and Monographs. American Numismatic Society
NSc	Notizie degli scavi di antichità
NTOA	Novum Testamentum et orbis antiquus. Series archaeologica

OBO	Orbis Biblicus et Orientalis Series Archaeologica
OCK	A. Oxé – H. Comfort, Corpus Vasorum Arretinorum. A Catalogue of the Signatures, Shapes, and Chronology of Italian Sigillata, 2nd ed., completely revised and enlarged by Ph. Kenrick (Bonn 2000)
Olynthus	Excavations at Olynthus
OxfJA	Oxford Journal of Archaeology
PATABS	Production and Trade of Amphorae in the Black Sea
PCZ	Papyri Cairo Zenon
PEFQS	Palestine Exploration Fund Quarterly Statement
PEQ	Palestine Exploration Quarterly
PF	Pergamenische Forschungen
Phoenix	Phoenix. The Journal of the Classical Association of Canada
Prakt	Πρακτικά της εν Αθήναις Αρχαιολογικής Εταιρείας
ProcAmPhilSoc	Proceedings of the American Philosophical Society
PSI	Papyri greci e latini. Publicationi della Societá Italiana per la ricerca dei papiri greci e latini in Egitto
Qadmoniot	Qadmoniot. A Journal for the Antiquities of Eretz-Israel and Bible Lands
QDAP	The Quarterly of the Department of Antiquities in Palestine
RA	Revue archéologique
RAC	Reallexikon für Antike und Christentum
RB	Revue Biblique
RCRFActa	Rei Cretariae Romanae Fautorum Acta
RDAC	Report of the Department of Antiquities, Cyprus
RE	Paulys Realencyclopädie der classischen Altertumswissenschaften
REG	Revue des études grecque
ScrClIsr	Scripta classica Israelica. Yearbook of the Israel Society for the Promotion of Classical Studies
SEG	Supplementum Epigraphicum Greacum
Semitica	Semitica. Cahiers publiés par l'institut d'études sémitiques du College de France
SHAJ	Studies in the History and Archaeology of Jordan
SIG	W. Dittenberger, Sylloge inscriptionum Graecorum (Leipzig 1915–1924)
SIMA	Studies in Mediterranean Archaeology
SNG	Sylloge nummorum Graecorum
SovA	Sovetskaja archeologija
StAnt	Studi di antichità. Università di Lecce
Starinar	Starinar. Arheološki institut Beograd
STDJ	Studies on the Texts of the Desert of Judah
Strata	Strata. Bulletin of the Anglo-Israel Archaeological Society (since 2009; from 1982–2008 s. ***BAngloIsrASoc***)
Syria	Syria. Revue d'art oriental et d'archéologie
Talanta	Τάλαντα. Proceedings of the Dutch Archaeological and Historical Society
Taras	Taras. Rivista di archeologia
TelAvivJA	Tel Aviv. Journal of the Institute of Archaeology of Tel Aviv University
TGIM	Trudy gosudarstvennogo istoričeskogo museja, Moscow
TOM	Travaux de la Maison de l'Orient Méditerranéen

TransactAmPhilAss	Transactions and Proceedings of the American Philosophical Assocation
TransAmPhilosSoc	Transactions of the American Philosophical Society
TSO	Teiresias Supplements Online (https://www.uni-muenster.de/Ejournals/index.php/tso/index)
VDI	Vestnik drevnej istorii
Xenia	Xenia. Konstanzer althistorische Vorträge und Forschungen
ZborMuzBeograd	Zbornik Narodnog muzej Beograd
ZDPV	Zeitschrift des Deutschen Palästina-Vereins
ZPE	Zeitschrift für Papyrologie und Epigrafik

Other Abbreviations

BCE	Before the Christian Era	***inv.***	inventory
bibl.	bibliography	***L.***	length
c.	century	***max.***	maximum
ca.	circa	***min.***	minimum
cat.	catalogue	***Mus.***	Museum
CE	Christian Era	***no(s).***	number(s)
cent.	century	***p.***	page
cf.	compare	***pl(s).***	plate(s)
cm	centimeter	***pp.***	pages
D.	Diameter	***pres.***	preserved
ed(s).	editor(s)	***rest.***	restored
e.g.	for example	***rev.***	review
est.	estimated	***Suppl.***	Supplement
etc.	et cetera	***s.v.***	sub voce
fasc.	fascicle	***Th.***	thickness
fig(s).	figure(s)	***us.***	unstratified
fr.	fragment/s	***W.***	width
gr.	gram/s	***Wt.***	weight
H.	height	***vol(s).***	volume(s)

Articles

The Hellenistic City of Salamis, Greece[1]

Yannis Chairetakis

Introduction – Historical Background

The city of Salamis »is situated in a bay on a spot of a peninsular form contiguous to Attica«[2]. These are the words *Strabo* (*geogr*. 9, 1, 9) uses to define the location of the ancient city of Salamis in a bay of the island opposite Attica. The ancient city of Salamis, in the vicinity of the modern town of Ambelaki, is bounded on the north by the peninsula of Pounta and on the south by the oblong peninsula of Kynosoura (**figs. 1–2**). In antiquity, the sea extended less into the bay, and since then the rise of sea level by at least 1.50–2.00 m. has covered most of the structures once situated in the plain.

Temporary installations are identified in the Neolithic Period, the Early and the Late Bronze Age, while a small settlement develops in the Geometric times. In the 7th c. BCE Salamis is under occupation by the Megarians, and while following a series of ambiguous military episodes, the Athenians succeed in gaining control over the island in the first decades of the 6th c. BCE. One of the first actions they undertake is to move the island's capital from the area of Koulouri (at the head of the Salamis bay) to a new site opposite Attica, with easy access to the Saronic Gulf, under the immediate control of Athens, in the area of Ambelaki (**fig. 2**).

Cleisthenes in 508/7 BCE does not include Salamis in his reforms concerning the tribes of Attica, a fact that indicates that the island had not been incorporated in the state of Athens. A year later the Spartans reach Eleusis, but, in the end, do not attack Athens, Megara joins the Peloponnesian alliance, and the Boeotians enter into an alliance with the Chalcidians raiding the north borders of Attica. In this military ambience the Athenians send out cleruchs to Salamis[3], as garrison, not only to defend and guard its occupation, but in essence to protect Attica itself and its west borders. The movement of population from Attica leads to a rapid growth of the city.

1 The historical framework and relevant archaeological evidence are thoroughly analyzed in my Doctoral Dissertation (Chairetakis 2018a). I would like to thank Dr Katya Manteli for the translation into English.

2 Translation Hamilton– Falconer 1903–1906.

3 Igelbring 2015, 152–175.

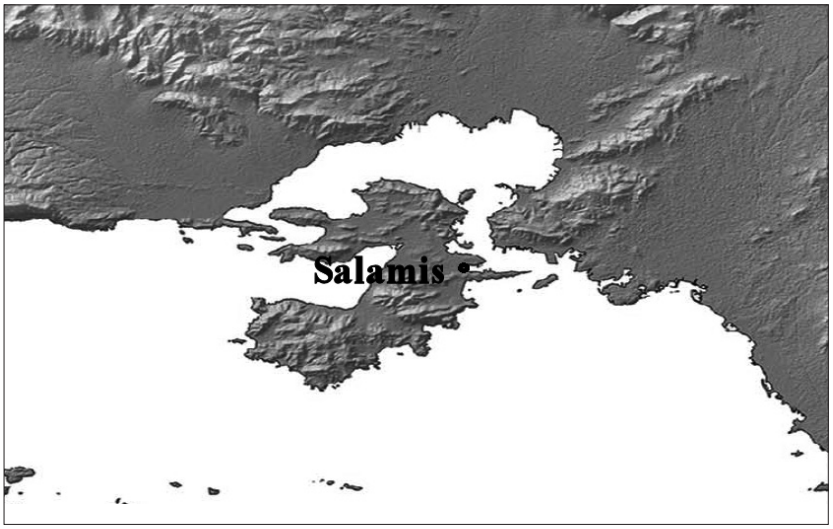

Fig. 1 :
The location of the ancient city of Salamis.

The advance of the Persian king into central Greece necessitates the immediate evacuation of the Athenians to Troezen, Aegina and Salamis at the end of 481 to the beginning of 480 BCE[4]. It is estimated that about 100.000 individuals, the elderly, women and children, settle in various places of Salamis[5]. On the 28th or 29th of September 480 BCE the Greek fleet is arrayed opposite the Persian one in the narrow strait between Salamis and Attica. Until the sunset the outcome has been decided and the Greeks have achieved a great victory!

After the mid-5th c. BCE the city is fortified and the circuit wall surrounds the bay of Ambelaki. The 4th c. BCE is a century of growth and prosperity for the city. In 318/317 BCE the island comes under Macedonian control, as the local Salaminians betray the Athenians and hand over the island to Cassander. In 307 BCE the Athenians reoccupy the island and send into exile all local Salaminians, while Demetrius the Besieger returns a few years later and installs a garrison. The city sustains extensive damages in the course of the Chremonidean War (268–261 BCE), similarly so a little later, in the period when Alexander, the son of Craterus, revolts against Antigonus Gonatas, who possesses Salamis. In 242 BCE Aratus, leader of the Achaean League, launches an attack against Salamis causing destruction[6], while it is not unlikely that the island endured attacks in the following years, too, as Aratus, after the annexation of Megara by the Achaean League, carries out frequent raids in Attica[7]. The death of Antigonus Gonatas' son, Demetrius II, in 229 BCE, leads to the liberation of Athens and Salamis[8]. In 86 BCE the Roman general Sulla destroys Athens and Salamis.

The Hellenistic period, very little known and discussed, brings us to a thriving city with important structures. Despite the fact that, as it would be expected, research usually focuses on antiquities associated with the naval battle of Salamis or the 5th c. BCE in general, nevertheless the bulk of the archaeological remains that have come to light belong to the Hellenistic period. To highlight these antiquities is the aim of the present article.

4 Garland 2017, 46.

5 Chairetakis 2018a, 377–379, with the relevant bibliography.

6 *Plut. Arat*. 24, 3; Habicht 1998, 215.

7 Habicht 1998, 217–219.

8 Habicht 1998, 228; Chaniotis 2005, 7.

Fig. 2 : Bay of Ambelaki. Overpainted bronze engraving by O. M. von Stackelberg (Private Collection).

The Fortifications

Parts of the fortifications have been investigated or located all around the periphery of the city. After the mid-5th c. BCE, the city is walled and the fortifications surround the bay of Ambelaki (**fig. 3**). The events in the period of the Peloponnesian War imply that the city was fortified in that period and it was feared that it could become a stronghold against the Thirty Tyrants[9]. Two inscriptions of Hellenistic times refer to the repair of the walls[10], the former (IG II² 1260; SEG 19, 120; SEG 25, 150; SEG 34, 109; SEG 45, 132) in the period 307–304 BCE, and the latter (IG II² 1225) around 250 BCE.

Most of the investigated remains of the wall (**fig. 3**, Site 1; **fig. 4** nos. a–b) are assigned to Hellenistic times. In the west section, where several modifications and repairs of the wall have evidently taken place, two towers have been investigated [tower B1: 8,50(N-S)X8,80(E-W), tower Γ1: 8,80(N-S)X8,20(E-W)], and one gate. The type of the gate (**fig. 4** no. a), known from many fortifications, is conventionally named ›pincer type‹, with the entrance taking the form of a simple narrow passage, between two overlapping sections of the wall, flanked often by two towers[11].

Of great interest is the fact that the second tower (tower Γ1) was erected to block an older gate of the 5th c. BCE[12] (**fig. 4** no. b – **fig. 6**). The tower, which is preserved to the foundation height, is constructed of local limestone blocks, which are connected with Z-shaped clamps. In the interior, it bears two transverse walls[13] of friable limestone in cruciform arrangement, to enhance, on the one hand, its structural stability, as the tower was not structurally linked with the wall, and, on the other hand, to reinforce its resistance to siege engines. The practice of increasing the number of towers in the fortification of a city is attested in several cases from the 4th c. BCE onward, as an architectural element reinforcing the fortification for a more effective

9 Taylor 1997, 114.

10 Maier 1959, 110–114.

11 Steinhauer 2000, 196–197.

12 The gate type is known in a more developed form in Athens and in a simpler form in Arcadian Gortys, Winter 1971, 212; Maher 2012, 476–477.

13 Winter 1971, 176. 180 pl. 175; Nankov 2009, 446–448, with relevant discussion.

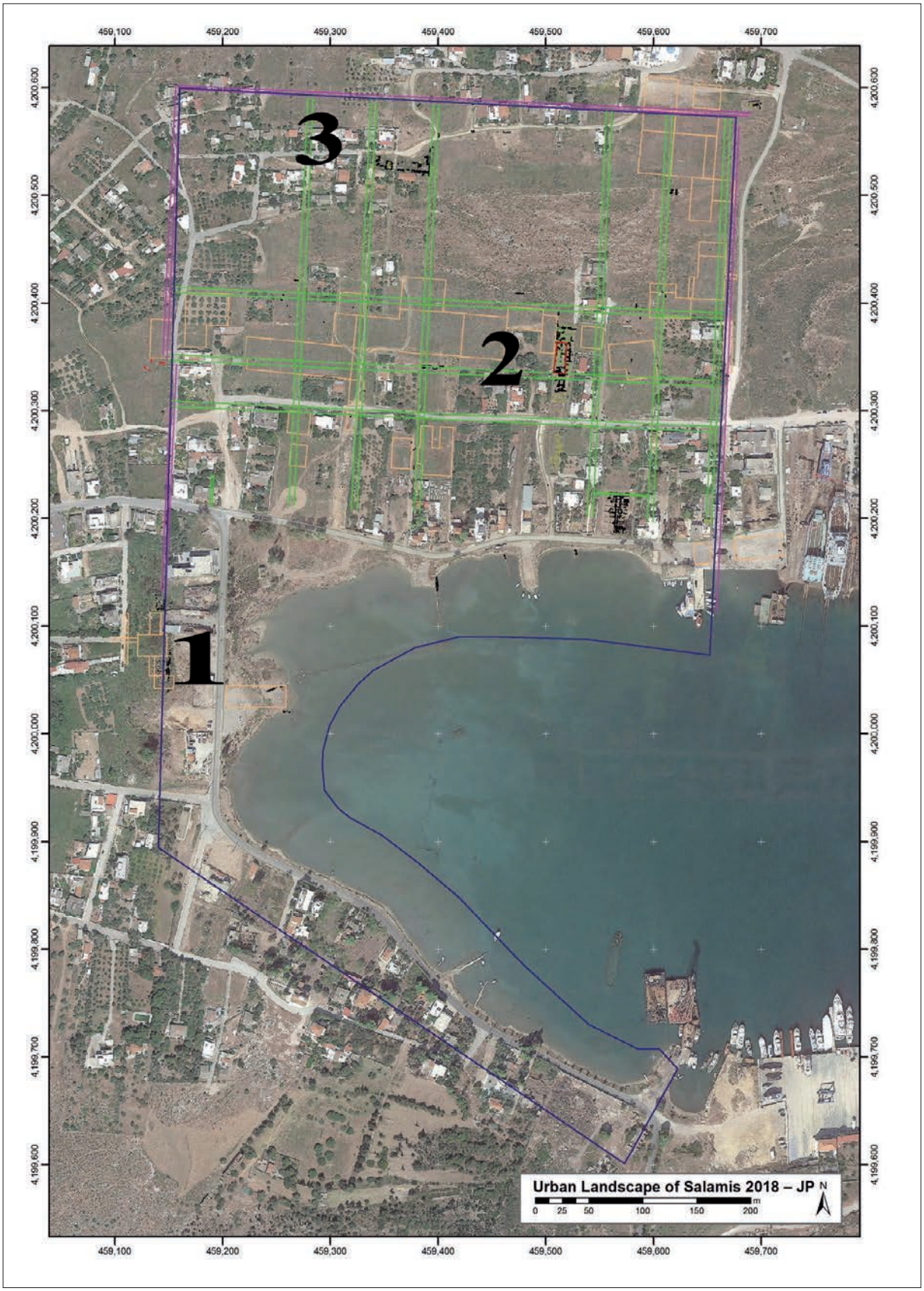

Fig. 3 : Reconstruction of the probable extent of the area of the ancient town at Ambelaki (Pakkanen 2021, fig. 4).
Sites 1 (fortification, workshops), 2 (houses) and 3 (acropolis with sanctuaries) are noted.

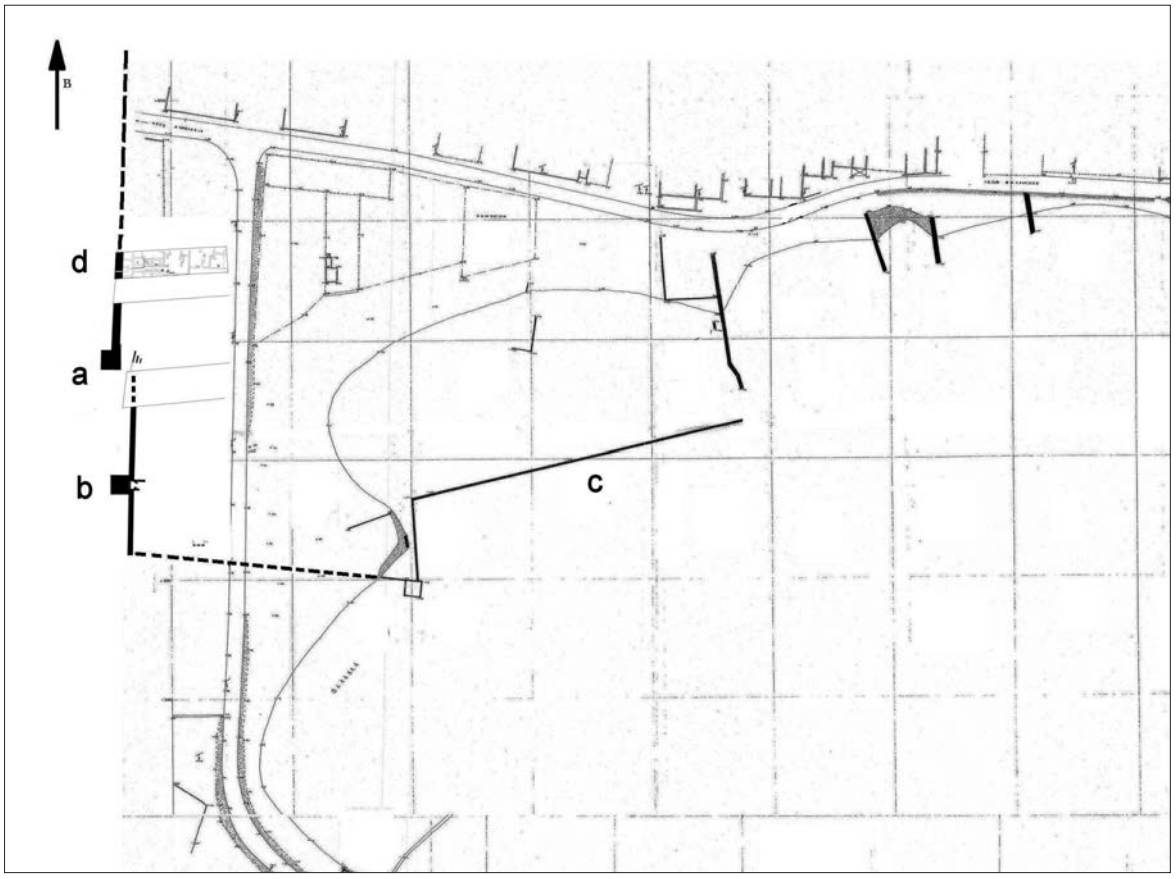

Fig. 4 : Plan of the fortification wall in the western and central parts of the city during the Hellenistic times.

defence of the city[14], and as such should also be deemed in the case of Salamis. At the same time, the fact that tower and wall were not structurally connected, offers advantages in a case of attack, as a potential collapse of the one does not entail the collapse of the other[15].

The gate that was eliminated with the addition of two vertical walls, was converted into a φυλακτήριο (guardroom), as described by *Philo of Byzantium* in relation to the walls of Rhodes (*On mechanics* 17–19), a space that would have served the needs of the soldiers (**figs. 6–7**)[16]. Research in that space uncovered an upper floor (floor B) of beaten earth. Over it, traces of fire were located in an area measuring 0.36 x 0.37 m., probably remains of some hearth, with which a few bones and shells found there might have been associated. The strata down to the level of the floor were disturbed and contained pottery of Archaic (mainly of the third quarter of the 6th c. BCE), Classical, Hellenistic, Late Roman, Byzantine and recent times. The presence of pottery of the end of the 4th and the first half of the 3rd c. BCE prevails, and kantharoi[17], saucers[18], skyphoi etc. stand out, along with a considerable quantity of plain pottery (lekanides, oenochoes) and parts of amphorae.

14 Winter 1971, 158–159.

15 Winter 1971, 158, note 31.

16 Filimonos-Tsopotou 2004, 87. 91.

17 Chairetakis 2018a, 177; Sparkes – Talcott 1970, no. 690: 325–310 BCE; no. 704: 320–310 BCE; Rotroff 1997, no. 85: 275–260 BCE.

18 Chairetakis 2018a, 177; Rotroff 1997, nos. 1077–1080: 325–300 BCE.

Fig. 5 :
Site 1. Part of the tower Γ1 and the blocked gate. View from NE.

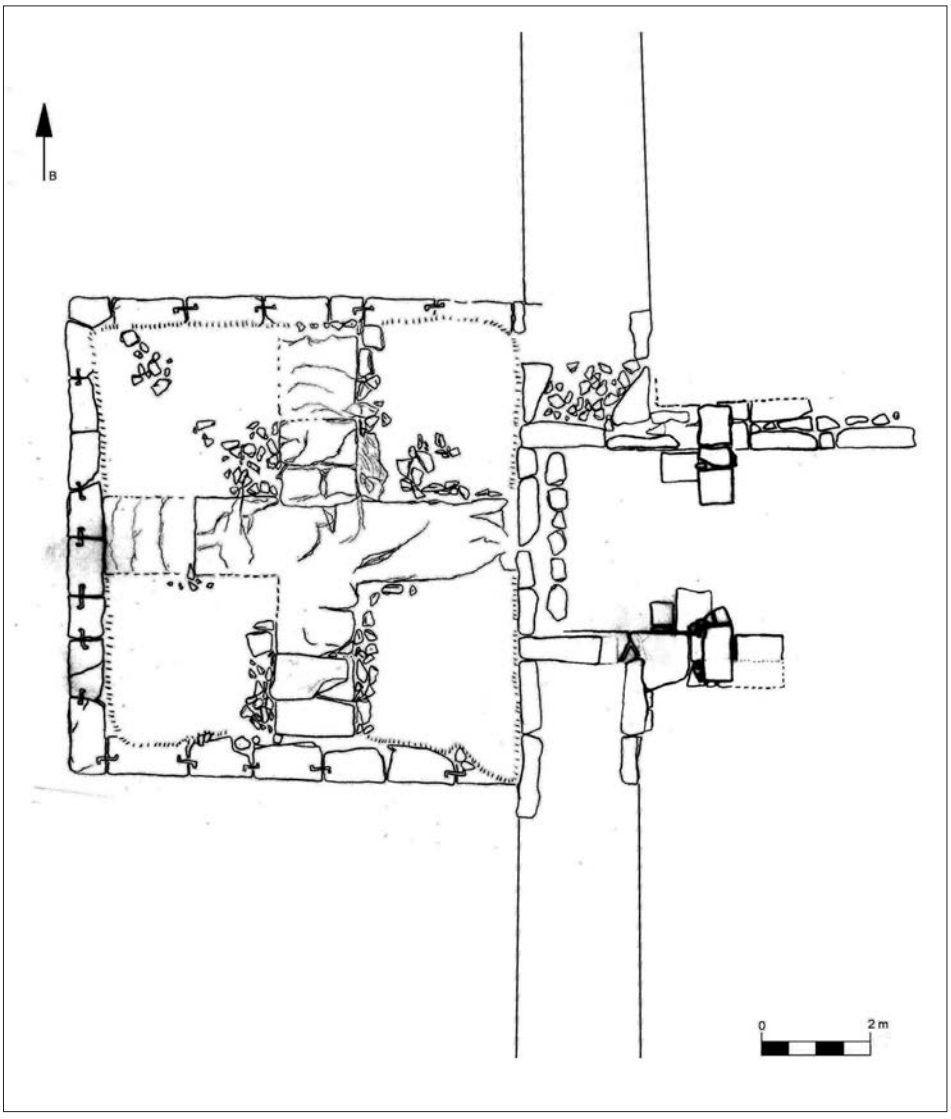

Fig. 6 :
Site 1. Drawing of the tower Γ1 and the blocked gate.

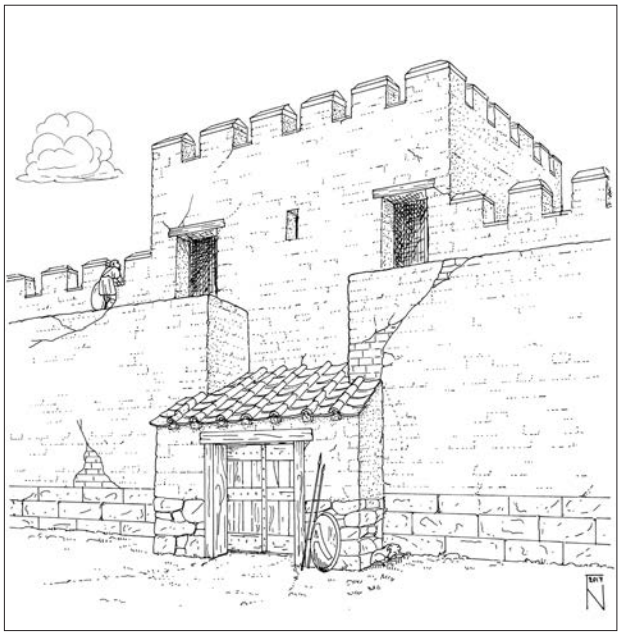

Fig. 7 : Site 1. Reconstruction of the tower Γ1 and the blocked gate as guardroom (reconstruction Y. Nakas).

Fig. 8 : Site 1. A stone catapult ball.

In the period between the end of the 4th and the first half of the 3rd c. BCE, we observe a few more modifications in the fortifications[19]. In the first phase a new extension was built, aligned E-W, approximately along the middle (today) of the bay, which limits considerably the extent of the city (**fig. 4** no. c). This addition is probably associated with the perceived insecurity of the era and the need for more effective protection of the city and citizens (**fig. 8**). In the next phase, though, a large wider fortification is constructed, which also encompasses part of the peninsula south of Ambelaki[20]. This wall acquires the characteristics of a wider peri-urban fortification (great circuit or ›Geländemauer‹)[21], where the natural defensive lines are traced and greater areas of the habitation zone and strategic points around them are included. This construction phase is the result of the effort to have a large number of inhabitants settled in the city or perhaps the entire population after its desertion of the countryside, or a destructive military event. Such a large walled area, at the same time, should have also served as storage space for crops and the keeping of animals[22].

19 Chairetakis 2018a, 444–445. In the bay of Ambelaki, research is conducted by the Ephorate of Underwater Antiquities (Hellenic Ministry of Culture and Sports) and the Institute of Underwater Archaeological Research (IENAE), the results of which are anticipated with great interest.

20 Langdon 2007, 112; Chairetakis 2018a, 208–211.

21 Filimonos-Tsopotou 2004, 39.

22 Hodkinson 1988, 47.

Fig. 9 : Site 3. The sanctuary of Dionysus and Demeter on the acropolis of the city. In the background Athens and Piraeus. View from W. (photograph M. Ntourakis).

Public Structures

Epigraphical testimonies refer to several public structures like the agora, gymnasium and theatre. It is in the agora that the abacus (the *Salamis tablet*) must have been placed, which was found in 1842[23]. Being 1.49 m. long, 0.75 m. wide and 0.045 m. thick, it is a counting device and belongs to a stage of development after the corresponding counting board that the Babylonians employed to perform mathematical calculations. At various positions, pebbles were placed, which were moved during the calculations. Its chronology is usually fixed around 300 BCE[24].

The Sanctuaries

For the sanctuaries and cults in this period we have a greater amount of data at our disposal. Important sanctuaries of Dionysus, Demeter, Artemis and Bendis extend on the acropolis of the ancient city, at the top of the Pounta peninsula.

The Sanctuaries of Dionysus and Demeter

Part of a wider sanctuary, which is attributed to the cult of Dionysus and Demeter, was investigated in the 1990s on the acropolis of the ancient city[25] (**fig. 3** Site 3). The sanctuary is encircled on the south and east by an impressive enclosure with buttresses (**figs. 9–12**). The pottery from the spaces of the complex indicates a chronological range of use from the end of the 6th to the beginning of the 1st c. BCE, while the construction of all structures must have been completed in the second half of the 5th c. BCE. Certain modifications were apparently carried out at the end of the 4th c. BCE.

23 Pittakis 1842, 620 no. 1081; Rangabé 1855, no. 895; today, in the Epigraphical Museum, Athens.

24 Chairetakis 2018a, 251–255, with relevant bibliography.

25 Chairetakis 2022.

Fig. 10 :
Site 3. The sanctuary of Dionysus and Demeter. Aerial view (photograph M. Ntourakis).

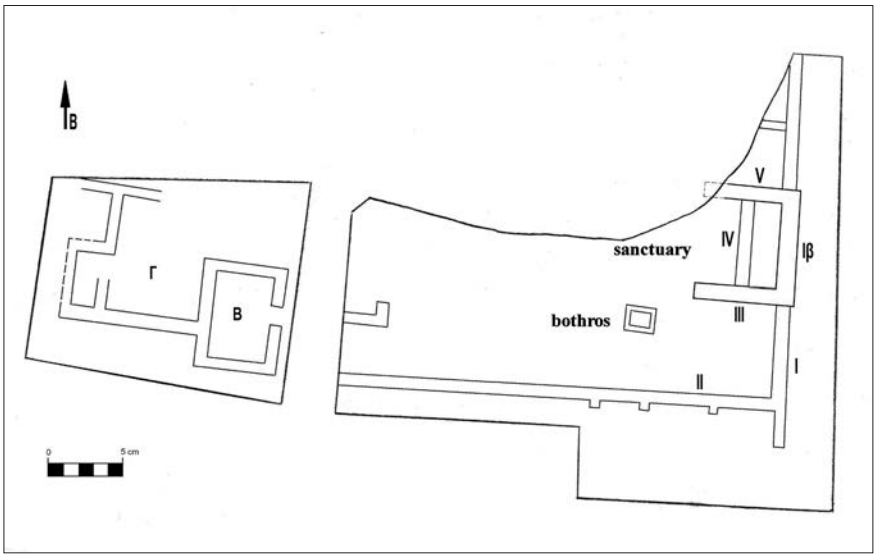

Fig. 11 :
Site 3. Drawing of the eastern part of the sanctuary of Dionysus and Demeter.

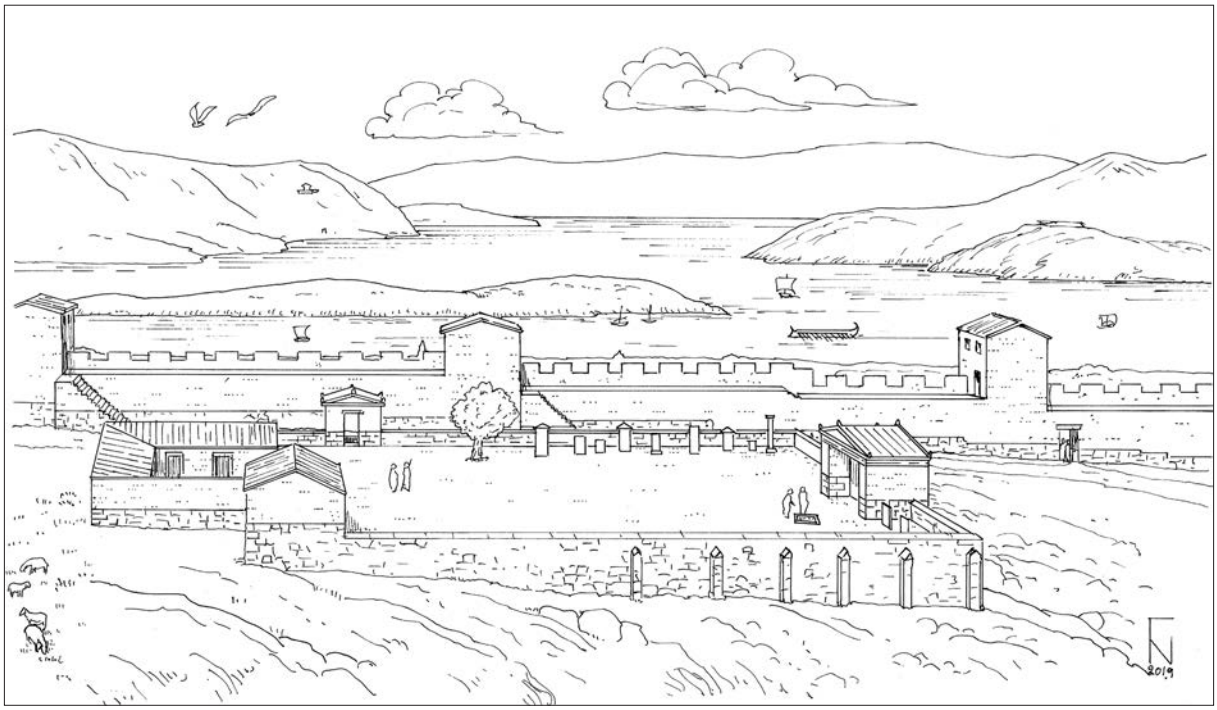

Fig. 12 : Site 3. Reconstruction of the sanctuary of Dionysus and Demeter (reconstruction Y. Nakas).

To the east, a small free-standing, Π-shaped building was explored, of outer dimensions 8.00 m. by 7.00 m., with an opening on the west side, which is identified with a small sanctuary[26]. West of it there is a built bothros or ritual pit. The absence of bones inside of it implies that it was meant for liquid offerings, which must have been contained in miniature vases, a considerable number of which have been recovered inside and outside of the bothros. At a certain point, fragments of votive reliefs and an inscription of the end of the 5th–4th c. BCE were discarded in the bothros. The very fragmentary inscription reads in line 8 ΕΝΔΙΟ, that can be restored as ἐν Διο[νύσου …] / in Dio[nysou]. Therefore, reference is made to a certain space of Dionysus, either to his sanctuary, or the theatre, as evidenced by other Attic inscriptions, where some body of citizens (usually the Assembly of the Demos) is assembled in the theatre of Dionysus.

The dedications comprise busts and figurines of women, jewellery (**fig. 13**)[27], votive reliefs, spindle whorls, decorated pottery, coins, et al. On the other hand, suitable for a multitude of activities was the large quantity of plain pottery, such as pithoi, beehives and transport amphorae, but also lamps, some of them multi-nozzled. It is certain that at least from the 4th c. BCE onward, ritual banquets were taking place, as demonstrated by the occurrence of cooking pots, drinking and food-serving vessels, mortars and food remains (**fig. 14**). In some cases, natural murex shells have been interpreted as dedications, namely as substitutes for purple murex-dyed textiles[28].

26 The lack of euthynteria at the west end of Building A obscures its interpretation. Building A is much bigger than the corresponding one-room spaces, and the smaller (indicatively 3.50 x 2.30 m.) temples in Attica, which bear euthynteria on their open side. The only close parallel, but that too of smaller dimensions (4.05 x 3.20 m.) lies at Olympos/Skordi in Laureotiki (Lauter 1980; Baumer 2004, 93), dated to the 3rd c. BCE, where large stone blocks have also been placed at the ends of the long walls, as in the building of Salamis. Its location at a conspicuous spot in the city, at the edge of the enclosure, supports its identification with a sanctuary.

27 Jackson 2006, pl. 10B, no. 18, pl. 10D, no. 2.

28 Brøns 2017, 111, with the relevant bibliography.

Fig. 13 : Site 3. Gold earring.

Fig. 14. Site 3. Murex brandaris L, Venus verrucosa L.

Fig. 15. Site 3. Kantharos.

Fig. 16 : Site 3. Bowl with outturned rim.

Fig. 17 : Site 3. Moldmade bowls.

Fig. 18 : Site 3.
Amphora stamp from Thasos.

Fig. 19 : Site 3.
Amphora stamp from Mende.

Fig. 20 : Site 3.
Amphora stamp from Knidos.

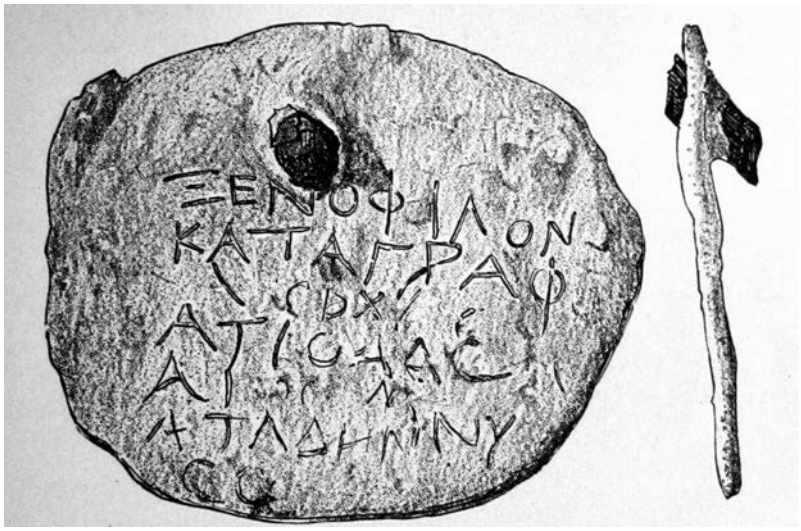

Fig. 21 :
Site 3. A ›prayer for justice‹
(Keramopoulos 1923, fig. 17).

To the pottery of Hellenistic times belong parts of kantharoi (**fig. 15**)[29], salt cellars[30], unguentaria, bowls (**fig. 16**)[31], and a considerable number of black-glazed plates[32]. Quite large is the number of moldmade bowls (**fig. 17**)[33]. Remarkable is also the number of lopas fragments or their lids, of the 4th–2nd c. BCE[34]. Moreover, the material includes transport amphorae from Thasos, Cos, Mende, Knidos and elsewhere. Indicatively, we could mention an amphora handle from Thasos of the end of the 4th c. BCE (**fig. 18**)[35], an amphora handle of the Parmeniskos group from Mende of the early 2nd c. BCE (**fig. 19**)[36], and a large number of amphorae (17 stamps) from Knidos, of the mid-2nd – early 1st c. BCE (**fig. 20**)[37]. Transport amphorae testify to the need for basic products such as wine, oil (or even cereals), suitable for feasting and dinning. The amphorae were used as storage vessels too.

Apart from the inscription, which refers to some procedure related to Dionysus and should have been placed in his sanctuary, a votive relief of the end of the 5th c. BCE depicts a standing young man, who can be identified with the god Dionysus himself. At the same time, though, as attested by specialized dedications (female busts and female figurines, jewels, spindle whorls, loutrophoroi), the cult of a female deity can also be suggested. In our view, at this specific site a sanctuary to Demeter was situated, although typical cult vases and figurines like small-sized hydriae or figurines of hydriae carriers are lacking[38]. The cult of Demeter is

29 Rotroff 1997, no. 8: 325–300 BCE, nos. 219–226. 187–195: 275–250 BCE.

30 Rotroff 1997, nos. 1064–1066: 325–315 BCE.

31 Rotroff 1997, nos. 929–931: 150–110 BCE.

32 Rotroff 1997, no. 678: 175–110 BCE; nos. 697. 699: 110–86 BCE.

33 Rotroff 1982, nos. 108–109: 225–150 BCE; no. 341: ca. 100–86 BCE.

34 Sparkes – Talcott 1970, no. 1962: 400–380 BCE; Rotroff 1997, nos. 636–638: 335–210 BCE; no. 730: 150–110 BCE.

35 Garlan 2011, pl. 1, Θασίων Κρατιστ[ώναξ]: ca. 301 BCE.

36 Grace 1956, 169 no. 207, Καλλιμάχου: early 2nd c. BCE; Akamatis 2000, 37–38, nos. ΠΑΡ32–34.

37 Grace 1985, 33, Κράτευς Καρ[νεόδοτος]: 146–108 BCE.

38 Because the researched site is part of a wider space of sanctuaries, and the north and west borders of the investigated sanctuary have not been located, it is not unlikely for the basic structure of the sanctuary of Demeter to be situated immediately further to the north of the excavated west complex, where, after all, the bulk of dedications related to the world of women have been located.

Fig. 22 : Statue of Demeter (Despinis 2010, fig. 2).

substantiated by a single find, which came to light during A. Keramopoulos' research in 1918, and was located in a waste pit with other sanctuary objects a little to the north-west of the investigated sanctuary[39]. It is a lead plaque with a ›prayer for justice‹[40], namely a text with an invocation to the gods for the punishment of some thief (**fig. 21**). The subject of prayers for justice usually focuses on an injustice that has been committed – often a theft – against the victim, and compensation is asked for the stolen object or revenge for the injustice that has taken place. In the Salamis text, someone named Xenophilos stole something, and if he does not return it, he will be punished with a curse. It should be noted that all tablets for justice of the late Classical and Hellenistic times found in sanctuaries of the Greek world, with the exception of one that comes from the sanctuary of Melikertes-Palaimon[41] (of the 4th c. BCE), have been located in sanctuaries of Demeter or are addressed to her.

A statue of the goddess from the end of the 4th c. BCE is also associated with the cult of Demeter (**fig. 22**); now in the Archaeological Museum of Aegina, it comes in all probability from Salamis[42]. It is a colossal statue, its preserved height with the plinth being 2.14 m., while with the head its original height reached probably up to 2.50 m.[43]. The female figure, with the right knee slightly bent, wears an Argive peplos and himation, and sandals on the feet. Her hair falls freely down the back, while two locks coming to the front flank the neck. The statue derives possibly from a Demeter-Kore group as cult statue of the goddess in her sanctuary. Finally, a probable depiction of the goddess appears on a coin of the island, which features a female figure bearing ears of wheat on the head[44].

The Sanctuaries of Artemis and Bendis

Further to the west of the sanctuary of Dionysus and Demeter, the sanctuaries of Artemis and Bendis were presumably located. The connection of Artemis with Salamis has been recorded already since the period of the Sea Battle of Salamis, given that the goddess' ›help‹, in her aspect as full moon, was of crucial importance[45]. The existence of a sanctuary to the goddess is also ascertained by *Pausanias* (1, 36, 1), while a dedicatory inscription of the

39 Keramopoulos 1923, 111–114. This material includes ten dedication pedestals with relief representations, serpents, a votive gabled stele probably of the 3rd c. BCE (IG II^2 4687), a large number of votive crudely made vases, a bronze serpent, 0.165 m. long, and a bronze nail peculiarly bent. Also recorded are seven folded sheets of lead, one pierced by an iron nail, and a lead plaque with a curse. Of the above, only the latter is preserved.

40 Chairetakis 2018a, 103–106.

41 Versnel 2010, 332–333.

42 Chairetakis 2018a, 337.

43 Despinis 2010, 20–21, 28–31.

44 Chairetakis 2018a, 341.

45 *Plut. mor. Were the Athenians more famous in war or in wisdom?* 349f–350a; Cole 2000, 478. 479.

4th c. BCE refers to the goddess[46]: Κράτεια / Ἀρτέμιδι (IG II(3) 4,2 1096). Quite a few sanctuaries of Artemis are situated at key sites, such as coastal places[47], so as to overlook a strait, or at the top of peninsulas[48], so as to command a view down over a harbour. In any case, it is certain that the location of the sanctuary at the top of the peninsula fulfilled perfectly both purposes, the control of the precarious passage through the Straits of Salamis and over the harbour entrance, and by extension secured their protection[49].

At the same location, or near the sanctuary of Artemis, in 1918 A. Keramopoulos uncovered the ruins of a large building with three successive rooms, and in the centre of the middle room a round, roughly worked, stone (›altar‹). In the west room there was an inscribed stele making reference to the sanctuary of Bendis (SEG 2, 10). In Salamis five inscriptions of the Bendis' troupe members have been recorded[50]. The decrees are assigned to the period 270–240 BCE and relate to two different Salaminian troupes of the goddess, a more ancient one (IG II² 1317; SEG 2, 10; IG II² 1317b) in operation in the time span 272/1–244 BCE, and a later one (SEG 2, 9 and 44, 60), in operation in the time span 247/6–240 BCE[51]. In the decrees honour is bestowed upon the officials of Bendis' troupes, the curators, the secretary, the treasurer and the priest for taking care of the sacrifices and the sanctuary itself, safeguarding the money and looking after all the matters of the troupe[52]. As a rule, they received an olive wreath and the amount of 15 drachmae[53]. As a matter of fact, inscription SEG 2, 9 reveals also the internal functions of the troupe, namely that the members held elections, and a group of scribes was elected to accomplish specific tasks[54]. The cult of Bendis came probably to an end in the third quarter of the 3rd c. BCE, when the lack of a wider popular acceptance must have led to the decline and dissolution of her troupe[55].

Other Sanctuaries

In the plain there is the temple of Ajax, mentioned in the decree of the cleruchs about gymnasiarch Theodotus (IG II² 1227 of 131/0 BCE) and the decrees of the ephebes about the performance of the Aianteia festival. The epigraphical testimonies bear out the existence of several structures of the sanctuary, which has a delineated space with enclosure, the precinct[56], within which the temple and the altar were situated[57]. As it has been pointed out, there is a differentiation in the honours offered to Ajax, as hero, who receives sacrifices on an altar, and not enagismous, while it is probable that the entire ceremonial procedure included ritual banquets as well[58].

Sanctuaries of Asclepius, Hermes and the Twelve Gods, which are known from epigraphical sources, have not been located to date. The sanctuary of Hermes, which has an

46 Pittakis 1842, 625 no. 1097; Mpardani – Papadopoulos 2006, no. 2983.

47 Cole 2000, 475.

48 Semple 1927.

49 Cole 2000, 477.

50 Osborne 2004–2009, with the earlier bibliography.

51 Steinhauer 1993, 35; Osborne 2004–2009.

52 Steinhauer 1993, 33; Last 2013, 103; Arnaoutoglou 2015, 47–48.

53 Osborne 2004–2009, 658; Arnaoutoglou 2015, 48.

54 Last 2013, 168–169.

55 Steinhauer 1993, 39. 46.

56 The precinct is also mentioned in a later inscription (IG II² 1035; SEG 14,78; SEG 26,121; SEG 33, 136).

57 Ekroth 2002, 76. 298.

58 Ekroth 2002, 76–77.

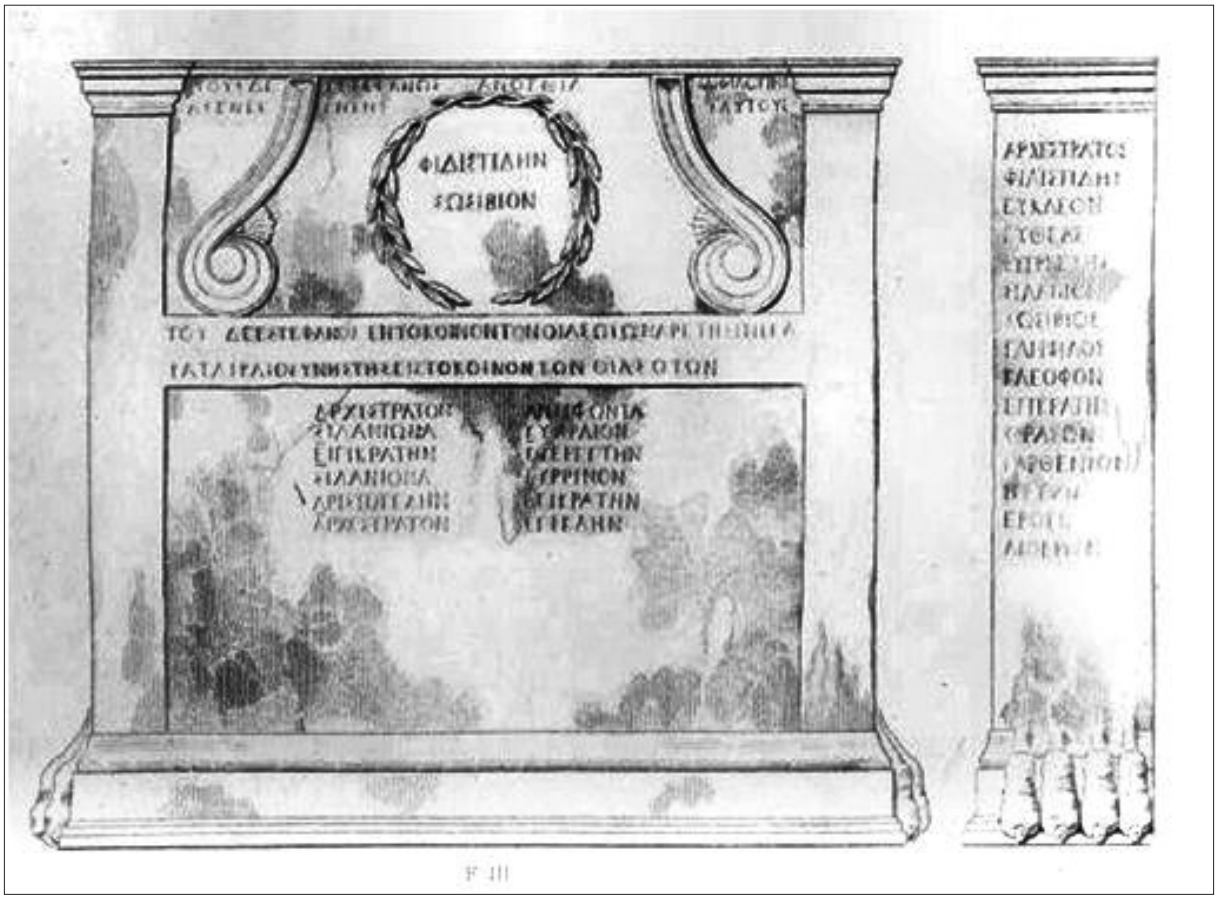

Fig. 23 : Stem of an offering table (Blouet et al. 1838, pl. 45, FIII–IV.)

altar (IG II³ 1313 of 175/4 BCE), and with which the festival of Hermaia is associated (IG II² 1227 of 131/0 BCE), lies probably in the vicinity of the city's gymnasium.

An offering table comes from a sanctuary; it is a dedication by a troupe to an unknown deity, dated around 300 BCE or a little later[59] (IG II² 2347). It is the vertical stem of an offering table, measuring 0.64 x 0.70 x 0.16 m.[60] (**fig. 23**). On the main side, in the upper part, two persons are crowned with a wreath, for their diligence on behalf of the members, followed by another twelve persons being crowned with a wreath, arranged in two columns, for the virtue and fairness they showed to the troupe members[61]. On the lateral surface of the stem, the names of the troupe members are recorded, of which the last three are female. For the three female names, it has been argued that they are potentially associated with slaves[62]. The troupe members were possibly Athenian cleruchs, Salaminians, metics or even slaves, while the troupe included both men and women. The offering table, on which bloodless offers were laid out, must have been placed in the cella of the worshipped deity's temple, as attested by corresponding examples, and dedicated by the members of the troupe.

In 229 BCE the Athenians regain control of the island. This event is accompanied by actions of strong symbolism. In the city a statue of Democracy is placed (IG II³ 1166; SEG 29, 116 of the year 213/2 BCE) to which tributes are paid, and in this way, the supremacy of the Athenian

59 Arnaoutoglou 2011, 35.

60 Blouet et al. 1838, pl. 45, FIII.

61 Kloppenborg – Ascough 2011, 76; Last 2013, 114.

62 Taylor 1997, 137; Gottesman 2014, 54.

democracy over the Macedonian tyranny is emphasized. At the same time, festivities for the battle of Salamis are promoted, as reflected in the decrees honouring ephebes[63], where the role of Athens as the decisive power in confronting the Persian invasion is highlighted. The main aim of the festivities is to enhance the collective memory of the Athenian ephebes through the recollection of their ancestors' deeds. Among the principal recipients of the festivities are the local gods and heroes, aiming, moreover, at reinforcing the memory of the victory in the sea battle. According to the inscriptions, the ephebes participate in various athletic contests and festivals. One of them includes events commemorating the sea battle of Salamis, with boat races and sacrifice at the Trophy of Zeus on Kynosoura[64]. Other festivals are the Aianteia, where a ship contest[65], running race, procession and sacrifice to Ajax take place[66]. Furthermore, there are festivals organized in honour of the Great Gods (procession), Hermes (Hermaia and sacrifice at the sanctuary of Hermes), Asclepius (sacrifice at the sanctuary of Asclepius) and Dionysus (tragedy contest).

Finally, a decree of the year 116/5 BCE (IG II² 1228; SEG 13, 44) mentions the repair of sanctuaries in the city.

The Houses

Houses do not differ from those of the other Greek cities. From the end of the 6th c. BCE onward, houses are laid out on the south slope of the Pounta peninsula, where the gradient is suitable for a uniform orientation of the walls, aligned N-S and E-W (**fig. 3** Site 2). The houses are set up accumulatively, one after the other, from south to north, and are arranged in blocks. They are more or less square, with simple ground plan, similar to the corresponding houses in other Greek cities (Colophon, Priene, Abdera, Piraeus), and most of them can be characterized as prostas (porch) houses. From the fill deposits of a house (on Eurysakou Street, House B, **fig. 3** Site 2) comes a small column capital of Doric order (**fig. 24**). The abacus measures 0.385 x 0.385 m., the lower diameter of the echinus is 0.25 m. and the capital's total height is 0.18 m. Judging from the fact that no peristyle house has been found on Salamis, the capital probably comes from a prostas or pastas house[67]. The houses are of similar size and have a surface ranging from 200 to 300 sq. m. each[68]. They have stone foundations with mudbrick superstructure, which must have been plastered for protection from rainwater[69]. The roofing probably consisted of timber and roof tiles.

In the northern part of the houses there are two or three usually large rooms like the oikos and the andron, in the middle the courtyard (**fig. 25**), and in the southern part (or on one side of the courtyard) storerooms, kitchens or shops[70]. Indications of domestic cult are provided by small domestic shrines, louteria in courtyards, ritual pyres, but also altars and

63 IG II³ 1166 and SEG 29, 116 of the year 213/2 BCE. – IG II³ 1313 of the year 175/4 BCE. – SEG 15, 104 of the year 127/6 BCE. – IG II² 1006; SEG 19, 108; SEG 38, 114; SEG 38, 117 of the year 122/1 BCE. – IG II² 1008; SEG 16, 101; SEG 21, 477; SEG 29, 122 of the year 118/7 BCE. – IG II² 1009; SEG 38, 116 of the year 116/5 BCE. – IG II² 1011 of the year 106/5 BCE. – IG II² 1028; SEG 21, 480; SEG 24, 188 of the year 100/99 BCE. – IG II² 1029 of the year 94/3 BCE. – IG II² 1030, after 94/3 BCE. – IG II² 1041; SEG 17, 33 of the year 47/6–43/2 BCE.

64 Mikalson 1998, 183; Chaniotis 2005, 49–50; Newby 2005, 188–189.

65 Viscardi 2013, 257–258; Newby 2005, 180, with thorough discussion.

66 Mikalson 1998, 183–184; Chaniotis 2005, 239.

67 Reber 2001, 64; Ault 2015, 128 and fig. 1; for different approaches, see Reber 1989; Reber 2007.

68 In Piraeus, houses measure 250 sq. m. each, Hoepfner 2004, 207; in Halieis, the size varies between 110 and 220 sq. m., in Athens between 60 and 120 sq. m., see Nevett 1995, 374 and 376, respectively.

69 Jameson 1990, 97; Ault 2015, 123–125.

70 Jameson 1990, 98–99; Ault 2015, 124 fig. 1.

Fig. 24 : Site 2. Column capital (Dekoulakou archive).

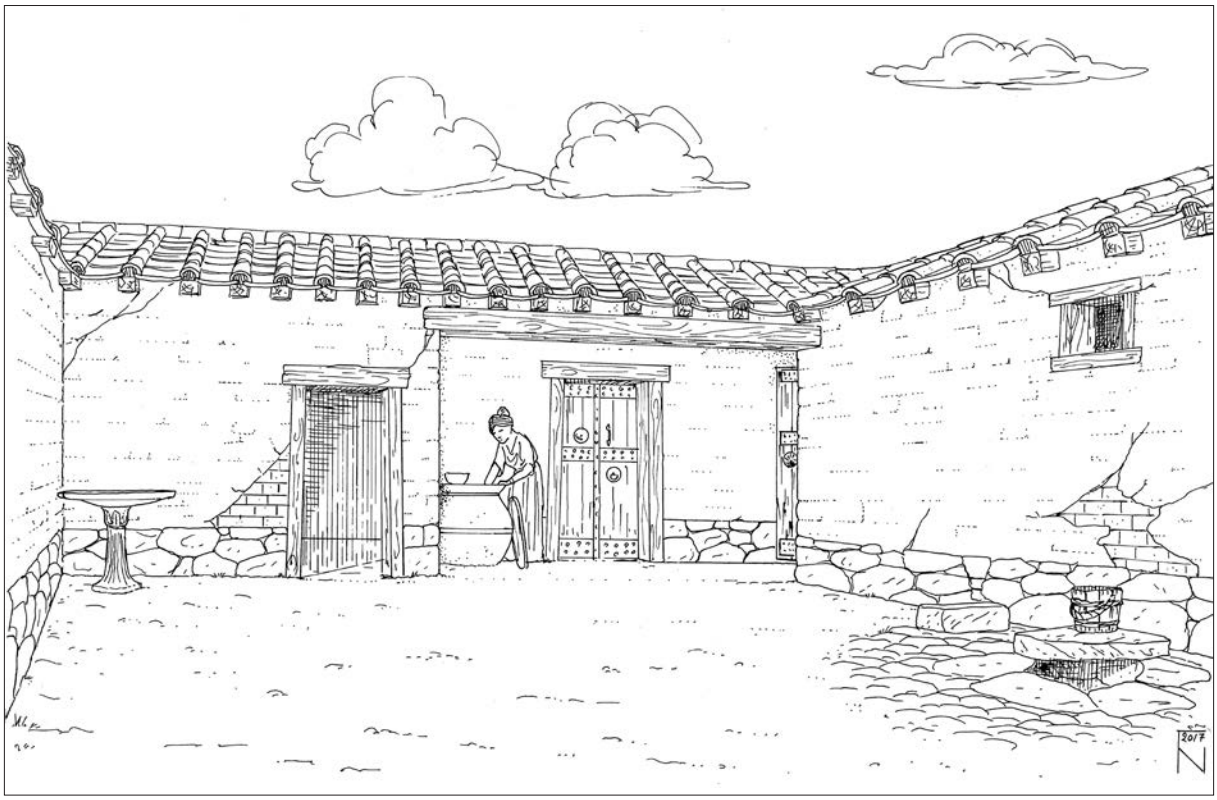

Fig. 25 : Site 2. Reconstruction of the courtyard of House Heta (reconstruction Y. Nakas).

Fig. 27 : Site 2. Relief of the banquet type (Dekoulakou archive).

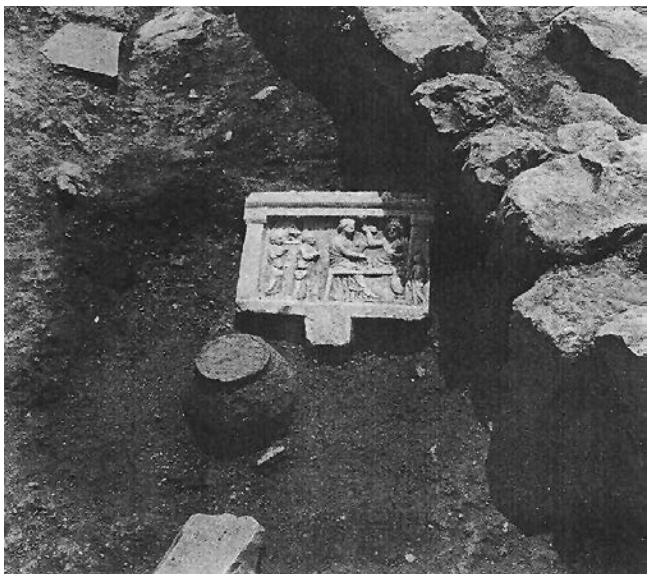

Fig. 26 :
Site 2. Relief of the banquet type in situ
(Dekoulakou 1987, pl. 40 b).

Fig. 28 : Site 2. Coin from Kythnos.

Fig. 29 : Site 2. Pit II.

votive reliefs (**figs. 26–27**). Known also are witchcraft practices[71]. The evidence of the domestic material culture like transport amphorae and coins (**fig. 28**)[72] underlines the thriving commercial activities of the inhabitants, while other finds, as for example beehives, fishing tools and milk pails[73], bring to light the wide spectrum of their daily occupations.

In the first half of the 3rd c. BCE, a period of important military episodes that affect the island, certain readjustments are observed that are related to the construction of new houses. In the context of their construction, the area is extensively cleared of older structures, which were evidently destroyed in the period of the Chremonidean War, subsequently pits are opened (on Eurysakou and Teukrou st., Pits I and II), into which disused material is disposed, and, finally, new houses are built. Pit II constitutes a good case study (**fig. 29**)[74]. The inside deposit was uniform and no succession of chronological phases in the disposal of the discarded material is observed[75]. The pit contained vase fragments, truncated conical and pyramidal spindle whorls, sea shells, a few animal bones, a stone alabastron, slag masses and parts of Laconian roof tiles. Moreover, there are a few segments of pebble floors. A handful of fragments of a lamp and black-glazed pelike sherds are assigned to the 5th c. BCE, and the quantity of red-figure vases of the first half and third quarter of the 4th c. BCE is also small. The bulk of pottery belongs to the fourth quarter of the 4th c. BCE down to the first quarter of the 3rd c. BCE, as shown by

71 Chairetakis 2018c.

72 Sheedy – Papageorgiadou 1998, 655 fig. 3: 2nd c. BCE.

73 Chairetakis 2018d.

74 Chairetakis 2014.

75 Chairetakis 2014.

Fig. 30 :
Site 2. Kantharoi
from the Pit II.

Fig. 31 :
Site 2. House Theta.
Aerial view
(photograph
M. Ntourakis).

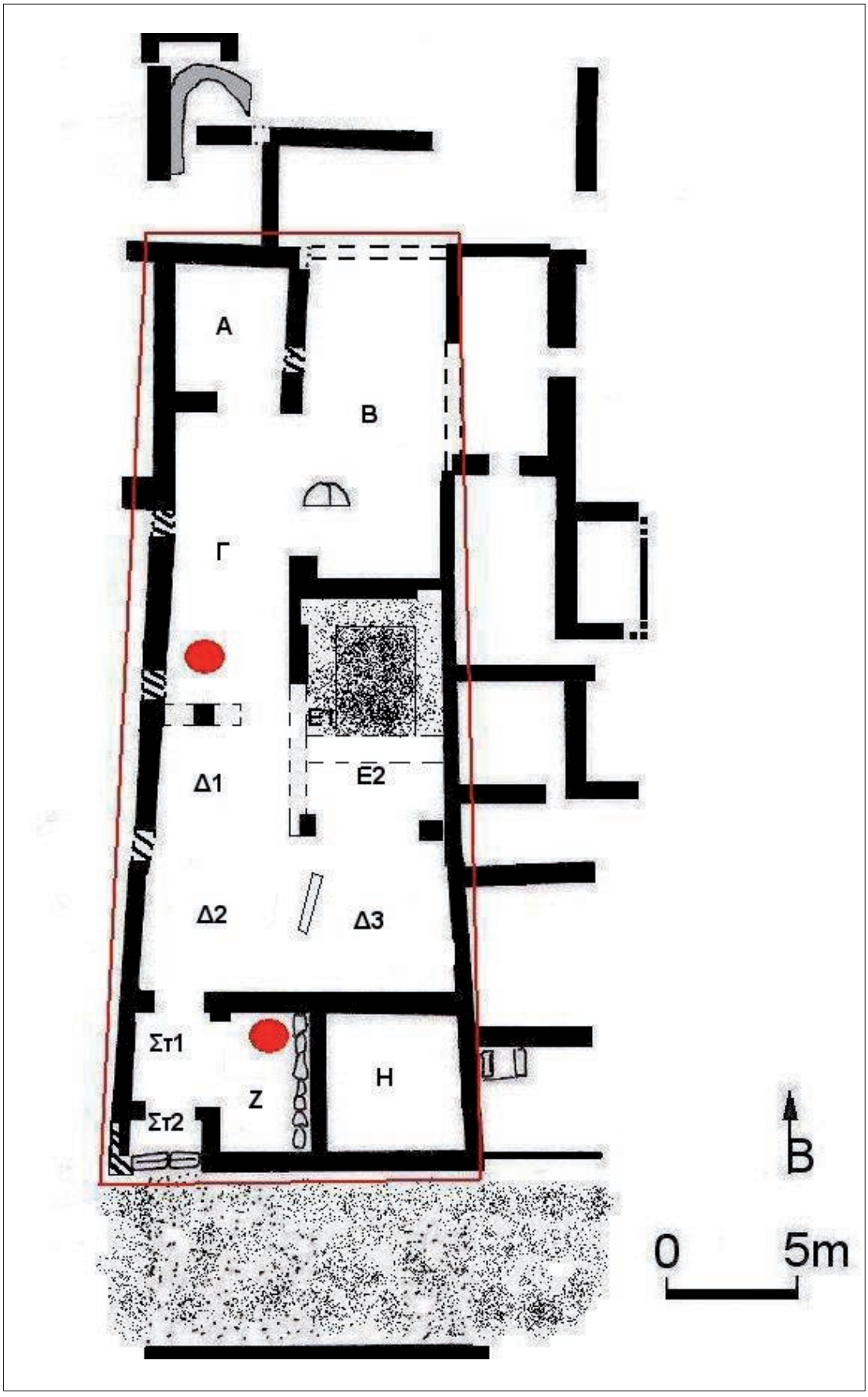

Fig. 32 : Site 2. Plan of House Theta.

the great abundance of black-grazed pottery (**fig. 30**)[76] and lamps. Smaller is the quantity of pottery of the second quarter of the 3rd c. BCE, such as kantharoi[77] and hemispherical cups[78], which also determine the lower chronological terminus of the material. Plain pottery includes lekanai, amphorae, beehives, table ware amphorae, oenochoes, jugs, clay mortars, and other specimens. The latest pottery in the pit belongs to the second quarter of the 3rd c. BCE, but it is not possible to fix with precision when the area was cleared off and the subsequent waste disposal took place – namely immediately after 261 BCE or a little later – and when the new houses were built – immediately after the discard operation or later. House Theta is constructed over disposal pit II, essentially sealing it off.

House Theta

House Theta is a representative example of a house in Hellenistic times, built in the second quarter of the 3rd c. BCE or the mid-century (**fig. 3** Site 2; **figs. 31–32**). The length of the house along the N-S axis is 29.00 m. and its width 11.30 m. towards the south, being reduced (9.60 m.) to the north[79]. The house entrance lies on the south, accessible from the road, via a double porch (Στ1, Στ2). To the east of it extends a space traversed by a drain of stone pipes, along the N-S axis, at its northern end there is a pithos, mended with lead clamps. At this spot fragments of moldmade bowls, parts of a cup with interior decoration (**fig. 33**)[80] and a moulded Satyr mask as foot of a large black-glazed krater have been retrieved (**fig. 34**)[81].

From space Στ1, one comes out into the courtyard (Δ1-3). To the south of the courtyard there is an auxiliary room (H), with plenty of pottery (**fig. 35**)[82], while to the north of it an antechamber (E2) that leads to the andron (E1). The latter has a neatly made pebble floor (**fig. 36**). A raised border, approximately 0.90 m. wide, of fine pebbles and plaster runs all around the room, with a rectangular configuration of bigger pebbles in the middle. The northern and western wall have a niche each for placing the klinai (beds). The andron seems to have an antechamber or porch. From spaces E1-2 come parts of moldmade bowls (**fig. 37**)[83], some of quite late date[84], hemispherical cups[85], and some parts of amphorae and plain vases.

From space Δ1 one enters an oblong space (Γ). In that space, immediately to the west, another pithos was found in situ, mended with lead clamps (**fig. 38**), into which had fallen two vases, a moldmade bowl[86] and a black-glazed plate[87] (**fig. 39**). This space also yielded parts of transport amphorae, among them a handle of a Knidian amphora stands out[88].

Space Γ ends, on the north, in a room (A), which contained a rim fragment of a clay water basin, a possible indication of a bath. To the east, yet another oblong space (B) is opened, in its southern part there is a stone platform (**fig. 40**), probably for squeezing olives with the help

76 Rotroff 1997, nos. 26–29: 285–275 BCE; no. 66: ca. 275 BCE.

77 Rotroff 1997, nos. 24–25: 275–260 BCE.

78 Rotroff 1997, nos. 311–314: 285–260 BCE.

79 Pakkanen 2021, 64–68.

80 Rotroff 1997, no. 345: 200–175 BCE.

81 Edwards 1975, no. 879: 175–146 BCE.

82 Rotroff 1982, nos. 190. 213: 225–175 BCE.

83 Rotroff 1982, nos. 104. 122: 225–175 BCE.

84 Rotroff 1982, nos. 340–341: 100–86 BCE; no. 342: 145–100 BCE.

85 Edwards 1975, nos. 539–540: third quarter of the 3rd c. – 146 BCE; Rotroff 1997, no. 345: 200–175 BCE.

86 Rotroff 1982, nos. 187. 189: 225–175 BCE.

87 The plate has no exact parallels, since it is not the product of an Attic workshop. It emulates features from plates like those in Rotroff 1997, nos. 680–689: 175–110 BCE.

88 From right to left [AP]TEM/[Ω]N KNIΔI(ον), Grace 1985, 32, of period III–IV: 220–146 BCE.

Fig. 33 : Site 2. Fragment of a cup with interior decoration.

Fig. 34 : Site 2. Plastic foot of a krater.

Fig. 35 : Site 2. Moldmade bowl.

Fig. 36 :
Site 2. The andron.

Fig. 37 :
Site 2. Moldmade bowl.

of a stone olive crusher. The space produced a remarkable quantity of pottery, fragments of amphorae, lekanai, moldmade bowls, a black-glazed plate[89], an almost intact lamp (**fig. 41**)[90] and a lead weight (**fig. 42**), and should be interpreted as the oikos of the house.

House Theta has a main phase of use up until about 175 BCE, if we consider as a terminus ante quem the assemblage of pithos in room Γ. A smaller quantity of pottery ascertains its use in the second half of the 2nd c. BCE, and the house is abandoned either at the end of the 2nd c. BCE or the beginning of the 1st c. BCE.

89 Rotroff 1997, no. 693: 150–110 BCE.

90 Howland 1958, no. 440: 225–125 BCE.

Fig. 38 : Site 2. Pithos with lead clamps.

Fig. 40 : Site 2. A stone platform.

Fig. 39 : Site 2. Black-glazed plate and moldmade bowl.

Fig. 41 : Site 2. Lamp.

Fig. 42 : Site 2. Lead weight.

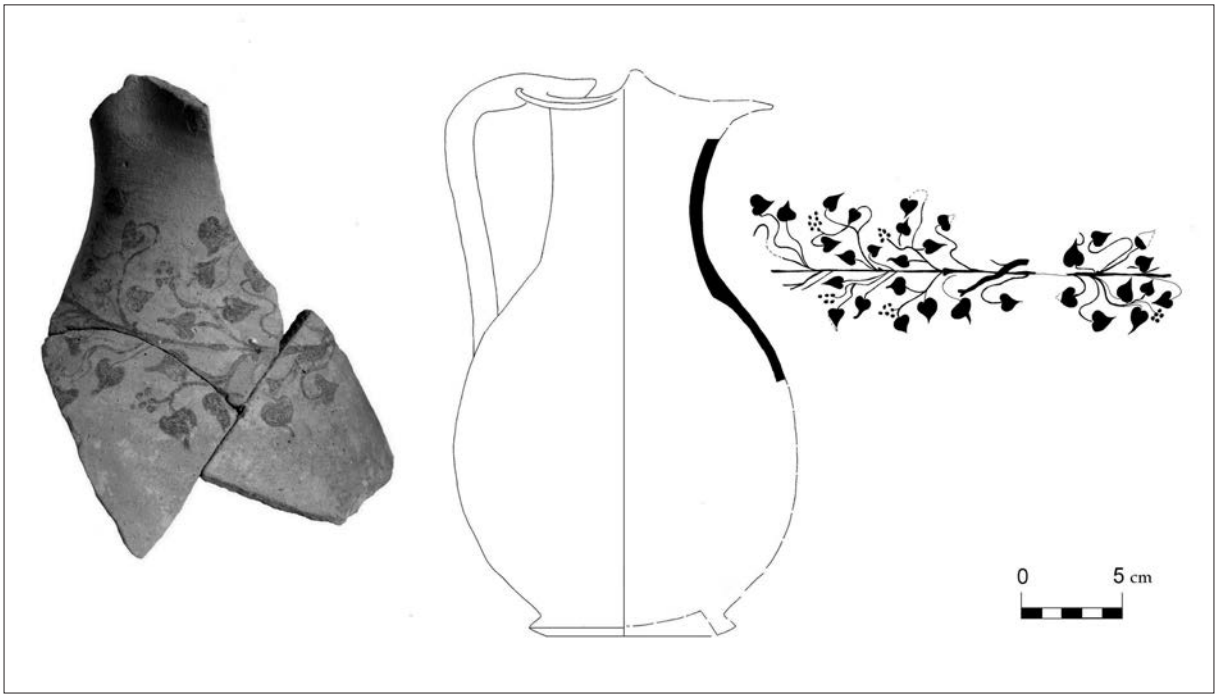

Fig. 43 : Oenochoe with black painted decoration.

The Workshops

In this period, the allocation of different activities to specific places in the city is more evident than ever. The workshops are clustered in the western part of the city (**fig. 3** Site 1), near or in contact with the fortifications, such as the metallurgy workshop (Workshop Delta) and a probable olive press or/and weaving workshop.

A possible ceramic workshop is identified on the evidence of the group of oenochoes with black painted decoration[91], which are chronologically assigned to the time span from 350 to 275 BCE (**fig. 43**).

Workshop Delta

Workshop Delta (**fig. 3** Site 1; **fig. 44**) comprises a group of rooms with an elaborate system of stone pipes[92] that run through the walls (**fig. 45**)[93] and take the water/wastewater outside the walls. The installations of the workshop include wells and cisterns that are connected with clay pipes (**fig. 46**). In these spaces, workshop activities were taking place, which were associated with the processing of metals, as indicated by the location of a considerable quantity of iron and lead masses, but also of waste products from metal processing[94].

In three cases, pits were uncovered on the workshop floors, into which broken vases had been placed; all such pits in Attica have been characterized as ritual pyres (**figs. 47–50**). More precisely, interpreted as ritual pyres are the foundation offerings prior to a building's construction, renovation or re-use by its owner, which entail the sacrifice of an animal, the

91 Chairetakis 2018b.

92 Young 1951, 238 fig. 16.

93 Young 1951, pl. 69, a. c; Grandjean 1988, pls. 115.3; 115.5; Intzesiloglou 1997, 19–20.

94 Dekoulakou 2008, 12; Chairetakis 2018a, 125.

Fig. 44 :
Site 1. Workshop Delta.

Fig. 45 :
Site 1. Workshop Delta, detail of a wall and stone pipe.

Fig. 46 : Site 1. Cistern.

Fig. 47 : Site 1. Ritual pyre I, in situ.

Fig. 48 : Site 1. Ritual pyre I, vases.

Fig. 49 : Site 1. Ritual pyre II, vases.

Fig. 50 :
Site 1. Ritual pyre II,
stone alabastron.

Fig. 51 : Site 1. Amphora
stamp from Corinth.

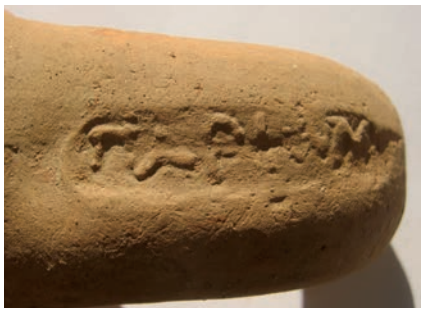

Fig. 52 : Site 1. Amphora
stamp from Paros.

fragmentation of vases and the offer of liquids[95]. The relation of this custom to chthonic deities like Hermes, the conductor of souls, is further attested by its enactment within a pit dug into the soil, not on an altar, as was the case with the offerings to the Olympian Gods, hence assuming the character of enagismos, namely the offering to the dead and heroes[96]. After all, linked to the chthonic cult are also the animals offered in ritual pyres, sheep and goats and birds. The purpose of the ritual pyres is to protect the building just before its erection, renovation or re-use, by keeping evil away through appeasement. In fact, they have the character of purification and prevention of evil. A recent study on the ritual pyres of Athens associates them almost exclusively with spaces of commercial transactions and workshop activities[97]. On the one hand, in the space of workshops death and serious injuries were probable occurrences; on the other hand, there was likely failure in the manufacture of products, something that would bring an economic downturn in an enterprise. Consequently, the craftsmen resorted to seeking help from the chthonic gods for the protection of themselves and their enterprises, and engaged in the sacrifice of animals and fragmentation of vases to drive the evil spirits away[98]. In this case then, the procedure of a ritual pyre does not relate to any given space, but specifically to the workshop, the shop and the people who work in it[99]. The ritual pyre I contains vases of

95 Eleytheratou 1996–1997, 101–102.

96 Eleytheratou 1996–1997, 115–116.

97 Rotroff 2013, 75–85.

98 Rotroff 2013, 84.

99 For the location of a ritual pyre in a knapheion (workshop for the final processing of textiles) in the area of Argyroupolis and the evidence of the space's re-use, see Ntova 2013, 226 and note 34. As to the nine ritual pyres that were unearthed in the Makrygianni area, their attribution to houses, workshops or shops has not yet been specified (Eleytheratou 1996–1997, 99).

Fig. 53 :
Site 1. Cistern 2.

the second and third quarter of the 4th c. BCE and is dated to the third quarter of the century, while the ritual pyres II and III are assigned to the period 315–275 BCE.

The fill deposits of the workshop produced a large quantity of pottery. Among the transport amphorae there are imports from Thasos, Corinth (**fig. 51**), Rhodes, Cos, Paros (**fig. 52**)[100], Knidos and elsewhere. Black-glazed pottery comprises amphorae decorated in West Slope style[101], and a quite large number of moldmade bowls. The rest of the material from the workshop includes lead weights, lead clamps, bronze nails, hooks and arrowheads, iron nails and 43 bronze coins, which reflect the economic-commercial character of the building complex.

A closed ceramic assemblage was found in cistern 2 (**fig. 53**), which yielded a considerable quantity of pottery, in particular parts of transport amphorae (mainly of Knidos), a table ware amphora, plain lekanai (**fig. 54**), a lagynos, an unguentarium, cooking pots (**fig. 55**)[102], parts of a lopas[103] and a beehive. To the black-glazed pottery belong parts of bowls[104], a fish-plate[105], plates (**fig. 56**)[106], and skyphoi[107]. Significant is also the number of Knidian-type hemispherical bowls with rouletting (**fig. 57**)[108] and moldmade bowls (**figs. 58–59**)[109]. The cistern was filled with material and abandoned in the second half of the 2nd c. BCE. The period of the workshop's use is long. Constructed in the third quarter of the 4th c. BCE, the workshop underwent repair at the end of the 4th or the beginning of the 3rd c. BCE. Continuous use is evidenced throughout

100 Jöhrens 1999, 257–258 no. 870, late 3rd–2nd c. BCE.

101 Rotroff 1997, no. 432: 175–140 BCE.

102 Rotroff 2006, nos. 591–592: in context 150 BCE – 20 CE.

103 Rotroff 2006, no. 665: in context 175–150 BCE; no. 669: in context 150–110 BCE.

104 Rotroff 1997, no. 945: 175–150 BCE.

105 Rotroff 1997, no. 727: 275–250 BCE.

106 Rotroff 1997, no. 689: 150–110 BCE.

107 Rotroff 1997, nos. 401–402: 150–110 BCE.

108 See Chidiroglou 2011, 354, MK 578: end of the 3rd – first half of the 2nd c. BCE.

109 **Fig. 58**: Rotroff 1982, no. 25: 225–175 BCE. – **Fig. 59**: Rotroff 1982, no. 118: 225–175 BCE.

Fig. 54 : Site 1. Plain lekane.

Fig. 55 : Site 1. Chytra.

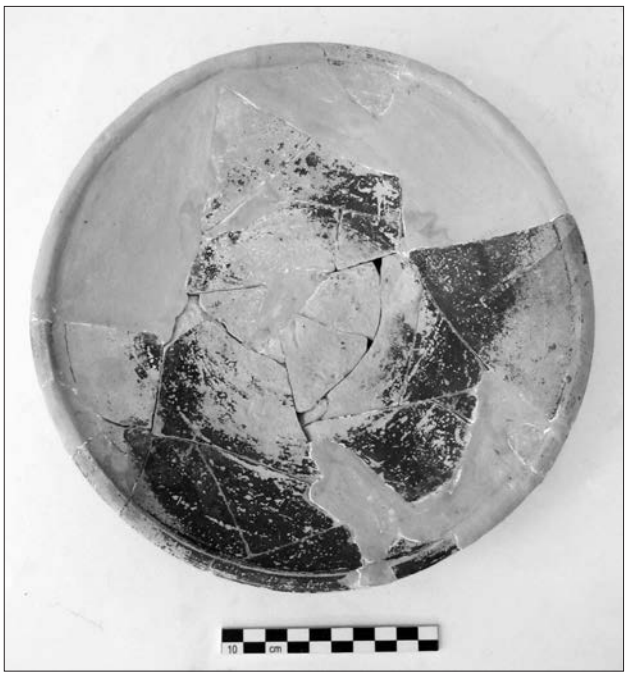

Fig. 56 : Site 1. Black-glazed plate.

Fig. 57 : Site 1. Hemispherical bowl with rouletting.

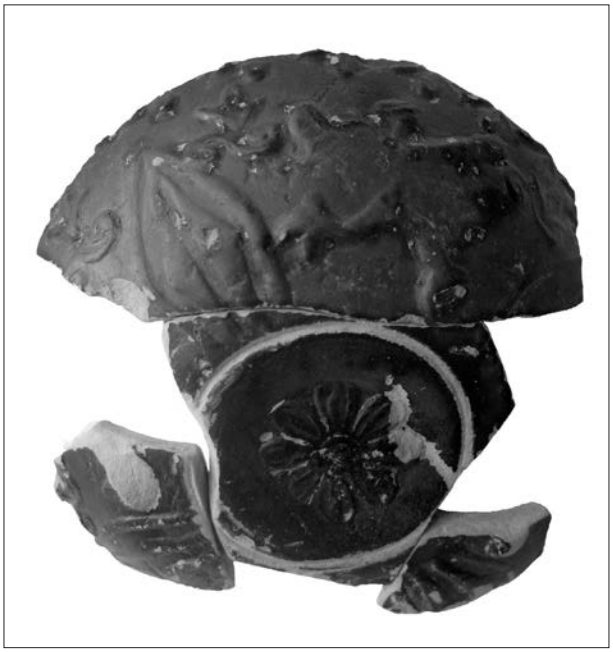

Fig. 59 : Site 1. Moldmade bowl.

Fig. 58 : Site 1. Moldmade bowl.

the 3rd and the first half of the 2nd c. BCE, while in the second half of the 2nd c. BCE certain structures fall out of use, such as Cistern 2. The space continues to be used and is probably abandoned at the end of the 2nd or more probably at the beginning of the 1st c. BCE.

The Cemeteries

The main cemetery of the city extends across the west side of the Ambelaki bay, along the road that led from the city to the inner part of the island. There is a variety in the typology of graves, ranging from sarcophagi to cist graves, shaft graves and tile-covered pit graves (**fig. 60**)[110]. Re-use of stelae as grave covers has been attested, while a perirrhanterion was converted into a funerary kioniskos[111]. Salamis conforms to the restrictions on overspending for funerary ceremonies, following the decree of Demetrius Phalereus, which prohibited the erection of large-sized funerary monuments in Athens.

The funerary offerings usually comprise unguentaria, pyxides, saucers, jewels and objects of magical powers (curse tablets). Professions and occupations are indicated by certain funerary offerings such as strigils[112] and the juror's ticket. The latter find is a bronze pinakion with the inscription: Θεογένης/Προβαλίσιος (**fig. 61**)[113]. It is a juror's ticket of the end of the 4th – beginning of the 3rd c. BCE, which was used for the annual selection with the allotment of citizens as jurors and other officials in Athens. As funerary offerings the tickets stand for documents of some public office held by their owners[114].

A funerary stele is particularly interesting[115]. It is a stele of the mid-3rd c. BCE to young Leon, inscribed with a funerary epigram[116] (IG II² 11960; SEG 25, 301), which concludes by urging those who would see the funerary monument to honour the virtue of their forefathers: »Come, young men, emulate your comrade / for he fell remembering the virtue of his Mede-slaying fathers«[117]. It is probable that young Leon fell in the battles against Alexander in the mid-3rd c. BCE[118]. The young man might have been a descendant of Leon, who resided in Salamis, and who, as recorded by *Plato* (*apol.* 32 c–d) and *Xenophon* (*hell.* II), was killed by the regime of the Thirty Tyrants[119]. Moreover, it seems not unlikely for him to have been the son of Herakleitos of Asklepiades of Athmoneas[120], to whom the deme of the Salaminians paid tribute, because he undertook the repair of the walls during the preparation for the war against Alexander. The burial of Leon took place probably on the hill of Magoula[121], on the peninsula of Kynosoura, namely to the south of the city, an area which was probably also

110 Dekoulakou 1986.

111 Dekoulakou 1986, 18.

112 Strigils are also linked with the world of women, see Bogdanova 2016, 60–66, with relevant bibliography.

113 Pologiorgi 2000–2003, 108.

114 Pologiorgi 2000–2003, 110, mentions fellow citizens of Theagenis with the same name as his, but she does not proceed to establish an identification, because the patronymic is not recorded.

115 Cargill 1995, 125 and note 28.

116 εἶλε σόν, Ἡράκλειτε, καὶ αἰνετὸν υἷα Λεαίνης / εἶλεν θαρραλέης ἔργα Λέοντα μάχης· / ἀνχιάλου Σαλαμῖνος ὁ γὰρ κλήροισιν ἀμύνων / δυσμενέων ὀλοὸν τραῦμα κατηγάγετο. / ζηλοῦτ' ἀλλὰ νέοι τὸν ὁμήλικα· κάθθανε γάρ που / μηδοφόνων ἀρετᾶς μνωόμενος πατέρων.

117 Translation Herzogenrath-Amelung 2017, 130.

118 Habicht 1998, 215; less probably a little later at the time of Aratus' raid in 242 BCE, see Taylor 1997, 249.

119 Cargill 1995, 125 and note 28.

120 Taylor 1997, 253 note 84.

121 Pittakis 1855, no. 2565.

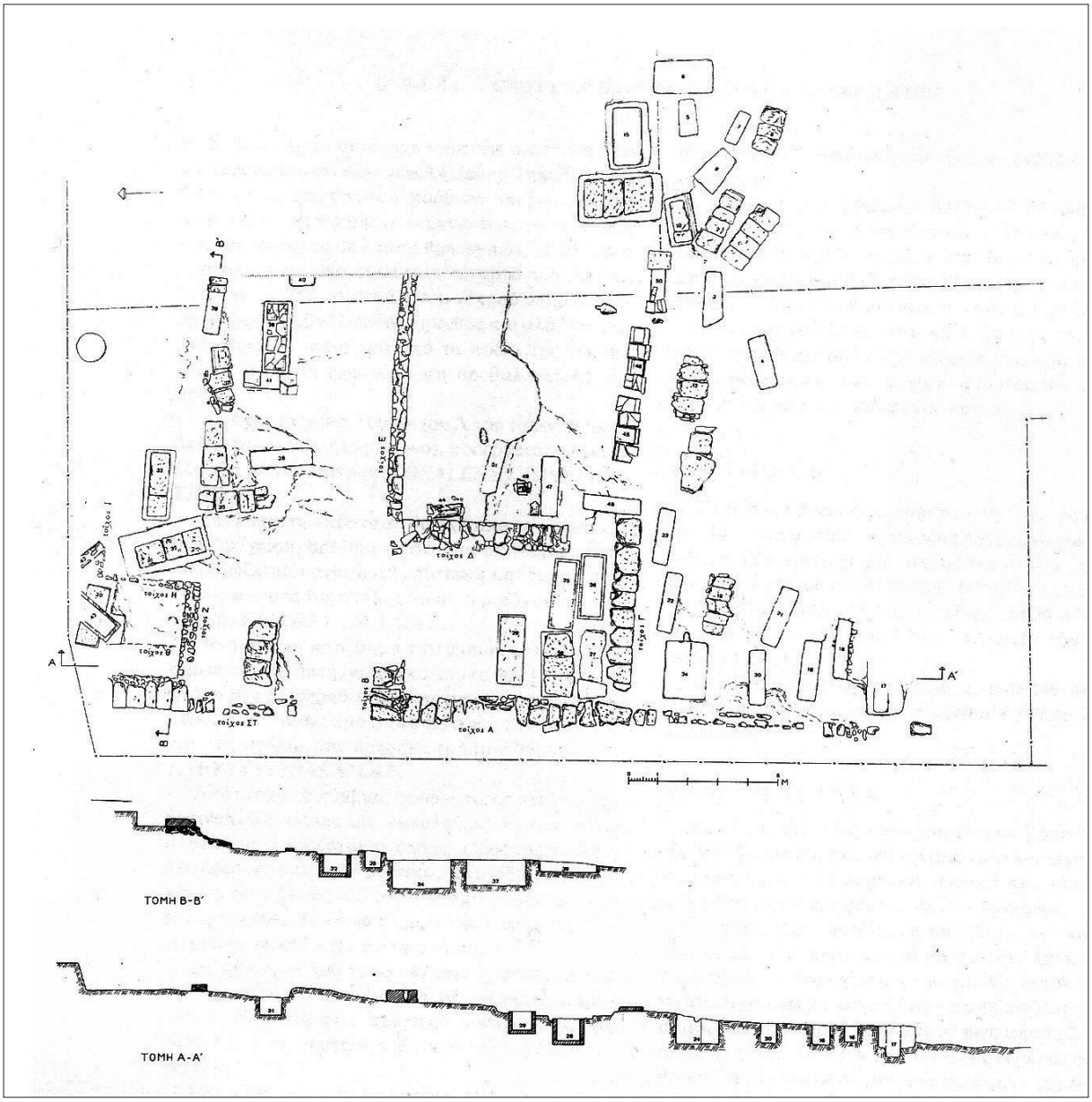

Fig. 60 : Plan of the cemetery at the Tsoutsouras' plot (Dekoulakou 1986, pl. 1).

Fig. 61 : Bronze *pinakion* (Pologiorgi 2000–2003, pl. 24).

allocated for specific burials of the second half of the 5th c. BCE, and which is identified with the reported ›polyandreion‹ of the Naval Battle of Salamis[122]. In this case too, as in the festivals of the ephebes, we see that the memory of the Persian wars remains strong and is enhanced in so many ways.

Epilogue

We hope that the above presentation makes tangible the social, political and religious organization of the Hellenistic city of Salamis, and that by highlighting selected structures and finds, a city comes to the fore that is situated so close to Athens, but, in actual fact, remains very little known. The city of Salamis does not fall behind any corresponding cities of Attica or the wider ancient world – to the extent that applies to it. Economic and commercial activities, religious practices and political processes shape an intricate network of actions and interactions that puts Salamis dynamically on the map of the Hellenistic period. The period closes with the destruction of the island by the Roman general Sulla in 86 BCE, and the ancient city is gradually deserted.

122 Chairetakis 2019.

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Hellenistic Roof Tiles in Jerusalem

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Abstract

Sixteen fragments of ceramic roof tiles, dated to the Hellenistic period in the late 2nd century BCE, were uncovered on the western slope of the City of David (Southeastern Ridge) during the Giv'ati Parking Lot excavations between 2017–2022. This is the earliest attestation for the use of roof tiles in the southern Levant, south of Beirut, and so far, it is the only attestation for their use in the region during the Hellenistic period. The petrographic analysis of the fragments shows that the tiles were manufactured with the locally available clay from the Moza Formation and that a specific recipe of raw materials adapted for the tiles was used. We suggest that the roof tiles were intended for the roofing of a building related to the Seleucid presence in the city at the time, the Hakra (Acra) being one such option.

Introduction

Ceramic roof tiles have been an intrinsic part of the Mediterranean architectural milieu ever since they were first introduced in 7th century BCE Greece. The tiles' durability, combined with their exceptional fireproof and waterproof nature, assured their rapid spread and popularity. While their design, shape and size have evolved over the centuries, their use has remained constant. And yet, that usefulness and popularity did not find its parallels everywhere in the ancient Mediterranean basin and especially not in the southern Levant, where their earliest attestation (until the latest discovery) occurred only six hundred years later in the Edomite Petra, and ever since has seen only sporadic use, usually associated with imperial and/or elite construction projects. Therefore, the importance of sixteen roof tiles discovered in Jerusalem and dated to the Hellenistic period cannot be overstated.

The discovery was made between 2017–2022, during the Giv'ati Parking Lot excavation work on the western slope of the City of David (Southeastern Ridge; **fig. 1**), conducted by Y. Shalev and Y. Gadot[1].

1 Renewed excavations at the site were initiated in 2017 (licences G-71/17, G-11/18, G-10/19, G-11/20, G-3/21 and G1/22), directed by Yuval Gadot (Tel Aviv University) and Yiftah Shalev (Israel Antiquities Authority) with Efrat Bocher and Nitsan Shalom (field directors), Oscar Bejarano (area supervisor), Débora Sandhaus (ceramic specialist), Donald T. Ariel and Robert Kool (numismatics) and Vadim Esman (surveying).

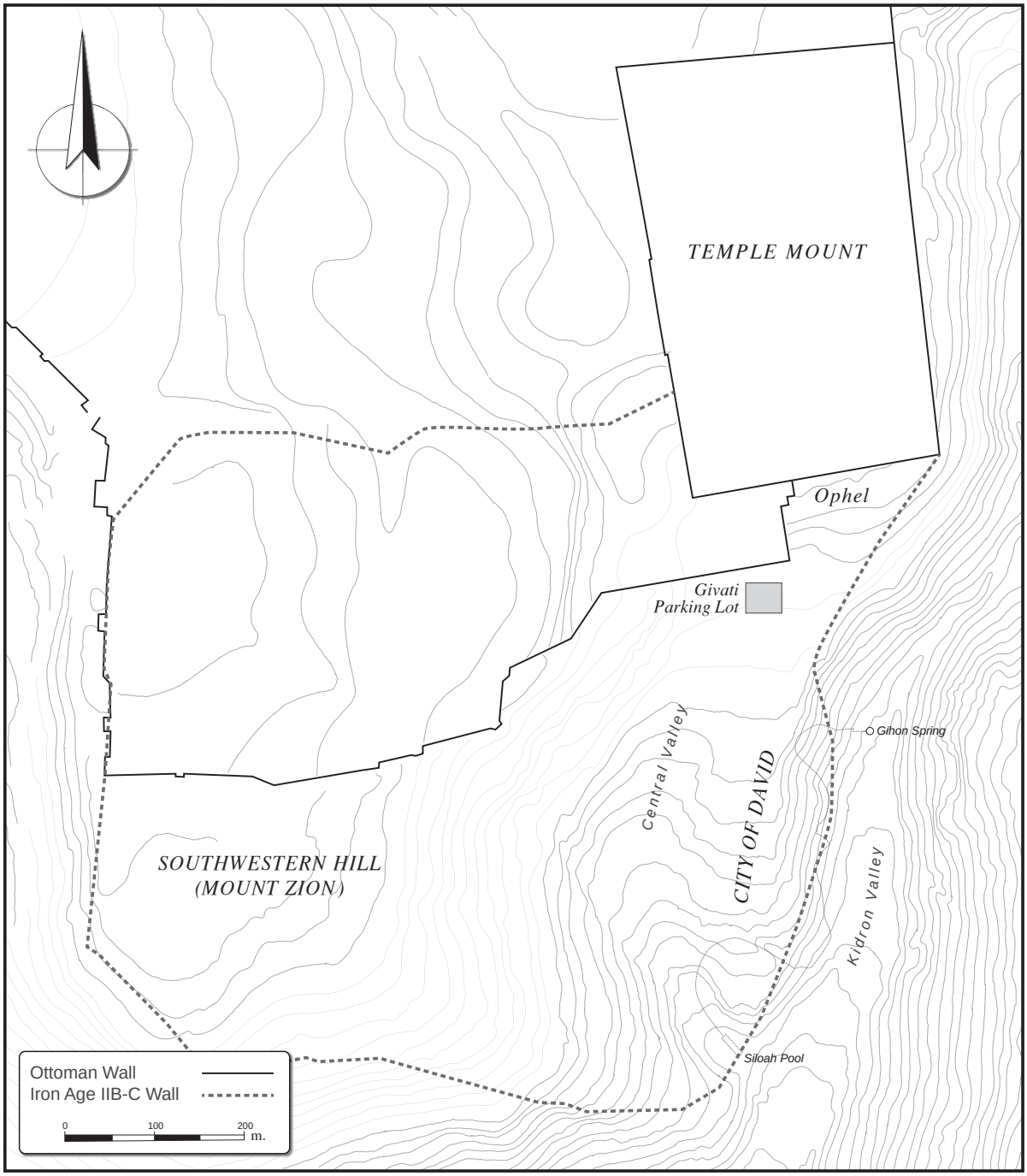

Fig. 1 : Orientation map marking the location of the Giv'ati Parking Lot excavations (prepared by Nitsan Shalom, the Givati Parking Lot Expedition).

In this article we present all the fragments in their archaeological context, their typology, and results of the petrographic analysis. We will then discuss the contribution of the newly presented finds to current understanding of the origin and adoption of roof tiles in the southern Levant[2].

2 We are grateful to Andrea Berlin, Susan Rebecca Martin, Zachi Dvira, Moran Hagbi, Peter Gendelman, Orit Peleg-Barkat, Igor Kreimerman, Alina Yoffe-Pikovsky and Michal Sinowitz for their invaluable help during the work on the article.

Fig. 2 : General plan of the Giv'ati Parking Lot excavation areas
(prepared by the Giv'ati Parking Lot Expedition).

The Context

All roof tile-fragments were found in the same context: a massive constructive fill, almost four meters high, composed of a sequence of many overlapping layers of soil, ash and pottery sherds. Four of the roof fragments were found in the western part of the fill (Area 10) which was cut by a late Hasmonaean wall[3], while the rest were uncovered in the fill's eastern part (Area 70 North) (**fig. 2**)[4].

3 Shalev et al. 2021, 31–33.

4 Similar roof tile-fragments might have been also found in the previous excavation at the Giv'ati Parking Lot by D. Ben-Ami and Y. Tchekhanovets, but the finds have not yet been published.

When first exposed in excavations by D. Ben-Ami and Y. Tchekhanovets, this fill was interpreted as part of a Hellenistic fortification structure that comprised a wall, a projecting tower and a series of slanting layers abutting the wall and the tower. The slanting layers were interpreted as a glacis and the excavators proposed to identify these features as elements of the Seleucid Hakra (Acra), the fortress/citadel build by Antiochus IV Epiphanes (175–164 BCE) following his sack of Jerusalem in 168 BCE[5]. Subsequently, when the coins of Antiochus VII Euergetes (nicknamed Sidetes, 138–129/128 BCE)[6] were discovered in the top layer of the glacis, it was suggested that the wall and the tower are original parts of the Seleucid Hakra with the glacis a later Hasmonaean addition[7].

Ensuing excavations by Y. Gadot and Y. Shalev exposed additional parts of the fill and raised further questions regarding the use of the fill as part of the fortification system along with the Hakra's proposed location[8].

Setting aside its original purpose, it is unquestionable that the fill context is well-stratified, undisturbed, and contains only pottery sherds dating to the Late Hellenistic period (with a few Iron Age and Persian sherds in the secondary deposit). Although not all coins from the renewed excavations of the fill have been cleaned and read, those that have are preliminary dated to the late 2nd century BCE at the latest. This coincides with the finds from the same fill excavated by Ben-Ami and Tchekhanovets where, as already mentioned above, a few dozen coins were found, the latest of which are dated to the reign of Antiochus VII[9].

Roof Tiles

Sixteen fragments of roof tiles have been found, all of which are Corinthian-style pan tiles (*tegulae*) – the rectangular type with flat profile and flanges rising horizontally from the edges of the pan (**table 1**; **fig. 3**). Not a single cover tile (imbrex), whether Corinthian faceted or Laconian semi-circular, was uncovered[10].

The fragments are plain, without any visible decoration and tapering. The upper surface of the tiles is smoothed while the lower surface is rougher, with two fragments containing small traces of mortar. A number of fragments contain corners, which are straight without cut-outs. Rather unexpectedly, even though not uncommon, not a single fragment includes a ridge (perpendicular flange) on top of the tile. Two fragments (**fig. 3, 14–15**) contain a slightly elevated edge, which is likely the result of an uneven mold. Alternatively, but less likely especially when compared to available examples, the raised/thickened end may be an underside flange at the lower end of the pan tile[11].

Two groups of tiles can be discerned, based on the fabric's colour and the shape of the flanges: gray-brown tiles, with the flange top slightly rounded; and pinkish tiles, with sharp rectangular flanges. These small differences notwithstanding, pan tiles needed to be of almost identical length and width in order to be properly laid out and interlocked.

5 Ben-Ami – Tchekhanovets 2015; Ben-Ami – Tchekhanovets 2016.

6 Ariel 2019; Ariel 2021.

7 Zilberstein 2021.

8 Shalev et al. 2019; Shalev et al. 2020.

9 Ariel 2021; Zilberstein 2021.

10 For different types of roof tiles see e.g., Wikander 1988; Winter 1990.

11 E.g., Henrickson – Blackman 1999, fig. 3; Clarke 2002, fig. 20; Dolea 2016, fig. 4.

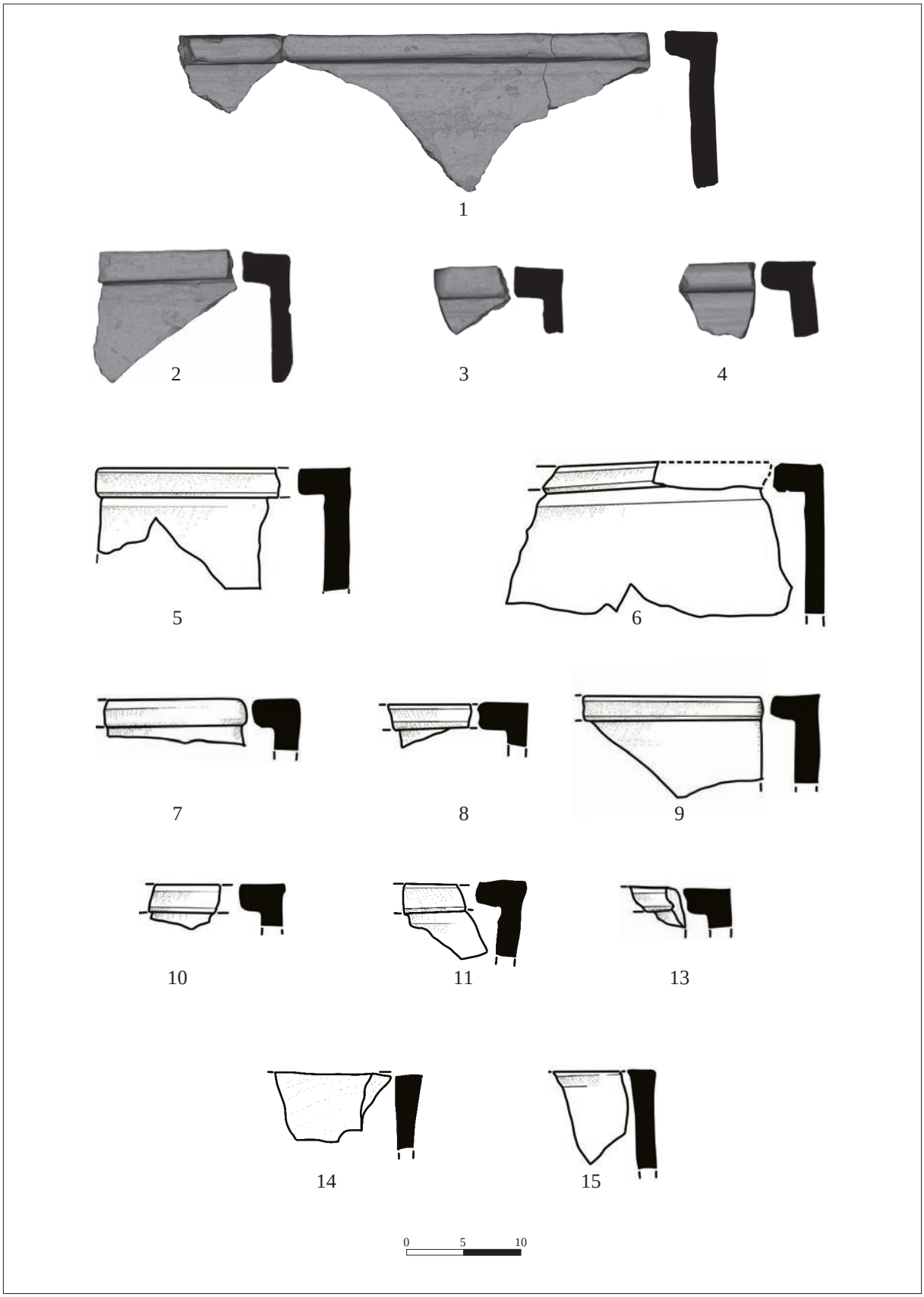

Fig. 3 : Hellenistic roof tiles; the tiles are presented with their catalog number; nos. 12 and 16 are not included (Graphic design: Alina Yoffe-Pikovsky, Ancient Jerusalem Research Center; scans: Argita Gyerman Levanon, Israel Antiquities Authority).

Unfortunately, due to their fragmentary nature, it is impossible to determine the tiles' original size, but we can get a general idea based on a few complete tiles from the wider region: 63 × 50 × 2–2.5 cm at Hellenistic Gordion[12] and 65 × 55 cm at Hellenistic Jebel Khalid[13].

Fragments B.13632 and B.13709 (**fig. 3, 2–3**) do not merge, but since they share almost the same dimensions and colour as well as a very shallow depression along the flange, they could have been part of the same tile or were at least produced in the same mold. Likewise, fragments B.78511, B.78509 and possibly B.78708 (**fig. 3, 6–8**) share the same locus, dimensions and colour and, in addition, they contain small traces of mortar (not B.78708). Fragments B.78930.1, B.78930.2 and B.79017 (**fig. 3, 13–15**) could have also been part of the same tile or were produced in the same mold.

Petrography

Although petrographic studies of pottery from excavations in Jerusalem and its surrounding were intensively conducted, only a few pottery samples from the Hellenistic period were analyzed[14]. In this study, we petrographically analyzed eleven roof tiles in order to identify their provenance (local vs. import). For comparison, we also analyzed five typical Hellenistic jars, which originated from the same massive constructive fill in which the roof tiles were found[15].

Basically, all samples, including the roof tiles and the jars, are made from the same raw material, which is identified as the local clayey unit of the Cenomanian Moza Formation. In details, the raw material is characterized by an optically active matrix. It commonly contains ferruginous silty nodules of Terra Rossa soil, and ferruginous and argillaceous pellets infrequently appear in the matrix (e.g., B.10706; **table 1**). The non-plastic components comprise approximately 20 % of the paste and contain abundant silt to fine sand-size (~20–100 μm) rhombohedral dolomite crystals and sand-sized quartz grains (≤650 μm). The latter grains appear only in the analyzed roof tiles but not in the jars. A few dolostone fragments (≤1 mm), and rarely sand-sized quartz geodes and hornblende grains are also appeared (**figs. 4–5**). The silt-sized fraction (≤50 μm) also contains quartz grains (2–3 %), and rarely feldspar grains and fine foraminifera. In the roof tiles alone, elongated molds of vanished straw are abundant and occasionally are infilled with secondary calcite crystals. The samples of the roof tiles exhibit quantitative variabilities in the quartz-dolomite ratios.

The clayey unit of the Cenomanian Moza Formation is well-known from previous studies[16]. Rhombohedral dolomite crystals are common in the overlying Aminadav Formation and in other Cenomanian units of the Judean Hills[17]. The source of quartz grains is the Israeli coastal dunes. The non-plastic components, i.e., the rhombohedral dolomite crystals and the sand-sized quartz grains, were deliberately added to the paste from which the roof tiles were made and are considered as tempers.

The differences in the dolomite-quartz ratios among the samples of the roof tiles can be due to a non-homogeneous addition of the tempers to the paste by the potters. Alternatively, the difference may stem from deliberate considerations of the potters, who chose slightly different recipes of raw materials for the tiles. Quartz grains have a distinct advantage in increasing the

12 Henrickson – Blackman 1999.

13 Clarke 2002. The average size of Ez-Zantur Type 1 roof tiles at Early Roman Petra was 53 × 41 × 3 cm (Hamari 2017).

14 E.g., Cohen-Weinberger et al. 2020.

15 The analyzed jars: B.79270/1, B.79270/2, B.79270/3 from Locus 7863; B.79269/1, B.79269/2 from Locus 7864.

16 E.g., Cohen-Weinberger – Rosenthal-Heginbottom 2019; Cohen-Weinberger et al. 2020; Cohen-Weinberger et al. 2022.

17 Bentor 1945.

Table 1
Hellenistic roof tiles from the Giv'ati Parking Lot. *The petrographically analyzed roof tiles.

	Basket	Locus	Area	Style/Type	Dimensions (cm)	Notes
1*	10706 + 10628 + 10373	1045 + 1044 + 1030	10	Corinthian Pan	41 × 13.5 × 2.4 Flange 4.8 × 2.4	Pinkish; rectangular flange; includes corner
2*	13632	1234	10	Corinthian Pan	18.3 × 11.5 × 1.7 Flange 4.3 × 2.6	Gray-brown; flange top slightly rounded
3	13709	1241	10	Corinthian Pan	6.8 × 5.8 × 1.7 Flange 4.4 × 2.7	Gray-brown; flange top slightly rounded
4*	14023	1248	10	Corinthian Pan	8.9 × 6.8 × 2.2 Flange 4.8 × 2.5	Gray-brown; flange top slightly rounded
5*	78080	7770	70 North	Corinthian Pan	17.1 × 10.9 × 2.2 Flange 4.7 × 2.3	Pinkish; rectangular flange; includes corner
6*	78511	7806	70 North	Corinthian Pan	26 × 14.5 × 1.8 Flange 4.5 × 2.4	Gray-brown; flange top slightly rounded; traces of mortar on the bottom side
7	78509	7806	70 North	Corinthian Pan	12.8 × 4 × 2 Flange 4.5 × 2.5	Gray-brown; flange top slightly rounded; includes corner and small traces of mortar
8	78708	7806	70 North	Corinthian Pan	8.1 × 3.9 × 1.8 Flange 4.5 × 2.4	Gray-brown; flange top slightly rounded
9*	78579	7810	70 North	Corinthian Pan	15.8 × 8.6 × 2 Flange 4.2 × 2.3	Gray-brown; flange top slightly rounded; includes corner
10*	78754	7816	70 North	Corinthian Pan	6.6 × 3.8 × 1.7 Flange 4 × 2.4	Gray-brown; flange top slightly rounded
11*	79202	7863	70 North	Corinthian Pan	7.7 × 6.5 × 1.8 Flange 4.2 × 2.3	Pinkish, flange top slightly rounded; shallow groove along the flange
12	79171	7864	70 North	Corinthian Pan	10.1 × 8.2 × 2.2	Light pinkish, no flange
13*	78930.1	7842	70 North	Corinthian Pan	4.9 × 3.3 × 1.9 Flange 4.3 × 2.3	Gray-brown; flange top slightly rounded
14*	78930.2	7842	70 North	Corinthian Pan	10 × 6 × 2.3	Gray-brown; includes an edge
15*	79017	7842	70 North	Corinthian Pan	6.5 × 8.2 × 2.1	Gray-brown; includes a slightly raised edge
16	80046	7845	70 North	Corinthian Pan	Flange 13.1 × 4.4 × 2.3	Pinkish, only rectangular flange preserved

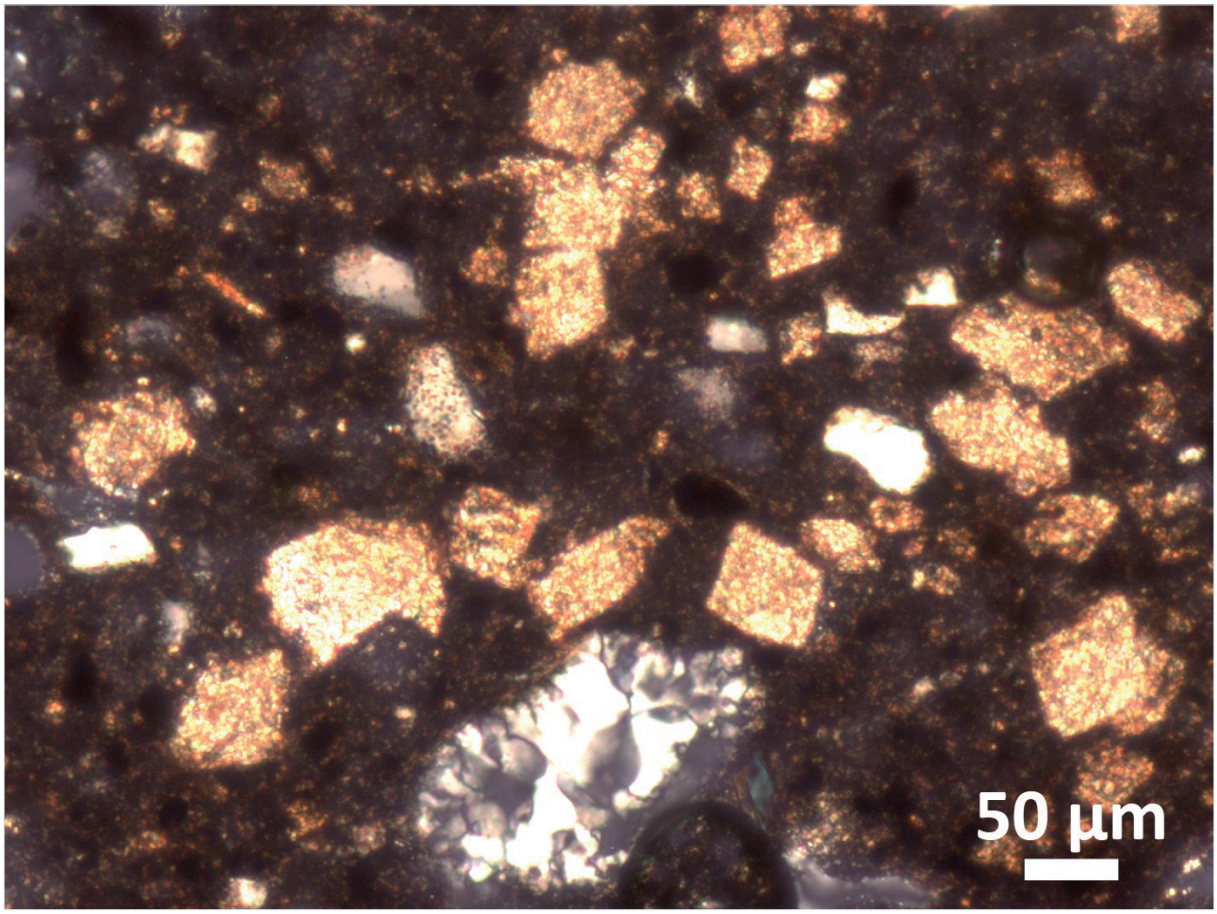

Fig. 4 : Photomicrograph of roof tile B. 78511 (**table 1**, no. 6). Rhombohedral dolomite crystals, quartz geode and silt-sized quartz grains embedded in optically active matrix.

hardness of the material and preventing the propagation of cracks[18], and therefore they are common and desirable ingredients of ceramic building materials such as roof tiles[19]. Sand-sized quartz grains were either naturally appeared within the clay rich sediment used for ceramic building materials or deliberately added during manufacture. The quartz grains for the Hellenistic tiles at Giv'ati were collected at a distance from the site (~60 km) and it seems that their manufacturers had the knowledge and experience in producing building materials. Notably, the raw material of the jars lacks quartz tempers, as there is no justification for this kind of effort to produce local jars. The straw was also deliberately added to the paste and has the advantage of increasing thermal insulation. In summary, the petrographic results indicate that the roof tiles from the Giv'ati Parking Lot were produced locally by expert potters in this industry.

It is important to add that the roof tiles produced by the Legio X Fretensis in Jerusalem are characterized by a unique recipe that includes deliberate addition of coarse quartz grains to a specific marl unit that was quarried from a different geological unit and stratigraphic level of the Moza Formation than the clay unit used for the Hellenistic tiles[20].

18 Ingham 2011, 164; Müller 2017.

19 E.g., Betts 1985, 53. 63; Hayes 1997, 80; Mills 2005; Goldberg 2012; McMish 2012, 281; Craig 2013; Shapiro 2017.

20 Cohen-Weinberger et al. 2020; Cohen-Weinberger et al. 2022.

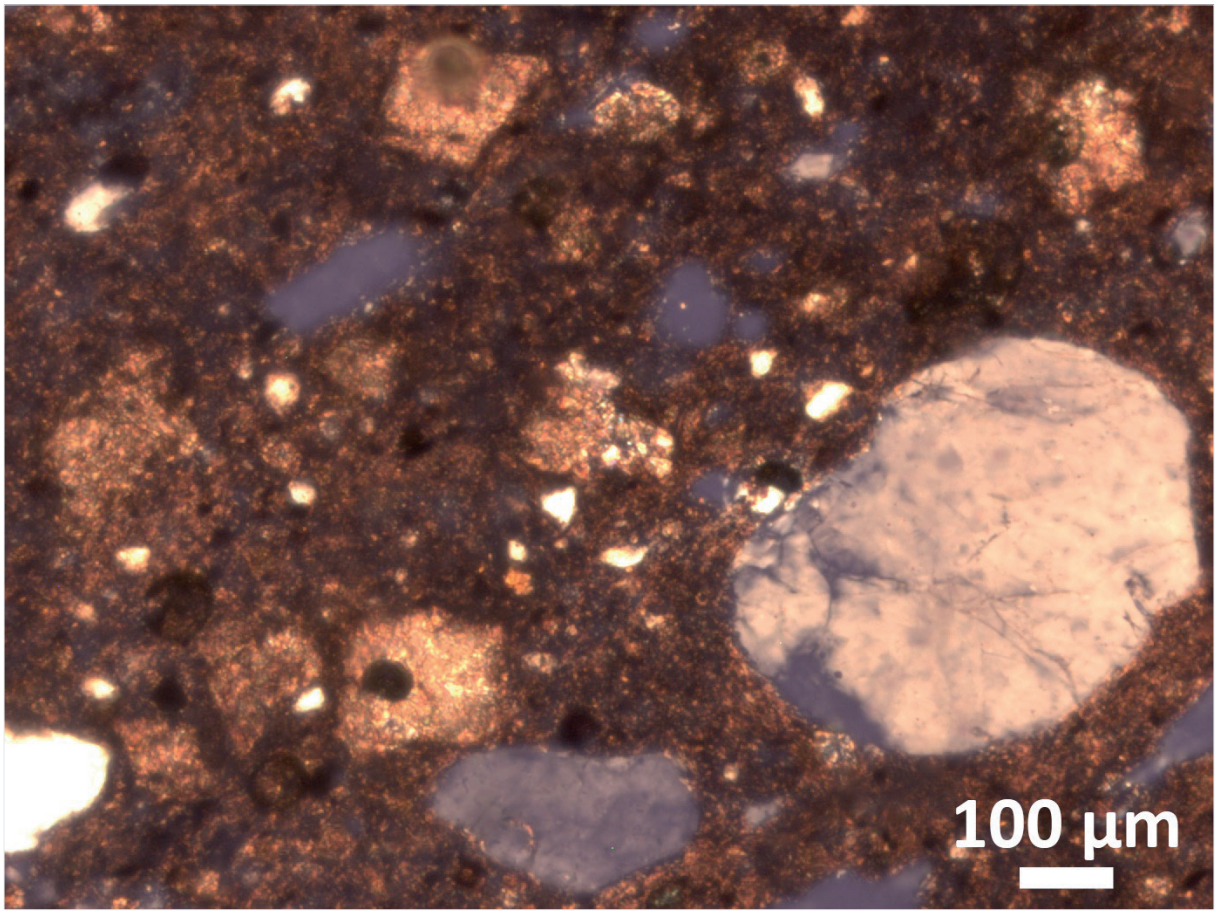

Fig. 5 : Photomicrograph of roof tile B.78080 (**table 1**, no. 5). Rhombohedral dolomite crystals and coarse rounded quartz grains embedded in optically active matrix.

Discussion

As was presented above, recent excavations at the Giv'ati Parking Lot on the western slope of the City of David (Southeastern Ridge) have uncovered the earliest evidence for the use of roof tiles in the southern Levant. In all, sixteen fragments have been uncovered so far, and all were found in the massive fill deposit dated to the Late Hellenistic period in the late 2nd century BCE.

The invention of the ceramic roof tile can be traced back to the first half of the 7th century BCE Greece and the cities of Corinth and Isthmia with the temples of Apollo and Poseidon respectively were the first to be roofed with tiles. By the late 7th century BCE the practice spread throughout the rest of Greece, Sicily and southern and central Italy[21]. In the 6th century BCE, the roof tiles are already well attested in Anatolia[22]. In the northern Levant, the first roof tiles appear in Beirut during the Persian period, 5th–4th centuries BCE[23], with at least four more

21 See e.g., Wikander 1988; Wikander 1990; Winter 1993; Sapirstein 2016.

22 Glendinning 1996.

23 Mills 2005.

sites where the tiles are attested in the Hellenistic period, 3rd–2nd centuries BCE: Antioch on the Orontes[24], Dura Europos[25], Jebel Khalid on the Euphrates[26] and Dar es-Salaam[27].

However, the same cannot be said for the Levantine region south of Beirut. Prior to this publication, no Persian or Hellenistic site in the southern Levant has produced any kind of roof tiles.

Excavations at Tel Dor by E. Stern have unearthed three fragmentary terracottas, each bearing the head of the Gorgon Medusa. Stern interpreted the Gorgons as antefixes decorating the roof of a Greek temple built during the Persian period[28]. However, as correctly argued by R. Martin, the thin concave-shaped back, the absence of any traces of being attached to cover tiles, as well as the complete lack of any other roof tiles at Dor renders Stern's proposal untenable[29]. Instead, Martin interprets these terracottas as Gorgoneia, Gorgon-shaped mask-like objects that fit well within the Phoenician tradition of cult masks.

To date, the earliest attestation of roof tiles in the southern Levant was during the Early Roman/Herodian period (37 BCE – 70 CE) at Petra, where a number of temples and structures were partially or completely roofed[30]. At Sebaste, the Temple of Augustus and the Basilica were roofed with tiles, which the excavators attributed to Herod the Great[31]. However, the excavation report leaves very little doubt that the roof tiles should be dated to around 200 CE, when Septimius Severus rebuilt and reroofed the two structures[32].

There is a visible uptick in the use of roof tiles during the Late Roman period (70–324 CE), due to presence of the Legio X Fretensis in Jerusalem following the First Jewish-Roman War, and they became especially popular and widespread throughout the Byzantine period (324–638 CE)[33]. The use of roof tiles continued in much reduced form during the Umayyad period[34], but soon after they went completely out of use until the 19th century, when the import of

24 Brands 2010.

25 Rostovtzeff 1944.

26 Clarke 2002.

27 Newson et al. 2009.

28 Stern 2010.

29 Martin 2014.

30 Hamari 2017.

31 Reisner et al. 1924.

32 The excavators describe the stratigraphy of roof tiles from two different periods (presumably Herodian and Severan) in the Basilica as follows (Reisner et al. 1924, 218): »In the debris were a number of fragments of terra-cotta roofing. Those belonging to the first period, found in the lowest stratum above the floor, had the shape *a*... The tiles *c* of the second period, found in the upper debris...«. Immediately after that, the excavators continue to describe the restoration work on the Basilica by Septimius Severus: »During the Severan period the Basilica and the Forum were entirely reconstructed. The building, like those on the summit, had apparently been in ruins. Many of the columns had been overthrown, and the pedestals carried away. In the reconstruction new bases were made, some in a crude imitation of the Herodian bases, but the majority were unfinished, or provided with simpler moldings. The variations in height and width were much greater than those of the earlier period, and in some cases in the colonnade the bases were so small that they were raised on a layer of debris and small stones above the original pavement. The interior plan of the Basilica remained much the same«. It is clear therefore that Septimius Severus did not build a new floor as part of his restoration work but continued to use the same one built by Herod. On that account, the terminus post quem for the debris, including the roof tiles that covered the floor, is the restoration work by Septimius Severus.

33 Landgraf 1980; Arubas – Goldfus 1995; Seligman 2015; Arubas – Goldfus 2019; Cohen-Weinberger et al. 2022; Lieberman et al. 2022; Weksler-Bdolah et al. 2022. – The introduction or visible rise in the use of roof tiles due to the legionary conquest is a common manifestation throughout the Roman Empire; see e.g., Kurzman 2006; Mills 2013; Hamari 2011; Hamari 2019, 96 and Cohen-Weinberger et al. 2020, 383.

34 Grabar et al. 1978; Cytryn-Silverman 2009; Damgaard 2011.

Marseilles Roof Tiles to Ottoman Palestine begun and a number of local roof tile factories were established[35].

In order to explain the almost complete absence of roof tiles between the Persian and Early Roman/Herodian periods in the southern Levant, we have to briefly examine several main reasons for the emergence of roof tiles in the first place.

The increased monumentalization of the Greek World in the 7th century BCE, which witnessed construction of much larger religious and public buildings that required a new type of roof, is mentioned by many scholars as the leading impetus for the tiles' development. The second reason often brought up is of environmental and practical nature. The tiles are resistant to fire, which is of essence in temples and in densely built areas. In addition, the tiles are waterproof and can also withstand heavy loads of snow[36].

While the process of urbanization and monumentalization in the southern Levant during the Persian, Hellenistic and Early Roman/Herodian periods is well attested and documented (e.g., Dor, Maresha, Beth Shean-Scythopolis, Caesarea, Gerasa, Sussita, Philadelphia), the roof tiles were clearly not part of that process, as they are not attested in any of the sites[37]. This absence is especially glaring during the Herodian period, since to date no roof tiles were uncovered in any of Herod's construction projects including the Temple Mount[38].

It is quite clear therefore that the monumentalization had very little to no impact on the use of roof tiles[39].

Inevitably, we need to examine the practical and environmental factors as the likely reason for the tiles' almost complete absence.

The weather in the Levant region is hot, dry and arid, with very low precipitation and occasional but rare snow at higher altitudes. Typical Ancient Near Eastern roofs, which were flat and made with wooden beams, branches, reeds, mud and plaster, were well adapted to these environmental conditions[40]. Roof leaks were common and obviously inconvenient (*Proverbs* 19, 13; 27, 15) but quite manageable with annual maintenance. Much more importantly, flat roofs in ancient Israel and in the Ancient Near East had a variety of essential domestic uses: sleeping (*1 Samuel* 9, 26; *2 Kings* 4, 10), produce drying (*Joshua* 2, 6), worship (*2 Kings* 23, 12; *Jeremiah* 19, 13; *Jeremiah* 32, 29; *Zephaniah* 1, 5; *The Acts* 10, 9), mourning (*Isaiah* 15, 3; *Jeremiah* 43, 38), entertainment/leisure (*Judges* 16, 27; *2 Samuel* 11, 2; *1 Samuel* 9, 25; *2 Samuel* 16, 22; *Daniel* 4, 26), safety (*Judges* 9, 51; *Isaiah* 22, 1) and also for sukkah placement (*Nehemiah* 8, 15–16). Living and working on the house roof was so essential and ubiquitous in everyday life that the Deuteronomic Code prescribes building of a parapet, lest somebody falls to death (*Deuteronomy* 22, 8).

The fire-proof nature of roof tiles is often cited as another important reason for their original popularity and rapid spread, yet the fire hazard was another non-factor regarding their use in the southern Levant. As already mentioned above, the flat roofs of the stone and

35 Ayalon 2002; Gordon 2006; Gordon 2013; de Vincenz 2018; Landes-Nagar 2020.

36 See e.g., Wikander 1988; Mills 2015; Hamari 2019.

37 See further Small 1987, 62.

38 We are grateful to Zachi Dvira, who is in charge of the Temple Mount sifting project and to Moran Hagbi for providing us with the information; see further Netzer 2006, 164. 317; Peleg-Barkat 2019, 39. – Hamari 2017, 101 suggests that Herod's monumental projects in Judaea may have influenced the development of monumental architecture in Nabataean Petra. While that may be true, it seems that a different source of inspiration must be sought for the use of roof tiles in Petra.

39 Hamari 2019, 63–64. Unsurprisingly, the same is true for numerous smaller sites – an online search of Hadashot Arkheologiyot published by the Israel Antiquities Authority, which contains hundreds of preliminary and final reports of archaeological excavations in Israel between 2004–2022, has not produced a single hit for roof tiles between the Persian and Early Roman/Herodian periods (for similar results see Hamari 2017, 63).

40 See e.g., King – Stager 2001; Netzer 2006.

mud-brick houses in the Ancient Near East were made from wood, branches and other vegetal materials that were covered with mud and plaster. These perfectly adaptive mud-plastered vegetal roofs had evolved through thousands of years of adaptation to the local environment. They were so effective against the spread of fire that in experiments conducted by I. Kreimerman and R. Shahack-Gross, the roof wouldn't collapse even after continuous addition of fuel to keep the fire burning inside the model house[41].

Evidently, the benefits of highly useful, inexpensive, flat, open, lightweight, and easily constructed and maintained mud-plastered vegetal roofs outweigh by far the need for tiled roofs, and it explains why the roof tiles were unnecessary and therefore almost entirely absent from public and domestic buildings in the southern Levant and, except for a few instances, in the northern Levant as well[42].

Giv'ati roof tiles setting

All the afore stated makes the discovery of the locally produced Hellenistic roof tiles at the Giv'ati Parking Lot that much more exceptional and requires an answer to the most intriguing question about the building that was deemed worthy of such an investment and effort. Our analysis shows that for five hundred years, tiled roofs were not adopted in the southern Levant by any sector of local society: not for domestic buildings, not for monumental public structures; not inland and not along the coast and not even by the elite that were usually more open to Hellenic cultural trends. Hence, the sudden appearance of locally made roof tiles in Jerusalem likely means that they were manufactured and used for the roofing of a building constructed by and for the Seleucid empire on account of their rule in the region at the time. Even though the tiles were found in a fill and so out of their original context, this massive fill was undoubtedly brought from the surrounding area and dumped intentionally in the Giv'ati Parking Lot. It therefore seems safe to assume that although at present there is no clear evidence for such a roof-tiled structure at the Giv'ati Parking Lot, the building itself stood in the vicinity.

One likely candidate is the Seleucid Hakra (Acra). This fortress/citadel was built by Antiochus IV Epiphanies to station a Seleucid garrison, following his sacking of Jerusalem in 168 BCE (*Josephus, Jewish Wars* 12, 5, 4; *1 Maccabees* 1, 35) and likely destroyed by the time of Antiochus VII Sidetes. While the location of this structure is still debatable (see above), the late 2nd century BCE date for the fill seems to post-date the Hakra's destruction. The Hakra was probably built by the Seleucid army – not very different from the heavily fortified Jebel Khalid on Euphrates, though on a larger scale[43] – and therefore it is no wonder construction techniques and materials were used, which were already familiar from Coele-Syria.

While the petrographic analysis has shown that the tiles were produced locally, it is clear that local artisans had no necessary experience in producing them, since the design, production and installation of roof tiles, as well as the construction of proper roof structures, is a complex process that requires skill and expertise[44]. Consequently, there is very little doubt that the roofing of the building at the Giv'ati Parking Lot/Jerusalem required an outside team of experts for the task at hand[45]. The fact that a different paste recipe was used in the tiles' production by adding quartz grains and straw only strengthens this point (see above). Therefore, in all

41 Kreimerman – Shahack-Gross 2019.

42 See further Hamari 2017, 86–87.

43 Clarke et al. 2002; Wright 2011.

44 Henrickson – Blackman 1999; Sapirstein 2009, 198; Tremoleda et al. 2017; for the economic value of roof tiles see Mills 2015. This will change only during the Late Roman period (Lieberman et al. 2022; Weksler-Bdolah et al. 2022).

45 Henrickson – Blackman 1999, 313–317, estimate that a small team of artisans could have fabricated 1,000 cover and 1,000 pan tiles at Hellenistic Gordion in 33 to 53 working days.

probability teams were brought in from Beirut[46] or even Antioch on the Orontes[47], where significant roofing projects were well attested during the Hellenistic period and are related to the development of the Hellenistic polis in the 3rd and 2nd centuries BCE[48].

Due to the proximity to Jerusalem of the readily available clay in the Moza Formation[49], there was no need for the raw material, or the roof tiles themselves to be imported as this would dramatically increase the production cost and would extend the project completion date. The situation was quite opposite in Beirut, for example, where most of the roof tile-supply between the Hellenistic and Byzantine periods came through import, especially from Cilicia[50].

At the same time, we need to gauge the physical scale of the Giv'ati discovery, which is scant at best. The sixteen uncovered fragments are not large enough to make even a single average-sized pan tile. The scarcity of fragments can indicate one of two possibilities: the main body of roof tiles is still to be discovered, or the minute amount is a realistic representation of the situation on the ground. While the former may strengthen the suggestion that the Hakra is not to be found at the Giv'ati Parking Lot[51], the latter may point toward a common manifestation from different archaeological sites, which is a limited use of roof tiles only over specific parts of the building[52].

The final question that needs to be addressed is why, in light of everything presented above, would an effort be made to tile-roof the Hakra (or any other building for that matter), either partially or fully. The tiles were unnecessary, expensive and required a lot of effort and expertise that needed to be imported if not locally available. While no definitive answer can be given, prestige, the sense of power and a desire to impress are certainly some of the options. The tiles were likely there to put an exclamation point on an imposing structure that ultimately managed to survive only three paltry decades[53].

With the disappearance of the Seleucid Empire from the region, the use of the roof tiles disappeared as well since the practice was not adopted by any sector of society. It took another 200 years until another empire reintroduced buildings roofed with tiles into Jerusalem, bringing with them new experts, knowledge and techniques.

46 Mills 2005.

47 Brands 2010.

48 Millar 1987; Butcher 2003, 26–30; Mills 2015.

49 Cohen-Weinberger et al. 2020.

50 Mills 2005, 179–184; Mills 2015.

51 Shalev et al. 2019.

52 See e.g., Hamari 2017.

53 Zilberstein 2021.

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This chapter is dedicated to the memory of

Ephraim Stern

(January 15, 1934 – March 23, 2018),

director of the excavations at Tel Dor from 1980 – 2000.

May his memory be blessed!

Hellenistic Dora: The Moldmade Bowls from the 1980 – 2000 Seasons[1]

Renate Rosenthal-Heginbottom

Presented are the Moldmade Bowls (MMBs) from twenty years of excavations at Tel Dor, directed by Ephraim Stern. Hellenistic Dora on the Carmel coast was part of Phoenicia[2]. The material is divided into two parts, and the catalogue will include the previously published finds by the author and the remainder[3]. The finds from the successive expedition, directed by A. Gilboa and I. Sharon, have been entrusted to S. D. Mermelstein[4], and the particular significance of Mermelstein's work will be the results of the NAA analyses relevant not only for Dora but for the entire southern Levant. Yet, it must be borne in mind that for practical and economic restrictions, it will be out of question to use NAA for all excavated material, and classifications based on visual identification and on the study of motifs and patterns will still be indispensable.

In the first part one-hundred-and-twelve vessels of Ionian manufacture will be discussed, defined by visual fabric assessment and by parallels in shape and motifs. The two nearly complete bowls (nos. **1–2**) are examples of figured vessels. The first of Ionian origin is decorated with an upper zone showing a pair of Amazons and a lower zone with the figure of Eros, the second

1 I thank Gabi Laron for the excellent photos. The drawings were made by Vered Rozén except for the digital drawings nos. **19**. **32**. **36**. **64**, prepared in the Institute of Archaeology, The Hebrew University, Jerusalem.

2 Nitschke et al. 2011, 137. See the plans of the excavated areas on p. 133 fig. 2 and of the Hellenistic period on p. 142 fig. 14.

3 Rosenthal-Heginbottom 1995a; Rosenthal-Heginbottom 1995b. For the concordance of the finds see **Table 1**.

4 Mermelstein 1994; Mermelstein 2022.

in RSP ware with a frieze depicting game animals like a lion chased by a dog, a leopard and an ibex, with a band of tongue-shaped petals below. Both motifs enjoyed a certain popularity among the customers at Dora and in the southern Levant[5]. The bulk of finds (nos. **3–112**) are assigned to the Ephesian Monogram workshop, though some unassigned specimens that do not fall into a distinct group are listed, as the material is classified by motifs and patterns. Unfortunately, with the exception of no. **14**, this material is fragmentary. Contextualization and parallels permit to define a general chronological framework, while it is impossible to assign precise dates to individual vessels. The Monogram workshop is the best-known and the products are the most widely distributed exports, and the manufacture started shortly before or after the mid-2nd century and continued until the end of the 2nd century BCE, though the precise duration of production is still an open question[6]. S. G. Schmid suggests to consider the beginning of production one or two quarters earlier in the late 3rd – early 2nd century and the end at the beginning of the 1st century, with the main production in second and third quarters of the 2nd century[7]. Characteristic is the homogeneous, generally micaceous fabric, the fine inclusions often hardly visible to the naked eye; and the colours of paste and slip show a wide variation in the hues of red, orange, brown, grey and dark grey, with optical differences resulting from different firing temperatures[8]. In S. Mermelstein's NAA tests of the Dora finds from the 2003 and later seasons this fabric is classified as Group 1/reddish ware, while Group 2 comprises the buffware/ESA-like MMBs[9].

The MMB market was intensely active in the wider eastern Mediterranean area and into the Black Sea region. Its distribution pattern points to sea-dependent trading with ceramic assemblages recorded in the major settlements, in particular those along and close to the coast. Many assemblages attest that from the 2nd century BCE onwards MMBs, especially from Ionian workshops, dominated the fine ware regional and supra-regional large-scale trading almost to the point of a near-monopoly, surely due to the high technical and artistic quality of the potters.

The appearance of the moldmade drinking cups without handles in Athens has recently been discussed by S. Rotroff[10]. Influenced by eastern shapes and some motifs they were introduced in the Athenian tableware repertoire in the last quarter of the 3rd century BCE (224/3 BCE)[11], gained immense popularity everywhere in the late Hellenistic world and became the most predominant and most widespread drinking cups at symposia in Hellenistic times. As the cup could not stand unaided, consumers had to balance it in the palm of the hand or support it on the fingertips. By the end of the 3rd century Athenians, when drinking wine from clay cups, used the relief bowls without handles, equipped with a flat secure resting surface. Decorating the vessels with elaborate figured scenes and motifs was a characteristic feature of the Athenian repertoire, resulting in a dual-purpose vessel as drinking cups and conversation pieces. The Athenian pattern was not universal, and in the eastern Mediterranean and the Black Sea regions floral motifs prevailed[12]. S. Rotroff divided the figured vessels into idyllic bowls, forming the majority, bowls with mythological subjects and with hunting scenes. When

5 Rosenthal-Heginbottom 2016, no. 102 (= no. **2**); Rosenthal-Heginbottom 1995b, pl. 11, 10; *Akko*: Tatcher 2000, 35* fig. 8, 8; *Shikmona*: Elgavish 1974, pl. 35, 324 (probably); *Bet Eliezer*: Riklin 1998, 57 fig. 83, 3 = Rosenthal-Heginbottom 2016, no. 110.

6 Rogl 2002, 196–197; Rogl 2003, 27–28; Rogl 2014, 132–133.

7 Schmid 2006, 47–51.

8 Rogl 2014, 122–126.

9 Mermelstein 2022, 808. 809 figs. 1–2.

10 Rotroff 2020.

11 Rotroff 2006. 78.

12 Rotroff 2020, 68–71 and fig. 5 on p. 68; Rogl 2014, 126; Žuravlev – Žuravleva 2014, 260–261 and figs. 6–7.

figured bowls lack a specific narrative, several stamps could be repeated in sequence[13], the system employed on the Dora bowls nos. **1–2**.

The acquisition and use of MMBs reflects the consumers' life style and revel habits, and the analysis of the motifs depicted helps to understand the consumers' aesthetic perceptions to some extent. The question is whether the participation in the Hellenistic ceramic koine and the acceptance of relief-decorated drinking cups implies the institution of the symposium, the after-meal spree with recitals, conversation, kottabos games, music and dancing performances by the inhabitants of Dora. The contextual evidence at Dora does not permit to compile the set of tableware used, while the rich and well-dated assemblages at Ephesos document the development and changes in the repertoire during late Hellenistic and early Roman times[14].

The import of MMBs to Dora permits to track the trade networks and to assess the extent of supra-regional connections. For Dora, being part of Phoenicia, the question arises how the imports from Ionia reached the consumers. Scholars consider Delos and the Phoenician cities as dominant trade hubs, conclusions based on written sources about the activities of associations of merchants established at Delos, namely the ›Berytus Poseidoniast traders and shipowners and agents‹ and the ›Tyrian Herakleist traders and shipowners‹[15]. Indeed, the interaction has already been established for the late Hellenistic grey ware lamps[16], and in the Roman period the trade connections continued, as documented by the import of Roman lamps with decorated discus from Phoenician workshops to sites like Tel Anafa and Omrit in the north of present-day Israel[17]. A. Peignard-Giros attributes the import of Phoenician amphoriskoi and ESA ware to Delos to negotiators, underlining that the main goods were slaves and perfumed oils, and suggests that the Antikythera ship wreck started from Delos (and not from Syria), where the ship was loaded with objects and pottery from other areas, previously imported to Delos[18]. Hence, in all likelihood Phoenician traders controlled the distribution of Ionian MMBs to customers in the southern Levant, having been shipped from Ephesos via Delos to the Phoenician coast.

At Dora, contextual evidence for the beginning of imports points to the first half of the 2nd century and tallies with the production period of the Monogram workshop[19]. For the material included here the key locus in Area C0, L564, is assigned to Phase 4a, dated ca. 175–125 BCE (see nos. **7**. **107**)[20], and no MMBs were recorded in the previous Phase 4b, dated ca. 275–175 BCE[21]. Fragment no. **79** from Area C1, Locus 602, a bowl not made in the Monogram workshop, is dated to Phase 3b, ca. 275/250–200 BCE[22], a rather early date in the Ionian production, although C. Rogl refers to nos. **81** and **87** as examples for the early Ephesian production in the first half of the 2nd century BCE, with a context date of 190 BCE[23].

13 Rotroff 1982, 19.

14 Lätzer-Lasar 2015.

15 Parker 2017, 156.

16 Młynarczyk 1997, 25. 39; Dobbins 2012, 110; Rosenthal-Heginbottom 2020 / 2021, 60.

17 Dobbins 2012, 176–179; Rosenthal-Heginbottom 2017, 455; Rosenthal-Heginbottom 2021, 67–68.

18 Peignard-Giros 2022, 279. 285.

19 The assessment has been by C. Rogl (see Rogl 2014, 133 note 28).

20 Guz-Zilberstein 1995, 316 and fig. 6.43, 3-4.

21 Guz-Zilberstein 1995, 320.

22 Guz-Zilberstein 1995, 327–328 and fig. 6.54, 6.

23 Rogl 2014, 132 and note 26.

The Catalogue

Two figured bowls

Amazonomachy – Ionian workshop, probably Ephesos

1 (Area D1, L16569, Reg.–Nos. 167639 + 168150)[24] (**fig. 11**)

H. 11.2; Diam. 20. Entire profile; the nine joining fragments permit the reconstruction. Reddish-brown fabric, ext./int. reddish-brown slip with dark grey blotches, narrow dark grey band on inner lip.

Rim: Ionian cyma. Wall: two friezes separated by Ionian cyma. Calyx and medallion: comic mask surrounded by two different alternating curved stalks, one with leaves and flowers, the other with leaves. A row of beading[25] separates the calyx and the lower frieze.

There are two friezes with Amazons on the upper and Erotes on the lower. The figures were produced from single stamps, repeated in sequence and used twenty-eight and twenty-four times respectively. Depicted is a pair of Amazons prepared to fight; a kneeling Amazon with the left knee bent and holding a shield in the outstretched left arm and an axe in the right hand; standing behind her is an Amazon in frontal position. Her right arm is raised, holding a double axe behind the head; the left arm is outstretched, possibly holding two spears (the object is not clear, note the two ribbons hanging down).

The motifs of the two friezes occur on a krater from a tomb in Rhenea in the Cyclades[26]. The upper frieze shows Erotes carrying objects, in particular musical instruments. The lower frieze, identified as a battle between Greeks and Orientals, depicts different single combatants and pairs, made with three stamps, and there is a close parallel for the standing and kneeling figures on no. **1**[27]. While A. Laumonier interprets an Amazonomachy, S. G. Schmid points out the lack of female features, the Oriental dress and specific arms[28]. However, both figures are identified as female by dress and breasts and by the topknot of the kneeling figure, hence an Amazon is depicted.

An upper wall fragment from Ephesos depicts Amazons in combat with the Greeks[29]. The group of two Amazons tallies with that on the Dora bowl; the head and right arm of the standing Amazon are not

24 IAA Reg. No. 98–3073.

25 Rows of beading describe the horizontal lines separating rim friezes and decoration zones and surrounding medallions (Rotroff 1982, 4. 15). In the Athenian production it is a common feature of the workshop of Bion (Rotroff 1982, 26). The term has been employed by the present author in the publication of the relief bowls from Caesarea Maritima (Rosenthal-Heginbottom 2016, 120 and Table 3), and will be used in this chapter, as distinguished from lines of jeweling that refer to the vertical ornamentation on bowls with tongue-shaped petals (Rotroff 1982, 34–35; see nos. **70–71**).

26 Schmid 2006, 25 B1. 130–131 figs. 58–62 = Laumonier 1977, 100 no. 6201.

27 Schmid 2006, 131 fig. 62 (3).

28 Schmid 2006, 64–65.

29 Rogl 2014, 136 fig. 21b.

1

preserved, while in her left outstretched arm she holds two spears. Different scenes are found on bowls from Delos[30] and Metropolis[31].

Eros is shown in profile, striding to the right. Close are the figures in the Monogram workshop together with Pan / Aegipan and in the succeeding workshop of the ›comique à la canne‹ as well as in the ›vases gris‹ atelier[32]. The motif was a popular one in many local productions, see f. ex. the relief krater with a band of striding figures holding hands from Liburnia, Dalmatia[33]. Several small fragments attributed to the Erotes workshop at Kyme depict Erotes in different positions[34], where parallels for the calyx are found. The comic mask and the floral calyx, in particular the curved stalks with leaves and flowers, occur on a mould from Kyme of the Paniscus workshop and on a misfired bowl fragment from the same workshop[35]; in both cases the stalks alternate with acanthus leaves. Similar curved stalks alternating with acanthus leaves are found on other bowl fragments related to the Paniscus workshop[36]. In spite of the apparent congruence the bowl is assigned to an Ephesian workshop, as the curved stalks on no. **1** have been produced from the same stamp as the fragment no. **87** in grey ware, assigned to the Ephesian ›vases gris‹ atelier.

30 Laumonier 1977, 217 no. 3246, pl. 48; 304 no. 2426, pls. 71. 128 = LIMC I (1981) 616 s.v. ›Amazones‹ (P. Devambez – A. Kauffmann-Samaras); Laumonier 1977, 139–140 and pl. 31; 143 and pl. 32; 168–169 and pl. 37, from the Monogram workshop and succeeding workshops, and 304 no. 2426 and pls. 71. 128, from the workshop of Heraios.

31 Gürler 2003, 14 no. B 6 and pl. 13, Metropolis Group B from a fill dating back to the second half of the 3rd century.

32 Laumonier 1977, 167 no. 3242 and pl. 37; 124 nos. 3174. 3182 and pl. 28; 97 no. 3331 and pl. 21.

33 Rogl 2008, 527 fig. 7. Together with moldmade bowls kraters form the standard service repertoire for symposia. In the Ephesian production relief kraters and bowls with funnels were part of the service, see Rogl 2008, 529 figs. 8–9. To date, none have been recovered at Dora.

34 Bouzek – Jansová 1974, 21.

35 Bouzek – Jansová 1974, 19–21 Mould MB 1. 37 fig. 6, 1 and pls. 1. 3; for the bowl fragment see p. 54 MB 19 and fig. 1 on p.20.

36 Bouzek – Jansová 1974, 22. 54–55 MB 26–27 and fig. 1 on p. 20.

1

1

1

Hunt – RSP

2 (Area B2, L3885, Reg.–No. 38464) (**fig. 11**)

P. H. ca. 8.7; Diam. 16. Entire profile; eight fragments preserved, three joining. Shape: not Ionian.

Light brown fabric, ext. brown slip until below Ionian cyma band, from there to bottom red slip, int. brown slip.

Rim: Ionian cyma. Wall: game animals, leopard and ibex leaping right, lion between dogs moving left, apparently forming antithetic groups. Calyx: row of small leaves and band of closely set long tongue-shaped petals with rounded top. Medallion: schematic rosette, surrounded by ridge.

In the Athenian production the combination of the long petal frieze with the hunting scene as main zone is not found, common are calyces composed of imbricate small ferns and lotus sepals, arranged in two to nine rows[37]. The fragmentary state of the bowl with just over half preserved makes it impossible to know whether huntsmen were also depicted. The antithetic composition of the animal frieze is unusual, and repetitive layouts are more common.

The renewed fabric assessment indicates that the previously suggested origin from a workshop at Caesarea Maritima is erroneous[38], and the bowl is assigned to the RSP category (Red Slip Predecessor), represented in the Beirut assemblages during the second half of the 3rd century and particularly in the beginning of the 2nd century BCE until the appearance of ESA[39]. The category tallies with the BSP category (Black Slip Predecessor), identified by K. W. Slane, which is based on the contextual evidence from Tel Anafa was no longer produced by 128/125 BCE[40].

37 Rotroff 1982, 19; for calyces with imbricate leaves see nos. 240–265.

38 Rosenthal-Heginbottom 2016, 158–160 no. 102. The question of local production, possibly at Caesarea Maritima and Maresha (Rosenthal-Heginbottom 2019, 75) will be addressed in the second part of the Dora publication. S. Mermelstein points out that based on NAA results current scholarship is of the opinion that MMBs were not manufactured in the area of present-day Israel (Mermelstein 2022, 806–807), and the results of the author's Ph.D. thesis will be of utmost importance.

39 Élaigne 2013, 216–217.

40 Slane 1997, 271.

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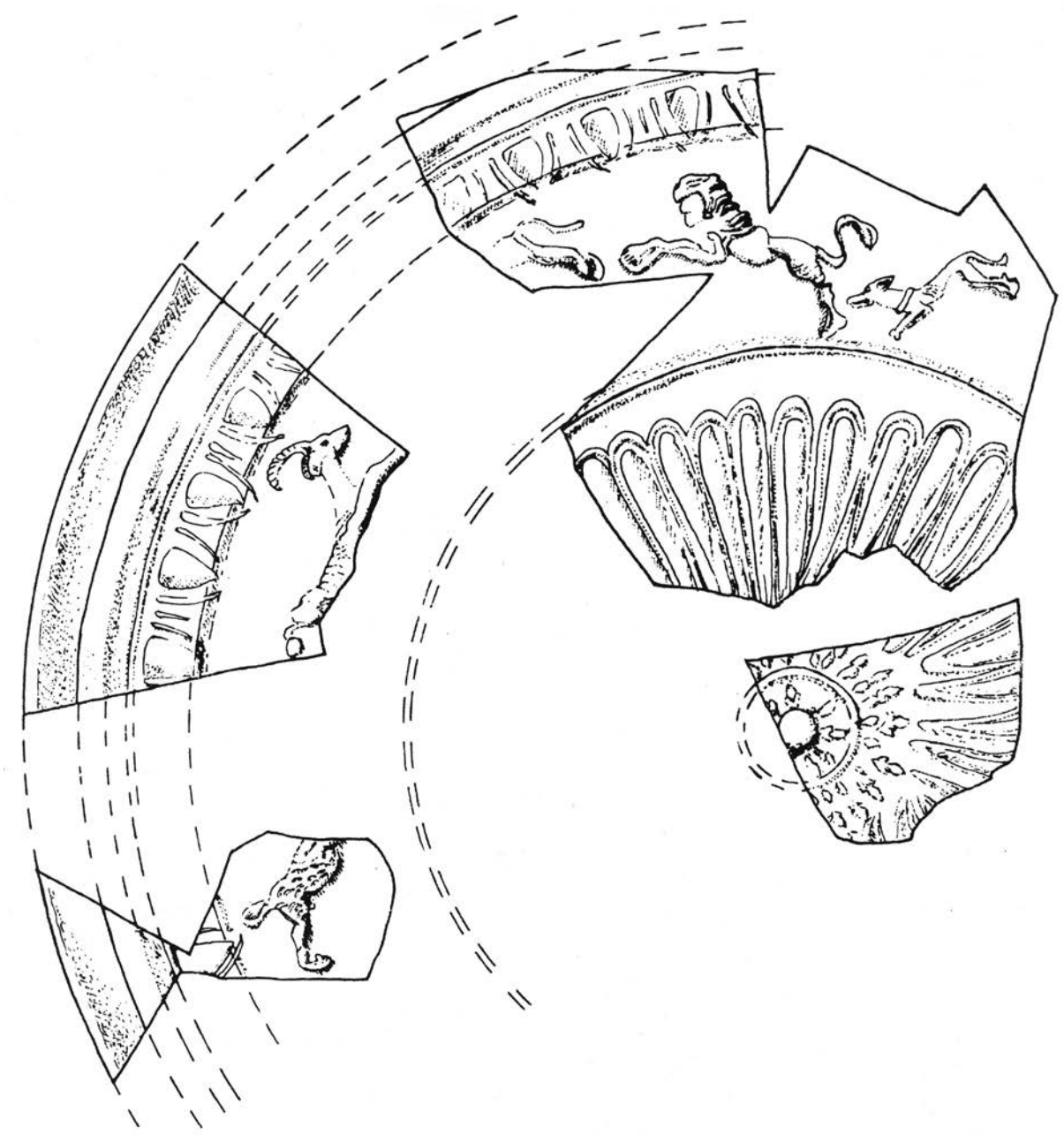


2

Monogram Workshop (Square-Monogram potter / PAR-Monogram workshop)

The attribution to the Monogram Workshop is based on visual fabric examination and on the fundamental studies by C. Rogl[41]. The micaceous fired paste is reddish-brown, the red, brown and dark grey slips are smooth, sometimes lustrous, and combinations of different slip colours are common. In addition, there are bowls produced in the ›vases gris‹ atelier and some fragments of unassigned, probably Ionian origin. The standard shape is the hemispherical moldmade bowl with an upright rim added on the wheel; prevalent at Dora is Type 2, the so-called ›Delian profile‹[42]. The standard-sized bowls have a diameter of 13–16 cm., though with small fragments the measurements are tentative. No. **1** with a diameter of 20 cm. is an exceptionally large bowl[43]. With regard to the motifs and their application the imported bowls tally with the Rogl's observations on the finds from the Magnesian Gate at Ephesos[44]. They comprise several zones: the upper rim[45] decorated with the Ionian cyma (nos. **3–6**. **8–9**. **22**. **26**)[46] and less common with the Lesbian cyma (nos. **28–35**), meander (nos. **36–52**), rosettes (nos. **53–73**), guilloche (nos. **13–14**. **75–79**), bead-and-reel (nos. **80–89**), running dog (nos. **90–92**) and spirals (nos. **93–94**). The lower rim zone has bands of vine tendrils (nos. **3–13**), five-petal wreaths (nos. **14–21**) and tendrils with flowers and/or leaves (nos. **22–27**). The following zone, the calyx, has floral motifs, mostly alternating lotus and acanthus leaves (nos. **7**. **10–11**. **14**. **30–31**. **102**); however, the number of bowls recovered at Dora that preserve this décor is relatively small. There are combinations of two or three elements of the upper rim zone, resulting in three rim zones (nos. **5**. **28**). The most common motif of the medallion décor is the rosette (nos. **14**. **95–112**). The presentation focuses on the rim and wall fragments, as entire or nearly entire profiles are rare (nos. **1**. **14**. **28**), and on the various rim motifs.

Band of vine tendrils

The common feature of the nos. **3–13** is the elaborate rim band of vine tendrils with leaves and clusters of grapes[47], set below an upper band mainly of Ionian cyma and, less common, of guilloches and rosettes. The bowls represent different moulds of a related prototype. Except for the rim, the upper part of no. **3** tallies with a complete bowl from the cistern filling 2 in Terrace House 1 at Ephesos, with a context date of ca. 100 BCE (Ladstätter et al. 2003, 46 K 43 and pls. 5. 155, with guilloche; rim diam. 13.6, with references; see also Gassner 1997, 84 no. 226, pl. 17 = Günay Tuluk 2001, 63 no. 9 and pl. 33, a bowl with funnel; Rogl 2014, 131 fig. 16a–b; *Kyme*: Bouzek – Jansová 1974, 61 MB 65 and fig. 3 on p. 27 [assigned to a Pergamene workshop]; *Metropolis*: Gürler 2003, 12 nos. A 23–27 and pls. 10–11 [Group A, a fill dating back to the second quarter of the 3rd century BCE]; *Olbia*: Guldager Bilde 2010, 278–279 F-25–29; *Eretria*: Schmid 2006, 27 B10. 50 Monogram workshop [context date second quarter of 2nd century BCE on p. 103]).

41 The results are summarized in Rogl 2014. However, as other publications of the rich assemblages from Ephesos are written in German, in particular cases the German terms are included in order to facilitate their use.

42 Rogl 2014, 122. 125 fig. 11.

43 Larger bowls have a diameter of over 16 cm., smaller ones under 10 cm. (Rogl 2014, 127), with none of the latter recorded at Dora.

44 Rogl 2014, 126–127 (›Zonenbecher‹).

45 The classification follows Rogl 2014, fig. 13 for the Monogram workshop and fig. 14 for the succeeding ateliers.

46 The numerous rim fragments with only the Ionian cyma preserved will be presented in the second part.

47 Rogl 2003, pls. 62–63, RB 14–15 ›Ranken-Weinlaubstempel‹; Rogl 2008, 526 fig. 5; Rogl 2014, 131 fig. 16a–b.

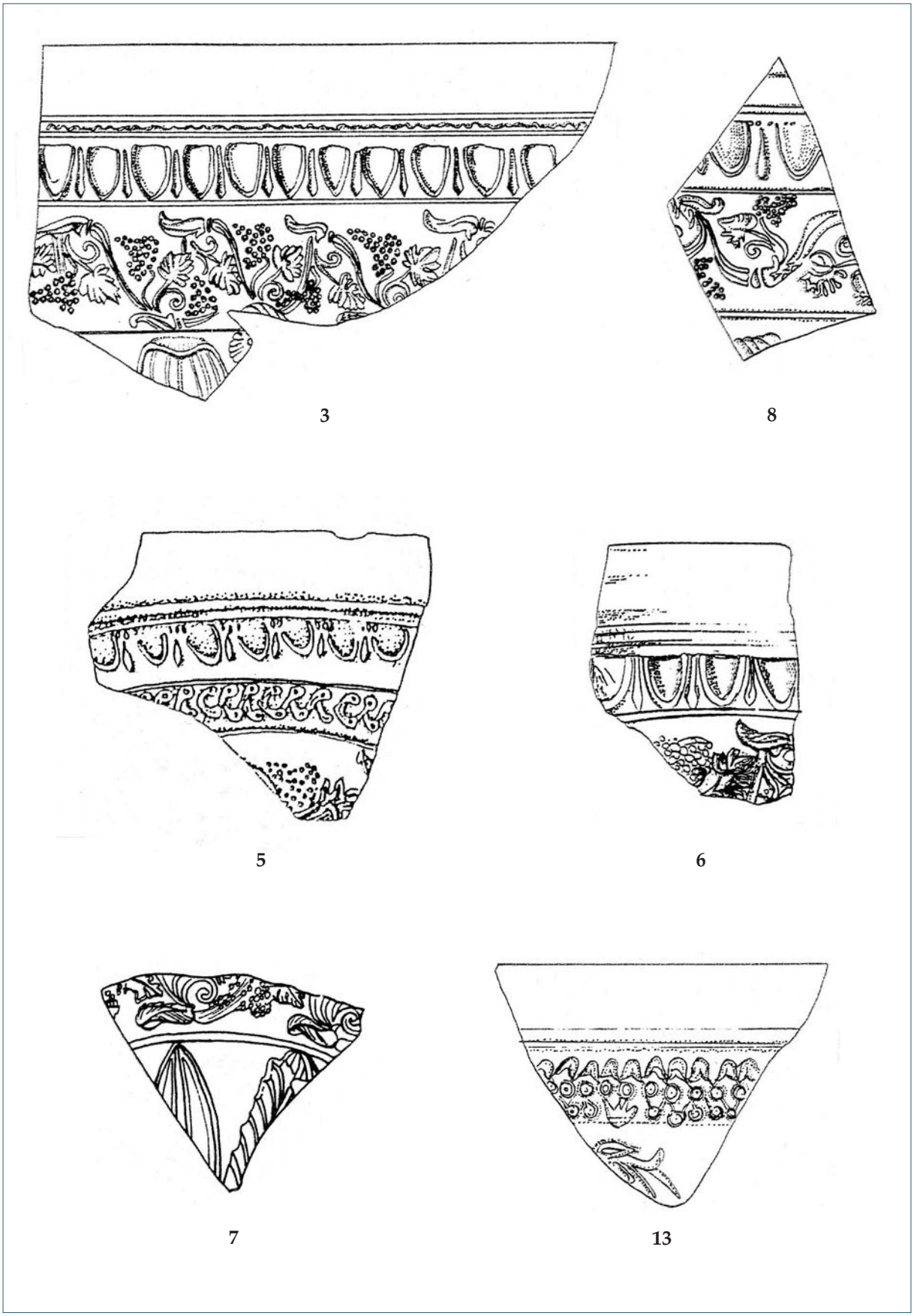


Fig. 1 : Band of vine tendrils (M. 1 : 1)

3 (Area D2, L10438, Reg.–No. 10273; L10420, Reg.–No. 104210; L10473, Reg.–No. 104341) (**figs. 1. 11**)

Diam. 14. Three joining rim and wall fragments.

Reddish-brown fabric, ext. lustrous red slip with dark grey blotches on the wheel-made rim and the cyma band, int. red slip.

Rim: partly preserved row of beading, Ionian cyma, vine tendrils. Calyx: broad ribbed lotus leaf bent over at the tip.

Lotus leaf: Günay Tuluk 2001, 65 no. 16 and pl. 38 (workshop NI?); Ladstätter et al. 2003, 46 K 43 and pls. 5. 155.

4 (Area D2, L5240, Reg.–No. 52237)

Diam. 14. Three joining rim fragments.

Light brown clay, ext. dark grey/brown slip, int. red/brown slip.

Rim: Ionian cyma, vine tendrils.

This bowl was made from the same mould as no. **3**.

5 (Area CO, L508, Reg.–No. 4739/1; published with no. **7**, yet the two fragments belong to different bowls) (**figs. 1. 11**)

Diam. 15. Rim fragment.

Reddish-brown fabric, ext. from below the two rim bands red slip, reddish-brown above these and on int. surface, int. dark grey band along the rim.

Rim: Ionian cyma, guilloche, vine tendrils.

Guilloche: Rogl 2014, fig. 13, 9; Ladstätter et al. 2003, 46 K 43 and pls. 5. 155; Ionian cyma and guilloche: Ladstätter et al. 2003, 48 K 53 and pls. 6. 155.

For three rim friezes see no. **28** (meander with star in square, Lesbian cyma, eight-petal star rosette) and no. **52** (meander, Ionian cyma, guilloche). Used in different workshops, the décor combinations vary greatly, as can be deduced from the few examples listed. From the

Monogram workshop Laumonier 1977, pl. 31, 388 (meander with star in square, eight-petal star rosette, Ionian cyma), pl. 33, 397 (meander, rosettes, Ionian cyma), pl. 34, 372 (Lesbian cyma, star rosette, bead-and-reel), pl. 123, 451 (running dog, star rosette, bead-and-reel); Rogl 2001, 106–107 and pl. 60, RB 2. 5 (star rosette, Ionian cyma, seven-petal rosette); Rogl 2008, 526 fig. 4 (seven-petal rosette, star rosette, bead-and-reel); Günay Tuluk 2001, 64 no. 12 and pl. 35 (Ionian cyma, six-petal rosette, two ivy leaves separated by corymbs; Monogram workshop?); ›vases gris‹ atelier Günay Tuluk 2001, 64 no. 11 and pl. 34 (Ionian cyma, meander with star in square, band of incised H-pattern); from the Menemachos workshop Laumonier 1977, pl. 113, 1981 (bead-and-reel, double spirals, Ionian cyma).

6 (Area D2, L5147, Reg.–No. 51090) (**fig. 1**)

Diam. 14. Rim fragment.

Reddish-brown fabric, ext./int. lustrous dark brown slip, dark grey on the rim.

Rim: Ionian cyma, vine tendrils.

7 (Area C0, L564, Reg.–No. 4897; published with no. **5**, the two fragments belong to different bowls) (**fig. 1**)

Lower rim and wall fragment.

Reddish-brown fabric, ext./int. red slip.

Rim: vine tendrils. Calyx: alternating lanceolate lotus and curved tipped acanthus leaves.

Ephesos: Gassner 1997 no. 221; *Metropolis*: Gürler 2003, 13 A 34–36 and pl. 11 (Group A, a fill dating back to the second quarter of the 3rd c. BCE).

8 (Area F3, L8572, Reg.–No. 85958) (**fig. 1**)

Wall fragment. Two tiny fragments recovered in the same locus most likely belong to the same bowl.

Reddish-brown fabric, ext. red slip with grey band long ridge separating rim and wall, int. red slip with brown blotch at top.

Rim: Ionian cyma, vine tendrils. Calyx: tip of leaf.

9 (Area B2, L13520, Reg.–No. 135062/3)

Diam. 14. Rim fragment.

Light brown fabric, ext. on cyma band brown slip, below reddish-brown slip, int. worn reddish-brown slip.

Rim: Ionian cyma, vine tendrils.

10 (Area B2, L13667, Reg.–No. 135628)

Wall fragment.

Reddish-brown fabric, ext./int. lustrous red slip.

Rim: vine tendrils. Calyx: alternating rhomboid lotus and tipped acanthus leaves.

Calyx: Rogl 2001, pls. 59, 2. 62, RB 12–14; Dereboylu 2001, 33 nos. 92–96; nos. 95–96 = Waldner – Ladstätter 2014, 481–482 K 81–82.

11 (Area D2, L17607, Reg.–No. 176035/20)

Wall fragment.

Reddish-brown fabric, red slip, worn on interior.

Calyx: alternating rhomboid lotus and acanthus leaves with tip turned over.

12 (Area D1, L16856, Reg.–No. 260524)

Diam. 14. Rim fragment.

Reddish-brown fabric, ext. dark grey/brown slip on the wheel-made rim and band of rosettes, below red slip, int. reddish-brown slip with narrow dark grey band along the lip.

Rim: eight-petal star rosette, vine tendrils.

Rosette: Rogl 2001, pls. 60–62 RB 2–5. 8–11; Rogl 2014, fig. 13, 3.

13 (Area B2, L12374, Reg.–No. 123628/2) (**figs. 1. 11**)

Diam. 16. Rim fragment.

Reddish-brown fabric, on rim ext. worn dark grey slip, below reddish-brown slip, int. reddish-brown slip.

Rim: pseudo-guilloche of hooks and circles resembling the rim frieze on bowls of the succeeding ateliers, vine tendrils.

Guilloche: Rogl 2014, fig. 14, 103 (›Haken/Blatthaken‹); for the identical guilloche see no. **79** and for a close parallel see no. **84** (with bead-and-reel).

Five- and three-petal wreath[48]

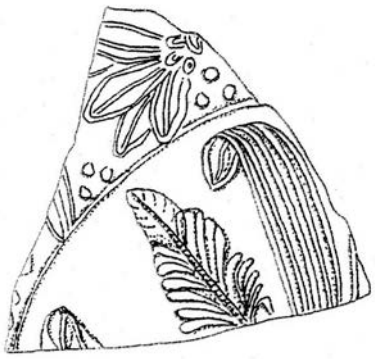
The prominent wreaths in Ephesian production are represented at Dora in the version with five tied leaves which belongs to the second half of the 2nd century BCE[49] and is later than the wreaths with three tied leaves. At Sardis, the trefoil-style wreath first appears in the first decades of the 2nd century BCE[50]. On nos. **14–18** the leaves point to the left, on nos. **19–21** to the right, separated by a triple cluster of raised dots at top and bottom, possibly representing stylized berries. There are two versions of the wreath, the first with five leaves and no berries (nos. **14–15**. **21**), the second with two berries attached to the tip of the central leaf (no. **20**)[51]. No. **18** has two tied leaves.

48 In the previous publication the band was described as laurel splays (Rosenthal-Heginbottom 1995b, 370 nos. 11–14).

49 Guldager Bilde 2010, 272.

50 Rotroff – Oliver 2003, 93. 109.

51 Rogl 2001, pl. 63 RB 16 (›Fünfblatt-Sträußchen‹).



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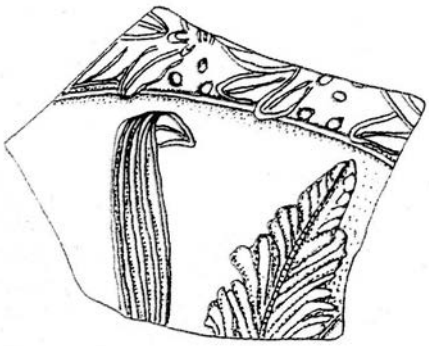

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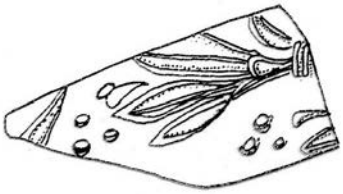
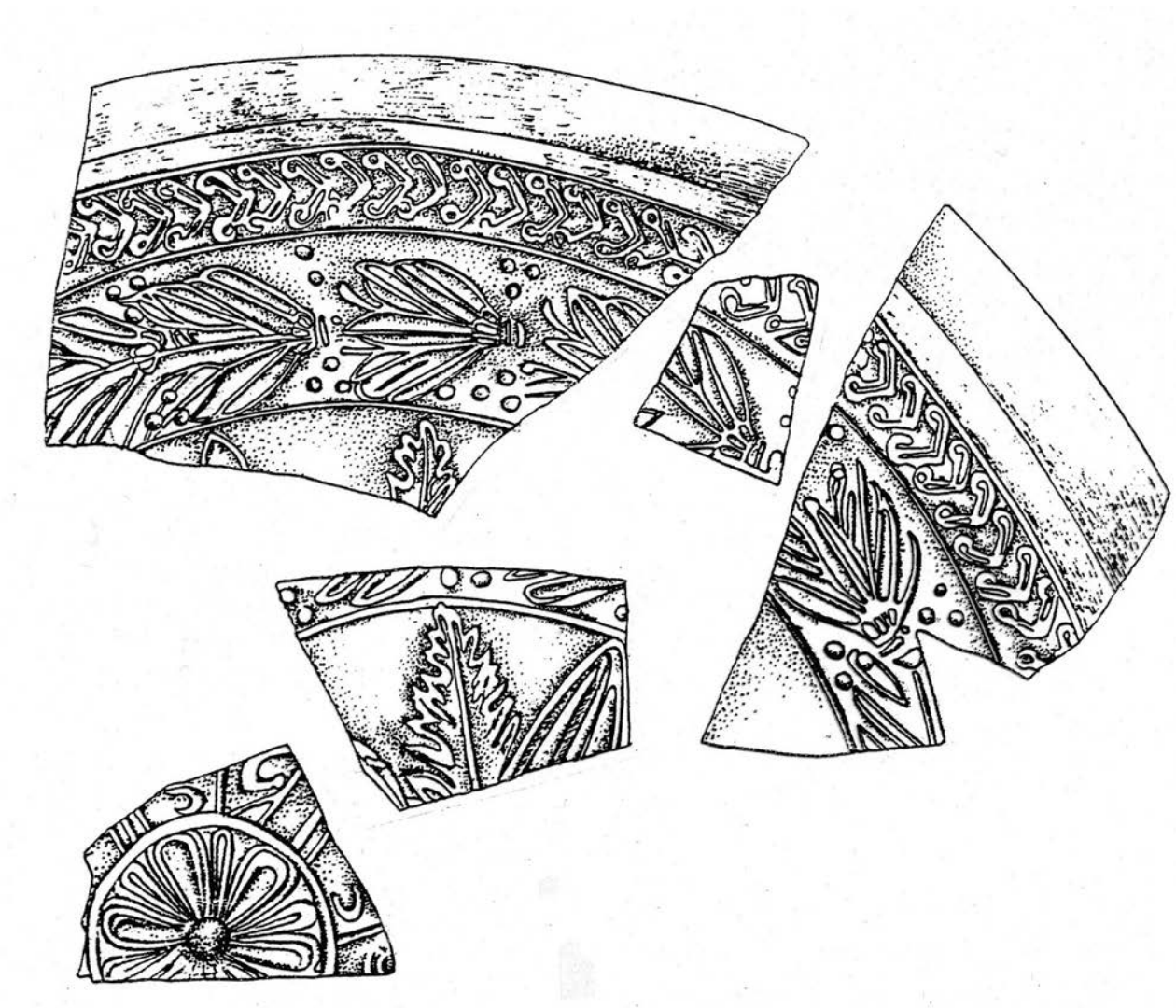


17

Fig. 2 : Wreath.

14

14



14

Five-petal wreath evolving to left

14 (Area C1, L639, Reg.–No. 5247/4 + L4322, Reg.-No. 43297/3–6 + L4337, Reg.-No. 43298/9) (**fig. 11**)

Diam. 15. Eight fragments, several joining.

Reddish-brown fabric, ext./int. reddish-brown slip.

Rim: guilloche, bound five-petal myrtle wreath with triple raised dots above and below; calyx: alternating acanthus and lotus leaves; medallion: rosette of seven wide and seven narrow petals.

Monogram workshop: guilloche: Rogl 2014, fig. 13, 9 (›Flechtbänder‹); wreath: Laumonier 1977, pls. 30, 376; 41, 109; Guldager Bilde 2010, 278 F-20; calyx: Laumonier 1977, pl. 40, 1966. 1978; Guldager Bilde 2010, 279 F-34, calyx type C; medallion: Ladstätter et al. 2003, 46 K 43; for the guilloche see also nos. **75–79**.

15a–b (Area E2, L6650, Reg.–Nos. 66697/3. 66745) (**fig. 2**)

Two non-joining wall fragments.

Left: light brown fabric, ext./int. dark grey slip; right: light brown fabric, ext./int. dark brown slip.

Recovered in the same locus and published as part of a single bowl, the fragments appear to belong to two vessels, based on the different slips.

Rim: wreath like no. **14**. Calyx: alternating curved tipped lotus and acanthus leaves.

16 (Area C0, L4050, Reg.–No. 40325/5) (**fig. 2**)

Wall fragment.

Reddish-brown fabric, ext./int. dark brown slip.

Rim: wreath like no. 14. Calyx: alternating acanthus and rhomboid lotus leaves.

17 (Area D1, L5429, Reg.–No. 54177/5) (**fig. 2**)
Wall fragment.
Light brown fabric, ext./int. dark grey slip.
Rim: wreath like no. **14**.

Two-petal wreath

18 (Area D1, L16901, Reg.–Nos. 261042/1–2)
Wall fragment, two joining pieces.
Reddish-brown fabric, ext. lustrous dark grey slip on the wreath, red slip below, int. red slip.
Rim: two-petal myrtle wreath with four tiny raised dots placed vertically between the leaves above and below.

Five-petal wreath evolving to right

19 (Area B2, L13520, Reg.–No. 135062/1–2) (**fig. 11**)

Diam. 18. Two joining rim and wall fragments.

Brown fabric, ext. dark grey slip, worn on the upper section of the fragment, int. dark grey/brown slip. Very micaceous fabric, probably not the Monogram workshop.

Rim: running dog, bound five-petal myrtle wreath and triple raised dots above and below.

Running dog: Rogl 2014, 128 fig. 13, 10 (the scroll pointing upwards); wreath: Laumonier 1977, pls. 30, 375; 45, 1764; Guldager Bilde 2010, 278 F-21 (all from the Monogram workshop).

20 (Area H, L20354, Reg.–No. 202660)

Wall fragment.

Reddish-brown fabric, ext./int. reddish slip.

Rim: slurred tendril, bound five-petal myrtle wreath with two berries with triple raised dots above and below.

Wreath: Rogl 2014, fig. 13, 15; Rogl 2014, pl. 63 RB 16 (the wreath evolving to the left); for the tendril see nos. **25–27**.

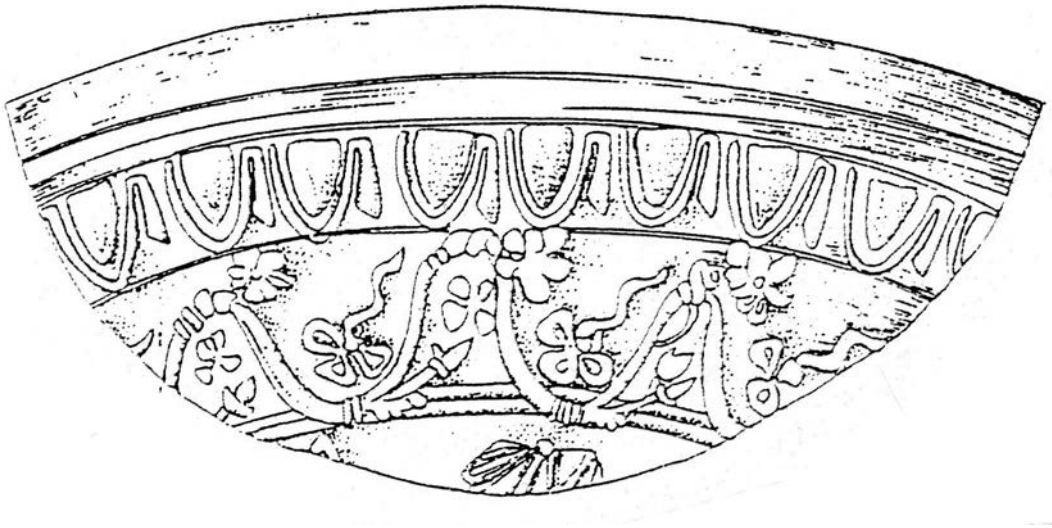
21 (Area D2, L17599, Reg.–No. 175915)

Wall fragment.

Reddish-brown fabric, ext./int. red slip.

Rim: Lesbian cyma, upper half of bound five-petal myrtle wreath with triple raised dots above and below.

Cyma: Rogl 2014, fig. 13, 1.



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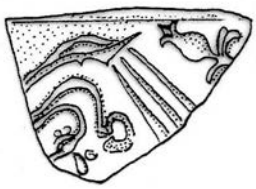

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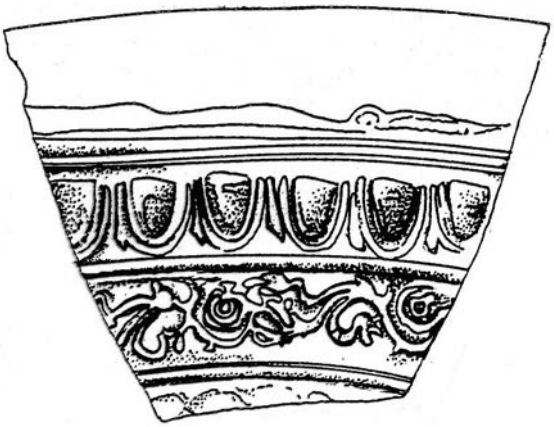

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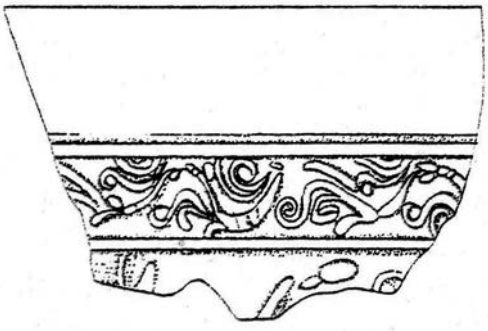


27

Fig. 3 : Tendrils.

*Flower/bud tendril**s***

The motif represents a variation of the tendrils with vine leaves and clusters of grapes (see nos. **3–12**).

22 (Area C1, L4322, Reg.–No. 43297/1) (**figs. 3. 11**)

Diam. 15. Rim and wall fragment.

Reddish-brown fabric, ext./int. red slip, dark grey slip covers most of the cyma band.

Rim: Ionian cyma, tendrils with flowers and leaves. Calyx: top of lotus and tipped acanthus leaves.

Tendril: Rogl 2001, 109 no. 17 and pl. 63 RB 17 (tendrils with leaves, flowers and rosettes, ›Blütenranke‹); Dereboylu 2001, 42 no. 2 and pl. 22, 203; Ladstätter et al. 2003, 48 K 54, rim diam. ca. 14.

23 (Area D1, L16548, Reg.–No. 168038)

Wall fragment.

Brown fabric, ext./int. dark brown slip.

Calyx: tendril with rosette, flower and leaf.

Tendril: Rogl 2001, 110 no. 18 and pl. 63, RB 18 (edge of medallion and tendril between tongue leaves).

24 (Area F, L8068, Reg.–No. 80425)[52] (**fig. 3**)

Rim fragment.

Reddish-brown fabric, ext./int. red slip.

Rim: bud tendril.

Tendril: Rogl 2001, 110 no. 19 and pl. 64, RB 19 (spiral tendril, ›Spiralranke‹).

52 Erroneously published as ESA in Rosenthal-Heginbottom 1995a, fig. 5.5, 21, Rosenthal-Heginbottom 1995b, 174 no. 142.

Slurred tendrils

The narrow band of slurred tendrils (Rogl 2014, fig. 13, 15 ›Ranke verschliffen‹) is a simplified version of the wider band defined as spiral tendril (Rogl 2001, pl. 64, RB 19; no. **24**). With varied details, see the Ephesian examples in Mitsopoulos-Leon 1991, 72 D 39; Gassner 1997, 84 no. 255; Dereboylu 2001, 34 no. 23 and pl. 16, 114; Ladstätter et al. 2003, 49 K 56; Ladstätter 2010, 197 A-K 22 (context date 170–130 BCE); see also no. **20**.

25 (Area D1, L5572, Reg.–No. 54333/1) (**figs. 3. 11**)

Diam. 14. Rim and wall fragment.

Light brown fabric, ext./int. dark grey slip, on ext. lustrous.

Rim: slurred tendril, bead-and-reel.

26 (Area C1, L4355, Reg.–No. 43385/5) (**figs. 3. 11**)

Diam. 16. Rim and wall fragment.

Reddish-brown fabric, ext./int. dark grey slip on the wheel-made rim and cyma, below reddish-brown slip.

Rim: Ionian cyma, slurred tendril. Calyx: probably leaves.

27 (Area E1, L6514, Reg.–No. 64822/1) (**figs. 3. 11**)

Diam. 13. Rim and wall fragment.

Reddish-brown fabric, ext. reddish-brown slip on the wheel-made rim and tendril, below red slip, int. red slip.

Rim: slurred tendril. Calyx: probably leaves.

Three rim friezes and floral calyx

The combination of motifs on no. **28** correlates with the style defined by A. Laumonier as the ›typical leaf‹ of the Monogram workshop (Rogl 2001, 100–101 and pl. 59, 2), though the medallion with the rosette is missing. Fragments nos. **29–31** display the same elements of décor, though it is impossible to reconstruct the complete bowls.

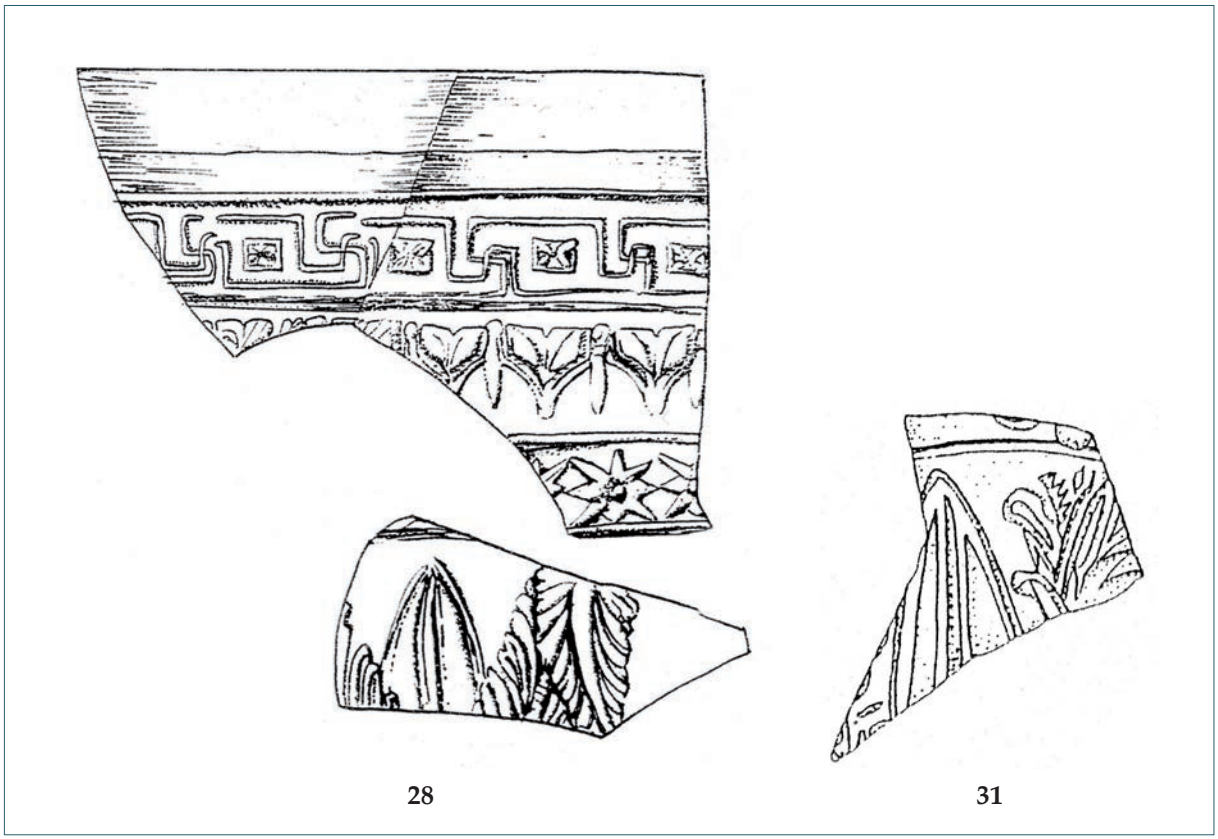


Fig. 4 : Three rim friezes and floral calyx

28 (Area D2, L5184, Reg.-No. 51187; balk, Reg.-No. 52003) (**figs. 4. 11**)

Diam. 15.5 cm. Three joining rim and wall fragments.

Reddish-brown fabric, ext./int red slip.

Rim of three friezes: meander with star in square, Lesbian cyma, eight-petal star rosette. Calyx: alternating lanceolate lotus and tipped acanthus leaves.

For examples of three rim friezes see no. **5**; for the rim motif meander: Rogl 2001, 108 no. 16 and pl. 63; 110 nos. 19. 21 and pl. 64; Rogl 2014, fig. 13, 8; nos. 36–51; for the Lesbian cyma: Rogl 2001, 106 no. 1 and pl. 60; 108 no. 17 and pl. 63; Rogl 2014, fig. 13, 1; nos. 21. 32–35; for the star rosette: Rogl 2001, 106–108 nos. 2–5. 8. 10–11 and pls. 60–62; Rogl 2014, fig. 13, 3; nos. 58–59; calyx: Rogl 2001, 108–109 no. 13 and pl. 62; Laumonier 1977, pls. 30, 1976; 123, 451; Guldager Bilde 2010, 279 F-30, probably calyx type B; Dereboylu 2001, 3 nos. 3–4. 6 and pl. 15, 93. 96 = Waldner – Ladstätter 2014, 481 K 81 (pl. 15, 96); Gürler 2003, 13 nos. A 34–36 pl. 11 (Metropolis Group A from a fill dating back to the second quarter of the 3rd c. BCE).

29 30

29 (Area D3, L14177, Reg.-No. 141224)
Rim fragment with Lesbian cyma, probably from a bowl made in the same mould. Same fabric.

30 (Area F3, L8900, Reg.-No. 86980)
Fragment of calyx with acanthus leaf identical with no. **28**. Same fabric.

31 (Area A2, L1005, Reg.–No. 100057/1) (**fig. 4**)
Fragment of calyx with lanceolate lotus leaf and palmette. Same fabric.
Calyx: Günay Tuluk 2001, 64 no. 12 and pl. 35 (Monogram workshop?).

Lesbian cyma

Nos. **32–34** are bowls in Ionian grey (light grey fabric, ext./int. dark grey slip), attributed to the ›vases gris‹ atelier. For references see nos. **28–29**. The fragment no. **35** is related.

32 (Area F3, L8943, Reg.–No. 87223) (**fig. 11**)
Diam. 13. Rim and wall fragment.
On the wall, the top of an object is visible which might be an altar.

33 (Area F3, L8943, Reg.–No. 87224)
Diam. 13. Rim and wall fragment.

34 (Area F3, L8936, Reg.–No. 87177)
Diam. 13. Rim and wall fragment.

35 (Area D2, L17545, Reg.–No. 175331/2)
Diam. 13. Rim and wall fragment.
Brown fabric, ext./int. dark grey slip, partly worn on the exterior.
Rim: Lesbian cyma without darts; upper part of wreath with tied leaves and triple raised dots.
Rim: Gassner 1997, 82 no. 246.

Meander

The meander décor on rim friezes is common on the standard Ionian bowls of reddish-brown fabric of the Monogram workshop and succeeding ateliers (see no. **28** with some references and nos. **36–37**. **44**) and on grey-slipped bowls with reddish-brown and light brown fabrics, pointing to several different workshops. Some bowls display a band a dark grey/brown slip on the exterior wheel-made rim and the meander, followed by a red slip, which covers the interior except for a narrow line of dark slip on the inner lip (see nos. **36**. **40–42**. **44**). Termed box meander in the Olbia report (Guldager Bilde 2010, 275), C. Rogl describes the motif as meander with a square filled with a star (Rogl 2014, fig. 13, 8 – ›Mäander mit Sternfüllung im Quadrat‹). As the assemblage from Dora preserves rim friezes only (with the exception of no. **28** and **36**), nothing can be said about the wall decoration. No. **36** preserves a small section of the spiral tendril identical to no. **102** with a calyx of alternating lotus and acanthus leaves and a rosette medallion. However, the rim and wall fragments document the diversity in shape, size and fabric.

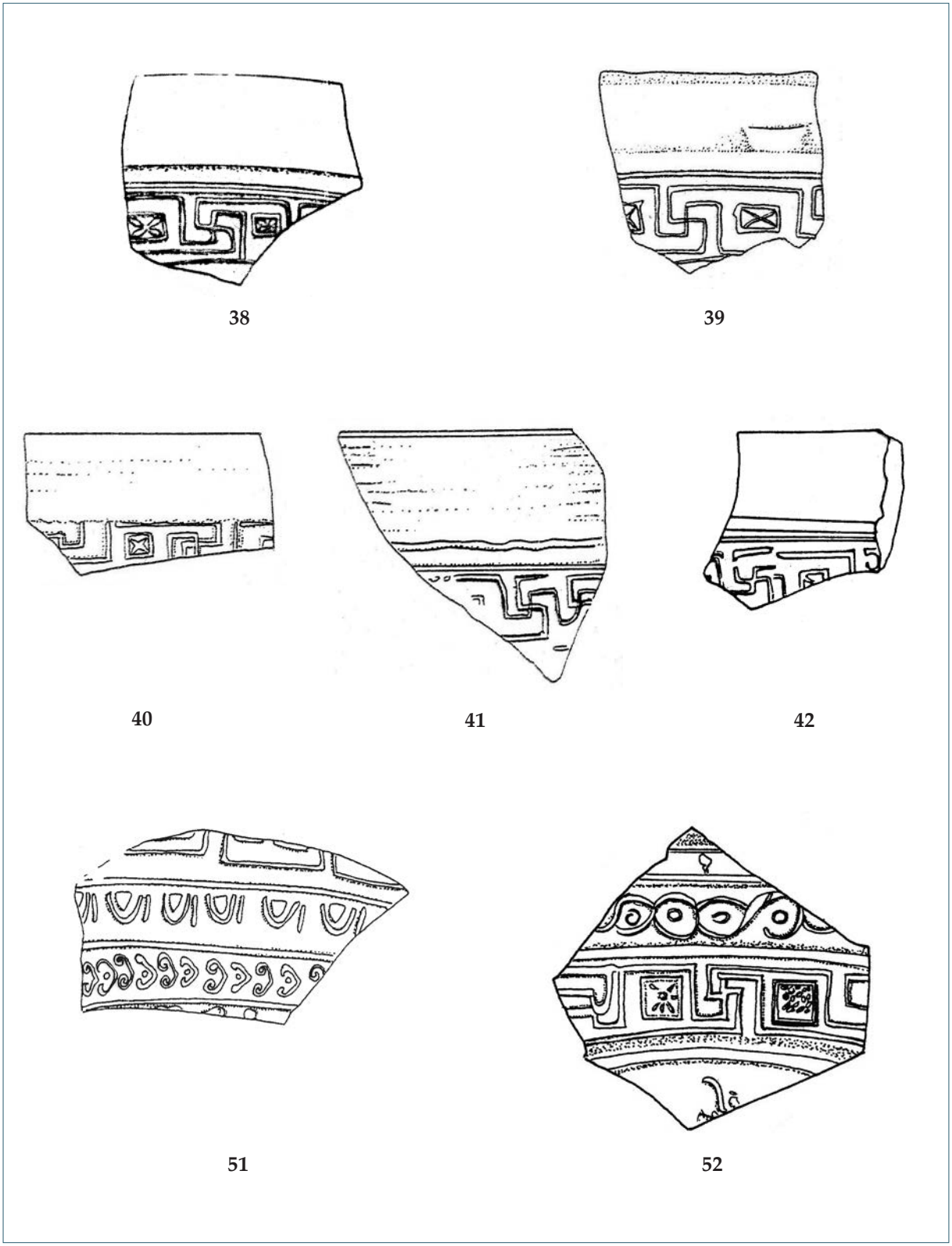


Fig. 5 : Meander.

36 (Area D1, L16714, Reg.–No. 168982) (**fig. 11**)

Diam. 13. Rim and wall fragment.

Rim: meander, spiral tendrils.

Tendrils: Mitsopoulos-Leon 1991, 70 D 2–3 (Monogram workshop); Dereboylu 2001, 43 nos. 3–4. 8 and pls. 22, 204–205; 23, 208; pl. 22, 205 = Waldner – Ladstätter 2014, pl. 181, 77.

37 (Area D2, L17623, Reg.–No. 176123)

Diam. 18. Rim and wall fragment.

Reddish-brown fabric, ext. reddish-brown slip on the wheel-made rim, dark grey slip on the meander and upper row of leaves, followed by red slip, int. worn red slip with narrow dark grey band along the lip.

Rim: meander, leaf scales. Preserved are three rows of transverse overlapping leaves, pointing to the left.

Leaf scales: Rogl 2014, fig. 13, 102 (›Blattschuppen, quergelegt‹, from the succeeding ateliers of the Monogram workshop).

38 (Area C0, L446, Reg.–No. 4275/1) (**figs. 5. 12**)
Diam. 13. Rim and wall fragment.
Reddish-brown fabric, ext. worn dark grey slip, below meander brown slip, int. dark brown slip.

39 (Area B2, L7410, Reg.–No. 73718/1) (**figs. 5. 12**)
Diam. 14. Rim and wall fragment.
Reddish-brown fabric, ext./int. dark grey slip.

40 (Area F3, L8698, Reg.–No. 85806) (**figs. 5. 12**)
Diam. 15.5. Rim and wall fragment.

41 (Area E2, L6012, Reg.–No. 60074) (**figs. 5. 12**)
Diam. 14. Rim and wall fragment.

42 (Area A0, L1099, Reg.–No. 10525/2) (**fig. 5**)
Diam. 14. Rim and wall fragment.

43 (Area D1, L26223, Reg.–No. 262740/2)
Diam. 16. Rim and wall fragment.
Brown fabric, ext. dark brown slip on the wheel-made rim and the meander, then light brown slip, int. light brown slip on the wheel-made rim, then dark grey/brown slip.
Rim: meander, probably vine tendrils (see no. **8**).

44 (Area D2, L17623, Reg.–No. 176127)
Diam. 12–14. Rim and wall fragment.
Lustrous slip on the exterior.

45 (Area D1, L26034, Reg.–No. 260298)
Diam. 12–14. Rim and wall fragment.
Reddish-brown fabric, ext. worn dark grey slip on the wheel-made rim and the meander, brown slip below, int. brown slip.

46 (Area H, L20001, Reg.–No. 200023)
Diam. 14. Rim and wall fragment.
Reddish-brown fabric, ext./int. dark grey slip.

47 (Area H, L20051, Reg.–No. 200529)
Diam. 12–14. Rim and wall fragment.
Reddish-brown fabric, ext. reddish-brown slip, int. red slip except for dark grey band on the lip.

48 (Area F, L8824, Reg.–No. 86507/1)
Rim fragment.
Reddish-brown fabric, ext. dark grey slip, int. red slip.

49 (Area D1, L16804, Reg.–No. 260111)
Rim fragment.
Reddish-brown fabric, ext./int. lustrous dark grey slip.

50 (Area F3, L8896, Reg.–No. 86794)
Rim fragment.
Brown fabric, ext./int. dark grey slip.
Rim: rectangle with x of meander, row of beading below.
The meander is filled with a rectangle and not the usual square, see Ladstätter 2010, 203 A-K 82 (with rim profile).

51 (Area E1, L6572, Reg.–No. 65166/2) (**fig. 5**)
Wall fragment.
Reddish-brown fabric, ext./int. dark grey slip.
Rim: meander partly preserved, Ionian cyma, guilloche.

52 (Area F, L8754, Reg.–No. 86177) (**fig. 5**)

Wall fragment.

Light brown fabric, ext. dark grey slip with brown band, int. dark grey slip.

Rim: band of circles with small circle within, meander band.

The motifs are uncommon, with the preserved squares in the meander filled with a rosette and with diagonal rows of minute raised dots. Unidentified workshop.

Rosettes

The rosette décor on rim friezes is common on the standard Ionian bowls of reddish-brown fabric of the Monogram workshop and succeeding ateliers, on grey-slipped bowls with reddish-brown and light brown fabrics and on bowls from the ›vases gris‹ atelier, pointing to several different workshops. Four bowls display two rim friezes, on nos. **64** and **67** the band of rosettes is combined with the Ionian cyma band, and on nos. **70** and **72** with hooks and a guilloche. The triple frieze on no. **73** is unusual and the workshop unidentified. On three bowls the upper section of the calices is preserved (nos. **64**. **66**. **70**).

Star rosettes

The eight-petal star rosette (Rogl 2014, fig. 13, 3 ›Sternrosette‹) is composed of oval leaves (**52–54**. **56**) and of leaves with pointed ends (**55**. **57–61**). Nos. **52–58** can be assigned to the Monogram workshop; nos. **59–60** are of a different fabric and no. **60** belongs to the ›vases gris‹ atelier.

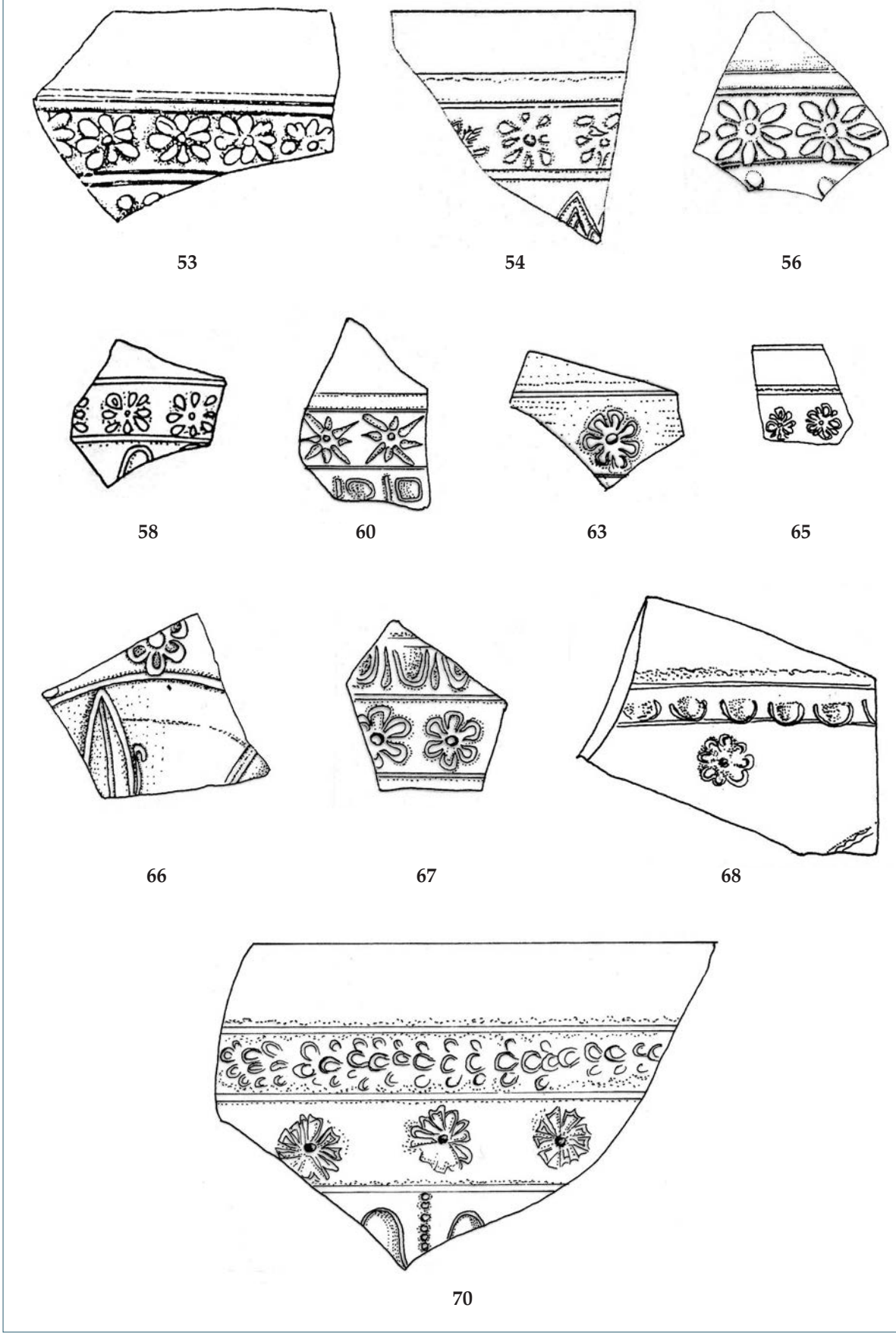


Fig. 6 : Rosettes.

53 (Area C1, L4340, Reg.–No. 43271/3) (**figs. 6. 12**)
Diam. 13. Rim and wall fragment.
Reddish-brown fabric, red slip, on int. dark brown blotches.

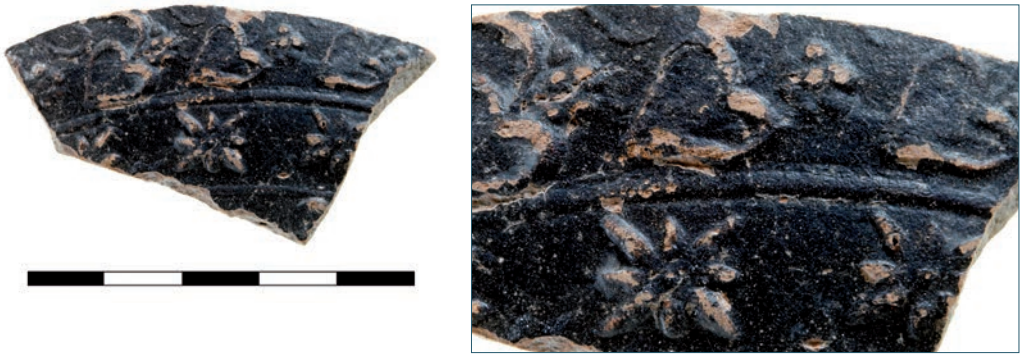
54 (Area B2, L3816, Reg.–No. 37428/2) (**figs. 6. 12**)
Diam. 16. Rim and wall fragment.
Reddish-brown fabric, red slip, on ext. rim dark brown slip.
The tip of the rhomboid lotus leaf preserved indicates that the bowl had a single rim frieze.

55 (Area H, L20175, Reg.–No. 202202)
Diam. 13. Rim and wall fragment.
Reddish-brown fabric, red slip.

56 (Area E1, L6678, Reg.–No. 66936) (**fig. 6**)
Wall fragment.
Reddish-brown fabric, ext. brown slip, int. red slip.

57 (Area D1, L26044, Reg.–No. 260385)
Diam. 13. Rim and wall fragment.
Rim: Ionian cyma, rosettes.
Reddish-brown fabric, ext. reddish-brown on the wheel-made rim, dark brown below, int. red slip.

58 (Area C1, L4435, Reg.–No. 48240/3) (**fig. 6**)
Wall fragment.
Reddish-brown fabric, ext. dark brown slip, int. red slip,



59 (Area H, L20644, Reg.–No. 204762)

Wall fragment.

Brown fabric, ext./int. dark grey slip.

Rim: wreath of ivy leaves alternating with corymbs of raised dots, star rosettes.

Wreath: Monogram workshop: Laumonier 1977, pls. 125, 1281; 126, 463 + 629; Olbia: Guldager Bilde 2010, 278 F-23; Philon workshop: Laumonier 1977, pl. 61, 870–871.

60 (Area E1, L6157, Reg.–No. 61347/2) (**fig. 6**)

Wall fragment.

Brown fabric, ext./int. dark grey slip.

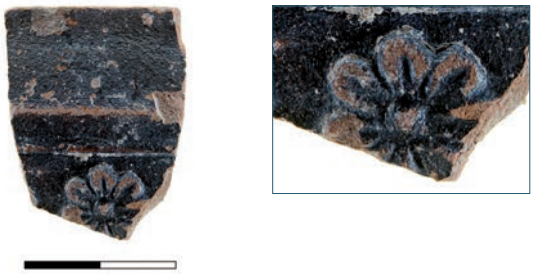
61 (Area D2, L19523, Reg.–No. 175300)

Diam. 13–14. Rim and wall fragment.

Light grey fabric, ext./int. dark grey slip.

Flower rosettes

Flower rosettes are represented by five forms, three of which belong to the repertoire of the Monogram workshop. Rosettes of seven petals decorate bowls nos. **62–63** (Rogl 2014, fig. 13, 4 ›Blütenrosette‹); the rosettes on nos. **64–65** display five rounded petals alternating with five narrow ones (Rogl 2001, 107 no. 7) and nos. **66–67** are six-petal rosettes (Rogl 2014, fig. 13, 5). No. **68** has a tiny nine-petal rosette on the upper wall below the rim frieze, and the rosette on no. **69** is composed of four oval petals. The eight-petal flower rosette used as rim frieze in the succeeding ateliers (Rogl 2014, fig. 14, 90) is found on the calyx of no. **80**, alternating with a lotus petal.



62 (Area H, wall cleaning, Reg.–No. 208096)
Rim and wall fragment.
Brown fabric, ext. dark grey slip, int. dark grey/brown slip.

63 (Area F, L8005, Reg.–No. 80042/1) (**figs. 6. 12**)
Wall fragment.
Reddish-brown fabric, ext. brown slip, int. red slip.

64 (Area H, L20014, Reg.–No. 200277)

Diam. 13. Rim and wall fragment.

Reddish-brown fabric, ext./int. red slip.

Rim: Ionian cyma, rosette composed of five rounded and five narrow petals. Calyx: alternating rhomboid lotus leaves and curved tipped acanthus leaves.

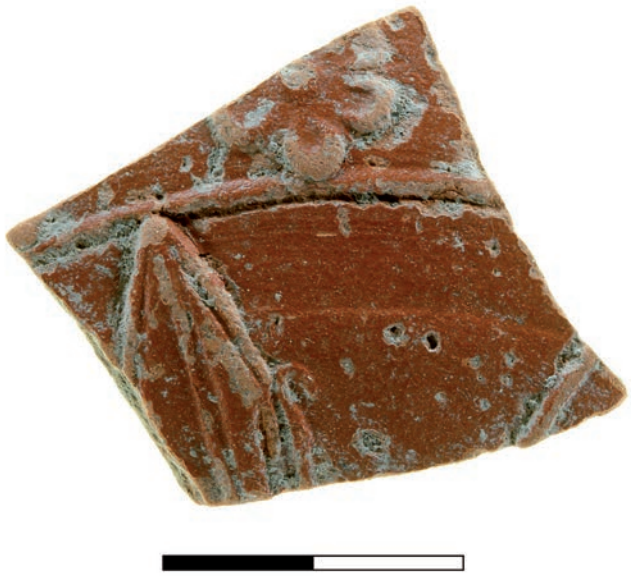
Calyx: see nos. **7**. **28**. **102**.

65 (Area F3, L8799, Reg.–No. 86377) (**figs. 6. 12**)

Diam. 14.5. Rim and wall fragment.

Light grey fabric, ext./int. dark grey slip.

›Vases gris‹ workshop.



66 (Area E1, L6470, Reg.–No. 64869) (**fig. 6**)
Wall fragment.
Reddish-brown fabric, ext./int. red slip.
Calyx: lanceolate lotus leaf, edge of second leaf.

67 (Area D1, L5410, Reg.–No. 5416) (**fig. 6**)
Wall fragment.
Reddish-brown clay, ext. dark grey/red slip, int. red slip.
Rim: Ionian cyma, flower rosette.

68 (Area F3, L8824, Reg.–No. 86522) (**fig. 6**)

Wall fragment.

Brown fabric, ext. brown slip on wheel-made rim and rim frieze, below dark grey slip with brown blotch, int. dark grey slip.

Rim: band of discs. Wall: Nine-petal flower rosette.

69 (Area H, L20948, Reg.–No. 205906)

Diam. 13 cm. Rim and wall fragment.

Reddish-brown fabric, ext./int. red slip.

Rim: Four-petal rosettes.

Ray rosettes

The rosettes on nos. **70** and **72** are a combination of the ray rosettes and the leaf rosettes (Rogl 2014, fig. 14, 94 ›Strahlenrosette‹ and fig. 14, 96 ›Blattrosette‹) which together with the upper rim frieze of hooks on no. **70** (Rogl 2014, fig. 14, 103 ›Haken/Blatthaken‹) and the half rosettes on no. **72** (Rogl 2014, fig. 14, 95 ›Halbrosette‹) can be assigned to the succeeding ateliers of the Monogram workshop. The calyces on nos. **70–71** have tongue-shaped petals, hence the definition ›Zungenblattbecher‹ in the listed references.

70 (Area B2, L3819, Reg.–No. 37455/2) (**figs. 6. 12**)

Diam. 13. Rim and wall fragment.

Reddish-brown fabric, ext./int. red slip, a dark grey blotch on the exterior surface.

Rim: hooks, ray rosettes. Calyx: tongue-shaped petals separated by lines of jeweling.

Calyx: Mitsopoulos-Leon 1991, 72 D 39 (Monogram workshop); Dereboylu 2001, 36–37 no. 6 pl. 18, 135 = Ladstätter 2012, 197 A-K 15; Dereboylu 2001, 37 no. 12 pl. 18, 142 (with ray rosette); Günay Tuluk 2001, 66 no. 21.

71 (Area F3, balk, Reg.–No. 86840)

Wall fragment.

Reddish-brown fabric, ext./int. red slip, dark grey slip at the top of the calyx.

Calyx: tongue-shaped petals separated by lines of jeweling.

The petals have a wide vein, different from those on no. **70** (Rogl 2001, 110 RB 20 ›Zungenblätter mit plastischer Innenbildung‹, Monogram Workshop).

72 (Area B2, L3785, Reg.–No. 37340)

Diam. 13.

Reddish-brown fabric, dark grey slip on the exterior wheel-made rim and the band of hooks, followed by a red slip, which also covers the interior except for a narrow line of dark slip on the inner lip. The upper exterior surface is discoloured, exposing the very micaceous paste.

Rim: hooks, rosettes.

Flower rosettes and tied triple leaves with fruit

73 (Area D1, L16041, Reg.–No. 163387/1)

Wall fragment.

Rim: band of eight-petal flower rosettes alternating with three tied lanceolate leaves with central vein and fruit stalk, evolving to left (myrtle leaves?), Ionian cyma below and possibly above.

Light brown fabric, ext./int. worn lustrous dark grey slip.

Band: Laumonier 1977, pl. 13, 1723 (Menemachos workshop).

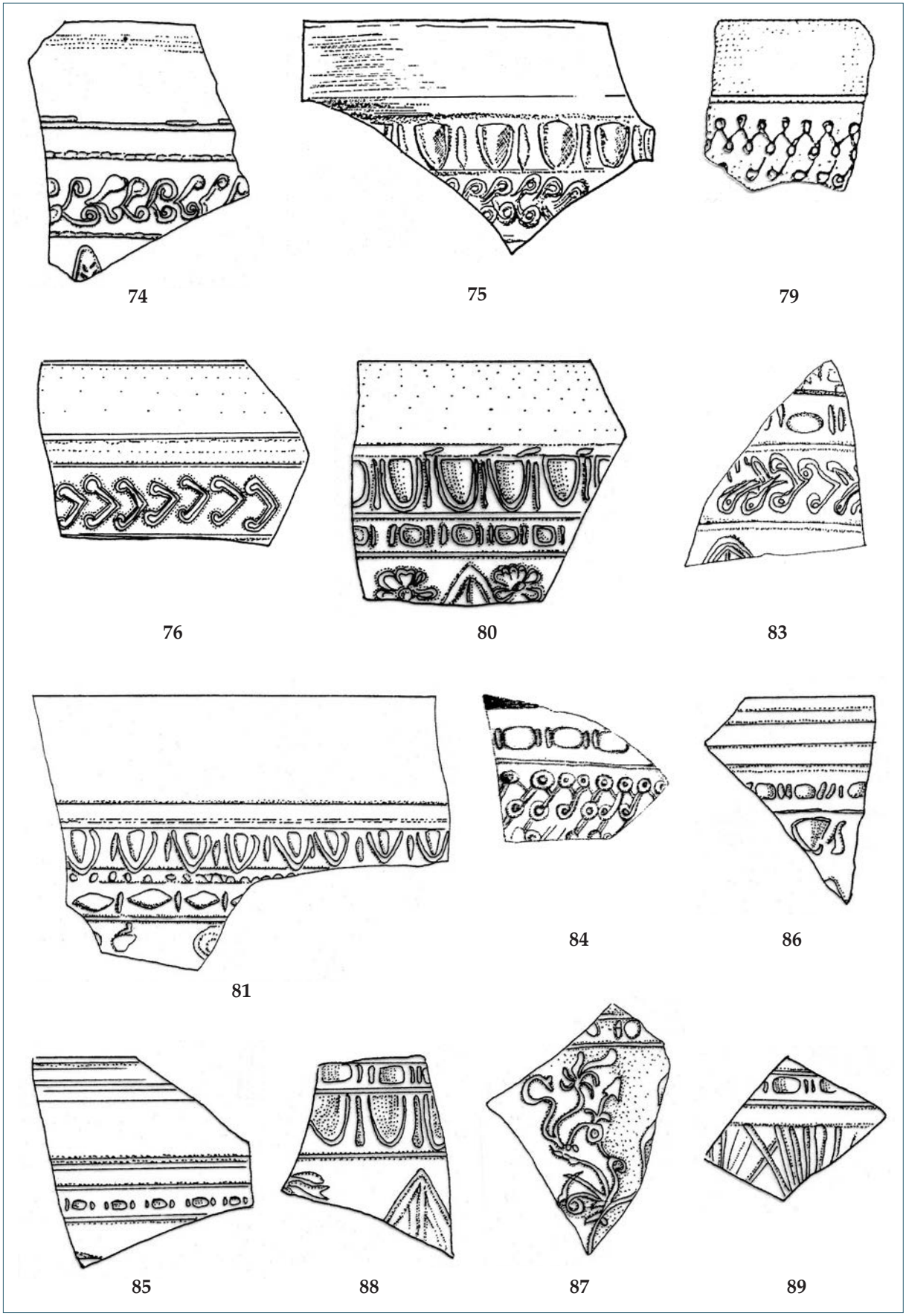


Fig. 7 : Guilloche and beed-and-reel.

Guilloche

Bowls with guilloches (Rogl 2014, fig. 13, 9 ›Flechtbänder‹) have been presented before as part of double or triple rim friezes (see nos. **5**. **13–14**. **51**)[53]. With different details, the pattern evolves to the right on two bowls with an identical guilloche (nos. **74–75**) and to the left (nos. **77–78**), with no. **79** comprising three lines of loops.

74 (Area E1, L6315, Reg.–No. 63147/1) (**figs. 7. 12**)

Diam. 12–14. Rim and wall fragment.

Reddish-brown clay, ext. dark grey slip until the middle of the guilloche, red slip below, int. red slip with narrow band of dark grey slip along the lip.

75 (Area E2, L6017, Reg.–No. 66097) (**figs. 7. 12**)

Diam. 14. Rim fragment.

Brown fabric, ext./int. lustrous dark grey slip.

Rim: Ionian cyma, guilloche.

53 The rim fragment published in Rosenthal-Heginbottom 1995b, pl. 6, 4 has been lost, hence no photo was made.

76 (Area E2, L6006, Reg.–No. 60040/2) (**figs. 7. 12**)
Diam. 12. Rim fragment.
Reddish-brown fabric, ext. brown/dark grey slip, int. red slip.
For the identical guilloche see no. **14** and for a close parallel see no. **83** (with bead-and-reel).

77 (Area D2, L17348, Reg.–No. 175333/2)
Diam. 12–14. Rim fragment.
Brown fabric, ext./int. dark grey slip.

78 (Area C0, L531, Reg.–No. 4684/2)

Diam. 13–14. Rim and wall fragment. Ionian grey ware.

Light grey fabric, ext./int. dark grey slip.

›Vases gris‹ atelier. The guilloche is slurred. The tips of two pointed leaves suggest an imbricate bowl, see Günay Tuluk 2001, 66 no. 20.

79 (Area C1, L602, Reg.–No. 5195/6) (**fig. 7**)

Diam. 12–14. Rim and wall fragment.

Reddish-brown fabric, ext. dark brown slip, int. dark grey slip.

For the identical guilloche see no. **13** and for a close parallel see no. **84** (with bead-and-reel).

Bead-and-reel

In the Dora assemblage the ornament (Rogl 2014, fig. 13, 11 ›Perlstäbe‹) occurs generally as part of two rim friezes in combination with the Ionian cyma, less common as a single frieze (nos. **82**. **85**). On bowl no. **25** it is combined with the slurred tendril.

80 (Area D1, L5430, Reg.–No. 54211/3) (**figs. 7. 12**)

Diam. 14. Rim and wall fragment.

Reddish-brown fabric, ext. dark grey slip until below Ionian cyma, followed by brown slip, int. dark grey slip.

Rim: Ionian cyma, bead-and-reel. Calyx: tip of lotus petal between two eight-petal rosettes.

The rosettes tally with the rosettes of the rim frieze used in the succeeding ateliers of the Monogram workshop (Rogl 2014, fig. 14, 90).

81 (Area E1, L16361, Reg.–No. 62809/2) (**figs. 7. 12**)

Diam. 13.5. rim and wall fragment.

Brown fabric, ext. dark grey slip, int. dark grey slip along rim, brown slip below.

Rim: Ionian cyma, line of beading, bead-and-reel. Calyx: unclear remnant of ornamentation.

Cited by Rogl 2014, 132 note 26 as a parallel for the early Ephesian production in the first half of the 2nd c. BCE, with a context date of 190 BCE.

82 (Area E2, L6029, Reg.–No. 60155/2) (**fig. 12**)

Diam. 14. Rim and wall fragment.

Reddish-brown fabric, ext. dark grey slip at top, red slip along bead-and-reel band, below dark grey slip, int. dark grey slip with band of red slip along the lip.

Rim: bead-and-reel. Calyx: unclear remnant of ornamentation.

Erroneously published as ESA[54].

83 (Area B2, L7410, Reg.–No. 73718/2) (**fig. 7**)

Rim and wall fragment.

Reddish-brown fabric, ext./int. brown slip.

Three rim friezes, the upper not identifiable, bead-and-reel, guilloche. Calyx: tip of lotus petal.

For a close guilloche see no. **76**.

54 Rosenthal-Heginbottom 1995b, 374 no. 133.

84 (Area G, L9489, Reg.–No. 94347) (**fig. 7**)
Rim fragment.
Reddish-brown fabric, ext./int. red slip.
Rim: bead-and-reel, guilloche.
For a close guilloche see no. **79**.

Nos. **85–89** are in grey fabric, and ext./int. with dark grey slip can be attributed to the ›vases gris‹ atelier.

85 (Area D1, L5430, Reg.–No. 54211/8) (**figs. 7. 12**)
Diam. 14.
Rim: bead-and-reel.

86 (Area E2, L6024, Reg.–No. 60127/3) (**fig. 7**)
Rim and wall fragment, the lip missing.
Rim: bead-and-reel, Ionian cyma.

87 (Area E1, L6577, Reg.–No. 66342) (**fig. 7**)
Wall fragment.
Calyx: curved stalks with leaves and flowers. The identical stamp has been used on no. **1**.
›Vases gris‹ atelier. Cited by Rogl 2014, 132 note 26 as a parallel for the early Ephesian production in the first half of the 2nd c. BCE, with a context date of 190 BCE; see also Mitsopoulos-Leon 1991, 70 D 7. Related are fragments from Kyme in Prague, a mould (Bouzek – Jansová 1974, 37 fig. 6, 1, Paniscus workshop) and fragments (Bouzek – Jansová 1974, 20 fig. 1, 19. 26–27).

88 (E1, L6157, Reg.–No. 61347/3) (**fig. 7**)
Rim and wall fragment, the lip missing.
Rim: bead-and-reel, Ionian cyma. Calyx: lotus petal and possibly tipped acanthus leaf.

89 (Area E1, L6141, Reg.–No. 61325/14) (**fig. 7**)
Rim and wall fragment, the lip missing.
Rim: bead-and-reel. Calyx: geometric pattern.

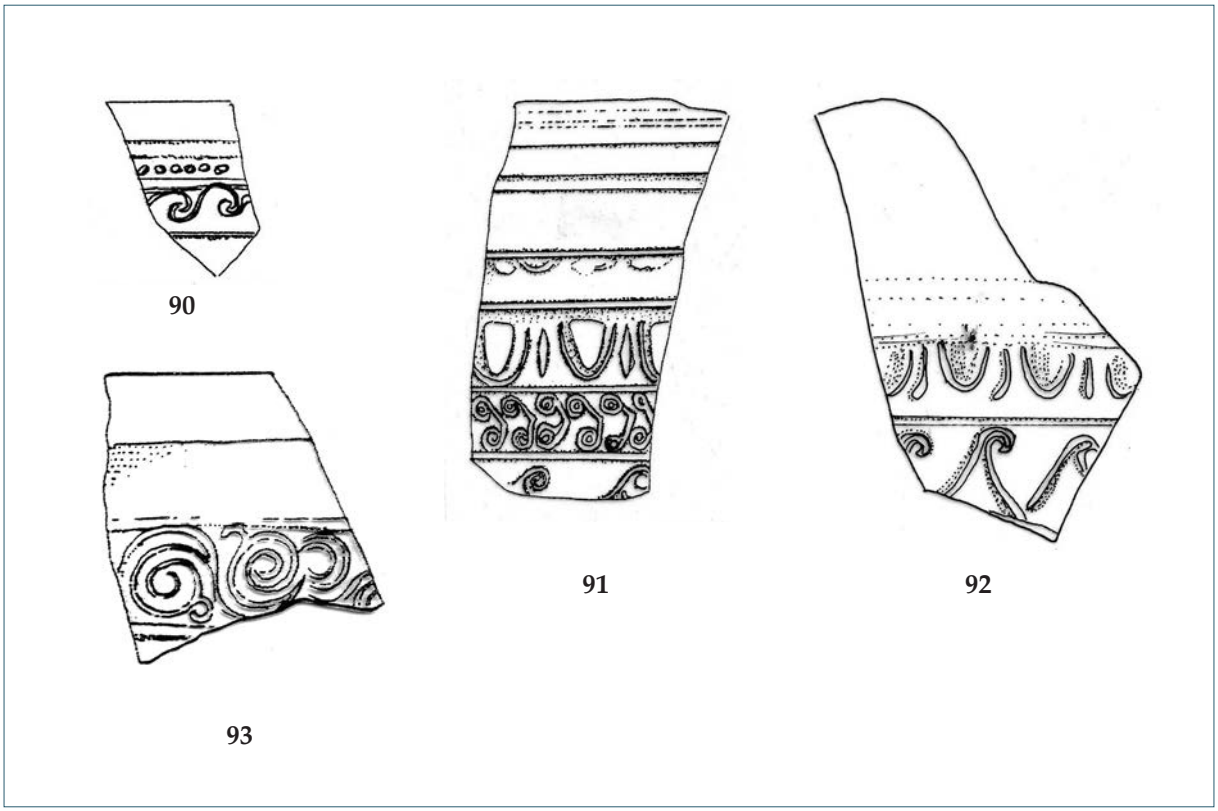


Fig. 8 : Running dog and spirals.

Running dog and spirals

The running dog band (Rogl 2014, fig. 13, 10 ›Welle‹) and the double spirals (Rogl 2014, fig. 13, 14 ›Doppelspirale‹ decorate bowls of the Monogram workshop. At Dora, they are uncommon.

90 (Area F3, L8800, Reg.–No. 86400) (**figs. 8. 12**)

Diam. 16. Rim and wall fragment.

Reddish-brown fabric, ext./int. red slip except for the outer wheel-made rim and the row of beading.

Rim: row of beading, running dog.

91 (Area E1, L6522, Reg.–No. 64833/1) (**figs. 8. 12**)

Diam. 16. Rim and wall fragment

Reddish-brown fabric, ext./int. lustrous reddish-brown slip.

Rim: Ionian cyma, guilloche, running dog.

Running dog: Rogl 2014, fig. 13, 10.

92 (Area F3, L8735, Reg.–No. 85919) (**fig. 8**)
Diam. 14–16. Wall and rim fragment.
Reddish-brown fabric, ext./int. red slip.
Rim: Ionian cyma, running dog.

93 (Area E2, L6006, Reg.–No. 60045/1) (**fig. 8**)
Diam. 14–16. Rim and wall fragment.
Reddish-brown fabric, ext. red slip with dark grey slip below rim zone, int. red slip.
Rim: double spirals.

94 (Area D2, surface, Reg.–No. 195010/2)

Diam. 14–16. Rim and wall fragment.

Reddish-brown fabric, ext. dark grey slip with red slip on the band of spirals, int. red slip with dark grey band along the lip.

Rim: bead-and-reel, tiny double spirals.

Medallions

The rosettes decorating the medallions follow the classification in Rogl 2014, 123 – 14 fig. 9–10: Type 1 nos. **95–100**, Type 2 nos. **102–106** and **107** probably, Type 3 nos. **108**, nos. **109–112** non-Ephesian products; see also no. **14**, Type 1.

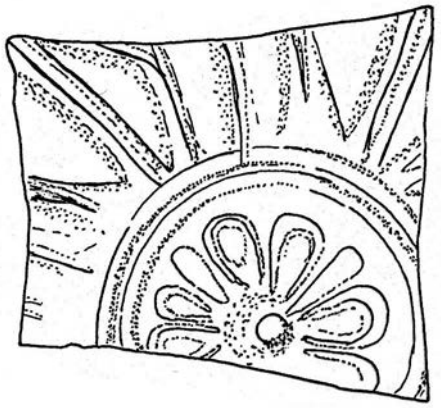
95 (Area E2, L6003, Reg.–No. 60027) (**fig. 9**)

Base and lower wall fragment.

Reddish-brown clay, red slip.

Calyx: alternating leaves, probably rhomboid lotus and tongue-shaped petals. Medallion: rosette composed of four double rounded petals alternating with narrow ones.

Rosette: Rogl 2014, 124 fig. 10, Type 1e.



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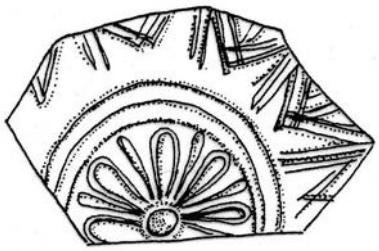

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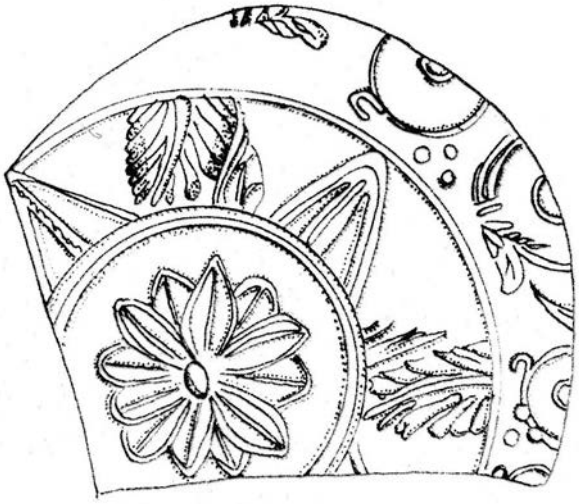

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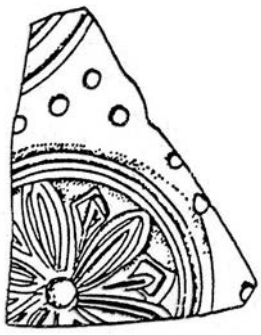
103



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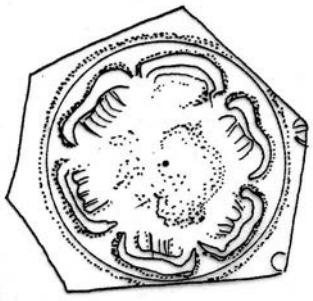
107



108

Fig. 9 : Medallions.

96 (Area E1, L6137, Reg.–No. 61250) (**fig. 9**)
Base fragment.
Brown fabric, ext./int. dark brown slip with few lighter spots.
Calyx: circle of triangular leaves with central ribs. Medallion: rosette.
Rosette: Rogl 2014, 213 fig. 9, Type 1a; for the calyx see no. **111**.

97 (Area H, L20025, Reg.–No. 200415)
Base fragment.
Reddish-brown fabric, ext./int. reddish-brown slip.
Rosette: Rogl 2014, 214 fig. 10, Type 1c.

98 (Area H, L20013, Reg.–No. 200158)
Base fragment.
Light brown fabric, ext./int. dark grey slip.
Rosette: Rogl 2014, 214 fig. 10, Type 1c.

99 (Area D2, L17590, Reg.–No. 175814)
Base fragment.
Light brown fabric, ext./int. dark grey slip.
Rosette: Rogl 2014, 214 fig. 10, Type 1c.

100 (Area D2, L17598, Reg.–No. 175707)
Base fragment.
Light grey fabric, ext./int. lustrous dark grey slip.
Rosette: Rogl 2014, 214 fig. 10, Type 1e. ›Vases gris‹ atelier.

101 (Area C1, L4340, Reg.–No. 43271/12) (**fig. 9**)
Base and lower wall fragment.
Reddish-brown fabric, ext./int. dark grey slip.
Calyx: curved veined leaf. Medallion: rosette (single leaf preserved).

102 (Area B1, L12874, Reg.–No. 123628/1) (**figs. 9. 12**)

Diam. of medallion 4.4. Base and lower wall fragment.

Reddish-brown fabric, ext./int. reddish-brown slip.

Rim: spiral tendrils. Calyx: lotus petals alternating with tipped acanthus leaves. Medallion: rosette.

Rosette: Rogl 2014, 214 fig. 10, Type 2. From the Monogram workshop a complete bowl: Laumonier 1977, pl. 34, 1973, plain medallion, same calyx and similar tendrils, Ionian cyma. Tendrils with three raised dots above and below are a very common ornament in the Ephesian production: see Laumonier 1977, pls. 31, 9115; 45, passim; 124, 1284. 1291; Mitsopoulos-Leon 1991, 70 D 2–3; Dereboylu 2001, pls. 22, 203–205; 23, 208 (all assigned to the Monogram workshop); Laumonier 1977, pls. 48, 1560; 49, 187 (workshop ›petite rose spiralée‹) and pl. 52, 1330 (Athenaios workshop) and pl. 61, 1967. 2280. 634 (Philon workshop). See also no. **36** for two rim friezes: meander and spiral tendrils.

103 (Area F3, L8825, Reg.–No. 86619) (**fig. 9**)
Diam. of medallion 3.4.
Reddish-brown fabric, ext./int. reddish-brown slip.
Rosette: Rogl 2014, 214 fig. 10, Type 2.

104 (Area C1, L4972, Reg.–No. 49233) (**fig. 9**)
Base and lower wall fragment.
Reddish-brown fabric, ext./int. red slip.
Calyx: probably shield décor and dots. Medallion: rosette.
Rosette: Rogl 2014, 214 fig. 10, Type 2; calyx: Mitsopoulos-Leon 1991, 73 D 48 (shield décor, dots, Monogram workshop).

105 (Area D2, surface, Reg.–No. 195015/2)
Base and lower wall fragment.
Reddish-brown fabric, ext./int. red slip.
Calyx: alternating leaves. Medallion: rosette.
Rosette: Rogl 2014, 214 fig. 10, Type 2.

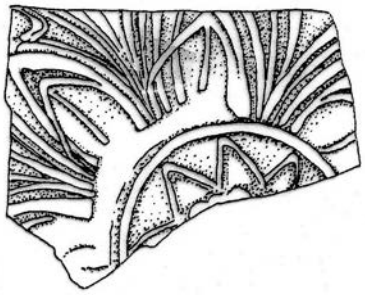
106 (Area D2, surface, Reg.–No. 195000/2)
Base and lower wall fragment.
Light brown fabric, ext. traces of brown/grey slip, int. dark brown slip.
Calyx: acanthus leaf and part of lotus leaf preserved. Medallion: rosette.
Rosette: Rogl 2014, 214 fig. 10, Type 2.

107 (Area C1, L4340, Reg.–No. 4930) (**fig. 9**)
Base and lower wall fragment.
Reddish-brown fabric, ext./int. dark brown slip.
Calyx: acanthus leaf and part of rhomboid leaf preserved. Medallion: rosette.
Rosette: Rogl 2014, 214 fig. 10, Type 2 (probably).

108 (Area F3, L8620, Reg.–No. 85396) (**fig. 9**)
Diam. of medallion 3.5.
Light brown fabric, ext./int. dark grey slip.
Medallion: rosette in high relief.
Rosette: Rogl 2014, 214 fig. 10, Type 3b.

109

110



111

112

Fig. 10 : Medallions.

The fabrics of nos. **109–112** with some mica inclusions differ from the Ephesian production and appear to be singletons from workshops tentatively assigned to Asia Minor.

109 (Area C2, L4545, Reg.–No. 45142) (**fig. 10**)

Diam. of medallion 2.8. Base and lower wall fragment.

Light brown fabric, ext./int. brown slip.

Calyx: circle of triangular leaves filled with tiny scallops. The lower part of a leaf is preserved. Medallion: rosette of four large petals.

110 (Area E1, L6425, Reg.–No. 64250) (**fig. 10**)
Diam. of medallion 3.5. Base and lower wall fragment.
Light brown fabric, ext. worn brown slip, int. red slip.
Calyx: acanthus leaves. Medallion: eight-petal rosette.

111 (Area E1, L6484, Reg.–No. 65161/1) (**fig. 10**)
Diam. of medallion 3.2. Base and lower wall fragment.
Reddish-brown clay, red slip worn on the inside of the bowl.

Calyx: circle of triangular leaves with central ribs. Medallion: rosette.
For the calyx see no. **96**.

112 (Area E1, L6464, Reg.–No. 64486/12) (**fig. 10**)
Base and lower wall fragment.
Light brown clay, dark grey slip.
Calyx: alternating acanthus and lotus leaves. Medallion: rosette.

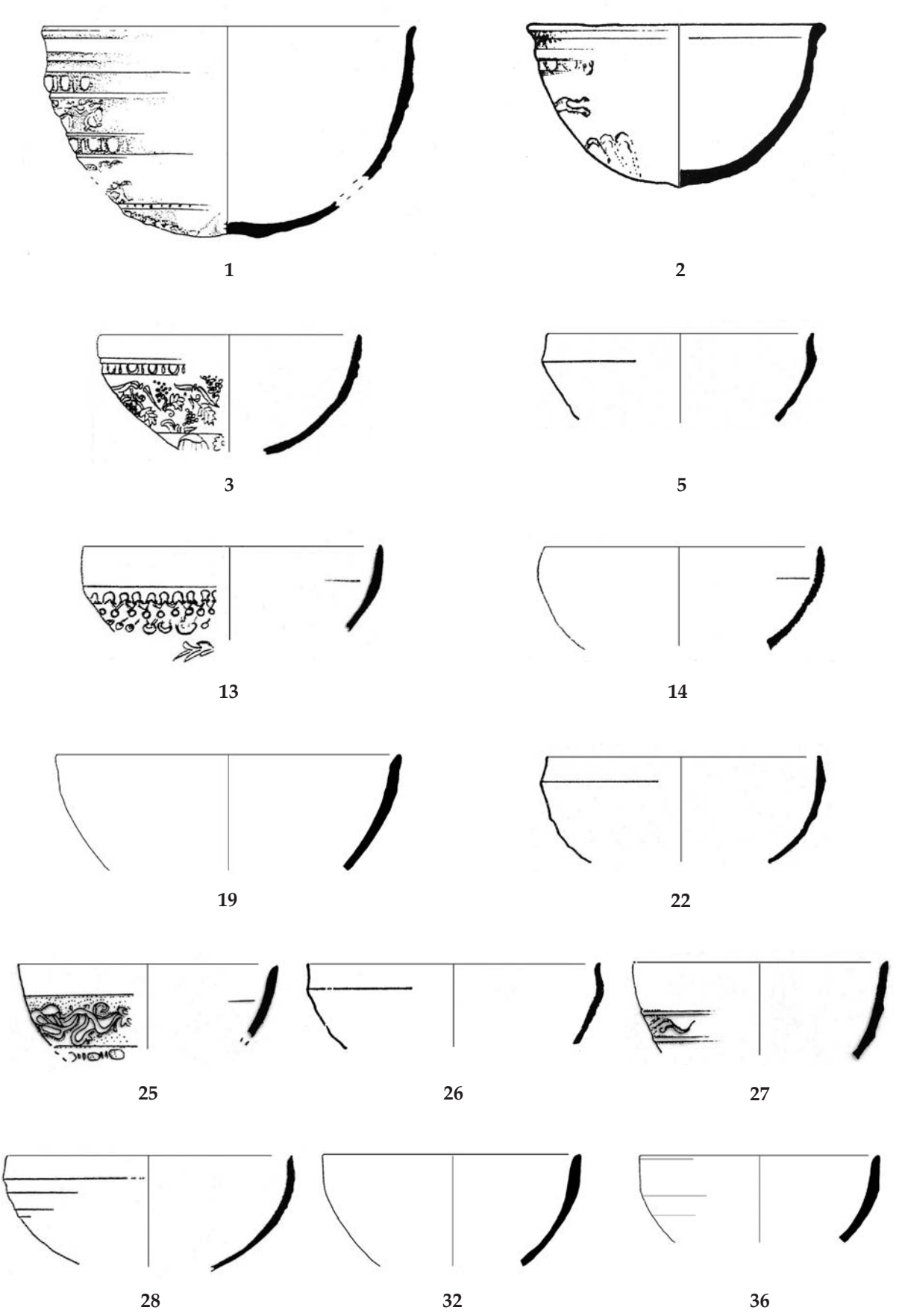


Fig. 11 (M. 1 : 3)

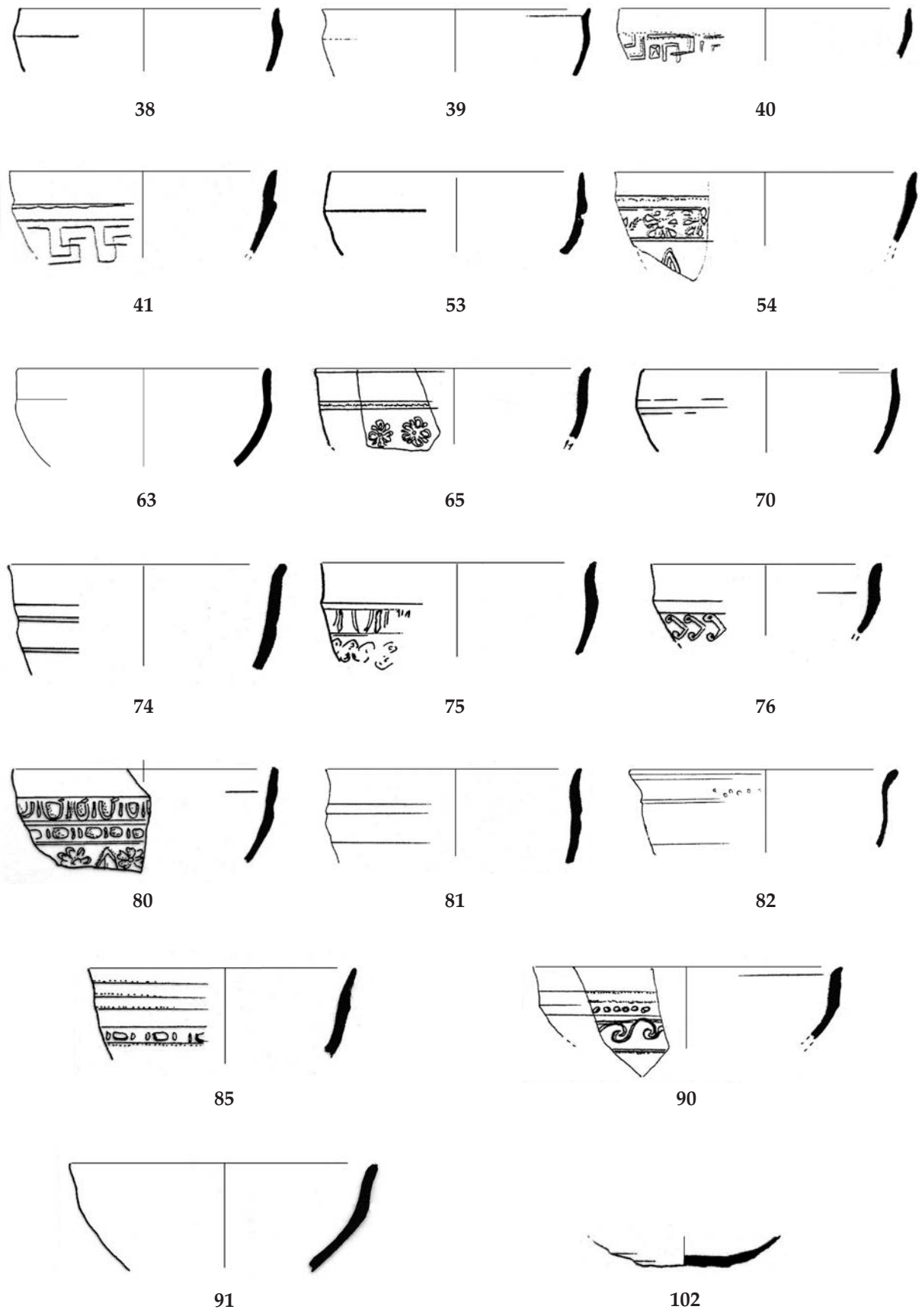


Fig. 12 (M. 1 : 3)

Table 1

Concordance with list of published finds in
Rosenthal-Heginbottom 1995a; 1995b; 2015; 2016.

Cat. No.	Area	Locus	Reg.–No.	1995a, fig.	1995b, pl.	2015	2016
1	D1	16563	167639+ 168150				
2	B2	3885	38464		17, 1	pl. 6.2.3, 6; photo 6.2.1, 8	no. 102
3	D2	10438+ 10420+ 10473	104273+ 104210+ 104341		1, 6	pl. 6.2.1, 3	
4	D2	5240	52237				
5	C0	508	4739/1	5.3, 6	1, 8		
6	D2	5147	51090		1, 9		
7	C0	564	4897	5.3, 6	1, 8		
8	F3	8572	85958		1, 7		
9	B2	13520	135062/3				
10	B2	13667	135628				
11	D2	17607	176035/20				
12	D1	16856	260524				
13	B1	12374	123628/2		1, 10		
14	C1	639+ 4322+ 4337	5247/4+ 43297/3–6+ 43298/9	5.3, 9	2, 1		
15	E1	6650	66697/3+ 66745		2, 2		
16	C0	4050	40325/5	5.3, 11	2, 3		
17	D1	5429	54177/5		2, 4		
18	D1	16901	261042/1–2				
19	B2	13520	135062/1–2				
20	H	20354	202660				
21	D2	17599	175915				
22	C1	4322	43297/1	5.3, 4	3, 1		
23	D1	16548	168038				
24	F	8068	80425	5.5, 21	15, 9		
25	D1	5572	54333/1		5, 9		

Cat. No.	Area	Locus	Reg.–No.	1995a, fig.	1995b, pl.	2015	2016
26	C1	4355	43385/5	5.4, 3	5, 7		
27	E1	6514	64822/1		5, 8		
28	D2	5184	51187/7+ 52003		4, 1		
29	D3	14177	141224				
30	F3	8900	86980				
31	A2	1005	10057/1	5.3, 12	3, 6		
32	F3	8943	87223				
33	F3	8943	87224				
34	F3	8936	87177				
35	D2	17545	175331/2				
36	D1	16714	168982				
37	D2	17623	176123				
38	C0	446	4275/1	5.4, 17	4, 2		
39	B2	7410	73718/1	5.4, 3	4,7		
40	F3	8698	85806		4, 4		
41	E2	6012	60074		4, 5		
42	A0	1099	10525/2		4, 6		
43	D1	26223	262340/2				
44	D2	17623	176127				
45	D1	26034	260298				
46	H	20001	200023				
47	H	20051	200529				
48	F3	8824	86507/1				
49	D1	16804	260111				
50	F3	8896	86794				
51	E1	6572	65166/2		4, 3		
52	F3	8754	86177				
53	C1	4340	43271/3		5, 2		
54	B2	3816	37428/2		5, 1		
55	H	20175	202202				
56	E1	6678	66936		5, 3		
57	D1	26044	260385				

Cat. No.	Area	Locus	Reg.–No.	1995a, fig.	1995b, pl.	2015	2016
58	C1	4435	48240/3	5.4, 20	5, 4		
59	H	20644	204762				
60	E1	6157	61347/2		9, 7		
61	D2	17523	175300				
62	H	wall cleaning	208096				
63	F	8005	80042/1		5, 6		
64	H	20014	200277				
65	F3	8799	86377				
66	E1	6470	64869		15, 3		
67	D1	5410	54116		5, 5		
68	F3	8824	86522				
69	H	20948	205906				
70	B2	3819	37455/2		11, 3		
71	F3	Balk	86840				
72	B2	3785	37340				
73	D1	16041	163387/1				
74	E1	6315	63147/1		6, 6		
75	E2	6017	66097		6, 7		
76	E2	6006	60040/2		6, 11		
77	D2	17548	175333/2				
78	C0	531	4684/2				
79	C1	602	5195/6	5.4, 15	6, 5		
80	D1	5430	54211/3		6, 1		
81	E1	6361	62809/2		6, 2		
82	E2	6029	60155/2		14, 10		
83	B2	7410	73718/2		6, 10		
84	G	9489	94347		6, 3		
85	D1	5430	54311/8		9, 5		
86	E2	6024	60127/3		9, 6		
87	E1	6577	66342		9, 2		
88	E1	6157	61347/3		9, 3		
89	E1	6141	61325/14		9, 8		

Cat. No.	Area	Locus	Reg.–No.	1995a, fig.	1995b, pl.	2015	2016
90	F3	8800	86400				
91	E1	6522	64833/1		6, 9		
92	F3	8725	85919		14, 2		
93	E2	6006	60045/1		2, 6		
94	D2	topsoil	195010/2				
95	E2	6003	60027		14, 5		
96	E1	6137	61250	5.3, 10	3, 3		
97	H	20025	200415				
98	H	20013	200158				
99	D2	17592	175814				
100	D2	17578	175707				
101	C1	4340	43271/12	5.3, 2	1, 3		
102	B1	12874	123628/1		3, 2		
103	F3	8825	86619				
104	C1	4972	49233	5.4, 13	11, 4		
105	D2	topsoil	195015/2				
106	D2	topsoil	195000/2				
107	C0	564	4930	5.3, 13	2, 5		
108	F3	8620	85396		3, 4		
109	C2	4545	45142	5.5, 17	20, 7		
110	E1	6425	64250		20, 4		
111	E1	6464	65161/1		14, 7		
112	E1	6164	64486/12		20, 5		

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Archaeological News and Projects

Pyla-*Koutsopetria* Archaeological Project: Excavations at Pyla-*Vigla* in 2022

Brandon R. Olson – Thomas Landvatter – Justin Stephens – R. Scott Moore

Pyla-*Vigla* (Vigla), investigated as part of the Pyla-*Koutsopetria* Archaeological Project (PKAP), is a fortified settlement dating to the early Hellenistic period ca. 325–275 BCE. The site is located in southeastern Cyprus on the primary overland route between ancient Kition and Salamis (**figs. 1–3**). The largely ephemeral (ca. 50 year) nature of Vigla's occupation presents a valuable opportunity to shed light on a poorly understood period of ancient Cyprus. The early Hellenistic period saw the island transition from a political system based on semi-autonomous city kingdoms to the incorporation into an incipient imperial system. With a sound stratigraphic profile consisting of multiple undisturbed floor and subfloor levels, a homogeneous material assemblage, and discrete chronological benchmarks, Vigla represents an ideal case study to explore the imperial mechanisms of the earliest Hellenistic kings. These mechanisms were devised both to subjugate the island of Cyprus and to carve out their own spheres of influence within the remnants of Alexander the Great's empire during the late fourth and third centuries BCE.

The 2022 field season marks the 16th year of fieldwork for PKAP. Previous seasons have undertaken systematic excavation (2008, 2009, 2012, 2018, 2019), while others have focused on intensive pedestrian survey and geophysical prospecting. The 2022 season saw the continuation of excavation within the fortified plateau of two 5 × 5 meter excavation units: EU 20, first opened in 2019; and EU 23, immediately to the east of EU 20. These units serve to address two overarching research goals. First, to continue building a study collection of early Hellenistic pottery in order to address broader issues of chronology related to the early Hellenistic period. Second, to uncover structures within the fortified space and investigate the domestic functions and production areas of the site, as well as investigate the fort's potential ties to local networks.

Excavation of EU 20

EU 20 was first opened and partially excavated in 2019 (**figs. 4–5**). At the end of the 2019 season, the beginnings of several major floors and floor assemblages were exposed. The 2022 season's aims for EU 20 were largely directed towards broadening the understanding of the structures and assemblages uncovered in the previous season. The excavation of the unit

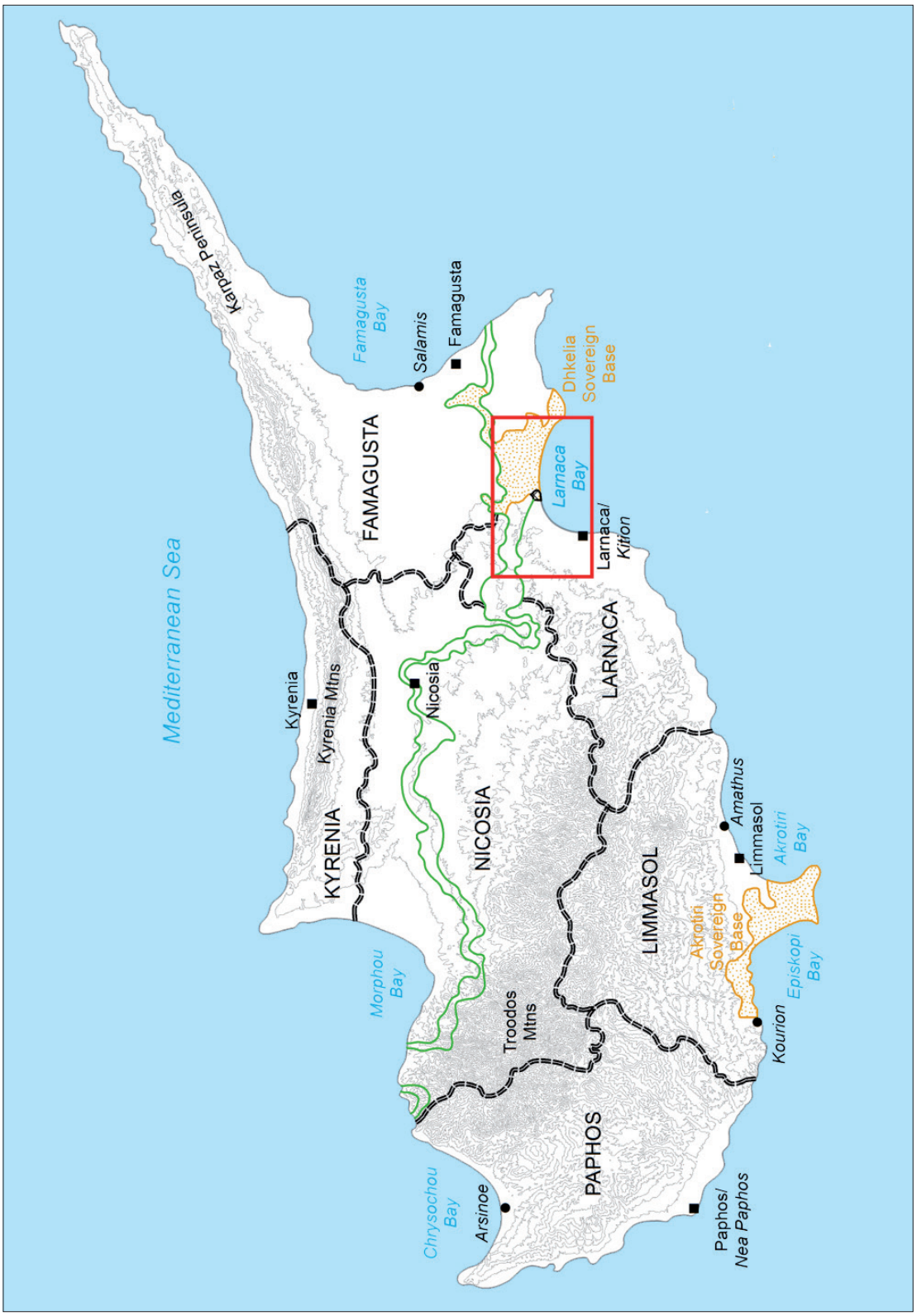

Fig. 1 : A map of ancient Cyprus showing the major urban entities with the PKAP survey area and Vigla alled out on the western side of the Dhkelia Sovereign Base.

Fig. 2 : An image of the Vigla plateau looking north.

Fig. 3 : An image from the top of Vigla looking southwest towards the Mediterranean Sea.

confirmed its domestic nature, especially in the middle section of the trench where a wide and diverse material assemblage was revealed that appear to subscribe the impression of it being a food storage/preparation facility (**fig. 6**). The trench produced a vast amount of ceramic and metal artifacts. Aside from these materials, a large number of charred remains (olive pits) as well as loom weights (**fig. 7**) provide an interesting assemblage outlook into the material culture of this particular domestic context. The pottery recovered from the floor surfaces was largely from the early Hellenistic period. A small number of Iron Age pottery fragments were recovered while excavating a slab lined pit built directly over bedrock.

Fig. 4 :
An orthophotograph depicting the close of excavations in EU 20.

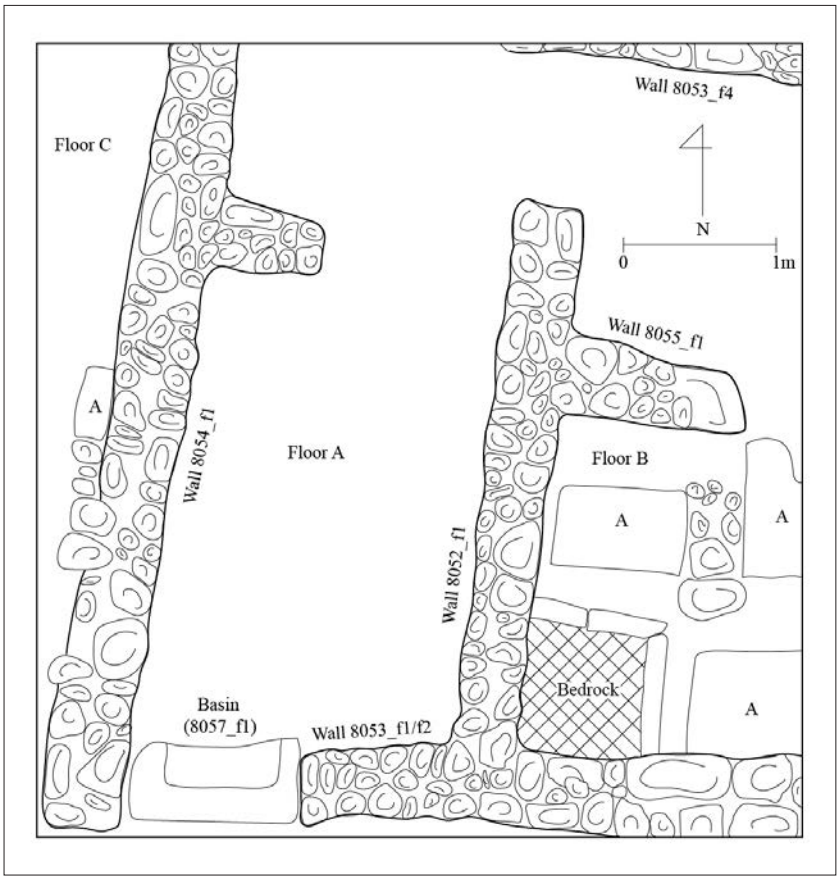

Fig. 5 :
A top plan of EU 20 with relevant contexts labeled and all identified ashlar stones are marked with an ›A‹ on the plan.

Fig. 6 : A floor surface photograph showing artifacts denoting a domestic ceramic assemblage and a stone bread stamp.

The walls on the eastern section of EU 20 appear to be related to the western walls of EU 23, and the entire structure of EU 20 was within the mudbrick elevation that had been identified in previous seasons. The west baulk of the southeast corner of the trench contained a stone-lined pit constructed with rectangular ashlars. This pit had been built on top of the bedrock, which had itself been worked to a depth of approximately 25 cm. The pit produced sparse Iron Age ceramic remains, as well as a few bone fragments.

Finds

The excavation of EU 20 yielded sizable material assemblages on three distinct floor levels, designated ›A‹, ›B‹, and ›C‹ (**figs. 4–5**). Floor A yielded the most material, with Floors B and C being substantially less productive in terms of ceramic and metal finds. While the finds on Floors B and C were not as concentrated, they revealed equally interesting depositions.

Floor A yielded an in-situ assemblage of varied domestic materials with the most common being ceramic storage vessels and bowls, iron and bronze nails, bronze projectiles, iron blades, a stone bread stamp, a faience bead and two bronze coins (**figs. 8–9**). Other finds of significance included some intact semi-fine vessels (echinus bowls and a flask) and amphora fragments. The finds were scattered over a floor surface consisting of an admixture of plaster and compacted earth. The ceramic cluster found in the 2019 campaign, which included an intact plate, overlays almost perfectly with the southeastern corner of Floor A, where no wares were found. It would make sense, thus, to assume that they were part of the same assemblage and collapse event. The spatial distribution and concentration of iron objects (nails and blades) seems indicative of the presence of some structural element attached to the wall that collapsed

Fig. 8 : One of many in-situ ceramic floor assemblages from EU 20.

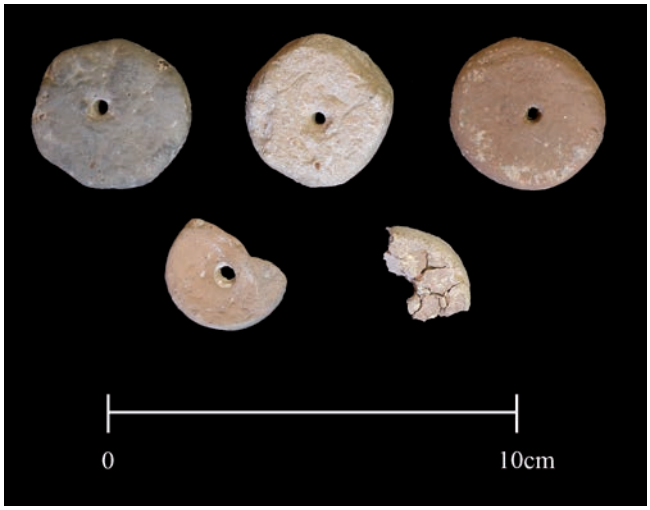

Fig. 7 : A collection of ceramic loom weights, including an unfired example (bottom right) found in EU 20.

Fig. 9 : A collection of bronze nails found in EU 20.

Fig. 10 : A photograph of a limestone figurine findspot with associated kitchenware ceramics from Floor C.

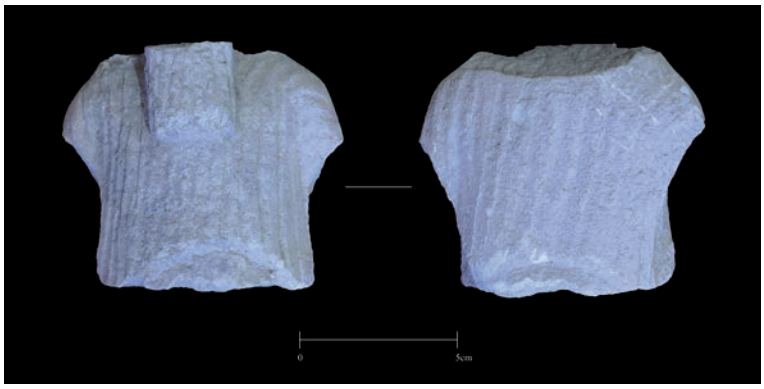

Fig. 11 : An image of a limestone figurine of a bearded male from Floor C.

on top of the whole assemblage. An unfired clay loom weight was also recovered, similar to those recovered in the 2019 season.

Floor B was largely excavated on the southern end. First exposed in 2019, the area covered by Floor B had two distinct floor phases, easily visible in the baulk after excavation. The second floor surface was exposed in 2019, and several objects were found in situ lying on this floor. This second, later phase of the floor is contemporary with Floor A. Beneath this floor, an earlier, first floor phase was exposed, along with several other features. The primary feature discovered was a slab-lined pit of ashlar blocks framing a partially excavated section of bedrock. The earlier floor phase seems to have abutted, but did not cover, the pit and the ashlars. Overall, the room did not yield many finds, with the exceptions of some Attic pottery fragments and, inside the feature, some Iron Age shards and a few animal bone fragments.

Floor C produced large amounts of well-preserved pottery and some special finds including a fragment of a limestone figurine (**figs. 10–11**) and a bronze Alexander the Great

issue coin. Given the small spatial extent of the unit, excavation efforts ceased as it became too difficult to safely work in the unit.

In addition to the extensive deposits on these floors, soil samples were taken in several places in Floors A and B. Five samples were taken of Floor A, in the four corners and in the center, and another sample was taken of a small section of the first phase of Floor B which had been sealed underneath ashlar block 8060_f1, first exposed in 2019. These samples were reserved for flotation and analysis at the Cyprus Institute.

Excavation Unit Interpretations

The excavation of EU 20 provided conclusive evidence regarding the relationship between the three floor surfaces. It became clear that Floors A and B represented a single occupational level. To a certain degree, some materials, such as the unfired loom weights (**fig. 7**), connect the last surface excavated in Floor B (excavated in 2019 and 2022) with the last surface uncovered in Floor A (excavated in 2022). While the northern wall seems to go inside the baulk in an E-W direction, and the eastern baulk has not yet revealed an eastern wall, it is safe to assume that both floors communicate the same domestic unit, as they are both bounded by the southern wall of the trench.

The excavation and articulation of the unit's extant architecture demonstrated that the plaster/earthen floor uncovered in the northwest corner of the unit (Floor C) is clearly connected to the domestic unit of Floors A and B, but is also structurally separated from it. While the northern baulk does not show any conclusive signs of another wall, the southern wall, which runs very clearly through both Floors A and B, is interrupted abruptly by the outside (western face) of the western wall.

Excavation of EU 23

Vigla EU 23 was excavated from July 6 – July 22, 2022 (**figs. 12–13**). The goals of this unit were to gain more data on the phasing of the fortified settlement and to learn more about the extent and functions of the structures identified in EU 20 in 2019. EU 23 is located directly to the east of EU 20, separated by a 1 m. baulk. Most finds consisted of ceramics and metals, but there were also some smaller quantities of bone and shell, worked stone, beads, and painted plaster. Three lead sling bullets found in EU 23 support the military nature of the site (**fig. 14**). During the course of excavation, seven features were identified, including five stone socle walls, one cut, and one plaster basin. The orientation of the stone socle walls demonstrated that EU 23 consists of two rooms that are distinct from the rooms identified in EU 20. Although the relationships between certain walls cannot be determined based on the available data thus far, it is clear that the north/south wall separating the two rooms was added at a later date than the two walls in the northern part of the trench since the north/south wall abuts the two other walls. The remains of a floor surface identified in the eastern room of EU 23, as well as the corners of the walls in the NW and SE corners of EU 23, suggest that these two spaces were interior rooms. The initial analyses of the ceramic assemblages and coins suggest an early Hellenistic dating of the EU 23 phases. These findings are consistent with the results of earlier excavations on the plateau of Vigla. Based on the large amount of amphora sherds, an in-situ amphora, a plaster basin, and interspersed cooking ware and plain wares (bowls and jugs), the rooms could have been domestic and/or industrial in nature (**fig. 15**).

Finds

Based on preliminary analysis of the ceramics in the field and in finds processing, most of the ceramics seem to date to the early Hellenistic period, which is consistent with excavation results from previous years. The uppermost layers may have some later Roman pottery (with combed decoration) and have some modern inclusions, as identified in the field; this will be

Fig. 12 : An orthophotograph depicting the close of excavations in EU 23.

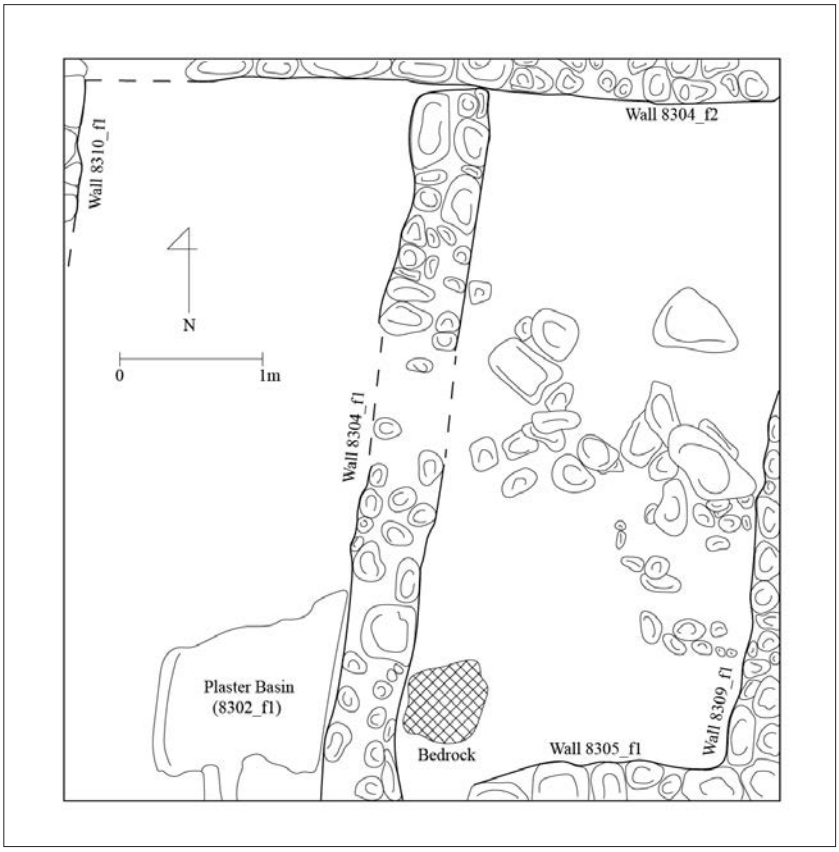

Fig. 13 : A top plan of EU 23 with relevant contexts labeled.

Fig. 14 :
A collection of artifacts of a military nature.
Top: a bronze projectile,
Middle: two sections of chainmail,
Bottom: three lead sling bullets.

Fig. 15 :
An in-progress photograph of excavations in EU 23 showing the bottom half of an in situ amphora.

Fig. 16 :
An image of the silver Alexander the Great tetradrachm found in EU 23.

confirmed with pottery analysis of these contexts, but this is also consistent with the nature of these modern disturbed contexts. The underlying units appear to be sealed within the early Hellenistic periods.

The most remarkable architectural find was an in-situ plaster basin, partially exposed in EU 23 and continuing into the south baulk (see **figs. 12–13**). The southern part of the plaster basin is preserved; the northern part of it is broken. Many chunks of the broken plaster were found within the surrounding fill (SU 8302) and later layers in the western half of the trench. A small channel, with one plastered stone in situ on the western side of the channel, runs into the south baulk of the unit; the stone for the eastern side of the channel is not preserved. The western edge of the basin slopes down but then breaks after about 10 cm. The eastern edge of the basin slopes up, indicating that it was plastered up against the mudbrick elevation of the north-south wall 8304_f1. One stone of wall 8304_f1 even appears to go underneath the basin, showing that it postdates wall 8304_f1. The plaster is a bluish-gray colour with small pebble inclusions. Future excavations in 2023 will determine what the basin is built upon and if it extends any more to the south.

The finds suggest that the rooms were domestic and/or industrial in use. In the western room, a very large deposit of amphora sherds was found up against the east-west wall 8304_f2, including at least one stamped amphora handle. A second, smaller deposit was found against wall 8304_f1. In the eastern room, an upright amphora appeared to be the only in-situ find in it, while the area around the amphora seems to have been disturbed by a large stone collapse that broke up the surrounding floor surface. A few fragments of painted plaster discovered in the fill provide insight into how the interior walls of the rooms were decorated, presumably plastered and painted over the mudbrick casing of the stone socle.

Non-ceramic finds in EU 23 included metal weapons and other materials: coins, faunal bone, shell, a few bone beads, painted plaster, and worked stone. The metal weapons consisted of three lead sling bullets and a piece of chain mail. Other special metal finds from the unit included a bronze pendant, six bronze coins, and a silver tetradrachm (**fig. 16**). However, these finds were found in the fill rather than in any in-situ context, while the plaster basin in the western room, the pieces of worked stone that appear to be parts of a basin in the eastern room, and the large amount of amphora fragments found in both the western and eastern room suggest that these rooms had some kind of production and storage functions.

Excavation Unit Interpretations

Excavation of EU 23 has found two adjacent rooms: one in the western half of the trench, one in the eastern half. The western room does not seem to be a continuation of the rooms found in EU 20 based on the corner created by walls 8304_f2 and 8310_f1 and the fact that wall 8305_f1 does not continue past the plaster basin 8302_f1. Excavation of the baulk between EU 20 and EU 23 will confirm this hypothesis. Although the western room with the basin does not appear to connect to EU 20, the elevation of the basin seems to be about the same as the western wall in EU 20, with the elevation of the basin at 57.317 (center) and the elevation of the wall being 57.44. The preliminary analysis of the finds suggest that the rooms were occupied and/or used during the early Hellenistic periods.

This collapse of the mudbrick superstructure occurred in both rooms. Finds in the collapse layer mostly relate to early Hellenistic pottery with scant traces of Iron Age material. Further pottery analysis will prove or disprove this initial finding, but if the pottery is from the Iron Age, this finding could be consistent with the finding of EU 19 in 2019 that Iron Age pottery sherds were used as temper in the production of mudbricks for the Hellenistic fortified settlement. Based on in-situ mudbrick that was found lining the southeastern corner of wall 8304_f1, the mudbrick collapse did not just come from the mudbrick superstructures, but also the lining of the walls. A stone collapse in the eastern room seems to have extensively damaged the floor in the area around the aforementioned in-situ amphora. A jumble of large, cut blocks was spread over the eastern room just above the floor.

Fig. 17 :
A representative collection of lead, bronze, and iron weapons found throughout Vigla.

At present, with the available data it can be proposed that the first phase of construction in EU 23 consists of wall 8304_f2 and wall 8310_f1 sometime in the early Hellenistic period. A later phase (but still within the early Hellenistic period) consisted of the construction of wall 8304_f1 to define the western and eastern rooms, and the floor with the amphora in the eastern room was constructed too during this time. The basin postdates the construction of wall 8304_f1, but by how much is not known. The status of the walls in the SE corner of the unit is less clear, whether walls 8305_f1 and 8309_f1 are contemporary with walls 8304_f2 and 8310_f1. This will be determined when more of wall 8309_f1 is exposed to see if it creates the NE corner of the eastern room with 8304_f2. The eastern room was presumably cleaned before abandonment and collapse, since only the amphora was found in situ. The function of the western and eastern rooms was likely industrial in nature due to the presence of the basin and the large amounts of amphora fragments found. Alternately, they could also be domestic spaces (or mixed use).

The occupation and use of the building represented in this unit are solidly early Hellenistic in date. While some sherds of Iron Age have been found, this does not, however, suggest any Iron Age contexts. Iron Age pottery was found in mudbrick collapse, while the in-situ amphora seems to be early Hellenistic. Further excavation will clarify the functions of these two rooms, but EU 23 confirms the early Hellenistic occupation of the fortified settlement and provides more insight into the activities of the people who lived at Vigla.

Fig. 18 : A typical domestic assemblage found throughout Vigla including three echinus bowls, a plate, iron and bronze nails, iron blade, bronze coin, and stone bread stamp.

Interpretative Conclusions

The continued excavations at Vigla shed light upon a period of great transition for Cyprus and the greater eastern Mediterranean basin. The representative material assemblages further our understanding of the likely community of soldiers and others that occupied Vigla (**figs. 17–18**). The 2022 excavations have suggested several avenues for future research. First, the material remains discovered in 2022 further substantiate the site's chronology (ca. 325–275 BCE), a likely military function, relative short life span, and the overall integrity of the stratigraphy. The site was occupied for less than half a century and the remains are not obscured by extant earlier remains or later deposits. Second, the large quantity of botanical remains and soil samples collected will support a robust palaeobotanical study that will further our understanding of local diet and perhaps trade. Finally, excavations in EU 20 and EU 23 demonstrate, through the presence of multiple in-situ floor surfaces associated with extant stone socles and mudbrick debris, the possibility of investigating the domestic functions of Vigla's inhabitants and imperial strategies of the Diadochoi.

Further Reading

B. R. Olson – R. S. Moore – T. Landvatter – J. Stephens

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Fabrics in Colour: Knidos.
The Hellenistic and Early Imperial Tableware

Patricia Kögler

A. Fabrics in Colour: Introductory Remarks

Current ceramic research is increasingly concerned with the economic, cultural and social aspects of Hellenistic and Imperial pottery. The ability to identify and determine the origin of ceramics based on specific properties of clay and coating is more than ever a sine qua non for every researcher in this field. The macroscopic analysis by the trained eye of the expert is still the most important method for assessing the sherd material. Although today it is possible to identify and classify pottery by means of archaeometric and chemical analyses, this can only be of secondary importance, as the corresponding methods are complex and expensive and therefore cannot be applied to the necessary extent to the enormous quantities of finds.

Hence, the knowledge about the properties and appearance of ceramics from different, specific production centres can best be acquired by studying corresponding, reliably identified sherd material, which, however, is usually not or only to a limited extent available within reach, i.e. at one's own research location. Isolated fragments, such as those kept in small university collections, only give a partial impression of the spectrum of a fabric. Suitable and sufficient illustrative material is available primarily at the place of production itself, which makes the study of fabrics very time-consuming due to the travel required. However, the exchange with colleagues on site and the expert discussions, in which the knowledge about fabrics is passed on – like a special secret science from druid's mouth to druid's ear – were and are irreplaceable.But here too, the possibilities were and are limited, because it is impossible to study even the most important and common fabrics in this way due to their large number and their wide distribution across the entire Mediterranean region and beyond.

In the end, the only means of identifying a fabric was and remains the use of verbal descriptions in relevant publications. However, this venture is doomed to failure in many cases because the descriptions of the characteristics of the coloured clays and coatings are usually illustrated exclusively with black-and-white photographs; sometimes isolated colour plates with the illustration of some – usually only the decorated – sherds are attached. However, this material is hardly sufficient to be able to open up the spectrum of a workshop in its full breadth. The main reason for not using the colour images, which are actually indispensable in this area of research, has so far been the high printing costs. Even today, as a result of the conservative adherence to the expensive offset printing, important material publications are still largely published without colour illustrations, although laser colour printing, which has

been developed in the meantime and is now very high quality, offers relatively inexpensive options.

In the past, the change of colour hues during the reproduction process was repeatedly used as an argument against coloured images, claiming that this would give a false impression of the appearance of the material. In this respect, too, thanks to modern reproduction methods, some things have improved and colour photos can now be reproduced authentically in print, with at most minimal colour deviations. Ultimately, in any case, the amount of material published in colour is a crucial factor in preventing distorted perception. For the ceramic specialist aware of these problems, colour photos are in any case more helpful than the black and white illustrations, which have no information whatsoever on the fabric characteristics.

With this in mind, ›Fabrics in colour‹ is a small project that invites you to publish ceramic finds extensively in colour. Any type of ceramic material is welcome – tableware and cooking utensils, transport amphorae, lamps, terracottas, etc. – that can come from central production facilities as well as from small regional workshops. The colour photographs can serve as a supplement to material that has already been published, illustrate archaeometrically analyzed finds, or present new material.

The series begins with the Hellenistic and early Imperial period fine ware from Knidos, presented in 2010 without colour photographs.

B. Fabrics in Colour: Knidos. The Hellenistic and Early Imperial Tableware

The publication of colour photographs of the tableware from Knidos represents a supplement to my dissertation published in 2010, to which no colour plates could be added for various reasons, ›Feinkeramik aus Knidos vom mittleren Hellenismus bis in die mittlere Kaiserzeit‹ (Fine Ceramics from Knidos from the mid-Hellenistic to the mid-Imperial Periods), henceforth ›Kögler 2010‹. In addition to the cost factor, the necessary processing of the photographic material played a role, which was not technically feasible at the time.

The material was collected in the 1990s as part of a small project set up by Hans von Steuben and Ramazan Özgan to process the pottery finds from Knidos from the American excavations of the 1960s and 1970s[1].

Basic conditions of documentation

The quality of any photographic documentation is directly dependent on the general conditions under which it has taken place. This applies above all to factors such as the local conditions and the technical and human resources. In this regard, the conditions for the documentation in Knidos and Bodrum within the framework of the small project with limited financial possibilities were anything but ideal: At first, due to the short duration of the Turkish excavation campaigns, work always had to be carried out under enormous time pressure. A professional photographer was not available, so the photographs were taken by more or less experienced amateurs – the archaeological staff[2]. In addition, due to the limited financial resources, the meagre possibilities had to be managed sparingly and things had to be improvised. The latter is probably most strikingly expressed in the background

1 The project was a cooperation between the Archaeological Institute of the Goethe-University in Frankfurt am Main (Prof. Hans von Steuben) and the Archaeological Institute of the Selçuk University in Konya, which has been continuing the excavations in Knidos under the direction of Prof. Ramazan Özgan since the 1980s. The American excavations were led by Iris Cornelia Love (Long Island University, New York), who died in April 2020 as a result of a SARS-CoV-2 infection.

2 The photographs were taken by Ursula Mandel, Achim Ribbeck, Ulrich Dotterweich, Gabriela Happel and myself. Unfortunately, it is no longer possible to assign individual photos to specific photographers, as no records were kept of this.

of the photographs, for which heavily grained wooden boards, pebble concrete slabs, large-fibre black-mottled textile and steel-grey metal shelves were used as a makeshift solution. Professional lighting equipment was not available, which also made it difficult to illuminate the sherds.

Depending on the location, the photos had to be taken under changing lighting conditions, but mostly in the blazing sun, with the shadows cast by the sherds varying in intensity depending on the position of the sun. In contrast to today's digital photography, which permits to assess the quality of the recordings on the spot, the result of the recordings made with an analogue single-lens reflex camera in the 90s could only be seen after the campaign once the film had been developed – and so often caused unpleasant surprises. A not inconsiderable part of the photos had to be rejected for this contribution due to over- or underexposure, resulting in colourdistortions. Incidentally, the cheaper slide films were used for the colour photos, from which photo prints could then be made as required, but this time, for a change, done by an experienced professional. High resolution scans of these photo prints are shown below.

From that part of the photographic documentation that can be used for further reproductions, an extensive selection was made to illustrate the characteristics of the Knidian fabric, which reflects the entire colour range of clay and coating of the locally produced vessels (**figs. 1–18**). For this purpose, mass-produced vessels were primarily used, including the well-known carinated cups, hemispherical bowls with rouletting, ordinary dishes and small bowls of different types, as they best reflect the characteristics of everyday tableware in Knidos. Some of these types also occur at other sites, which offer good opportunities for comparison. The aforementioned carinated cups are of particular importance, since they were the only Hellenistic vessel type that continued to be produced in the Imperial period, and the development of the fabric can be traced over a considerable time span (**figs. 3–4**). In addition, such categories of Knidian tableware should also be illustrated that were produced in significantly smaller quantities and sometimes only for a limited period, such as the ceramics with painting in the so-called West Slope style (**fig. 18**), the Hellenistic relief bowls (**fig. 17**) and the early Imperial thin-walled ceramics decorated in barbotine and sanded techniques (**fig. 15**).

For the vessels reproduced in this article, the respective catalogue number under which they are listed in the 2010 publication is given in the figure captions; measurements, descriptions, chronological and typological classification can be found there.

Clay and coating of the Knidian fine ware

The fabric characteristics were described in detail in the 2010 publication[3], providing the basis for the following, slightly abridged version, with only a few minor changes and additions.

An extremely hard-fired, fine clay with a dense structure is characteristic of the Knidian fine ware of both the Hellenistic and Imperial periods; only occasionally a fine porosity can be determined. Accordingly, the sherds are difficult to break, and they break smoothly and without crumbling or splintering. The clay, which was assessed on fresh fractures, contains tiny black particles that can just about be seen with the naked eye, as well as small white lime inclusions that as larger grains (so-called ›Kalkmännchen‹) can crack the surface (see i.e. **fig. 2: G.70; fig. 12: G.54**). Mica particles, on the other hand, are usually not detectable in the clay. The colours of the clay include light to medium grey and pale pink-brown and pink-beige tones in finehues. Occasionally, there is also a pale brown colouration (**fig. 7: D.73**), which can have a bluish-violet undertone. Rarely, the vessel walls are completely fired through in one colour (i.e. **fig. 1: F.23; fig. 2: G.70**); with a normal wall thickness, the fracture generally shows a two-layer colouration, with the inner layer usually being fired grey, the outer pink-brown or pink-beige (**fig. 1: D.4** and **D.30; fig. 2: G.69**). Thicker parts of the wall (e.g. in the area of the

3 Kögler 2010, 24–26.

ring foot) show a grey core, which is surrounded by a differently coloured shell on the inside and outside of the vessel, while thin-walled vessel sections (e.g. in the area of the rim) can be uniformly coloured. The colouring of the clay is therefore more or less dependent on the wall thickness in addition to the firing in the kiln and can vary accordingly within a vessel (**fig. 1: D.65**).

Just as characteristic of the Knidian tableware is a matt to slightly reflective coating, which is applied by dipping the vessels in a diluted clay slip. In the case of open forms, only the inside or usage side is always covered, while on the outside a coating is only applied to the rim zone or to visible sections. Closed shapes are only dipped with the outside, usually limited to the mouth and shoulder area. The undersides of all shapes are without slip; here as well as inside closed shapes, the stripes of dripping clay slip and fingerprints testify to the dipping process used (**fig. 1: D.65; fig. 7: Aa.3, Ac.1** and **D.52**). Apart from a few exceptions within the wheel-made ware (i.e. some plates with broad rim, **fig. 9: E.77–78**), only the relief vessels (**fig. 17: D.107, F.121+124, G.160**) are completely covered.

The coating ties itself well to the clay base and adheres accordingly. Cracks in the coating or even flaking of it can only be observed in rare cases (**fig. 7: Ac.1**)[4]; loss of the coating over the centuries has usually been through abrasion. The application of the clay slip is generally uneven and thin, which makes it appear more or less transparent; in particularly thin areas, the shimmering clay body influences colour perception, whereby an actually black coating on a pink-brown clay body can appear reddish-brown. A dense, covering consistency is less common.

A specific characteristic of the coating – in contrast to the clay – is a proportion of fine mica particles. If you hold a partially coated sherd in the sun, you will see a fine sparkle on the coated section, while no reflection can be noticed on the surface of the clay body.

The colours appearing in the coating show a wide range, ranging from black, black-brown and dark brown through strong red and orange-brown to lighter beige tones. The entire range can be encountered on a single vessel (see i.e. **fig. 7: Ac.1**); the partially covered exterior sides in particular tend to show themselves as blotchy colourful. However, the manifold variations cannot be considered the rule, just like the bichrome effect with black inside and reddish/orange-brown outside noted in the specialist literature for the carinated cups (i.e. **fig. 4: J.1**), which can be traced back to the stacking process in the kiln. In addition, the influence of stacking is particularly evident in the simple Hellenistic plates, which, as evidenced by misfired pieces from the Southern Necropolis (**fig. 8: F.85**), were placed one inside the other without spacers. As a result of the impaired oxygen circulation, a circular discolouration appears on the inner mid-section of the plate, namely the part corresponding with the interior of the base-ring on the underside. However, there is no uniform colour scheme here either and there are a large number of variations, such as the composition on **fig. 7** shows: A black circle can be surrounded by red-brown, a red-brown or grey circle by black, or a red-brown circle by orange-brown. The carinated cups, in which the inside and outside can appear in different or matching colours, show a corresponding wealth of variants, as the examples on **figs. 3–4** demonstrate.

A tendency towards a uniform black coating can be observed in the vessels painted in the West Slope style, since the light colours and the clay body incisions of the decoration stand out better against the dark background (**fig. 18: C.51; D.102–104**). However, colourfully coated specimens also occur within this category, especially in the case of the large late Hellenistic reversible lids (**fig. 18: Kn.184**). It should be emphasized that the clay slip was also applied to the vessels of the early Imperial period in the tradition of Hellenistic ceramics and that coloured and spotty as well as partially black coatings occur; even thin-walled ceramics are not exempt (**fig. 15**).

4 However, this seems more likely to be the result of modern storage conditions and massive contact with rat urine.

A certain negligence in craftsmanship can also be seen as a characteristic feature of Knidian fine ware. It is particularly evidenced by the uncoated undersides of the vessels, in the numerous fine grooves and holes left behind by particles carried along when turning (see i.e. the small bowls on **fig. 10**). Nevertheless, a careful reworking of the clay surface with a smoothing stick can also be seen here, which has left a faceted stripe profiling on the clay surface. This usually feels velvety to almost smooth, in contrast to the coating, which has a slightly rough surface. Thus, the haptic perception is also a criterion of the product characteristics.

The preceding description clearly demonstrates that it is not possible to classify the Knidian vessels according to the popular genera black and colour-coated due to the variety of hues that can appear on a single vessel. Furthermore, the term Knidian grey ware, established in the literature and probably derived from the grey Knidian lamps, is incorrect. In fact, in Knidos only a few, very specific vessel shapes or types are consistently fired grey throughout and coated black, namely essentially a service of bowls, plates and jugs with a hanging lip, some of which imitate types of the Arretine sigillata (**fig. 16**; – **G.96** is the only exception fired red). In addition, there are Hellenistic inkwells and small bowls with spouts, as well as small jugs with barbotine spikes, also from the early Imperial period (**fig. 15: G.152**). In any case, these are types of vessels that were only produced in small numbers and over a short time span.

The in-depth study not only of the carinated cups, but of the Knidian tableware production as a whole, documented from about 200 BCE to about 150 CE, reveals some development tendencies not only in typological terms, but also in relation to the fabric properties, which allow a division into four phases (I–IV):

Phase I (approx. 225–150 BCE; contexts **A–D,** part of **F**): The vessels of this earliest phase are usually carefully modeled and tend to have noticeably thin walls. The inclusions of lime in the clay are generally extremely small and only present in modest quantities. ›Kalkmännchen‹ are rarely seen here, and the number of surface grooves caused by rotating particles is also manageable. The coating is relatively thick and evenly applied, often covers well and tends to have a slight, sometimes metallic sheen (**fig. 3: D.1; fig. 6: Kn.284**). Particularly on early pieces such as the plates from the rock chamber tombs of the 3rd century BCE, imprints on the interior of the vessels indicate that the coating was additionally spread with the help of small sponges. Black is the predominant colour of coating; it can turn out particularly strong and stands in clear contrast to the pale pink of the clay body on the underside of the vessel, which is only partially coated (**fig. 1: F.23; fig. 7: Aa.3** and **Ac.1**). However, even at this early stage of development, there are numerous vessels with colourful coverings, as the above-mentioned plates from the chamber graves clearly show (**fig. 7: Ac.1**).

Phase II (approx. 150–50 BCE; contexts **E** and **F**): Compared to the vessels of phase I, those of the late Hellenistic stage of development tend to be much larger and have thicker walls, which is occasionally reflected in the fine porosity of the clay. The modelling is more careless, correspondingly the number of wheel-turning grooves and clinging lumps of clay on the surface as well as the number of calcareous inclusions increases. These are also becoming noticeably larger and, as ›Kalkmännchen‹, regularly crack the surface. The coatings are applied much thinner and more irregularly than on the pieces of the previous phase. Vessels with black coating are still common, but reddish-brown, orange-brown and beige tones in many hues, now predominate. The heavily stained coating usually appears matt and semi-transparent due to its sparse application, but contrasts less with the pale clay surface, which increasingly appears in pink-beige tones.

Phase III (Augustan-Tiberian period; contex **G**, early part): Compared to phase II, a general refinement can be seen in the vessels of phase III, which is reflected in careful modelling, thin

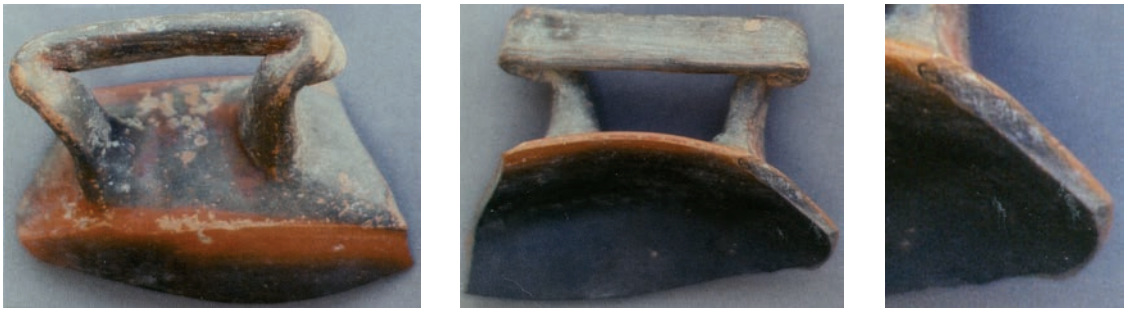
vessel walls, dense clay structure, small inclusions and correspondingly few lime figures. The vessels decrease in size and volume. The clay surfaces are mainly coloured in pink-brown and pink-beige, pale tones. However, there is an increase of pieces fired entirely grey, yet at the same time this material property is limited to certain types of vessels (see above; **fig. 16**). Regarding the colours of the coating, two directions are being pursued in Phase III. On the one hand, the stained-coloured coatings of phase II continued, with further thinning and fading of the colours observed (see i.e. the small bowls on **fig. 13**). On the other hand, the black coatings experienced a renaissance in Augustan-Tiberian times, sometimes in combination with grey-fired clay (i.e. **fig. 13: G.64**). Another generally characteristic feature of phase III vessels is the often greenish-grey tinted interior, especially in the wide open shapes, as well as a striking, silvery metallic shimmer of the coating, which sometimes reflects so strongly that the actual colour of the coating cannot be determined (**fig. 4: G.4, G.6, G.14** and **G.18**).

Phase IV (approx. 50–150 CE; contexts **H** and **J**, later part of context **G**): Noticeable are the continuously growing carelessness in the production as well as the coarsening of the material. Adhering lumps of clay and numerous, sometimes distinct grooves on the surface, together with carelessly designed parts of the vessel are becoming increasingly typical. The number of lime inclusions and lime figures in these vessels is just as enormous as their size, which easily can approach a grain of rice. The colours of the clay surface and the coating, which were initially quite intense, are increasingly fading. Eventually, the clay body usually reaches a lifeless beige (i.e. **fig. 4: J.1; fig. 13: G.77**) with a barely perceptible pink nuance. The coatings, some of which are extremely thin and allow the clay surface to shine through, are mainly concentrating on orange-brown and beige tones. They are still blotchy, but as far as can be determined on the basis of the body of the sherd, they can now be quite uniformly coloured. In addition, the coating is almost without exception matt in this phase.

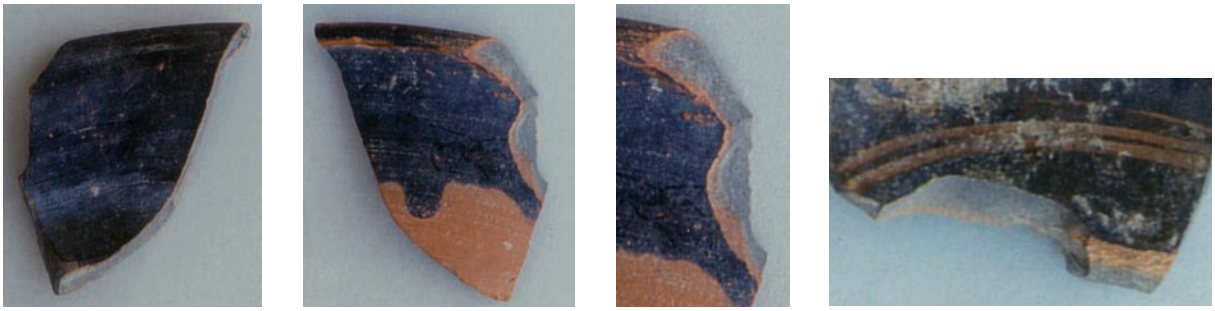
Comments on the illustrations

As mentioned above, the following 18 figures show a selection of Knidian vessels that characterize the fabric and illustrate its entire range of variations. The vessels and wares are deliberately not arranged in chronological order. Rather, Hellenistic and Imperial vessels of a typological group were consciously placed next to each other in order to demonstrate the continuation of Hellenistic traditions and techniques across the epochal boundaries. Likewise, within a type/ware, representatives with black and multicolored coatings were deliberately grouped together to show that this duality applies to almost every category of Knidian tableware: Hellenistic and imperial, decorated and undecorated, mass-produced and rare.

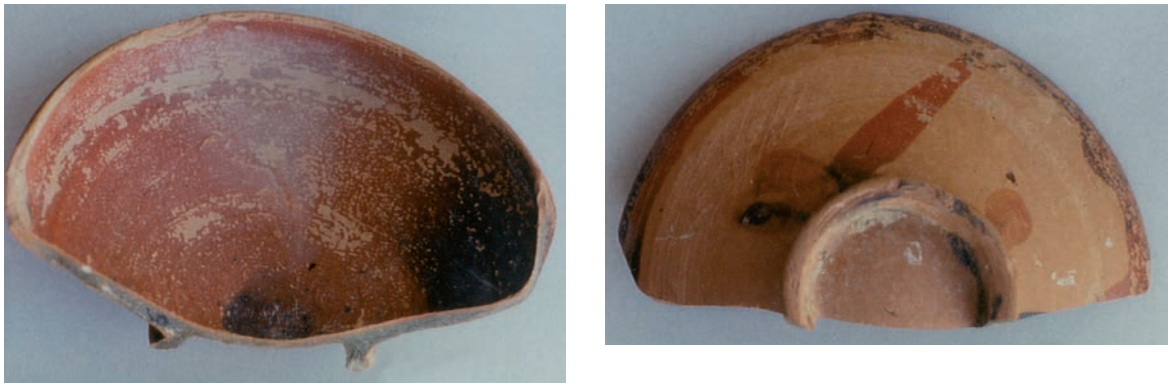
The vessels are not shown to scale. However, when comparing vessels of the same type, an attempt was made – wherever possible – to place them side by side in the correct proportions. The catalogue and true-to-scale profile drawings in Kögler 2010 provide information on dimensions and proportions.



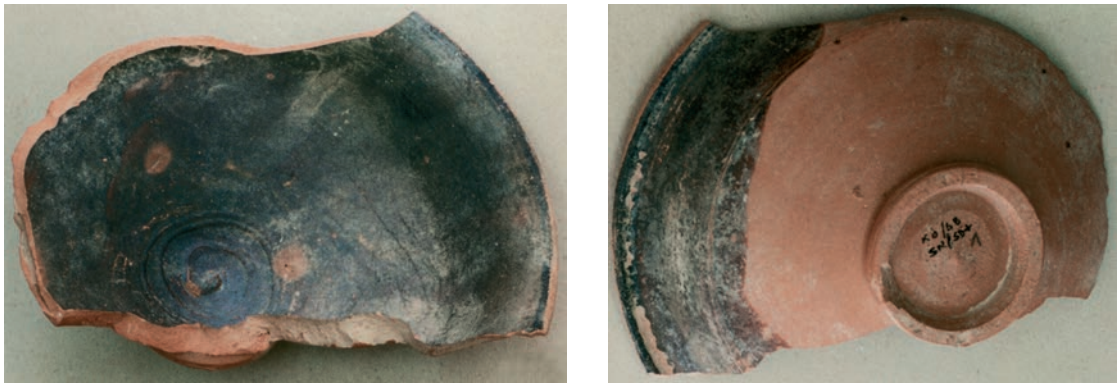
D.4



D.30 D.31

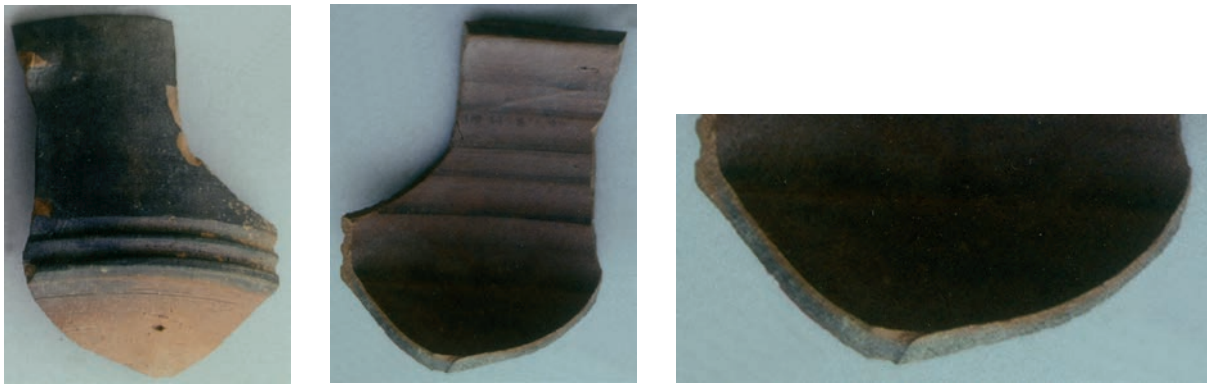


D.65

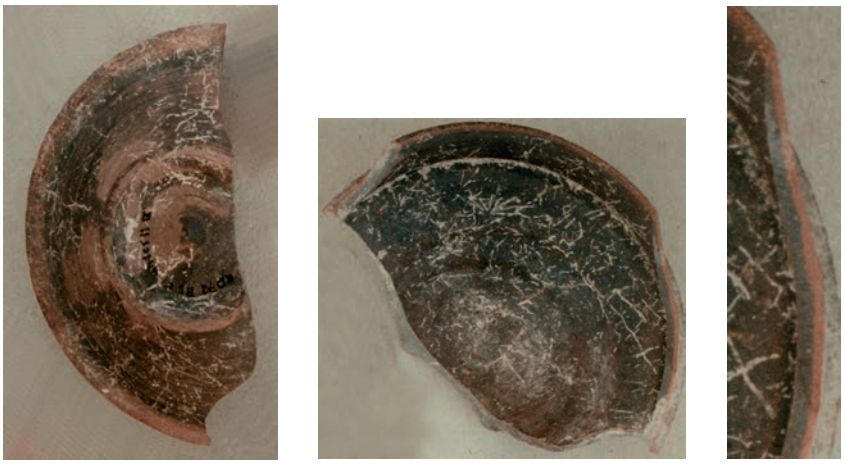


F.23

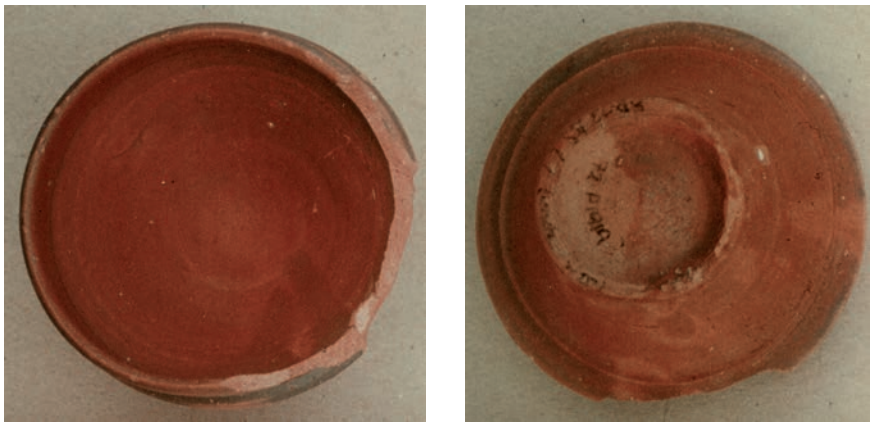
Fig. 1 : Examples of Knidian clay, Hellenistic Period.



G.37

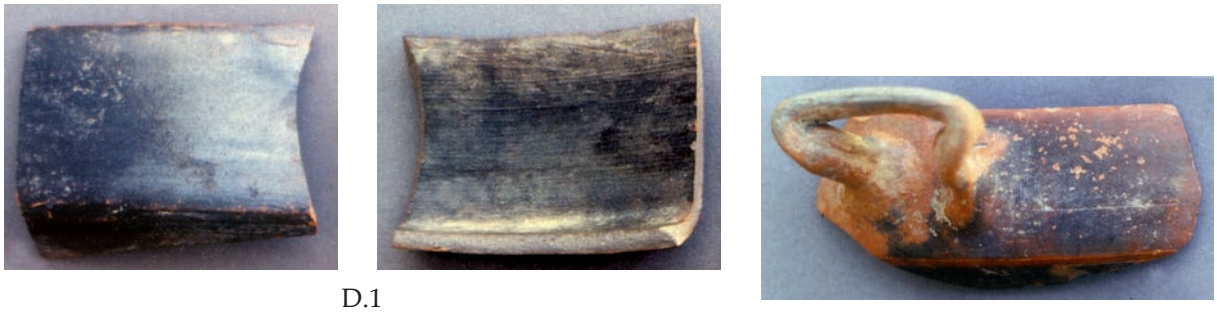


G.69

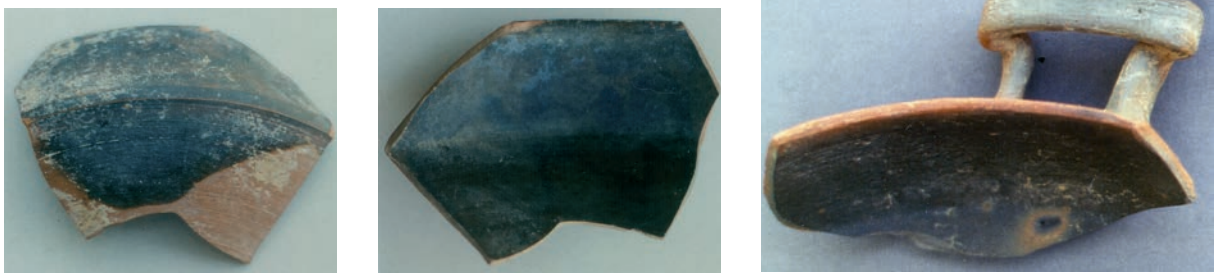


G.70

Fig. 2 : Examples of Knidian clay, Imperial Period.



D.1



D.6 D.5

E.2 E.3

F.12 F.13 F.15

F.3 F.4 F.5 F.6 F.8

Fig. 3 : Knidian carinated cups, Hellenistic period.

G.4 G.6 G.18

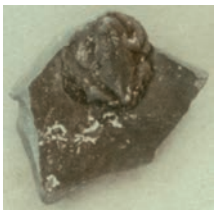
G.14 J.1 J.2

Fig. 4 : Knidian carinated cups, Imperial period.

Kn.196

Kn.202

Kn.209



Kn.255

Kn.263

Kn.273

Kn.278

Fig. 5 : Carinated cups, interior decoration, Hellenistic period.

Kn.284

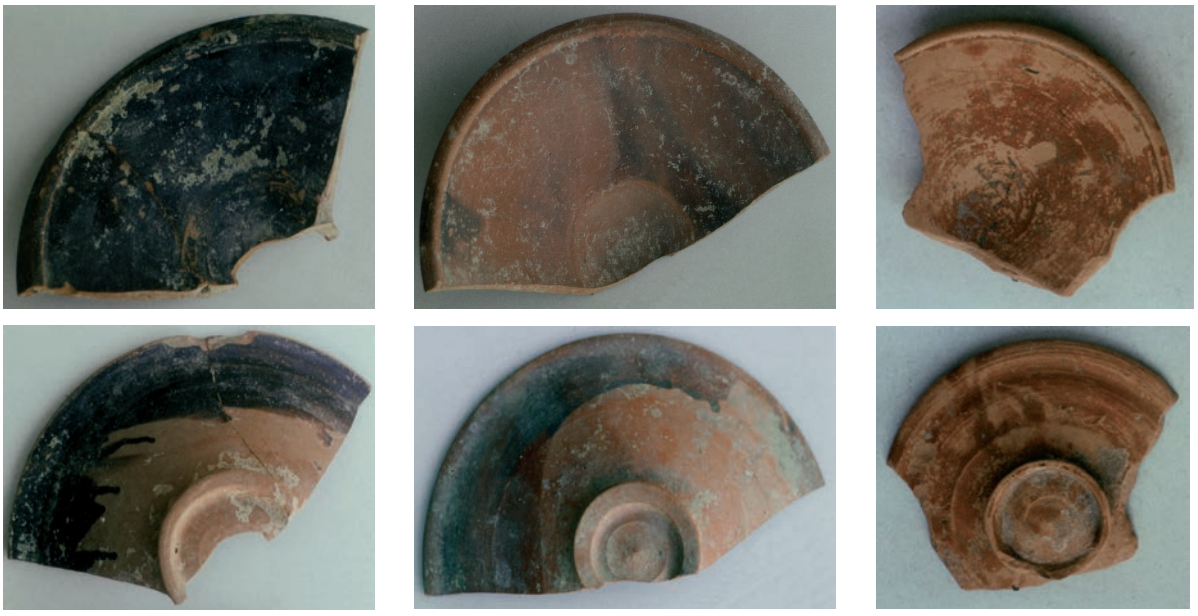
Kn.291

Kn.285

Kn.292

Fig. 6 : Drinking cups and lamps, applied decoration, Hellenistic period.

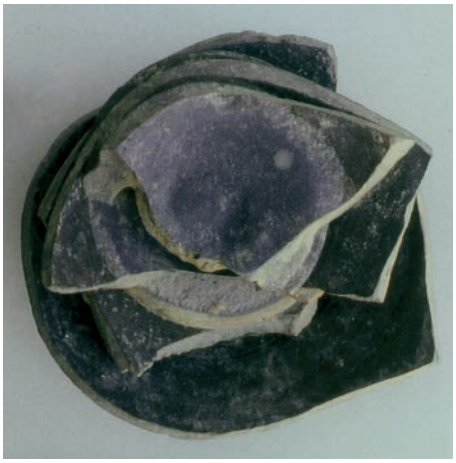
Aa.3 Ac.1 D.50



D.52 D.54 E.65

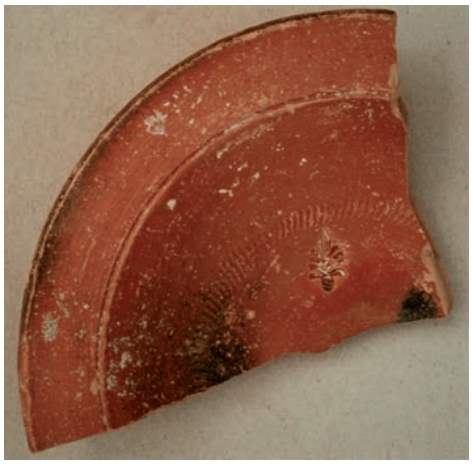
D.73 D.74

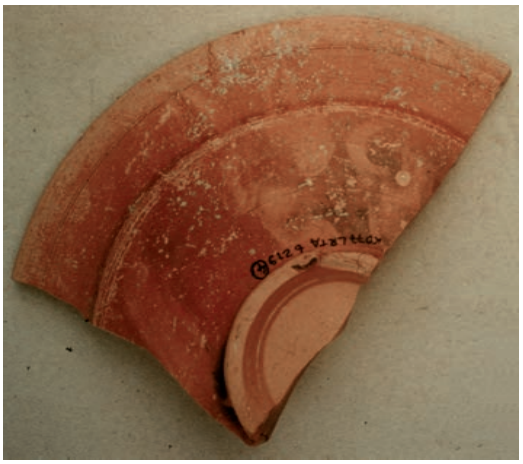
Fig. 7 : Plates, Hellenistic period.



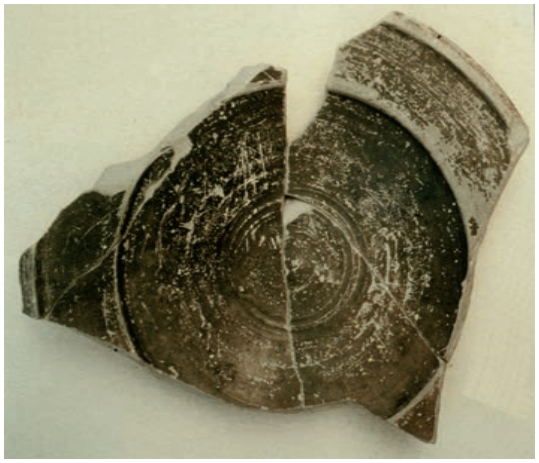
F.85

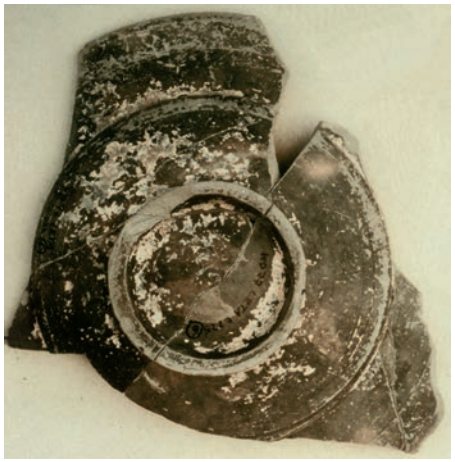
Fig. 8 : Stacked plates, misfired, Hellenistic period.





E.77

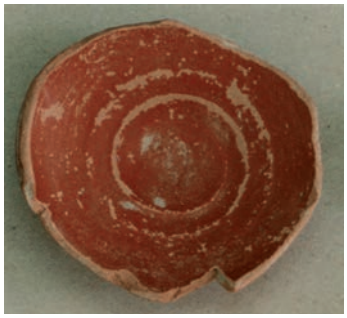


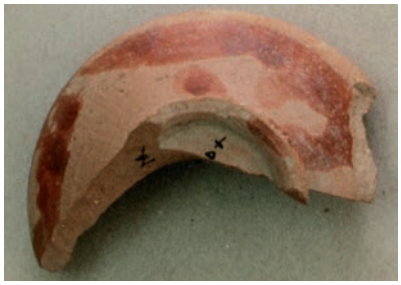


E.78

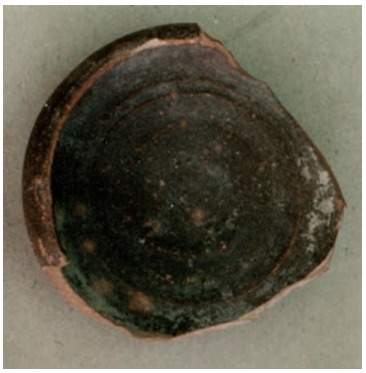
Fig. 9 : Plates with broad rim, Hellenistic period.








C.33 F.54 F.55





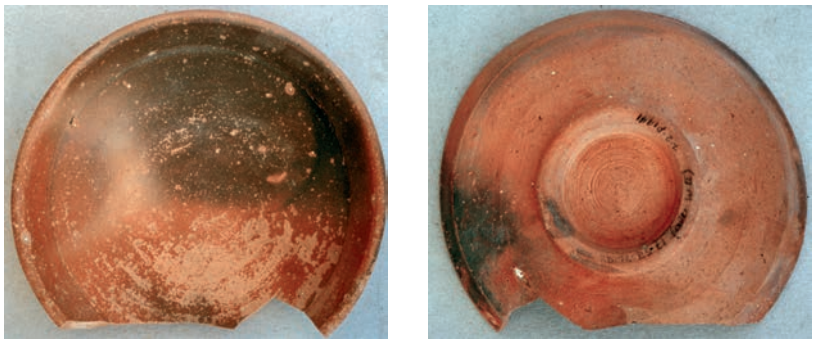

F.51 F.58 F.60

Fig. 10 : Bowls with incurved rim, Hellenistic period.

E.78

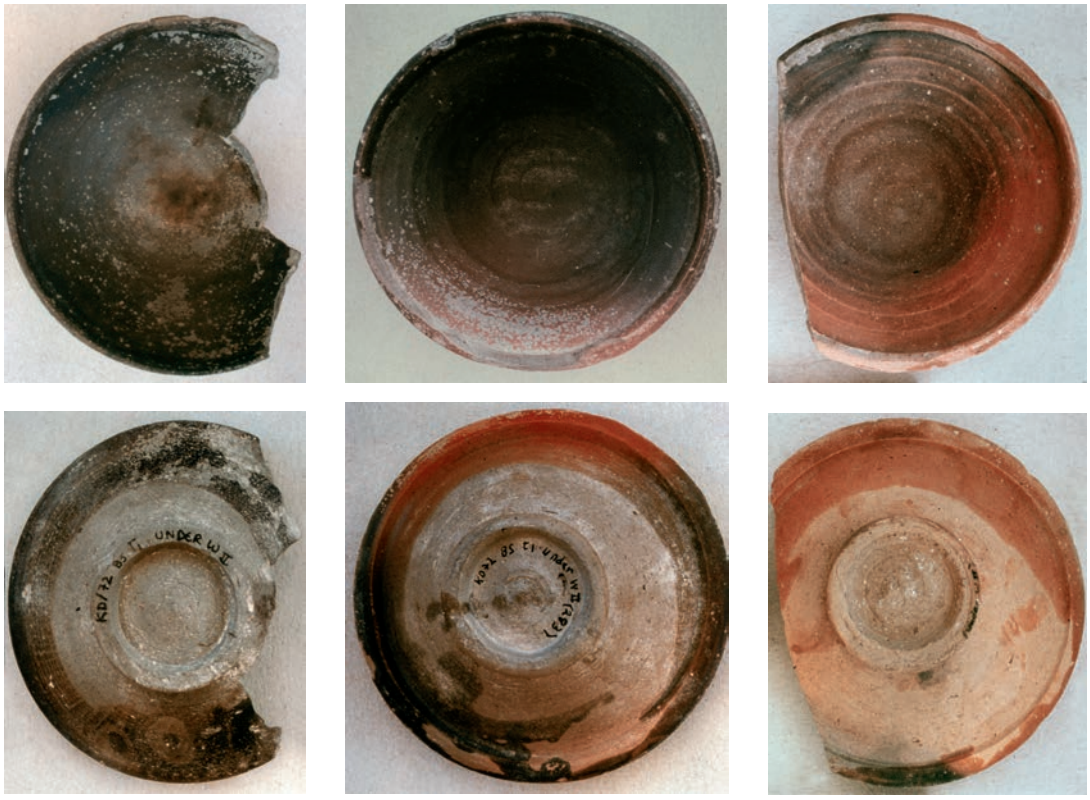
F.24 F.25

Fig. 11 : Large and small bowls with outturned rim, Hellenistic period.

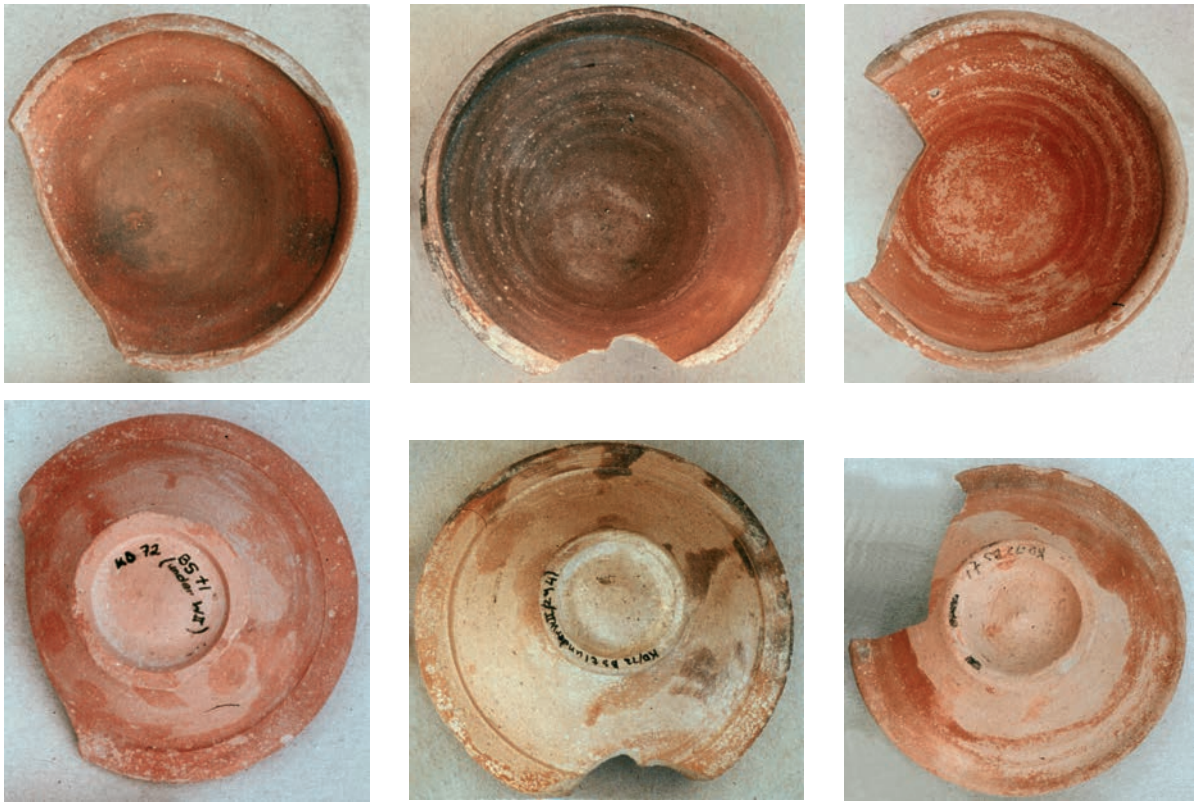


G.54

Fig. 12 : Plate, Imperial period.



G.64 G.66 G.68



G.71 G.77 G.79

Fig. 13 : Small Bowls, Imperial period.

G.36

G.44

Kn.60

Kn.57

Kn.309

Kn.310

G.46

G.39

Kn.321

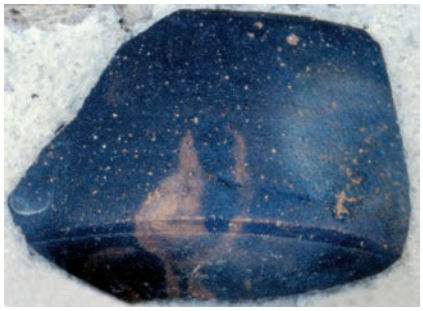
G.39

Fig. 14 : Skyphoi/Kantharoi with applied decoration, Imperial period.

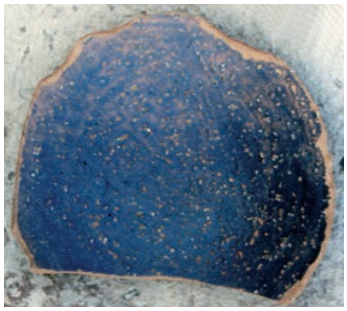
G.152

Kn.400

Kn.406

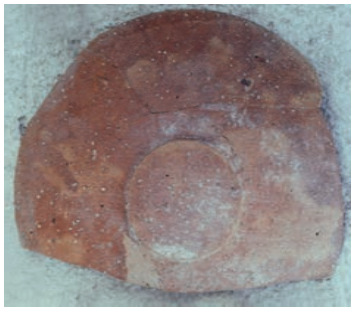


Kn.382



Kn.389

G.144



G.146

Kn.397

Kn.399

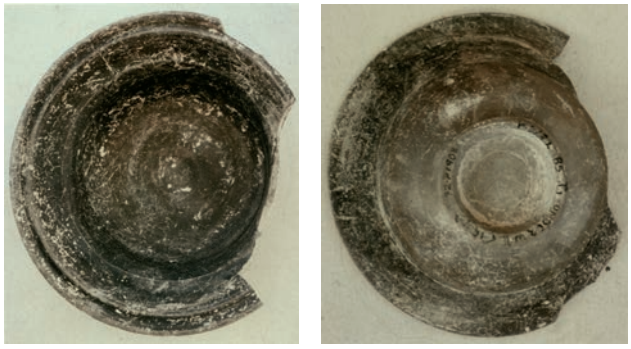
G.149

Kn.416

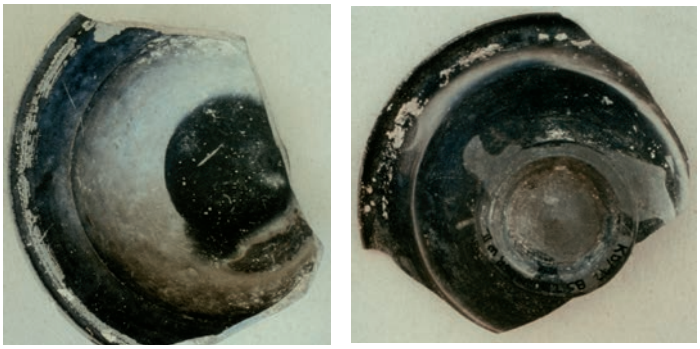
Kn.439

Kn.446

Fig. 15 : Thin-walled pottery, barbotine and sanded decoration, Imperial period.



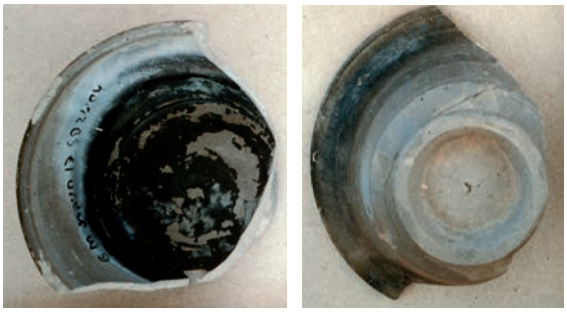
G.31



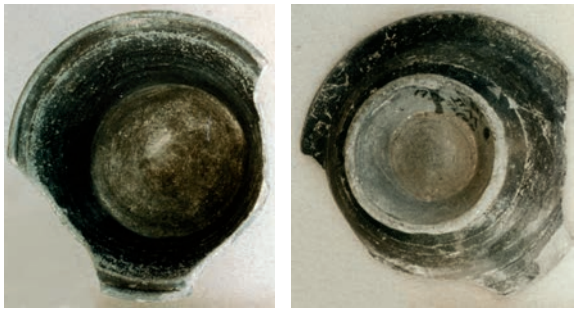
G.32

G.61

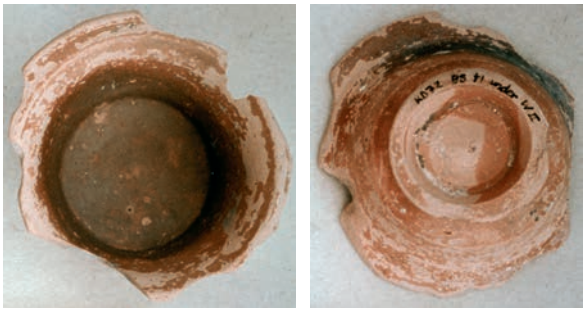
G.86



G.89



G.92



G.96

Fig. 16 : Plates and bowls with hanging lip, Augustan-tiberian period.

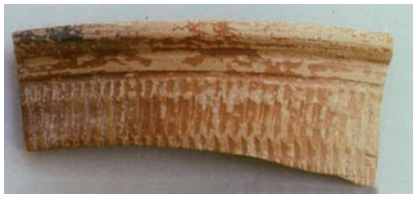

B.15


B.16


B.18


D.41


D.40


C.17


E.41


C.22


D.107


G.160


F.121


F.124

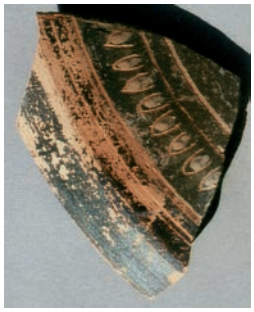
Fig. 17 : Hemispherical bowls with rouletting, moldmade bowls, moldmade skyphos.

C.51

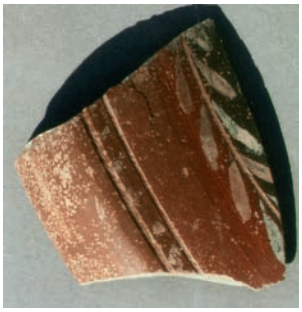
D.104

D.102

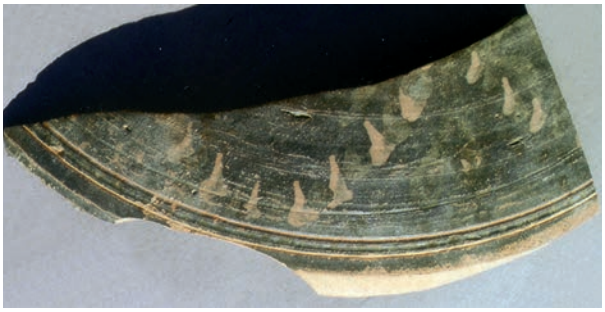
D.103



Kn.183



Kn.184



Kn.187

Fig. 18 : Overpainted pottery, West Slope style.