



University
of Cyprus

DEPARTMENT OF HISTORY AND ARCHAEOLOGY

**TRADE VS. CULTURAL MEDIATION:
INTEGRATING THE BLACK SEA IN THE GRECO-
PHOENICIAN NETWORKS OF EXCHANGE (7TH –
1ST CENTURY BC)**

DOCTOR OF PHILOSOPHY DISSERTATION

ALINA VELISLAVA DIMITROVA KAMENOU

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ALINA VELISLAVA DIMITROVA KAMENOU

**A Dissertation Submitted to the University of Cyprus in
Partial Fulfilment of the Requirements for the Degree of
Doctor of Philosophy**

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The present Doctoral Dissertation was submitted in partial fulfilment of the requirements for the Degree of Doctor of Philosophy at the Department of History and Archaeology and was approved on the September 19, 2019 by the members of the Examination Committee.

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The present doctoral dissertation was submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy of the University of Cyprus. It is a product of original work of my own, unless otherwise mentioned through references, notes, or any other statements.

Alina Velislava Dimitrova Kamenou

..... [Signature]

ΠΕΡΙΛΗΨΗ

Η διατριβή εξετάζει τις εμπορικές και πολιτιστικές ανταλλαγές μεταξύ της Ανατολικής Μεσογείου και ιδιαίτερα της Λεβαντίνης και της Μαύρης Θάλασσας κατά την αρχαιότητα και ειδικότερα από την περίοδο του ελληνικού αποικισμού έως τη Ρωμαϊκή εποχή. Η έρευνα παρουσιάζει και αξιολογεί ένα πολύ μεγάλο όγκο αρχαιολογικών δεδομένων που έχουν συσσωρευθεί κατά τα τελευταία χρόνια αλλά βρίσκονται διασκορπισμένα συχνά σε δημοσιεύσεις σε τοπικές επιστημονικές εκδόσεις και περιοδικά, που δεν είναι εύκολα προσβάσιμες. Η έρευνα επιδιώκει επίσης να συμπληρώσει σημαντικά κενά στις έρευνες που πραγματοποιούνται το διαπεριφερειακό εμπόριο κατά την Αρχαιότητα διερευνώντας αυτό μεταξύ των πολιτισμών της Μεσογείου και των λαών των περιοχών που περιβάλλουν την Μαύρη Θάλασσα, και να εντοπίσει τους άξονες και σφαίρες αλληλεπίδρασης που αφορούν τη Μαύρη Θάλασσα.

Ο κύριος στόχος αυτής της έρευνας είναι να διαφωτίσει ένα θέμα που μέχρι πρόσφατα δεν έχει μελετηθεί σε βάθος. Γίνεται μια αξιόλογη προσπάθεια για να επιτευχθεί η αναπαράσταση των εμπορικών δικτύων, ο προσδιορισμός των χρονολογικών πλαισίων και η ταυτοποίηση εμπορών, καταναλωτών και μεσαζόντων, λαμβάνοντας υπόψη την πολιτισμική επίδραση των υπερπόντιων εμπορικών συναλλαγών. Ο μεγάλος όγκος αρχαιολογικού υλικού αλλά και των σημαντικών πληροφοριών που παρέχουν οι αρχαίες πηγές αναλύονται τόσο με ποσοτικές όσο και με ποιοτικές παραμέτρους. Ο αξιόλογος όγκος και η ποικιλία των δεδομένων που παρουσιάζονται στη διατριβή επιτρέπουν μια πολυδιάστατη ανάλυση των εμπορικών προτύπων και αυτό συμβάλλει στην έρευνα των διαπολιτισμικών επαφών και κοινωνικών αλληλεπιδράσεων του αρχαίου κόσμου, και ενδεχομένως να δώσει έναυσμα για μελλοντικές έρευνες.

Ο δεύτερος βασικός στόχος της έρευνας είναι να επαναπροσδιορίσει τη υφιστάμενη προσέγγιση στην αρχαιολογία της Μαύρης Θάλασσας και να διευκολύνει τη συνεργασία μεταξύ της Δυτικής και της Ανατολικής αρχαιολογικής κοινότητας. Οι πρόσφατες μελέτες για το αρχαίο θαλάσσιο εμπόριο συχνά παραβλέπουν την περιοχή της Μαύρης Θάλασσας. Ωστόσο, η αυξημένη ποσότητα φοινικικών τέχνηρων που έχουν βρεθεί στις περιοχές που περιβάλλουν την Μαύρη θάλασσα, και που έχουν δημοσιευτεί τα τελευταία χρόνια, εγείρει σημαντικά ερωτήματα όσον αφορά τις

μακρινές θαλάσσιες εμπορικές οδούς καθώς επίσης και για τον ρόλο των Φοινίκων στα εμπορικά δίκτυα ανταλλαγής μεταξύ της Μεσογείου και της Μαύρης Θάλασσας τα οποία μέχρι πρόσφατα θεωρούσαμε ότι ήταν αποκλειστικά στα χέρια των Ελλήνων. Παράλληλα, η μελέτη τονίζει την εξαιρετική σημασία της Μαύρης Θάλασσας στο υπερπόντιο εμπόριο. Η σημασία αυτή πηγάζει στο γεγονός ότι η περιοχή έχει εξαιρετικά πλούσιο έδαφος κάτι το οποίο ευνοεί την αγροτική παραγωγή και είναι επίσης πλούσια σε πρώτες ύλες όπως μέταλλα. Σημαντικό ρόλο στην δημιουργία και ενίσχυση των εμπορικών δικτύων έπαιξαν επίσης και κοινωνικοί παράγοντες, όπως η έντονη και συνεχής τοπική ζήτηση για εξωτικά αγαθά.

Η παρούσα διατριβή αποτελείται από επτά κεφάλαια. Το πρώτο κεφάλαιο εισαγάγει τους στόχους και τη μεθοδολογία της έρευνας. Το δεύτερο κεφάλαιο παρέχει μια λεπτομερή επισκόπηση της αρχαιολογίας της Μαύρης Θάλασσας και περιγράφει τις οικονομικές δυναμικές στην περιοχή κατά την εκάστοτε υπό μελέτη περίοδο. Το τρίτο κεφάλαιο παρουσιάζει το παρόν στάδιο της έρευνας σχετικά με το φοινικικό εμπορικό δίκτυο στην Ανατολική Μεσόγειο κατά την πρώτη χιλιετία π. Χ., και πραγματεύεται την ορολογία, προηγούμενες μελέτες και τα οικονομικά μοντέλα που σχετίζονται με την έρευνα. Από το τέταρτο μέχρι και το έκτο κεφάλαιο γίνεται μια λεπτομερή ανάλυση των αρχαιολογικών πληροφοριών από τη Μαύρη Θάλασσα και άλλων σχετικών περιοχών, δίνοντας έμφαση στην Αρχαϊκή, Κλασσική και Ελληνιστική περίοδο.

ABSTRACT

This doctoral dissertation investigates commercial and cultural exchanges between the Levant and the Black Sea in a period spanning from the time of the Greek colonisation of this area in the second half of the 7th century BC until the Roman age. The research brings together a large amount of archaeological data which has come out in the last few years but which is dispersed in publications that are often inaccessible because they are published in local journals or monographs. The aim of the dissertation is to fill a gap in the current research of Mediterranean and Euxine interregional trade in Antiquity and specifically to identify the axes and spheres of interaction that involve the Black Sea.

The principal objective of the current research is to give insight into a topic that has attracted little scholarly attention until recently. The adopted approach to this end is to reconstruct trade routes, define chronological limits and identify merchants, consumers and intermediaries, while taking into consideration the cultural impact of the long-distance exchange. Both quantitative and qualitative methods have been employed in order to analyse a large body of archaeological and literary material. The volume and variety of the integrated data provides the opportunity for a multi-dimensional analysis of trade patterns that adds to the investigation of interregional trade and intersocietal interaction in this area in Antiquity and potentially will stimulate future research.

The second major goal of this research is to reconceptualise the conventional approach to the archaeology of the Black Sea and facilitate the collaboration between Western and the Eastern scholars. The Black Sea region is often overlooked in the studies of ancient maritime trade. However, the increased amount of Phoenician artefacts reported in the last years from various sites within the region raises important questions in terms of far-reaching marine trade routes and the role of the Levant in what had been essentially Greek networks of exchange between the Mediterranean and the Black Sea. In this respect, the present study emphasizes the important role of the Black Sea as an integral partner in overseas exchanges, because of its abundant natural resources (like metals) and because of its rich agricultural landscape. At the same time the need to be a part of this wide and intricate trading network was clearly also triggered by social factors, such as the constant local demand for exotic goods.

The study is structured in seven chapters. Chapter One introduces the purpose and methodology of the thesis. Chapter Two provides a detailed overview of the Black Sea archaeology and outlines the economic dynamics in the region during the period under study. Chapter Three presents the current state of research regarding Phoenician trade networks in the Eastern Mediterranean in the first millennium BC, and discusses employed terminology, previous studies and economic models relevant to the study. Chapters Four to Six analyse in detail the archaeological evidence from the Black Sea region and beyond, focusing respectively on the Archaic, Classic, and Hellenistic periods.

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TABLE OF CONTENTS

TITLE PAGE.....	1
VALIDATION PAGE.....	2
DECLARATION PAGE.....	3
GREEK ABSTRACT	4
ENGLISH ABSTRACT	6
ACKNOWLEDGEMENTS	8
TABLE OF CONTENTS	9
TABLE OF TRANSILITERATION.....	12
TABLE OF FIGURES (TEXT).....	13
TABLE OF TRANSLATED INSCRIPTIONS (APPENDIX 1).....	16
TABLE OF PLATES (APPENDIX 2)	16
CHAPTER 1. INTRODUCTION	20
1.1. OBJECTIVES.....	20
1.2. LITERATURE REVIEW.....	21
1.3. PROBLEMS OF RESEARCH	22
1.4. METHODOLOGY	25
1.5. STRUCTURE.....	27
CHAPTER 2. GREEK COLONISATION AND DEVELOPMENT OF TRADE NETWORKS AROUND THE BLACK SEA.....	30
2.1. IDENTIFYING THE ANCIENT BLACK SEA: GREEK COLONIES AND LOCAL PEOPLES	30
2.1.1. Specifics of the archaeological research in the Black Sea	30
2.1.2. Natural characteristics and local population of the Pontos Euxeinos.....	36
2.1.3. Metallurgy and pre-colonial contacts with the Mediterranean.....	42
2.2. THE GREEK COLONISATION. IMPETUS, STAGES, CONSEQUENCES.....	65
2.2.1. Reasons behind the Greek colonisation.....	65
2.2.2. Identifying the “colonisers”	71
2.2.3. Phases of colonisation.....	75
2.2.4. The Greek colonies: case studies	77
2.2.4.1. Berezan-Olbia	78
2.2.4.2. Sinope	88
2.3. THE GREEKS AND THE LOCAL POPULATION: TRADE, CULTURAL EXCHANGE AND SOCIAL SYMBIOSIS 91	
2.3.1. Interconnecting culturally distant polities	91
2.3.2. The chorai of the Greek colonies: production and trade.....	93
2.3.3. The hinterland emporia and barbarian trade settlements.....	95
2.4. TRADE NETWORKS	102
2.4.1. Hinterland trade routes and Eastern connections	102
2.4.2. Maritime trade and the Mediterranean	108
2.5. DISCUSSION.....	113

CHAPTER 3. PHOENICIAN NETWORKS AND THE EAST MEDITERRANEAN.....	118
3.1. RECONSTRUCTING CROSS-CULTURAL NETWORKS	118
3.1.1. Adapting models and approaches for the research.....	118
3.1.2. Defining the term “Phoenician”	121
3.1.3. Identifying Phoenicians: ethnicity and personal names.....	122
3.1.4. Crafts and trade	123
3.2. THE NORTH IN THE GRECO-LEVANTINE TRADE NETWORKS	124
3.2.1. The Greco-Levantine contacts from the LBA to the 4 th century BC	124
3.2.2. Phoenicians in Thrace? The case of Methone	133
3.3. PHOENICIANS IN THE NORTH AEGEAN AND BLACK SEA BEFORE THE GREEK COLONISATION IN THE WRITTEN TRADITION.....	135
3.4. PHOENICIAN OR PUNIC? TRADE RELATIONS BETWEEN CARTHAGE AND GREECE	145
3.5. DISCUSSION.....	149
CHAPTER 4. GRECO-PHOENICIAN AND PUNIC NETWORKS AND THE EUXINE (6 TH – 5 TH CENTURY BC)	151
4.1. POTTERY	151
4.1.1. Basket-handle amphorae and Levantine Jugs	151
4.1.1.1. Description, provenance, chronology	151
4.1.1.2. Basket-handle amphorae and Levantine jugs from the Black Sea	154
4.1.2. Cypriot White Painted pottery	158
4.1.3. Etruscan and Italic amphorae	161
4.1.4. Fishplates	163
4.2. GLASS AND FAIENCE OBJECTS.....	163
4.2.1. Amphoriskoi	163
4.2.2. Glass beads and pendants	165
4.2.3. Scarabs and seals	166
4.3. METAL OBJECTS.....	167
4.4. VOTIVE OBJECTS.....	170
4.5. RECONSTRUCTING EXCHANGE PATTERNS.....	175
4.6. DISCUSSION	179
CHAPTER 5. GRECO-PHOENICIAN AND PUNIC NETWORKS AND THE EUXINE (4 TH – 3 RD CENTURY BC)	190
5.1. POTTERY	190
5.1.1. The Sinpean trade network.....	190
5.1.2. Transport amphorae of Heracleia Pontica and Chersonessos	195
5.2. GLASS AND FAIENCE OBJECTS.....	197
5.2.1. Description and distribution.....	197
5.2.1.1. Core-formed glass vessels	197
5.2.1.2. Rod-formed head-pendants	202
5.2.1.3. Mask beads	207
5.2.1.4. Relief beads and pendants.....	211
5.2.2. Function.....	213
5.2.3. Chronology of the import in the Black Sea	216
5.3. NUMISMATIC EVIDENCE	217
5.4. THE GRAIN TRADE	218
5.4.1. The Black Sea and Athens.....	218
5.4.2. Phoenician networks and the grain trade.....	221
5.5. VOTIVE OBJECTS	229
5.6. RECONSTRUCTING EXCHANGE ROUTES	233

5.7. DISCUSSION.....	239
CHAPTER 6. GRECO-PHOENICIAN AND PUNIC NETWORKS AND THE EUXINE (2 ND – 1 ST CENTURY BC).....	247
6.1. POTTERY	247
6.1.1. Semi fine tapered amphoriskoi and Palestinian cups	247
6.1.2. Punic and Italian amphorae.....	249
6.1.3. Campana A Ware.....	251
6.2. GLASS AND FAEINCE OBJECTS.....	252
6.3. NUMISMATIC EVIDENCE.....	253
6.4. RECONSTRUCTING EXCHANGE ROUTES	254
6.3. DISCUSSION.....	262
CHAPTER 7. CONCLUSIONS.....	265
REFERENCES.....	278
ABBREVIATIONS OF REFERENCE WORKS.....	354
LIST OF EPIGRAPHIC COLLECTIONS	357
INDEX LOCORUM.....	358
APPENDIX 1	362
APPENDIX 2	378

TABLE OF TRANSLITERATION

А а	A a	П п	P p
Б б	B b	Р р	R r
В в	V v	С с	S s
Г г	G g	Т т	T t
Д д	D d	У у	U u
Е, е	E e	Ф ф	F f
Ё ё	E e	Х х	H h
Ж ж	Zh	Ц ц	C c
З з	Z z	Ч ч	Ch / č
И и	I i	Ш ш	Sc / š
Й й	J j	Щ щ	Shsc / shch / šč
К к	K k	Ъ ъ	Y y
Л л	L l	Ы ы	Y y
М м	M m	Ь ь	'
Н н	N n	Э э	E e
О о	O o	Ю ю	Ju ju
		Я я	Ja ja

TABLE OF FIGURES (TEXT)

FIG. 1. SURVIVING PARCHMENT FRAGMENT OF THE BLACK SEA ‘SHIELD MAP’ FROM DURA EUROPOS.....	35
FIG. 2. HAND DRAWING OF THE ‘SHIELD MAP’ WITH AN ATTEMPTED RESTORATION AND A RECONSTRUCTION OF THE TEXT.....	35
FIG. 3. THE BLACK SEA AND SURROUNDING AREA.....	36
FIG. 4. RECONSTRUCTION OF THE ANCIENT COASTLINE OF MESAMBRIA AND ANCHIALOS.....	37
FIG. 5. TAMAN PENINSULA'S ANCIENT BOSPHOROSSES.....	37
FIG. 6. CABOTAGE ROUTES IN THE EUXINE.....	38
FIG. 7. OPEN SEA ROUTES IN THE EUXINE.....	38
FIG. 8. A 3-D RE-CREATION OF A ROMAN SHIP FOUND ON THE FLOOR OF THE BLACK SEA.....	40
FIG. 9. THE MAIN RIVERS OF THE BLACK SEA.....	41
FIG. 10. THE MAJOR LOCAL ETHNICS OF THE EUXINE.....	42
FIG. 11. TOMB NO. 43, VARNA NECROPOLIS. 5 TH MILLENNIUM BC.....	44
FIG. 12. CHALCOLITHIC AND BRONZE AGE LOCATIONS IN THRACE, MENTIONED IN THE TEXT.....	45
FIG. 13. ORE DEPOSITS IN GEORGIA AND NEIGHBOURING AREAS.	47
FIG. 14. DISTRIBUTION OF KURA-ARAXES CULTURAL TRADITION (3300-2650 BC).....	48
FIG. 15. SVISHTOV AND VYLCHITRYN GOLDEN TREASURE.....	50
FIG. 16. MYCENAEAN TYPES OF WEAPONS NORTH OF THE AEGEAN.....	51
FIG. 17. BRONZE OX HIDE INGOTS FROM BULGARIA.....	55
FIG. 18. METAL DEPOSITS ON THE SOUTH COAST OF THE BLACK SEA, EXPLORED IN THE BRONZE AGE. ...	56
FIG. 19. MBA LAND TRADE ROUTES IN ANATOLIA AND THE LEVANT.....	57
FIG. 20. BRONZE LION FROM TSNORI.....	64
FIG. 21 GENERALISED DISTRIBUTION MAP OF CIMMERIAN AND RELATED BRONZE OBJECTS.	69
FIG. 22. THE CIMMERIAN INVASIONS IN ASIA MINOR DURING THE 7 TH CENTURY BC.....	70
FIG. 23. GREEK COLONISATION OF THE TAURIC CHERSONESSOS AND TAMAN PENINSULAS.	72
FIG. 24. THE GREEK <i>EMPORIA</i> IN THE DON AREA.....	74
FIG. 25. THE WEST COAST OF THE BLACK SEA.....	76
FIG. 26. MAP OF THE EAST COAST OF THE BLACK SEA AND THE MAJOR ANCIENT SITES, WITH THE POSSIBLE LOCATIONS OF THE GREEK COLONIES.....	77
FIG. 27. THE CIRCUMNAVIGATION OF THE BLACK SEA AS RECOUNTED BY ARRIAN.....	77
FIG. 28. THE BEREZAN ISLAND.	79
FIG. 29. FINDS OF THE LATE ARCHAIC RESIDENTIAL AREA B OF BEREZAN.....	81

FIG. 30. BEREZAN – ORIGIN OF IONIAN POTTERY IN THE 7 TH AND 6 TH CENTURY BC.....	82
FIG. 31. PLAN OF OLBIA.	84
FIG. 32. MAP OF THE GREEK COLONISATION OF THE LOWER BUG BASIN AND THE RURAL SETTLEMENTS AROUND OLBIA.	86
FIG. 33. OLBIAN IMPORTS IN THE SCYTHIAN LAND.	87
FIG. 34. ELECTRUM CUP OF GREEK PRODUCTION, DEPICTING SCENES OF THE SCYTHIAN LIFE. KUL-OBA KURGAN, FIRST HALF OF THE 4 TH CENTURY BC.....	88
FIG. 35. SITES ON THE SOUTH BLACK SEA THAT HAVE YIELDED GREEK CERAMICS..	89
FIG. 36. OCCURRENCE OF THE SCYTHIAN TYPE ITEMS IN CENTRAL EUROPE	106
FIG. 37. THE BOUNDARIES OF THE BOSPORAN KINGDOM IN THE 4 TH - 2 ND CENTURY BC.	92
FIG. 38. PLAN OF THE KAMENSKOE SETTLEMENT.	97
FIG. 39. BRONZE PLAQUE. ACCIDENTAL FIND FROM THE REGION OF THE <i>FIVE BROTHERS</i> KURGAN, DON DELTA.	98
FIG. 40. THE ARCHAEOLOGICAL SITE OF TANAIS. AERIAL VIEW.	100
FIG. 41. EMPORION PISTIROS.	101
FIG. 42. EAST GREEK IMPORTS IN THE HINTERLAND IN THE LAST THIRD OF THE 7 TH CENTURY BC.....	103
FIG. 43. GREEK IMPORTS IN UKRAINE.	105
FIG. 44. GOLD PECTORAL FROM THE TOLSTAJA MOGILA KURGAN	108
FIG. 45. 2 ND MILLENNIUM TRADE ROUTES RELATED TO THE ULU BURUN SHIPWRECK.....	126
FIG. 46. DISTRIBUTION OF STONE AND BRONZE LBA SCEPTRES IN THE BALKANS.....	128
FIG. 47. A. BRONZE SCEPTRE FROM ULU BURUN SHIPWRECK.	128
FIG. 48. LEVANTINE IMPORTS IN THE AEGEAN IN THE 10 TH – 9 TH CENTURY BC.....	129
FIG. 49. DISTRIBUTION OF SKYPHOI WITH BIRDS IN THE 8 TH CENTURY BC AND BOWLS WITH BIRDS AND ROSETTES IN THE 7 TH CENTURY BC IN THE MEDITERRANEAN.....	130
FIG. 50. DISTRIBUTION OF CRATERS OF THE ATELIERS OF DINOS AND MEIDIAS PAINTERS IN THE MEDITERRANEAN.....	130
FIG. 51. THE DISTRIBUTION OF THE HAIMON GROUP IN THE MEDITERRANEAN.	131
FIG. 52. DISTRIBUTION OF THE PRODUCTS OF THE TELOS CRATERS AND FAT BOY SKYPHOI GROUP IN THE MEDITERRANEAN.....	133
FIG. 53. TRADE ROUTES BETWEEN THE LEVANT AND THE MEDITERRANEAN IN THE 8 TH CENTURY BC..	135
FIG. 54. PLACES OF LEGENDARY PRESENCE OF PHOENICIANS IN THE NORTH AEGEAN	138
FIG. 55. THE WORLD AS KNOWN TO THE HEBREWS.....	140
FIG. 56. FINDING SPOTS OF EIA LUGGED AXES IN THE EAST MEDITERRANEAN AND THE BALKANS AND POSSIBLE PATTERNS OF INTERCONNECTION	141

FIG. 57. TRADE ROUTES IN ANATOLIA AND THE NEAR EAST DURING THE ASSYRIAN COLONY PERIOD AND THE LOCATION OF ZALPA.....	142
FIG. 58. SECTION OF A SHALLOW PHOENICIAN OR CYPRO-PHOENICIAN BRONZE BOWL	151
FIG. 59. DISTRIBUTION OF BASKET-HANDLE AMPHORAE TYPE I (SECOND HALF OF THE 7 TH – EARLY 6 TH CENTURY BC).....	162
FIG. 60. GLASS BEAD FROM CHERTOVATOV SETTLEMENT, REPRESENTING A WOLF OR A DOG. 5 TH CENTURY BC.....	165
FIG. 61. FRAGMENT OF A BRONZE INFUNDIBULUM FROM PANTIKAPAION. MIDDLE OR THIRD QUARTER OF THE 6 TH CENTURY BC.....	168
FIG. 62. HANDLES OF BRONZE OINOCHOAI FROM BERDYANSK BARROW.....	169
FIG. 63. BRONZE HANDLE FROM MYRMEKION.....	169
FIG. 64. THE PROVENANCE OF THE COINS, FOUND IN THE HOARD FROM BUBASTIS (IGCH 1645), WHICH WAS CLOSED AROUND 470 BC.	177
FIG. 65. DISTRIBUTION OF STAMPED SINOPEAN AND OTHER PONTIC AMPHORAE IN THE MEDITERRANEAN AND THE BLACK SEA.....	191
FIG. 66. INLAND ROUTES USED IN ROMAN TIMES	197
FIG. 67. GLASS PENDANTS AND BEADS WITH HUMAN FACE. WORLD DISTRIBUTION.....	206
FIG. 68. DISTRIBUTION OF MASK BEADS IN THE MEDITERRANEAN AND THE BLACK SEA.....	208
FIG. 69. MASK BEADS. WORLD DISTRIBUTION.....	209
FIG. 70. DISTRIBUTION OF MASK BEADS AROUND THE BLACK SEA IN THE 4 TH – 3 RD CENTURY BC.....	211
FIG. 71. MASK BEADS. DISTRIBUTION IN THE BLACK SEA.....	212
FIG. 72. DISTRIBUTION OF THE RELIEF PENDANTS AND BEADS IN THE MEDITERRANEAN AND THE BLACK SEA.....	213
FIG. 73. PANSKOE MONUMENTAL BUILDING U6. AERIAL VIEW.....	215
FIG. 74. THE DISTRIBUTION MAP OF THE COIN HOARDS, WHICH INCLUDE PONTIC COINS (5 TH -1 ST CENTURY BC).....	218
FIG. 75. IMPORT AND EXPORT OF THE BLACK SEA IN THE MEDITERRANEAN IN THE 4 TH -3 RD CENTURY BC.....	246
FIG. 76. DISTRIBUTION OF SEMI FINE TAPERED AMPHORISKOI IN THE MEDITERRANEAN.....	248
FIG. 77. THE MAIN TRADE AMPHORAE, FOUND IN OLBIA, AND THEIR CHRONOLOGY (6 TH - 1 ST CENTURY BC).....	250
FIG. 78. CAMPANA A JUG FROM LOWER OLBIA.....	252
FIG. 79. DISTRIBUTION OF SEMI-FINE TAPERED AMPHORISKOI, GLASS AMPHORISKOI AND PUNIC GOODS IN THE BLACK SEA IN THE 2 ND - FIRST HALD OF THE 1 ST CENTURY BC.....	256

FIG. 80. DEDICATION TO THEA SYRIA. CONSTANTIA, 2 ND CENTURY AD.....	260
FIG. 81. CHRONOLOGY OF THE CLOSELY DATED FINDS, RELATED TO LEVANTINE-EUXINIAN EXCHANGE.	272
FIG. 82. CHRONOLOGY OF THE CLOSELY DATED FINDS, RELATED TO PUNIC-EUXINIAN EXCHANGE.....	274

TABLE OF TRANSLATED INSCRIPTIONS (APPENDIX 1)

INSCR. 1. IG II ² 360	363
INSCR. 2. IG II ³ 468	369
INSCR. 3. IG II ² 8440	371
INSCR. 4 IG II ² 337	372
INSCR. 5. IG II 2836.....	375
INSCR. 6. ISCM I 20.....	377

TABLE OF PLATES (APPENDIX 2)

1. FRAGMENTS OF CYPRIOT WHITE PAINTED IV WARE FOUND AT BEREZAN.....	387
2. FRAGMENTS OF BASKET HANDLE AMPHORAE FOUND AT BEREZAN.....	387
3. FRAGMENTS OF ARCHAIC AMPHORAE FROM THE UNPUBLISHED COLLECTION OF LAPIN'S EXCATAVIONS.....	380
4. ARCHAIC FISH PLATE FROM BEREZAN.....	380
5. FRAGMENT OF AN ARCHAIC FISH PLATE FROM BEREZAN.....	381
6. FRAGMENT OF A SICILIAN AMPHORA FOUND AT BEREZAN. 2 ND – 3 RD QUARTER OF THE 6 TH CENTURY BC.....	381
7. PUNIC AMPHORA FROM ELIZAVETOVSKOE SETTLEMENT. SECOND HALF OF THE 4 TH CENTURY BC.....	382
8. FRAGMENT OF A STAMPED SINOPEAN AMPHORA FOUND AT THE EL SEC SHIPWRECK.	382
9. AMPHORISKOS FROM OLBIA. SECOND HALF OF THE 2 ND CENTURY BC.....	383
10. AMPHORISKOS FROM THE LOCALITY FĂGĂRAȘUL NOU, TULCEA REGION.	383
11. AMPHORISKOI FROM THE NECROPOLIS OF TOMIS.....	383
14. FRAGMENT OF A PUNIC TRANSPORT AMPHORA, FOUND AT OLBIA, SECTOR NGS	385
15. FRAGMENT OF A <i>MAÑA</i> C2 AMPHORA FOUND AT OLBIA, SECTOR NGS.....	385

16. FRAGMENT OF A CAMPANIAN AMPHORA FOUND AT OLBIA, SECTOR NGS. 140 BC CA.....	385
17. FRAGMENT OF A LAMBOGLIA 2 AMPHORA FOUND AT OLBIA, SECTOR NGS.	386
18. LATE GRECO-ITALIC - EARLY DRESSEL I AMPHORA FOUND AT OLBIA.	386
19. FRAGMENTS OF CAMPANIAN A WARE.	387
20. FRAGMENTS OF CAMPANIAN POTTERY, FOUND AT OLBIA. 150-130 BC.....	388
21. FRAGMENTS OF CAMPANIAN POTTERY FOUND AT OLBIA. EARLY 3 RD CENTURY BC.....	388
22. UPPER PART OF A FIGURINE FOUND AT ISTROS. 6 TH -5 TH CENTURY BC.....	389
23. LOWER PART OF A FIGURINE FOUND AT ISTROS. 6 TH -5 TH CENTURY BC.....	389
24. FIGURINE FROM ISTROS. PRIVATE COLLECTION.....	390
25. BRONZE FIGURINE OF A SEATED GODDESS FOUND AT SEVILLE. 7 TH CENTURY BC.....	390
26. TERRACOTTA FIGURINES FOUND AT ARSOS, CYPRUS.....	391
27. FRAGMENT OF A TERRACOTTA FIGURINE, FOUND AT ISTROS.....	391
28. FRAGMENT OF A TERRACOTTA STATUETTE REPRESENTING A MALE HEAD, FOUND AT ISTROS.	392
29. TERRACOTTA STATUETTE REPRESENTING A SEATED COUPLE, FOUND AT BEREZAN.....	392
30. FRAGMENT OF A TERRACOTTA STATUETTE REPRESENTING ARTEMIS TAUROPOLOS WITH A BULL HEAD, FOUND AT PANTIKAPAION. 2 ND CENTURY BC.....	393
31. FRAGMENT OF A TERRACOTTA STATUETTE REPRESENTING ASTARTE-APHRODITE OURANIA WITH A LION. FOUND AT MYRMEKION. 4 TH CENTURY BC.	393
32. TERRACOTTA STATUETTE REPRESENTING APHRODITE OURANIA, FOUND AT PHANAGORIA. 2 ND - 1 ST CENTURY BC.....	394
33. TERRACOTTA STATUETTE REPRESENTING ASTARTE-APHRODITE APATOURIA. FOUND IN THE VICINITIES OF GORGIPPIA. 3 RD CENTURY BC.	394
34. PROTOMES OF A FEMALE DIVINITY WHOSE HANDS ARE HOLDING THE BREASTS.	395
35. A DEDICATION TO APHRODITE SYRIA. GRAFFITO ON THE EXTERIOR OF A BLACK-GLAZED CUP. OLBIA. 5 TH CENTURY BC.....	396
36. FRAGMENT OF A STATUE. PHANAGORIA, SECOND HALF OF THE 4 TH CENTURY BC.	396
37. FIVE DECREES HONORING HERACLEIDES OF SALAMIS. (IG II ² 360).ATHENS, 330/29-328/7 AND 325/4 BC.	397
38. HONORIFIC DECREE FOR APSES AND HIERON (?) OF TYRE. (IG II ³ 468). ATHENS, AFTER 332 BC.....	398
39. FUNERAL STELE OF EIRENE OF BYZANTIUM WITH A BILINGUAL EPITAPH (IG II ² 8440). ATHENS, 4 TH CENTURY BC. CIS I,1 TABULAE, PL. 23.....	368
40. (LEFT). THE KITIANS GRANTED PERMISSION TO FOUND A SANCTUARY OF APHRODITE (IG II ² 337). ATHENS, 4 TH CENTURY BC.....	399

41. (RIGHT) FUNERAL STELE OF THE PHOENICIAN SHEM/ANTIPATROS WITH A BILINGUAL EPITAPH ON THE UPPER PART (IG II 2836). KERAMEIKOS, ATHENS, 4 TH CENTURY BC.	399
42. HONORING DECREE FOR (?) FROM CARTHAGE (ISCM I 20). ISTROS, CA. 200BC.	400
43. JUDAIC GRAVESTONE FROM VYSHESTEBLIEVSKAYA-11 SETTLEMENT IN THE VICINITIES OF PHANAGORIA. LATE CLASSIC – EARLY MEDIEVAL PERIOD.....	400
44. SCARABS FROM OLBIA. 6 TH – 5 TH CENTURY BC.....	401
45. SCARABS FROM PANTIKAPAION. 6 TH – 5 TH CENTURY BC.	401
46. STONE SEALS FROM NYMPHAEUM ATTRIBUTED TO PHOENICIAN PRODUCTION. 7 TH - 6 TH CENTURY BC.....	402
47. LATE HELLENISTIC FAIENCE PENDANTS WITH A REPRESENTATION OF BES FROM THE EUXINE.	402
48. LOCATION OF THE SETTLEMENT ARTIUSCHENKO-2 ON TAMAN PENINSULA.....	403
53. DISTRIBUTION OF MASK BEADS AND THEIR IMITATIONS IN THE EUXINE AND THE CELTIC AREAL.	405
54. TWO MASK BEADS (SEEFRIED TYPE F1) FOUND IN THE BUILDING U6, ROOM 12 OF THE PANSKOE SETTLEMENT (PRESUMED SANCTUARY OF SABAZIOS AND DEMETER).....	405
55. GLASS PENDANT FROM SOUTH RUSSIA (SEEFRIED'S TYPE C3). 4 TH -3 RD CENTURY BC.....	406
56. GLASS PENDANT FROM OLBIA (SEEFRIED'S TYPE C1). 4 TH - 3 RD CENTURY BC.....	406
57. GLASS PENDANT FOUND IN SOUTH RUSSIA (SEEFRIED TYPE B1). EARLY 6 TH – 4 TH CENTURY BC.....	406
59. MASK BEAD FROM SOUTH RUSSIA (SEEFRIED TYPE F1). 4 TH -3 RD CENTURY BC.....	407
60. MASK BEAD FROM OLBIA (SEEFRIED TYPE F1). 4 TH – 3 RD CENTURY BC.....	407
61. MASK BEAD FROM OLBIA (SEEFRIED TYPE F1). 4 TH -3 RD CENTURY BC.	407
62. GLASS PENDANTS FROM OLBIA (SEEFRIED TYPE C).....	408
65. MAP OF THE CAUCASUS REGION.....	409
66. MASK BEADS FOUND AT ULIAP, KURGAN 5 AND SANCTUARY.....	409
67. MASK BEAD FOUND AT TAUJCHABL' TOMB 57 (THE FUNERAL MONUMENT OF PSHISH). 4 TH -3 RD CENTURY BC.....	410
68. MASK BEAD FOUND IN THE TOMB I/1963 IN THE NECROPOLIS OF MESAMBRIA, 4 TH -3 RD CENTURY BC.....	410
69. MASK BEADS FOUND IN A FUNERAL MONUMENT AT SVESHTARI NECROPOLIS. 4 TH - EARLY 3 RD CENTURY BC.....	410
70. GOLD PENDANT IN FORM OF DOUBLE HUMAN FACE FOUND AT MALOMIR, BULGARIA. END OF THE 4 TH -FIRST HALF OF THE 3 RD CENTURY BC.....	411
71. LEAD PENDANT WITH HUMAN REPRESENTATION, FOUND AT MESAMBRIA.....	411
72. MASK BEADS (FROM LEFT TO RIGHT) FROM MANGALIA, PIȘCOLT, VÁC.....	411
73. RELIEF PENDANT FROM PICHVNARI. 4 TH -3 RD CENTURY BC.....	412

74. RELIEF PENDANT FROM THE SCYTHIAN NOSAKI NECROPOLIS,.....	412
75. RELIEF PENDANTS FROM CHAIKA SETTLEMENT (LEFT) AND PANTIKAPAION (RIGHT). 3 RD CENTURY BC.	413
76. RELIEF PENDANT WITH A DOUBLE MALE FACE FOUND AT LOWER OLBIA. H 1,2 CM. 3 RD CENTURY BC.....	413
77. THE MOUTH OF THE DON RIVER, WITH THE LOCATION OF TAGANROG, ELIZAVETOVSKOE SETTLEMENT AND TANAIIS.....	414
78. MAP OF THE METALLIFEROUS ZONES IN THE CRIMEA STEPPES AND THE DON REGION.....	414
79. SATELLITE VIEW OF THE ARCHAEOLOGICAL SITE "ELIZAVETOVSKOE SETTLEMENT 6 TH – 2 ND CENTURY BC"	415
80. PLAN OF ELIZAVETOVSKOE SETTLEMENT, BUILDINGS X -XIX.....	416
81. ELIZAVETOVSKOE SETTLEMENT, THE REMAINS OF THE BUILDING 16.....	417
82. ELIZAVETOVSKOE SETTLEMENT, THE REMAINS OF THE BUILDING 18.....	418
83. FINDS FROM ELIZAVETOVSKOE SETTLEMENT, RELATED TO THE PUNIC TRADE.	419

CHAPTER 1

INTRODUCTION

1.1. Objectives

The aim of this dissertation is to provide an in-depth analysis of the commercial links between the Levant and the Euxine in the period between the initial stages of the Greek colonisation and the Roman conquest of the Black Sea. The main goal of the research is to shed light on trade patterns and trade mechanisms, by defining the chronology of exchange in terms of various goods, and by reconstructing possible trade routes. The second goal of the research is to evaluate the cultural outcome of the studied interconnection, provided that the transported goods seem to have in many cases symbolic or religious value to the peoples of the Black Sea. This research gives an insight into an overlooked subject and evidences the multiple aspects of interconnectivity between the Black and Mediterranean Sea, thus adding to the studies of long-distance trade and intercultural encounters in the ancient world.

Most part of the archaeological evidence relevant to the studied topic comes from the Black Sea area. The zone therefore stands in the focus of the research, with local economic processes and cultural interrelations thoroughly examined from the broad perspective of the Mediterranean dynamics. In this manner, the research contributes to reconceptualising the conventional approach to the Black Sea archaeology for what concerns the studies on cultural exchange. Until recently, the latter were rooted in a simplistic model centred on the opposition between settlers (Greeks) and local population (Scythians/Thracians). In the last years, however, this model becomes ineffective, as evidence shows that “Greeks” and “locals” are much more complicated entities than was traditionally assumed. On one hand, the different local communities known under common names such as Thracians and Scythians present strong individual traits that we often ignore or fatigue to understand. These were furthermore exposed to constant cultural influence from Persians, Greeks or others, which affected their customs and relations with other peoples. On the other hand, the “Greeks” are not exclusively of Milesian and Megarian origin; groups belonging to other ethnicities than Greek also settled in the Black Sea region, playing crucial role to the development of the zone in a hub of intense multicultural contacts (Tsetschladze 2015, Соловьев 2013).

1.1. Literature review

At present, the volume of studies that focus on the links between the Euxine and the Levant is modest and the general view that such links are inexistent or at least insignificant. Only in the last decades, new evidence triggered a growing interest on the matter.

Some aspects of the question regarding this research topic have been considered by a number of Russian scholars (Шифман 1958; Алексеева 1978; Житников and Марченко 1984; Яковенко 1985; Островерхов 1985; Гороховская and Циркин 1985; Лавренова 1994). The first Western scientist who turned his attention to the matter is Jan Bouzek, who briefly discussed some glass and faience objects in a contribution entitled *Les Phéniciens en Mer Noire?* (Bouzek 2000). This publication is of a great importance, as it opens the way to further study the topic. It was amplified in 2011 by Anca Dan, who collected and analysed a variety of archaeological and epigraphic evidence on Phoenician visitors, traders and possible residents in the Black Sea. Her publication includes some Russian studies. Nevertheless, there are no further studies on the topic. In the last decade the interest of scholars in the Euxine-Levantine relations has progressively arised with the publication of important new evidence (Буйских 2014; Handberg *et al.* 2013; Дюпон and Назаров 2003, Lungu 2007, Папуци-Владыка 2012; Hermary 2013), which opens up “*brand new research perspectives for the Black Sea scholarship*” (Папуци-Владыка 2012, 571).

In this stage of research, the present study is a valuable contribution to the research, related to the long distance exchange in the ancient world. The dissertation offers a multilayered analysis of a large body of written and archaeological evidence, which results in the reconstruction of trade routes and distribution patterns. In the same time, it provides a thorough examination of the Black Sea economic development during the studied period. Thus, the dissertation sheds light on the role of the Black Sea market in the Phoenician and Punic networks during Antiquity and contributes to the better understanding of the interconnectivity between the Black and Mediterranean Sea. Further, the study of the possible extensions of the Punic markets in the Black Sea can greatly contribute to the understanding the contacts of Carthage with the East Mediterranean and spur further research.

1.2. Problems of research

The conducting of the present research met various complications. To begin with, the study of the Euxine material presents multiple challenges, such as the problematic quantification of the Black Sea trade and ambiguous chronology of the long-distance routes, as well as the multiplicity of possible interpretations of the available evidence and of the shifts in the networks over the course of time. The research was additionally hampered by the huge geographic territory that it examined. The fact that the numerous archaeological sites considered here are in different stages of excavation and publication of the results, as well as the fact that Mediterranean material in some cases remains unrecognized or attributed to a wrong centre of production, further exacerbated the problem. Lastly, locating bibliographical references was a demanding process, as these mostly appear in local journals and languages. In many cases, these lack detailed descriptions or photos of the studied artefacts.

The study encountered also some of the major issues in the analysis of ancient trade, related to the interpretation of the material evidence. The archaeological evidence on ancient trade is rather lacunose and the studies rely mostly on shipwrecks and pottery distribution. The statistical analysis of the shipwreck data, however, remains fairly unreliable, due to the various issues in assessing information about size of cargoes, especially in regards to perishable materials, such as grain (Wilson 2011, 213). The present research deals largely with this latter issue, as the grain was a key product of export for the Black Sea. However, when written sources are unavailable, it is impossible to estimate the extent to which the durable artefacts were accompanied by perishable goods. Another matter is the study of transport amphorae, an essential means to reconstructing ancient trade maps. Firstly, unstamped amphorae from the Black Sea often remain unrecognized if found beyond its borders, which puts into doubt all conclusions regarding connectivity between Black and Mediterranean basin. Secondly, transport amphorae were occasionally reused, causing confusion in the attempts to identify distribution networks (on amphorae reuse in the Mediterranean see e.g. Amemiya 2007, 9; for further references on the topic, see Abdelhamid 2015; on the reuse in the Black Sea, de Boer 2013). Furthermore, the problem of “who brings what” adds to the complication of the research. The latter problem is not new to the scholarship. Attempts to study ancient trade by means of statistical quantification of archaeological evidence have been made many times in the past. Scholars have used various, mostly statistical approaches the aim of which was to quantify everything

within the ancient economy: from ceramic production and distribution to coin production, and even the consumer base, i.e. population (for a study that employs quantitative approach, see Morris 2005a; for a study that highlights the major pitfalls of any attempt to quantify ancient economic evidence, see for instance Buttrey and Buttrey 1997). As Peter Van Alfen (2002, 275) puts it, “the success of these attempts is highly debatable: in many cases we do not have enough examples of a particular item to form a good statistical base, nor can we be guaranteed that new discoveries will not immediately, and drastically, upset earlier conclusions,” Nevertheless, quantification of the available evidence can still be useful as a means of providing a general picture of trade patterns. So it is largely presented in this study.

The studies on Phoenician trade in the Eastern Mediterranean are hampered by insufficient evidence and scholarly attention, due the shortage of evidence that regards the Levantine coast and especially the many voids in the research of trade patterns of Greco-Phoenician trade in the Persian period (Van Alfen 2002). There are large number of studies, dedicated to the economic and cultural interaction between the Aegean and the Levant during the Late Bronze Age, the Iron Age up to the 6th century BC, which include the “Orientalising period” of the 8th – 7th century BC, and the Hellenistic period. On the contrary, comparatively only a small amount of studies is devoted to the Levantine-Aegean exchange during the Persian period. Raptou’s study (1999) is dedicated to the economic exchange between the Levant and Aegean during the Persian period, but focuses exclusively on Athenian and Cypriot contacts, while Van Alfen’s dissertation (2002) on the question is the first attempt to consider the trade volume in this period, but it concentrates only on the study of commodities. According to Van Alfen (2002, 2), the reasons for this lack of interest can be explained partly by scholarly bias. On the one hand archaeological and philological research in the Levant and the Near East has traditionally been based on the Bible, where the Persian period plays a minor role (see for example the introduction in the dissertation of Stern from 1973, published in English in 1982, which studies the material culture of the Persian period in the Levant), and on the other hand many Aegean studies accepted that the intense cultural and economic contacts with the Levant decreased after the defeat of the Persians at Plataea in 480/79 BC and were re-established only by Alexander (see e.g. Elayi and Sapin 1998; Miller 1997, 65). Since the early 1980s, a reassessment of these biases has begun, but to date very little studies fill the lacuna (for extensive discussion and bibliography, Van Alfen 2002, 1-5).

The meagre research on the multiculturalism in the Euxine also impedes to study the chosen topic (cf. Соловьев 2013). The demographic picture of the region includes Greeks, Asians, Italians, central European tribes, numerous local, partly Hellenised, ethnic groups such as Scythians, Thracians, Maeotians, Colchians, Paphlagonians, and many others, but for many years this diversity has been generally neglected for various reasons (lack of training, lack of access to information, etc.).

Another issue prevailing in the studies of the trade is the lack of written evidence. Private merchants and traders are rarely mentioned in contemporary sources, even though their role gradually increases since the archaic period, and in the Hellenistic times their activity forms an essential part of the Athenian commercial exchange. The issue is valid especially for the Black Sea, where due to the shortage of written evidence, the studies on trade patterns rely mainly on archaeological evidence (see the discussion in Damyanov 2015). The surviving sources generally date from limited periods of the Hellenistic period and regard mostly the Athenian trade.

The last and most important problem, however, is the traditional negligence of classical archaeologists and historians for the Black Sea studies, resulted from various political and social factors, geographic distance, language barriers and many other issues. Roughly twice larger than the Aegean, exceptionally rich in raw materials and food supplies, the Black Sea region was well known to the Mediterranean civilizations for millennia before the Greek colonisation, but very little known by the classical scholar. Its study has been until very recently a distinct discipline in the ancient studies and in many cases, specialists on the Black Sea have no first-hand knowledge of the Mediterranean and vice versa (Lund 2007, 184; Vlassopoulos 2013, XV). However, the “deep fragmentation”, as the issue was defined by Kostas Vlassopoulos (ibid.), has been in the last decades a subject of much consideration. Scholars that endeavour to increase the visibility of the Black Sea and support the collaboration between the Western and the Eastern science are Sir John Boardman, Gocha Tsetskhladze (Oxford), Jan Bouzek (Prague), Alexandru Avram (Bucharest), Michael Vickers (Oxford) and many others. Their efforts resulted in numerous conferences, joint excavations and abundant amount of publications in Western European languages, which lead to the popularization of the Black Sea archaeology and its multipart connections to the rest of the Greek world. In addition, the first MA in Black Sea and Eastern Mediterranean studies was established in the International Hellenic University (Thessaloniki, Greece).

The present thesis, completed at the University of Cyprus, is also a small contribution in this venture.

1.3. Methodology

For what concerns the theoretical approach, this study is not engaged in the structural debates on ancient trade (e.g. formalists vs. substantivists, or the primitivists vs. modernizers), but adopted the most appropriate approach in order to complete its research tasks. The reason behind this choice is that nevertheless their many values in the studies of ancient trade, economic theories tend to simplify the commercial processes in order to generate particular trade models, or adopt the centre-periphery model. Therefore, these are unable to provide an adequate analysis of inter-ethnic networks, peripheral networks, or networks related to perishing commodities, neither are applicable in the study of the highly complex and constantly mutating individual exchange, as in those cases the circulation of goods depends on various social, economic and political processes and cultural factors (an overview of the currents in archaeology and theories of economic exchange, see e.g. Gardner *et al.* 2013; Johnson 2010; Trigger 2006; Hodder and Hutson 2003; Smith 1999, 180ff; for a review of the theoretical approaches in terms of Greco-Phoenician trade, Chirpanlieva 2013). On the other hand, the present study employs current views, related to the cultural reception of foreign goods, such as the question of the receiving market, the private and public use of commodities, and the cultural transformation of exotic artefacts in the receiving markets. These studies enable to evaluate the demand for Phoenician exotic goods in the Black Sea, shaped by their significant cultural value in the receiving market (for general discussions on the role of the demand in the long-distance trade, see e.g. Sceidel *et al.* 2007; Bresson 2007-2008).

The often scant and difficultly interpretable archaeological data regarding the intercultural commercial traffic that involved Phoenician traders in the Euxine requires the analysis of all available sources. This work adopts the view of Gocha Tsetskhldze, who claimed that a proper understanding of cultural exchange can be achieved by a study from every angle (Tsetskhldze 1999, vii), and emphasizes the need to combine different types of evidence in a multidimensional analysis. Accordingly, to this view, the present work examines the available written testimonies and excavation material and applies the results of the most recent studies on trade and

consumption. The work employs both qualitative and quantitative methods, considering also the fact that the Greek, Pontic and Phoenician trade was primarily a small-scale business driven mainly by private entrepreneurs and adapted in line with the particularities of the local cultures (Chirpanlieva 2014).

The all-round approach applied in this study enables to analyse the evidence regarding Phoenician and Punic involvement in the Euxine trade in the perspective of the network paradigm, *i.e.* to analyse conformity, reflected by the material data, in order to trace a pattern and thereby define economic phenomenon. To this end, the typological and chronological aspects of trade networks are considered. The first examines the nature of trade networks and the latter, their chronological limits. Iva Chirpanlieva has recently successfully applied similar methodology in her PhD dissertation (2013) that traces the Phoenician trade activity in the Eastern Mediterranean through the distribution of certain Greek ceramics). It should be noted here that the term “Phoenician network” is used in the study for convenience, taking in consideration that a trade network, especially long-distance exchange route, is a result of a multiethnic collaboration (Sommer 2007, 105).

The cultural aspect of the commercial exchange is also considered in the above analysis, because the author believes that an in-depth research on the action of exchange in the framework of interethnic encounters needs to be grounded on the profound understanding of the meaning of archaeological artefacts. In other words it needs to take into account the local models of use and demand. In this respect, the examination of long-distance networks considers not only colonists and traders, but also local societies, with the purpose of achieving an accurate interpretation of the economic processes in the region.

In order to get reliable results, the study deals only with artefacts whose origin is positively attributed. This means that objects, even if considered “East” or “Levantine” by their publishers, but have unclear provenance, are in some cases referred here, but are excluded from the analysis that aims to identify trade routes and trade patterns. In addition, the study includes cases when it is impossible on the basis of the current knowledge to distinguish whether the production centre of a group of objects is Phoenician or Punic. Given the importance of latter artefacts for the present research, these were included in a parallel line of research that deals with the relations between Carthage and the Black Sea.

1.4. Structure

The study presents in a systematic and comprehensive way the archaeological data that is directly connected to Phoenician and Punic commercial involvement in the Euxine between the 7th and the 1st century BC. The body of material is separately by type and divided to three chronological groups (second half of the 7th-first half of the 5th century BC; second half of the 5th - 3rd century BC; 2nd-1st century BC, cf. the Chronological table). The analysis aims to provide adequate contextualisation of the material that takes in consideration the economic and social dynamics in the Euxine and Mediterranean basin. The study includes literature review and the newest discussions. The text is thoroughly illustrated by maps, charts and figures.

The first chapter defines the aims and methodology of the thesis. The second chapter is dedicated to the archaeology of the Black Sea. First of all, it outlines the specifics of the archaeological research in the zone, the main problems and state of research. Further, it focuses on the natural characteristics, geography, raw materials and indigenous populations around the Black Sea. Next, it analyses the phenomenon of the Greek colonisation. Namely, after a survey of the pre-colonial relations between the Black sea and the Aegean, Mediterranean and Anatolia, it discusses the prerequisites and the stages of the Greek colonisation. The chapter continues with selected case studies, which introduce the characteristics of the most important Greek colonies in the Black Sea. The next part in this chapter provides information about the latest discoveries regarding the cultural interaction in the region. The chapter closes with a discussion on the Black Sea trade, including its organization and traffic of goods, as well as political and social processes, ethnical and cultural aspects of the exchange.

The third chapter is dedicated to the question concerning the Phoenician and Punic commercial activity in the Eastern Mediterranean and the Aegean. It opens with a discussion of the problems regarding the research of cross-cultural trade and especially Greek-Phoenician exchange. Next it discusses how the terms “Phoenician” and “Phoenician network” are used in the study and explains the ambiguities of those terms in the scientific literature. Next, the chapter focuses on the question regarding Phoenician commercial presence in the Aegean, summarizing the evidence of Northern trade patterns in the Greco-Levantine trade from the LBA to the 4th century BC. Together with the archaeological record, it studies the written sources, and the

mythological accounts of Phoenicians in the North Aegean and North Anatolia. Lastly, the chapter draws attention to some aspects of the Carthaginian trade in the Eastern Mediterranean. It should be noted that the synopsis of the evidence in this chapter is aimed to provide the necessary background to the presented material.

Chapters 4 to 6 present the archaeological material of interest of this thesis. For convenience, the evidence is separated to three main periods, roughly: Archaic (second half of the 7th-first half of the 5th century BC), Classical – Early Hellenistic (second half of the 5th - 3rd century BC) and Late Hellenistic (2nd-1st century BC).

The fourth chapter deals with the period from the second half of the 7th to the first half of the 5th century BC. It discusses the evidence, separated by type (pottery, glass, faience, metal objects etc.). It further analyses some terracotta statuettes and inscriptions, which testify the presence of Syrian cults in an early epoch, when such lack completely from the Greek mainland or the Ionian colonies. The chapter closes with a hypothetic reconstruction of trade patterns.

The fifth chapter presents the evidence from the second half of the 5th to the end of the 3rd century BC, separated by type (pottery, glass, metal, grain). The analysis takes notice on some specific trade networks, such as those that concern the grain trade between the Bosphorus kingdom and Athens. It provides details on the large scale trade between the two powerful polities, which peaks in the 4th-3rd century BC and increases significantly the traffic of goods that enter the Black Sea region, while changing the axe of exchange from Ionian- to Athenian-oriented. Lastly, the chapter discusses written evidence that provide information about Phoenician individuals, involved in this trade.

Subsequently, the chapter focuses on some categories of glass products (e.g. mask beads and pendants, relief beads and pendants), objects that have been found in enormous quantities in the Levant, Carthage and in the Black Sea area, while in other parts of the Mediterranean they are found in much smaller quantities and variety. The study analyses the classifications and distribution patterns of these objects, and reviews previous studies on their dating and origin, while examining in detail their distribution in the Black Sea area, the chronology of the imports and their function in the local cultural environment. The chapter discusses further the provoking theory of a direct trade pattern between Carthage and the easternmost emporion of the Bosporan Kingdom, the Elizavetovskoe settlement.

The next main subject of this chapter is the export of Black Sea merchandise in the Levant and the West Mediterranean. The archaeological evidence is examined (in most part transport amphorae) as well as written sources. Finally, the chapter studies the socio-religious aspect of the commercial interaction, by evidencing some traces of the cult of Astarte and other Levantine influences in the North Black Sea.

The sixth chapter focuses on the Late Hellenistic period. It analyses the evidence by type (pottery, glass, metal etc.), focusing especially on the Punic amphorae, found in the West Black Sea between the first half of the 2nd and first half of the 1st century BC, which in all probability demonstrate the opening of a new trade network. The study examines further the overall change in trade routes in the Euxine and the evidence of Phoenician and Jewish individuals in the West and North littoral.

The last chapter of the thesis summarizes the conclusions of the previous chapters, and provides a final synthesis and commentary.

CHAPTER 2

GREEK COLONISATION AND DEVELOPMENT OF TRADE NETWORKS AROUND THE BLACK SEA

2.1. Identifying the ancient Black Sea: Greek colonies and local peoples

2.1.1. *Specifics of the archaeological research in the Black Sea*

The ancient cultures of the Black Sea have been object of intensive scholarly interest from the 19th century (an account of the earliest bibliography, see for instance in Ашик 1848, Minns 1913). It is almost impossible to summarise the large body of literature on the history and archaeology of the region, which has grown in time, and has increased more than ever in the last decades. It is worthy to mention that there is an ongoing project that aims to publish the Black Sea bibliography in a series of two volumes. The first volume, which covers epigraphy, numismatics, onomastics and prosopography, appeared in 2014 (cf. Cojocaru 2014). Although this is a contribution of extreme importance, it, however, omits many works in Turkish and Georgian language. The topics covered by the second volume will include archaeology and other spheres of research (Tsetsckhladze 2015, 11).

Among the monographs and edited volumes that provide essential knowledge of the Black Sea archaeology there are to be mentioned for instance the two volumes “*Ancient Greek Colonies in the Black Sea*” (in two volumes, from 2003 and 2007), edited by E. Petropoulos and D. Grammenos. This is an attempt to collect papers that give a general overview of the research on single archaeological sites in the Euxine Sea. The papers focus on 24 colonies, those considered among the most important in the region (Apollonia Pontica, Mesambria, Odessos, Histria, Orgame, Olbia/Berezan, Kerkinitis, Chersonessos, Theodosia, Pantikapaion, Nymphaeum, Myrmekion, Kyta, Taganrog, Gorgippia, Hermonassa, Tanais, Patraeus, Dioscurias, Gyenos, Phasis, Amisos, Sinope, Heracleia Pontica). Another paper outlines the state of research regarding the Olbian chora, and a final contribution deals with the rural territory of the Cimmerian Bosphorus. The project is of great importance, but the contributions lack homogeneity and don't cover all the archaeological sites, such as the emporia and settlements of the local population. Another essential project is the publication of the pottery evidence in

the volume “*Production et commerce des amphores anciennes en Mer Noire*”, edited by Y. Garlan (1999). These conference proceedings give an account of the recent developments and provide an extensive bibliography. Most recent attempt to collect essays on various aspects of the Black Sea studies is the volume *Essays on the Archaeology and Ancient History of the Black Sea Littoral*, published in 2018 and edited by M. Manoledakis, G. Tsetschladze and I. Xydopoulos. The volume was initially aimed to serve as a textbook for students enrolled in the newly established MA in Black and Mediterranean Studies at the Hellenic University in Thessaloniki. It contains essays on various topics, such as economy, religion, survey of the ancient writings, and an outline of recent archaeological investigations and publications on all of the sea’s four shores (Manoledakis *et al.* 2018).

Among the book series, dedicated to the Black Sea studies, of major importance are the sixteen volumes published by the Centre of Black Sea studies of the Danish National Research foundation, from 2003 to 2014. They cover various topics, such as religion, chronology, trade, society etc. and are freely downloadable online (<http://www.pontos.dk/publications/books/>). On the website of Aarhus University Press is claimed that “Publications devote special attention to centre-periphery relations, to cultural interaction as an expression of ethnic and cultural strategies, and the analyses are based on a long-term view of the Black Sea region as a link between Asia and Europe”. Significant are the publications in the Proceedings of the series of conferences held at Vani, Georgia, which appeared between 1987 and 2002. The most recent research on the archaeology and history of the region during Antiquity is presented at the quadrennial Congress of the Black Sea, which was held in September 2017 for the sixth time.

Important journals, focused on the Black Sea area, are the *Ancient Civilizations from Scythia to Siberia*. *International Journal of Comparative Studies in History and Archaeology* (eds. G. Bongard-Levin, G. Gnoli and A. Ivantchik), *Il Mar Nero*. *Annali di archeologia e storia* (eds P. Alexandrescu and S. Papacostea), *Colloquia Pontica* (ed. G. R. Tsetschladze), *Eurasia Antiqua*, *Schriften des Zentrums für Archäologie und Kulturgeschichte des Schwarzmeerraumes*, *Ancient West and East* (ed. G. R. Tsetschladze), *Pontica et Mediterranea* (ed. V. Cojocar). There are many others but it is impossible to quote them all here. The new discoveries and main publications for the last three decades are collected and briefly discussed by Hind (1983-1984; 1993) and Guldager Bilde *et al.* (2007-2008) in *Archaeological Reports*.

Along with the publications that aim to cover the entire territory of the Black Sea region, there are numerous international, national and regional journals that deal with a restricted area of excavation. Such are for example *Российская Археология* [Russian Archaeology] and *Вестник Древней истории* [Paper of Russian History] that cover the territory of the former USSR, *Dacia* and *Pontica* (on the territory of Romania), *Археология* and *Archaeologia Bulgarica* (on the territory of Bulgaria) and so on. Some journals focus on a limited region, such as the *Древности Боспора* [Bosporan Antiquities] for the Taman peninsula, the *Боспорские Исследования* [Bosporan Studies] on the European Bosphorus. Much new material and discussions, regarding this particular zone of the Black Sea, is published in the Proceedings of the biennial conference *Боспорский Феномен* [The Bosporan Phenomenon] and *Боспорский Сборник* [Bosporan collectanea]. Journals that study the territory of Thrace are for instance *Helis*, *Thracia*, *Thracia Pontica*, *Thracia Antiqua*, *Orpheus*; for the territory of Colchis *Dziebani - Journal of the Centre for Archaeological Studies*, *Journal of Colchian Archaeology*, *Phasis*, *Logos*; for the South Black Sea coast *Anatolia Antiqua*, and many others.

One of the most intensively studied topics that concern the Black Sea region is the Greek colonisation of the region. For many aspects of it, there are vivid debates in the scholarship. Among the vast literature that focus on the colonisation of the Mediterranean and Black Sea area, we shall record e.g. Boardman 1980; Graham 1982, 83-162; 2001; Malkin 1987; the collected papers edited by Tsetskhladze (2006 and 2008); Tsetskhladze and de Angelis (1994); Donnellan *et al.* (2016) and the study of Hurst and Owen (2005) that employs a comparative approach. Focused specifically on the process in the Euxine sea are many Russian and international studies, such as the contributions of Иессен 1947, Яйленко 1982, Tsetskhladze 1994 (with a detailed overview of the available and forthcoming bibliography); 1996; 1998; Petropoulos 2005; Kakhidze 2011; Dupont and Skarlatidou 2005 (discussing extensively the chronology on the base of amphorae evidence); de Boer 2007 (West coast); 2015 (Sinope); Tsetskhladze 1992 (Colchis); Алексеева 1991 (Caucasus); Журавлев, Шлотцхауер 2011 (Taman); Avram 2009 (Heracleia Pontica); Hind 1998; Robu 2014 (Megarian establishments); Zinko and Zinko 2015 (European Bosphorus); Solovyov 2010 (Berezan); Højte 2008 (unsuccessful cases of colonisation). Most recent general overview on the matter is published by Tsetskhladze 2006. Иевлев (2009, 47-52) discusses the strategic position for trade of the first settlements; while Graham (1982,

157–9) analyses the reasons that lead to this enterprise. Koshelenko and Kuznetsov (1998, 252-4) examine the history of the studies on colonisation in the Russian literature.

Nevertheless the extensive research and debate, the study of the first stages of the Greek colonisation of the Euxine is still in many aspects problematic (Tsetsckhladze 1998). First of all, because the written evidence regarding the Greek colonies on the Black Sea region comes chiefly from the Classical period onwards. This fact indicates that the information that they contain is shaped by the passed centuries and the contemporary political propaganda. For this reason, and because of the fragmentary and, in some cases, contradictory data of the written evidence, the research on the colonisation processes in the Euxine relies mainly on archaeological knowledge (for a general review of the ancient sources, see Braund 1998, 287-90; Malkin 1987, 115).

Excavating the Greek colonies on the Black Sea on the other hand presents many limitations. These are generally due to the fact that most of them persisted for many centuries without any considerable interruption, and nowadays they remain under the modern cities. In consequence these are very limitedly excavated, especially the archaic levels. In other cases, ancient coastal cities sank under water and the remains are dispersed by the currents. This is the case of Mesambria and Taganrog for instance. The several-stage change in the sea level caused also changes in the trade routes (on the effects of climate change, rising and falling sea levels, etc., see e.g. Porotov 2007, 29-36; Shilik 1997, 115-129; Кельтербаум *et al.*, 21-6). Fortunate exceptions of this rule are the sites of ancient Istros and Olbia. The first was abandoned because of the changes in the coastal landscape, and the second ceased to exist after a series of severe barbarian attacks (cf. the various contributions in Grammenos and Petropoulos 2003, 2007).

Another issue to be considered, when discussing the ancient Black Sea, is the imbalance in the state of research in terms of various regions and archaeological sites. The North Black Sea coast is well and extensively excavated (see for instance Minns 1913; Дзис-Райко 1982 for an introductory presentation of monuments and objects; on the single sites Grammenos and Petropoulos 2003; 2007; on recent discoveries Tsetsckhladze 2015; Papuci-Władyka 2018), while, given that very few places along the South coast have been excavated so far, and in most cases only a very small part of the whole site, archaeological knowledge of the colonies on the South coast consists only

of some early material from the coastal Sinope and inland Amisos. Additionally, according to M. Manoledakis, “the prospects of future archaeological research there are rather discouraging” (Manoledakis 2015b, 61-2; cf. Hind 1993; for an overview of the current state of research and the new discoveries of this region, Atasoy 2016, 2018; Doonan 2016; Summerer 2014, 200-05; Kassab Tezgör 2013 with ref.; Manoledakis *et al.* 2018). On the Colchian coast, the colonies have not even been located yet (Tsetskhladze 1992; for recent literature on Georgian archaeology see, for example, Tsetskhladze 2015; Stöllner and Gambashidze 2011, 187-201). Most of the Greek colonies on the West coast lie under the modern cities or below the sea level (Венедиков *et al.* 1963; Пеев 2014).

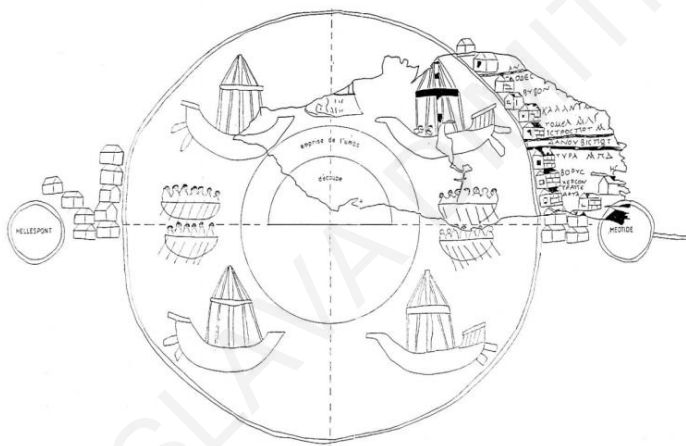
Another issue that hampers studies in the region is the fact that in many instances the results of the excavations appear in local journals and languages (Georgian, Turkish, Bulgarian, Ukrainian, Russian, Romanian), thus remaining poorly visible for the foreign researcher. In other cases, the results of the excavations remain unpublished for many years after the conclusion of the field work. On the other hand, in the last decades the international scientific contacts increased, and many conferences and joint archaeological excavation projects have been organized. For instance, currently a Russo-German team is working on the Taman peninsula in Russia (Schlotzhauer and Zhuravlev 2014), a Romanian-French and Bulgarian-French expedition is working on the Bulgarian and the Romanian coast (Baralis *et al.* 2012; 2016), a Georgian-English excavation works progress in Georgia (Vickers and Kakhidze 2004, Kakhidze 2011), an Ukrainian-Polish (Papuci-Władyka and Redina 2011; Twardecki 2016) and Ukrainian-German team is working in Ukraine (Буйских *et al.* 2016), and many others international project immensely increase the archaeological knowledge for the single sites. It is worthy to be mentioned that in spite of these efforts, multidisciplinary works of the Black Sea archaeology are still scanty (for such attempts see Tsetskhladze and de Boer 2002; Tsetskhladze 1998; Bouzek 1990; Jonnekin 2008).

An issue connected particularly to the problematic determination of a colonisation date concerns the fact that the first stable buildings were constructed decades after foundation of a colony. A certain period of “acclimatisation” is recorded in many colonies, and during that time, first settlers lived in dugouts and semi-dugouts, imitating the local way of life (Bujskikh 2017, 5-16). Only after this constitutional period, the poleis institutions, cult places, public buildings, stone dwellings, etc. started to emerge in newly established settlements, along with the development of a proper

production (for an overall discussion on this topic, see Tsetskhladze 1998; particularly on Berezan, Solovyov 1999).



Fig. 1. Surviving parchment fragment of the Black Sea 'Shield Map' from Dura Europos . Dated to before 260 AD. It depicts staging posts along the Black Sea. After Cumont 1925, 4, fig.1



[Π]αν[υσὸς ποτ(αμὸς) μί(λια) ..]
Ὅδεσ[σὸς μί(λια) ..]
Βυβόνα [μί(λια) ..]
Κάλ[λ]ατις μί(λια) ..
Τομέα μί(λια) λγ
Ἴ[σ]τρος ποτ(αμὸς) μί(λια) μ
Δάνουβις ποτ(αμὸς) [μί(λια) ..]
Τύρα μί(λια) πδ
Βορ[υ]σ[θένης] [μί(λια) ..]
Χερ[σ]όν[ησος -ca.-?]]
Τραπε[ζοῦς -ca.-?]]
Ἄρτα[ξάτα μί(λια) . .]

Fig. 2. Hand drawing of the 'Shield Map' with an attempted restoration and a reconstruction of the text. Arnaud 1989, 373 and 375, fig.1.

As a result of these factors, the material concerning the colonisation of the Black Sea is often scant and fragmentary, and thereby every piece of archaic pottery found on site is of great importance. For instance, the foundation of Taganrog was established on fragments of Ionian kylikes found on nearby beaches (Koshelenko, Kuznetsov 1998, 255). The foundation of Apollonia has not been determined, as the archaic levels of the polis lie in a nowadays military base. However, a few fragments of Greek pottery, found

by accident under water, show that it was among the oldest Greek settlements in the Euxine Sea.

The present chapter aims to review this evidence and to outline the current state of research on the Greek colonisation of the Black Sea.

2.1.2. Natural characteristics and local population of the Pontos Euxeinos



Fig. 3. The Black Sea and surrounding area. A physical map.

<http://www.aworldinacrisis.org/2013/01/31/black-sea-hots/> (accessed 4th October 2017)

The Black Sea covers an area of 436,400 km² excluding its largest arm, the Sea of Azov, which joins it through the Kerch Strait. It is ca 1,210 km from east to west, up to 560 km wide, and has a maximum depth of 2,245 m and current volume of 547,000 km. The water level varied significantly in the course of history. For instance, in the Classical period it is estimated to have been ca 5m lower than the current level, as a result of the Phanagorian regression, which occurred from the middle of the 2nd millennium BC to the 3rd-4th century AD (Porotov 2007, 29-36, Koshelenko and Kuznetsov 1998, 250). This data is consistent with the results of the underwater excavations. On the West coast, the two harbours of Bizone lie at -6m to

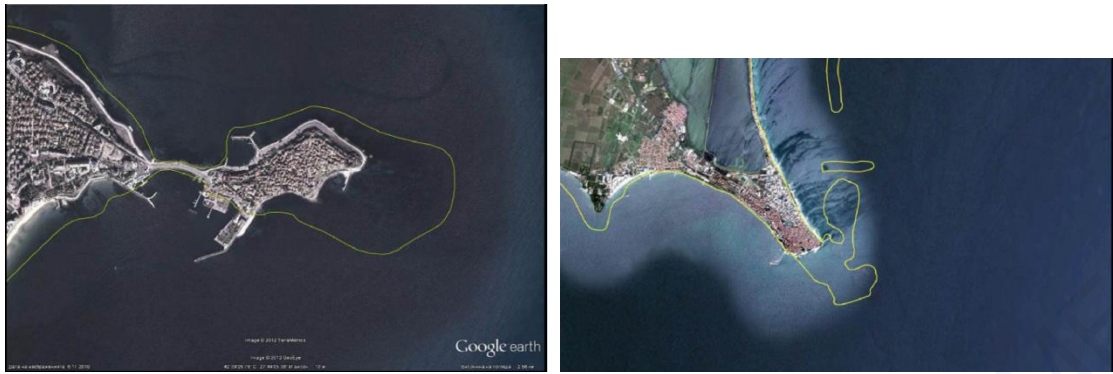


Fig. 4. Reconstruction of the ancient coastline of Mesambria (left) and Anchialos (right). After Пеев 2014, 22, figs. 8, 9.

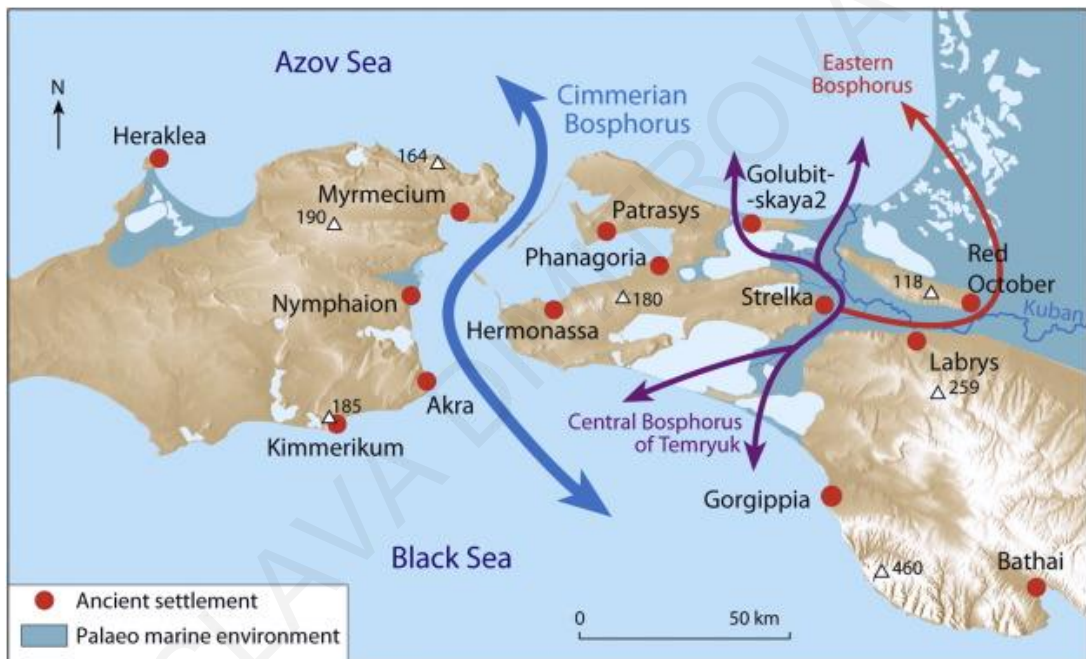


Fig. 5. Taman Peninsula's ancient Bosphoroses. Red arrow: Eastern Bosphoros. Purple arrow: Central Bosphoros (Bosphoros of Temryuk) After Giaime *et al.* 2016, fig. 2

– 9m underwater, the harbour of Mesambria at -7 m, of Kirik island at -1,5 to – 3,5 m, and so on (reconstructions of the ancient coastal line in the region have been done by Пеев 2014) (Fig. 5). The low level significantly affected the region of Kerch strait (Tauric Bosphoros), which connects the Black sea and the Sea of Azov. In the period under discussion in this thesis, the nowadays Taman peninsula was a fragmentary landmass and a second strait eased the navigation in the region (*Barr.* map 87 inset) (Fig. 4).

The unstable sea level is the basis of a challenging theory that relates the Black Sea with the biblical flood, referred to as “the Black Sea deluge”. In 1997 the geologists W. Ryan and W. Pitman proposed a highly debated theory of a catastrophic inundation of the Pontic basin and linked the phenomenon to the Genesis narrative of Noah (Ryan *et al.* 1997, 119-126). Currently there are three main trends in terms of late glacial to Holocene rise in the level of the Black Sea - catastrophic, gradual, and oscillating (for further reference, see the collected contributions in Yanko-Hombach *et al.* 2007)

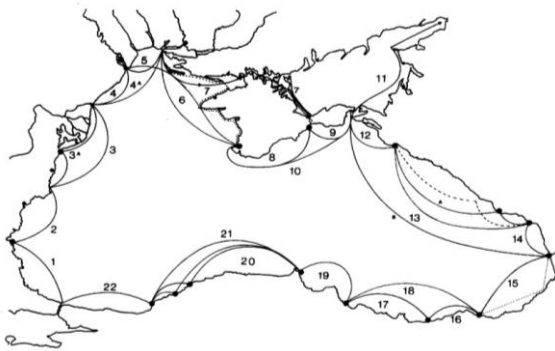


Fig. 6. Cabotage routes in the Euxine. After Arnaud 1992, 77 carte 3

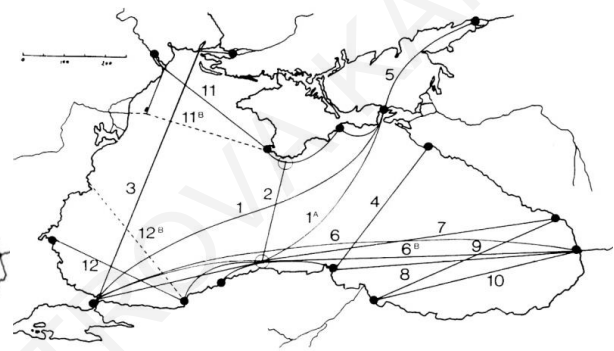


Fig. 7. Open sea routes in the Euxine. After Arnaud 1992, 76, carte 2

Navigation in the Black Sea in Antiquity is intense. It was carried out on coastal and open sea routes, the shortest of which passed between Cape Carambis (now Turkish Kerempe Burun) near Sinope and Cape Krioû métopon on the Crimean peninsula (Fig. 6-Fig. 7). Scholars believe that it was already known in the 5th or even the 6th century BC despite the fact that it was recorded for the first time by Strabo (7.4.3) (see argumentation in Одрин 2002, 99-103, Petropoulos 2005, 73, Tsetskhladze 2013a, 77). In proportion to the area of Euxine, the Sea of Azov covers about one-thirteenth of the land's size but the ancient authors considered the Sea much larger than it actually is (Hdt 4.86.4, Ps.-Scyl. *Peripl.* 68).

Nowadays, the Black Sea is enclosed by Ukraine and Crimea on the north, Russia on the northeast, Georgia on the east, Turkey on the south, and Bulgaria and Romania on the west (Fig. 3). These countries' lands were inhabited from prehistoric times, and important Neolithic cultures such as Varna, Durankulak, and Elshanka culture develop in the 7th-5th millennium BC (Todorova 1978; Vasilieva 2011). For instance, the Elshanka culture, stemmed in the Middle Volga region, produced the oldest ceramics in human history (7000-6500 BC, Anthony 2007, 361ff). These lands have been

pointed by some scholars as the homeland of the speakers of the Proto-Indo-European language (*pro*: Gimbutas 1979, *contra*: Renfrew 1987, more recently Anthony 2010). In the 2nd and 1st millennium BC, the Black Sea region is an area of trade and cultural exchange between Mycenaeans, Hittites, Carians, Colchians, Thracians, Persians, Cimmerians, Scythians, Celts, Greeks, Romans and other peoples. Its coasts are therefore extremely rich of archaeological material, but as much are its waters. In effect, The Black Sea is considered to be one of “*the world’s finest under water laboratories*” due to the anoxic (un-oxygenated) layer which preserves artefacts better than any other marine environment. The marine archaeological project *The Black Sea Maritime Archaeology Project*, one of the largest multi-disciplinary maritime archaeology projects ever attempted is conducted in 2016-2018 by an international team co-directed by the University of Connecticut. The team discovered and registered in the Bulgarian waters of the Black Sea more than 60 shipwrecks (among which twenty from the 5th and 4th century BC). The leading archaeologist of the project stated that “many of the ships show structural features, fittings, and equipment that are only known from iconography or written descriptions, but never seen until now” (Batchvarov 2019) (Fig. 8).

Overall ancient descriptions of Euxine are preserved in the *peripli* of Pseudo-Scylax from the 4th-3rd century BC, Arrian of Nicomedia from the 130-131 AD, and an anonymous author from the 2nd century AD. Much account is given by Herodotus (4.85.2-86.4), who visits the region in the 5th century BC, and a number of later Greek writers, such as Polybius (for a review of the written evidence, see Рыбаков 1979, for the representation of the Euxine in the Greek traditions, most recently Dan 2011b). For the first time the appellation *Euxeinos* is used by Pindar (*Nem.* 4.49), while the form *Axeinos* is favoured in mythological contexts (Ps.-Scymn. 735ff., Ov. *Tr.* 4.4.55ff., Strab. 7.3.6, Plin., *NH* 4.76; 6.1, etc.). The name “Black Sea” (*Pontos Melas*) is attested in Antiquity only in one occasion (Eur. *IA* 107) and considered a metaphoric expression rather than a name.

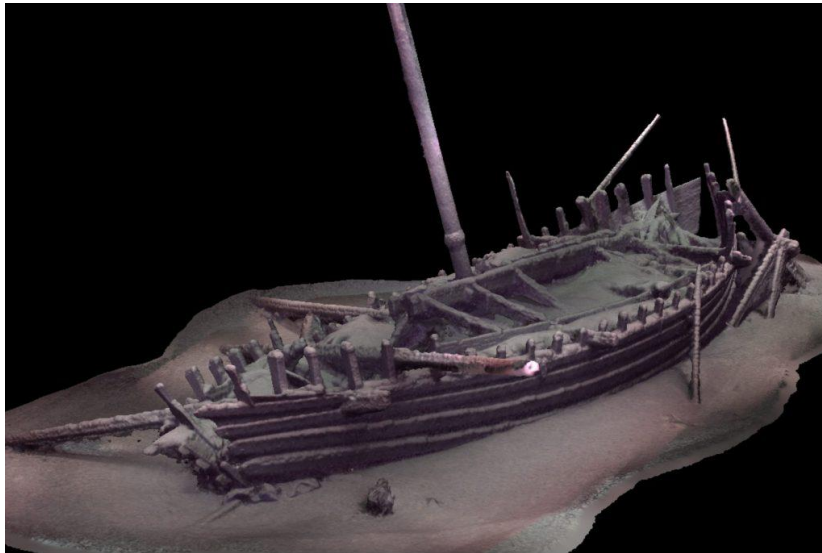


Fig. 8. A 3-D re-creation of a Roman ship found on the floor of the Black Sea, the Black Sea Maritime Archaeology Project, which is co-led by UConn expert Krum Batchvarov. (Black Sea MAP). <http://today.uconn.edu/2017/09/2000-year-old-ship-found-intact-uconn-expert-colleagues/> (retrieved on 04.10.2017)

The Greek and Roman authors describe the waters of the Black Sea as deep, with intense currents, and the climate cold and severe, with the exception of Colchis, which is viewed as a warm and moist region (Schmitt 1989, 310-313). The coast was connected to the inland areas through the navigable rivers that flow into the Black Sea: Istros (Danube, 2860km), Tyras (Dniester, 1362km), Hypanis (Bug, 830km), Borysthenes (Dnieper, 2290km), Tanais (Don, 1950km), Kophen (Kuban, 870km), Phasis (Rioni, 327 km), and Halys (Kızıl Irmak, 1355km) (Fig. 9)

In modern scholarship, the Black Sea region is usually separated in four geographical-political zones - North (Scythia), East (Colchis) South (Bithynia, Paphlagonia and Pontus) and West (Thrace) - which differ from one to another in natural characteristics, population and politic entities (Tsetskhladze 1992; Braund 1994). The North plain lands (steppes), partly covered with forests, are irrigated by the Bug, Dnieper and Dniester and thereby provide an abundant agricultural harvest, cattle, fish and timber. It is important that these offer also an easy communication between the shore and the deep hinterland, through the water channels (Braund and Kryzhytskij 2007). Eastwards of the Dnieper-Bug draining system lies the Tauris (or Tauric Chersonese), today Crimean peninsula. It faces the Taman peninsula in the East, on the Asian shore, in a way that they together form a strait (Kerch) which separates Euxine from the Maeotian Lake (Sea of Azov). These peninsulas are also grain productive; densely

colonized by the Greeks, from the 5th century BC onwards they are united in a unique political formation, known as the Bosphoran Kingdom (Васильев 1992, Виноградов 1980).

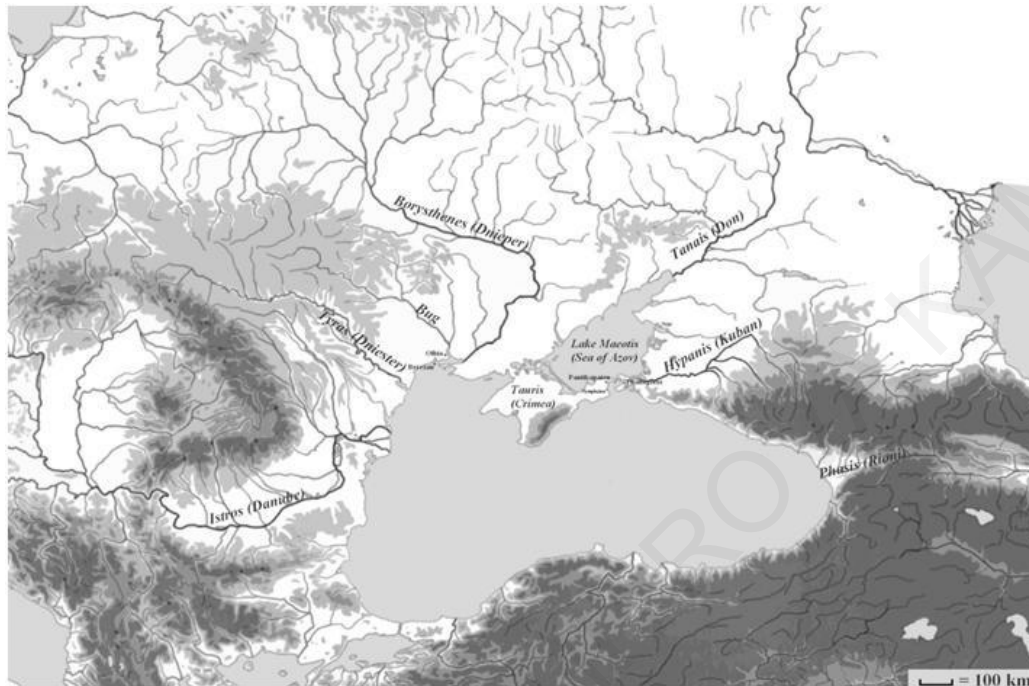


Fig. 9. The main rivers of the Black Sea

At the mouth of the rivers Don and Kuban, which flows into the Sea of Azov, are gradually established important local centres of inter-ethnic trade (Либеров 1965; Максименко 1983; Житников 1987; Корюлов and Rempel 2006). The region is favourable for agriculture and rich in metal ores. On the East and the South coast of the Black Sea, however, the mountainous coast deprive the Greek colonies of vast agrarian *chorai* and they direct their economy mostly to fishing industry and trade, both through the sea channels and with the hinterland, through the river Phasis and Halys. Both regions are rich in metal resources: the Colchis mainly in gold, while the South-East in iron. Finally, in the West, the region between the Bosphorus strait and the Istros river is geographically separated in two parts: in the South, the Greeks on the shore were surrounded by the Strandzha mountain massif, rich with raw materials such as metals and wood, while the North (the Dobrudzha plain) is grain producing (see section 2.1.3).

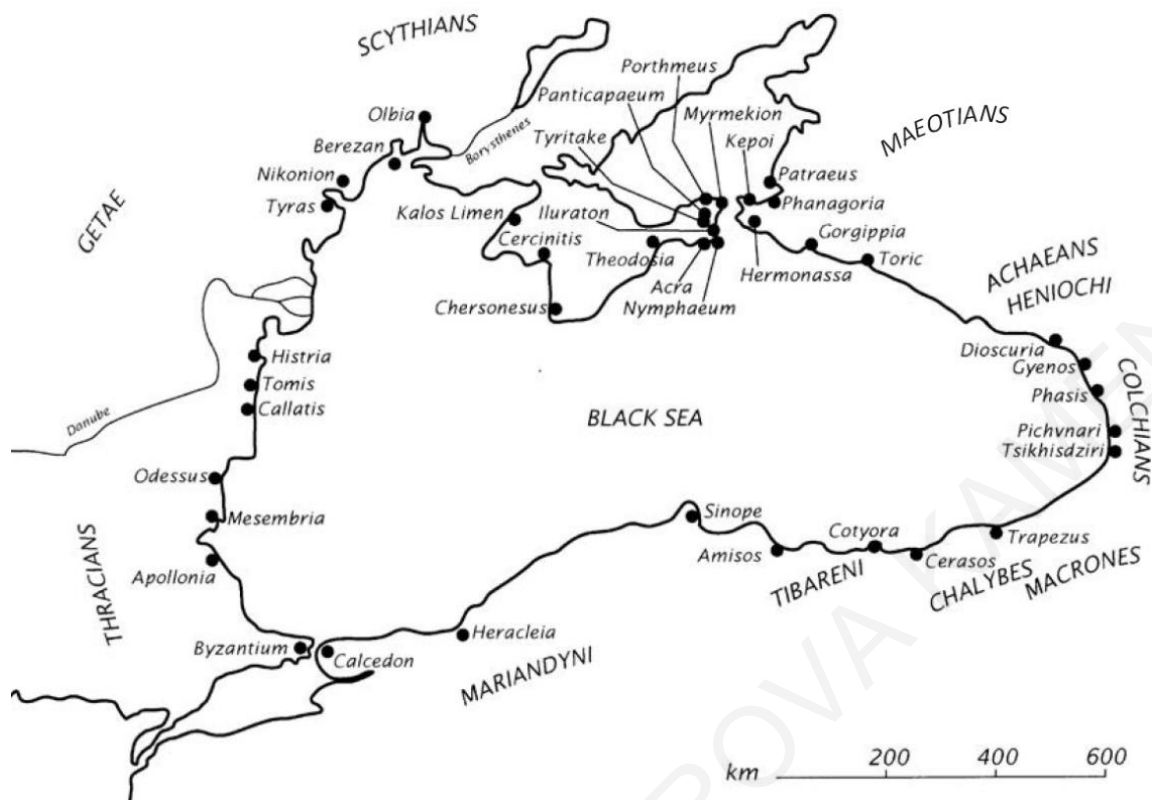


Fig. 10. The major local ethnics of the Euxine. After Tsetschladze 2012, 316, fig.1, with modifications.

2.1.3. Metallurgy and pre-colonial contacts¹ with the Mediterranean

Among the many tribes that inhabit the region during Antiquity (Fig. 10), the most numerous are the Scythians, a group of Iranian nomad and semi-nomad tribes, which are located in the steppe territories that extend far to the north and east from the coastline (Rolle 1989). The numerous Thracian tribes (more than 100 tribal names are known from ancient sources, among which Odrysians, Krobizi, Thyni, Kikoni, Moesi) are a group of Indo-European tribes, subdivided by the scholars to Thracian, Illyrian, Dacian, Getan, Paionian and Phrygian groups. These inhabit in the Balkans and Anatolia at least from the middle of the 2nd millennium BC (Tsetschladze 2014, 312-3; for a distribution map see Boamfă 2017, 126, fig.1). The Maeotian and Sindian tribes, later Sarmatians, Roxolani, Siraci and other, occupy the Taman peninsula (Ulitin 2013, 99-101; Chandrasekaran 2013). The group of the Colchian tribes dwell around the Phasis River, in the Transcaucasus region and in North-East Anatolia (Braund 1994).

¹ On the term “pre-colonial” and the debates on its use, see e.g. Domínguez Monedero 2008

The south shore is inhabited also by a variety of tribes, such as Bithynians, Thynians, Mariandyni, Cauconians, Paphlagonians, Moschians, Leucosyroi and more. The tribes at the North-East are described in detail by Strabo (who has first-hand knowledge of the region as a native of Amasya (Hind 1995-1996, 122, n.23; Braund and Tsetschladze 1989, 114-25).

The interregional connections of the Euxine Sea and the recurrent contacts with distant lands precede with millennia the Greek colonisation. The phenomenon is especially well documented in the Balkan region. As early as in the 5th millennium BC, *Dentalium* and *Spondylus* shells were imported to Eastern Thrace and Dobrudzha, and the necropoleis of Varna and Durankulak on the Black Sea West coast produced many objects - bracelets, necklaces, diadems and dress ornaments - fabricated from these shells (Peev 2008; Séfériadès 2010). During the Late Chalcolithic (4th millennium BC), some ceramic pieces, found at the region of Sinope and Samsun, find iconographic parallels in Thrace, the West Black Sea coast and the northern Pontic area (de Boer 2015; Zimmermann 2007). This evidence is not so surprising, if we bear into mind that from the 5th millennium BC onwards, the knowledge of using metal spreads gradually around the Black Sea and forms the so called Circumpontic Metallurgical Province, until in the 4th - 3rd millennium BC (EBA, MBA), the zone becomes “the central production metallurgical system in Eurasia” (Chernykh 2014, 1003; see below), leading to development of intercultural economic relations and metallurgy-related trade.

In the Balkans is further attested the oldest copper and gold processing around the Black Sea. In 1972 was discovered one of the key archaeological sites in world prehistory – the Varna necropolis on the West coast of the Black Sea. An unparalleled number of metal objects - about 3000 gold objects with a total weight of 5,763kg along with more than 160 copper objects, such as tools and weapons - has been unearthed from 312 graves, which belong to a Chalcolithic culture with settlements at the Varna and Beloslavsko Lakes. Until recently, it was dated at the end of the 5th millennium BC, but new dating show that the wealthiest graves were already installed between 4600 and 4500 BC (Hansen 2013, 146). Presently, these artefacts are considered to be the most ancient processed gold items in the world (Ivanov 1978, 13-26; Renfrew 1986, 141-168; Higham *et al.* 2007, 640-54) (Fig. 11). In all probability, the raw gold and copper was local, supplied by the mines in Thrace.



Fig. 11. Tomb No. 43, Varna necropolis. 5th millennium BC. After <https://www.smithsonianmag.com/travel/varna-bulgaria-gold-graves-social-hierarchy-prehistoric-archaeology-smithsonian-journeys-travel-quarterly-180958733/> (accessed 7th November 2018).

In effect, exploitation and mining of metal ores in the Balkan region is confirmed from the early 5th millennium BC (Higham *et al.* 2007; Stöllner *et al.* 2014; Hansen 2013, 159). The earliest proven date of extractive copper production belongs to the copper mine, excavated at Rudna Glava (Serbia) (Jovanović 1982; Filipović 2015, 341-7) and the traces of copper smelting (one mould, large amounts of malachite and finished products), which have been found at Belovode (Radivojević *et al.* 2010, 2775-87). Both functioned from c. 5350 BC to 4650 BC, and belong to the Vinča culture (Hansen 2013, 147; Leusch *et al.* 2015, 369). In 1971 the polymetallic mine of Ai Bunar (Bulgaria) was discovered. It was explored during the 5th and the 4th millennium BC, possibly continuing in the Bronze Age as well, and at the present it is the largest of the known Chalcolithic mines.

The output of these regional copper mines in prehistoric times is estimated as enormous (de Boer 2003, 446). At Ai Bunar for example, scholars have calculated that up to 30 000 tonnes of rock have been extracted from the eleven known mines, and the presumed smelting of the copper reached up to 500-1000 tonnes. Moreover, lead isotope analyses of contemporary copper artefacts indicate that Ai Bunar was not the only copper mine in the region (O'Brien 2015). Different evidence, such as stone tools and traces of smelting, also suggests metal extraction in a number of smaller mines in

the close region, for instance the mine near Prochorovo, Sliven district. Copper extraction is attested in this way also around the Black Sea coast, e.g. at the mines of Medni Rid, Rosen, and Budzhaka (Frank and Pernicka 2012, 128; Лещаков 2010). It is very probable that more evidence on this matter is to be found in future. Thus, in 2008 an ancient settlement was found by accident in the locality of Akladi Cheiri, near Chernomorets village in the West Pontic area. It dates broadly to Late Neolithic and Early Chalcolithic contexts (5400–4500 BC). The studied layers of the settlement indicate that the nearby copper mine was known yet in the Neolithic period, and copper tools were in use in the first half of the 5th millennium BC (Лещаков 2010).

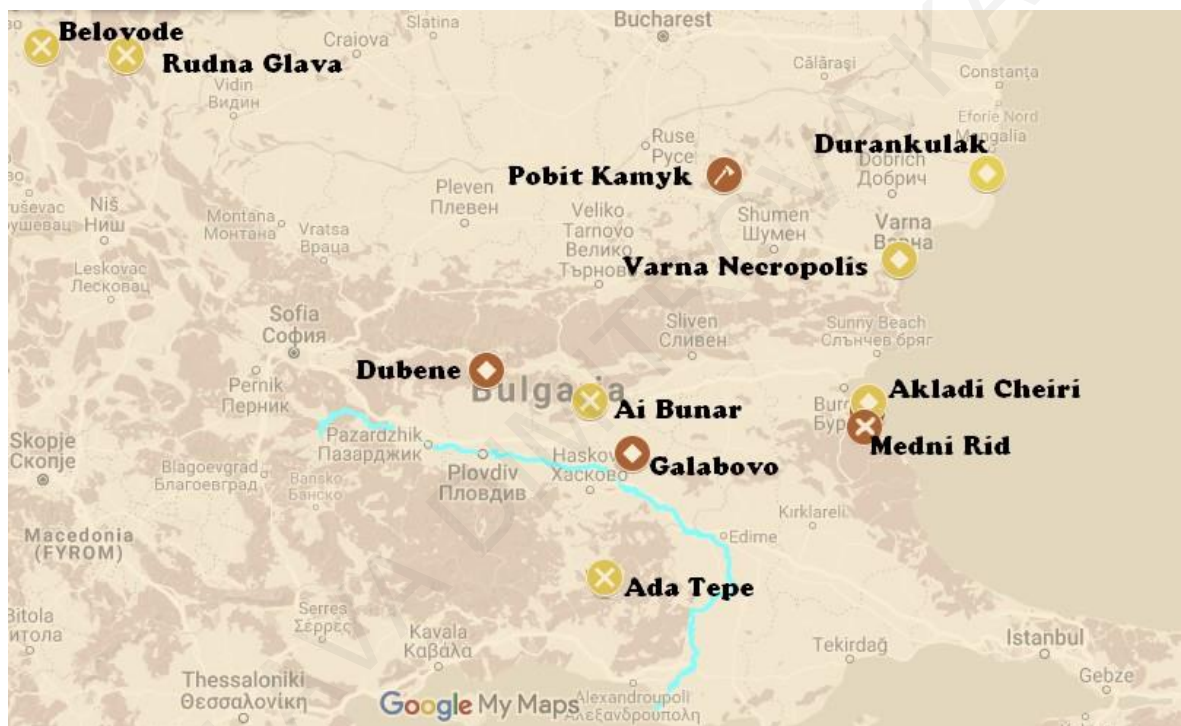


Fig. 12. Chalcolithic (amber) and Bronze Age (auburn) locations in Thrace, mentioned in the text. Square – settlements, X – ancient mines, Hammer – metal workshop. Evidenced in blue is the main course of Hebros (Maritsa) river.

But to whom was directed the large-scale production of copper? Lead isotope analyses at Ai Bunar show that the copper received a wide distribution in the Balkan/Carpathian area and, along with the smaller mines in the vicinity, served as a key source of copper for large territories in Southern (Karanovo V and VI cultures) and Eastern Bulgaria (Varna culture), Southern-Eastern Romania, Moldova and Western Ukraine (Cucuteni-Trypolye culture) during the 5th-4th millenniums BC (Peev 2008, 217). This fact suggests the establishment of a long-distance exchange system by the end of the 5th millennium BC, which, in most probability, used sea trade routes from

Varna to the North, and the upstream routes of the Danube, the Prut, the Bug and the Dniester rivers (*ibid.*).

Balkan Chalcolithic cultures Varna, Karanovo, and Vinča. Around 4250-4200 BC, the settlements on the lower Danube region were abandoned for unknown reasons, which some scholars ascribe to wide-ranging raids of Indo-European tribes, and others, to climate changes that lead to the submerging of the settlements and arable land, in consequence of which, the population probably moved to the North (Slavchev 2010, 208). The region seems to have been empty for about six hundred years. The discontinuity of these cultures stand in contrast to the situation in the Carpathian basin, where is no noticeable disruption (Raczky and Siklósi 2013). In this and other regions around the Black Sea, in the second half of the 4th and the early 3rd millennium BC, metal production goes through various innovations, manifested by the appearance of new techniques and products (Hansen 2013, 153).

Such is the case in modern Georgia. Single finds of metallic artefacts are known in Georgia since the early agricultural settlements of the 6th -5th millennium BC (Kuparadze *et al.* 2008, 248). Metal extraction in the region has been employed in the 5th millennium BC (Meshoko culture), but the use of metals intensifies during the 4th millennium BC, when more than ten times as many metal objects are found in comparison to the previous period. The process is related to socioeconomic changes, evident mainly in east Georgia and the Azerbaijan Kura valley, where evidence suggests a diversification of metals and development of new techniques (namely the Majkop and Leilatepe–Berikldeebi cultures, followed by the Novosvobodnaja, Kura–Araxes and Velikent cultures, cf. Courcier 2014, 623-36). The first heavy metal tools also occur in this period (e.g. a Mesopotamian shaft-hole axe from Orchosani), along with new types of gold and silver artefacts, attested in the northern Caucasus (Maykop) and the eastern plains of the Kura and Arax rivers (Stöllner and Gambashidze 2014, 103).

In the 3rd millennium BC (EBA II) metallurgical activities increase, as shown by the large amount of gold and silver jewellery, found in the area. An important evidence for this process comes from the prehistoric gold mine of Sakdrisi, located during excavations between 2004 and 2011 in Kvemo Kartli district, about 50km south-west of Tbilisi. The team discovered that the mine was used from the beginning of the 3rd millennium BC (Kushnareva 1997; Courcier *et al.* 2008; Stöllner *et al.* 2014) (Fig. 13).

The process seems to coincide with the strengthening of relations between the Caucasus and the Near East, demonstrated by the diffusion of some specific objects (like the tripartite spearheads) from the Caucasus to Anatolia, northern Mesopotamia and Turkmenistan (Courcier 2014, 644). Although relations between the Caucasus and the Near East were not interrupted from the Neolithic to the Middle Bronze Age, they seem to have been especially important during the 4th millennium BC (Courcier 2014, 643). Numerous studies, carried out in Anatolia and Iran, have confirmed the relationships of these regions with the Caucasus, and the importance of metals in these exchanges; some scholars even refer to the Caucasus as a hypothetical origin for ores and metals, found in different regions throughout the Near East, Levant and the Aegean (Lyonnet 2009, Tadmor et al. 1995, 143). Likewise, copper and arsenical-copper artefacts and especially also metallurgical implements like crucibles and moulds from the late Chalcolithic levels of settlements like Berikldeebi, Mentesh Tepe, Poylu and Boyuk-Kesik, have parallels in the vast area between the Upper Euphrates, Northern Mesopotamia and the Iranian plateau (e.g. Helwing 2012).

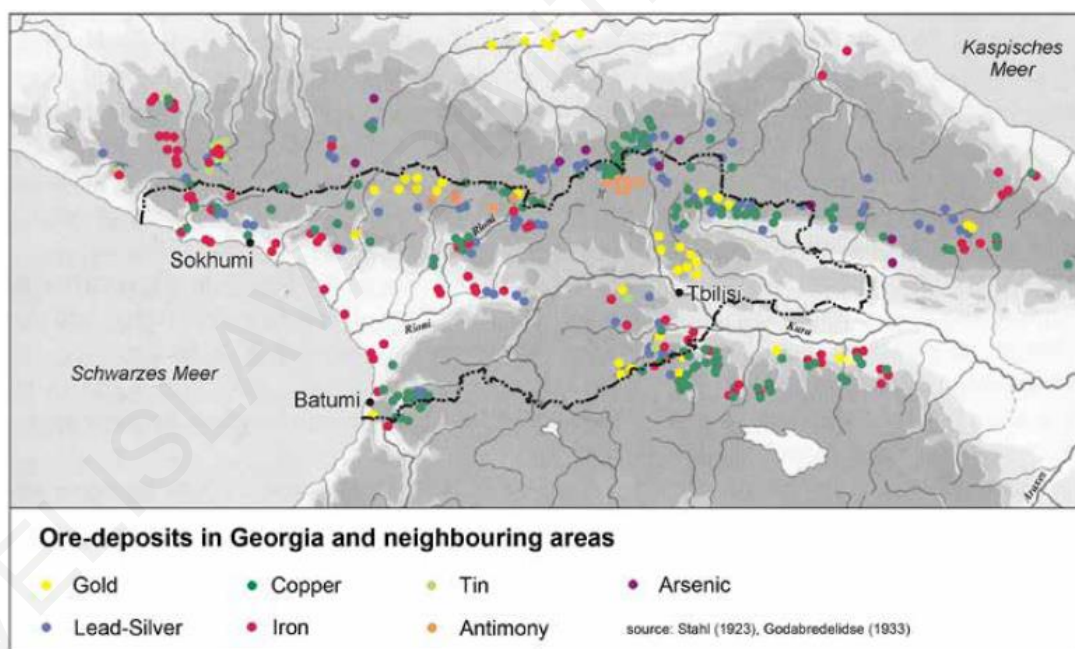


Fig. 13. Ore deposits in Georgia and neighbouring areas. After Stöllner *et al.* 2014, 6, fig.2

The study of migration processes in the Bronze Age also adds to the understanding of cultural integration in the area. Finds, such as Kura-Araxes vessels (this cultural tradition was spread in the South Caucasus from 3500 to 2450 BC, see e.g. Sagona 2017), and other Caucasian elements have been discovered in the so called “princely tomb” of Arslantepe. These lead to the conclusion that direct connections between

cultures, through migration or trade, were stimulated by the metal demand (Ivanova 2012; Stöllner and Gambashidze 2014, 103). Further evidence, such as the so called Khirbet Kerak (Beth Yerah) horizon (Greenberg *et al.* 2014), suggests that prior to 3000 BC, groups bearing the Kura-Araxes identity migrated on the South, into a region between the Taurus Mountains to the southern Levant, the Zagros Mountains (Rothman 2015; Palumbi 2016) (Fig. 14).

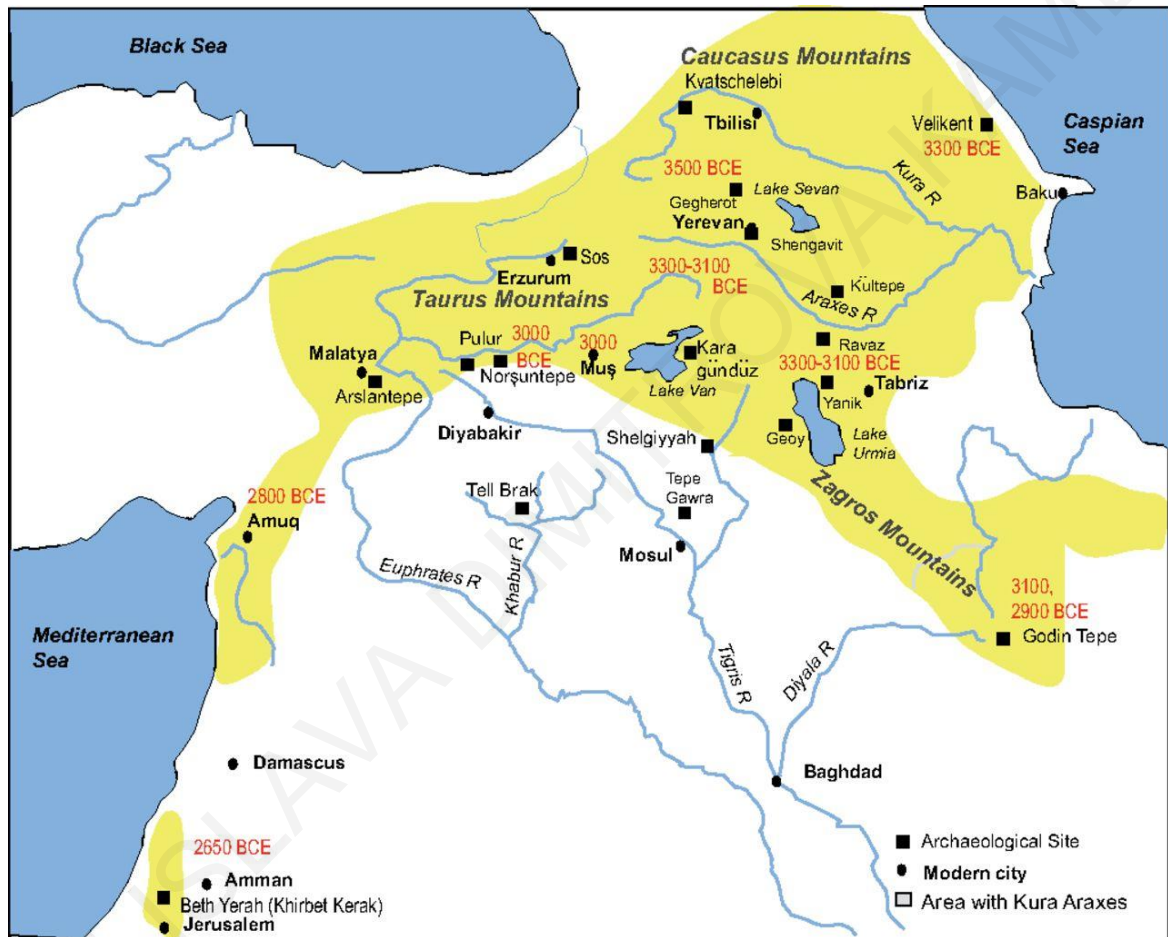


Fig. 14. Distribution of Kura-Araxes cultural tradition (3300-2650 BC). After Rothman 2015, 9191, fig.1

Among the many studies that discuss the Caucasian cultures, focusing on the development of metal extraction techniques and the interregional interrelations of the local cultures during the Chalcolithic and the Bronze Age, some are of key importance. For instance, the history of research on the Caucasian metallurgy, since the Neolithic, has been outlined in Courcier *et al.* 2014, 580-3. The typological parallels in the tools and weaponry between the Carpatho-Balkan region, the Caucasus, Anatolia and Iran have been discussed by Deshayes (1960), while a synthesis of the cultural relations

and the role of metallurgy in the Bronze Age across the Balkans, the Steppes, the Caucasus and the Urals are presented more recently by Kohl (2007) and Lyonnet *et al.* (2009). Recent bibliography is provided by Stöllner and Gambashidze 2014.

For what concerns the Balkan region, gold production reaches an unprecedented scale in the Bronze Age. Only at the archaeological site near Dubene village, Karlovo district, were found more than 21 000 gold objects, dated from the second half of the 3rd millennium BC (EBA III). These were located in a necropolis, where among the burials were discovered 19 ritual mounds. Each of them contained fragments of decorated ceramic vessels and bones of animal origin, mixed with a significant quantity of small gold items of various type (spirals, beads, separators, cylinders, round appliquéés with decoration in relief, daggers, etc.), and in some cases, bronze and silver items or glass beads (Christov 2016). The employed techniques demonstrate high level of goldsmith craftsmanship - sintering, casting and moulding by plastic deformation of gold was commonly used. The gold products seem to have been produced locally, however, they find analogues in earlier and later artefacts from a large territory from Asia Minor and Anatolia to Central Europe (Poliochni, Troy, Eskiyapar, the Frantzhausen necropolis, etc. (further on the Bronze Age processed gold in Thrace, Tsintsov 2008, 216-8; Christov 2008, 219-21; Heyd *et al.* 2016, 173-8).

Not surprising in this context is the discovery of the first and so far only excavated prehistoric goldmine in Europe at Ada Tepe hill, Krumovgrad district, in the Rhodope Mountain (Tsintsov *et al.* 2016). The gold extraction there is dated between 1500 and 700 BC (Попов 2012). In 2016, scholars from the Austrian and the Bulgarian Academies of Sciences began to study the finds in an international and interdisciplinary 3-year project to create record the gold mine and its adjacent settlements, focusing on the producers and consumers of the gold products. Among the discovered artefacts, there are golden adornments and pottery, silver trimmings, bronze tools and weapons.



Fig. 15. Left: Svishtov golden treasure, found near Svishtov, Veliko Tŕrnovo district, in 2011. Weight 266g. Dated to 2100-1600 BC. Right: Vylchtryn golden treasure, found at Vylchtryn village, Plevn region, Bulgaria, in 1925. Weight 12,5kg. Dated to 1600-1200 BC.

For what concerns the West Black Sea coast, the richest in metal (copper, silver, gold and iron) deposits lie in the Strandzha Mountains that run north-south along the shore between Apollonia Pontica to Byzantium (Georgiev 1987, 26-39; de Boer 2003, 447). The mines in this region were especially important in the economy of the Eastern Balkans during the Late Roman age (Велков 1972). Furnaces for copper from this period were discovered accidentally in the 1950s, near the only city in the mountain - Malko Tŕrnovo (Велков 1965). More than 250 ancient mines are attested in the area; however, no proper excavations have been conducted that would allow dating of the mining activities in the region. Nonetheless, studies of ceramic fragments, found mixed along with slag (e.g. near Karabadzhir village), show possible exploration in the Middle/Late Bronze and Early Iron Age (de Boer 2003, 447; Szymanska 1984). A Bulgarian-Canadian archaeological project currently investigates these ancient mines. It envisages sample archaeological surveys for clarification of the potential of the

Medni Rid hills (the name meaning *Copper Ridge*) in the vicinities of Apollonia Pontica. This locality is of a particular importance, as it shows traces of human presence from the 16th century BC (cf. The Sozopol Foundation, Projects in Development section).

Further north, in the locality Pobit Kamak, Razgrad region, Bulgaria, a unique collection of 22 moulds of great sophistication has been unearthed. These were axes, adzes and blades, used for casting, and various small objects. Among them, the most interesting object is a stone sceptre. The collection is dated in between the 15th and the 12th century BC (MBA to LBA) and seemingly belongs to a metal workshop (Sandars 1983, 55; Бонев 1988, 15-16).

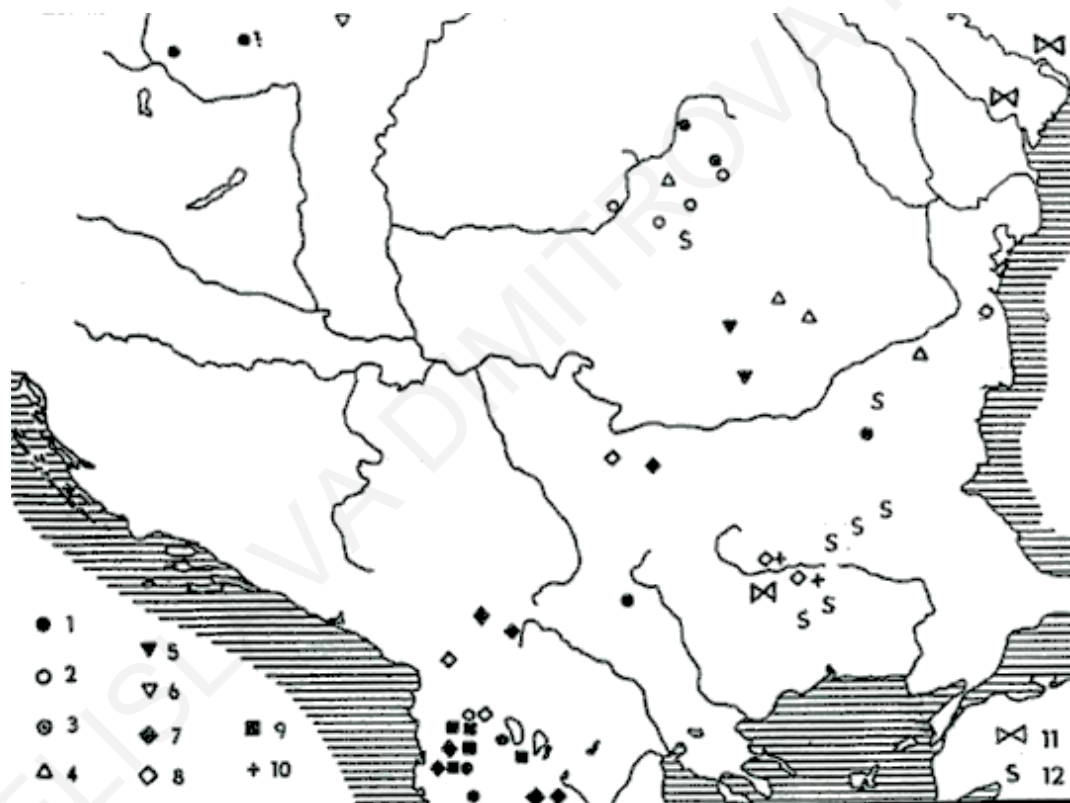


Fig. 16. Mycenaean types of weapons north of the Aegean. 1-3: Karo A and related rapiers, 4: their fragments, 5-6: Persinari and Rosiorii-de-Vede swords, Spisšký Štvrtek mould 7-8: Sandars C swords and imitations, 9. Sandars D-E swords and imitations, 10: Mycenaean spearheads, 11: double axes of Mycenaean type, 12: Thracian sceptres. After Bouzek 2013b, 90, fig.11

Evidence of long-distance connections that involve the Eastern Balkans is more abundant during this period. In the 2nd millennium BC, the Balkans present extensive contacts with the Mycenaean culture, attested by finds such as Mycenaean weapons (swords, spearheads, double axes) and pottery (Katincharov 1989; Bouzek 1989b,

217-234; Zoltán 1978, 289-290; Бонев 1988; Стоянов 2000, 53ff; Alexandrov 2005) (Fig. 16). This is hardly surprising, given the demand for metals and the vicinity of the Thracian supplies.

Some examples of this exchange are the excavated in the Galabovo tell, near Galabovo, Stara Zagora district. The settlement existed from the Neolithic to the medieval period. The Bronze Age layers (14 levels from the end of the 3rd - 2nd millennium BC) are the ones that have been better examined and indicate a developed agriculture and metallurgy. Imported objects from Asia Minor and Near East support the idea that the leading economic activities of the settlements were related to trade. Such imported artefacts are a “Syrian bottle”, deep cups with two handles (“tankards”), amphorae, tea-pots, jars and pithoi, and a “pilgrim flask” of Anatolian type A from the MBA, a type known otherwise from Anatolia, Troy, Cyprus, Egypt and Palestine (for a recent study of the distribution of “Syrian” bottles and other specific artefacts in the 3rd and 2nd millennia in Anatolia, northern Levant and northern Mesopotamia that considers the Thracian specimen, see Massa and Palmisano 2018). Scholars believe that Galabovo tell was one of the regional centres that served as “connection points” in the route along the Maritsa River valley, which connected Trace to Troad, West and Central Anatolia, and probably continued up to Central Europe.

Such centre of trade or redistribution of goods might have been the abovementioned Dubene as well (on Anatolian influences that progressed along the trade route of Maritsa River from the EBA II, see Leshtakov 1995-1996; Şahoğlu 2005; Efe 2007). Evidence, indicating such trade route, are also the *depas amphikypellon* cups, produced in Troy I to Troy V, which have been found in Galabovo and several other Bronze Age sites in Thrace (de Boer 2003, 445-50). Moreover, Romanian and Bulgarian pottery types have been found at Troy VIIb1 and VIIb2 stratum (Bouzek 1985, 194-5; Chabot Aslan and Hnila 2015; László 2012; Morintz 1982) and a Balkan metal artefacts appeared on the Ulu Burun shipwreck (Pulak 2008, 302, cf. **infra**, p.**Error! Bookmark not defined.**). In the Thracian centres Vattina and Drama were found pottery fragments that bear inscriptions in Cypro-syllabic (?) script (de Boer 2003, 452).

For what concerns the sea routes during this period, a large number of stone blocks with one, two or three holes were found underwater near Sozopol and Kailakra. These are traditionally interpreted as ancient anchors from the 16th – 12th century BC (Бонев 1988, 16; Lazarov 2009). The dating is based on parallels found around the

Mediterranean - for instance, a pyramid-shaped “anchor”, found in 1974 on the island of St. Kirik, seems to resemble the anchor, drawn on an Egyptian bas-relief kept in the tomb of the pharaoh Sahura, from the middle of the 3rd millennium BC (Peev 2008, 218). Therefore, some scholars believe that these stone “anchors” were most probably used by Phoenician, Egyptian, Cretan or Mycenaean ships (ibid.). Other scholars, however, disagree with this view and advance the theory of a local provenance of these objects (Орачев 2007; Hristov 2013, 7-9).

An important piece of evidence that adds to this subject matter is the ox-hide copper ingots, found in the Eastern Balkans and dated in the 2nd millennium BC. These, however, receive conflicting interpretations. Doncheva (2012) accounts 16 ox hide ingots from the Eastern Balkans - 7 complete and fragmentary, 1 miniature ox hide ingot (Fig. 17), 1 pillow-shaped, 16 (or more) bun (plano-convex) and a number of shapeless fragments, some of which local, and others imported. Two of these fragments come from the Yambol region (Kirilovo and Chernosem) and belong to the 2a type (after Bass *et al.* 1967). This area lies close to the main navigable river routes that connect Thrace with the Aegean coast - Hebros (Maritsa) and Tonzos (Tundzha). It has produced other metal artefacts (e.g. type A swords), and prestige items (ceremonial sceptres). Similarly, the Iğdebağlari–Sarköy ingot was part of the Kozman Deresi Mevkii hoard from the 12th-11th century BC, found near the northwest coast of the Sea of Marmara, consisting of distinctive metal finds such as a Mycenaean dagger (type Eii), a Levantine/Canaanite dagger (Sanders type H), a spearhead and three double axes, which would all have been obtained through particular exchange networks (Liverani 2001, 56–62).

In the coastal area, two ingots have been acquired by the Archaeological museum of Varna. Their alleged findspot is the adjacent terrain between the villages of Kamenovo and Pobit Kamak in the Razgrad region (Карайотов 1978; 2012, Lipinski 2004, 161; Bouzek 1989b, 218) (Fig. 17a). This locality has produced further copper-based evidence, and lies near (approximately 10 km) to the find spot of the Pobit Kamak mould hoard (see *supra*, p.51). A second ingot has been found near the village Cherkovo. A lead isotope analysis performed on this ingot shows results, compatible with Cypriot copper deposits, but also with a deposit in the nearby village of Zidarovo (Tsetskhladze 2003, 445; Harding 1984, 52), showing that the results of these analyses could be misleading. Nevertheless, in 2017 a group of ancient artefacts were confiscated in the border between Bulgaria and Romania, in the town of Ruse. Among

these, there was a pillow-shaped ingot, accompanied by ancient Anatolian coins and artefacts with apparent links to western areas of Asia Minor. A lead isotope analysis on the ingot has been conducted by E. Pernicka from the Manheim University and it seem to verify a Cypriot origin (the results are still unpublished, see <http://www.desant.net/show-news/42238>).

The theory of a Cypriot origin is corroborated also by the finding of a miniature ingot in the area of Yabalkovo (Fig. 17b), near the town of Haskovo (Doncheva 2012, 689). So far miniature ox hide ingots are known from Enkomi and the Mathiatis Hoard in Cyprus, and from the Adriatic region. They are often viewed as having performed a religious function, in other words as votive offerings, closely linked to a deity of metal, more specifically of copper production, on the island of Cyprus (Giunlia-Mair *et al.* 2011, 17). According to Doncheva (2012, 689), “the shape and dimensions of the Yabalkovo ingot corresponds to Cypriot minute prototypes; its two extended horns, however, give a statue-like appearance, which fits in well with the ritual connotation of ingots of this kind”. It is possibly related to some local prehistoric settlements, which are currently being studied, and would hopefully reveal more information about it.

Some of the ingots, found at the Eastern Balkans, have impressed/incised marks. The marks on the Cherkovo ingot resemble a T sign on the upper section of the rough surface (Fig. 17c); the Chernosem object bears a † sign, and one of the ingots from the Pobit Kamak shows a # sign. These signs are reminiscent of the early forms of script (Cypro-Minoan, Linear A or Linear B), used in the Aegean and the Eastern Mediterranean. Doncheva (2012, 690) doesn't accept the attribution of the ideogram to any of those scripts, however, she believes that they are in most probability imported from the Aegean and “a connection of the objects bearing the marks with long-distance trade cannot be excluded” (Doncheva 2012, 690). However, their location and context of discovery confirms again the existence of a long-distance trade route through Maritsa (Hebros) river and by sea (Leshtakov 2007; Katincharov 1989), and even a possible copper export through the Karnobat region, where the nearest to the mines tributary of Maritsa reaches (de Boer 2003, 445-50).

Finally, ambiguous evidence might suggest to the Minoan activity in the West Black Sea region (Караџотов 1978; Fol and Schmitt 2000; on Minoan presence in the Aegean, see e.g. Kanta 1980; Matsas 1995, 235; various contributions in Macdonald *et al.* 2009). Scholars justify the supposed Minoan interest at the North by the loss of the metal

resources after Hammurabi's conquest of Mari in 1758 (de Boer 2003, 450; for the consequences of this conquest for the economy of Mesopotamia, Kohl 2007, 232).



Fig. 17. Bronze ox hide ingots from Bulgaria. From left to right: a. Kamenovo, Burgas region. After Doncheva 2012, 714, fig.13b; b. Miniature ingot From Yabalkovo. After Doncheva 2012, 714, fig.16. c. a F sign on the ingot from Cherkovo. After Doncheva 2012, 714, fig.17c

Interregional contacts between the South Black Sea coast, the Southern Caucasus and Anatolia in the 2nd millennium BC seem to have been linked by the academics to metal extraction, as archaeological traces of ancient gold, copper and iron processing are attested in those territories (Drews 1976, 28-31; Хахутайшвили 1987. For Hittite involvement in the iron production in this area, Иванов 1983, 53-55; Muhly *et al.* 1985, 71-82) (Fig. 18).

Trade routes, either sea and land, linked the Levant and Asia Minor with the South East coast of the Black Sea already in the Bronze Age (Fig. 19, Fig. 45, Fig. 57). The land routes that passed through the Halys River from Kanesh up to Sinope are evidenced by Hittite documents, and a group of Mycenaean pottery from the Hittite site of Maşat Höyük in North-Central Turkey (Özgüç 1980; cf. the discussion in de Boer 2015, 74; Manoledakis 2015a, 84; Dan 2011a, see further discussion in the next chapter).



Fig. 18. Metal deposits on the South coast of the Black Sea, explored in the Bronze Age. After Kulakoğlu 2010.

Scholars suggest that the name of Sinope has a Hittite origin, and has derived from the original *Sinuwa* or *Sinuua*, whose meaning is related to a royal tomb (Doonan 2003, 1381). Evidence shows that the coastal area around Sinope was linked to the caravan route between Cilicia and Troy as early as the EBA period, and to have taken part in the Assyrian trade network with Kanesh after the establishment of the strong commercial links of the Assyrian trading network in the second millennium BC. Some scholars even associate the city of Zalpa, located on, or near the Black Sea coast, and known from the ancient legend of the Queen of Kanesh, to Sinope (de Boer 2015, 73; on the inland relations of the city of Zalpa (Fig. 57), in the written sources, cf. Bryce 2009, 785; Burney 2004; Hoffner and Beckman 1990, 62-63). A recent linguistic study shows on the other hand that Neo-Phrygian inscriptions from central Anatolia are actually written in an archaic Achaean dialect, mixed with some phonetic peculiarities that might be due to Anatolian influences (Tzitzilis 2014). This evidence indicates Greek penetration in the Anatolian hinterland from the 13th century BC, suggesting that there were known land routes through the Hellespont, from the South (Cilicia and Cyprus) or Western Asia (see discussion in Manoledakis 2015a, 84-7).

Ancient trade routes often follow sea and river channels. However, navigation in prehistory is difficult to detect. It is possible to deduce it either tracing the trade of specific artefacts, either by studying the development of coastal settlements in certain areas.

The first evidence for navigation at the West Black Sea coast is a clay model of a boat, dated in the Chalcolithic period. It was found during excavations of the Sava tell at the lower reaches of Kamchiya river, at about 20km south of Varna, Bulgaria, and belongs to the Sava culture. This is a rare find, as only one more clay model of boat is known from prehistoric times. It is kept in the Sozopol Museum, and it is dated from the Early Bronze Age (Peev 2005, 217). The Sava artefact is, however, contemporary to the development of multiple Chalcolithic settlements in coastal areas around Varna and Durankulak, and to the functioning of Ai Bunar mine, with exportation of the copper presumably by maritime or inland waterways (cf. supra), thereby it could serve as evidence of regular use of water routes.



Fig. 19. MBA land trade routes in Anatolia and the Levant. After Roaf 1990, 113, with an update.

Many coastal settlements appear in the region in the Early Bronze Age. However, traces of navigation are more visible from the Late Bronze Age, when a range of settlements that functioned as ports (a role, recognizable from the artificial quays and reefs left), is attested along the entire Bulgarian coast. The oldest of them seem to have started functioning around the middle of the 2nd millennium BC. These are at Cape Shabla (Karon Limen), Cape Kalilakra (Tirizis), the North port of Mesambria, Apollonia, Maslen Cape (Terra), and the North port of Urdoviza (ibid.) and many of them endured

throughout Antiquity. As traces of foreign ships might be interpreted the stone anchors and metal ingots that appear after the 16th century BC (see discussion above). Information about a Thracian thalassocracy is preserved in the written tradition and some inconclusive archaeological evidence seems to support it (Lazova 1988; Bouzek 2013b; on archaeological data on Thracian pre-Greek navigation, Попов 2015, 107). For what concerns the Southern coast of the Black Sea, it is worth to mention that recent excavations confirmed the existence of a LBA harbour at Sinope (Doonan 2003, 1381).

In the Early Iron Age, traces of mariners in the Euxine are archaeologically absent. Carian toponyms, such as Karon Limen near Kallatis, reflect possible Carian activity in the West and South Black Sea (Neumann 1855, 340-342; Данов 1947, 43; Isaac 1986, 261, 265). This evidence would confirm the report of Pliny (*NH* 6,20) that Carians entered in the Tanais estuary and sailed up the river, which is in correspondence to a version of Argonauts' myth (on written sources regarding this topic, see Блаватский 1954, 7-12 and more recently, Ефремов 2013, 78-92). Lucian on the other hand states that the Phoenicians were among the first *emporoi* to enter the Black Sea (*Tox.* 4), but no physical evidence supports those claims.

Evidence of Greek penetration in the Euxine in the Early Iron Age is scant. Some finds, dating back to the end of 2nd- beginning of 1st millennia BC, mainly metal objects such as double axes, fibulae and others, could support the idea of sporadic contacts between Thrace and the Aegean (Стоянов 2000; Bouzek 2008, 15). There is also evidence for contacts between the Eastern/Southern Black Sea coast, the Caucasus and the West Black Sea coast in the Early Iron Age (de Boer 2007, 128; Jablonka 2003, 92). Greek penetration around the South Black Sea coast is shown by pottery fragments. Archaic Greek pottery is found on a number of sites in Anatolia - Protocorinthian pottery of the 8th century BC, Corinthian pottery of the following centuries, Late Geometric ware both from Euboea and from East Greece, as well as Greek or Greek-influenced fibulae, were found for instance at Gordion; while Greek Geometric pottery, Corinthian and East Greek pottery of the 8th century BC and Corinthian pottery of the 6th century BC at Sardis (Manoledakis 2015a, 83). This evidence has hardly any direct connection with the colonisation of the coastal area, however, it shows the interest of the Central Anatolian cultures in receiving Greek production and also, the developed hinterland trade routes that reached Eastern Asia in this early period - prior and contemporary

to the Greek colonisation (Tsetskhladze 2013a, 72-3; on possible pre-colonial connections of the region with the North Black sea littoral, Atasoy 2007, 149).

Usually, pottery is the ultimate source for archaeological research, but in the Black Sea, pottery before the actual colonisation period is very rare and difficult to date (Bouzek 2008, 15; Graham 1978, 67-68; Буйских 2015b, 238-252). An exceptional example is the early 7th century deposit at Orgame, where local ceramics is mixed with East Greek and thereby have been dated effortlessly (for a brief history of excavations at this site and recent developments, Baralis and Lungu, 2015, 371-386). In most cases, pottery is absent from the oldest layers. Scholars assume that the first contacts between distant cultures are archaeologically invisible. They interpret the actual colonization as the last step in a long way of commercial connections, which begins with piracy or sporadic exchange, and develops through a graduate regularization of the trade, while growing all the way to the final establishment of successful emporia. In sum, most of the pre-colonial stages seem to have depended on the initiatives of private entrepreneurs and pirate activities and leave little material trace (cf. Graham 1990, 45-60; Bouzek 2013a, 19-21). Because of the lack of tangible archaeological evidence such as pottery scholars define this as the “pre-pottery phase of Greek trade with the Black Sea” (Braund 1998, 290).

Pre-colonial solitary expeditions to the Black Sea, on the other hand, are reflected in a number of Greek myths. Such are the expedition of the Argonauts to the lands of Colchis, the wandering of Odysseus in the land of the Cimmerians, and the journeys of Iphigenia and Orestes in Tauris. Regardless of their symbolic and hyperbolic nature, these tales are believed to reflect an initial knowledge of the Greeks in regard to the Black Sea, prior to the colonisation (Ustinova 2004, 507-14; Braund 1998, 290; Блаватский 1954, 11). Other mythological episodes show the deep cultural influence of the region over the Greek traditions. Such is shown by the myth of the Amazons, the episode of Apollo’s visit to the Hyperboreans, the tales of Heracles, navigating around the Black Sea, the myth of Orpheus from Thrace, the myth of Prometheus, punished in the Caucasus Mountains (Tsetskhladze 1992; 2009). Also, as pre-colonial is interpreted by some researchers the cultic connection of Achilles with the Leuke island, a tradition attested by Arctinus of Miletus during the 8th century BC (Popova 2015, 67). Some Greek cults also emphasize an evident connection to the Black Sea, such as the cult of Artemis in Tauris, the Thracian influences on the cult of Dionysus, and the Samothracian mysteries. Metallurgical activities in Greek myths also reflect the Black

Sea region. For instance, in the Greek tradition, among the first ironsmith nations are accounted some tribes, located in the region south of the Caucasus, such as the Mossynoikoi, Tibareni and the Chalybes, whose very name concurs with the Greek term χάλυψ (Dussaud 1930, 76ff). Later, the myths are confirmed by the observations of a number of Greek and Roman authors, which confirm the special relation of these tribes with metallurgy and in addition, report a “specialization” of their metallurgical activities (Sulimirsky 1954, 282-3). In particular, the Chalybes, a nomination of an ethnos or maybe a population that trades with iron ore, are credited for inventing silver and iron working (discussion of the evidence, Peake 1933, 639-52). Their mythical image as a people that live exclusively on iron trade is referred by Apollonius of Rhodes: “...*That folk have no care for ploughing with oxen or for any planting of honey-sweet fruit; nor yet do they pasture flocks in the dewy meadow. But they cleave the hard iron-bearing land and exchange their wages for daily sustenance; never does the morn rise for them without toil, but amid bleak sooty flames and smoke they endure heavy labour*” (Ap. Rhod. 2.1002, trans.: Seaton 1912. On the mythical portrayal of the Chalybes see, most recently, Bitarello 2016). Their neighbours, the Mossynoikoi and the Tibareni, on the other hand, are renowned in legend as the inventors of brass, called also cadmea or orichalcum (Healy 1999, 310-314). References of metal extraction in Colchis and Iberia are found not only in the myths of Phrixus and the Argonauts (Okrostsvaridze *et al.* 2014), but also in a number of Greek and Roman authors. Parts of the lost work *Arimaspea*, written by Aristeas of Proconnesus, a Greek poet, who lived in the 7th century BC, is reported in Herodotus. He mentions that large amount of gold was possessed in the lands of the mythical tribe Arimaspoi, which scholars identify with the Ural Mountains (Hdt 3. 116). The finds in the local kurgans confirm that this metal was used abundantly in the area (Giulia-Mair *et al.* 2009, 37). Aeschylus names the Caucasus “mother of iron” (PB 301-02), while the land was referred as “rich of gold” in a 4th century BC anonymous epitaph in honour of the legendary King Aeëtes (Arist. *Pepl.* 49; Gutzwiller 2010). Beyond the mythological epics, several Greek and Roman authors refer to the gold production of the Caucasus. Strabo (1.2.39) claims that the wealth of the Colchis derived from the numerous gold, silver, iron, and copper mines (Lordkipanidze 1983, 125). Gold extraction in Colchis is described by Appian:

χρυσοφοροῦσι δ' ἐκ τοῦ "Many streams issue from Caucasus
Καυκάσου πηγαὶ πολλαὶ bearing gold-dust so fine as to be
ψῆγμα ἀφανές: καὶ οἱ invisible. The inhabitants put
περίοικοι κώδια τιθέντες ἐς sheepskins with shaggy fleece into
τὸ ῥεῦμα βαθύμαλλα, τὸ the stream and thus collect the
ψῆγμα ἐνισχόμενον αὐτοῖς floating particles. Perhaps the
ἐκλέγουσιν. καὶ τοιοῦτον ἦν golden fleece of Aëtes was of this
ἴσως καὶ τὸ χρυσόμαλλον kind. (App. Mith. 15.103. Trans. B.
Αἰήτου δέρος. McGing, LCL 3, 1912)

Curiously, this method has survived in Georgia to the present day, namely in the Svaneti region, where modern studies show some evidence of ancient gold extraction (Okrostsvaridze *et al.* 2014; Courcier *et al.* 2008). Archaeological evidence corroborates with the written sources. The extraction of gold is demonstrated by the number and excellent quality of golden artefacts, often found in the kurgans in the Caucasus region in the 2nd – 1st millennium BC (see discussion on p. 28ff). Gold appears to have been extracted from gold mines, such as Sakdrisi, and golden sand was extracted from the rivers. For what concerns other metals, in the in Lower Caucasus there are a series of small grass-root deposits of copper and silver, still being used, which are easy for extraction and processing. Such are the Chorokhean (Dzansul), Merissean and Alaverdian copper deposit groups (Kuparadze *et al.* 2008).²

The ancient authors report further that, the Mossynoikoi were well known for their copper, bronze and brass. According to *Mirabilium Auscultationes*, their brass could be easily recognized by its whiter colour:

² In contrast of its fame as a synonymous with an abundance of gold, no gold artefacts have been discovered in Western Georgia that can be dated prior to the 5th century BC, while bronzeworking in the region was already advanced by ca. 1000 BC (Tsetskhladze 1994, 111-135; Tsetskhladze and Treister 1995, 1-32; for an overview of the excavations at the best excavated archaeological site in the region, Vani, see Katcharava and Kvirkvelia 2008). The discrepancy however might be due to extensive excavations of only late settlements (Okrostsvaridze *et al.* 2014, 122-8).

Φασὶ τὸν Μοσσύνοικον χαλκὸν λαμπρότατον καὶ λευκότατον εἶναι, οὐ παραμιγνυμένου αὐτῷ κασσιτέρου, ἀλλὰ γῆς τινὸς αὐτοῦ γινομένης καὶ συνεψομένης αὐτῷ. λέγουσι δὲ τὸν εὐρόντα τὴν κρᾶσιν μηδένα διδάξαι· διὸ τὰ προγεγονότα ἐν τοῖς τόποις χαλκῶματα διάφορα, τὰ δ' ἐπιγιγνώμενα οὐκέτι.

"They say that Mossynecian copper is very shiny and white, not because there is tin mixed with it, but because some earth is combined and molten with it. But they say that the man who discovered the mixture never taught anyone; so the so the copper vessels which were made in earlier days have this distinction, but subsequent ones have not". (Arist. Mir. 62 (835a). Trans. W. S. Hett, LCL 307, 1936)

This description concurs with the technology of ancient brass making, where the copper was combined with zinc, or more accurately with its ore calamine, instead of tin, used to create bronze. The information is credible, as Greeks and Mossynoikoi appear to have active trade relations from the classical period onwards, especially in exchange centres such as Cerasus and Trapezus, and, for the time being, no archaeological data contests this statement (Halleux 1973).

For what concerns iron production, ancient sources confirm the strait connection of the Chalybes with this metal. After visiting the land of the Chalybes, Xenophon reports that

οὗτοι ὀλίγοι τε ἦσαν καὶ ὑπήκοοι τῶν Μοσσυνοίκων, καὶ ὁ βίος ἦν τοῖς πλείστοις αὐτῶν ἀπὸ σιδηρείας.

"These were a people few in number, and subject to the Mossynoecians, and most of them gained their livelihood from working in iron." (Xen. Anab. 5.5.1-2. Trans. C. L. Brownson and O. J. Todd, LCL 90, 1922).

An important reference to the iron production of the region is provided by the abovementioned the 4th century BC work *Περὶ Θαυμασιῶν Ἀκουσματῶν (Mirabilium*

Auscultationes) of Ps.-Aristotle, which seems to describe a metal, whose characteristics appear to be of a kind of a stainless steel or maybe wrought iron:

λέγεται δὲ ἰδιαιτάτην εἶναι *“It is said that the origin of Chalybian and*
γένεσιν σιδήρου τοῦ *Amisenian iron is most extraordinary. For*
Χαλυβικοῦ καὶ τοῦ *it grows, so they say, from the sand which*
Ἄμισηνοῦ. συμφύεται γάρ, *is borne down by the rivers. Some say that*
ὡς γε λέγουσιν, ἐκ τῆς *they simply wash this and heat it in a*
ἄμμου τῆς καταφερομένης *furnace; others say that they repeatedly*
ἐκ τῶν ποταμῶν. ταύτην δ’ *wash the residue which is left after the*
οἱ μὲν ἀπλῶς φασὶ *first washing and heat it, and that they*
πλύναντας καμινεύειν, οἱ δὲ *put into it a stone which is called fire-*
τὴν ὑπόστασιν τὴν *proof; and there is much of this in the*
γενομένην ἐκ τῆς πλύσεως *district. This iron is much superior to all*
πολλάκις πλυθεῖσαν *other kinds. If it were not burned in a*
συγκαίειν, παρεμβάλλειν δὲ *furnace, it would not apparently be very*
τὸν πυρίμαχον καλούμενον *different from silver. They say that*
λίθον· εἶναι δ’ ἐν τῇ χώρᾳ *it alone is not liable to rust, but that there*
πολὺν. οὗτος δ’ ὁ σίδηρος *is not much of it” (Arist. Mir. 48 (833).*
πολὺ τῶν ἄλλων γίνεται *Trans. W. S. Hett, LCL 307, 1936)*
καλλίων. εἰ δὲ μὴ ἐν μιᾷ
καμίνῳ ἐκαίετο, οὐδὲν ἄν,
ὡς ἔοικε, διέφερε
τάργυρίου. μόνον δὲ φασιν
αὐτὸν ἀνίωτον εἶναι, οὐ
πολὺν δὲ γίνεσθαι.

The notions of Chalybes as inventors of the iron industry are not unfounded. The first use of iron is attested in the beginning of the 2nd millennium BC in the Hittite empire, whose capital Hattusha is located on the upper streams of the Halys river. Robert Forbes accepts that “the ‘steeling’ of man-made iron [...] originated somewhere in the Hittite realm of Asia Minor, probably in Armenian mountain region, and not in Europe” (Forbes 1966, 219. Further on Hittite domination over the iron production in this

specific area, Иванов 1983, 53-55; Muhly *et al.* 1985, 71-82; various contributions in Snodgrass 1980) (Fig. 20). In effect, the regions under Hittite control, which possess extensive iron ores, appear to be the Chalybian lands (the coastal territories of the ancient Paphlagonia and Pontus, extended between the modern Yeshil Irmak and Batum) and the Taurus mountains, but the distribution and quantity of contemporary iron artefacts suggests that it is in the Chalybian region, where iron began to be regularly produced for the first time (for an extensive analysis on the evidence, Peake 1933, 643; Swank 2011, 9). In the south-west part of the region, iron deposits are



Fig. 20. Bronze lion from Tsnori. Second half of the 2nd millennium BC. After Okrostsvaridze *et al.* 2014, 123, fig.3

located along the river Halys, while the magnetite sands of Chorokhi River and the Eastern Black Sea coast play an important role in the metallurgical development of the modern Western Georgia. On the east, the iron deposit of the Chatakhi was used by the ancient miners, together with numerous small,

but convenient hematite (Madnis-zkaro) and Mn-hematite (Tetri-zkaro, Madnis-seri, Soshebi, etc.) deposits (Kuparadze *et al.* 2008). Moreover, the discovered ancient workshops, like those in Chatakhi, Madnis-zkaro, Madnis-seri and Fakhralo, also corroborate the theory of a large-scale production and export of iron (Drews 1976, 28-31; Muhly *et al.* 1985, 74; Хахутайшвили 1987). After the fall of the Hittite state and the arrival of the Phrygians, the Chalybes appear to move to the north-east coast of the Black Sea and spread the ironworking to the Caucasus region. Iron farming tools from the 7th- 6th century BC have been found in many tombs in Svaneti and Racha (e.g. Nigvziani, Ureki), where, along with the numerous mattocks and hoes, finds of special interest represent iron shares, which proves the existence of iron ploughs as early as 7th century BC (Микеладзе and Барамидзе 1977). The neighbours of the Chalybes, the Tibareni, are also recognized as an ironworking nation and often identified with Tabal peoples, who supposedly migrated from the South Anatolia. In the Early Iron Age, the territory of the Tabal kingdoms extends southwards from the southern curve of the Halys River into the region called in Hittite texts the Lower Land. Trevor Bryce

identifies Kanesh as “the centre of one of the kingdoms of the land of Tabal” (Bryce 2009, 366). Interestingly, he does not exclude the possibility that in this period the city of Kilise, a trade centre with connections to Cyprus, Al Mina, and the Tarsus, might also have been part of this kingdom (ibid.). Nevertheless the meagre evidence, it is possible that after the Cimmerian attacks in the 7th century BC some of these people moved further North-East (for the discussion on the geographic location of the Chalybes, Tibareni and Mossynoecians in the Classic period, see Vassileva 1994; Manoledakis 2015a).

Scythians have been also referred as an ironsmith nation or even inventors of the iron weapons, and some traditions even consider the Chalybes a Scythian tribe (for a comment of the sources, Sulimirsky 1954, 282-3). Geological studies have shown that the forest steppes, where Scythians settle in the 7th century BC, were iron producing and the iron easy to exploit, as it lies close to the surface (Розанова and Терехова 1997, 79-94; for a map of the ores, Kristiansen 1998, 281, fig. 147). However, Scythian mining is rare before the arrival of the Greeks (Treister 1998). The earliest local exploitation of iron is demonstrated by the number of archaic workshops and remains of metalworking production, which have been unearthed at Olbia and the settlements of its chora, at Berezan, Yagorlik, Panticapaeum, Nymphaeum, Nikonion, Myrmekion, Torikos, Phanagoria, and other Greek settlements (Tsetsckhladze 1998, 42).

2.2. The Greek colonisation. Impetus, stages, consequences

2.2.1. Reasons behind the Greek colonisation

The period of the Greek colonisation has received much scholarly attention and nowadays, as pointed by G. Tsetsckhladze, “we are in a better position to make sense of cultural interactions in this period than in the Dark Age” (Tsetsckhladze 1999, vii-viii). Many gaps, however, remain, for instance regarding the reasons that triggered the process. This topic still creates many contradictions between archaeologists and historians, who advance various social, political, military, economic, or ecological factors, such as demographic growth, need for resources, raids of arable territories, or

strategic projects, as main factors that activated this gigantic transfer of people to the Black Sea zone (see e.g. Graham 1990, 52–4; Boardman 1991; 1998; Tsetschladze 1994, 111–2; 1998, 19; Snodgrass 1994, 1; Miller 1997, 12–30, Domanskij and Marčenko 2003). An important factor is believed to be the political situation in Asia Minor in the late the 7th century BC. In this period, the Ionian poleis were pressed by constant armed incursions by the Lydian kings. The aggressive policy of the latter in Asia Minor resulted in an economic crisis and loss of rural territory for the Greeks (Malkin 2011; Tsetschladze 1998; 2002). This view, however, is contested by Fantalkin (2006, 203), who convincingly advances the theory that the colonisation, was a joint effort of Greek and Lydian individuals:

“I think, however, that there are good reasons to suspect that, contrary to scholarly consensus, which connects the dispersion of Ionians abroad with an aggressive Lydian and later Persian policy toward the Ionian cities, it is cooperation rather than confrontation that we are witnessing here. In the East, via Egyptian connections, Lydian imperial ambitions opened the way to Greek mercenary penetration, followed by the establishment of Naukratis. In the North, it opened the way to the Ionian colonization of the Black Sea, which, I believe, is better explained in the context of rising Lydian imperialism. The role that East Greeks played on behalf of Lydian domination is much the same as that played by the Phoenicians on behalf of the Assyrians.”

Regardless their view on the state of affairs in Asia Minor, most scholars agree that the main reason for the colonisation to begin is economic interest (see summary of arguments and bibliography in Tsetschladze 2006; 2014, 317; Damyanov 2015, 297). Previous knowledge of metal and other valuable resources in the Black Sea area, as well as the improvement of the relationships with the local inhabitants, are among the relevant factors, recognized by scholars as decisive in driving the process towards the Black Sea, instead of other areas, like the West Mediterranean (Tsetschladze 1994; 1998, 20). Certainly, a combination of all these factors seems to be a more realistic solution to the problem.

The location of the earliest Greek settlements and the distribution of the earliest Greek imports in the Black Sea provide some important clues regarding the reasons behind this large-scale enterprise. The most ancient Greek imports, found in the North and dated in the end of the 7th and the early 6th century BC, are concentrated in two areas

along the navigable rivers Dnepr - in the barbarian settlements Nemirovskoe, Pastyrskoe, Jabotinskoe, Bel'skoe - and Don (Hoper, Krivoroje). Curiously, these areas of distribution lie at 200 km from the shore (Tsetsckhladze 1998, 65, Bouzek 2008, 2013a). The first colonies are founded on the mouth of those rivers. This evidence supports the view that the development of contacts with the local cultures triggered the actual colonisation or at least was an important factor in favour of this endeavour.

The relations with the local populations are very much discussed in the scientific literature, and most scholars agree that these were peaceful, at least in the initial stages of colonisation. According to Tsetsckhladze (1998, 68), "there are only two models of colonisation: Ionian, which was peaceful and adaptive to local conditions, political not economic in origin; and Dorian, which was directly exploitative of the local population." An important indication for the peaceful settling of the Greeks is the lack of fortifications in any Greek settlement on the Black Sea. The first city walls appear in the 6th century BC in Istros and only from the 5th century in the other cities (Tsetsckhladze 2014, 318). In a recent study of the Sinopean colonisation, de Boer (2015, 76) describes the logic behind this peace:

"[...] the evidence from ancient authors and archaeology gives a rough sketch of small groups of immigrants, mostly traders and artisans, living in local communities and committed to their own religious practices, at least until the Late Classical period; a powerful tribe-related state in the hinterland prevented the foundation of Greek settlements with an independent economy, based on a large *chorai* with agricultural territory of their own and forced their economies to be largely based on trade; naturally friendship was forced upon the Greeks by being a small minority, and their relationship was probably based on tribute, tax and bribery."

When studying the relation between Greeks and barbarians on the Black Sea, it is important not to look for too clear limits in the cultural portrayal of various communities. The variety of different ethnic groups amalgamated by the written evidence under common names such as "Thracians" and "Scythians" present strong individual traits that we often ignore or fail to understand; these groups were further exposed to constant cultural influence from Persians, Greeks or others, which affected their customs and relations with other peoples (Tsetsckhladze 2015; Соловьев 2013). An exemplary case for this notion is provided by the demographic situation on the South coast. As it was mentioned before, most of the Greek finds in the far hinterland

come from the valley of the Halys River, excavated in settlements that are considered Phrygian (Tsetsckhladze 2007, 188-92; 2012b, 236, 238). According to new linguistic research, the inscriptions of this Phrygian population seem to have been written in a Greek (Achaean) dialect, which leads the epigraphist who published them to the conclusion that the local population mixed with Greek groups, which had penetrated at the region in the 13th – 12th century BC (Tzitzilis 2014). This case shows that the cultural and linguistic homogeneity of what we perceive as “the local tribes” is a complicated matter that requires a thorough analysis, and differs in each instance (cf. Manoledakis 2015a, 84). To add another perspective, “many settlements on the southern and eastern Black Sea coast, such as Amisos, Trapezus, the site at Pichvnari, Gyenos and Dioscuria, are too easily called Greek cities. One should consider some of these settlements as ‘poleis barbaron’ with a large Greek population, involved in trade, being the commercial force as the Greeks, Jews and Armenians were on this coast during the Ottoman period” (de Boer 2015, 78). Barbarization of Greek poleis and Hellenisation of local ethnic groups is a process that runs gradually throughout the entire zone of the Black Sea, thus it is an important factor to consider (see discussion below).

When considering the case of colonisation, importance needs to be given also on climate change. Scholars have estimated that the climate at the lands bordering the north shore of the Black Sea entered a cold and dry phase around the 12th century BC. The change was followed by migration of people, as a consequence of which the steppes were emptied or rarely settled (Черняков 1985; Иевлев 2003, 10). In the 7th century BC the climate starts to gradually warm, allowing the Greeks to settle and the steppes to populate again. Therefore it has often been suggested that in the period of Greek arrival, the inland areas along the shore is essentially empty and the Scythians themselves have recently settled in the forest steppes, where the earliest Greek pottery is distributed. According to this view, trade and craftsmanship were probably the main occupation of the Berezan population, since the climate becomes suitable for agricultural activity only around the middle of the 6th century BC (Иевлев 2014, 242ff)

Another important change that occurred in this period, and is perhaps related to the climate shift, is the process of intensive migration of peoples around the Black Sea. It is known from the written sources that in the early 7th century BC, the Cimmerians migrate from the Euxine steppes and invade Asia Minor (de Boer 2006, 43-55; 2007, 131-3; Xydopoulos 2015, 119-26). Furthermore, in the first half and middle of the 7th

century BC, the archaeological remains in the Balkans show that the Troy VIIb cultures in the North Thrace, that flourish from the 11th century BC, like the Hallstatt cultures Babadag, Basarabi and Pshenichevo, ceased to exist. It seems that the Greeks arrived at the West shore of the Black Sea after these groups disappeared (Alexandrescu 1999, 11-14) and after the Scythians had settled in the forest steppes of nowadays Ukraine. The reasons for these movements could be a consequence of climate changes, of the Cimmerian movements or have other causes; in any case, it is worth to notice that the very first colonies of the Ionians, founded in the middle and second third of the 7th century BC, were established in the very territories where the demographic changes were most profound.



Fig. 21 Generalised distribution map of Cimmerian and related bronze objects. 1. Bimetallic daggers, 2. Horse-bits of North Caucasian types, 3. Sceptres, 4. Cimmerian arrowheads in Asia Minor, 6. Other Cimmerian finds from the North Pontic area. After Bouzek 2001, 38, fig. 5

The Cimmerian migration to Asia Minor is particularly important for the studies on the Greek colonisation and a subject of many debates. Academics agree that they were a nomadic, belligerent tribal group, probably of Iranian origin. These tribes migrate from the Caspian steppes (perhaps the Araxes/Volga region) (Fig. 21) to Transcaucasia in a period prior to 715 BC, when they appear in Assyrian sources for the first time (Bridgman 1998). In the next decades, they conduct a series of plundering raids

against the rich neighbouring polities of Lydia, Cilicia and Ionia and arrive as far as the Levantine coast (Fig. 22). The actual chronology and the number of the Cimmerian invasions in Asia Minor have caused a major debate in recent scholarship. Many scholars sustain that the main period of the Cimmerian invasion(s) is from 668 to 665 BC, in the period in which the Lydian king Gyges asks for help from the Assyrian ruler Assurbanipal (Olbrycht 2000). According to the Greek authors (Hdt 1. 16. 4; Strab. 3. 2. 12), the Cimmerians are definitely expelled from Lydia only by Alyattes, who reigned between 591 BC and ca 560 BC (Tokhtasev 1996).

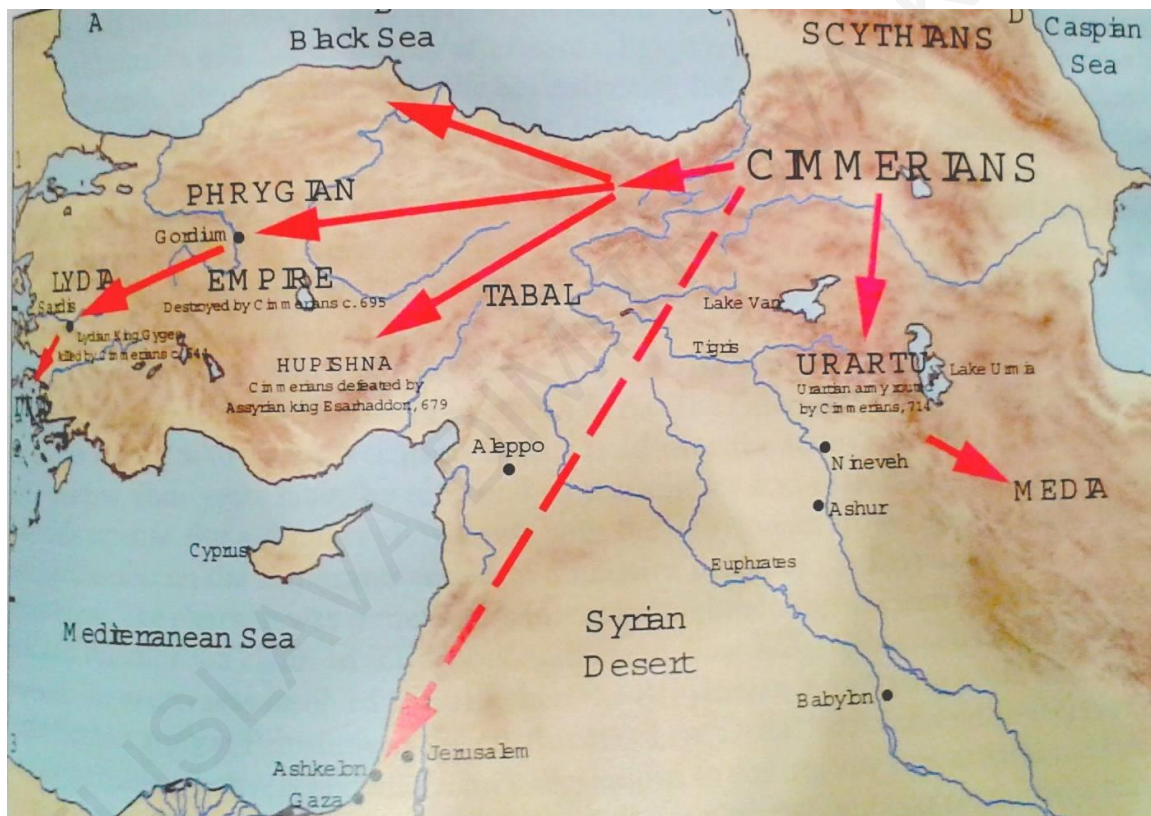


Fig. 22. The Cimmerian invasions in Asia Minor during the 7th century BC. After Bryce and Birkett-Rees 2016, map 49

While archaeologically the Cimmerian presence in Western Asia is well documented, the question of their origin, the reasons of the migration and the impact on other cultures are hard to trace. Being a nomadic society, they have left little archaeological traces; therefore the history of their movements is reconstructed mainly on the basis of written sources. These are Akkadian cuneiform texts, written during the period, when the Assyrians and the Cimmerians had very close contacts, i.e. in the late 8th -

mid-7th century, the Greek texts and some references in the Bible (*Genesis* 10:2-3) (Xydopoulos 2015, 119). The main problem in examining these texts is that these are “either circumstantial or second-hand data” (ibid.). However, they provide important information about the original place of dwelling of the Cimmerians. For instance, in the poem *Arimaspea* their movements are linked to a pressure by Scythian tribes. This sounds credible, as it is known that such process repeats many times in later times. Thus, the Scythians were supplanted by the Sarmatians, the Jazygs and Roxolani by the Aorsoi, the Aorsoi by the Alans, and the latter by the Huns (Olbrycht 2000, 95).

2.2.2. Identifying the “colonisers”

Traditionally the colonisation in the Euxine is viewed as the result of Milesian activity, a conclusion consistent with the archaeological and written sources. More than an effort of a single polis, although, it is accurate to search behind this enormous enterprise an enterprise of Ionian Greeks and other Asia Minor inhabitants (Lydians, Phrygians, Aeolians, Carians) under the leadership or organization of Miletus. Literature sources attest Teos, Clazomenae, Abdera, and Mytilene as founders of poleis on the Cimmerian Bosphorus (Dan *et al.* 2016, 114). On the other hand, the participation of Asian people among the first colonists seems credible, given the fact that these populations were in close contact with the Greek cities of the western coast of Asia Minor, taking part in trade relations, but also in formation of their population (Соловьев 2013, 77; Herda and Sauter 2009; Τιβέριος 1999). However, only recently the researchers focus on the question of non - Greek population that might have participated in the colonization process, in studies inspired by some new or revised evidence from the colonies of the Black Sea. For instance, Lydian and Phrygian pottery were recently recognized among the finds of the ancient Berezan (Dupont 2018; Dupont *et al.* 2009, 22-26) and interpreted as a possible clue to the actual presence of these people (Соловьев 2013, 62-77). Tsetskhladze (2015, 28) contests the latter conclusion, noting that the evidence presented is insufficient to prove the presence of Asian people, but he agrees with the strong possibility of the involvement of such peoples in the colonisation. He writes: “First of all, we are faced once more with the problems of pots vs. people, and how much pottery we need to make the assumption that it can demonstrate the presence of people from its place of origin at the place where it was found.[....]. Thus, the question to be asked is: did Anatolian native peoples

participate in the establishment of these colonies, either as a formal part of the process or just as itinerant craftsmen accompanying the colonisers (a practice, well-known from other areas of Ionian colonisation) A Lydian-type punch from Berezan, as well as a fragment of a Phrygian-type architectural terracotta from Berezan, both of 6th-century date, surely demonstrate that itinerant craftsmen were participating” (Tsetsckhladze 2015, 28).



Fig. 23. Greek colonisation of the Tauric Chersonesos and Taman peninsulas. After Tsetsckhladze 2013b, 202, fig.2, with modifications

As the author states, pottery workshops, established soon after the foundation of Greek colonies, where Greek and local craftsmen often worked together, are attested in multiple cases in Italy and Spain (see e.g. Tsetsckhladze 2012, 342-3; Denti 2015).

A very curious question in this discussion is how the ceramic ware from Berezan has been completely ignored for many years. Соловьёв (2013, 77) writes that:

“In process of studying the archaic collection from the Berezan settlement, it became possible to allocate the group of archaeological material originated in the Anatolian culture. It was not published before; as nobody was engaged in it earlier. It is also worth noting that this group of archaeological material has never previously been distinguished, probably, owing to the traditional idea about Ionian colonization of the

Black Sea, and also because of lack of ability to carry out the comparative analysis of all the relevant archaeological evidence”.

Strange as it might sound, this is not an isolated case. A collection of pottery, among which Cypriot and Carthaginian fragments, excavated in Berezan between 1960-1980, but never studied due to its fragmentary state, was recognized and published by Буйских (2014, 88-100). Further, the French archaeologist Dupont recognized South Italian/Sicilian archaic ware from Berezan and Apollonia, previously classified as South Ionian, as well as Cypriot ware from Berezan that he collected from the bulk finds of the excavations (Dupont 2003, 25; Дюпон and Назаров 2003, 142). Recently evidence that Anatolian individuals or persons with a mixed Anatolian-Greek background could have taken part into the foundation of sites like Labrys (modern Semibratnee on the Taman peninsula has also been presented (Avram *et al.* 2004, 947). Handberg (2013) has individuated Aeolian pottery and argues for the establishment of pottery workshops in the northern and western Black Sea Greek colonies by Aeolian potters, who he believes arrived here in the late 7th - early 6th century BC. However, he is extremely careful in his conclusions, stating that “ceramics and ethnicity cannot automatically be directly related, because we have no idea who transported the pottery to the Black Sea area” (Handberg 2013, 18).

Scholars such as Bouzek on the other hand do not exclude the possibility that maritime cultures such as Carians and Phoenicians participated in the North Pontic enterprises together with the Greeks, on the basis of parallel cases in other peripheral regions of the Mediterranean, such as Egypt and the West (Bouzek 2009, 73; for a survey of the colonisation processes in the Black and Mediterranean Seas, see among many studies, the various contributions in Tsetskhladze 1998; 2006; 2012a; Domínguez Monedero 2000, 7-11). This view is also presented in the recent work of Anca Dan, Hans-Joachim Gehrke, Daniel Kelterbaum, Udo Schlotzhauer and Denis Zhuravlev (2016), which aims to combine geoarchaeological data with the references in the ancient sources, in order to achieve a reconstruction of the scenario of Greek colonization in the area of Cimmerian Bosphorus. The authors claim that:

“What we can observe by bringing together the literary and the geoarchaeological evidence, is that these West-Asiatic migrants chose strategic places on both shores of the Cimmerian Bosphorus, following punctual goals but probably also the establishment of a functional network: the anonymous settlements, revealed by the

excavations and exploration of Nikolai Sudarev on one side and Udo Schlotzhauer and Denis Zhuravlev on the other side, belong to an archaic system, most probably mainly Ionian, which controlled the access to the Maeotis from the two shores of the “Kuban Bosphorus” as well as from Golobytzkaja Island” (Dan *et al.* 2016, 115).



Fig. 24. The Greek *emporía* in the Don area

The above-mentioned study of Fantalkin (2006), who examines the matter from the perspective of Asia Minor, also supports the view of Lydian participation in the colonisation. The vivid debate shows that despite the enormous body of publications that concern colonisation in the Black Sea, the understanding of the process remains still unsatisfactory, and perhaps even unrealistic. There is a need of future research in the Asia Minor cultures and their rapports with the Greeks, as well as in-depth studies on the trade routes from the Levantine coast and Asia Minor to the South coast of the Black Sea, which the Greeks use from the 2nd millennium BC and throughout Antiquity, because these reveal alternative ways of intercultural interaction, different of the sea routes, and amplify our understanding of trade and cultural exchange in terms of the Black Sea region. There is also an obvious need for a profound study of the material, stored in various museums around the Black Sea, whose re-examination might shed a different light on the colonisation and not only.

2.2.3. Phases of colonisation

The colonisation of the Euxine occurred in three main “waves” (Tsetsckhladze 1998, 2014; Koshelenko and Kuznetsov 1998). The chronology of the first phase is a highly debated topic that provokes many contradictions in the modern studies.

An oral tradition assumes that the first Greek attempts to settle on the south coast of the Black Sea occurred in the second half of the 8th century BC, but failed due to the Cimmerian invasion to Asia Minor in the beginning of the 7th century BC (for an account of the sources and discussion, see Bouzek 2008, 15). Boardman (2015, 46) believes that “Greeks had been approaching the area already with, again, Euboean foundations along the north coast of the Aegean, and an Ionian interest in the sea’s east coast, in modern Georgia, ancient Colchis, which offered a route straight on to the Caspian Sea. In the 7th century they were exploring the western and northern coasts of the Black Sea.” The question is complicated because most of the settlements on the South coast are still unexcavated, and at those sites, where excavations have been carried, but only small parts of the ancient poleis have been reached. The currently available archaeological data contradicts the dates indicated by the written tradition, and suggests that the colonization started in the middle-second half of the 7th century BC, following the colonization of the Propontis in the first half of the century (de Boer 2007, 134; Préteux 2008; Robu 2014, Damyanov 2015, 296; for a review of the recent studies on foundation dates, Tsetsckhladze 2015, 26, n.113). The confusion does not regard only the South shore, but all the archaic settlements in the Black Sea. For instance, the discovery of 7th century ceramics on the Taman peninsula suggests that trade was active several generations before the foundation dates, which are indicated by the literary evidence, and complicates the defining of chronology of the colonisation in the region (Журавлев and Шлотцхауер 2011, 94). Various theories try to explain the discrepancy between written and archaeological evidence. For what concerns Taman, multiple colonisation phases have been suggested (Папомов 2006, 371). In other cases, the divergence could be due to the fact that the colonies existed as settlements of the local population long before the arrival of the Greeks (de Boer 2015, 74). In many cases it is also true that “the difference between the ‘pre-colonial’ period and actual colonisation is exceptionally subtle, and only the organised foundation of Greek poleis (with all that the term polis implies) and not only of emporia could to some extent differentiate the one from the other” (Manoledakis 2013, 34). With many settlements around the Black Sea remaining

unexcavated and the development of archaeological survey in different regions of the Black Sea noticeably imbalanced, scholars are still divided as to how to interpret the archaeological and written data, in order to establish the earliest phase of colonisation in the region.



Fig. 25. The West coast of the Black Sea, with the river Istros, the granary plain Dobrudzha and the mountains Aimos, Rhodope and Strandzha. After Treginy 2009, with modifications.

Currently most scholars agree that the first colonisation wave started with Ionians in the second half of the 7th century BC, when the earliest colonies or *apoikiai* were founded on the delta of the main navigable rivers in the Euxine. Such are e.g. Istros [Eusebius gives 657/6 BC and Ps.-Skymnos late 7th century BC, while archaeological evidence – 36 fragments of Middle Wild Goat pottery - points to ca. 630 BC](Tsetsckhladze 2012, 337) and Orgame [middle - third quarter of the 7th century BC] (Baralis and Lungu 2015, 372) on the Danube, Berezan [645/644 BC] (Domanskij, Marčenko 2003; Fig. 25) on Southern Bug, Taganrog on a branch of the Don river [third quarter of the 7th century BC] (Журавлев *et al.* 2009, 123), as well as Apollonia Pontica [according to Ps.-Skymnos, founded in ca. 610 BC, and archaeological data until now confirms this dating] (Tsetsckhladze 1998, 35), Sinope and Amisos [late 7th century BC] (de Boer 2015, 75).



Fig. 26. Map of the East coast of the Black Sea and the major ancient sites, with the possible locations of the Greek colonies (in red). After Tsetsckhadze, Vnukov 1992, 360, fig.1, with modifications.

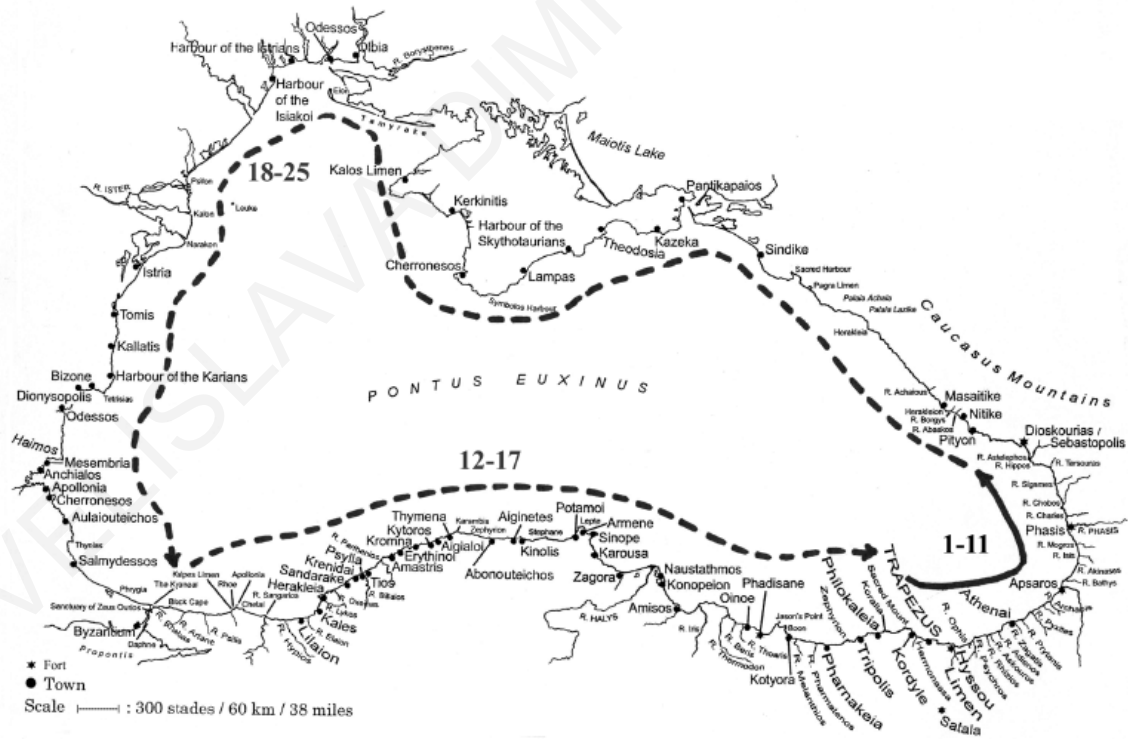


Fig. 27. The circumnavigation of the Black Sea as recounted by Arrian, *Periplus Maris Euxini*, in a firsthand report (1-11) and a second hand description (12-25). Adapted from Liddle 2003, 136-39, maps 1-2.

Two later colonisation “waves” further populated the region. The second took place after the conquest of Media by Cyrus in 546 BC, and is much greater in volume, while

the third wave starts after the decisive victory of Persians over the Greek revolt in 494 BC (Hdt 4.38). The process continued until the 3rd century BC but on slower pace. In consequence, the coasts of the Black Sea were densely inhabited (Fig. 27) (see general discussion on chronology of colonisation in Кузнецова 2013; Tsetskhladze 1996, 959; 2014, 217; Иевлев 2003; de Boer 2007; 2015; Damyanov 2015, 296-7; Hind 1988; 1993; 1994) (Fig. 23). The following Greek colonies were founded by settlers from Ionia, Asia Minor, and islands in the Aegean Sea during the 6th century BC- Tyras, Olbia, Theodosia, Pantikapaion (by Miletus), Nymphaeum (by Miletus, and was originally named as Apollonia), Tiritake, Myrmekion, Phanagoria (the latter by Teos), Hermonassa, Кері, Odessos, Phasis and others (Koshelenko and Kuznetsov 1998; Качарава and Квирквелия 1991, 18-20; Hind 1993; Абрамов and Паромов, 1993, 25-98) (Fig. 23, Fig. 26, Fig. 32). Except of the Ionians, Megara also founds some colonies in the 6th century BC (Byzantion, Calchedon, Mesambria, Kallatis) and Teos founds Phanagoria in the end of 6th – beginning of the 5th century BC (Tsetskhladze 1998, 10ff). Phocaea, Aegina, Athens and Byzantion partially participate in the colonisation as well (Hind 1993, 1998). Chersonessos is founded in 422/421 BC by Heracleia (Saprykin 1998, on the possible existence of an earlier colony, Шевченко 2014).

2.2.4. The Greek colonies: case studies

2.2.4.1. Berezan-Olbia

Among the best studied archaeological sites around the Black Sea is the Berezan settlement. The site was excavated for many years, but the first publications in foreign languages appeared in the 1990s (for bibliography, Tsetskhladze 1998). However, the archaeological site suffered great damage by natural and human interference. Recurrent changes of the sea level caused the submerging of part of the ancient settlement (see above), while during the 20th century, military actions destroyed part of the area. Furthermore, much archaeological information was lost during early excavations and ineffective conservation techniques, as is the case in many ancient Greek and Roman sites. The excavated material during various expeditions has been distributed among several different museums and private collections, and it is only partially published, while the change in excavation techniques and choice of pottery to

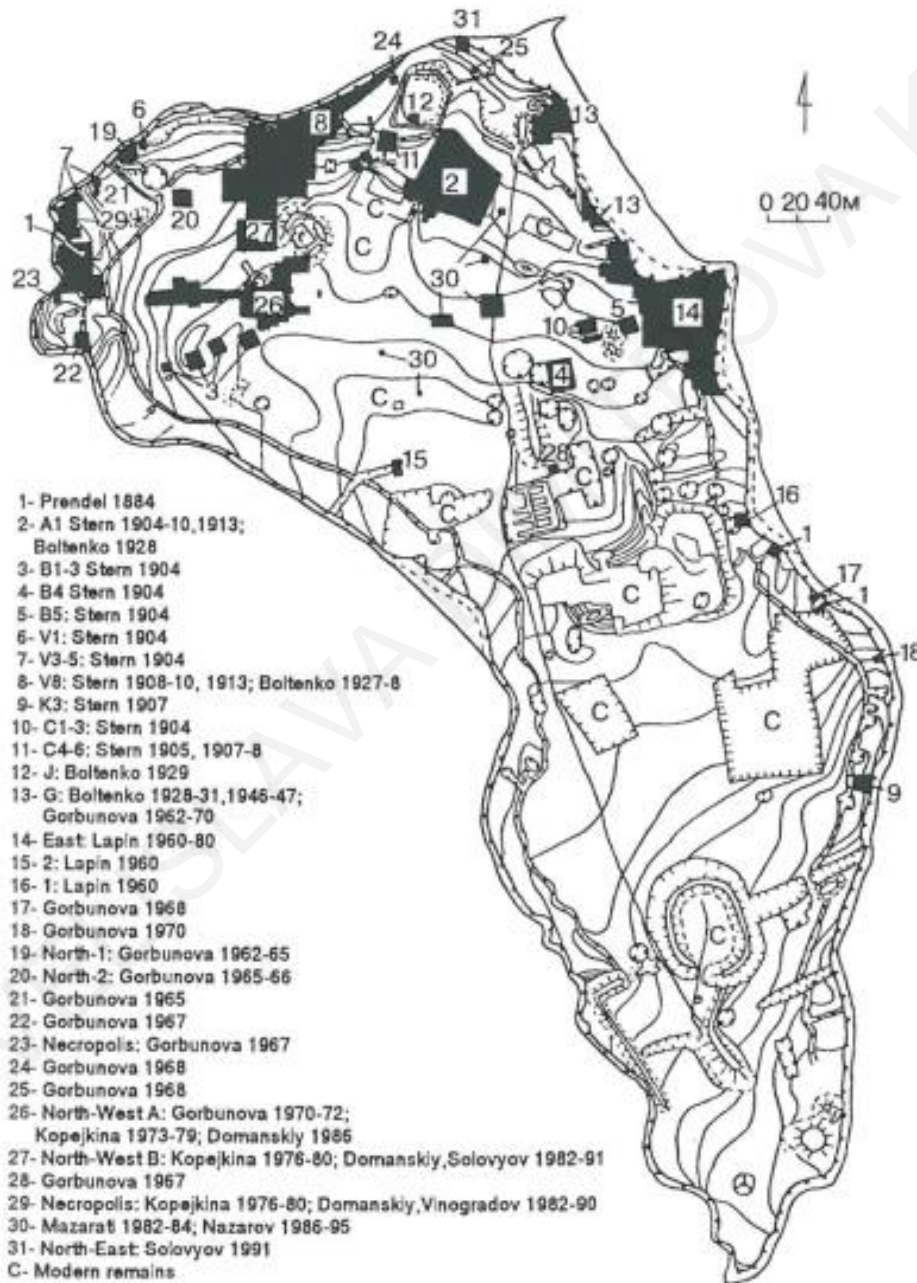


Fig. 28. The Berezan Island. Left: aerial photo (<https://discover-ukraine.info/places/southern-ukraine/mykolaiv/183>). Right: Map of the excavations on the island. After Solovyov 2001, 119, fig.2

collect or to leave in situ hampers additionally the quantification of the material (Posamentir 2006, 159). Still, the remaining material represents one of the finest collections of archaic Ionian pottery ever found, and the sherd assemblage is impressive compared to what has been found in Ionia.

The foundation of Berezan at the entrance of the Dnieper-Bug estuary is nowadays related by the scholars with the beginning of the Greek penetration in the Scythian lands, a process, whose initial stages take place around the middle of the 7th century BC (Solovyov 2010). Its ancient name has not been documented. The name Borysthenes has been suggested, after the nearby river, in accordance to a model, used in many other cases throughout the Euxine (Solovyov 2001, 117; Виноградов 1989, 25). According to the available archaeological information, Berezan is located on an island, which might have been a peninsula when the first colonists arrived (Соловьев 2006). The settlement was established in the last third of the 7th century BC (Tsetskhladze 1998; Solovyov 1999; 2001; 2010) (Fig. 28). Until the end of the third quarter of the 6th century BC, the only types of dwelling on the site were dugouts and semi-dugouts. The untypical for the Greeks style of subterraneous dwellings have been attested throughout the Black Sea, especially at Berezan, the Olbian chora, the Lower Dniester area, Myrmekion and Nymphaeum (Tsetskhladze 2004, 240 ff.; Bujskikh 2017). The analysis of the early archaeological layers of settlements, founded by the Greeks on the northern shore of the Black Sea, seems to confirm that these served the most common type of housing of Greek migrants in the early decades of existence of many colonies. The use of dug-out dwellings was probably influenced by the local traditions of the population in the North areas of the Pontos Euxeinos, or Asia Minor populations, who were in contact with the Greeks before the arrival at the region (Zinko and Zinko 2015, 110-115; Чистов 2008; Tsetskhladze 1998, 20).

The locally made pottery and other everyday life objects, found in Berezan, show great Thracian and Scythian impact (Solovyov 2010; see debate in Tsetskhladze 1998). A significant part of the excavated pottery, however, is imported. The earliest imported Greek pottery – amphorae and table wares – at Berezan belongs to the first half of the 7th century BC. It originates from Milesian and North Ionian production centres, while from the end of the 7th - early 6th century BC, South Ionian production becomes more prominent – a phenomenon, attested also in other archaic colonies. From the mid-6th century BC, imported goods seem to originate from a wide range of sources, such as

Miletus, Samos, Chios, the Hellespont, Cyme, Corinth, Laconia, Athens, Lydia, Phrygia, Etruria, Palestine, Cyprus and North Africa (Cyrene) (Boardman 1998; Буйских 2013а; Tsetskhladze 2015, 28; Buyskikh 2017, 7). The largest part of the archaic trade amphorae in the settlement belong to Clazomenae, Chios, Lesbos and Miletus – these comprise around 80% of all pottery fragments (Dupont 2005). From the last quarter of the 6th century BC, trade channels drastically changed and from this period onwards the Athenian imports dominated (Petraikova 2013; Smith 2013). Most of the oriental imports found *in situ*, such as scarabs and scaraboids, aryballo, oriental terracottas and figurines and with hieroglyphs, are dated in the middle of the 6th to the beginning of the 5th century BC (Большаков and Ильина 1988; Alexandrescu Vianu 1997, 15-32) (Fig. 29). In 2003, fragments of Cypriot loop handle amphorae from the 7th century BC were fortuitously recognized by a visiting French archaeologist (Дюпон and Назаров 2003).

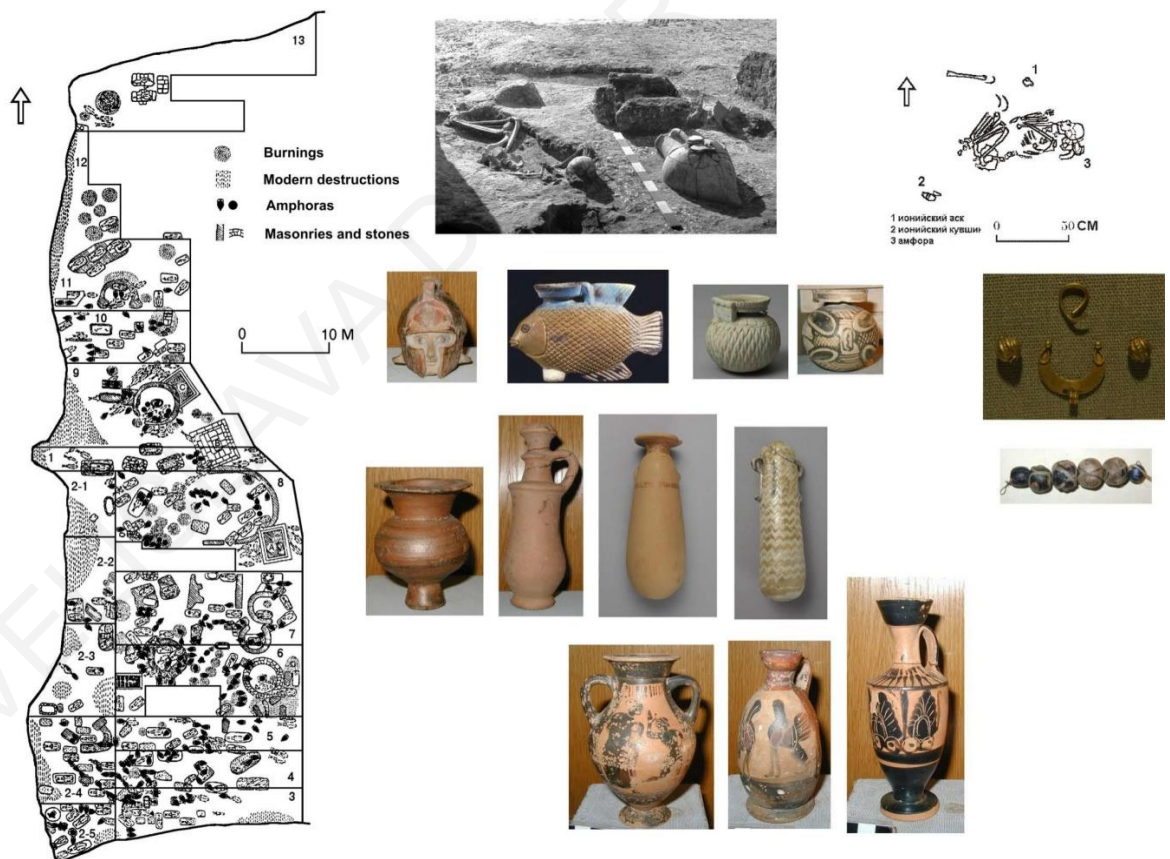


Fig. 29. Finds of the Late Archaic residential area B of Berezan. After Solovyov 2007, fig.12

The results of the excavations show that the main economic activities in the settlement were the trading, fishing, production of ceramics and metalworking. The importance

of the latter is highlighted by traces of metal- and glass working, attested during the excavations of the Berezan's dependant settlement Yagorlik (Острове́рхов 1978, 28-36). The hamlet, founded in the late 7th or the early 6th century BC, is situated on the banks of one of the tributaries of the Dnieper River. There are no traces for agriculture and it is believed that Yagorlik was a centre, specialized in craftsmanship (Острове́рхов 1981, 214-229; Treister 1998, 182; Смирнов 2008; Tsetskhladze 1998, 38). In the region where it was located, iron was almost certainly extracted from the river alluvium, which is metalliferous. The chemical analyses confirm that the alluvium contains iron, as well as traces of a number of other metals, natural soda used in glass production, and crystalline salt (Острове́рхов 1981, 1985).

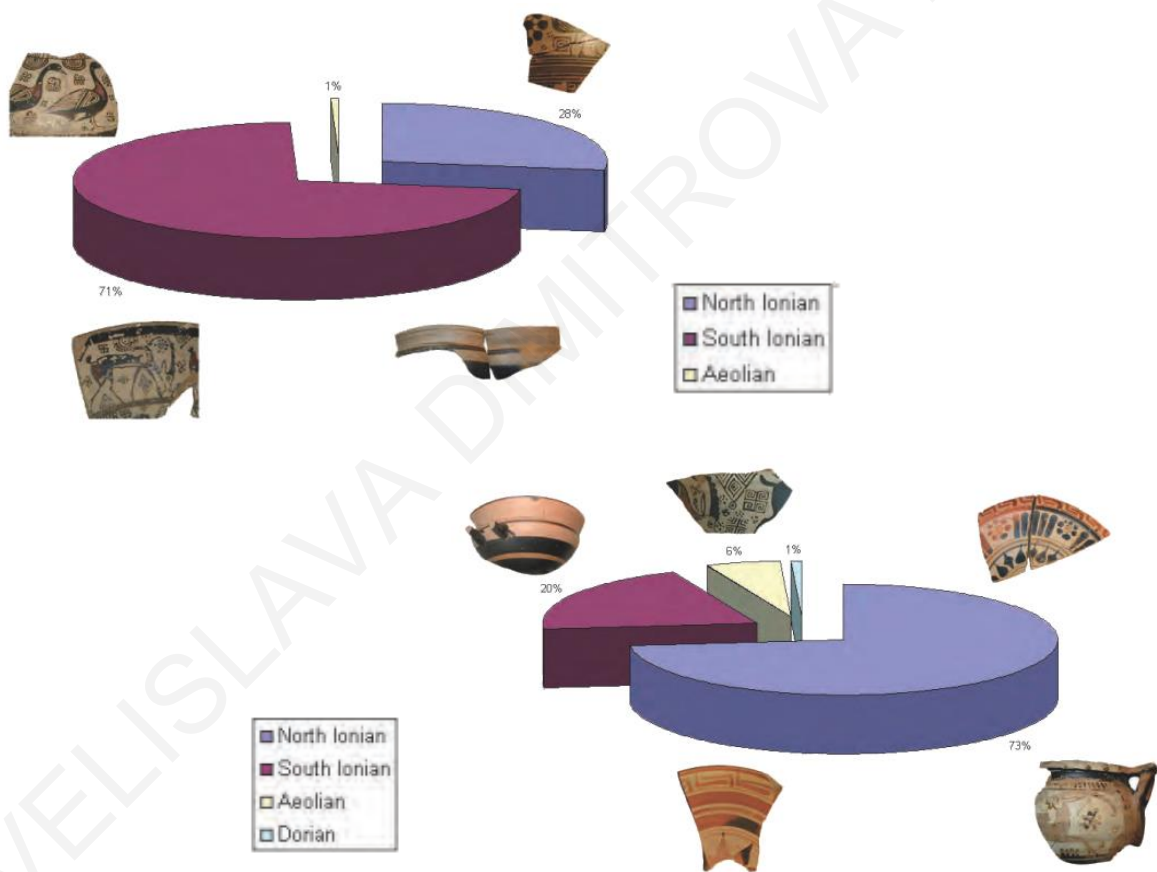


Fig. 30. Berezan – origin of Ionian pottery in the 7th (left) and 6th (right) century BC. After Posamentir 2006, 160, figs.3-4

From the end of the first third of the 5th century BC, Berezan gradually declined and turned into a small agricultural and fishing centre. The reason is possibly the perishing trade with the forest steppes, or, more probably, the foundation and the growing importance of Olbia (Соловьёв 1994, 85-95; 2006; Solovyov 1999; Tsetskhladze 1998,

20; for recent excavations and a suggested new chronology for the site, see Chistov and Krutilov 2014; Chistov 2015).

In order to understand better the process of Greek colonisation at the Lower Bug and Lower Dnieper region and its phases, it is important to bear in mind the climate changes that occurred there. As already noted above, scholars have estimated that in the period between the 12th and the beginning of the 7th centuries BC, the hinterland North of Berezan suffered severe draught. The cold and dry interval causes a drastic demographic decrease. Only from the end of the 7th century BC, i.e. after the Greek penetration, traces of regular habitation reappear in the region (Иевлев 2003, 10; 2009, 47-51). In the middle of the 6th century BC, the climate seems to gradually warm and thus triggers a process of “agricultural colonisation” of the hinterland (Иевлев 2009, 49-51). Exemplary result of this process is the ancient polis **Olbia**, situated on the bank of the River Bug near to the modern village of Parutino, Mikolaevska district, in Ukraine (Fig. 31). The village covers parts of the northern necropolis, however, for the rest part, the site of Olbia is among the very few ancient poleis on the Black Sea that allow proper excavations, since there is no modern urban centre or even Roman layer covering the Greek site. The polis, along with its dependant rural settlements, has been intensively excavated (for recent excavations of the site, Lejpunskaja *et al.* 2010; Bujskikh 2017; on the chora, Krapivina and Kryzhytsky 2003; see also the various contributions in Braund and Kryzhytskij 2007). It is among the best-preserved, best-studied and fully published ancient settlements in the Black Sea area, especially for what concerns the Hellenistic levels of the polis (for the history of research see Kryzhytskij and Lejpunskaja 2010a; Kryjitski and Leïpounskaïa 2011; Christodoulou 2016).

The results of the long research at Olbia show that the polis was established in the first half of the 6th century BC, or, according to some estimations, even in 620/610 - 590 BC (see e.g. Boardman 1980 and various contributions in Lejpunskaja *et al.* 2010). Most scholars attribute the foundation of Olbia to an effort to achieve more prosperous agricultural premises, during a time period where climate conditions have become opportune (for a discussion on the chronology of colonisation at Olbia region, see e. g. Кузнецова 2013). However, an alternative viewpoint among Russian archaeologists considers the foundation of Berezan and Olbia a synchronized project of colonisation of the Lower Bug region, started after a few decades of seasonal exploration of Berezan (Буйских 2013b, 21-39, with argumentation and references).



Fig. 31. Plan of Olbia. After Скржинская 2000, 223, фиг.5. Photos: 1. Rectangular living dugout with oven, middle of the 6th century BC. After Bujskikh 2017, 7, fig. 2. 2. Square dugout- the metalworking workshop, second half of the 6th century BC. After Bujskikh 2017, 7, fig. 3. 3. Aerial view of the excavation area, <https://planetofhotels.com/blog/istoriko-arheologicheskij-zapovednik-olviya> (accessed 4th October 2017)

Olbia is founded in an exceptionally fertile region, on the junction of two important navigable rivers (Bug and Dniester), which served during the entire antiquity as essential trade routes for the far hinterland. The location, extensive trade, and the possession of vast arable land, allowed the polis to become one of the most significant colonies on the Black Sea, which throughout its entire existence maintained close contacts to various cultures of the far hinterland, as well as, to a number of Mediterranean centres (Kryzhytskii 1997; see various contributions in Kryzhytskij and Lejpunskaya 2010; Christodoulou 2016). The population of Olbia seems to have a heterogeneous character, as 83 (about 30%) of the tombs of the archaic necropolis are believed to belong to Scythians, while the Scythian catacomb tombs reaches 50% in the 4th century BC (Бессонова 1991, 92-9; Скуднова 1988, 36-172; Tsetskhladze 1998, 45; cf. Парович-Пешикан 1974).

The richness of region in natural resources accelerates in a short time the development of intensive crop production, stockbreeding, fish industry and craftsmanship (Kryzhitskii 1997, 102; Handberg and Petersen 2006; Hannestad 2007). In the archaic period, the number of rural settlements in the chora of Olbia exceeds a hundred and seven, and these are extended on both sides of the Bug and Dnieper rivers (Kryzhitskii 1997, 104) (Fig. 32). The occupation of rural territory occurs simultaneously in many other Black Sea poleis, where large chorai are organized from the beginning or the middle of the 6th century BC (Baralis and Riapov 2006, Saprykin 2006). The new settlements are populated with Greek and local inhabitants and carry out mainly agricultural activity and crafting (Былкова and Хойорт 2001). The expansion of the chorai reaches its peak in the 4th century BC. In this period, the chorai of Olbia, Chersonessos and the cities of the Bosporan Kingdom are estimated to have reached 150,000 hectares each; it is important to underline, however, that these are hypothetic calculations, based on the well excavated Olbian and Chersonnesian territory and insufficient data from the rural territories of the Bosporan Kingdom (Tsetskhladze 1998. 36-43). The chorai of these poleis included several hundred settlements, some of which agricultural and others, specializing entirely in craft production. For instance, the main *chora* of Chersonessos, which is very well preserved and studied, was divided into allotments for viticulture and growing fruit trees, while a second *chora* in the North-Western Crimea served entirely for grain production (on *chorai* and their grain production, e.g. Смирнов 1964, 344; Müller C. 2010, 180-1; Ščeglov 1990, 141-59; Krapivina and Kryzhytsky 2003, 507-561; Baralis 2008, 101-130). In the Western Black Sea, the chorai are also enlarged in this period (Avram 2001). For the rest of the Black Sea, there is no much data to estimate the development of the chorai; however, evidence suggests that on the East and the South coast only Heracleia possessed a large chora (Shcheglov 1992; Avram *et al.* 2004, 955; Counillon 2004, 132-3; for a discussion, Tsetskhladze 1998, 36-43).

In the Archaic period, Olbia's trade links extend to the Ionian coast, especially Miletus, Naucratis, Corinth, Samos, and other Mediterranean centres; from the end of the 6th - 5th century BC, among the imported pottery Athenian dominate. It is, however, important to note that the long-distance trade of Archaic and Early Classical Olbia is difficult to estimate on the basis of amphorae, as during the excavations, conducted in Olbia in the early 20th century by B. Farmakovskij, they were neither catalogued, neither preserved, and have nowadays perished. Unfortunately this practice was

standard, as attention was put on black glazed and painted ceramics (see Monakhov and Kuznetsova 2017, 65 on this and similar cases, and a thorough discussion on the difficulties in interpretation of amphora evidence from the Black Sea). In the Hellenistic period prevails the production of Rhodes, Thasos, Sinope, Alexandria, Samos, Chersonessos, Tyras, Pantikapaion, etc. Imported from the Mediterranean were olive oil, textiles, jewellery, painted pottery, and many other goods (Müller 2000; Kryjitski and Leïpounskaïa 2011; Christodoulou 2016; Тарадаш 1982, 119ff; Boardman 1998; Буйских 2013a). The exports destined to the Mediterranean market, consisted in agricultural products, especially grain (Müller 2000).



Fig. 32. Map of the Greek colonisation of the Lower Bug basin and the rural settlements around Olbia. After Kryjitski, Leïpounskaïa, 10, fig.2

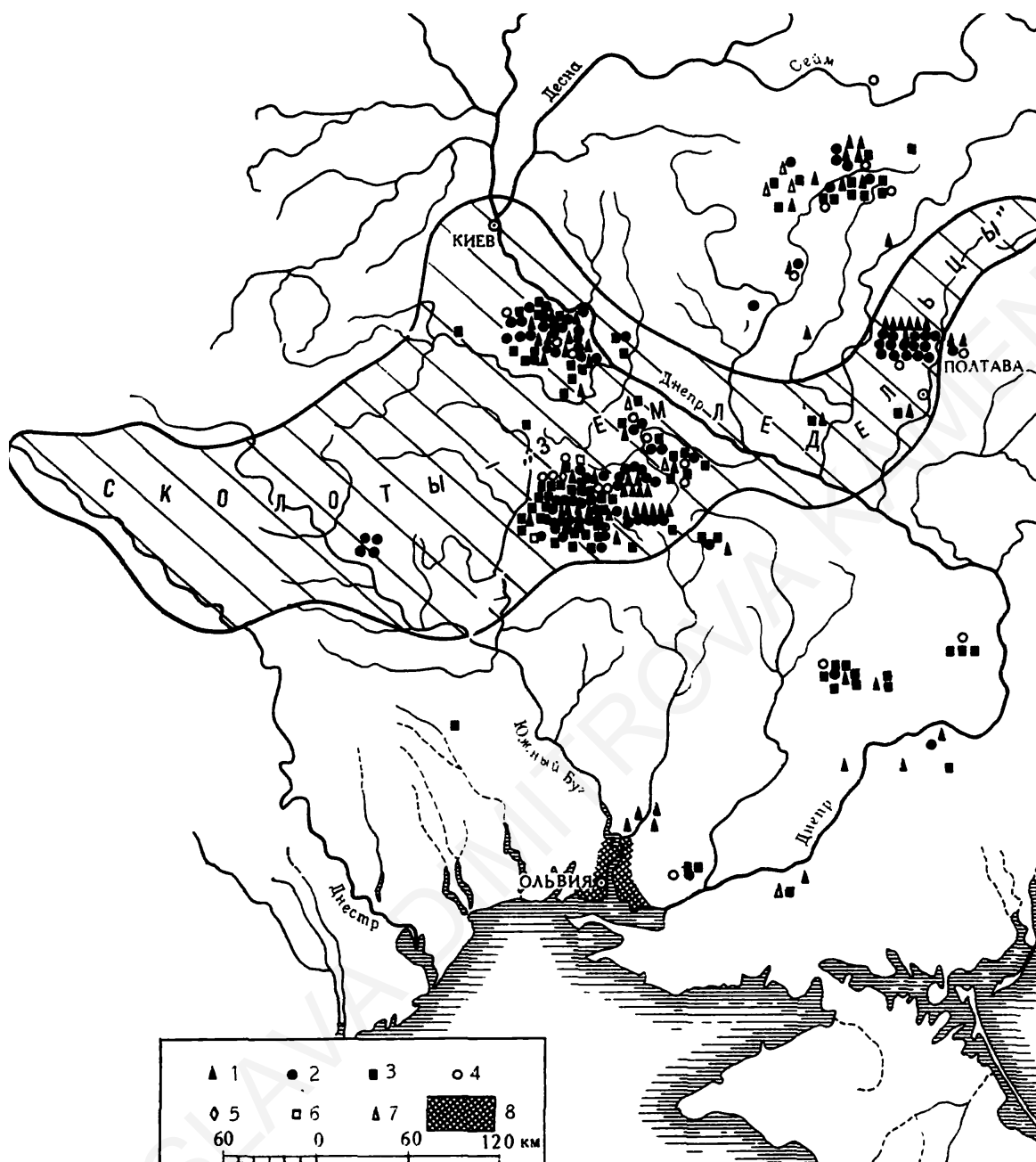


Fig. 33. Olbian imports in the Scythian land. 1 - amphorae, 2 - ceramics 3 - metalwork 4 - beads 5 - glass objects, 6, 7 - various, 8 - rural settlement near Olbia

Around the end of the 6th / first third of the 5th century BC, the excavations reveal a sudden destruction in many rural settlements in the lower Bug area; after this period, the region seems to pass through a severe crisis that lasts until the end of the 5th century BC and many rural settlements are abandoned (Kryzhytsky 2005). In the end of the 5th century BC, ca 150 new settlements appear on the lower Bug and 95 on lower Dniester. Most of these have an agricultural character, and the arable land that might have been available is estimated to 70 000 ha in the peak period (see Krapivina and Kryzhytsky 2003, 507ff; Kryzhytskii 1997, 104; Былкова and Хоуорт 2001, 36-8).

Others are specialized in craftsmanship, such as ceramic, metal and glass production (Буйских 2015а, 93-115; 2016, 63-79).

The city was in many ways dependent on the relations with the nomadic tribes of the steppe region (Handberg and Petersen 2006; Braund 2007) (Fig. 33). Olbia traded slaves and cattle with the hinterland kingdoms, in exchange for wine, oil, ceramics and luxury goods; the trade routes extended for hundreds of kilometres up the rivers (Solovyov 2007; 2010, Буйских 2013а; Гольденберг 1953; Braund and Kryzhytskij 2007). The local aristocracy was keener on metal vessels, jewellery and wine, than on Athenian fine tableware; from the Classical period onwards, Greek luxury metal vessels become frequent in the wealthy native burials, indicating intense diplomatic relations and gift exchange (Скржинская 1986; Tsetskhladze 1998, 68). A particularly exceptional example is the electrum cup from Kul-Oba (Meyer 2013, 13-14) (Fig.34).

A crisis in the hinterland caused a decline in the economics in the end of the 3rd century BC, however, the international trade was not interrupted (Лейпунська 1999b). The concluding downfall of Olbia occurred in the first half of the 1st century BC, during a

period of intense barbarian attacks on the rural zone and further economic difficulties in the course of the Mithridatic wars (Коваленко 2002, 82-96; Крапивина and Крыжицкий 2003, 27-8). The polis was definitively abandoned by the 4th century AD (Lawall *et al* 2014)



Fig. 34. Electrum cup of Greek production, depicting scenes of the Scythian life. Kul-Oba kurgan, first half of the 4th century BC.

2.2.4.2. Sinope

Sinope was a large production and commercial centre in the South coast of the Black Sea, founded according to the archaeological data in the late 7th century BC (on the foundation of Sinope, Hind 1988; on the literary sources, Ivantchik 1997; for a discussion on the colonization dating, and analysis of the discrepancy between the

dates, provided by written and archaeological data, more recently de Boer 2015, 73). The polis was located in a fertile coastal region, naturally protected by the Olgassys Mountains in the west, and the river Halys in the east (for recent excavations on the site and a historic account, see Doonan 2003, 379-399; 2016, 217-224; further bibliography Tsetsckhladze 2013a, 76). It is likely that that its name has a Hittite origin and that the settlement had existed for many centuries before the Ionian arrival (Robinson 1906, 132; Tsetsckhladze 1998, 35). Shortly after the foundation, the polis planted its own colonies at Cotyora, Cerasus, and Trapezus (Erciyas 2007).

The economy of the polis was based on an extensive fishing industry (Højte 2005, 133-160, Doonan 2003, 379-399, Opait 2007). It produced further cinnabar (*sinopis*) (used as a pigment), as well as olives and olive oil, in contrast to most other settlements around the Black Sea (Vnukov 2017, 122). Sinope was prive of large arable territory and the links with the hinterland were very important for its economy. The hinterland provided slaves, Chalybean iron and silver, barley, wheat, grapes and timber, in exchange for the Greek goods (for the contacts of Sinope with the Paphlagoinan lands, Hind 1995-1996, 115; for Sinopean imports in Central Asia in the Achaemenid period, Гуцалов 2009, 182-192) (Fig. 35).



Fig. 35. Sites on the South Black Sea that have yielded Greek ceramics. After Manoledakis 2015b, 70, figure 2.

The commercial flourishing of Sinope peaks during the Hellenistic period, when its merchandize spreads all over the Euxine (Fedoseev 1999, 27-28; Conovici 1998; Стоянов 2010, 405-428), when the amphorae of Sinope are among those most commonly found in the Pontic cities (Erciyas 2006, 114 with ref.). Moreover, these are found also in a number of a Mediterranean sites (Garlan 2007, 143-148; Erten *et al.* 2004, 103-116; de Boer 2008, 7-11; 2013, 109-114). In effect, the largest part of Pontic stamped amphorae, found outside the Black Sea region are Sinopean, most of the stamps belong to the period 253-185 BC (de Boer 2013, 109-114, Garlan 2007, 143-148). Their distribution is concentrated in the East Mediterranean: 70% were found in Athens and Rhodes, which indicates the main channels of export, and the rest were found on Delos, Egypt, the Syrian coast and Ostia (Robinson 1906, 135; Leaf 1916, 11; Burstein 1976, 41-42; Arthur 1998, 168; Doonan 2004, 123; Erten *et al.* 2004, 106). This data, however, does not reflect the circulation of the Sinopean amphorae, because it refers only to the stamped samples; the rest usually remain unrecognized. On this issue John Lund (2007, 184) commented:

“Distribution maps often more or less typify merely the intensity of scientific research rather than actual circulation of commodities. However, the additional problem seems to be that only a few scholars analysing the Mediterranean trade have first-hand knowledge of the Black Sea products.”

The lack of information on the unstamped Sinopean amphorae is part of the problem of fragmentation in the studies, discussed above, and it is a serious obstacle in the study of the Black Sea connections with the Mediterranean. Another concern of this research regards the content of the exported amphorae. Traditionally, it is assumed that wine is the main exported commercial good, but recent analysis suggests the possibility that these contained salted fish, nuts, cereals or even vegetables (on this topic see more recently de Boer 2013, 109-114). The estimation of the Sinopean network in the Mediterranean is obstructed also by the fact that Sinope could export merchandise, which is not transported in amphorae, such as slaves, cinnabar, mercury, wood, flax, wool, etc. and is completely invisible for modern research (for an analysis of the evidence, indicating such trade, see Doonan 2004, 123). The minor amount of archaeological traces on the Mediterranean trade of Sinope triggers constant debates on the volume and extension of the Sinopean trade patterns. Some academics suppose

that Sinope did not possess proper links with the Mediterranean centres, where its amphorae are found, but that the Sinopean products arrived in the Mediterranean only through the Rhodian commercial activity. However, there is no firm evidence to support this view (Lund 2007, 183-194, esp. 189). On the other hand, a number of Sinopean citizens are attested in the Mediterranean and vice versa (Ruscu 2008), while an interesting inscription testifies that in one occasion Sinope helped Histiaia in Euboea by donating to the polis 6000 drachmae on account of a long term friendship (IG XII, 9, 1186). This evidence shows that the extent of the polis' commercial, political and cultural links are unknown to the modern scholarship (Reger 2007, 281).

2.3.. The Greeks and the local population: trade, cultural exchange and social symbiosis

2.3.1. Interconnecting culturally distant polities

The Greek settlements and the local ethno-political formations of both nomadic and settled agricultural groups were subjects to continuous and multifaceted interaction, which was in a constant state of flux (Shcheglov and Katz 1991, 116). The study of their relationship comprises a range of difficulties, the most essential of which was recently described by Vlassopoulos (2013), who offered a first attempt to write a monograph, focused on these relations, which combines the available literary, epigraphic, archaeological and numismatic sources that concern the topic.

“[...] the study of the interactions between Greeks and Barbarians has been characterised by deep fragmentation: scholars working, for example, on the Black Sea are often not familiar with the scholarship on Egypt or the western Mediterranean; scholars working on, for example, archaic Greek ‘colonies’ do not often converse with scholars working on Hellenistic Jews; literary scholars working on, for example, the depiction of Barbarians in Greek tragedy are often unaware of the specialist scholarship on archaeology or numismatics; finally, scholarly approaches in different academic traditions can often talk past each other. I hope this book will provide some

bridges across disciplinary divisions and stimulate further interaction and dialogue” (Vlassopoulos 2013, XV)

The aim of this section is to provide a synopsis of the current state of research. As noted above, evidence shows that the first centuries after the colonisation the relationships with the locals were peaceful, a fact that is best demonstrated by the lack of fortification in the Greek colonies during the 7th and 6th centuries BC. This phenomenon is attested even in colonies established in former local sites, such as Mesambria and Orgame (Bony *et al.* 2013; Mănuclu-Adameşteanu 2000, 203; Tsetsckhladze 1998, 44ff). Moreover, the local populations generally formed a vital part of the new colonies, and Greeks communities resided in the local settlements (de Boer 2015). For what concerns the Ionian colonisation, only isolated cases of resistance are known (de Boer 2010, Archibald 1983, 304). In contrast, the Megarian colonisation apparently has a violent character, which is evidenced in the written sources (Alexandrescu 1999, 18-25; Hind 1998; Tsetsckhladze 1998, 65. On the question of the relations between the Greek and indigenous population in the Mediterranean, see e.g. Morel 2010 regarding Sicily and Gaul; Sanmarti 2009 on the Iberian peninsula; the collected papers in Descoeudres 1990; Hermary and Tsetsckhladze 2012)

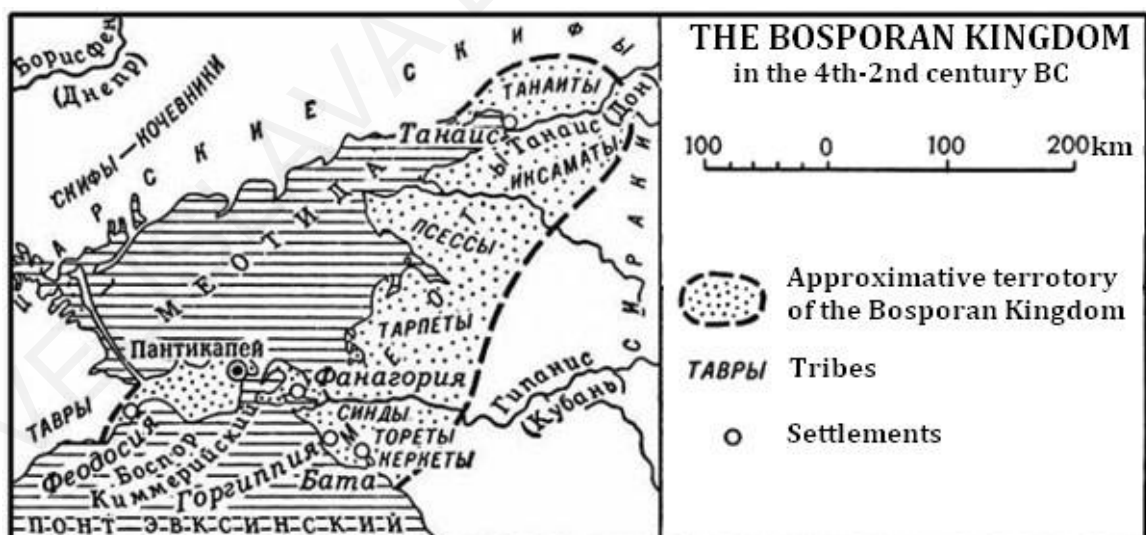


Fig. 36. The boundaries of the Bosporan kingdom in the 4th - 2nd century BC. Map retrieved from <http://geohyst.ru/node/2301> (accessed 12.12.2016).

The economic and cultural ties of the Greeks with the locals, and most of all, the political dependence upon them, deepens in the end of the 6th and beginning of the 5th

century BC. In this period local kingdoms in Thrace, Scythia, Colchis and Paphlagonia are established (on this process see e.g. Васильев 1992, 111-28; Gallotta 2015, 63-5; Archibald 1998; Сапрыкин 1996). Fortifications of the *chorai*, but also traces of exchanging diplomacy, are attested throughout the Black Sea area, particularly in regions with immediate contact with barbarians, where the practice of exchanging diplomatic gifts is reflected by the highly increased number of Greek masterpieces, found in local kurgans (on collections of such, see e.g. Артамонов 1966; Leskov *et al.* 1990; Shcheglov and Katz 1991, 97-122; Мордвинцева *et al.* 2010). On the other hand, the strengthened contacts deepen the Hellenisation among the local *élites* and the settled ethnic groups, which results in a gradual increase in the indigenous element in the colonies and their *chorai* (among the numerous studies on this topic, Stolba 1996, 439-466; Bekker-Nielsen 2003, 299-302; on the Hellenisation in the barbarian hinterland, see e.g. Stolba 2011, 329-340; Bouzek 2016, 89-98). The complex relations between the Greeks and their neighbours are evidenced by some important written sources, mostly inscriptions. Interesting examples are those, found at Scythian Neapolis in Crimea, because they demonstrate that the Scythian kings, based in this settlement, were involved in common military actions with the Bosporan kingdom against the other Scythian groups, and moreover, they recruited Greek mercenaries in such enterprises; they had also some familial relations with the Bosporan dynasty (Muratov 2015, 594). Further, at the Scythian royal court in the settlement is attested Greek presence (Tsetskhladze 2011, 19).

2.3.2. *The chorai of the Greek colonies: production and trade*

The intensification of multiethnic bonds was accompanied with a gradual incorporation of the rural territory. *Chorai* were organized from the beginning/middle of the 6th century BC and populated with Greek and local inhabitants, providing agricultural and craft production; in these territories, the barbarian element is detected by virtue of local made ceramics and necropoleis of a different character (Смирнов 1964, 344; Tsetskhladze 1998, 38, 42-3). These, however, are not studied thoroughly in the entire Black Sea zone. For instance, in the Dobrudzha plain, about 200 archaic settlements are documented, about 15 of which belonging to Istros.

In the Kerch peninsula, from 274 rural settlements, excavated so far, only 6 seem to be Archaic, while on the Taman peninsula, the rural settlements were quite dense, but the archaeological data suggests that they were seasonal (Vinogradov and Lebedeva 2005, 316). From the 5th century and especially from the 4th century BC onwards, there is a noticeable enlargement of agricultural territories and augmentation of the number of rural settlements, which were used for trading and manufacturing in a convenient distance from the polis (cf. Baralis and Riapov 2006; Saprykin 2006). In the first quarter of the 5th century BC, the development of the chorai on the North shore of the Black Sea is interrupted. Scythian movements to the west, caused by newly arriving nomad tribes from the east, resulted in the destruction of many settlements along the southern Kuban and southern Bug (Виноградов 1980, 71; Kryzhitsky 2005, 127; Виноградов 2009, 72; Müller 2000, 701-751). Shortly after, in 480/79 BC, the colonies in the Bosphorus region united in a defensive coalition which later developed into a kingdom named Bosporan (Васильев 1992, 111-128; for a historical overview, Гайдукевич 1949; Виноградов 1980; Gallotta 2011; Tsetskhladze 2013b; for an account of the excavation of the colonies of the kingdom, see e.g. the various contributions in Grammenos and Petropoulos 2003; 2007) (fig.36). From 438/7 BC, the kingdom begins to expand. It annexes the Greek colonies of Nymphaion, Theodosia, and Phanagoria (Шелов-Коведяев 1985, 120-155), and consolidates the fertile rural areas of the Tauric and Taman peninsula, while a large-scale centralized grain production is organized, stimulated by an immeasurable quantity of exportation to Athens and other Pontic and Mediterranean centres (for the most recent discussion and references on the Greeks at Taman peninsula, see Tsetskhladze 2016, 45-60). Amphorae in this period are imported to Taman from Miletus, Chios, Samos, Cnidus, Corinth, Mende, Samothrace, Thasos, Sinope, Heracleia, and Chersonessos (Monakhov and Kuznetsova 2017). The kingdom reaches the peak of its territory, wealthy and cosmopolitan character with Leucon I (389-349 BC). The excellent relations with the surrounding peoples in this period are illustrated by the numerous luxurious kurgans of the local élite, grouped around the two capitals of the kingdom Pantikapaion and Phanagoria, which are located respectively on the European and the Asiatic shores. In spite of the continuous plundering since ancient times, in the rich kurgans of this period, such as Kul Oba, Patinioti, Kekuvatskovo, and many others, over twenty thousand gold objects were found, about a half of which were made by Greek jewellers

(Khazanov 2015, 32-49 with ref., further on the trade with the surrounding nomads see Масленников 2017, Saprykin 2006).

2.3.3. *The hinterland emporia and barbarian trade settlements*

The trade with the locals was effectuated through coastal and inland market centres. Written sources report the existence of inland market-places and emporia that facilitated the commercial relations with the local population all around the Euxine. In some cases, for instance Istros and Apollonia on the West coast, barbarian settlements on the limits of the *chora* (such as Sladki Kladenci, Tariverde, Capul Dolojman) served as local *emporìa* (Baralis 2008, 101-130; Baralis and Riapov 2006; de Boer 2010, 180). In other cases, such centres are located in a territory under indigenous control. For instance, in the Northern forest steppes, more than 100 fortified Scythian settlements are known in the period 7th- 3rd century BC (Kristiansen 1998, 279). Archaeological finds from the 6th-5th century BC suggest that Greeks were also settled at some of them, for instance at the city-state Nemirovskoe, and at Bel'skoe (ancient Gelonus). The latter was a craft centre, specialized in metalwork, bone carving and jewellery production (Либеров 1965, 18-22). Extended at 4020 ha, surrounded by a 33km long wall with height reaching 9m, the settlement existed from the 7th to the 3rd century BC (Шрамко 1975, 94-132; 1987, Kvirkvelia 2005, 38-9). As already mentioned, over 10 000 fragments of Greek pottery were found there during 18 years of excavations, the vast majority of which are dated to the 6th—5th centuries BC. Most part of them are unidentified, but the rest are of Ionian, Lesbian, Attic, and Thasian origin (Tsetskhladze 1998, 54). The large amount of Greek ceramic on the site strongly suggests the presence of Greek craftsmen in the settlement. Significant evidence on this matter is provided by Herodotus:

*Βουδῖνοι δὲ ἔθνος ἐὼν μέγα
καὶ πολλὸν γλαυκὸν τε πᾶν
ἰσχυρῶς ἐστὶ καὶ πυρρόν:
πόλις δὲ ἐν αὐτοῖσι
πεπόλισται ξυλίνη, οὖνομα
δὲ τῆ πόλι ἐστὶ Γελωνός. τοῦ
δὲ τείχεος μέγαθος κῶλον*

*The Budini are a great and populous
nation; the eyes of them all are very
bright, and they are ruddy. They
have a city built of wood, called
Gelonus. The wall of it is three and
three quarters miles in length on
each side of the city; this wall is high*

ἕκαστον τριήκοντα σταδίων
ἐστί, ὑψηλὸν δὲ καὶ πᾶν
ξύλινον, καὶ αἱ οἰκίαι αὐτῶν
ξύλιναι καὶ τὰ ἱερά. [2] ἔστι
γὰρ δὴ αὐτόθι Ἑλληνικῶν
θεῶν ἱερά Ἑλληνικῶς
κατεσκευασμένα ἀγάλμασί
τε καὶ βωμοῖσι καὶ νηοῖσι
ξύλινοισι, καὶ τῷ Διονύσῳ
τριετηρίδας ἀνάγουσι καὶ
βακχεύουσι. εἰσὶ γὰρ οἱ
Γελωνοὶ τὸ ἀρχαῖον
Ἑλληνας, ἐκ τῶν δὲ
ἐμπορίων ἐξαναστάντες
οἴκησαν ἐν τοῖσι Βουδίνοισι:
καὶ γλώσση τὰ μὲν Σκυθικῇ,
τὰ δὲ Ἑλληνικῇ χρέωνται.

*and all of wood; and their houses are
wooden, and their temples; [2] for
there are temples of Greek gods
among them, furnished in Greek
style with images and altars and
shrines of wood; and they honour
Dionysus every two years with
festivals and revelry. For the Geloni
are by their origin Greeks, who left
their trading ports to settle among
the Budini; and they speak a
language half Greek and half
Scythian (Hdt 4.108-109. Trans.: A.
D. Godley 1921, LCL 118)*

Another exemplary Scythian city-state, Kamenskoe, was a royal residence during the 5th and 4th century BC. Occupying 1200 ha, the settlement held an acropolis and large areas for metalworking, which were extended on over 900 ha. Scholars believe that the dimensions of this production reveal a link of the royal power and the iron industry (cf. Kvirkvelia 2005, 39; Rolle 1989, 119-122) (Fig. 37). The settlement probably had its own riverside port area. Enormous quantities of amphorae and other Greek pottery were unearthed there. The fragments of Greek production are more than 42,000, which is almost double the number of those of Scythian handmade pottery found there (Tsetskhladze 2011, 19). There are also Sinopean tiles, Greek coins, as well as architecture and fortification systems of Greek style, evidence which testifies, according to some, the presence of a permanently residing Greek community (Tsetskhladze 1998, 65).

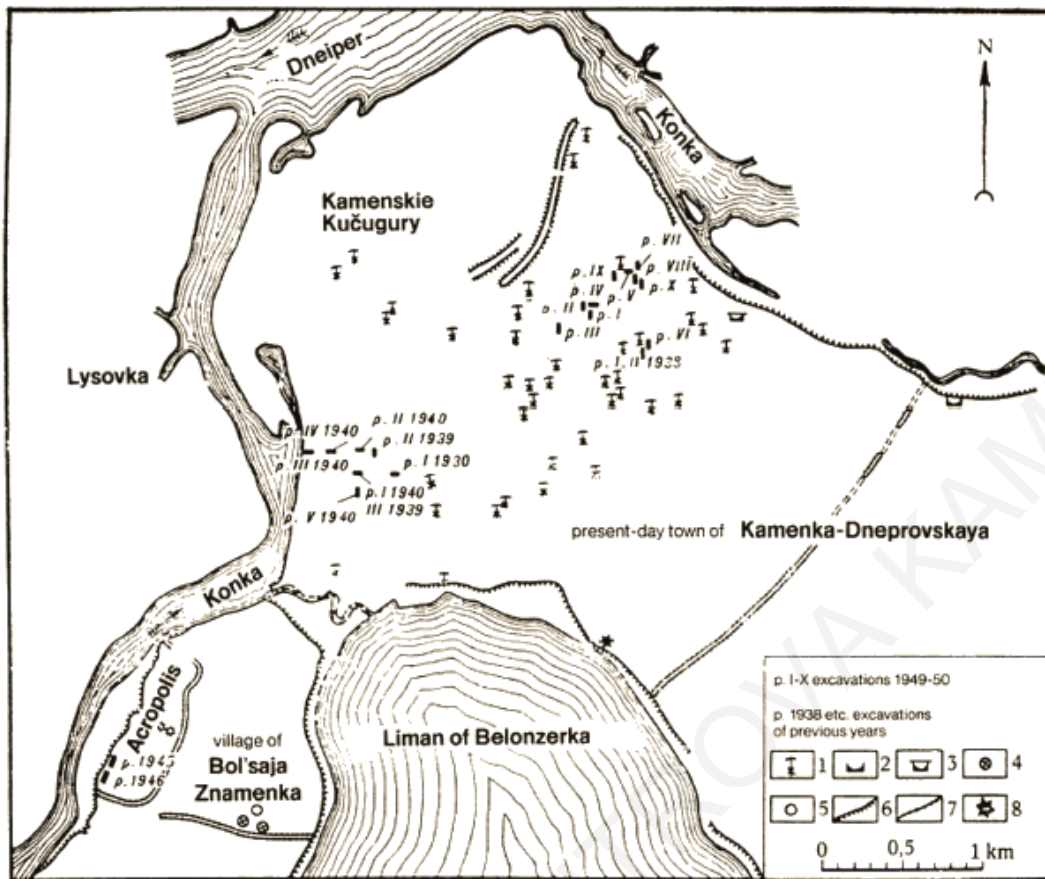


Fig. 37. Plan of the Kamenskoe settlement. 1. Scythian settlement layer with metallurgical remains (ca. 900ha in area). 2. Cemetery of flat graves, 3. It house, 4. Excavated burial mound 5. Unexcavated burial mound, 6. Eighteenth-century ramparts, 7. Scythian ramparts, 8. Pre-Scythian settlement. After Rolle 1989, 120, fig.91

Another interesting case is the Elizavetovskoe settlement, located at the mouth of Tanais River, in the interaction zone between three cultural entities: Scythian, Sarmatian and Maeotian (id., 49-50, n. 190). The region of Tanais delta was an important centre of interethnic exchange and the Greeks settled there as early as in the third quarter of the 7th century BC, when was founded a Milesian colony, Cremnoi (Taganrog). It was destroyed for unknown reasons around the third quarter of the 6th century BC. In a later period, a Greek *emporion* is attested in the Scythian Elizavetovskoe settlement (end of the first quarter of the 5th - first third of the 3rd century BC); while in the end of the 4th century BC was founded the Greek colony Tanais, which existed until the 1st century AD (pl. 77).

Yet Taganrog's economic interests extended to the North Caucasus and the east Scythian steppes, while its international connections are evidenced by pottery fragments (more than 10 000), which belong to the production of Miletus, Clazomenae,

Samos, Chios, Lesbos, and other Ionian centres, while Attic black-figure lacks completely from the site (Копылов 2009, 30). Among these finds is worth to mention also the fragments from a bucchero cup dated to the last third of the 7th – first quarter of the 6th century BC, one of the most archaic Etruscan production found in the region (ibid.). The material in question has been found in the beach area, while the Taganrog settlement has been completely destroyed by the sea (Копылов 2011).



Fig. 38. Bronze plaque. Accidental find from the region of the *Five brothers'* kurgan, Don delta. After Копылов 2009, 30 рис. 8

The Elizavetovskoe settlement on the other hand has been excavated from the 1920s. It was established in the end of the first quarter of the 5th century BC, in a period when the region was under Scythian control and served as a safe space to weather through the winter (Житников and Марченко 1984, 162-170; Брашинский and Марченко 1984, 24-28). It was also an administrative, religious, production and trade centre, with extensive metallurgical and fishing industry, the former lacking completely in the dependant settlements (Марченко *et al.* 2000, 233-8) (рл. 78). The data from the settlement and its necropolis suggests a prevalingly Scythian, however, multiethnic population (Марченко *et al.* 2000, 233-8). The accumulation of imported amphorae in the settlement is unique for the Euxine (more than 130 000 sherds) and testifies the large scale of the trade, in which Elizavetovskoe acted as an intermediary centre. The evidence suggests that the imported goods were distributed through a large trade network that reached the Don delta, the Lower Don and Northeast Azov area, as well as far beyond the borders of this region - on the north up to the Middle Don, and partly to Severskii Donets, and to the east beyond the Don and beyond the Volga (Анфимов 1987, 28-9; Марченко *et al.* 2000, 233-8). It is supposed that the large accumulation of amphorae in Elizavetovskoe is due to the fact that these were rarely used as containers on land, but

replaced at the site with other, more suitable containers, such as wineskins. Among the pottery from the 5th century BC, prevailing are the amphorae of Chios, Samos, Lesbos, Mende, Thasos, and the Attic black and red figured. From the beginning of the 4th century BC, the volume of the trade increased significantly. In this period prevail the amphorae of Chios, Heraclea Pontica, Thasos, Mende and Sinope, and from the second half of the century, the amphorae of Corinth, Chersonessos, Colchis, Rhodes, Cnidos, Cos, and Asia Minor (Брашинский 1980, 11). Until present, twenty seven buildings from the 4th century BC have been excavated (Марченко *et al.* 2000, 232) (pl. 80), around 70% of them are semi dug-outs. An “acropolis” appeared in the settlement in the end of the 4th century BC, which is thought to be the neighborhood of the Bosporan population. Some of the excavated buildings have an exclusively commercial character. Such are the complexes 6, 7 and 18 (pl. 82), where an unusual accumulation of wine amphorae and glass ornaments, mainly beads, have been found, along with lead weights, often used in trade. Interestingly, at Elizavetovskoe an enormous amount of glass ornaments of large variety have been unearthed (*infra*, p.202). They attest the excessive interest of the local population for these objects.

The economic interests of the Bosporan kingdom in this region are attested archaeologically by the numerous gifts in the local kurgans increasing in the 5th century BC. Among these, some have a particular importance for this study. These are the fragments of a South Italian krater that has been excavated in 2006 in a layer of the middle of the 4th century BC of the Elizavetovskoe settlement, and a bronze plaque with *Amazonomachy* scenes from the same period, most probably production of Magna Graecia (Копылов 2009, 30) (fig. 38). According to Kopylov (2009, 32), the leading archaeologist of the settlement, these objects, along with the Punic imports found in the settlement, testify significant links of the region with the West Mediterranean in the 4th century BC.



Fig. 39. The archaeological site of Tanais. Aerial view. <https://www.classmag.ru/news/20099574>, (accessed 4th October 2017).

In the last third of the 4th century BC, the Scythians lose the independence of Elizavetovskoe and the settlement becomes a part of the Bosphoran Kingdom. The evidence from the ca 150 excavated kurgans testifies that at the turn of the 4th and 3rd centuries BC, Elizavetovskoe was abandoned and immediately re-settled by Bosphoran Greeks (on the excavation material, Копылов 1987, 13-15; Kopylov and Rempel 2006, 47-50; on the expansion politics of the Bosphoran state, Марченко *et al.* 2000; Анфимов 1987, 28-9). The change is characterized by a complete reorientation of the trade patterns, the disappearance of the Chian amphorae and the sudden decrease of the Heracleian, Thasian and Attic production, while the production of Sinope and Chersonessos dominates the imports. The Punic and Italic imports also cease in this period (Kopylov and Rempel 2006). After the end of the 3rd century BC, the settlement declines due to natural causes, as the river deposits gradually change and the settlement loses its connection to the Sea of Azov. Tanais becomes main trading centre in the region, founded in the first half of the century. Mass quantities of amphorae and

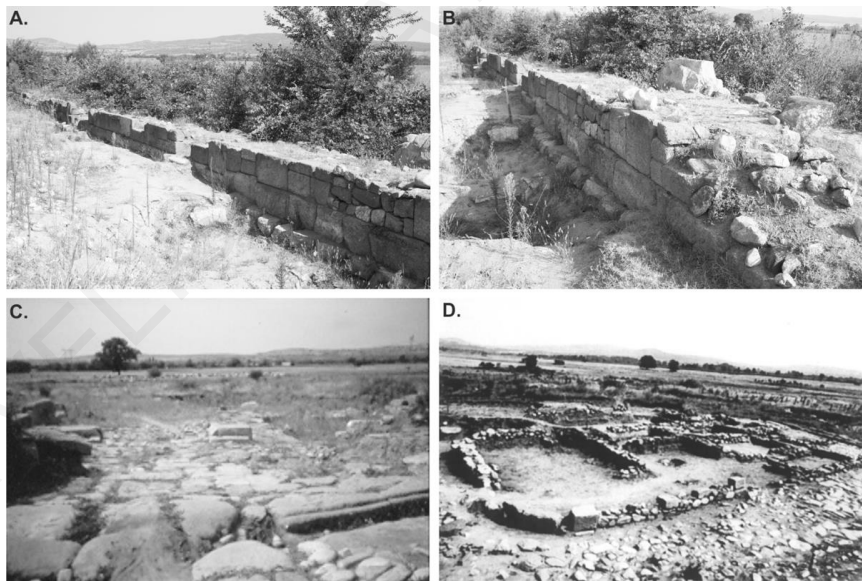


Fig. 40. Emporion Pistiros. Up: Plan of the excavations at Adjyiska Vodenitsa, showing the eastern gateway, fortification wall and east-west road. Down: Excavated structures (A, C) showing the fortification wall (A, B), the eastern gateway and road (C), and house (No 1) and the road (D; © Pistiros international excavation project). After Chiverrell, Archibald 2009, 17-18, figs 4-5

the exported grain from Prikubanie to Bosphorus were passing through Tanais. The new trade centre is abandoned in its turn in the end of the 1st century BC (Толочко 2006; Kopylov and Rempel 2006; Анфимов 1987, 28-9) (Fig. 39).

A unique case, where a written testimony shows the presence of Greek settlers in a barbarian inland centre, is the emporion Pistiros in Thrace, founded in the 3rd quarter of the 5th century BC on the left border of the Hebros river near Philippopolis (de Boer 2010, 181; Bouzek 2016, 89-98) (Fig. 40). Located in a region, rich with iron and gold ores, the settlement was functioning as a large production and trade centre. Traces of extensive metallurgical activity were found there, along with some textile and pottery production (see e.g. various contributions in Bouzek *et al.* 2002; cf. Demetriou 2010b, 77-93). The inscription of a great importance, found about 2km from the archaeological site, describes the legal rights of the Greek community that resided in the settlement. These were Greeks from Thasos, Maroneia and Apollonia on the Aegean coast, who were accepted by the Thracian royal court (Chankowski and Domaradska 1999, 246-58). This inscription is the only written testimony that confirms that Greeks resided in indigenous settlements around the Black Sea.

In the Colchis region, Greek presence is attested in several local settlements. For instance Pichvnari, occupied from the Bronze Age, received Greek immigrants in the second half of the 6th century BC once Athenian interest started; their status remains unknown (Vickers and Kakhidze 2004; Chandrasekaran 2013, 146-50). Similar situation seems to appear in the Sakanchia and Tsikhisdziri settlements (Tsetskhladze 1998, 65; 2000, 236-7; 2015, 15).

2.4. Trade networks

2.4.1. Hinterland trade routes and Eastern connections

The major part of the commodities imported to the Pontos Euxeinos were destined for the barbarian market (Самойлова 2009, 363-368; Kopylov and Rempel 2006, 47-50; Archibald 1998; Tsetskhladze 1998, 51, n.200; 177-96; 213-81; see also various contributions in Зинько 2003; Gabrielsen and Lund 2007). Greek imports are found in sites as far as the Tauric sanctuary in the Caucasus Mountains (Treister 1996, 362) and the village of Peschanoe (in Ukrainian, Піщане) in the middle Dnieper basin.

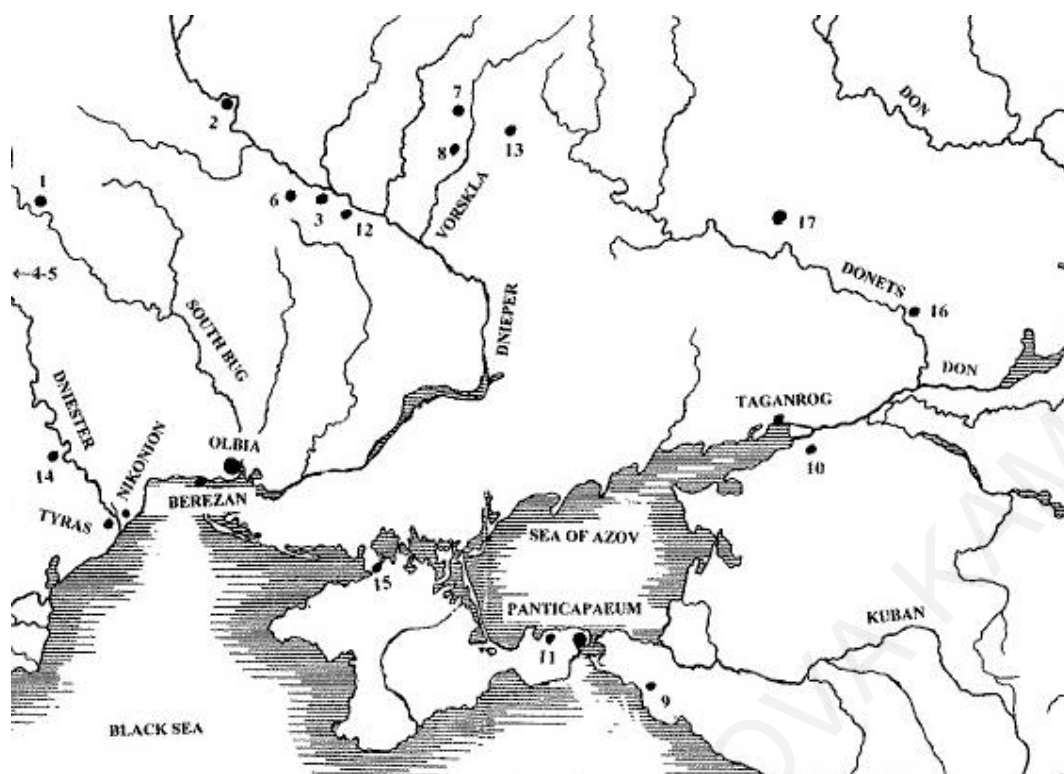


Fig. 41. East Greek imports in the hinterland in the last third of the 7th century BC. 1. Nemirovskoe. 2. Trakhtemirovskoe, 3. Zhabotinskoe 4. Ivane-Puste 5. Zalesya 6. Motroninskoe 7. Bel'skoe 8. Pozharnaya Balka 9. Alekseevskoe 10. Burial ground Krasnogorodovka III. Kurgan 14, grave 5 11. Kurgan Temir-Gora 12. Burial Boltyshka 13. Kurgan 1 near village Kolomak 14. Destroyed tomb, Kiobruchi village 15. Filatovka 16. Bolshaya 17. Krivorozhie. After Tsetskhladze 2012, 318.

In the vicinities of this village were unearthed fifteen Greek gold-plated bronze vessels (amphorae, jugs, dishes, buckets, plates etc.) from the 5th – 4th century BC, along with a large boat and a skeleton of a boatman, whose examination showed “him to be of Mediterranean type” (Tsetskhladze 1998, 65; see also de Boer 2010, 182; Ганіна 1970). In many occasions within this area, as much as 10-20% of all graves contain some Greek imports, particularly along the Dniester River, attesting not only a gift exchange relationship, but also a large scale trade. The centralized character of the latter is evidenced by the clustering of Greek imports around the royal residences (Kron 2015, 25, n. 161; Archibald 1998, 193-4). The existence of an organized interethnic trade in silverware is documented also by a few fortuitous finds of commercial graffiti on silver or other vessels. Such is for instance the cup from Dalboki in Thrace, now in the Ashmolean Museum (Johnston 1978, 79-80; Gill 1987, 51; Kron 2015, 24, n. 155; cf. discussion on inscribed vessels in Zournatzi 2000, 689–90). Greek craft, mainly mirrors, has been found along the Don, Volga rivers as far as Ural and more rarely, further east (Кузнецова 1991, 77; Kim 2010, 115-135; Khazanov 2015,

32-49), marking a trade route from Olbia via the northern shore of the Black Sea and the Greek emporia in the region, by the river Don and across the Ural and Altai mountains that reaches as far as the central Asian markets. It is worthy to mention here that Chinese silk is found at Pantikapaion as early as in the 5th century BC (Miller 1997, 77-79 with ref.). Roughly contemporaneous finds of silk in southwest Germany and in kurgan burials in the Altai mountains have led Barber (1991, 205) to argue that whatever amount of Chinese silk, in the form of bolts or reworked clothes, reached the Aegean, it did so by way of northern routes through the Black Sea. Another trade route, which starts at the Phasis estuary and proceeds all the way to India, via the Cyrus River, the Caspian Sea, Hyrcania and Bactria is mentioned by numerous ancient authors (see more recently on this trade pattern Schneider 2017; for an account of the ancient sources cf. Warmington 2014; on Indian objects in the Black Sea region, Shortland and Schroeder 2009, 947-65, who discuss beads, found in the Pichvnari necropolis in Colchis, and Равич *et al.* 2012, who analyse a possibly Indian mirror, found in the Southern Kuban region). The Southern Black Sea shore, on the other hand, maintained a connection with Anatolia at least from the 2nd millennium BC, while in the period from Cyrus's reign (ca 590-BC - ca 529 BC) and the end of the 4th century BC, the zone was incorporated into the Persian Empire, whose border reached the Caucasus Mountains (Bill 2010, 15-28). During the reign of Darius (522 BC-476 BC), some territories beyond the sea were also included in the empire, however, their localization is not entirely clear nowadays (see e.g. Tuplin 2010, 281-312). In consequence, goods from the Achaemenid realm were discovered in Colchis, Caucasus and Bosphorus, imported there from the second quarter of the 5th century BC onwards (Трейстер 2011, 119; various contributions in Nieling and Rehm 2010; for the Persian expeditions at the Black Sea see Miller 1997; Archibald 1998: 179-84; Paspalas 2000; Zournatzi 2000; Treister 2010 for the influence and permeation of Persian art to the Pontic Greek culture). For what concerns the North-West, from the 4th century BC Central Europe was receiving Scythian objects (Kristiansen 1998, 279; Kreiter *et al.* 2013; Khazanov 2015, 32-49; Rembisz 2011, 428-435; Bartosiewicz and Gál 2010, 113-128) (Fig. 43), while Celtic merchandise penetrated in Eastern Thrace (Falileyev 2010, 121-130; Dimitrov 2010, 51-66). The area of penetration of the Greek commodities and craft products in the Archaic period is evidenced by the excavations of barbarian graves along the lower Danube and Dniester from the second half of the

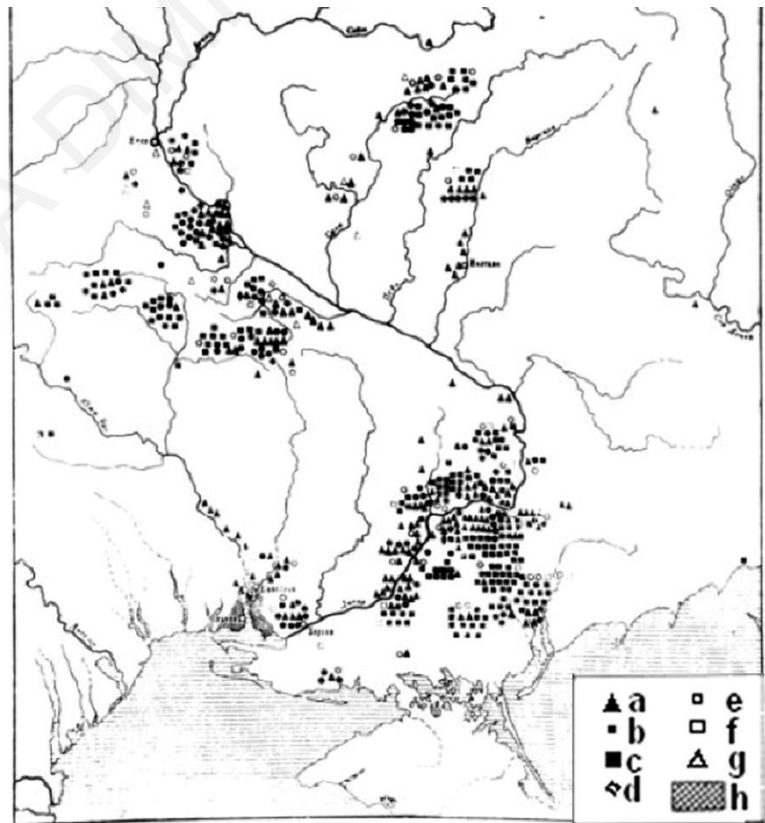
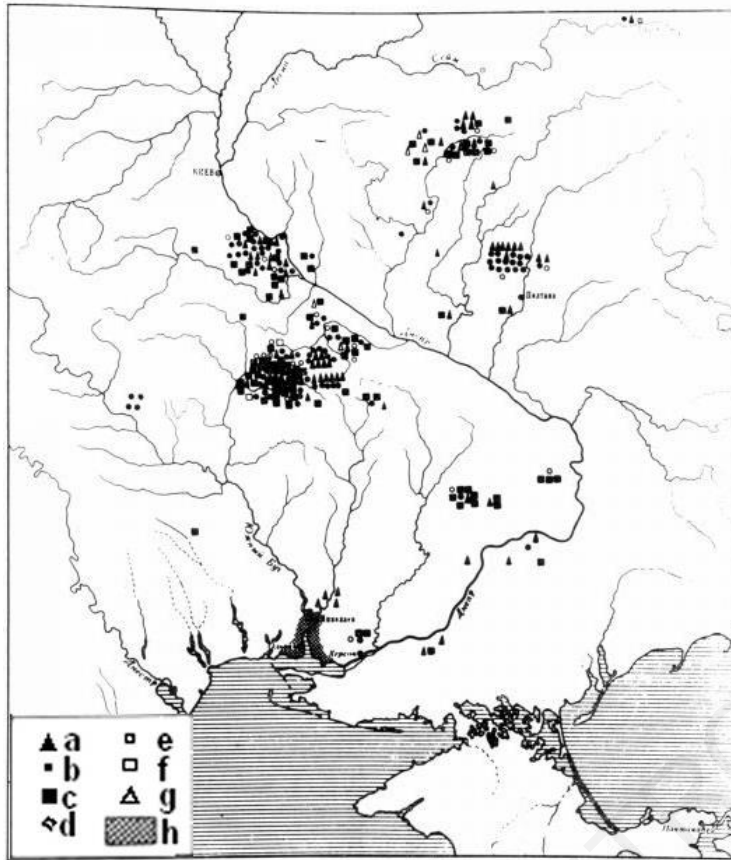


Fig. 42. Greek imports in Ukraine. Up: end of the 6th – beginning of the 5th century BC, Down: second half of the 4th century BC. a-amphorae, б-fine ceramic, в-metal objects, г- beads, д- glass, е- others, ж – accidental finds, з – settlements. After Alexandrescu 1975, 68, carte 2, 70 carte 3.

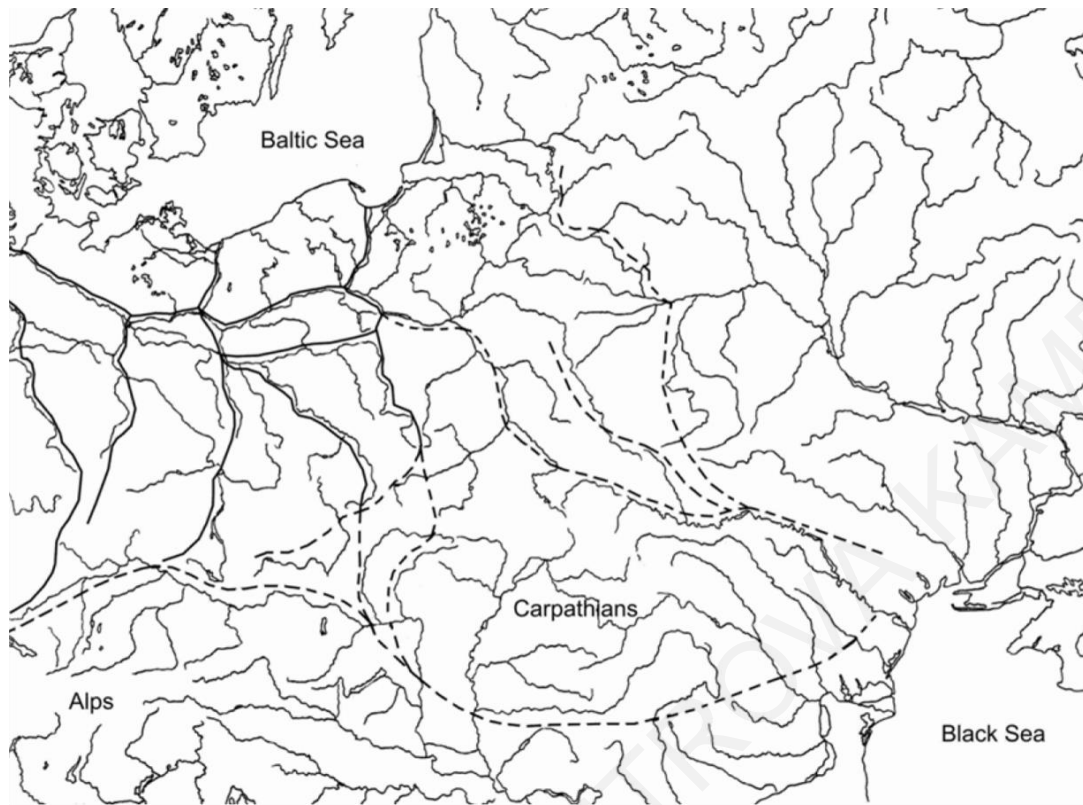


Fig. 43. Occurrence of the Scythian type items in Central Europe (dashed line) in the context of the probable trade (continuous line) in the region during the Hallstatt C-D. After Rembisz 2011, 431, map 1.

7th – beginning of 6th century BC (for a catalogue of sites Teleaga 2008, 5-54) (Figs. 41-2).

The Greeks in the Euxine mostly provided in the local market wine and olive oil, along with armour, weapons, luxurious bronze tableware, lamps, mirrors, jewellery, statues, books, luxury furniture, marble, ivory, wood, bone, textiles (fabrics for clothing and carpets), cosmetics, tools, marble, wood, bronze, iron, ivory, bone, precious metals etc. (for the written and archaeological sources for Greek imports in the North Littoral, see Коваленко 2002, 80-96; Jonnekin 2009; Tsetskhladze 2012, 315-74; in Colchis, Kacharava 1995, 63-73; in Thrace, Archibald 1998; Teleaga 2008; Alexandrescu 1975, 63-72; de Boer 2010, 180. On imported Greek pottery in the Black Sea, see Bouzek 1990; Petrakova 2013, 123-8; on faience, Domăneanțu 1988, 21-6; on glass, Кунина 1997; Островерхов 1985, 92-105; on olive oil Опаїт 2010, 153-8; on artistic works Trofimova 2007; Bouzek 1989c, 27-40). Goods transported in amphorae (usually wine) were very popular with the local population; numerous fragments of transport amphorae from Lesbos, Chios, Mende, Peparethos, Thasos, Heracleia Pontica,

Chersonessos, Sinope, Rhodes and Cos are found in either Thracian, Getan and Scythian sites (Абрамов 1994; Монахов 1999; Tsetskhladze 1998, 64; Tzochiev 2010; Dupont 1995-1996; 2001; 2003; Teleaga 2008, 296-305; Ulitin 2013), for instance at Elizavetovskoe the fragments of about 23, 500 amphorae have been found, indicating that about 1750-1900 were brought there every year (Tsetskhladze 2013a, 77). Fine ceramics were also imported, especially Attic black and red figure fine wares, black glazed pottery, terracotta lamps, and coarse wares was largely imported to the hinterland, some pots specially commissioned for the Black Sea market or even produced locally by expatriated potters (Копейкина 1986; Tsetskhladze 1998, 52-61; Archibald 1983; Bouzek 2007; Kron 2015, 24-5). However, given the fact that these come mainly from tombs of the local nobility, and their quantity is very low, scholars assume that these were imported mainly as diplomatic gifts and remained generally unpopular in the barbarian cultures, whose taste for exotic luxury focused mainly on the metal vessels and jewellery (Kacharava 1995, 63-73; Виноградов 2009, 64). Indeed, Greek metallic artefacts constitute of the largest number of objects found in barbarian sites, these being armour and helmets, weapons, innumerable bronze vessels of a wide range of designs (mugs, bowls, hydriae, and situlae), lamps, and mirrors, tools, etc. (Мордвинцева and Трейстер 2007) (Fig. 34). Fine jewellery was produced for the local elite in Colchis, Scythia and Thrace (Kron 2015, 24; Treister 1996; 2001a; Мордвинцева and Трейстер 2007). These were designed to reflect the barbarian lifestyle and myths, adapted in Greek style (Moreno 2007, 74; Stähler 1997, 117-96) (Fig. 44). Art works seem to have been designed also for the Thracian market (Oakley 2009; Szymanska 1984; Fol *et al.* 1986; Archibald 1998, 178-9; 181; Kron 2015, n. 154)

The main commodities exported by the locals were grain, livestock, leather, slaves, honey, beeswax, wine, timber, charcoal, metals, tar, ores, medical/magical products, and linen (among many studies on this subject, see Kristiansen 1998, 279; Kopylov and Rempel 2006; Archibald 1983, 305; Tonkova 2008, 267-8; de Boer 2010, 180; Hannestad 2007, 85-100; for the metal import, esp. Tsetskhladze 1998; de Boer 2010). A major centre for ingot production was, according to this view, the wooded steppe region inhabited by Scythians (Розанова and Терехова 1997; Kristiansen 1998, 279). This theory explains the Greek economic dependence of the barbarians and their interest of the far hinterland, evidenced by the numerous pottery and Greek type architecture from the 6th-5th century BC in the Scythian political centres of iron

production such as Kamenskoe, noted above (Kvirkvelia 2005, 39). Similarly in Thrace, evidence for the presence of Greek settlers and traders is attested during the Classical and Hellenistic period at a number of sites, among which Pistiros, Duvanli, Saadersi, Pырvenets, Sboryanovo, located in iron-producing zones (de Boer 2010, Tsetskhladze 2000, 239; cf. Boyzek 2013).



Fig. 44. Gold pectoral from the Tolstaja Mogila Kurgan in Ukraine, considered as one of the most remarkable testaments of the craftsmanship of Greek jewellers for the barbarian market. 1st half of the 4th century BC. Metropolitan Museum of Art. Photo: <https://www.pinterest.com/pin/338544096958946284/>

2.4.2. Maritime trade and the Mediterranean

The trade with the Mediterranean was regularly maintained via the Bosphoran strait and through the Greek colonies. In the first centuries of their existence, these carried on merchant and cultural relations with the Greek satellite cities along the route to the original Ionian centres; hence the main traffic was conveyed in this direction. The amphorae reflect this situation: in the 6th – early 5th centuries BC they are mainly from Chios, Lesbos, Samos, Clazomenae and other Ionian centres (See Dupont 2003 for further discussion of their origin, Villing 2010, 3). Things changed in the 5th century BC when Athenian imports increased and basically dominated the Black Sea markets until the beginning of the 3rd century BC (*see below*). The volume of the trade is hard to estimate, even if there is an increasing interest on amphora deposits from the Black Sea in the recent years. As Monachov and Kuznetsova (2017, 63-4) summarize, “the analysis of the ceramic complexes from the Archaic to the Hellenistic period led to the following conclusions about the exports of products in amphorae to the Northern Black Sea market. From the time of their foundation onwards, North Pontic Greek *apoikiai* had stable economic contacts with the Mediterranean, receiving the products of Mediterranean workshops and food products that were not available in the colonies (especially, wine and olive oil that were so important to the Greeks), in exchange for local products. The volume of this trade is hard to evaluate, but it is clear, on a very

general level, that already in the sixth and fifth centuries BCE, it was quite significant, even in comparison to the Late Classical period. The proportion of amphorae and amphora fragments in the overall ceramic material recovered from the Greek settlements in the sixth, fifth and fourth century BC is approximately the same.”

Among the main export of the Pontic area to the Mediterranean were the food products, such as a wide range of grain, salted fish and other agricultural commodities (Avram 2007a, 239-51). The superb agricultural conditions in the north Black Sea region, as seen through the eyes of the Greeks, are finely described by Herodotus:

τέταρτος δὲ Βορυσθένης ποταμός, ὃς ἐστὶ τε μέγιστος μετὰ Ἰστρον τούτων καὶ πολυαρκέστατος κατὰ γνώμας τὰς ἡμετέρας οὗτι μόνον τῶν Σκυθικῶν ποταμῶν ἀλλὰ καὶ τῶν ἄλλων ἀπάντων, πλὴν Νείλου τοῦ Αἴγυπτίου: τούτῳ γὰρ οὐκ οἷά τε ἐστὶ συμβαλεῖν ἄλλον ποταμόν: [2] τῶν δὲ λοιπῶν Βορυσθένης ἐστὶ πολυαρκέστατος, ὃς νομάς τε καλλίστας καὶ εὐκομιδεστάτας κτήνεσι παρέχεται ἰχθύας τε ἀρίστους διακριδὸν καὶ πλείστους, πίνεσθαι τε ἡδιστος ἐστὶ, ῥέει τε καθαρὸς παρὰ θολεροῖσι, σπόρος τε παρ' αὐτὸν ἄριστος γίνεται, ποίη τε τῇ οὐ σπεύρεται ἢ χῶρη, βαθυτάτη: [3] ἄλες τε ἐπὶ τῷ στόματι αὐτοῦ αὐτόματοι πηγνυνται ἄπλετοι: κήτεά τε μεγάλα ἀνάκανθα, τὰ

The fourth is the Borysthenes river. This is the next greatest after the Ister, and the most productive, in our judgment, not only of the Scythian but of all rivers, except the Egyptian Nile, with which no other river can be compared. [2] But of the rest, the Borysthenes is the most productive; it provides the finest and best-nurturing pasture lands for beasts, and the fish in it are beyond all in their excellence and abundance. Its water is most sweet to drink, flowing with a clear current, whereas the other rivers are turbid. There is excellent soil on its banks, and very rich grass where the land is not planted; [3] and self-formed crusts of salt abound at its mouth; it provides great spineless fish, called sturgeons, for salting, and many other

ἀντακαίους καλέουσι, wonderful things besides (Hdt
παρέχεται ἐς ταρίχευσιν, ἄλλα 4.53. Trans.: A. D. Godley 1921,
τε πολλὰ θωμάσαι ἄξια. LCL 118)

Grain was fundamental for the trade, the largest production centres located in Crimea, Olbia, Taman and Dobrudzha regions, where wheat, barley, millet etc. are still cultivated (Ščeglov 1990, 141-59). The trade with grain is recorded by Herodotus, who referred to the *Skýthai arotêres* sowing seed “not for home consumption, but for sale.” (Hdt 4.17.2, Trans.: A. D. Godley 1921, LCL 118). He reports also Greek ships transporting grain through the Hellespont near Abydos in 480 BC (Hdt 7.147.2—3). The peak in the grain trade, however, occurs between the late 5th - early 3rd century BC with the development of a large-scale trade between the Bosporan kingdom and Athens (Bouzek 1989a, 249-59; Kakhidze 2005, 115-118; Tsetskhladze 2008, 52-74).

The interest of Athens in the Pontic region was based on the great need for grain, which rose especially after the start of the Peloponnesian war (Garnsey 1988, 132; Osborne 1987, 100; Isager and Skysgaard 1992, 140; Arafat and Morgan 1994, 132; Parkins and Smith 2005). The earliest Attic find in the Black Sea area is a fragment dating to the late 7th century BC from Istros (Alexandriou 2010, 98). Attic ware from the end of the 7th and the beginning of the 6th century found at Berezan, Histria, Apollonia Pontica was imported probably by Ionian traders, as in the 6th century BC there is no evidence for direct connection between areas of Athenian interest and the sites where its pottery from the Archaic and early Classical periods was found. The colonies in the Black Sea received mainly amphorae from Chios, Lesbos, Samos, Clazomenae and other Ionian centres (Dupont 2005, 41-69; Kassab Tezgör and Inaishvili 2010; Alexandrescu 1975, 63-72; Ulitin 2013, 99-101; Абрамов 1994, 4-135; Ефремов 1992, 254-65; Белов 1977), with some evidence of Corinthian pottery and few objects from Naucratis as well (Noonan 1973, 238-9). South Italian/Sicilian amphorae from Apollonia and Berezan are dated to the 2nd/3rd quarter of the 6th century BC (Dupont 2003, 13-14).

Attic ware becomes frequent in the last quarter of the 6th century BC (de Boer 2005, 169). The phenomenon is connected with the Athenian political expansion in the Propontis, the foundation of Sigeion and Athenian settlements on the Thracian Chersonessos like Elaious after the reforms of Solon in the 6th century BC (de Boer

2005, 169). During the 5th century BC the imports from Thasos and Mende, which represent the Athenian trade in the Euxine increased gradually and substituted the East Greek pottery (on the distribution of imported amphorae in various Black Sea centres in the Classic period, Зеест 1960, 18-20; Брашинский 1962, 47; 1976, 69, 72; 1984, 132-133; Bouzek 1989a, 249-59; Абрамов 1994, 6; Завойкин 1992, 263. On the importance of the Black Sea trade for Thasos, more recently Tzochev 2016, 97; on the role of the Sporades and in particular the island of Ikos (Alonnisos), Peparethos (Skopelos), Skiathos in the Athenian trade to the Black Sea, Hadjidaki 1996, 563; Rutishauser 2001, 201), especially at the Bosporan area, to Olbia and Apollonia Pontica (Smith 2013, 347-53; Gallo 2013, 159-161; Moreno 2007, 69-84; Tsetsckhladze 1998, 9ff), but also on the South coast and Colchis (on archaeological evidence for Athenian presence in Sinope, Amisos, Pichvnari, Vani and others, Braund 1994, 114).

The beginning of the Athenian import of grain from the North Black sea, however, is a matter of hot debate (de Boer 2005, 167-80; Noonan 1973, 231-242; Garnsey 1985, 63-75; Tsetsckhladze 2008, 47-62; Кузнецов 2000, 107-20). The Pontic expedition of Pericles in the 430's results in establishing important ties between Athens and a number of Pontic colonies such as Sinope and Amisos (Завойкин 1992, 265, Angelescu 1992, 52, de Boer 2005, 168). The expedition's aims could be deduced by a badly damaged inscription (IG I³ 71), which provides a list of members of Delian league from 425/4 BC and includes circa 40 Pontic colonies, among which Heracleia Pontica, Apollonia, Nikonion, Tyras and others on the North, South, and West Black Sea coast (most recent review of the decree, Gallo 2013, 159-61). Other sources testify Athenian control over Nymphaeum at least between 430 and 410 BC and Athenian troops at Byzantium in 426 BC and possibly also at Athenion, Stralochia and Torikos (de Boer 2005, 170). Export of grain from the North Black Sea to Athens is, however, attested by written evidence only during the reign of Leucon I from 398/88 to 349/48 BC (Tsetsckhladze 1998, 57).

Fishing was also an extensive and economically important industry: tuna, mackerel, sturgeon, turbot, mullet, dolphin, anchovies, and shellfish such as mussels and oysters were the essential species for the ancient fishery in the Euxine (Kron 2014, 192-202; Robinson 1906, 140; Morales *et al.* 2007, 117-172; Demir 2007). Salted or pickled, the fish was exported to Greece and the Near East, especially appreciated in the Hellenistic and Roman age (on the ways they were traded, Højte 2005, 138; Opaїt 2007, 101; on recent discoveries over the fishing industry, de Boer 2013, 112). The region exchanged

barbarian products such as metals, livestock, hides, leather, furs and wood, fruits, honey, wax (general studies, Гольденберг 1953, 200-210; Rostovtseff 1974; Tsetskhladze 1998; Hind 1995-1996, 121-3; on timber, Hannestad 2007, 85-100; on hazelnuts produced at Heracleia Pontica and known as or *karya pontika* or *karya herakleiotike*, exported as far as to Egypt, Reger 2007, 274-275) and a significant amount of slaves (Гайдукевич 1949; Аврам 2007а; Braund and Tsetskhladze 1989, 114-25; Гольденберг 1953, 200-210; Граков 1939, 290ff; see also Gavriljuk 2003, 75-85 on evidence for the import of Scythian slaves in Athens in the 6th and the 5th century BC; Pfuhl 1923, 271 for 6th century BC depictions of Colchian and Scythian slaves on Athenian vases).

The distribution of the Pontic products throughout the Mediterranean is partly shown by the distribution of amphorae and partly, by the written evidence. The analysis of the relevant written texts suggests that the main export from the zone consisted in commodities, such as food, mainly grain, and slaves, which were not conducted in amphorae. This assumption is consistent with the quantitative studies that, comparing the amount of imported and exported amphorae from the Euxine to the Mediterranean, have shown a great difference (Lund 2007, 183-94, cf. Kramer 2002, 92, Garlan 2007, 143-8).

The amphorae production in the Black Sea starts in the late 5th/4th century BC, when Sinope, Heracleia Pontica and Chersonessos initiated amphora production that can be traced within the Mediterranean basin (Tsetskhladze 1998, 43). In the late Classical and Hellenistic period, amphorae from Sinope, Heracleia and Chersonessos have been found in Athens (50%), Rhodes (14%), and in minor quantities in Thasos, Demetrias, Ilion, Assos, Magnesia, Ephesos, and Paphos (Lund 2007, 18-94; Finkielsztejn 2011, 55-61). Most of them belong to Sinope, which reached its height of amphorae production during the 3rd / 2nd century BC and largely exported all over the Black sea as well as in the Mediterranean (de Boer 2008, 7-11; 2013, 109-114; Garlan 2007, 143-8; Erten *et al.* 2004, 103-116).

In the early 3rd century BC occur changes in the main traffic in the Euxine with the decline of the Athenian economy and the end of the *Pax Scythica* in the Bosphorus, as a result of the arrival of new tribes in the steppes in the mid-3rd century BC that cause economic instability and seriously impact the international export of the region. As a result the eastern and southern connections in the Euxine, especially Rhodes, Cos,

Cnidos, Delos and Egypt increase (on amphorae distribution and the growing importance of Rhodes on the Black Sea markets, Лазаров 1977, 1-47; Бадальянц 1970; Беликов 2003, 36-7; on Cnidos, Ефремов 1992, 254-265; on Egypt, Archibald 2007, 253-271; on the crisis in the Black Sea in the 3rd century BC and its influence on the long-distance trade, more recently Tzochev 2016, 97; on Hellenistic East Greek fine pottery in the Euxine, Bouzek 2005, 63-75; 2007).

From the beginning of the 2nd century BC, some new trade routes seem to open. Phanagoria in the Taman peninsula becomes the leading international emporion of the Bosporan kingdom (Шелов 1956, 128–153; Ефремов 1992, 254–265; Кошеленко *et al.* 2010, 261-71). Olbia was receiving amphorae of West Mediterranean production as Carthage, Spain and South Italy that replaced the Ionian centres; the trade was influenced, but not interrupted by the political dependence of the polis from the Scythian kings (Lawall *et al.* 2010, 355-405). Total number of the imports in Euxine generally decreases in the early 1st century BC during the Mithridatic wars, the region relying on the intra-Pontic trade. After 63 BC, with the defeat of Mithridates and the Roman invasion, international trade contacts stabilize again (see Ch.6)

2.5. Discussion

In sum, the research on the ancient Black Sea presents various challenges. Firstly, because the written evidence regarding the Greek colonies on the Black Sea region is scanty (Braund 1998, 287-90; Malkin 1987, 115). On the other hand, excavating the Greek colonies on the Black Sea presents many limitations due to the fact that most of them persisted for many centuries without any considerable interruption, and nowadays they remain under the modern cities or have sunk under water due to the several-stage change in the sea level (Porotov 2007, 29-36; Shilik 1997, 115-129; Кельтербаум *et al.*, 21-6, Венедиков *et al.* 1963; Пеев 2014). Fortunate exceptions of this rule are the ancient Istros and Olbia, which are well preserved (cf. the various contributions in Grammenos and Petropoulos 2003, 2007). Another issue of the archaeological research, related to the Black Sea, is the imbalance in the state of research in terms of various regions and archaeological sites. The region is divided between six modern countries (Russia, Georgia, Turkey, Ukraine, Bulgaria and Romania) and the significant differences in their political development have had a

strong impact on the archaeological research. Hence, the North and the West Black Sea coast are extensively excavated (Minns 1913; Дзис-Райко 1982; Tsetskhladze 2015), in contrast to the South and the Eastern coast (Tsetskhladze 1992; 2015; Stöllner and Gambashidze 2011, 187-201). Among the most difficult questions of the archaeological research in the Black Sea is the dating of the Greek colonization. The main problems are the contradictory data, provided by the written and archaeological sources, and the fact that in the initial period of colonisation, the Greek settlers on the Black Sea lived in dugouts and semi-dugouts, while the first stable buildings were constructed decades after the foundation (Bujskikh 2017, 5-16).

The Greek interest on the Black Sea was determined by the fact that the region offered a vast, fertile territory and the possibility to develop a large-scale trade with various local societies and the Mediterranean. On the North and North-West, the plane lands (Dobrudzha, Olbia plain, and Tauric and Taman peninsulas) are grain productive. Irrigated by the long rivers Danube, Bug, Dnieper and Dniester, these provided an abundant agricultural harvest, cattle, fish and timber, while the navigable river channels offered an easy communication route to the deep hinterland (Braund and Kryzhytskij 2007). On the South-West, South and East coast of the Black Sea, however, the mountainous coast deprived the Greek colonies of vast agrarian *chorai* and they directed their economy mostly to metal extracting, fishing industry and trade.

Interaction between the Black and the Mediterranean Sea is attested much earlier than the Greek colonization and were developed in the context of the prehistoric metallurgy-related trade (Chernykh 2014, 1003). Exploitation and mining of metal ores and gold- and copper-processing is attested in the Balkans and the Caucasian region from the 5th millennium BC (Higham *et al.* 2007; Stöllner *et al.* 2014; Hansen 2013, 159). Relations between the Caucasus region and the Near East seem to have been especially important during the 4th millennium BC (Courcier 2014, 643; Lyonnet *et al.* 2009, Tadmor *et al.* 1995, 143). Prehistoric gold mines such as Sakdrisi, used from the beginning of the 3rd millennium BC, and the number of golden artefacts, found in kurgans from the 2nd and the 1st millennium BC, show the long tradition of gold extraction and processing in the region (see discussion on p. 28ff). Further, the in Lower Caucasus there are a series of small deposits of copper and silver, which are easy for extraction and processing (Kuparadze *et al.* 2008). On the other hand, the copper extraction in the Balkan region production in the 5th and the 4th millennium BC is shown by the excavations at Rudna Glava and Belovode (Serbia) (Jovanović 1982;

Filipović 2015, 341-7; Radivojević *et al.* 2010, 2775-87; Hansen 2013, 147; Leusch *et al.* 2015, 369) and the polymetallic mine of Ai Bunar (Bulgaria), where the presumed smelting of the copper reached up to 500-1000 tons. Gold production in the Black Sea reaches an unprecedented scale in the Bronze Age (Tsintsov *et al.* 2016, Popov 2012). The search for metals determined the extensive contacts of the Balkan region with the Mycenaean culture in the 2nd millennium BC (Katincharov 1989; Bouzek 1989b, 217-234; Zoltán 1978, 289-290; Бонев 1988; Стоянов 2000, 53ff; Alexandrov 2005) (Fig.16) and of the contacts between the South coast of the Black Sea, Asia Minor and the Levant (Özgüç 1980; de Boer 2015, 74; Manoledakis 2015a, 84; Dan 2011a, see further discussion in the next chapter).

The Greek colonization of the region leads to significant changes in the trade with the Mediterranean. Triggered by Ionian Greeks and probably, involving other Asia Minor inhabitants (Lydians, Phrygians, Aeolians, Carians), the earliest Greek settlements were founded on the delta of the main navigable rivers in the second half of the 7th century BC (Tsetsckhladze 2015, 26, n.113). The second “wave of colonisation” took place after the conquest of Media by Cyrus in 546 BC, and was much greater in volume, while the third began after the decisive victory of Persians over the Greek revolt in 494 BC (Кузнецова 2013; Tsetsckhladze 1996, 959; 2014, 217; Иевлев 2003; de Boer 2007; 2015; Damyanov 2015, 296-7; Hind 1994) (Fig. 23, 27).

The Greek settlements and the local ethno-political formations of both nomadic and settled agricultural groups were subjects to continuous and multifaceted interaction, which was in a constant state of flux (Shcheglov and Katz 1991, 116). The economic and cultural ties of the Greeks with the locals, and most of all, the political dependence upon them, deepens in the end of the 6th and beginning of the 5th century BC, when local kingdoms in Thrace, Scythia, Colchis and Paphlagonia were established (on this process see e.g. Васильев 1992, 111-28; Gallotta 2015, 63-5; Archibald 1998; Сапрыкин 1996). The Southern Black Sea shore was incorporated into the Persian Empire from the first half of the 6th to and the end of the 4th century BC (Bill 2010, 15-28).

The major part of the commodities imported from the Mediterranean to the Pontos Euxeinos were destined for the barbarian market (Самойлова 2009, 363-368; Копылов and Rempel 2006, 47-50; Archibald 1998; Tsetsckhladze 1998, 51, n.200; 177-96; 213-81; see also various contributions in Зинько 2003; Gabrielsen and Lund

2007). The Greeks in the Euxine mostly provided in the local market wine and olive oil, along with weapons and tools, luxurious craftsmanship, books, furniture, marble, ivory, textiles, cosmetics, precious metals etc. (Коваленко 2002, 80-96;; Tsetskhladze 2012, 315-74; Kacharava 1995, 63-73; Archibald 1998; Teleaga 2008; Alexandrescu 1975, 63-72; de Boer 2010, 180). Greek imports gained popularity and are attested as far as Ural and Altai mountains (Kuznetsova 1991, 77; Kim 2010, 115-135; Khazanov 2015, 32-49). For the Greek products the locals exchanged grain, livestock, slaves, honey, leather, beeswax, wine, timber, charcoal, metals, etc. (Kristiansen 1998, 279; Kopylov and Rempel 2006; Archibald 1983, 305; Tonkova 2008, 267-8; de Boer 2010, 180; Hannestad 2007, 85-100; Tsetskhladze 1998; de Boer 2010).

The trade between the Black Sea and the Mediterranean was regularly maintained via the Bosporan strait and through the Greek colonies. In the first centuries of their existence, the main traffic was directed to and from the Ionian colonies (Dupont 2003; Villing 2010, 3). From the 5th century BC until the beginning of the 3rd century the Athenian imports dominated the Black Sea markets BC (*see below*). Among the main export of the Pontic area were different sorts of grain, salted fish, slaves and various agricultural commodities (Avram 2007a, 239-51). The peak in the international trade occurred between the late 5th - early 3rd century BC with the development of a large-scale trade between the Bosporan kingdom and Athens (Bouzek 1989a, 249-59; Kakhidze 2005, 115-118; Tsetskhladze 2008, 52-74; Зеест 1960, 18-20; Брашинский 1962, 47; 1976, 69, 72; 1984, 132-133; Bouzek 1989a, 249-59; Абрамов 1994, 6; Завойкин 1992, 263). Fishing was also an extensive and economically important industry (Kron 2014, 192-202; Robinson 1906, 140; Morales *et al.* 2007, 117-172; Demir 2007). Salted or pickled, the Pontic fish was especially appreciated in the Hellenistic and Roman age (on the ways they were traded, Højte 2005, 138; Opař 2007, 101; on recent discoveries over the fishing industry, de Boer 2013, 112).

The distribution pattern of the Pontic products, exported in the Mediterranean, is partly shown by the distribution of Pontic amphorae and partly, by the written evidence. The research on this matter is hampered by the fact that the main export from the zone consisted in commodities, which were not conducted in amphorae, such as grain and slaves (Lund 2007, 183-94, cf. Kramer 2002, 92, Garlan 2007, 143-8). However, amphorae distribution suggests that Pontic products were exported in the Aegean, the Ionian coast, the Levantine coast and Cyprus, but maybe also in the West (Lund 2007, 18-94; Finkielsztejn 2011, 55-61).

Commercial traffic in the Black Sea was subject to local political and economic crises, related to movements of the local tribes and conflicts in the hinterland which directly affected the economy of the Greek colonies. Such occurred for instance in the early 3rd century BC and in the beginning of the 2nd century BC (Лазаров 1977, 1-47; Бадаљянц 1970; Беликов 2003, 36-7; Ефремов 1992, 254-265; Archibald 2007, 253-271). The total number of the imports in Euxine generally decreases in the early 1st century BC during the Mithridatic wars. After 63 BC, with the defeat of Mithridates and the Roman invasion, international trade contacts stabilize again (see Chapter 6).

CHAPTER 3

PHOENICIAN NETWORKS AND THE EAST MEDITERRANEAN

3.1. Reconstructing cross-cultural networks

The study of the Phoenician commercial presence in the Black Sea can be carried out only in the broader horizon of the Phoenician trade in the Eastern Mediterranean, particularly in the North Aegean and Asia Minor. The aim of the present chapter is to summarize and to discuss the main research on this topic.

3.1.1. Adapting models and approaches for the research

Cross-cultural trade contacts are an important phenomenon in human history. In the Greek culture, these often occurred in areas that served as boundary or, conversely, as contact points of the communities that participated in the trade network (Curtin 1984; further on the trade of the Greek world with the Orient in the Early Iron Age, among others, Coldstream 1998, 2008; Sørensen 1997, for the Persian period Elayi 1988; Miller 1997; Van Alfen 2002). When the trade relations developed into systematic trade networks, institutionalized centres for commercial operations (*emporía*) started to operate in strategic for the network sites, facilitating the specialization of the production and the organization of the trade such as e.g. taxations (Mele 1979; Silver 1995). The *emporía* consequently developed ethnically mixed societies of specialized dealers and craftsmen, the so-called “commercial diaspora” groups that were particularly characteristic in the Phoenician society (Μπουρογιάννης 2007, 329, n.125). In this stage, the trade develops specialized patterns of exchange and distribution in dependence on the particular demand, while a major effect of this process is the extended cultural exchange at the distinctive levels of ideas, expertise and technical practices (Sherratt 2010, Curtin 1984, Burkert 1982).

The reconstruction of an ancient cross-cultural commercial network is a complex process, which is based on the combined analysis of all available data using multiple

and distinctive criteria of ancient trading activities (for the definition of the term network, see e.g. Sommer 2007, 99). Such are the frequency of commercial contacts, the geographical circulation of the goods from the place of their initial production until reaching the final receivers, the possibility to identify the commercial network's participants (e.g. the ethnicity of the carriers) and the way of their engagement in the whole trading process (active, passive or transitory), the cultural role of the traded items in both engaged societies, etc. (for a general outline of this methodology, see recently, Chirpanlieva 2013; for the issues over the interpretation of the pottery finds, Cook 1997, 254, Miller 1997, 64, Tsetsckhladze 1998, 55; Osborne 2009; for the issues of identification of carriers, Tsetsckhladze 1998, 61ff; for the methodology of the study and history of research of amphorae in terms of estimating the Pontic trade, Katz 1992, Брашинский 1984).

The task is further complicated by the incompleteness of the available material, as the documentation regarding ancient cargoes is often lacking. Furthermore, especially as concerns the Phoenician trade networks, the core of the traffic of goods consisted from organic materials (for instance, slaves, textiles, food, construction materials, or else) that in great part perished and do not survive in the archaeological record (Fletcher 2012, 211-20). This leads to a poor perceptibility of the ancient commercial operations and the challenging issue to reconstruct trade networks on incomplete evidence that may easily lead to inaccurate interpretations (Μπουρογιάννης 2007, 22-3; Tsirkin 1987; Лавренова 1994; on pottery, Boardman 1980, 16-18; Gill 1988; for the misbalance between the studies devoted to the Greek and Phoenician trade, Aubet 2001, pp. 97-143). There is an illustrative example of this matter that regards a ship, which sank in 1613 AD. The documentation of the ship confirms that it transported a cargo of 15 000 bags of pepper, tea and spices, but a small amount of porcelain was the only commodity, found by an underwater survey of its shipwreck (on this case, Bouzek 1990, 94). For taking an example, related to the Antiquity, studies on imported amphora have shown that commodities such as wine, olive oil, raisins, figs were probably the main agricultural commodities transported in amphorae in the Euxine from the Mediterranean, but the written testimonies on the other hand reveal that goods not traded in amphorae, such as food (grain, fish, etc.), raw materials (metal, marble) and various artistic objects including fine pottery, textiles and furniture were equally important (Bouzek 1990, 95). Furthermore, recent studies of DNA residues in amphorae have shown that the practice of amphora reuse in the Mediterranean and

the Black Sea, as well as the replacement of their original content at the Pontic *emporion* prior to be redistributed to the hinterland populations, was quite common, which further complicates the studies on ancient trade. For instance, while analyzing the content of an amphora, found on a shipwreck near Odessos, scholars have found traces of bones of a large catfish, several olive pits and the remains of resin, which confirms that it has been reused several times. The radiocarbon analysis of the bones places the shipwreck between 487 and 277 BC (de Boer 2013). Moreover, on amphorae from Panskoe and Olbia from 3rd-2nd century BC are found remnants of bones and fish scales together with grain and lentil seeds (ibid.; further on amphorae reuse in the Mediterranean for all sorts of commodities – cheese, pickled fish, beer, nuts, honey, funerals, filling of walls, etc. see e.g. Amemiya 2007, 9; for references, see Abdelhamid 2015; especially for the Black Sea, de Boer 2013).

Taking these factors in consideration, various universalistic models of ancient trade have been proposed, following the substantivist, processual, post-processual or structuralist theories that have been developed in the course of the study of the ancient societies (an overview of the currents in archaeology and theories of economic exchange, see e.g. Gardner *et al.* 2013; Johnson 2010; Trigger 2006; Hodder and Hutson 2003; Smith 1999, 180ff). In a recent analysis on these models, I. Chirpanlieva (2013) concluded that only few of them are applicable to the Greek-Phoenician network in the Eastern Mediterranean during the Iron Age, because in most part, they tend to simplify the commercial processes in order to generate particular trade models, or adopt the centre-periphery model, while the circulation of goods in this interethnic network was dependant on various social, economic and political processes and trans-cultural interaction. For this reason the study of Greco-Phoenician networks requires complex approaches, which provide a bilateral analysis from both Greek and Phoenician perspective. She adds that in this analysis it is also essential to take into account the question of the demand, instead of concentrating mostly on the production origin, considering the fact that the dependence on the demand was an important driving force for the circulation of goods through long-distance trade. Such theories, according to the scholar, are those proposed by Scedel *et al.* (2007) and by Bresson (2007-2008). A similar opinion is expressed in the study of Van Alfen (2002) that focuses on the Aegean-Levantine interaction during the Persian periods. The present thesis too accepts this view and instead of following an economic theory, it offers a

multilayered analysis of the distribution patterns that is amplified with a thorough examination of the receiving market.

3.1.2. Defining the term "Phoenician"

A main issue in the study of the Greek-Phoenician relations in the East Mediterranean is the use of the term "Phoenician" in the scientific literature, which seem to be difficult to define from ethnological, chronological and geographical point of view (Astour 1965; Markoe 2000, 10ff; Bourogiannis 2012a, 39-40). In terms of people, it precariously refers to the Canaanite inhabitants of Syro-Palestinian coast, allowing, especially in the Aegean horizon, the generalisation of the term, or its substitution with "Levantine", as a geographical and ethnic reference, which comprises both groups of "Phoenicians" and "North-Syrians" (Bourogiannis 2012a; Kourou 2008, 307-308; Gunter 2009; Fletcher 2006, 187). At the West, the Phoenician cultural horizon is defined as Carthaginian or Punic; however, mostly because the English language lacks the corresponding substantive, the term "Phoenician" is also commonly applicable (Moscati 1992; Bonnano 1990, 210).

Analogously, when used to define objects, the term "Phoenician" often inclines towards a generalization and rather descriptive use, mainly because the distinction between the various artistic Levantine centres is challenging (Kourou 2008, 307; Boardman 2005, 284-85; Niemeyer 2005; Μπουρογιάννης 2007, 83-86; Fletcher 2006, 187; 2008; cf. also: Fletcher 2004, 51-77 and Hodos 2011, 23-45 for an attempt to distinguish Tyrian from Sidonian trade networks; Chirpanlieva 2013 for the study of Phoenician networks through the distribution of Greek pottery; Bisi 1987; Μπουρογιάννης 2007 for the difference between Cypriot and Phoenician trade networks in the Early Iron Age). The frequent difficulty to securely determine Phoenician imports in the Aegean, results in adoption of a variety of generalized terms ("Levantine", "Syrian", "Syro-Palestinian", "Cypro-Phoenician"), used without distinctive archaeological, geographical and interpretive implications (Boardman 1990, 1-17; Baslez 1987, 461; Aubet 2001; for the puzzled use of the term Cypro-Phoenician, Iacovou 2004, 61-66; Bourogiannis 2010) or by defining the objects as local copies of "eastern" products (for doubts on the validity of ethnological identifications, based on stylistic or other archaeological evidence, see e.g. Hoffman

1997; Coldstream 1982; Kourou 2000, 1067; Μπουρογιάννης 2007, 460). Naturally, the lack of concreteness in the publications reflects negatively on the study of trade networks.

3.1.3. Identifying Phoenicians: ethnicity and personal names

The challenge in tracing the Phoenician merchants rises not only from the poor archaeological visibility of the commodities that they transported (Fletcher 2012, 211-20), but also from their extensive integration within Greek society and in particular the use of Greek names, translated or phonetically adapted from the Phoenician. The common interpretations are listed below.

Adaptations of personal names: Domsalos, Domanos (d'mšlh, d'mħn), and their more Hellenised forms Damon, Damis, Damas, derived from Tammuz (Adonis), Abdes and derivatives ('bd), Apses ('bdšd), Gorgias (grġs), Mnaseas (Menahem), Stratos and similar (Astarte) etc.;

Translations and theophoric personal names: common names from this category are e.g. Heracleides (from Melqart), Asklepiades, Asklepiodoros (Eshmoun), Basileides (mlkb'l); names deriving from Dios or Zeus, e.g. Diogenes, Diodoros, Zenon, Zenodotos (Baal), Zwiilos (yħw'), Theodoros, Theodotes (El), etc., and various names deriving from Apollo (Reshef), Artemis (Tanit), Aphrodite (Astarte), Helios (Shamash), and Adonis.

The theophoric part is sometimes combined with prefixes and suffixes, such as *-doros*, *-doulos*, *soter-*, *abd-*, *zwi-* e.g. in Sosipartos, Sostratos. Other common translations contain *aristos-*, e.g. Aristokratos, Aristokles, and Ariston. Phoenicians often adopted names that contained the part *-kratos*, as in Aristokrates, Epikrates, Sokrates, and parts that transmit family relations, such as father, brother, and son (e.g. Antipatros) (Briquel-Chatonnet 1995).

Although the banality and limited number of Greek names, used by the Phoenicians, is indicative of a possible Phoenician ethnic, without a bilingual inscription or a Phoenician patronymic, the identification of these individuals is rather hazardous (Amadasi Guzzo, Bonnet 1991, Amadasi Guzzo 2007, 207ff). In fact, an important range of Phoenician traders are identified only by their patronymic, e.g. Theodoros the

Phoenician, Heracleides of Salamis, and Ph[...] of Salamis, Apse of Tyre, who were involved in the Athenian grain trade in the 4th century BC (see *infra*, p. 223).

3.1.4. Crafts and trade

Despite the fact that the nature and the structure of the Phoenician economy present many uncertain aspects, trade was evidently an important part of it (see extended discussions in Aubet 2001; Sommer 2010; Fletcher 2012). Already Homer refers to the Phoenicians as traders (bronze, *Il.* 23. 742-744, *Od.* 4. 615-619; slaves, *Od.* 14. 287, 15. 415), but also able craftsmen. In the *Iliad*, Phoenician metal artworks are described as “in beauty [...] far the goodliest in all the earth” (*Il.* 23.740). Typical Phoenician professions were bakers, tanners, metalworkers, blacksmiths, sculptors and, of course, traders (Baslez 1987). In many instances the archaic/classic sources point to them as producers and importers of various raw materials and manufactured goods: carpets, purple tissues, dyes, cosmetics (perfumes, lotions, medicines, oils, cosmetic creams), spices, dates, luxury flour, precious furniture, glass products, metal objects, ivory, grain, wood, candied fruits, wines, fabrics and embroidery, grain, leather, cedar, bitumen (from Judaea), incenses, precious stones and slaves (especially in Hellenistic times), luxury artefacts or cheap implements, utensils, toys and trifles (see the detailed discussion in Baslez 1987; cf. also Seefried 1982; Fletcher 2012; Rostoftsjev 1968, 98, 111; Martin 1965, 21-31, 34; Moodie 2015). Important items, related to the Phoenicians, are the *athyrmata*, an all-embracing term, used by Homer, for beautiful objects, adornments of foreign origin (*Od.* 15.459; 18.32), although some scholars attribute to the term the negative sense of knickknacks (Hurwit 1987, 125). The term comprises objects such as jewellery, scarabs, beads, amulets and other objects, produced from precious metals, faience, glass, ivory, semi-precious stones and gemstones (Moscati 2001, 308). The Phoenicians, in particular the Sidonians, in the respect of their unparalleled artistic craftsmanship, are referred in the *Iliad* as *polydaidaloï*, “of many skills” (*Il.* 23. 740-49); but in the *Odyssey* this epithet is transformed to *polydaidaloï*, “of many tricks”, thus reflecting an image of the Phoenician trader that will remain controversial for centuries (*Od.* 15. 459; Hurwit 1987, 125, Aubet 2001, 130; for a discussion of the artistic value of the Phoenician craftsmanship, Moscati 2001, 306-8).

Phoenicians acted as **intermediate** traders as well, often carrying Greek merchandise. Thus in the 9th century, Greek pottery reached Huelva on Phoenician ships (González de Canales Cerisola *et al.* 2006), and in later epochs Greek sources testify that Greek pottery was carried to the West by Phoenicians. Pseudo-Scylax (*Peripl.* 112) describes Phoenician ships trading with Morocco and conveying Attic pottery along with myrrh and Egyptian stone, while Herodotus (3. 6-2) states that Greek and Phoenician wine amphorae were traded to Egypt, where they were emptied of wine, filled with water and transported to Syria (on the Phoenician commercial activity in the West Mediterranean and Egypt, see e.g. González de Canales Cerisola 2014; de Boer 2008; Chirpanlieva 2013; Coldstream 2011,180; Domínguez Monedero 2013).

3.2. The North in the Greco-Levantine trade networks

3.2.1. The Greco-Levantine contacts from the LBA to the 4th century BC

As already demonstrated in the previous chapter, cross-cultural trade between the Greek world and the Levant existed in the eastern Mediterranean basin as early as the end of the 3rd millennium BC, evolving into a widespread mercantile system in the LBA (see e.g. Lambrou-Phillipson 1990; Silver 1995, 194-9; Cline 1994; for a study on the distribution of Canaanite jars in the Greek world and Egypt, Regev 2004). In this period, at least one maritime trade route to the North is attested by ox-hide ingots and weapons found in locations which supposedly were on this way, namely near Cos, Samos, Marmara Sea and several sites at the Bulgarian coast (Pulak 2008, 299; Lipinski 2004, 162; Карайотов 1978; Стоянов 2000, 53ff). This evidence is consistent with the archaeological notions about contacts between Troy and Thrace in the second half of the 2nd millennium BC (Бонев 1988; Lipinski 2004, 161) and evidence of Mycenaean and Cretan presence in the Balkans in the same epoch (Карайотов 1978; Matsas 1995; Fol and Schmitt 2000; cf. discussion on p.54). Another important indication of contacts between the Balkans and the Eastern Mediterranean in the end of the 14th century BC is found among the objects from the Ulu Burun shipwreck (Pulak 2008, 372-3). This merchant ship's origin was supposedly Tell Abu Hawam on the Levantine coast and its destination is believed to be some Aegean centre, probably on the Greek mainland, supposedly Tiryns and Mycenae (*ibid*; Fig. 45). The ship had large and varied cargo of

about 20 tons, mainly copper ingots, but also other raw materials, and manufactured and luxury goods, and prestige items for gift exchange (tin ingots, glass ingots, ivory, ebony, dozens of Canaanite jars and pithoi with pistachio resin, tortoise carapaces, murex opercula, ostrich eggshells, Cypriot pottery, cosmetic utensils, amber, jewellery, various weapons and tools, remains of spices, fruits, grain cultures (Pulak 2008, Katz 2008, 128). The objects aboard originated mainly from Syro-Palestine and Cyprus, but also Mycenae, Egypt, Nubia, the Baltic, north Balkan, Babylon, Kassite, Assyria, Central Asia, and possibly south Italia or Sicily (Pulak 2008). Such a variety of commodities clearly documents an extensive international trade throughout the Eastern Mediterranean, which supposedly also reflects royal interests, in a period, when the seaborne long distance trade generally involved gift exchange with items of great economic value, controlled by the state (see e.g. Liverani 1991; 2001; for evidence for gift exchange by sea and over land, provided by the Amarna letters and Ulu Burun shipwreck, see e.g. Katz 2008, Liverani 2008; Tarawneh 2009, 143-150; Zangani 2016; on the role of Cyprus, Kassianidou 2013). Among the people, identified in the ship by their belongings, there were four Syro-Canaanite or Cypriot merchants, two Mycenaean officials and curiously enough, an individual that appears to be of Balkan origin. This person's role on the ship is not clear; he was hypothesized to be a mercenary of the Mycenaean officials or person somehow related to the trade of Ulu Burun ship (Katz 2008, Бонев 1988). His presence is detected by several northern-type artefacts, such as sword, spearheads, a bronze pin, and a sceptre-mace with close parallels on the northern Balkans (Pulak 2008, 302) (Fig. 47).

The maritime trade system in the Eastern Mediterranean collapses towards the end of the LBA, when a general crisis affects the whole area (Knapp and Manning 2016; Cline 2014). Sporadic contacts, re-emerged in the 11th century BC, are revealed by some Cypriot artefacts, found in the Aegean (Russell and Knapp 2017; Von Rden 2007; Tiverios 2012, 69; Kourou 2012, 37; 2008; Papasavvas 2004; Gilboa *et al.* 2015; Vagnetti and Lo Sciavo 1989, 227 – 29; Karageorghis 1994; see also Fletcher 2012, 215ff for a review of the debate on the economic processes that led to the revival), but the Phoenician - Greek trade is traceable again from the second half of the 10th century BC (Gilboa 1989; 1998; Μπουρογιάννης 2007; Bourogiannis 2018; Katz 2008; Chirpanlieva 2013; Kourou 2000; Liverani 1988, Muoz Sogas 2019; Kourou and Grammatikaki 1998; see also Toffolo *et al.* 2013 on the absolute chronology of the Aegean Early Iron Age). By the end of the 9th century, Euboean imports spread along

the whole Levantine coast, while in the Aegean, Levantine imports appear in Euboea, Crete, Dodecanese and Cyclades (Chirpanlieva 2013, 270-271; Μπουρογιάννης 2007; Kourou 2012; Coldstream 1998; 2008; Fig. 48), the ethnicity of the traders - Phoenicians, Cypriots, Euboeans - debated (Kourou 2000, 1067-1082; 2002; 2008, 308; Bourogiannis 2012a; Gates 2010, 67-70; Boardman 1990a, 169-190; Niemeyer 2005, 11-17; Coldstream 1998; Papadopoulos 1996; Huber 2017). In this



Fig. 45. 2nd millennium trade routes related to the Ulu Burun shipwreck. After Pulak 2008, 298, fig.97

period or slightly later, the Phoenicians begin colonizing the West, establishing in centres such as Cadiz, Huelva in the beginning of the 9th century BC, and Carthage, around the end of the same century (discussions on the chronology, González de Canales Cerisola 2014; González de Canales Cerisola *et al.* 2008; Coldstream 2011, 180; Aubet 2001, 257ff. For a different view, cf. Nijboer 2008, who argues that the Phoenician commercial activity in the region of Huelva begun in the second half of the 10th century BC).

In the same period, they start operating in the North Aegean as well (Τιβέριος 2004; Tiverios 2008, 75 ff.; 2012). According to Kourou (2012, 226-227), “apparently then trading networks in LG Aegean with a fixed target, such as the acquisition of a standard and major commodity, were active, but at the same time other, smaller and more dispersed networks operated, which correspond better to the notion of Phoenician trade as described by Homer: a casual exchange system, which provides mainly small objects (ἀθύρματα) to people who, by dedicating them to sanctuaries, aimed at enhancing their social identity.”

The Greek imports to the Levant considerably increase in number in the second half of the 8th century BC (Chirpanlieva 2013, 270-271; Coldstream 1988; Boardman 1990; 2002; 2005). These were probably at least partially transported by Phoenicians, as in this period, the archaeological evidence related to the Greco-Assyrian relations is unclear (for a discussion over the archaeological evidence from sites such as Al Mina, Tell Sukas and Ras-el-Basit, see for instance Niemeyer 2005), while the written sources suggest that there was no significant Greek settlement or trading presence in the Levant before the late 7th/early 6th century BC, and direct Greek links were slight (Kuhrt 2002, 20). Moreover, in the same period, Carthage receives Attic, Corinthian and East Greek imports, which stand in direct comparison with pottery, found in the Levant (Docter 2000, for the connections between the Levant and Corinth, see Morris and Papadopoulos 1998; Fletcher 2011; 11-42; on the Greek presence at Carthage, Fantar 1998, 11-19). With the Greek colonisation in the Mediterranean, commercial initiatives increase, *emporía* emerge on nodal points and, according to the researchers, trade becomes specialized on various productions. Excavation material seems to show the formation of a Phoenician “commercial diaspora” from the 9th century onwards (Kourou 2012; Bisi 1987; Coldstream 1969; 1982, 261-275; see also Stampolidis 2012; Kourou 2012, 40ff; Boardman 1980, 35ff; Burkert 1992; Lipinski 2004, 146) .

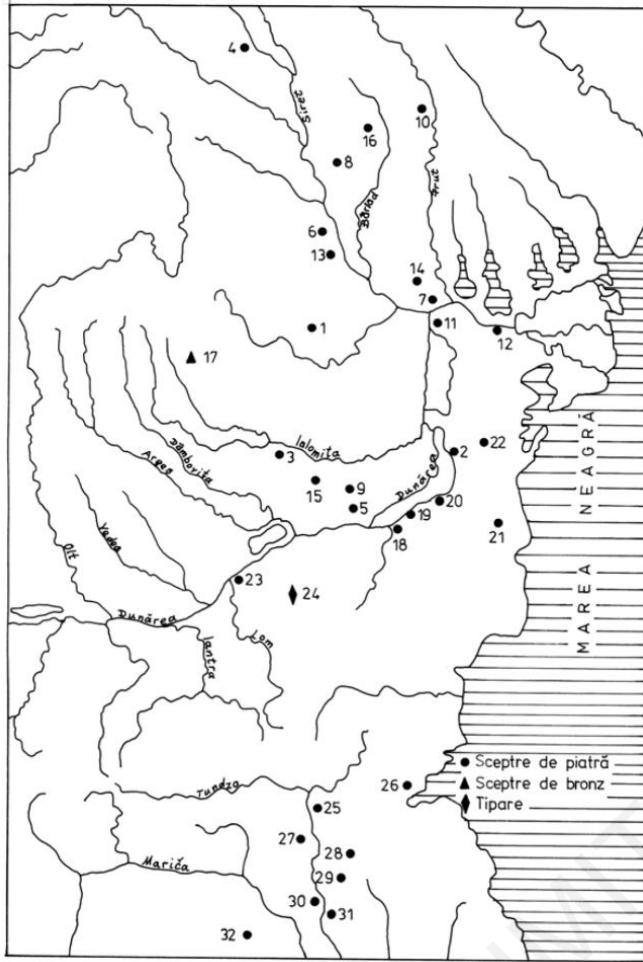


Fig. 46. Distribution of stone and bronze LBA sceptres in the Balkans.

1 - Băiești-Aldeni; 2 - Capidava; 3 - Coțofanca; 4 - Davideni; 5 - Dorobanțu; 6 - Mânăstioara-Fitionești; 7 - Galați; 8 - Găiceanca; 9 - Gălățui; 10 - Huși; 11 - Măcin; 12 - Parcheș; 13 - Țepu; 14 - Vânători; 15 - Vlădiceasca; 16 - Voinești; 17 - Drajna de Jos; 18 - Dervent (?); 19 - Satu Nou; 20 - Rasova; 21 - Lanurile; 22 - Pantelimon de Sus; 23 - Ruse; 24 - Pobit Kamāk (= Dikili Tasch); 25 - Ljuljin; 26 - Meden Rudnik; 27 - Drama; 28 - Kubadin; 29 - Željzkovo-Momina Čărkva; 30 - Malomirovo; 31 - Elhovo; 32 - Haskovo. After Irimia 2008, 110, fig. 7

A.

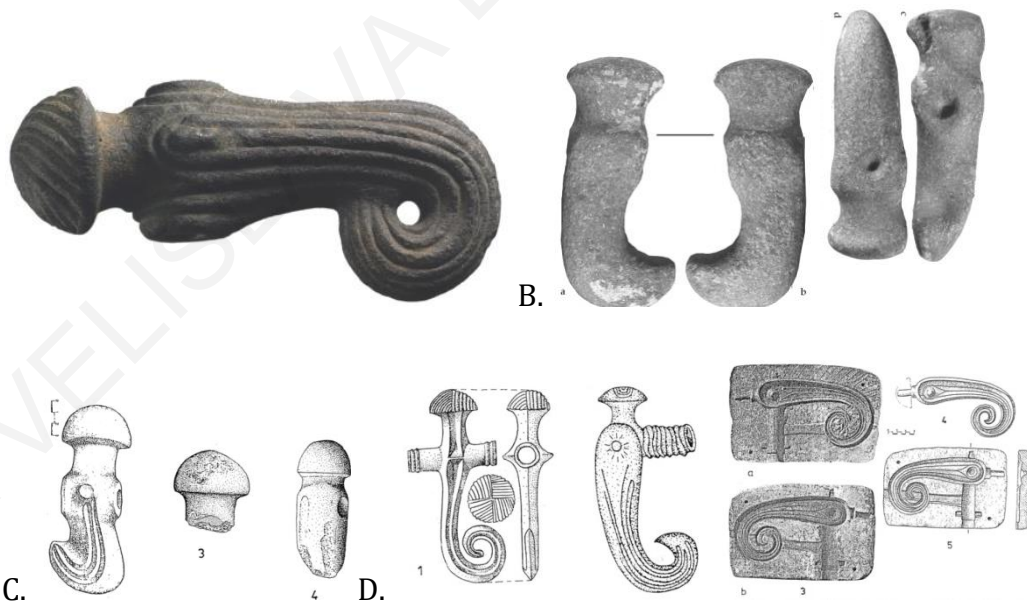


Fig. 47. A. Bronze sceptre from Ulu Burun shipwreck. After Pulak 2008, 372, fig.117. B. Stone sceptre from Pantelimon de Sus, Constanta, Romania. After Irimia 2008, 108, fig. 5. C. Stone sceptres from (left to right): Ljuljin, Elhovo, and Haskovo, Bulgaria. After Irimia 2008, 106, fig.3. D. Bronze sceptres: 1. Drajna de Jos, Prahova, Romania; 2. Lozova, Kharkiv, Ukraine; 3, 4, 5 Pobit Kamak, Razgrad, Bulgaria (mould and reconstruction). After Irimia 2008, 107, fig. 4.

In the 7th century BC, the trade networks gradually change, and from the middle of the century the Greek imports in the Levant gradually increase (Coldstream 1985, 58-59; Sørensen 1997, 288). The archaeological data matches the image derived from textual sources, which suggests an intensification of the links between Ionia and the Levant (on the Ionian-Levantine relations in the first half of the 1st millennium BC, see for instance Fletcher 2012; Kuhrt 2002; Sommer 2007 for the Phoenician activity in the Mediterranean and beyond; Kourou 2012 on their activity in the Aegean during the same period. Malkin 2011 examines the nature and extent of archaic Phoenician and Greek networks across the Mediterranean, while Peacock 2011 reconsiders Phoenician-Greek commercial connections in the Homeric poetry).

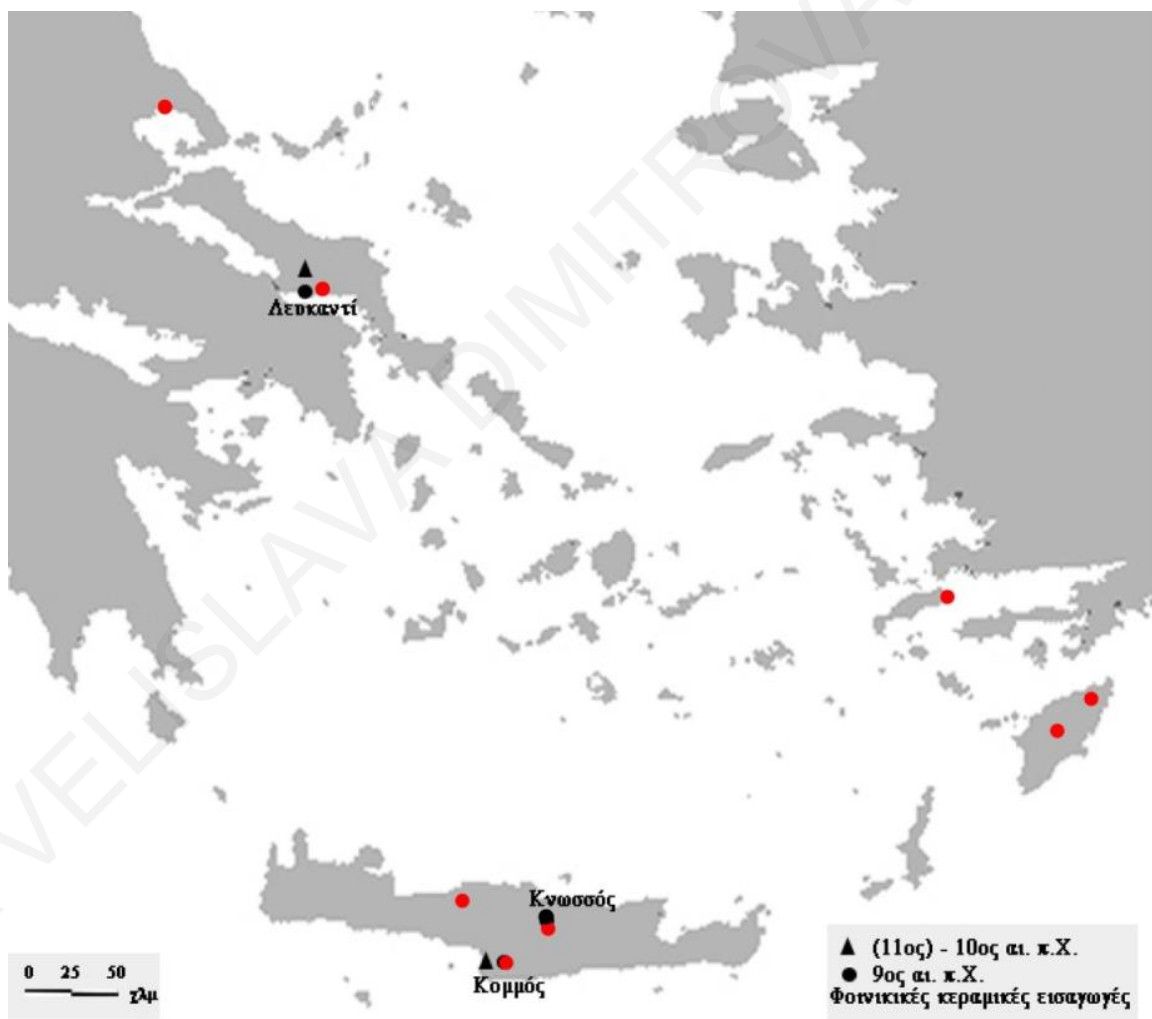


Fig. 48. Levantine imports in the Aegean in the 10th - 9th century BC. Phoenician (black) and Cypriot (red). After Μπουρογιάννης 2007, χαρτές 14,5, 13.

Numerous studies have tried to identify trade routes on the basis of single objects and groups of commodities. Thus Fletcher (2004) traces Phoenician and Greek trade by the distribution of Egyptianising amulets and Gill (1988) discusses Phoenician oil trade in the West markets. A recent study that uses this methodology in order to estimate the Phoenician commercial activity in the Aegean has been conducted by Chirpanlieva (2013). The author analyses the distribution of selected Greek pottery groups, in order to define Phoenician trade patterns (Chirpanlieva 2013, 274ff). The results of this analysis are very interesting. The oldest North-Ionian bird-bowls for

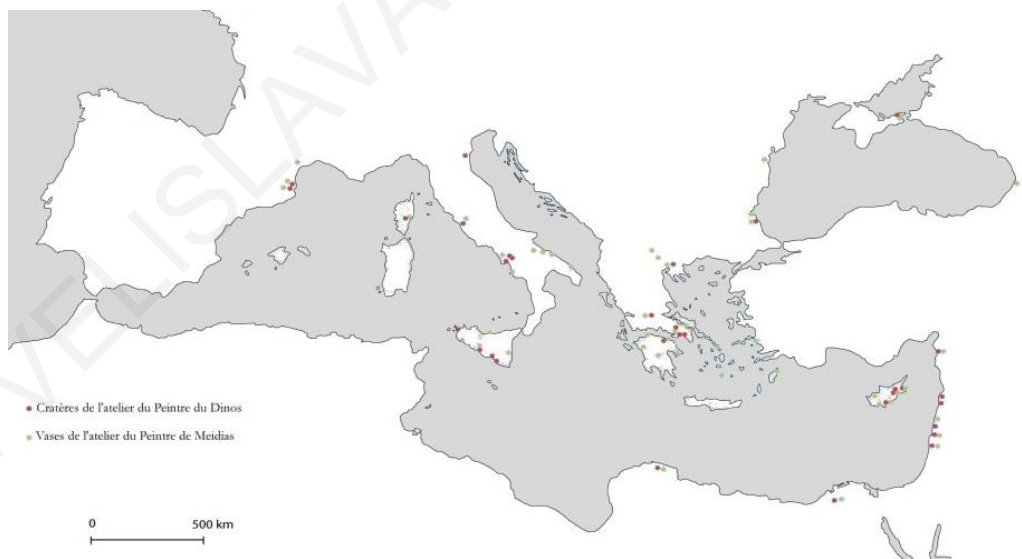
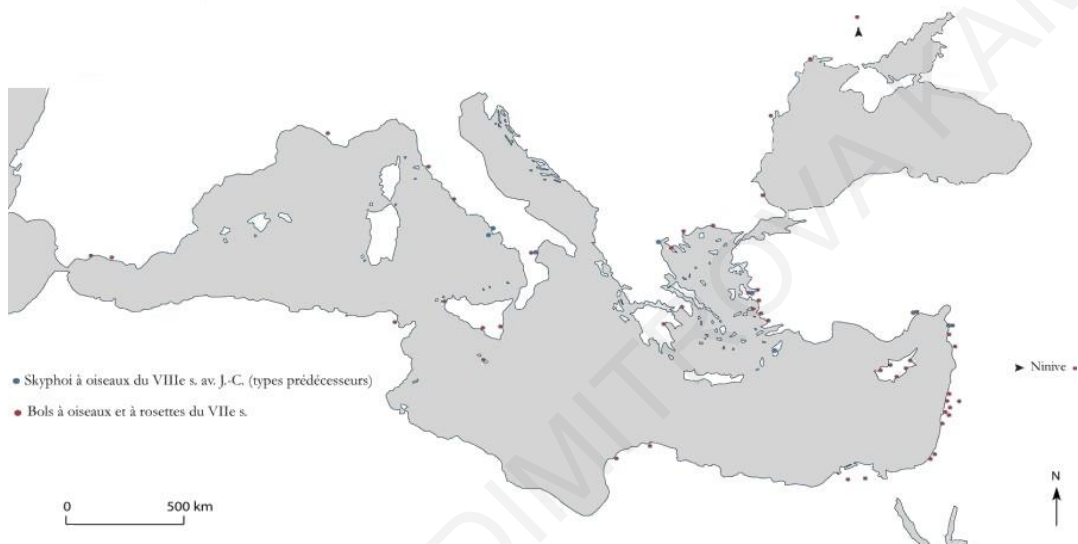


Fig. 49. Distribution of skyphoi with birds in the 8th century BC and bowls with birds and rosettes in the 7th century BC in the Mediterranean. After Chirpanlieva 2013.

Fig. 50. Distribution of craters of the ateliers of Dinos and Meidias painters in the Mediterranean. After Chirpanlieva 2013.

instance have been found at Al Mina, Tyre and Dor. According to the researcher, these were apparently distributed through similar networks as their predecessors, the sub-geometrical skyphoi that were produced in the end of the 8th century BC, and discovered in Al Mina, Mersin, Rhodes, and Southern Italy. From the second half of the 7th century BC, the North-Ionian bird-bowls are widely distributed throughout the networks spreading from Al Mina to Ashkelon, Cyprus, Greece, the North-Aegean and Black Sea, Egypt, Cyrenaica and the central and western Mediterranean, a pattern, interpreted by the Chirpanlieva (2013, 275) as a circumstantial evidence for Phoenician participation in the newly established in the second half of the 7th century BC Northern and Black Sea markets (Fig. 49). The conclusions of this analysis corresponds to the information that we possess from written sources, which evidences that despite falling under Assyrian rule in the second half of the 8th century BC, the extensive trade of the Phoenician cities was encouraged by the new authority; the change from an open trade network to a strongly controlled trading mechanisms from the Assyrians, inevitably provoked changes in trade patterns, for instance increase of the Phoenician mercantile activities in the West, however, the Phoenician cities remain the key means of connection between the Mesopotamian empires and other cultures, acting as middlemen, while transporting raw materials, Phoenician and foreign artefacts by sea and land trade routes until the 6th century BC (Kuhrt 2002, 22; Elat 1992; Salles 1994; on land routes, Oppenheim 1967, 253).

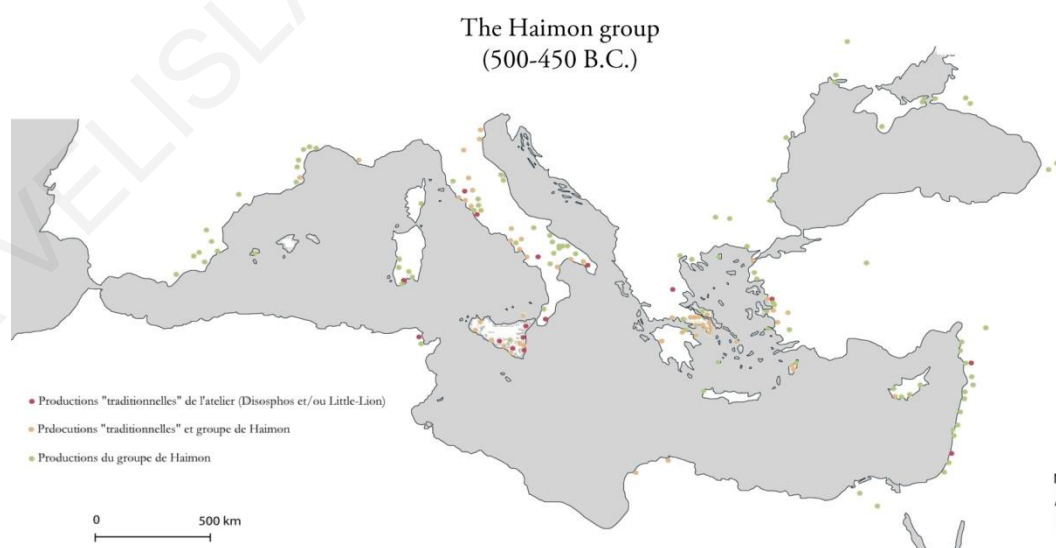


Fig. 51. The distribution of the Haimon group in the Mediterranean. After Chirpanlieva 2013.

Accordingly, some specific types of Attic fine pottery (drinking cups and lekythoi) seem to have been very successfully traded in the Phoenician sites in the 6th - 4th century BC and therefore take part in the effort of Chirpanlieva to tracing Phoenician trading networks (Chirpanlieva 2013; 2014). She analyses the distribution pattern of some of these vessels, for instance the Haimon group (Fig. 51), the vessels of the Beldam painter, the Dinos Painter and the Cleophon Painter (Fig. 49). Distribution of skyphoi with birds in the 8th century BC and bowls with birds and rosettes in the 7th century BC in the Mediterranean. After Chirpanlieva 2013) (Fig. 50), the 4th century Telos group, the skyphoi of the Fat Boy group (Fig. 52), and few other representative groups of pottery. As these groups spread widely, mainly in the eastern Mediterranean, but were distributed also in the Cyrenaica, Black Sea, Italy, Sicily, Spain and Carthage, and according to the scholar it is likely that they were part of the cargoes of Phoenician carriers. The commercial activity of the Phoenician cities reflects the crisis in the region in the last three decades of the 7th and the beginning of the 6th century BC. After 570 BC, with the Levant passing under Babylonian rule, “increasing numbers of documents in Babylonia show active trade between individual merchants, acting privately and on behalf of temples and importing bulk quantities of materials from the west” (Kuhrt 2002, 24). According to the scholar, evidence suggest that agents acquiring goods for the Babylonians from foreign places such as Cyprus, Lebanon, Egypt and Ionia, were in all probability Phoenicians, whose trade pattern persists, with relatively little disruption, into the Persian period (ibid.).

During the Persian period, the Levantine-Aegean trade increases in volume, the traffic of goods includes trade routes reaching Asia and in the West, Spain and perhaps even England (Van Alfen 2002; on the cultural aspect of the interactions, Miller 1997; Elayi 1988). This phenomenon corresponds to growth and prosperity in the Aegean and a widening net of consumer demand, attested in the archaeological record. Evidence suggests that none of the commodities identified as imports in Levantine-Aegean trade were critically needed for sustaining life in, or to ensure the security of Aegean communities; and, indeed a number of them were banned from Plato's ideal city for being completely superfluous (Van Alfen 2015, 295. For an extended discussion on the rise of markets in the Archaic and Classical periods, see Tandy 1997; Bresson 2007-2008; Morris 2004; 2005b; 2009. Ober 2010 and Scheidel 2010, especially 440-2 with table 4, outline the striking economic growth and increase in the standards of living in the Greek world of the sixth through fourth centuries BC; cf. also Sherratt and Sherratt

1993 for comments on general economic growth in the Mediterranean during the 1st millennium BC, Davidson 1997 and Foxhall 1998 on the consuming attitude of the Archaic and Classical consumer). A period of prosperity in the Levant from the 5th century BC is demonstrated by the archaeological record. Excavations of Akko, Ascalon, Tel el-Hesi and other coastal cities have revealed extensive destruction levels dating to around the beginning of the 6th century BC and after decades of crisis, they are rebuilt by the 5th century BC, in a much larger scale; the growth seems to be related to maritime trade (Stern 2001). Inland sites do not show the same level of rapid growth. However, grave goods, monuments, sarcophagi, and even finds of Attic pottery found in the hundreds of places throughout the region indicate an overall rise in the standards of living and commercial traffic (Van Alfen 2002, 276; Stern 1982, 82ff; Elayi and Haykal 1986).

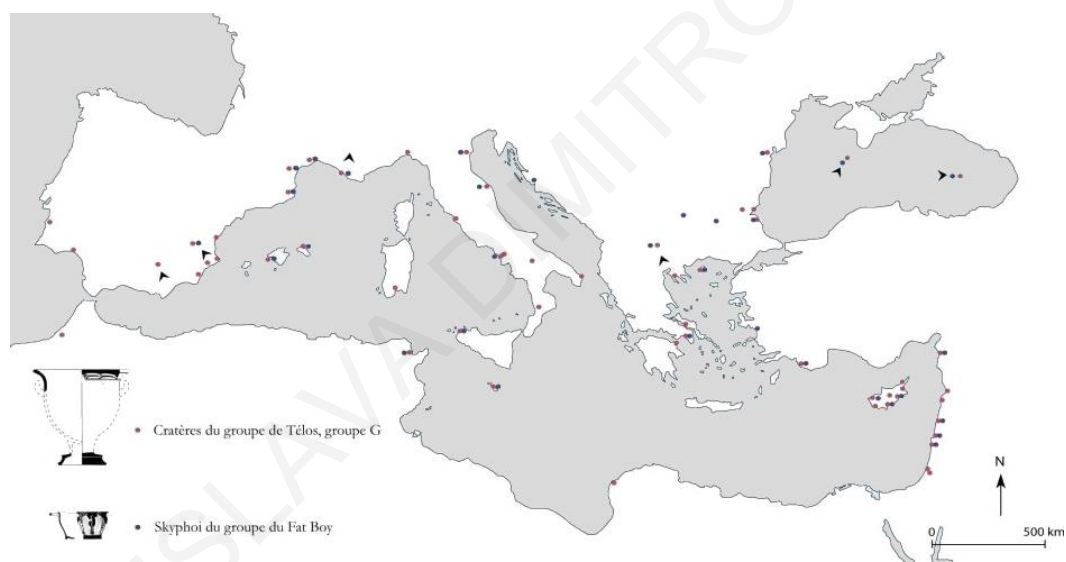


Fig. 52. Distribution of the products of the Telos craters and Fat boy skyphoi group in the Mediterranean. After Chirpanlieva 2013.

3.2.2. Phoenicians in Thrace? The case of Methone

For the Northern Aegean, the late 8th and early 7th century BC constitutes a period of lively commercial mobility, apparently centred in locations around the Thermaic Gulf (Fig. 53). The excavations at Methone are illustrative for the processes that occur in the region in this period. According to the written tradition, the colony is founded around

730 BC (Ps.-Scyl. *Per.* 66), in all probability, by the Euboeans (Tiverios 2008, 72; 188ff, *contra* Papadopoulos 1996; see a review of the various opinions in Demand 2011, 251, n.25), and in short time it develops into a major commercial and industrial centre of the northern Aegean: the ceramic imports indicate the existence of trade links with Euboea, the Cyclades, Corinth, Chios, south-eastern Aegean and the near hinterland (Tiverios 2008; Τζιφόπουλος 2012). In the settlement there have been excavated also Phoenician amphorae of the late 8th-early 7th century (Κασσέρη 2012). Other Levantine artefacts were found in the nearby region as well. For instance, fragments of Cypro-Archaic I from the early 7th century BC, were excavated at Karampournaki (Τιβέριος 2004; Τιβέριος *et al.* 2004), fragments of Cypriot and Phoenician perfume containers, likely belonging to the early 7th century BC were identified in 2007 at Torone, and a fragment of an Archaic figurine with a Phoenician inscription was also found at Stageria on the east coast of Chalcidice (Fletcher 2008, 3-7). An Attic or Euboean SOS amphora from the last quarter of the 8th / the 7th century BC with a Cypro-syllabic inscription was found at Mende, used in a jar-burial (Tiverios 2008, 35; Vokotopoulou and Christidis 1995; on SOS amphorae more recently Pratt 2015). The inscription, transcribed by the publishers as *la-si /te-mi /se*, was interpreted as part of the proper name of the merchant or the holder of the amphora (*la-si*), followed the abbreviated patronymic (*te-mi*), and origin (*se* = Selaminios). The latter interpretation is supported by the fact that Salamine in Cyprus has the highest concentration of SOS amphorae in Cyprus (Vokotopoulou, Christides 1995). The handle of the amphora also has three small vertical incised lines as a reference to the tonnage of the vessel, which corresponds to a practice, widespread in Cyprus. The period of the finding coincides with some dispersion of the very rare outside Cyprus Cypro-syllabic inscriptions, e.g. an almost identical inscription in Policoro, Southern Italy, dated to the first half of the 7th century, and another one in Delphi from the 7th century BC (Μπουρογιάννης 2007, 432). Scholars have interpreted this evidence as a demonstration of Cypriot and/or Phoenician presence in the zone. The presence of the Phoenicians in the North Aegean is viewed as mainly commercial in its character and their activity in the zone as carried out in collaboration with the Euboeans, who operated in the area from earlier times (Tiverios 2012, Μπουρογιάννης 2007; on Phoenician-Euboean collaboration in the West, Nijboer 2018).

The case of Methone is important to our study as it confirms a Phoenician and/or Cypriot interest for the North markets in a period that slightly precedes the initial

stages of the Greek colonisation in Propontis and the Black Sea. As evidence show, these traders collaborate with the Euboeans in many cases while exploring new markets and exchange raw materials but also technology. Therefore, the question of Phoenician and Cypriot hypothetical participation in the Greek colonisations should be analysed within the context of the contemporary links between the Levant and Ionia, and not, as some sustain, in the lack of knowledge or interest for these far lands.



Fig. 53. Trade routes between the Levant and the Mediterranean in the 8th century BC. After Chirpanlieva 2013

3.3. Phoenicians in the North Aegean and Black Sea before the Greek colonisation in the written tradition

In many instances contrary to the archaeological evidence, notions of Phoenician activity in the North Aegean and the South Black Sea are preserved in the written tradition (Stampolidis 2012; Bunnens 1979, 92 ff; Niemeyer 1984, 5ff; Hoffman 1997, 248- 250). In some of these legendary stories, the Phoenicians are presented as traders, in others as colonists, while some of them describe the remnants of their religious

activities. Related to such myths is the south coast of Thrace: according to some, Cadmus settled in Thrace (Apollod. 3.1.1.) and buried his mother Telephassa there (Apollod. 3.4.1; Hegesippos of Mephyberna, *FGrH* 391F3). The foundation of Salmydessus in Thrace was referred to Phineus (Ap. Rhod. 2. 178, 237, *Schol. ad eund.* 2.177), the son (Hes. *Cat.* fr.138; Pherecydes, *FGrH* 3F86; Anon. *Peripl. P. Eux.* 3. 5) or the brother (Ap. Rhod. 2. 178) of Phoenix, who was also supposed to have a Thracian home (Ap. Rhod. 2. 234–9). His name may be associated with the ancient city of Phinea (or Phineopolis) on the Thracian Bosphorus (on Cadmus' legendary colonial activity in the Aegean see further Castiglioni 2012, Lipinski 2004, 160ff, Bunnens 1979, 358–366). Moreover, Herodotus (6. 46–7) claimed that Phoenicians worked so much in the gold mines of Mount Pangaeus until a large mountain grew. They were also attributed to take interest in these mines in other sources and Cadmus himself represented in relation with the gold mines of Pangaion several times and was even supposed to have invented the art of gold mining and processing (Hdt. 6.47; Strab. 14.5.28; Plin. *NH* 7.197; Paus. 5.25.12; Clem. Al. *Strom.* 1.16.3). The Phoenician relation with mining is emphasized in the myth that credits Cadmus with introducing bronze-working and stone-quarrying and of building certain aqueducts at Thebes, which he also founded (Edwards 1979, 31ff). Archaeologically, their involvement in the metal extraction and trade is confirmed by the archaeological excavations in Andalusia, while there are no mines in their homeland (Markoe 2000; Jurado 2002; González de Canales Cerisola 2014). The skills of the Phoenicians to create luxury metal objects are emphasized in various occasions in Homer: for instance, a silver cup is the gift that Cadmus gives to the king of Lemnos (*Il.* 23.741–50), an episode, which some believe reflects trading contacts (Lipinski 2004; on the image of Phoenicians in Homer, see Sommer 2010). Finally, according to Herodotus (2.44; 6.47), the Phoenicians colonized the island of Thasos, named from the nephew or brother of Cadmus (Apollod. 3.11), where they explored the gold mines and built a temple of Heracles; the Thasians acknowledged Tyre as their metropolis and established there a temple, dedicated to the worship of their tutelary deity (Graham 1978; Pouilloux 1982; Lipinski 2004, 160). The literary tradition that emphasizes a Phoenician interest for the Thracian coast and the island of Thasos corresponds to the major characteristic of their commercial behaviour and is justified by the search for metal (Matsas 1995, 245;). Analogously, according to Aubet (2008), the arrival of the Phoenicians in South Iberia clearly corresponds to the beginning of the metallurgical exploitation (but some scholars disagree, e.g. *contra* to

the theory that the metal search was a primary cause of the Phoenician interest in the Mediterranean, Fletcher 2012, 211-20). There are although no traces of such colonization in the archaeological record (see further on this topic Castiglioni 2012; Coldstream 2011, 181; Lipinski 2004, 160; Edwards 1979, 32, Graham 1978; Berchem 1967; Stampolidis 2012).

A number of cults, diffused in the North Aegean have been associated with the Phoenicians (Bernal 1991, 399, *contrary* Muhly 1990). Lemnos and Thebes for instance were centres of the Cabiriac cult, and the names of the deities have derived, according to some theories, from Semitic roots (Burkert 1985, 153; Schachter 2003, 126; Demand 2014; Bedigan 2008). According to some myths, the peninsula of Cassandra was supposed to be a residence of Proteus, the grandfather of the Cabiroi (Kenrich 1855, 93), while others attributed the introduction of the mysteries on Samothrace to Cadmus, who visited the island in his search after Europa and there married Harmonia (Edwards 1979, 81; see discussion on this cult's origin in Burkert 1985, 284-5). At Tenedos, the cult of Melicertes involved child sacrifices, and some scholars connect it to the cult of Melqart (for a review of the discussion, see Ziemann 2015, cf. also Morris and Papadopoulos 1998).

In terms of etymology, the names Samos and Samothrace have been associated to the Semitic root with a meaning high, while the Samothracian word for priest *κοης* has been correlated to the Hebrew *cohen* (Bernal 1991, 492)³. Furthermore, some scholars believe that the names of Abdera, Koinyra and Ainyra are Phoenician, and others, that the *biblinos oinos* from the Oesyne area in the Thasian Peraia must have taken its name from vines introduced by the Phoenicians, which also gave their name to the area and one of its mountains (Tiverios 2008, 75; 2012, 70, n.14). Some names of the Thasian prosopography are viewed as Phoenician too (Pouilloux 1982, 94, n.20). Finally, a superficial similarity between the names of the Pontic colonies Tyras with Tyre and Kerkinitis with Cercina and the island Cercinitis in Syrtis was emphasized long ago by Minns (1913, 490).

³ A Phoenician interest in Samos from the 8th century BC is demonstrated by the archaeological evidence. Nota Kourou notes that “no commodity capable of attracting Easterners and Cypriots can be identified on this island leaving religious beliefs the only magnet capable of drawing visitors to the Heraion and so resulting in an attractive market for Phoenicians in the LG Aegean” (Kourou 2012, 266)

Some ancient sources state that Phoenicians were the first to colonize lands on the south coast of the Black Sea (Fig. 54): Pronectus, a town of Bithynia near Drepane (in the vicinity of modern Hersek, was claimed to be founded by the Phoenicians (Steph. Byz. s. v. *Πρόνεκτος*), or, in other version of the story, by Phineus. In some versions, Phineus was also supposed to be the king of Paphlagonia (Schol. Ap. Rhod. 2. 177. 8), establishing there Sesamos, later named Amastris (Schol. Ap. Rhod. 11.941. Steph. Byz. s. v. *Σήσαμος*). In other, Phoenix colonized the country of the Mariandynne tribes (Euseb. *Chron.* 2.35) that inhabited the lands where later was established Heracleia Pontica. Other version stated that by his second wife (or a Scythian concubine), Phineus had two more sons, Mariandynus and Thynus (Ap. Rhod. 2.140, Schol. Ap. Rhod. 2.723, 748), whose names recall the local Bithynian tribes Thynoi and Mariandynians (Bunnens 1979, 358ff; Lipinski 2004, 160ff) (Fig. 54).



Fig. 54. Places of legendary presence of Phoenicians - as traders or colonists - in the North Aegean

Trade links between Phoenicia and the south-east corner of the Black Sea are recorded furthermore in the Old Testament. In the prophecy of Ezekiel, “The Lament of Tyre”, Ezekiel compares Tyre to a luxury ship and provides a detailed list of the numerous

countries and goods, associated with its commercial activity (*Ezek.* 27.12-24). The text was written about 587-586 BC, however, according to some scholars, generally reflects the situation in the 8th century BC (see discussion on the dating in Sommer 2007; Mazar 1986, 81; *contra* Diakonoff 1992, 191-192).

Ezekiel's text puts on view the commercial connections of Tyre that reached at North the Pontic shores and in the South traded as far as South Arabia, extend in the West to Spain and in the East to Syria and Mesopotamia (among the vast bibliography on the matter and various interpretations of the Biblical names, see Cooke 1967, 287; Wevers 1969, 199; Greenberg 1997, 564-568; Corral 2002, 2-7; Liverani 1991; Katz 2008; Constable 2013, 141; González de Canales Cerisola 2014), showing trade activity both on the sea and on overland caravan routes (Lehmann 2008, 229). Despite the hyperbolic character of the description, it cannot be dismissed that the Phoenician metropolis was among the most important trading posts in the Eastern Mediterranean in the 8th century BC, maintaining a large long-distance trading network, reflected in Assyrian and Egyptian texts, while from the early 7th century BC onwards its hegemony gradually declined and new trade centres developed in North Syria, the Aegean and Africa (Liverani 1991; Aubet 2001; Boardman 1990a). Finally, a large Phoenician trading diaspora spread in various Mediterranean centres, the private initiatives thus forming the basis of the international trade (for the role of the private initiative in the Phoenician trade, among others, Aubet 2001; Sommer 2007). Among the nations that traded with Tyre, Ezekiel lists Tibarenians and the Moschians, tribes which inhabited the metalliferous regions on the south-eastern shores of the Black Sea and are known from Assyrian sources, who would trade brass objects and slaves (Kenrich 1855, 372; Bernett 1967, 6) (Fig. 55, Fig. 10), and the inhabitants of Armenia, who would trade herds of riding, chariot horses and mules in exchange of the commodities from Phoenicia (see Lehmann 2008, 226 for the different interpretations of the referent biblical toponyms; cf. Curtis 1988 for discussion on copper producing centres in West Asia in the first half of the 1st mill. BC). In other occasion in the Old testament (Genesis 2.10-12) is mentioned a source of gold named Havilah, often associated as the gold region on the South shore of the Euxine near modern Trabzon (Boyle 2012, 24-5). The dating of the book is debated, with opinions divided between the 10th century BC and the 6th century BC (Boyle 1987, 24-5).

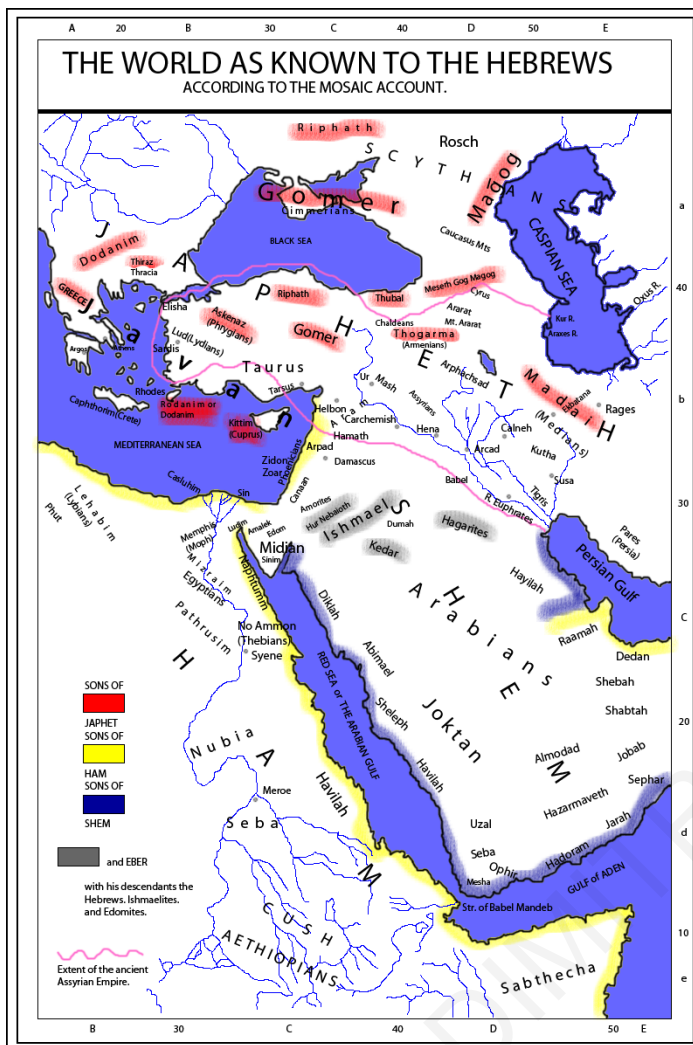


Fig. 55. The world as known to the Hebrews. Adapted from L. Coleman, *Historical Textbook and Atlas of Biblical Geography*, 1854, map II.

https://commons.wikimedia.org/wiki/File:Noahsworld_map_Version2.png (accessed 4th October 2017)

The information regarding links between Tyre and the south-east Black Sea coast, evidenced by Ezekiel, is consistent with some discoveries in north-east Thrace in nowadays Bulgaria, Romania and Moldavia, in particular several groups of iron weapons and tools of central-Anatolian type (the lugged axes, double axes, and fibulae) whose appearance in the Balkans in the end of the 2nd / beginning of the 1st millennium BC in the course of the iron metalworking institution, evidences the contacts of the zone with Anatolia and the Syro-Palestinian shore in the Early Iron Age (Стоянов 2000) (Fig. 56). The mapping of the lugged axes emphasizes a connection route through Sinope/Amisos region the Taurus Mountains and the Cilician littoral; the Emirdağ type of double axes on the other hand are not common among the Mycenaean axes and their derivatives but very well presented in Central Anatolia and Cilicia (Stoyanov 2010, 409-

10; on the overland route from Sinope to Cilicia in the Classic period, Boardman 1980, 242, 255; on the caravan route from the Euphrates and the Black Sea and the role of Sinope as a possible harbour, Avram *et al.* 2004, 962-3). In addition, some of the triangular types of fibulae found in Thrace have close parallels in Phoenicia and Palestine (Georgieva 1997), posing the question, according to Bouzek (1990), of a distribution related to clothing and consequently, Phoenician trade (*contra*, Tsetskhladze 2013a with ref.). Close connections of the Sinope – Amisos region with the Balkans, the Caucasus and the Ukrainian steppes are also detected archaeologically through the resembling architecture of semi-pit-houses, pottery, remains of seasonal settlements of fishermen from the northern Black Sea region, following the fish



Fig. 56. Finding spots of EIA lugged axes in the East Mediterranean and the Balkans and possible patterns of interconnection ● bronze lugged axes and adzes ○ iron lugged axes and adzes ■ bronze axes of the Emirdağ type, □ axes of the Emirdağ type. After Стоянов 2000, 60, map. 1

migration (de Boer 2015, 74) and artefacts, recognized as Caucasian bronzes, found at Samos; according to Boardman (1980, 240), the Greek colonies on the South coast might have provided the connection with the metal mines in North Asia Minor, Caucasus and Armenia.

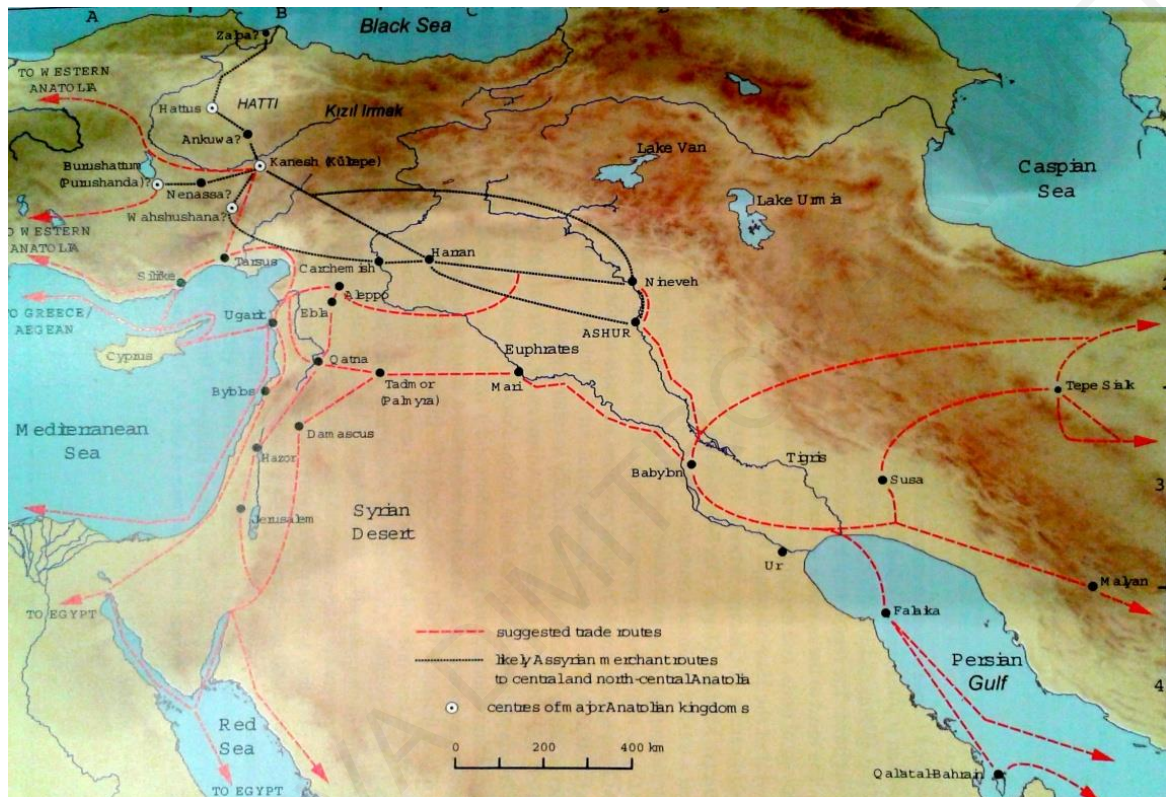


Fig. 57. Trade routes in Anatolia and the near East during the Assyrian colony period and the location of Zalpa. After Bryce, Birkett-Rees 2016, 93.

As mentioned earlier, the route linking the Syro-Palestine coast with the South East coast of the Euxine may have existed yet in the 2nd millennium, as evidenced by Hittite documents and Mycenaean pottery from Maşat (discussion in de Boer 2015, 74; Manoledakis 2015a, 84; Dan 2011a). The inland relations of the city of Zalpa (Fig. 57), located on or near the Black Sea coast and associated with Sinope, are evidenced by the Kanesh and other texts (Bryce 2009, 785; Burney 2004; Hoffner and Beckman 1990, 62-63), and should be taken in consideration in the research on the Black Sea contacts with the Mediterranean, which usually is limited to research the North Aegean route. Worth to mention here is that recent excavations confirmed the existence of a LBA harbour of Sinope, probably known as *Sinuwa* in Hittite documents

(Doonan 2003, 1381; on possible pre-colonial connections of the region with the North Black sea littoral, Atasoy 2007, 149); furthermore, archaeological evidence suggests that the most ancient Greek pottery found in Anatolian settlements near the Halys river from the 7th century BC was imported by land from South and not through the Greek colonies on the Black Sea shore (Tsetskhladze 2013a, 72-3).

The use of an eastern land route from the North shore of the Black Sea through the Trans-Caucasus to Central Anatolia is used multiple times in the 7th and 6th century by migrating Pontic tribes: the most famous instances are the invasion of the Cimmerians in Anatolia in the beginning, and the establishment in Phrygia and Lydia in the course of the 7th century BC (Bouzek 2008, 15; Xydopoulos 2015), followed by a Scythian invasion that comprised an expedition to Egypt and Palestine (Piankoff 1949; Tuplin 2004; Bromily 1995, 364). This story is known from Herodotus:

104. [2] οὐ μέντοι οἳ γε Σκύθαι ταύτη ἐσέβαλον, ἀλλὰ τὴν κατύπερθε ὁδὸν πολλῶ μακροτέραν ἐκτραπόμενοι, ἐν δεξιῇ ἔχοντες τὸ Καυκάσιον ὄρος. ἐνθαῦτα οἱ μὲν Μῆδοι συμβαλόντες τοῖσι Σκύθησι καὶ ἐσσωθέντες τῇ μάχῃ τῆς ἀρχῆς κατελύθησαν. οἱ δὲ Σκύθαι τὴν Ἀσίην πᾶσαν ἐπέσχον.

105. [1] ἐνθεῦτεν δὲ ἦσαν ἐπ' Αἴγυπτον. καὶ ἐπεῖτε ἐγένοντο ἐν τῇ Παλαιστίνῃ Συρίῃ, Ψαμμῆτιχος σφέας Αἰγύπτου βασιλεὺς ἀντιάσας δώροισί τε καὶ λιτῆσι ἀποτράπει τὸ προσωτέρω μὴ πορεύεσθαι. [2] οἱ δὲ ἐπεῖτε ἀναχωρέοντες ὀπίσω ἐγένοντο τῆς Συρίας ἐν Ἀσκάλῳ πόλι, τῶν πλεόνων

(1.103-104). *A great army of Scythians had invaded Asia after they had driven the Cimmerians out of Europe: pursuing them in their flight, the Scythians came to the Median country. [...] There, the Medes met the Scythians, who defeated them in battle, deprived them of their rule, and made themselves masters of all Asia.*

(1.105) *From there they marched against Egypt: and when they were in the part of Syria called Palestine, Psammetichus king of Egypt met them and persuaded them with gifts and prayers to come no further. (2). So they turned back, and when they came on their way to the city of Ascalon in Syria, most of the Scythians*

Σκυθέων παρεξελθόντων
άσινέων, ὀλίγοι τινὲς αὐτῶν
ὑπολειφθέντες ἐσύλησαν τῆς
οὐρανίης Ἀφροδίτης τὸ ἱρόν. [3]
ἔστι δὲ τοῦτο τὸ ἱρόν, ὡς ἐγὼ
πυθάνομενος εὐρίσκω,
πάντων ἀρχαιότατον ἱρῶν ὅσα
ταύτης τῆς θεοῦ· καὶ γὰρ τὸ ἐν
Κύπρῳ ἱρόν ἐνθεῦτεν ἐγένετο,
ὡς αὐτοὶ Κύπριοι λέγουσι, καὶ
τὸ ἐν Κυθήροισι Φοινικὲς εἰσὶ οἱ
ἰδρυσάμενοι ἐκ ταύτης τῆς
Συρίας ἐόντες. [4] τοῖσι δὲ τῶν
Σκυθέων συλήσασι τὸ ἱρόν τὸ ἐν
Ἀσκάλωνι καὶ τοῖσι τούτων αἰεὶ
ἐκγόνοισι ἐνέσκηψε ὁ θεὸς
θήλεαν νοῦσον· ὥστε ἅμα
λέγουσί τε οἱ Σκύθαι διὰ τοῦτο
σφέας νοσέειν, καὶ ὄρᾶν παρ'
ἑωυτοῖσι τοὺς ἀπικνεομένους
ἐς τὴν Σκυθικὴν χώραν ὡς
διακέαται τοὺς καλέουσι
Ἐνάρεας οἱ Σκύθαι.

*passed by and did no harm, but a
few remained behind and
plundered the temple of Heavenly
Aphrodite. (3) This temple, I
discover from making inquiry, is
the oldest of all the temples of the
goddess, for the temple in Cyprus
was founded from it, as the
Cyprians themselves say; and the
temple on Cythera was founded by
Phoenicians from this same land of
Syria. (4) But the Scythians who
pillaged the temple, and all their
descendants after them, were
afflicted by the goddess with the
"female" sickness: and so the
Scythians say that they are
afflicted as a consequence of this
and also that those who visit
Scythian territory see among them
the condition of those whom the
Scythians call "Hermaphrodites".
(Hdt 1.103-105. Trans.: A. D.
Godley 1921, LCL 118)*

A result of the Cimmerian and the following Scythian permanence in Anatolia could result in the better acquaintance of the Pontic peoples and economy. It is possible such knowledge passed to the Phoenicians through the Carians. The two peoples interchanged evidently some cultural practices (Hdt. 2. 61; Athen. 4, 76) and knowledge of navigation (Thuc. 1.8). The Carians probably originated in the Aegean region and settled in Anatolia in the second millennium BC (Bienkowski and Millard 2000, 65). The ancient sources presented them as a maritime people, among the first ones to have a mercantile navy (Athen. 1.28) before being gradually pushed inland by Minoans or Mycenaeans and many of them thus turned to piracy as a way of making

living (Boardman 1991, 663; for the Minoan presence in the Aegean, Matsas 1995; Hallager *et al.* 2009). In the eastern part of Propontis, the Carians are claimed to have settled in the area of Chios before the Milesians (Schol. Ap. Rhod. 1.1177), not far from the Phoenician colony Pronectos. Ancient sources indicate Carian presence in Delos, Sardis, Rhodes, Egypt, the North Aegean and Propontis (Pedley 1974; Mitchell and McNicoll 1978-1979; Bass 1963). Locations within the Euxine bear their name, e.g. the Carian Harbour south of Kallatis (Arr. *Peripl. P. Eux.* 24, 3, Mela 2.2, Anon. *Peripl. P. Eux.* 101), testifying in favour of their *voyages* to the North. Finally, Pliny (6.7) borrowed the indication of an earlier writer saying that even the land around the Tanais estuary was at first in possession of the Carians, and later of the Clazomenians and Maeotians; this unique claim can be at least partly confirmed by the fact that Strabo (11.2.4) pointed to some places in the area belonging to the Clazomenians (Данов 1947, 43; Minns 1913, 346; various contributions in Tsetskhladze 1998).

3.4. Phoenician or Punic? Trade relations between Carthage and Greece

The trade connections between the West Phoenician *emporía* and the East Mediterranean are traceable not only through the Levantine material, but also from written evidence and the distribution of Greek pottery (on the Phoenician commercial activity in the West Mediterranean and Egypt, see e.g. González de Canales Cerisola 2014; de Boer 2008; Chirpanlieva 2013; Coldstream 2011, 180; Domínguez Monedero 2013). Mixed Greek and Phoenician material, dated to the 9th century, is attested in West Mediterranean *emporía*, such as Utica, and Huelva (González de Canales Cerisola *et al.* 2006), where it precedes the establishment of the permanent settlements in the beginning of the 9th century BC, and in Carthage, founded around the end of the same century (discussions on the chronology of the city's foundation, González de Canales Cerisola 2014; González de Canales Cerisola *et al.* 2008; Coldstream 2011, 180; Aubet 2001, 257ff. See also Nijboer 2008, who argues that the Phoenician commercial activity in Huelva begun in the second half of the 10th century BC). In particular, recent excavations at Utica provided an assemblage of archaeological material that is radiocarbon dated to the late 10th - 9th century BC, namely 925-850 BC (Lopez Castro *et al.* 2016). The assemblage contains ceramics from mainly Libyan and Phoenician origin (ca. 65%); local imitations of Phoenician vessels, Sardinian, Greek, Villanovan

and Tartessian ceramics, thus recording the wide exchange network maintained by the Phoenicians from at least the 9th century BC onwards (Nijboer 2018). On the other hand, during the archaeological excavations of Huelva, dated between 930 and 830 BC, were recovered around 85 000 fragments, among which local Phoenician ceramics, as well as specimens from Greece, Sardinia and mainland Italy, which provide evidence for overseas trade (González de Canales Cerisola *et al.* 2006; Nijboer and van der Plicht 2006). The most significant archaeological find from Carthage in this respect is a pottery deposit, discovered in 1947 in the very heart of the Carthaginian *tophet*, and usually referred to as the “Chapelle Cintas deposit” (Niemeyer and Docter 1993). The deposit dates from the early 8th century BC (van Dommelen and López-Bertran 2013, 274) and includes markedly more Greek, than Phoenician objects – namely eight of eleven vases in total, the most part of which are Euboean. The meaning of the deposit is debated - it has been interpreted either as a reserve of religious offerings, made at the foundation of the first settlement of Carthage, either as belonging to one of the first generation graves (for a general synopsis of the discussion, Aubet 2001, 218; Bonnet 2011, 382; on vessels in *tophet* sanctuaries, Orsingher 2015). In a recent study, based on the distribution of horse-bird *askoi* from Carthage and the Central Mediterranean, Kourou (2005, 256) argues that “according to this deposit, therefore, the first establishment at Carthage had either a mixed population or a society familiar with both Phoenician and Western Greek art. At that time the colonisation of Italy and Sicily by the Greeks was well on its way and the Phoenician expansion in the West was already advanced, while a number of *emporion* had been established at several sites in the Mediterranean. And this is what the deposit from the *tophet* at Carthage seems to suggest: an *emporion* at the site of Carthage that preceded the full establishment of the colony. In that *emporion* not only Phoenicians, but apparently Euboeans and specifically Western Euboeans were involved according to pottery” (on the pre-colonisation period in the West Phoenician colonies, see Niemeyer 1993, and more recently, Kaufman *et al.* 2016; Nijboer 2018). A recent network analysis of the most archaic finds at Pithekoussai corresponds with rather a co-existence of several groups than with Euboean/Corinthian hegemony (Donnellan 2016). Euboean interest in the Western Mediterranean in the 8th century BC suggests not only the increasing trade and cultural interrelations between Phoenicians, Cypriots and Greeks, but also a multicultural collaboration in terms of urbanistic endeavours in the following centuries (López Castro *et al.* 2016). Carthage becomes the centre of the Punic power

in the region, with the long-distance trade networks and growing political power turning to be constituent elements in its economy (Morel 1995; Dridi 2010; Scullard 1955). The polis maintained its links with the Eastern Greeks and Phoenicia in the Classic and Hellenistic period, the trade with Greece passing in all probability through Sicily/South Italy, although direct trade is also possible (on relations between Carthage and Sicily, Hans 1983; see also ch.5). The archaic trade connections are most visible in areas of constant Greco-Carthaginian contact such as Sicily and Southern Spain, but also from Carthage itself. For instance, large amounts of Greek pottery are attested in Carthage during the 7th - early 6th centuries BC and considerable quantities of proto-Corinthian pottery are visible at the site along with extensive remains of Attic pottery from the 5th century (Rainey 2004, 206, n.93; cf. Tsirkin 1987, 126; Boucher 1953). For what concerns the export, after the late 5th century BC evidence demonstrates that Carthage exports its own goods such as salt, wax, honey, figs, together with manufactured products, especially textiles (purple dye) and low-priced pottery (Tsirkin 1987; Лавренова 1994). After 300 BC, wine turns into an important exported good as well, as suggest the wide-mouthed Punic amphorae found in many places around the western Mediterranean (Massilia, Corsica, Rome) and further to the east at Athens, Thebes and Corinth (Lipinski, 174ff). However, a considerable part of the trade of Carthage seems to have been intermediary, especially the exchange between the Eastern and Western Mediterranean, transporting metals, ivory, marble, timber, precious stones and ostrich feathers from Sahara, pottery and metalwork from East Greece, spices from Syria, incenses from Arabia, also various cheap items (Scullard 1955, 105ff). For instance, in the play *Poenulus* ('*The Little Punic*'), written in ca. 195-190 BC in base of an earlier Hellenistic work, the Roman playwright Plautus describes a Phoenician who traded 'African mice' for display at a festival, but also soup ladles, water- or music pipes, nuts, lard, spades and mattocks (Moodie 2015).

For what concerns the trade connections between the Punic centres and Greece, most of the evidence regards the period after the second half of the 5th century BC, when intensification in diplomatic relations is attested (see below, ch.5). According to the amphorae finds, Carthage imported wine, oil and grain from Greece, notably Athens, especially during the 5th and 4th centuries BC (Morel 1995, 270; 2002, 331ff, Ben Jerbania 2013), along with the commodities from Southern Italy and the Iberian Peninsula, and later even from Rhodes (Bechtold 2007; 2010; Bechtold and Docter 2010; 2011). Study of the cargo of a shipwreck found near El-Sec in the Bay of Palma

de Mallorca has contributed to the understanding of the Carthaginian trade in the Eastern Mediterranean (Arribas *et al.* 1987). It yielded about 500 amphorae from various centres (30% Samian, 15% Sicilian, 11% Corinthian and 8% from Crimean Chersonessos), 100 fragments of Attic red figure pottery and 538 black-glaze, millstones and bronze vessels, mainly South Italian and Sicilian; on 41 vessels were found inscriptions, 26 Greek and 15 Punic (mostly personal names), pointing to a multiethnic cooperation (*ibid.*; for evidence of Phoenician and Greek cooperativeness, Morel 1995, 276; Boardman 2006; Fletcher 2004; 2012, 214). It is thought by the excavators that the ship was owned by traders from Carthage (Arribas *et al.* 1987). It supposedly sailed from Samos, passing through Athens, Sicily and Carthage, and sank in its way to Spain in the second quarter of the 4th century BC (Cerde 1987, 68), however, given the high quantity of Black Sea amphorae on board, it has been suggested that it also navigated through the Euxine (Treister 1993). Among the archaeological data, relevant to the question, are the numerous Punic amphorae from Corinth, dated from the 5th century BC and apparently transporting salted fish (Maniatis *et al.* 1984).

Either way, due to the fragmentariness of information, it is challenging to identify any direct or indirect connections between the Black Sea and Carthage. Carthaginian sporadic presence in the Euxine has been suggested in relation to imported Etruscan and Magna Graecia metal objects, dated to the late 6th and 5th century BC (Treister 1993; *infra*), contrary to the more common opinion that these are Milesian imports (on the close connections between Miletus and Sybaris in the Archaic period, see e.g. Gorman 2001, 53). Much more information has been collected regarding the import of Punic merchandise in the Euxine during the 4th and the 3rd centuries BC (mainly on the basis of glass beads), and scholars believe that a trade route has been established in this flourishing period for the Black Sea economy (Rustoiu 2008; Копылов 2006; see discussion in ch.5). The distribution of the glass beads and other relevant objects suggest that the Bosphorus and Olbia were the main trading partners in the long-distance trade of the 5th-4th centuries BC, followed by Tyras and Chersonessos in the Hellenistic period (Tsirkin 1987; Лавренова 1994). After a noticeable ceasing of imports during the second half of the 3rd century BC, in the 2nd- 1st centuries BC is attested a new trade route from Carthage to Istros and Olbia, suggested by archaeological and epigraphic evidence (Lawall *et al.* 2010, see ch.6). A further testimony of this trade is the great number of Carthaginian (and Numidian) coins from

the 5th to the 2nd century BC, which are found in the Balkans, as well as the Phoenician, Punic and Maltese coins from the North Black Sea, but since these are very little studied and poorly published, the subject remains a matter of future research (Bouzek 2015, 161; Kovalenko and Manfredi 2011; Абрамзон 2018). In the next chapters this evidence is analysed in details, as the study of the possible extensions of the Punic markets in the Black Sea can greatly contribute to the understanding the contacts of Carthage with the East Mediterranean.

3. 5. Discussion

In sum, the study of Phoenician and Punic trade network in the Mediterranean and the Black Sea provides various difficulties, due to the fact that the core of the traffic of goods consisted from organic materials (slaves, textiles, food, etc.) that in great part perished and do not survive in the archaeological record (Fletcher 2012, 211-20). However, evidence suggests that Phoenician (and Cypriot) interest for the North markets grew in a period that slightly precedes the initial stages of the Greek colonisation in Propontis and the Black Sea. Notions of Phoenician activity in the North Aegean and the South Black Sea are preserved in the written tradition, which justify the Phoenician interest for the Thracian coast and the island of Thasos by the search for metal (Matsas 1995, 245; Stampolidis 2012; Bunnens 1979, 92 ff; Niemeyer 1984, 5ff; Hoffman 1997, 248- 250). In many instances, however, this information is not confirmed by archaeological evidence. The only exception is the Thermaic Gulf. In the major archaic commercial centre Methone (Fig. 53) were found some Phoenician amphorae of the late 8th-early 7th century (Κασσέρη 2012), while the nearby Karampournaki produced fragments of Cypro-Achaic I from the early 7th century BC (Τιβέριος 2004; Τιβέριος *et al.* 2004). This evidence suggests, among other things, that Phoenician and Cypriot participation in the Greek colonization of the Black Sea cannot be excluded.

Trade links between Phoenicia and the South-East corner of the Black Sea in the Early Iron Age and the archaic period are evidenced by written sources (Bunnens 1979, 358ff; Lipinski 2004, 160ff) (Fig. 54) and are corroborated by archaeological evidence such as metal tools, pottery and architectural techniques (Lehmann 2008, 229; Стоянов 2000; Stoyanov 2010, 409-10; Boardman 1980, 242, 255; Avram *et al.* 2004, 962-3) (Fig. 56).

These are determined by the metal extraction in the South coast of the Black Sea. For instance, local tribes such as Chalybes are referred in the written sources as inventors of the iron industry (Forbes 1966, 219; Ivanov 1983, 53-55; Muhly *et al.* 1995, 71-82; various contributions in Snodgrass 1980) (Fig. 20), while ancient workshops, like those in Chatakhi, Madnis-zkaro, Madnis-seri and Fakhralo, corroborate the theory of a large-scale production and export of iron (Drews 1976, 28-31; Muhly *et al.* 1985, 74; Lordkipanidze and Mikeladze 1987, 185-6.). An overland route linking the South Black Sea coast with Syro-Palestine coast through the Halys river may have existed yet in the 2nd millennium (de Boer 2015, 74; Manoledakis 2015a, 84; Dan 2011a; Atasoy 2007, 149), and was functioning until the Roman Age (Абрамзон 2018, 10-11; see Ch. 6). This route should be taken in consideration in the research on the Black Sea contacts with the Mediterranean, which usually is focused on the maritime routes.

For what concerns the trade connections between the Euxine with the Punic world, most of the evidence regards much later period, namely the second half of the 5th century BC, when is attested an intensification in diplomatic relations between Carthage and Athens (see below, ch.5). In this period, Carthage exports its own goods such as salt, wax, honey, figs, together with manufactured products, especially textiles (purple dye) and low-priced pottery (Tsirkin 1987; Лавренова 1994). After 300 BC, wine as well turns into an important exported good. However, a considerable part of the trade of Carthage seems to have been intermediary (metals, ivory, marble, timber, precious stones, pottery, spices, incenses etc.) (Scullard 1955, 105ff). According to the amphorae finds, during the 5th and 4th centuries BC Carthage imported wine, oil and grain from Greece, notably from Athens (Morel 1995, 270; 2002, 331ff, Ben Jerbania 2013) and later Rhodes (Bechtold 2007; 2010; Bechtold and Docter 2010; 2011). In the Euxine, Carthaginian sporadic presence in the late 6th and 5th century BC has been suggested by Treister (1993), however the evidence is insufficient. Much more information has been collected regarding the import of Punic merchandise in the Euxine during the 4th and the 3rd centuries BC (mainly on the basis of glass beads), and scholars believe that a trade route has been established in this flourishing period for the Black Sea economy, and ceased in the mid-3rd century BC (Rustoiu 2008; Копылов 2006). In the late Hellenistic period Punic imports appear on the North-West Black Sea coast (see ch.6), suggesting that the key factor of establishing a long-trade route in the Black Sea were the favourable conditions in the receiving market.

CHAPTER 4

GRECO-PHOENICIAN AND PUNIC NETWORKS AND THE EUXINE (6TH – 5TH CENTURY BC)

4.1. Pottery

The most ancient firm evidence for archaic trade relations (direct or not) between the Black Sea the Levant after the first wave of colonisation, are the multiple fragments of **basket-handled (or loop-handled) amphorae** found during a range of excavations of the archaic Berezan (Дюпон, Назаров 2003; Ильина, Чистов 2012, Буйских 2014; 2017).

4.1.1. Basket-handle amphorae and Levantine Jugs

4.1.1.1. Description, provenance, chronology

Scholars agree that basket-handled amphorae began to be produced in all probability Cyprus, in particular in the zone of Salamis in the end of the 8th century BCE (Knapp and Demesticha 2016, 131). Afterwards, they were apparently produced in multiple locations, such as Cyprus, Phoenicia, the southern coastal region of Israel, and the region of Alexandria, until they ceased to be used (in Israel, around 300 BCE). In the 3rd and 2nd centuries BCE, they were manufactured only in Cyprus and in northern Phoenicia (Wolff 2011, 15).



Fig. 58. Section of a shallow Phoenician or Cypro-Phoenician bronze bowl (diam.: 15cm) with engraved decoration inside, apparently found in Salamis by Alessandro Palma di Cesnola in 1877-8. Kept in the British Museum, inv. 1892, 0519.1. Cypro-Archaic I period (675 - 625 BC). The section depicts two servants, who bear a basket-handle amphora. Photo: the British Museum. <https://www.bmimages.com/preview.asp?image=00513293001&itemw=4&itemf=0001&itemstep=1&itemx=1> (accessed 8th December 2018).

In their earliest manifestation, these vessels had a thick-walled biconical body, two loop handles were attached to the shoulder and protruded above the height of the rim, a simple high rim and a flat base. Their average height was 60-70 cm. Even when empty, these vessels were very heavy; when full, they demanded two porters to carry them as depicted on a bronze bowl from Salamis (Fig. 58). The typology of this long-lived amphora is hardly straightforward or well understood, however, it is evident that over time, their body became taller - up to 1.00 m. in height - and more conical in shape (Wolff 2011, 15). Vessels of this type are usually thought to have contained olive oil, but they probably also have contained wine or other commodities, as well (Raban 2001, 13; Leidwanger 2005-2006, 29).

The distribution of these vessels was confined mainly to the eastern Mediterranean. From the second half of the 7th century BC the type appears consistently in Cilicia, Northern and Southern Levant from Al-Mina to Naucratis, and are usually encountered at coastal areas, an exception being some inland sites in southwest Israel, such as Tel Erani, Tel Jemmeh, Tell el-Hesi, and as far as Kadesh Barnea (Sagona 1982, 88-90; Waldbaum and Magness 1997, 40; Fantalkin 2001, 96; Leidwanger 2005-2006, 25-6; Knapp and Demesticha 2016, 131). Securely dated in the second half of the 7th century BC amphorae in this region come from Tell Sukas, Tell Keisan, Shiqmona, Meşad Hashavyahu and Migdol (Barako 2008: 441). These correspond to Stern's "Type I1" (Stern 1982, 111-12) and Humbert's "Types B and C" (Humbert 1991, 582-83, figs. 3-4). A Cypro-syllabic inscription incised on a 7th century basket-handled amphora from Kabri suggests that the local Phoenicians were not the only ones to sustain the overseas commerce of the island (Zukerman, Ben-Shlomo 2011, 99) (Fig. 59). Lastly, in Cyprus this type of storage jar appears most frequently at the transition of the Cypro-Archaic I and II periods (ca. 600 B.C.) and is grouped under both "Plain White V" and "Plain White IV" wares (see e.g. Gjerstad et al. 1948, 88, fig. 57.5; 1960:121, fig. 15.5). Beyond the coastal Levantine region, these amphorae are comparatively rare and only a small number of outliers have been found beyond (north and west) that region, and only few of them are found in contexts that can be dated to the 7th century BC. For instance, such vessels appear in northern Sinai and in Egypt in the 7th- 5th century BC (Villing *et al.* 2015), and in the West, such amphorae are reported from Euesperides in Cyrenaica in an early 3rd century BC context (Göransson 2016).

Large quantities of the earliest amphorae of this type were found on several shipwrecks along the Carian, Lycian and South Ionian coast. The first, and probably the earliest, wreck was discovered by INA's 1983 survey near Kekova Adası in the Antalya Region (Leidwanger *et al.* 2012, 394). The study of the Kekova Adası shipwreck revealed a cargo of at least 130 amphorae, the majority of which basket-handle amphorae (according to the estimations, around 90-100). Among the best comparanda of these fragments to date are a series of jars from a mid-7th-century BC level at Tell Keisan (Greene *et al.* 2013, 23-34). Other 20% of the amphorae of this cargo consists of Ionian production from several different Ionian centres - Miletus, Samos, and no doubt others, the best parallels of which come from early to mid-7th-century BC Miletus itself, and Corinthian Type A amphorae, whose best parallels come from contexts of the late 8th or early 7th century BC through the mid-7th century BC (*ibid.*). The last type is relatively rare in the Eastern Mediterranean, a few examples recovered from Cyprus, including in the necropolis of Salamis: (Karageorghis 1970, pl. 44, n. 26; pl. 202, n. 266). Along with the trade amphorae, were found a few mortaria and cooking pots (Greene *et al.* 2013, 26-7).

A second vessel with a remarkably similar cargo to that at Kekova Adası was discovered by INA in 1973 and 1980 at Kepçe Burnu along the northern shore of the Gulf of Gökova (Leidwanger *et al.* 2012, 399). The cargo is dominated highly fragmentary and poorly preserved transport amphorae, the vast majority loop-handled amphorae. The broad typological characteristics and general proportions of these jars place them easily within the 7th century BC. This group of amphorae is again consistent with an origin on Cyprus, perhaps in the eastern part of the island (*ibid.* 27). The cargo of the Çaycağız Koyu shipwreck, discovered by a team from Dokuz Eylül University in 2008, and revisited in 2010, on the other hand presents the typological parallels with jars from Salamis, Tel Kabri and Ashkelon, and the publishers date the samples from the shipwreck between the late 7th century BC and the early 6th century BC (Özdaş and Kızıldağ 2014, 53). An additional similarity between the three wrecks lies in the discovery on each of at least one mortarium, the shallow bowl used for food preparation and the measurement of dry goods. Furthermore, investigations on the seabed revealed that two of the wrecks contain a second type of amphora that can be assigned broadly to the southeast Aegean around Samos and Miletus (Leidwanger *et al.* 2012, 393)

Scholars consider these shipwrecks as a testimony of a wide trade network, visible as early as the 7th century BC, whose nature of processed agricultural goods, such as wine and olive oil, and coarse wares reflects a movement of goods beyond the trade of precious metals and fine painted pottery (e.g. Leidwanger *et al.* 2012, 403-4). This trade of "semi-luxuries", to use the Foxhall (2005) definition, goods would have been conducted by elite traders within the framework of preferential consumption or the exchange of processed agricultural goods that become fashionable, despite being unnecessary in the sense of basic availability. The three shipwrecks suggest also that Cyprus seem to have had a prominent role in the mobility of goods and people, ideas and identity in the Eastern Mediterranean, especially during its earliest phases in the mid- to late 7th century BC.

In the Aegean, some basket-handle amphorae are also excavated at Rhodes (Jacopi and Maiuri 1928-1931, vol. 3, tabs. 4, 77, 121, 129, vol. 4, tabs, 8, 131, 142, 149, 158-160, 210), Athens, Kommos, and in Ionian centres such as Halicarnassus and Miletus (Niemeier 1999, 389-91; de Rodrigo 2004, 211; Dan 2011a, 213). Further North, there are no reported archaic basket-handle amphorae, with the exception of a single specimen from the second half of the 7th century BC, found in a tomb of the archaic Abdera necropolis along with Milesian type amphorae (Dupont and Skarlatidou 2012, 260), and the Berezan pieces. This state of the evidence may point to the fact that a trade route to the Black Sea was conveyed by the Ionian traders, as the wine was part of the Milesian imports in Berezan (Dupont 2003, 143; Briend and Humbert 1980, 137).

4.1.1.2. Basket-handle amphorae and Levantine jugs from the Black Sea

Fragments of basket-handle amphorae (handles, walls, bottoms), have been found in several occasions in the Black Sea and namely, at Berezan. Part of them was excavated by a Russian team, and the original place of excavation is unknown. Other part has been excavated by Russian and Ukrainian teams in the northern side of the island, within the layer of the second half of the 6th century BC (pl. 2). The volume of these vessels was about 50 litres, the colour pale yellow, and the organic remains in the inside part of these amphorae have indicated wine as their probable content. The performed laboratory analysis pointed out the island of Cyprus as the probable origin of these fragments (Dupont 2001, 86; Дюпон and Назаров 2003, 142; Lungu 2007, 116). According to the morphological research, a close parallel to these amphorae can

be found in the loop-handle amphorae from Tell Keisan from the mid-7th century BC. Petrographic (Courtois 1980, 358-60) and Neutron Activation Analysis of Tell Keisan samples (Gunneweg and Perlman 1991) suggest that their origin is Cyprus (Salles 1980; Bennett and Blakely 1989; Defernez 2002; Jacobsen 2002; Дюпон and Назаров 2003, 143; cf. the discussion in Fantalkin 2001, 96; Leidwanger 2005-2006, 25-6; Knapp and Demesticha 2016, 131). The theory of a Cypriot origin is corroborated by the significant number of BoR ceramics, excavated so far at this important coastal agricultural centre (Salles 1980, 136-41; on the attribution of initially Levantine, and later Cypriot origin of the BoR ceramics, e.g. Schreiber 2003, 200), known for its grain and oil production, which was located between the Akko coastal plain and the hilly region of Lower Galilee (Markoe 2000, 194-5; Aubet 2001, 78).

Fragments of basket handle amphorae have been found again in Berezan during excavations in 2007 in a pit that belongs to the first half of the 6th century BC, and well No. 121, from the same period (Ильина and Чистов, 2012, 24, табл. 14, 3). According to the publishers, these seem to belong to the type E from ca. 600 BC (Humbert 1991, 583-4) and their more close typological parallels seem to be samples from the coastal fortress Mezad (Mesad) Hashavyahu, destroyed in the end of the 7th century BC (Fantalkin 2001, 95-6, fig. 34-5).

Such amphorae fragments have been identified again in 2014, when a team undertook a review of a collection of unpublished archaic amphorae fragments, found in Olbia during the excavations, supervised by V. V. Lapin in the period 1960-1980. The collection consists of more than 4300 fragments, which were collected in the course of the 20 years of excavations, but subsequently not catalogued, neither published. Few years ago this collection was re-examined and partly published for the first time (Буйских 2014; 2017).

Among the material in the collection were defined fragments originating from Aeolia, Ionia (North and South), the North Aegean, Greece (Athens, Corinth), Cyprus as well as the Levant. The basket-handled amphorae fragments are associated by the publisher to a 6th century BC Cypriot material that belongs to the type A of the classification of Leidwanger (Leidwanger, 2005-2006, 25—26; Fourrier, 2009, 51, cat. n. 142—144) (pl. 3, 5-7) and dated accordingly to the second half of the 7th century BC – beginning of the 6th century BC (Буйских 2017).

The Levantine material (pl. 3,1-4) presents typological parallels with the production of Mezad Hashavyahu (Fantalkin 2001, 63, fig. 25, 9-12) and of Tel Quadadi (Fantalkin and Tal 2010, fig. 5, 15; Fourrier 2009, 51, cat. n. 168-173) from the end of the 7th – beginning of the 6th century BC. The publishers find the closest parallel of the fragments in the type 3 of Sagona's typology, dated in 600–475 BC (Sagona 1982, 78) and 391/1-2 or 392/2-3 23 of Lehmann's typology, dated in the 7th –6th century BC (Lehmann 1996, 436), and incline to date the Berezan fragments within the context of the Cypriot imports, *i.e.* in the late 7th –beginning of the 6th century BC (Буйских 2017, 198). The type of storage jar in question is among the most common in Israel and is spread around the Eastern Mediterranean (Regev 2004, 339-350), most frequent being in the Levantine coast (on the evidence from Palestine, Fantalkin 2001, 64; on the evidence from the Tyre-Sidon region, Bettles 2003, 60ff.), but also on Cyprus (Fourrier 2009, 52, fig. 168-175), Rhodes (Jacopi and Maiuri 1928-1931, vol. 3, tab 3: 179; vol. 4 tabs. 8: 117,121; 211), and Egypt (Artzy 1980, 69). On the West, it is also registered in Carthage (Docter 2007, 643ff). The type is on the other hand rare in the North, with a single fragment reported from Miletus (Brinkmann 1990, cat. 6), and three at Gordion (Lawall 2010, 165). Pottery fragments, found at Istros, were also attributed to "Ashkelon" types; however, this attribution is controversial (Bîrzescu 2012, cat. 1404-5).

The multiple fragments of loop-handled amphora found during different excavations in Berezan seem to indicate a temporary trade route for their importation. All the studied fragments seem to belong to the first building period of the settlement, which lasts from the end of the 7th to the first half of the 6th century BC (Соловьев 1994). The lack of reported loop handle amphorae from other Black Sea centres gives ground to the publisher of the collection to assume that their import ceased in the beginning of the 6th century, which is consistent with the peak of their international export (Буйских 2017, 197).

The lack of such amphorae from other Black Sea sites is hardly surprising, given the archaeological situation on the West and North-West coast. The first phase of colonisation in the Black Sea in the mid-7th century BC results in the establishment of a small number of colonies, namely Istros, Orgame (?), Berezan, Sinope, Taganrog and Apollonia (?). With the last three unexcavated, the earliest layers of Istros underwater

and the dating of Orgame under discussion, Berezan is the only reliable archaeological site able to provide information on the early colonies' economy and trade. Although Berezan is undoubtedly the most completely excavated site in the Black Sea, it experienced much damage that should be taken in consideration when discussing the finds. In the first place, changes of the sea level that caused the partial submerging of the ancient settlement, while military actions destroyed other part of it. Much archaeological information was lost due to early excavation and conservation techniques, and many complications in preserving the site resulted by the numerous alterations of research teams and techniques in the course of the years. Moreover, the unearthed material from the site is distributed among different museums in Russia and Ukraine and is only partially studied and published. There are also cases of misinterpretation of evidence that concern primarily uncommon finds such as the Levantine objects. For instance, despite being found in various excavations in the course of the 20th century, the basket-handle amphorae and Levantine jugs from Berezan have been recognized only in the last few years. Re-examination of stored material in the last decade resulted in new interpretations and theories, however, many issues remain to be resolved. (Ильина and Чистов 2012; Буйских 2017)

In conclusion, on the grounds of the quantity of newly found fragments and the current distribution of the Cypriot and Levantine amphorae, the last studies on the question suggest that the area of Borysthenes' trade contractors covered almost whole the Mediterranean region at the time of the Greek colonization and should be considered when studying the trade of preferential consumption of the late 7th century BC (Буйских 2014, 88-100) (pl. 3). The restricted period of distribution of these amphorae points to a short term trade route. Cypriot material possibly arrived through an Ionian centre of redistribution, given that the second half of the 7th century BC represents a key period of increased mercenary and commercial interaction between East Greece and the Near East (Fantalkin 2006, 203-4). The distribution of Cypriot pottery in the Black Sea corroborates the theory that attributes an important role of the island in the Mediterranean trade of the second half of the 7th century BC, advanced by some recent studies. According to Elizabeth Greene, "By the 6th century BC the role played by Cyprus in the establishment of cultural contacts between the Greeks and the Near East is visible in finds of basket-handle amphorae and *mortaria* in religious and habitation sites in both regions, and we might look toward the island as an intermediary - and perhaps facilitator - in these renewed cultural contacts" (Greene *et al.* 2013, 34; on the

origin and distribution of *mortaria* in this period, see also Villing 2006; Spataro and Villing 2009; Zukerman and Ben-Shlomo 2011). On the other hand, the large quantities of basket – handle amphora, found in Berezan, show that their zone of distribution extends much North than previously thought, at least in a certain period. Unfortunately the analyses, performed until today, do not show whether the basket-handle amphorae contain the original agricultural products. If the first hypothesis is true, it would mean that the population that founded Berezan knew and continued to require the same products. The publishers of the Cypriot ships assumed, in base of the location of these that the traders have been interested in North routes, which may even be a clue of possible direct contacts between the Levant and the Black Sea. Either way, the finds of a large quantity of basket-handled amphorae in one of the most ancient colonies of the Black Sea opens a new perspective in the studies of the archaic maritime trade (Буйских 2017, 201). According to H. Özdaş and N. Kızıldağ for instance, the finds from the Çaycağız Koyu and other shipwrecks suggest an extended trade activity through Cyprus, Syria, Carthage and Italy, in addition to the regional commercial activity from the archaic period (Özdaş, Kızıldağ 2014, 55).

4.1.2. Cypriot White Painted pottery

Important archaeological finds that scholars have related to the presence of the Phoenicians in Euxine are some pottery fragments, considered to be contemporary to the colonisation or even pre-colonial. These are a few single finds, whose dating and interpretation give some serious difficulties to the researchers. Namely, these are **Cypriot White Painted IV pottery** fragments, found in Istros and Berezan (Alexandrescu 1999, 5-6; cf. Gjerstad 1948, 56, fig. 28) (pl. 1).

The fragments were discovered outside the actual excavations - curiously enough, in the cabinet of the archaeologist leading the first excavations in the site in the 1920s. The pieces from Berezan, on the other hand, have not yet been published (Alexandrescu Vianu 2004, 84, Alexandrescu 1978, 62-63, no. 256. Cf. Minns 1913, 388, who mentions Cypriot ceramics, found in Berezan in 1900's).

When publishing the fragments from Istros, P. Alexandrescu dated the group just before 700 BC, using as parallels pottery pieces from Eretria (Alexandrescu 1978, 63). If this dating is correct, the fragments from Istros would probably be much older than

an actual foundation of the colony, which is traditionally placed in around 630 BC (Tsetschladze 1998, 35; Alexandrescu 1978, 63, Demetriou 1978, 12-25, Bouzek 1990, 17). On the other hand, pre-colonial pottery has not been found yet around the Black Sea and some scholars doubt the dating, proposed by P. Alexandrescu. Thus, Boardman has suggested (his opinion is reported in the very same publication of Alexandrescu 1978, 63) that the pieces should be rather dated in accordance with the other Greek ceramics found in the site, *i.e.* to the late 7th century BC. In 1991, he advanced the opinion that the pieces belong to Cypro-Archaic II ware, *i.e.* after the colonisation (Boardman 1991, 389). Other scholars, however, agree with the dating of the fragment before 700 BC (Bouzek 1990, Graham 1978). Moreover, they relate them to other pieces, found around the Black Sea, which might belong to the pre-colonial phase, such as the Euboean Late Geometric fragments from the second half of the 8th century BC (?), apparently found in Istros (Coldstream 1968, 379, n.7, 8, Alexandrescu 1978, 21, n.15, Alexandrescu 1999, 4ff) and a fragment, which resembles a Trojan G 2-3 ware, apparently from Istros, that belongs to the early 7th century BC and Attic Middle Geometric pieces, reported from Berezan, whose dating also seems to precede the foundation of the first Black Sea colonies (on the Istrian fragments, see Alexandrescu 1978, 62ff, on the Berezan ware, Coldstream 1968, 377; according to Boardman, the presumed Trojan G 2-3 belongs to the late 7th or the 6th century BC, see Boardman 1991, 389). Unfortunately, the latter fragments' chronology and interpretation have also provoked debates among scholars. The Attic vessel is a part of a private collection, with a reputed, but not proven, provenance of Berezan. The Euboean Late Geometric drinking cup is kept among the fragments from Istros in the Museum of Classical Archaeology at Cambridge, as a gift from C. A. Rodewald, who received a batch of 27 sherds from Istros by Mme Lambrino, when he visited Istros in 1939, and he gave them to this Museum about 1950. These pieces are banal, except the fragments of an Euboean Late Geometric drinking cup, and they have never been properly published. Many scholars thereby reject the authenticity of the pieces. Boardman believes that a fragment, belonging to the Al Mina material, could have been erroneously placed among the Istrian material in the Cambridge Museum. He writes that "The fragment is typical of finds at Al Mina, and it seems to me highly probable that it is from Al Mina. A batch of pottery from Al Mina was acquired by the Museum of Classical Archaeology in Cambridge, probably in 1956. This pottery and that from Istria were only catalogued, numbered and ink-labelled in 1962. That an unlabelled fragment could move from one

tray or box to another, in the course of an exercise in comparison of colonial pottery, seems to me an event almost to be expected” (Boardman 1991, 388). Coldstream on the other hand believes that “Both provenances must be viewed with some reserve, not only because organized excavations of this site have turned up no other material prior to the late seventh century. Yet some casual commerce in this direction during the eighth century is not entirely out of the question, before the establishment of permanent colonies” (Coldstream 1968, 377). Bouzek on the other hand argues that both the Euboean Late Geometric and the Attic Middle Geometric pottery types are among the ones, often attested far from the Greek mainland: the Attic Middle Geometric has parallels with fragments, found in Cyprus, Syria, Palestine and Spain, while the Euboean skyphoi have been attested in Syria and South Italy (Bouzek 1990, 17). He concludes that “it is not more difficult to accept the provenance of Geometric pottery from Berezanj and Histria than to refute it, and both the legends and the contacts in bronze work attest some kind of earlier relations between the Greeks and the Black Sea inhabitants preceding the foundations of the colonies. Even the best examples of the Middle White Goat style I do not come from the earliest Greek settlements in the North Pontic areas, but from early Scythian settlements, rather distant from the coast” (Bouzek 1990, 18).

For what concerns the route that imported these pieces to Istros, Alexandrescu (1978) assumes that the Cypriot White Painted was most probably distributed in the area through Rhodes. His view is grounded on the assumption that much of the archaic East Greek ceramic, found in Istros, was of Rhodian production. Alexandrescu also bears in mind the archaeological evidence for Phoenician and Cypriot connection to Rhodes (for a discussion on Phoenician and Cypriot presence in Rhodes, see e.g. Kourou 2003, Coldstream 1968, 380-1; 1969, Bisi 1987, 229, Fraser 1970; Bourogiannis 2012b; 2018). Recently although, the chemical analyses of the presumed Rhodian material from Istros showed that it actually originates from different production centres, and the theory of a large Rhodian import to the Black Sea in the Archaic period has been abandoned (Villing 2010, 3; for new results by NAA analysis of Coan and Rhodian pottery, Villing 2017). Rhodian imports are uncommon in Berezan as well, in contrast to the Milesian, Samian and North Ionian fine pottery (Большаков, Ильина 1988, 62). The lack of pottery, on the other hand, is not a decisive factor to exclude Rhodian participation in Northern trade routes, neither the validity of the theory, if transferred to another Ionian centre. Other hypotheses are that the pieces could have been

brought by Euboean (Alexandrescu 1999, 6) and even by Phoenician (Bouzek 1990, 17) carriers. The first hypothesis is based on the established view that commercial networks between Euboea and the Levant were extended to the North Aegean in this period (e.g. Coldstream 1998, Chirpanlieva 2014, 4). Moreover, Euboean colonisation activity is attested in Chalcidice, with the foundation of Methone and Mende in the late 8th century BC (Κασσέρη 2012, Moschonissioti 1998) and the Propontis, with the foundation of Chalcedon in 685 BC (Alexandrescu 1999, 5). Phoenician and Cypriot traders, on the other hand, were also present in these sites (Τιβέριος 2004; Τιβέριος, Μανακίδου, Τσιαφάκι 2004, Κασσέρη 2012). Unfortunately, since the pieces of evidence are corrupted by the vague details regarding their finding and by the disputes over their dating, they are not a reliable evidence, at least if not combined with other material, which could provide a veritable base for conclusions regarding pre-colonial trade networks between Greeks and locals in the Black Sea.

4.1.3. Etruscan and Italic amphorae

Etruscan objects in the Black Sea are relatively poorly studied (Ганіна 1970; Treister 1991b, 71, note 1). More than 300 Etruscan artefacts (pottery, scaraboids, metal artefacts and an Etruscan inscription on an alabaster jar, containing the name of the Etruscan goddess Tanr, found in Pantikapaion, see Харсекин 1972) are kept in the Hermitage museum only, some of which found in the Euxine and some acquired on the antiquity markets (Билимович 1972). The Etruscan and Magna Graecia objects in the Black Sea, however, have been in most part omitted by the studies on Black Sea trade so far.

During excavations in Berezan in 2017, in a layer of the end of the 6th – beginning of the 5th century BC has been found an Etruscan Py Type 4 (Gras EMD) late archaic storage amphora, dated after the third quarter of the 6th century BC. Until now it is the first Etruscan amphora, found or recognized in the Black Sea (Чистов 2018, 27).



Fig. 59. Distribution of basket-handle amphorae Type I (second half of the 7th – early 6th century BC).

Another archaic piece of evidence of Italic imports in the Black Sea is a fragmentary amphora from Berezan, associated with material from the 2nd and 3rd quarters of the 6th century BC (Dupont 2003). The object is of an exceptional type, scarcely distributed not only across the Black Sea area but also around the Mediterranean. The only other Pontic specimen of this type was found in Apollonia (Archaeological Museum of Sozopol, inv. no. 477). The vessel displays quite unusual morphological features: very wide and flattened handles, sharp arching, and high sloping annular foot. An East Greek origin of these vessels, initially assumed, has been rejected by Pierre Dupont, who studied the object and concluded that the distribution of this type seemed to be restricted to a single complete specimen from South Italy or Sicily (Dupont 2003, 13-14, 25) (pl.6).

It is interesting to note in this respect that the morphology of some of the fragments in the Lapin collection at Berezan (pls. 3, 4) corresponds to such, produced in the West Mediterranean (Буйских 2014, 99).

4.1.4. Fishplates

West Mediterranean origin is also attributed to some archaic fishplates from Olbia and Berezan that present what Lungu (2007) has defined as “*une ressemblance troublante*” with Punic models: these pieces’ closest parallels are the Phoenician “*piatti ombelicati*” from the necropolis of Palermo from the 6th century BC (Moscati 1988, 658, no. 441) and Kerkouan from the 4th-3rd century BC (id., 646, no. 369). The way of penetration of this model in the Black Sea has still not been determined by the researchers. The type is diffused in the Occidental and Central Mediterranean and apparently is absent from the Eastern Mediterranean, whose centres were the main importers to the Euxine (Dupont and Lungu 2007, 26) (pls.4, 5).

4.2. Glass and faience objects

4.2.1. Amphoriskoi

The demand for Levantine products in the Black Sea is traceable through a series of glass and faience, found around the Euxine. Such are the glass alabastra, aryballoi and amphoriskoi, used for perfumes and aromatic oils, which were made of sand-core formed glass and usually decorated with threads of different colours, which appear in graves throughout all the main Pontic centres from late 6th century BC (e.g. Kashaev 2005; Кашаев 2009, 188-267; Гуцалов 2009, 185; Кунина 1997, 27, 57, fig. 13; 14, 15, 58; Сорокина 1957, table, 3,1; Vickers and Kakhidze 2004, 368, fig.13. See a detailed discussion on pre-Roman glass vessels and beads in Chapter 5). Interestingly, these objects are found often in the hinterland, in regions inhabited by non-Greek local tribes. Since their provenance and dating are, however, vague, here we shall report only a few examples. In 2003-2004 during excavations in the necropolis of the Classical rural settlement Artyushcenko-2, conducted by the Taman Group of the Bosphorus Archaeological Expedition of the Institute of the History of Material Culture, were found numerous fragments of a type of amphoriskoi, attributed by the excavators to Phoenician manufacture. The settlement has been founded around the end of the 6th or the beginning of the 5th century BC. Located in the Temryuk Region of the Krasnodar district, it apparently belonged to the chora of Hermonassa (pl. 48). The inhabitants

were evidently engaged in an extensive trade, as show the large number of contemporary fragmentary amphorae from Chios, Lesbos, Thasos, Mende, Heraclea, Sinope and Rhodes. The “Phoenician” amphoriskoi were found in female graves, dated to the 5th century BC, along with other decorations and toilet utensils - bronze mirrors, rings, spiral pendants, pyxides, beads, bronze needles etc. (Кашаев 2009) (pl. 49).

Archaic glass amphoriskoi and alabastra found their way up to very distant regions, such as for instance the southern Ural, where vessels from “Phoenician” glass were found in numerous cases (pls. 50, 51) in luxurious burials from the end of the 6th to the 4th centuries BC. At mound Kyrik-Oba II, in kurgan 12, a fragment of “Phoenician” glass vessel from the 6th-5th centuries BC was found; however, little information was collected, as the tomb was robbed in antiquity. A glass fragment of the “Phoenician” dark blue and dark brown glass with white and brown ornaments was excavated in the burial no. 6, with male remains, which is the richest one among the 37 kurgans of the mound Lebedevka II (9km SW from the village of Lebedevka) (figs. 50- 51). In the mound Ilekshar I, which consist of a few burials from different periods, the kurgan no. 1, again the richest one, also contained fragments of the “Phoenician” glass vessel (Гуцалов 2009, 185).

The distribution map of these objects, although rather imprecise due to publication shortness, suggests, however, that these imported commodities were appreciated by the nomad tribes, in whose lands are distributed. The publications describe the form of the vessels as individual shapes with no stable iconographic types among them”, and argue a trade route of penetration through Asia Minor and without the need of Greek intermediaries, because generally the Levantine products were more often diffused in these steppes in the studied period than the Greeks ones (Смирнов 1964, 283; Гуцалов 2009, 190ff), while land trade routes through the Transcaucasus were used at least from the 7th century BC (see below). Apparently, a taste for the contents of these objects (in most probability, aromatic oils) was spread through various nomadic tribes around the Euxine, because in the Classic and Hellenistic period their import became frequent, raising further the question of their origin and trading patterns (Кашаев 2009, 188-267; Гуцалов 2009, 185; Кунина 1997; Vickers and Kakhidze 2004).

4.2.2. Glass beads and pendants

The numerous glass beads found around the Euxine, and dated to the 6th-5th centuries BC, were mostly made of black, white, yellow or blue opaque glass paste, but also of a light colourless translucent glass (Рыбаков 1984, 238; Островерхов 1985, 92-109; cf. Discussion on dating and classification of these objects in Ch. 5). In the 5th century BC, the pyramidal pendants of translucent blue glass appeared and, during the 4th-3rd centuries BC, the former series were enriched by egg-shaped beads of blue, green, yellow and colourless glass, and by tubular and globular beads (Рыбаков 1984, 238). In the chora of Olbia, in the Kozyrka IX settlement was found a unique glass bead in form of wolf head, in a context of the 5th century BC (Островерхов and Отрешко 1994, 110) (Fig. 60).

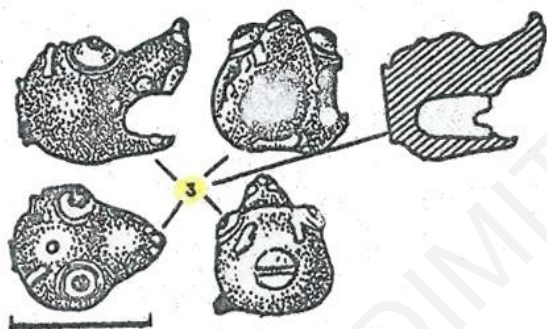


Fig. 60. Glass bead from Chertovatov settlement, representing a wolf or a dog. 5th century BC. After Островерхов, Отрешко 1994, 110, рис. 2

The publishers attributed it to Phoenician production and related it with the cult of Apollo Lykeios, which is attested on archaic epigraphs from Olbia and would have an Eastern origin (id., 107-15). Again in Olbia, a mask bead with bearded face was found in an archaic tomb from the 6th century BC, showing that these recognizable Phoenician types of glass beads and pendants begin arriving in the North East Euxine at least at that period (Копылов 2006, 72). Such mask beads are subsequently found in layers of the 5th century BC in Pantikapaion and Nymphaion, and in the 4th and 3rd century BC spread around the North Black Sea (Dan 2005, see below). Small **faience pendants** with hardly identifiable origin have been found in various Pontic centers, e.g. Olbia, Berezan, Pantikapaion and Istros in the 6th-5th centuries BC contexts; these types primarily consist of figural types. Some pendants depicting male and female faces (interpreted as Baal, Ammon etc.) and small “temple-boys” are found in the Scythian and Sarmatian territories (Рыбаков 1984, 237; *pl.157*).

4.2.3. Scarabs and seals

Among the quantity of **scarabs**, some have been identified as Egyptian, some as Phoenician and others as Etruscan (see e.g. Алексеева 1972; Большаков and Ильина 1988; Рыбаков 1984 pl.159; Treister 1991b; Bouzek 2000; 2008, 129; further references in Dan 2011a). Their popularity is usually linked by the scholars to the increasing influence of Egyptian religion in the Euxine during the 4th and 3rd centuries BC (Treister 1991b; Bouzek 2008). In Olbia and Pantikapaion have been found also a few scarabs from an earlier date (dated in the end of 7th/beginning of 6th and the 5th century BC), which have been attributed to Phoenician production (Bouzek 2000, 137) (pls.44, 45). Moreover, two pieces, found at Orgame, belong to types, produced at Naukratis, and distributed either to Carthage either the Black Sea (Dan 2006, 185. For the trade relations of Carthage and Egypt see e.g. Leclant 1995; for the trade between Egypt and Italy, Naso 2006; for the archaic Greek trade in Egypt, among many, see e.g. Dupont and Thomas 2006 and for the presence of Phoenician and Cypriot traders in Naukratis, e.g. Villing and Schlotzhauer 2006, 7). Further, a scaraboid **seal**, made of coloured stone, was found in Nymphaion. The object is dated to the same period – the end of the 6th or the beginning of the 5th century BC and it is classified as Phoenician by the publishers, because the Egyptian symbol of the scarab is depicted with four wings, in the same ways as the Phoenicians represented it (Neverov 1995, 73, pl.12:6) (pl.46). The scaraboid seal is among the oldest objects, found in the necropolis of the polis, known for its mixed Greco-Scythian population, and presently it is kept in the Hermitage museum (inv. no. NPh 49.452; Худяк 1962, 23).

The research related to seal trade in the Black Sea is conducted for the most part by the Russian scientist Oleg Neverov from the Hermitage Museum. His studies focus on the Northern shore of the Black Sea. These suggest that seals from Mesopotamia, Phoenicia, Achaemenid Iran, Ionia, insular and mainland Greece, Etruria, Egypt, Roman Italy (and its provinces) can be found in the northern Black Sea region. The lack of seals in other Black Sea regions is in all probability due to the fact that the main research on Pontic seals is concentrated on the North Pontus (see for instance Neverov 1995; 2000; 2001; Treister 1991b, 71). The seals were apparently used mainly by the Greeks, although barbarians were interested in them as well, but only as decoration items (Neverov 1995, 71). Around the Euxine, seals are largely used in Hellenized societies, as much as their presence is considered to be an indication of the

Hellenisation. Initially the seals were imported; from the end of the 5th / 4th century BC, the local production started manufacturing these seals, but only as imitations to the imported ones, until in the Hellenistic period the local production outnumbered the import, also showing a better craftsmanship (Максимова 1957; Neverov 1995; 2000; 2001).

The Black Sea seal distribution is mostly reported from the territory of the Bosporan Kingdom: e.g. in Pantikapaion were found ca. 460 pieces, in Chersonessos - 265 (and 70 more impressions of sealed stone on ceramics), in Olbia - 80, in Phanagoria - 50, in Nymphaion - 45 (and 10 impressions on ceramics); further, numerous seals were found in burial mounds in the Kuban and Don region, while in the Scythian steppes these were found in a relatively smaller quantity, which, according to Neverov (2001, 17) is due to the fact that the local elite rather differed in their attitude towards the Greek customs. The expert on Black Sea seals argues that while the indigenous rich landowners adopted the Greek customs in the archaic epoch and retained on them, the Scythians nomad elite did not, but used the Greek objects through the prism of their own culture as show some evidence from Scythian tombs, they used the objects as jewellery. For instance, a series of *élite* tombs from Dnieper and Crimean steppe contain human remains, who wear sealed ring on each finger, from five to ten rings altogether (ibid.)

4.3. Metal objects

Series of Etruscan golden and bronze objects were found in Olbia, Nymphaion, Phanagoria, Pichvnari, Pantikapaion and other Pontic centers (Treister 1990, 165-169; 1991a; 1993). Such are for instance a fragment of bronze infundibulum from the second half of the 6th century BC from at Pantikapaion (Fig. 61), a helmet from the second half of the 6th - beginning of the 5th from Dahovskaya St., Kuban, bronze vessels (strainers, jugs) of the first half of the 5th BC from Olbia, Nymphaion, Phanagoria, Peschanoe village and Gejmanovaya tumulus etc. Bronze mirrors and helmets are found in multiple sites in the layers of 4th-3rd century BC, also Hellenistic helmets (3rd-1st BC), which supposedly have arrived with the invasion of Celtic groups in the Balkans in the 3rd century BC, and later during the Mithridatic wars (id., 1991b; 1993).



Fig. 61. Fragment of a bronze infundibulum from Pantikapaion. Middle or third quarter of the 6th century BC. State Museum of Fine Arts, Moscow, inv. M-747. After Treister 1991, pl. 19a

The Etruscan objects in the Black Sea are studied in most depth by Michael Treister, whose research concerns exclusively the North shore (1990; 1991b; 1993). The published results suggest three chronological groups of Etruscan imports in the North Euxine: the group of the 6th century BC, the group that belongs to the 5th-3rd century BC, and the group of the end of 3rd – beginning of 1st centuries BC. Treister supposes that the first two groups could be the result by either Greek or Carthaginian trade (on the steady connection between Carthage and Etruria, Rainey 2004, 179ff), but he does not exclude the possibility of direct trade connections between the Black Sea and Italy, considering the epigraphic evidence that shows the presence of a Syracusan citizen in Pantikapaion in the first half of the 4th century BC (CIRB 203). The third group, according to the scholar, was conveyed by the Celtic warriors (id).

For what concerns the Magna Graecia finds, several objects were found in Nymphaeum, such as a bronze statuette of an athlete, which decorated a candelabrum from 460-450 BC, possibly made in Locri (Thomas 1981, 125, tab. 87,1; Герцигер 1984, 86, 92, no, 9; Билимович 1984, 5-11), a bronze oinochoe with relief images of lying Silen from ca 470 BC, similar to the finds from Agragas (Билимович 1982, 41-43) and fragments of a bronze hydria from ca. 460s-450s BC (id., 1984, 76, no.4). Two bronze oinochoai found in Berdyansk Barrow kurgan of the late 5th/ early 4th century BC present iconographic parallels in Sicily and Carthage (Boltrik *et. al.* 2011, 270) (Fig. 62). A bronze candelabrum with a lamp was found in a central burial of the 4th tumulus of the Seven Brothers tumulus complex from the second quarter of the 5th century BC. The object was probably produced in the beginning of the 5th century BC in Epizephyrian Locri (Герцигер 1984, 91-92 no.8).

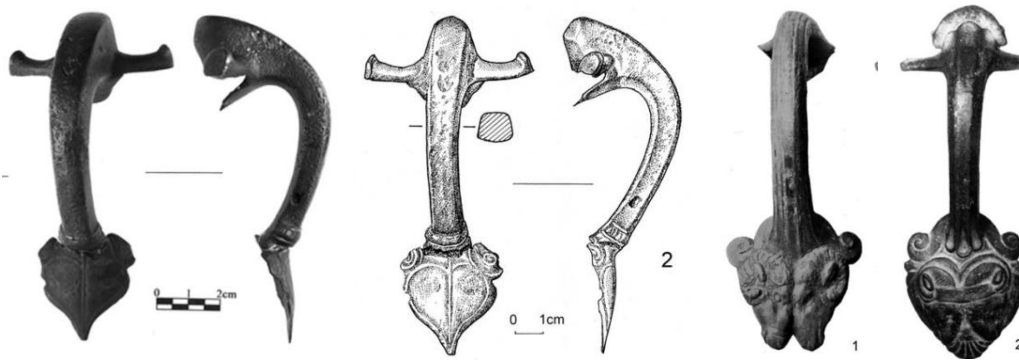


Fig. 62. Handles of bronze oinochoai from (left to right) Berdyansk Barrow, East grave; the Carthage necropolis; Southern Italy or Sicily. After Boltrik *et al.* 2011, 259, fig. 2; 265, fig.6

Some of these objects have been excavated at decades ago, but they have been properly recognized only recently. Such is the case of the fragments of the handle of a large bronze vessel with a rare type of decoration, found at the Myrmekion archaeological site during construction work in 1936, which were subsequently forgotten. Recently they have been studied by Treister, who concluded that the objects were made in a Sicilian or South Italic workshop and belong to the late 6th or early 5th century BC (Гайдукевич 1952; Трейстер 1987; Treister 1991b; 1993) (Fig. 63).

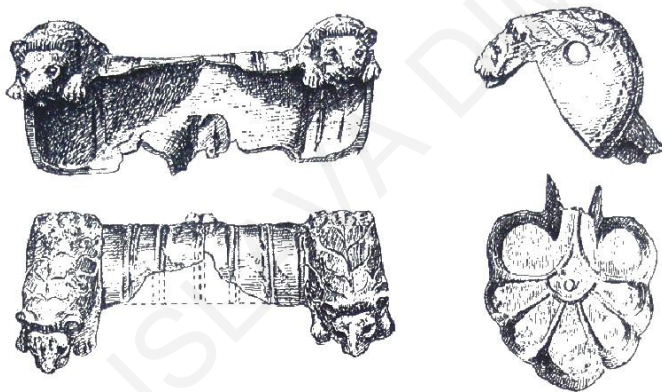


Fig. 63. Bronze handle from Myrmekion. After Gajdukevich 1952, 212-214, fig.138; Treister 1993, p. 379. fig. 1

Many of the Magna Graecia finds in the Euxine identified until now seem to belong to a limited chronological period (second half of the 6th - first half of the 5th century BC), concurring with the most archaic group of Etruscan imports in the North Black Sea; which might suggest that a temporary route of penetration of these objects and iconographic models, direct or not, existed for a short time.

4.4. Votive objects

In addition to the commercial imports, for the sake of completeness here is provided a study of the penetration of Syrian religious elements, expressed by particular votive objects and dedications.

Votive terracotta from the 6th – 5th century BC with a type of iconography, which may be classified as close to Levantine models, have been found in Istros, Olbia and Apollonia (Hermary 2013, 48-51). These are studied in depth by Alexandrescu Vianu (1997; 2004; 2005) and more recently, by Hermary (2013). The female terracotta group is particularly interesting. The iconography of a fragmentary figurine, representing a standing goddess (pl.27) is probably related, according to A. Hermary (2013, 48-9), to Cypriot and Phoenician models. The exact spot, where the figurine has been found is unknown; it might have served as an offering from the sacred area of Istros (id.) Hermary (2013, 49) sees in the fragment a parallel to the so-called Astarte figurines with the arms hanging down along the body, a type well represented in Aphrodite's sanctuary at Arsos in Cyprus.

A series of Istrian figurines are unearthed in the archaic levels of the sacred zone (pls.22-4). Two fragments (upper and lower part of a figurine), found in different excavations, match together - the lower part (5cm) is found during the excavations of Marcelle and Scarlat Lambrino (1927-1942) and the upper part (6cm) is found in 1956, during the excavations near altars F and G in the sacred zone (Alexandrescu 1978, 496-498, Terracotta 17a-b, Alexandrescu Vianu 1994, 137ff; 1997, 19, 5-6, 21; Karageorghis 1998, 30, pl.22-3). The two pieces fit so well as if they were a part of the very same figurine. However, it is possible also that multiple copies of those figurines were made from the same mould and then the parts attached to each other. The material of the figurine fragments is a pale yellow, almost white, volcanic tuff, and the rests of green glaze and with brown-reddish paint can be traced on some parts (Alexandrescu Vianu 2004, 79). The chemical analysis of the material demonstrated that it did not come from local resources, and roughly dated them to the 6th century BC. The geological analysis further confirmed a region with tropical or subtropical climate as the origin of their material (Alexandrescu *et al.* 2005, 498).

The figurines depict a seated woman, dressed in a skirt, who holds an unidentified object in the arm on her breasts. With reference to the nearest parallels of this artefact, which were found on Cyprus (Arsos) (pl.26), it probably served as a music instrument

(Alexandrescu Vianu 1997, 21; Karageorghis 1998, 30; Hermary 2013, 48). According to Alexandrescu Vianu (2004, 81), their style along with the method of their workmanship recalls the northern Syrian or Phoenician production. Antoine Hermary on the other hand notes the iconographic similarities to the “well-known iconography among productions that can be qualified as Cypro-Phoenician” and relates the single iconographic elements, evidenced in the Istrian figurines, such as hair style and the circular artefact, to the terracotta found in Aphrodite’s sanctuary at Arsos, while specifying that “there is no precise equivalent for the Histria statuettes, taken as a whole” (Hermary 2013, 48). Lastly, Boardman has suggested a West Phoenician origin for these figurines (Alexandrescu Vianu 1994, 138 n.7). This view is also consistent with the evidence, since a number of comparable iconographic elements are present in some protomes in Taros, Mozia, Carthage (Moscati 1980, 14, pl. 12-13), Damascus, (Louvre AO 4536 B), Samos (Jantzen 1972, B 342, pl.66), while a similar figurine in terms of position of the body and hair style has been found in Seville and considered an “*unicum nella statuaria fenicia*” in the time of publication (Quattrocchi Pisano 1974, 110) (pl.25).

It is worthy to note here that the eastern type iconography of female divinities persisted in the North Black Sea and is evidenced in later periods. For instance, representations of the female goddess of “squeezing breasts” type have been documented from the 5th to 2nd centuries BC (pl.34) in Olbia, Chersonessos, Kerkitis, Theodosia, Chaika settlement, Nymphaion, Tiritake, Myrmekion, and Panskoe (Buzoianu, Bărbulescu 2013, 55. Further on the oriental iconography of Aphrodite in the Euxine, see Alexandrescu Vianu 1997, Hermary 2013; for terracotta of eastern fashion at Olbia and Berezan see Alexandrescu Vianu 1997, 17)(pl.29).

From the very same material as the Egyptianising terracotta has been produced another figurine, found in Istros. It is a fragment, representing the head of a male with a big moustache and long beard, marked with vertical striations. It was found during the excavations of the Lambrino team, remaining unpublished, and was later re-discovered in the museum storage of Istros by Alexandrescu Vianu. She places the origin of this fragment in a North Syrian centre, and dates the artefact back to the end of the 7th or the beginning of the 6th century BC. She believes that it was probably used as an amulet or pendant, and finds its closest parallel in a terracotta statuette from Samos, whose provenance is probably Nord-Syrian (Alexandrescu Vianu 2004, 82).

A male head, part of a terracotta statuette, has been found in the sacred zone of Istros in the 1973 and studied by Alexandrescu Vianu (1994, 1997, 2004). It is made from pale clay block with U-formed face, big eyes, visible eyebrows, and pointed nose (pl.28). The hair falls down in big curls, the mouth is not traceable; it was probably painted (id., 83- 84). The object is dated to the beginning of the 6th century BC (Alexandrescu *et al.* 2005, 496, Tc 17= P40; 494, fig.72; Alexandrescu Vianu 1997, 23 fig. 7 a-b; 2004, 83), however, its type seems to date back to the beginning of the 7th century BC. Alexandrescu Vianu (2004, 82) associates the use of a matrix technique and absence of almost all face parts, particularly the mouth, with the Cypriot ceramic production from the Cypro-Archaic I period. The closest iconographic parallels of the statuette, according to the publisher, are a terracotta head found in Colophon (Mollard Besques 1954, 52, cat. B 337, 36) and a group of Cypro-Archaic terracotta in the Cyprus Museum, which were classified by Karageorghis to the group I (i) 6-10 (Karageorghis 1998, 5, category I, number 6-10, plates I-II, see especially n.84 and fig.6). This group represents females with elevated arms, found mainly in Paphos and surrounding sanctuaries and related to the cult of Aphrodite in Paphos. The artefact presents iconographic parallels to another group of statuettes from Paphos region (the Yeroskipou-Monagri group, Karageorghis 1998, 10ff.), which presents some similar iconographic elements to terracotta from the Herakelion of Samos (Schmidt 1968 14-17, pl.18).

Aside of the group of votive terracottas, in the *naos* of the sanctuary of Aphrodite in Istros was uncovered an interesting stone basin, dated to the third quarter of the 6th century BC, which shows traces of red ochre. According to Alexandrescu (2005, 77-87), even if the object is evidently of Greek production, it recalls Levantine types, while the function to grind red ochre also seems to suggest a Syrian, Palestinian or Cypriot origin of the cult practice. A similar marble object has been found also in the temenos of Aphrodite, posing the question whether a cult of Syrian origin has existed in Istros and Berezan. The second basin bears a dedication to Aphrodite and contains some remains of votive shields (on a connection of this evidence with the cult of the armed Aphrodite, Dan 2011a, 216, n.29; further on this deity see Flemberg 1995).

The most substantial evidence of Syrian-Levantine cult elements in archaic Black Sea are a few archaic dedications, which attest a cult to Aphrodite Syria (Dubois 1996, nos.

73, 74) (pl.35). The most ancient one comes from a votive sherd from the 6th century BC, found at Berezan, and reads as follows:

Ἀθηνόμα[ν]δρός μ' ἀνέθηκεν Ἀφροδίτῃ Συρίῃ

(Dubois 1996, n. 74). For the location and chronology of the archaic temple of Aphrodite in Berezan, see more recently Chistov 2015). In the 5th century BC, the cult still existed, documented by a dedication from Olbia, inscribed on the exterior of a black-glazed cup (Dan 2011a).

[Ἀφ]ροδίτῃ Συρίῃ Μητρῷ

A third inscription to Aphrodite Syria originates from Apollonia Pontica, where it was found engraved on the bottom of an Attic skyphos from the 5th century (Hermay 2013, 47)

Ζαμοὶ ἀνέθηκεν Ἀφροδίτῃ Συρίῃ

Aphrodite is well attested in those centers from the archaic period. In Istros for instance has been excavated the archaic temenos of Aphrodite, while in later times, two sanctuaries of Aphrodite are distinguished in Olbia by Rusyaeva (2015, 251-279) - the Western Temenos for Aphrodite Ourania and the Southern Temenos for Aphrodite Demia (Pandemos). However, the existence of the cult of Aphrodite Syria is rather unusual, given the fact that it was completely unknown to the elsewhere in the Greek world before the end of the Hellenistic period (Dubois 1996, 122; Hermay 2013, 47; on the spread of the cult of Aphrodite Syria in the Hellenistic and Roman period, see e.g. Turcan 1996, 133-4). This discrepancy poses the question about the circulation of models and cult practices and leads to the assumption, in the absence of other evidence to the contrary, that the most probable route of penetration of the archaic cult to the Euxine - a cult that differs from the Hellenistic one - penetrated in the zone through a non-Greek cultural interaction. Alexandrescu Vianu (1994, 143) tends to support this hypothesis. She advances the view that Aphrodite Syria was worshipped in the temple of Aphrodite Pontia in Istros, in the vicinity of which was found one of

the votive statuettes of a seated woman. She bases this opinion on bilingual inscriptions, such as the one from Cos, which relates Aphrodite Pontia to the Phoenician Astarte Marine (SEG 36:758 from 325-300 BC; for a synopsis of the cult of Astarte in the Aegean see e.g. Ammerman 1991, 203ff). Given the fact that Phoenicians had the practice to use the Greek sanctuaries for placing their votive terracottas, she believes that the sanctuary at Istros could have been used by the Semitic visitors or by settled foreign communities.

The question of non-Greeks in the Black Sea, however, is challenging to examine, since, as shown above, it has been generally neglected in the literature until recently. It is interesting to mention in this respect that Копылов (2011) considers that such population was present in the earliest settlement of the Don region, Taganrog. Further, a 6th century inscription from Hermonassa also raises the questions about the presence of mixed population in the colonisation period (Alexandrescu Vianu 1997, 24). Asian population from Mysia, Hellespontic Phrygia and Lydia has been recently attested in Berezan through studies on previously disregarded ceramics and evidence of Anatolian population has been found also in later periods on Istros (Соловьев 2007, 2013; Dupont *et al.* 2009, see previous chapter).

For what concerns the deity that was worshipped at the Euxine, it has been associated with the Mediterranean cult of Aphrodite Syria that has been largely accepted as a reinterpretation of Astarte (e.g. Dubois 1996, 22; Hermary 2013, 47). The fact that this cult is not attested in Miletus might be interpreted as an indication that the syncretism took place in the Black Sea area itself (Alexandrescu Vianu 1997, 22-3). The lack of other written sources poses the question about the persistence of the cult in the Euxine. Academics who studied the topic suggested that the archaic cult was later associated with the new female cults with eastern elements, which gained popularity in the Black Sea in the 4th century onwards – cults, such as Astara, Aphrodite Ourania, Atargatis and Cybele (Alexandrescu Vianu 1997, 16; Hermary 2013, 49ff. See also Ustinova 1999; Русяева 2005; Balena 2013; see *infra*, p. 233ff).

In this respect, recently Hermary (2013, 48) analysed the link between the cults of Aphrodite Syria and Aphrodite Ourania, the latter flourishing in the Black Sea from the 4th century onwards, until growing into official dynastic cult of the Bosporan Kingdom. The connection between the two cults in the Mediterranean is demonstrated by written sources from the Classical period, which evidence a relation between

Aphrodite Ourania, Aphrodite Syria and Astarte (Hdt 1.105.2-3, Paus. 1.14.7, IG II² 337, CIRB 1015; on their syncretism see e.g. Ustinova 1998; 1999, Wallenstein 2014). For what concerns the Black Sea, Hermary (2013, 47-8) advanced the view that the cult of Aphrodite Syria was transformed in the Classic age to an institutionalized representation of Aphrodite Ourania, still preserving its eastern elements. A period of strong oriental influence in the Euxine is not an exceptional phenomenon; such occurred for instance in the 3rd century BC, when the strengthening ties between the Euxine and the Ptolemaic dynasty were reflected on the appearance of new religious cults and those of Isis, Sarapis, and Anubis widely spread in the North and West Black Sea (Reger 2007, 279- 80, n. 31; Vinogradov and Zolotarev 1999; see discussion infra, p. 232. For other expressions of religious eastern influences, cf. Alexandrescu Vianu 1997, 25-8; cf. also Bouzek 1999 for the transmissions of religious ideas between Greeks and non-Greeks in the Black Sea).

4.5. Reconstructing exchange patterns

Scholars accept that trade routes between the Levant and the Euxine from the colonisation to the mid-5th century BC were developed with the intermediary role of Eastern Mediterranean centres such as Miletus, Rhodes or Samos, or directly by Phoenician or Black Sea traders, although such cases are attested only in later periods. A hoard from Egypt (IGCH 1645), closed around 470 BC, apparently shows the routes to the North Aegean and the Black Sea from Cyprus, Phaselis, Lycia, Rhodes, Samos, Chios and Teos. The Black Sea coin in the hoard belongs to Sinope, the only mint in the Southern Black Sea in this period (Erciyas 2006, 168) (Fig. 64).

Long-distance trade was also conducted by land and routes from the Levant to the Black Sea shores, used at least in the beginning of the 6th century BC, but perhaps much longer, are described for instance by Ezekiel. In his “Lament of Tyre” (27.13) he stated that “*Javan, Tubal, and Meshech, they were your [Tyrian’s] merchants: they traded the persons of men and vessels of brass in your market.*” (English text: *The Holy Bible, King James Version*). The three countries, Javan, Tubal and Meshech, are usually named together in the Bible (Genesis 10.2; Ezek. 32.26; 38.2; 39.1; Isaiah 66.19) (Fig. 55). Javan stands generically for Greece, and probably represents Ionia (Spence-Jones *et al.* 1950). The two other names, Tubal and Meshech, most likely represent the tribes on the

southeast coast of the Black Sea: Tubal - the Asiatic Iberians; Meshech - the Cappadocians, and the Moschi, who dwelt near Colchis. Their names appeared as Tibaroni and Moschi in the Greek history (e.g. Hdt. 3.94; Xen. *Anab.* 5.5.2. See discussion on the Biblical names in e.g. Wevers 1969, 199; Greenberg 1997, 564-568; Corral 2002, 2-7; Liverani 1991; Katz 2008; Constable 2013). The slaves, described as the chief traffic from these regions by Ezekiel, were probably traded in exchange for the Tyrian manufactured goods, and then sold to the Greek cities and in Phoenicia. The existence of slave trade routes to the Black Sea shores is hardly surprising, given that at all times, the Pontic regions (Thrace, Scythia, Anatolia) were major suppliers of slaves for the Greeks (Гольденберг 1959, 200). The source credibility is further supported by the reference in Joel 4:6, where the Tyrians are represented as slave merchants, selling Israelites to the "sons of Javan" (cf. *Amos* 1.6; *Amos* 1.9). Ezekiel adds that the brass vessels were other important commodity, exported from the Pontic lands (*Ezek.* 27.13) and in effect, the regions near the Caucasus and South East Black Sea coast were known for their mines, mainly iron, but also copper, silver and other metals (see discussion supra, p.60). Ezekiel claims further that Tyre traded with the Armenians: "They of the house of Togarmah traded in thy fairs with horses and horsemen and mules" (*Ezek.* 27.14). Other sources confirm the fame of Armenia for its horses and mules (e.g. Xen. *Anab.* 5.34; Strab. 11.14. 9; Hdt. 1.194).

For what concerns the West Mediterranean, trade patterns are challenging to investigate. The study of Treister of the West Mediterranean metal objects in the Black Sea convincingly concludes that the "*analysis of the shipwrecks containing metal ingots and bronze objects allows us to conjecture, with high level of certainty, that bronze articles of Greek manufacture could have found their way to the North Pontic area (the finds from Nymphaion, Myrmekion, the 4th Seven Brothers' tumulus) as a result not only Greek but also Carthaginian traders*" (Treister 1993; cf. id., 2004). Such an early presence of Carthaginians in the Euxine seems difficult to imagine due to the fact that the evidence about their trade presence in the East Mediterranean is generally scarce, but an indirect route of penetration is possible. It is illustrative, for instance that "our archaeological record attests a distinctive change in the nature of Greek imports into Southern Spain during the second half of the sixth century, with eastern Greek imports replaced by wares from states such as Athens and Corinth. It is during this period that we find Greek imports arriving more steadily in Phoenician-Punic ports throughout Southern Spain" (Rainey 2004, 202-3), because the imports in the Black Sea in the end

of the 6th – beginning of the 5th century BC might be result of this change. Direct trading links of Carthage with Athens are recorded in the written testimonies from the late 5th century BC (Thuc. 6.88.6. Fornara 195, no. 165; for the relations of Athens with Greeks and non-Greeks in Italy, see e.g. Hornblower 2011,



Fig. 64. The provenance of the coins, found in the hoard from Bubastis (IGCH 1645), which was closed around 470 BC. Map retrieved from <http://coinhoards.org/id/igch1645> (accessed 14th January 2019)

169ff). Some aspects of the cross-Mediterranean trade are further enlightened by the evidence gathered from the shipwrecks. For instance, according to Özdaş and Kızıldağ (2014, 53), the finds from the Çaycağız Koyu shipwreck of the late 7th century BC suggest an extended trade activity through Cyprus, Syria, Carthage and Italy, in addition to the regional commercial activity. A ship found near Giglio from about 600 BC carried amphorae of East Greek, Phoenician, Etruscan, Corinthian, Ionian, Laconian, and Samian origin (Bound 1985, 65-70; 1991, 181-244); the Camprese shipwreck from near Cap d'Antibes and dated to the 570s- 560s BC, which sailed to Samos, carried amphorae from Carthage, Chios, Italy and Marseille (Shipley 1987, 61-62; Gill 1987; 1988, 178; Pollino 1984, 8). Connection with the Euxine is revealed, however, by only with the El Sec shipwreck from the mid-4th century, found near Mallorca (Rouillard and Villanueva-Puig 1987, 15-146). This was a Punic vessel, whose cargo contained a considerable amount of specific types of Attic pottery, suggesting that Athenian workshops might have produced for the Punic market or that Carthage acted as a

redistribution point of the West distribution of Attic pottery (Kinzl 2010, 297). Discovered on the site of the shipwreck were also Etruscan metal objects and Greek amphorae (ca 30% Samian), among which also a quantity of Chersonnesian amphorae (ca 8%). According to one view, the starting point of the voyage was Samos, and the Pontic amphorae were loaded at Athens (Cerde 1987, 68); other interpretation supposes that they were rather brought straight from their production centre in the Black Sea, because these amphorae have actually been found in very small quantities in Athens, which exported rather than imported wine to the Euxine (Treister 1993). The hypothesis of the Euxine as a starting point of the ship's route seem to be confirmed by the presence of a Sinopean amphora in the cargo, as both the Sinopean and Chersonnesian stamped amphorae were very rare to find outside the Black Sea (see infra, p.190). Another example of a long-distance route from the Classic period is illustrated by the Porticello shipwreck, which contained amphorae from the Aegean (Mende, Byzantium), the West Mediterranean and Carthage (Treister 1991a, 233-238). These cases are considered as an essential evidence for the existence of cross-Mediterranean trade, which used the cabotage sailing and was carrying a mixed cargo, in the archaic period. Open-sea faring should also be considered, given that according to some studies, it was practiced by the Phoenicians in this period: for instance, Bonnano (1990, 213) believes that from the early 7th century onwards, an intensive sailing route was open through Malta, which provided *"convenient position, right on the direct route from east to west, without having to sail too close to the Greek-controlled southern coast of Sicily, or take the much longer route along the coast of North Africa."* Greek merchants executed long-distance trade expeditions, which are recorded as early as in the 7th century BC. Such is the voyage of Colaeus from Samos to Tartessos, described by Herodotus (Hdt 4. 152. See analysis of possible trade routes in Gonzales de Canales Cerisola 2014). A possible intermediary centre between the West Mediterranean and the Euxine is Aegina, given its extensive trade with the Black Sea during the Persian wars (Hdt 7.147), and on the other hand, the fact that Aeginian traders are allegedly attested in Etruria (Hdt 4.152. More on this matter, Domăneanțu 1988, 25).

4.6. Discussion

In sum, this chapter analysed the archaeological evidence of the Archaic and the beginning of the Classical period, i.e. the material, roughly dated from the mid-7th century BC to the middle of the 5th century BC. The periodisation is chosen according to the corresponding phase of Black Sea economy, characterized by the domination of the Eastern Mediterranean production in its markets.

A few important remarks should be first made. The first concerns the state of research of the archaic Black Sea. Among the colonies, founded in the first colonisation wave, best studied is Berezan. Istros is also relatively well studied. However, in both centres excavations of the beginning of the 20th century left behind poorly catalogued and/or unpublished material. Other centres, such as Apollonia and Taganrog, are impossible to excavate – the first, due to the fact that it is located under a military base, and the second, because of the sea erosion that destroyed the colony. Thereby, although the studied material comes mainly from Berezan and in lesser degree from Istros, we should not exclude that such might be found elsewhere in future. Secondly, even for what concerns Berezan and Istros, in many cases the material has been unpublished or misidentified for decades and only recently published and analysed properly. As a consequence of the above, the majority of the publications that focus on objects of interest for this study are the result of very recent scientific endeavour. All this is hardly surprising, given that the question of the Levantine imports in the Black Sea generally receives little attention, however, it explains why the researcher should be very cautious when interpreting the material, considering the significant lacunae and possible research errors.

Imported Cypriot and Levantine goods in the Black Sea, according to the archaeological record, were in the archaic phase agricultural goods, such as wine and oil, and from the late 6th century BC also metal and glass artefacts of religious or symbolic nature. The Black Sea imports in the Levant were slaves and raw materials such as metal. The list is in all probability incomplete, because of the archaeological invisibility of some merchandises and the lack of written sources.

To begin with, the evidence that might indicate Levantine imports in the Black Sea in the pre-colonial period is represented by few objects, such as fragments of Cypriot White Painted IV, Attic Middle Geometric and Euboean Late Geometric cups, which

were found in Istros and Berezan. The scarcity of the evidence is hardly surprising, given that pottery generally lacks in the pre-colonial phase of the Black Sea. Scholars, however, are divided in their interpretation of the evidence. Some deny the dating and provenance of the artefacts, while others hypothesize early Phoenician imports in the Black Sea. Possible intermediary centres are also discussed, as such suggested Rhodes, Miletus, Samos and Euboea. The evidence, however, renders it difficult either to accept, either to reject any of those views.

Much more clear evidence is the large quantity of Cypriot and Levantine pottery fragments, which are found at Berezan and belong to the end of the 7th – beginning of the 6th century BC or the first half of the 6th century BC. These are Cypriot basket-handled amphorae and Levantine storage jars. During various excavations in the course of the 20th century, there was found a large quantity of those fragments, especially the first group. Many of these, however, remained unpublished for a long time and only in the last ten years they have been identified and properly published (Буйских 2017; Ильина and Чистов 2012). The new studies conclude that, according to the morphological research, a close parallel to these amphorae can be found in the loop-handle amphorae from Tell Keisan from the mid-7th century BC. Tell Keisan samples have been analysed with Petrographic (Courtois 1980, 358-60) and Neutron Activation Analysis (Gunneweg and Perlman 1991) and the results suggest that their origin is Cyprus (Salles 1980; Bennett and Blakely 1989; Defernez 2002; Jacobsen 2002; Дюпон and Назаров 2003, 143; cf. the discussion in Fantalkin 2001, 96; Leidwanger 2005-2006, 25-6; Knapp and Demesticha 2016, 131).

The distribution of the early basket-handle amphorae was confined mainly to the Eastern Mediterranean. Produced from the 8th century BC on Cyprus, from the second half of the 7th century BC the type appears consistently in Cilicia and the Levant, and is usually encountered at coastal areas. In other areas these amphorae are comparatively rare and only a small number of outliers have been found north and west of that region in contexts that can be dated to the 7th century BC. The most important among them are those, found on shipwrecks along the Carian, Lycian and South Ionian coast. On the Kekova Adası shipwreck, more than 90 amphorae of this type have been found. Among the best comparanda of these fragments to date are a series of jars from a mid-7th century BC level at Tell Keisan. Other 20% of the amphorae of this cargo consists of Ionian production from several different Ionian centres - Miletus, Samos, and no doubt others, the best parallels of which come from early to mid-7th century BC Miletus itself,

and Corinthian Type A amphorae, whose best parallels come from contexts of the late 8th or early 7th century BC through the mid-7th century BC (*ibid.*). The basket-handle amphorae on the shipwreck of Kepçe Burnu are also dated within the 7th century BC, and are again consistent with a Cypriot origin, perhaps in the eastern part of the island (Greene *et al.* 2013, 23-34). Other locations, where such amphorae have been found in much more smaller quantities, are Rhodes (Jacopi, Maiuri 1928-1931, vol. 3, tabs. .4, 77, 121, 129, vol. 4, tabs, 8, 131, 142, 149, 158-160, 210), Athens, Kommos, and in Ionian centres such as Halicarnassus and Miletus (Niemeier 1999, 389-91; de Rodrigo 2004, 211; Dan 2011a, 213). Further North, there are no reported archaic basket-handle amphorae, with the exception of a single specimen from the second half of the 7th century BC, found in a tomb of the archaic Abdera's necropolis along with Milesian type amphorae (Dupont and Skarlatidou 2012, 260), and the Berezan pieces. The large quantities of basket – handle amphora, found in Berezan, show that their zone of distribution extends much northern to the previously thought, at least in a certain period (Fig. 59).

Among the pottery of the late 7th – beginning of the 6th century BC, in Berezan also represented are the Levantine storage jars. The type is among the most common in Israel and is spread around the Eastern Mediterranean (Regev 2004, 339-350), most frequent being in the Levantine coast (on the evidence from Palestine, Fantalkin 2001, 64; on the evidence from the Tyre-Sidon region, Bettles 2003, 60ff.), but also on Cyprus (Fourrier 2009, 52, fig. 168-175), Rhodes (Jacopi and Maiuri 1928-1931 vol. 3, tab 3: 179; vol. 4 tabs. 8: 117,121; 211), and Egypt (Artzy 1980, 69). On the West, it is also registered in Carthage (Docter 2007, 643ff). The type is on the other hand rare in the North, with a single fragment reported from Miletus (Brinkmann 1990, cat. 6), and three at Gordion (Lawall 2010, 165). The publishers are inclined to date the Berezan fragments within the context of the Cypriot imports, *i.e.* in the late 7th –beginning of the 6th century BC (Буйских 2017, 198).

Further archaeological evidence, analysed in this chapter are the glass and faience artefacts, found around the Black Sea, that belong to the 6th and the 5th century BC. Glass alabastra, aryballoi and amphoriskoi appear in graves throughout all the main Pontic centres from late 6th century BC (e.g. Kashaev 2005; Кашаев 2009, 188-267; Гуцалов 2009, 185; Кунина 1997, 27, 57, fig. 13; 14, 15, 58; Сорокина 1957, table, 3,1; Vickers and Kakhidze 2004, 368, fig.13). The distribution map of these objects, although rather imprecise due to publication shortness, suggests, however, that these

imported commodities or the products they contained were appreciated by the tribes, who inhabited the region and who are mainly nomads. Glass amphoriskoi and alabastra of the period spread throughout the North-East Black Sea and found their way up to very distant regions, such as the southern Ural. The publications describe the form of the vessels as individual shapes with no stable iconographic types, and suggest a trade route of penetration through Asia Minor, because generally the eastern products were more spread in these steppes in the studied period than the Greeks ones (Смирнов 1964, 283; Гуцалов 2009, 190ff).

Among the many glass beads, found in 6th and 5th century levels around the Black Sea, some are of interest for this study. For example, in the chora of Olbia, in the Kozyrka IX settlement was found a unique glass bead in form of wolf head in a context from the 5th century BC (Островерхов, Отрешко 1994, 110) (Fig. 60). The publisher attributed it to Phoenician production and related it with the cult of Apollo Lykeios, which is attested on archaic epigraphs from Olbia and would have Eastern origins (id., 107-15). Again in Olbia, a mask bead with bearded face was found in an archaic tomb from the 6th century BC, showing that these recognizable Phoenician types of glass beads and pendants begin arriving in the North East Euxine at least at that period (Копылов 2006, 72). Such mask beads are subsequently found in layers of the 5th century BC in Pantikapaion and Nymphaion, and in the 4th and 3rd century BC spread around the North Black Sea (Dan 2005, *see below*). Furthermore, small faience pendants with hardly identifiable origin have been found in various Pontic centres, e.g. Olbia, Berezan, Pantikapaion and Istros in the 6th-5th centuries BC contexts; these primarily consist of figural types. Some pendants depicting male and female faces (interpreted as Baal, Ammon etc.) and small "temple-boys" are found in the Scythian and Sarmatian territories (Рыбаков 1984, 238).

Among the large quantity of scarabs, some have been identified as Egyptian, some as Phoenician and others as Etruscan (see e.g. Алексеева 1972; Большаков and Ильина 1988; Рыбаков 1984 pl.159; Treister 1991b; Bouzek 2000; 2008, 129; Dan 2011a). In particular, a few scarabs, found in Olbia and Pantikapaion have been dated to the 6th - 5th century BC and attributed to Phoenician production (Bouzek 2000, 137) (pls.44-5). Two other pieces, found at Orgame, belong to types, produced at Naukratis, and distributed either to Carthage either the Black Sea (Dan 2006, 185). Further, a scaraboid seal, made of coloured stone, was found in Nymphaion. The object is dated to the same period – the end of the 6th or the beginning of the 5th century BC and it is

classified as Phoenician by the publishers, because the Egyptian symbol of the scarab is depicted with four wings, in the same ways as the Phoenicians represented it (Neverov 1995, 73, pl.12:6) (pl.46). The scaraboid seal is of particular importance for the research of the territory, because it is among the oldest objects, found in the necropolis of the polis of Nymphaion (inv. no. NPh 49.452; Худяк 1962, 23).

Other type of objects that have a votive value, studied in this chapter, are the votive terracottas of a female divinity, found in Istros and dated to the end of the 6th – beginning of the 5th century BC. The iconographic study shows parallels to Levantine and Cypriot models (Hermay 2013, 48-51). Few archaic inscriptions from the same period show that in Istros and Berezan there existed a cult to Aphrodite Syria. (Dubois 1996, nos. 73, 74) (pl. 35), which is accepted by the scholarship as a reinterpretation of Astarte. The most ancient one comes from a votive sherd from the 6th century BC. As such cult is not attested in any Greek centre in the period, the penetration of this cult in the Black Sea in all probability is due to direct intercultural interaction or presence of non-Greek groups in the mentioned Euxine poleis.

Based on the provided evidence, the chapter attempted to reconstruct possible routes of exchange. The question about the carriers of Cypriot, Levantine and Syrian objects to the Black Sea is debated and scholars hypothesize either direct or indirect links between the Euxine and the Levant. The most evident intermediaries are the Ionian centers, whose pottery production is the most diffused in the Archaic Euxine, such as Chios, Clazomenae, Miletus (e.g. Bouzek 2008; Villing 2010 etc.). In the 1970s Alexandrescu (1978, 20, n. 6; 21) reconstructed the trade route to the Levant through Rhodes, while Alexandrescu Vianu (2004, 85) associated votive terracottas from the 6th century, found in Istros, to Samian production. Far from resolved for the moment is also the question about the presence of Levantine groups of settlers in the Euxine. The demand for the eastern votive objects, attested in the archaic Greek colonies of the Black Sea, demonstrates an eastern impact on the religious life of the colonies and justifies the supposition that a North Syrian/Cypriot community was settled among the Greek colonists in Olbia and Istros (Alexandrescu Vianu 2004, 85).

The chronology of Levantine – Euxinian exchange, as shaped by the available evidence, shows two key periods of peak. The first one seems to occur in a relatively short period between the end of the 7th century and the beginning of the 6th century BC, which is

consistent with the peak of the international export of the Cypriot pottery, found at Berezan (Буйских 2017, 197).

The enlargement of trade networks in this time period concurs with the increased mercenary and commercial interaction between East Greece and the Near East in the second half of the 7th century BC. This is a period when over the course of just a quarter century BC, East Greece “rediscovered” the larger eastern Mediterranean world through the movement of goods and people (Fantalkin 2006, 203-4). Ian Morris (2000, 257-261) describes this phase as a “collapse of distance”, triggered in part by new shipbuilding technology, which facilitated the drawing together of certain peoples around the eastern Mediterranean closer than ever before since the Bronze Age. The network that brought basket-handle amphorae and Levantine storage jars at Berezan seems to be an extension of the wide Eastern Mediterranean trade network, visible as early as the 7th century BC, whose nature of processed agricultural goods, such as wine and olive oil, and coarse wares reflects a movement of goods beyond the trade of precious metals and fine painted pottery. This trade of “semi-luxuries”, to use the Foxhall (2005) definition, goods would have been conducted by elite traders within the framework of preferential consumption or the exchange of processed agricultural goods that become fashionable, despite being unnecessary in the sense of basic availability. Thereby, the evidence from Berezan, analysed in the present study, shows that the research on the increased seaborne activity of East Greece and the trade of preferential consumption of the late 7th century BC should consider also the opening of the Black Sea markets, as it suggests that the area of Berezan’ trade contractors covered almost whole the Mediterranean region at the time of the Greek colonization. Moreover, the distribution of pottery to the Black Sea suggests an expanding of cultural horizons that opens a new perspective in the studies of the archaic maritime trade and requires future research (Буйских 2017, 201).

The second period of peak in the Levantine-Euxinian exchange seems to occur in the end of the 6th century and last until the first half of the 5th century BC. In this period, the sea trade’s volume in the Euxine increases in the end of the 6th century BC for a number of reasons, among which the secondary waves of colonisation in the 6th century that increased the population, and consequently, the volume of the trade, including the circulation of exotic goods, or the urbanisation of the Greek colonies (studies show that the first 70 – 80 years of colonisation were a transition period, after

which the real urbanization started, cf. e.g. Чистов 2008). In the same period for instance increase the Egyptian imports (Большаков and Ильина 1988, 62).

The trade of exotic artefacts and agricultural products in the Euxine Sea involved not only the Greek colonies and their choraе, but also the territories of the local Black Sea population. For what concerns the Berezan network, the high concentration of pottery maybe indicates that the imports were also re-distributed to the hinterland. If this is true, these merchandises would have found an exceptionally extensive market: as show the study of the ceramics, Greek material imported through these centres from the 7th-6th century BC was found hundreds of kilometres inland (e.g. Tsetschladze 1998, 10; 2013, 70, fig.2). In the same time period, Levantine goods penetrated also by land routes to the Black Sea and reached the tribes that inhabited the South Euxine. Through the nomadic tribes, extensions of this trade route might have brought exotic artefacts also to the far North.

The distribution of Cypriot pottery in the Black Sea corroborates the theory that attributes an important role of Cyprus in the Mediterranean trade of the second half of the 7th century BC, advanced by some recent studies. Greene sees the island as an intermediary and perhaps even facilitator in the renewed cultural contacts of the Eastern Mediterranean in this period (Greene *et al.* 2013, 34). The researchers of the cargoes at the Kekova Adası, Kepçe Burnu and Çaycağz Koyu archaic shipwrecks' archaeological sites also argue that Cyprus seems to have had a prominent role in the mobility of goods and people, ideas and identity in the Eastern Mediterranean, especially during its earliest phases in the mid- to late 7th century BC (Greene *et al.* 2013, 23-34; Özdağ and Kızıldağ 2014, 53). The new finds from Berezan seem to add to this view.

The role of Miletus and/or other Ionian centres in the Levantine-Euxinian sea exchange seems very probable. These were the main importers in the Black Sea in the period of study and agricultural goods, such as wine, were part of the Milesian imports in Berezan (Dupont 2003, 143; Briend and Humbert 1980, 137). Moreover, basket-handle amphorae were mixed with South Ionian production on the Kekova Adası shipwreck.

In some cases, the imported objects under study in this work are attributed by some scholars to Phoenician and by others, to Punic production. For this reason, the current

research included an analysis of West Mediterranean objects, found in the Black Sea, and their possible ways of penetration. Etruscan objects in 6th and 5th century levels are found in many occasions in the Black Sea, and have been studied thoroughly by Treister with a focus on the North Black Sea. Etruscan scaraboids, golden and bronze objects have been found in Olbia, Nymphaion, Phanagoria, Pichvnari, Pantikapaion and other Pontic centres (Treister 1990, 165-169; 1991a; 1993). Such are for instance a fragment of bronze infundibulum from the second half of the 6th century BC from at Pantikapaion (Fig. 61), a helmet from the second half of the 6th – beginning of the 5th from Dahovskaya St., Kuban, bronze vessels (strainers, jugs) of the first half of the 5th BC from Olbia, Nymphaion, Phanagoria, Peschanoe village and Gejmanovaya tumulus, etc. A single Etruscan inscription has been found in the zone, in Pantikapaion. It is written on an alabaster jar, and contains the name of the Etruscan goddess Tanr (Харсекин 1972). Furthermore, during excavations in Berezan in 2017, in a layer of the end of the 6th – beginning of the 5th century BC has been found an Etruscan Py Type 4 (Gras EMD) late archaic storage amphora, dated after the third quarter of the 6th century BC. Until now it is the first Etruscan amphora, found -or recognized- in the Black Sea (Чистов 2018, 27).

Treister (1993) evidences three chronological groups of Etruscan imports in the North Euxine: the group of the 6th century BC, the group that belongs to the 5th-3rd century BC, and the group of the end of 3rd – beginning of 1st centuries BC. The researcher supposes that the first two groups might be the result by either Greek or Carthaginian trade, but he does not exclude the possibility of direct trade connections between the Black Sea and Italy, considering the epigraphic evidence that shows the presence of a Syracusan citizen in Pantikapaion in the first half of the 4th century BC (CIRB 203). The third group, according to the scholar, was conveyed by the Celtic warriors (id).

For what concerns the Magna Graecia finds, several objects from the 6th and 5th century BC were found in the North Black Sea. Such are a bronze statuette of an athlete, which decorated a candelabrum from 460-450 BC from Nymphaeum, possibly made in Locri (Thomas 1981, 125, tab. 87,1; Герцигер 1984, 86, 92, no, 9; Билимович 1984, 5-11), a bronze oinochoe with relief images of lying Silen from ca 470 BC, similar to the finds from Acragas (Билимович 1982, 41-43) and fragments of a bronze hydria from ca. 460s-450s BC (id., 1984, 76, no.4). Two bronze oinochoai found in Berdyansk Barrow kurgan of the late 5th/ early 4th century BC present iconographic parallels in Sicily and Carthage (Boltrik *et. al.* 2011, 270) (Fig. 62). A bronze candelabrum with a lamp was

found in a central burial of the 4th tumulus of the Seven Brothers tumulus complex from the second quarter of the 5th century BC. The object was probably produced in the beginning of the 5th century BC in Epizephyrian Locri (Герцигер 1984, 91-92 no.8). Fragments of a large bronze vessel with a rare type of decoration was apparently made in a Sicilian or South Italic workshop and belongs to the late 6th or early 5th century BC (Гайдукевич 1952; Трейстер 1987; Treister 1991b; 1993) (Fig. 63). Another archaic piece of evidence of Italic imports in the Black Sea is a fragmentary amphora from Berezan, associated with material from the 2nd and 3rd quarters of the 6th century BC (Dupont 2003). The object is of an exceptional type, scarcely distributed not only across the Black Sea area but also around the Mediterranean – in particular, the distribution of this type seemed to be restricted to a single complete specimen from Sicily. The only other Pontic specimen of this type was found in Apollonia (Dupont 2003, 13-14, 25) (pl.6). The last two objects were erroneously identified for many years, and only recently recognized by respectively Treister (1993) and Dupont (2003). Lastly, a type of archaic fishplates from Olbia and Berezan that present what Lungu (2007) has defined as “*une ressemblance troublante*” with Punic models: these pieces’ closest parallels are the Phoenician “*piatti ombelicati*” from the necropolis of Palermo from the 6th century BC (Moscati 1988, 658, no. 441) and Kerkouan from the 4th-3rd century BC (id., 646, no. 369). The way of penetration of this model in the Black Sea has still not been determined by the researchers. The type is diffused in the Occidental and Central Mediterranean and apparently lacks from the Eastern Mediterranean, whose centres are to be assumed as main importers to the Euxine in this period (Dupont and Lungu 2007, 26) (pls.4, 5).

Many of the Magna Graecia finds in the Euxine identified until now seem to belong to a limited period (second half of the 6th - first half of the 5th century BC), concurring with the most archaic group of Etruscan imports in the North Black Sea, and the peak in the Levantine imports, which might be the evidence for the existence of a temporary pattern of penetration of these objects and iconographic models. Some scholars hypothesised therefore that Italian or Carthaginian ships could have sporadically reached the Black Sea region (Treister 1993, 381). In this respect it should be noted that archaeological evidence of Carthaginian presence in the archaic period is scarce also for what concerns the territories of Sicily and Sardinia in the 6th and first half of the 5th century Sicily and Sardinia prior to the conquest (Pilkington 2013; cf. Gsell 1920,

152). However, presence of Carthaginians in the Euxine seems difficult to imagine due to the fact that the evidence about their trade in the East Mediterranean in this period is generally lacunose. Since trans-Mediterranean voyages were, however, intense, especially for what concerns the Phoenician milieu, it might be supposed that certain traded goods penetrated also in the Black Sea. The cabotage sailing route from Carthage to the Levant and the open-sea faring through the island of Malta have been proposed as possible trade routes (Bonnano 1990. 213. See analysis of possible trade routes of Colaeus in Gonzales de Canales Cerisola 2014). A possible intermediary centre between the West Mediterranean and the Euxine is Aegina, given its extensive trade with the Black Sea during the Persian wars (Hdt 7.147), and on the other hand, the fact that Aeginian traders are allegedly attested in Etruria (Hdt 4.152. More on this matter, Domăneanțu 1988, 25). It seems evident therefore that the question regarding the trade routes of importation of Italian products in the Black Sea needs further study that includes research on the distribution of these metal objects in the East Mediterranean, and those found in the Euxine with no attributed origin. In the current state of research, the most probable importers of these objects seem to be the Ionian colonies, given the evidence of close connections between Miletus and Italian colonies, such as Sybaris, in the Archaic period (Gorman 2001, 53).

In conclusion, the available evidence gives ground to suggest that in the period from the Greek colonisation in the second half of the 7th century BC to the beginning of the 5th century BC, the economic situation in the Euxine facilitated the amplification of the links with the Mediterranean and exotic objects found their way in the Greek colonies and the neighbouring barbarian tribes. The Levantine imports seem to arrive in two chronologically distinct periods. The first such period roughly concurs with the first wave of colonisation and takes place in the late 7th century BC- beginning of the 6th century BC. A later period with increasing imported Levantine, but also and Italic products, occurs from the end of the 6th to the beginning of the 5th century BC. These peaks in the imports of exotic products seem to be related to periods of intensification of an international trans-Mediterranean network. In the second half of the 5th century BC, the volume of Mediterranean trade in the Black Sea diminishes, possibly as a consequence of the deep political and demographic changes in both regions. In this period the economic role of the East Mediterranean centres in the Black Sea decrease, while the leading role is overtook by Athens. At the same time, profound internal changes take place in the Black Sea, such as the Olbian economic decline and the rise

of the Bosporan kingdom. The next flourishing period of the Black Sea trade is not to occur until the 4th century BC.

ALINA VELISLAVA DIMITROVA KAMENOU

CHAPTER 5

GRECO-PHOENICIAN AND PUNIC NETWORKS AND THE EUXINE (4TH – 3RD CENTURY BC)

5.1. Pottery

5.1.1. *The Sinopean trade network*

Levantine amphorae are rare in the Mediterranean and have not been reported from the Black Sea region in the Classic and Hellenistic period (a study in preparation, which focuses on Levantine ceramics from Berezan, is reported by Dan 2011a, 214, n.19). Conversely, amphorae from Sinope, Heracleia Pontica and Chersonessos, the largest amphorae producing centres in the Black Sea, have been found in the Mediterranean.

The amphora production in the Black Sea region starts in the late 5th century BC in Heraclea. Sinope began transport of amphorae a bit later than Heraclea - at the turn of 4th century. By the mid-4th century the manufacturing of the "Colchian" amphorae appeared, probably in Trapezus. At the end of the third quarter of the 4th century, such was established in Chersonessos, while at the turn of the 3rd century, in Amastris. Production of unknown Pontic centres is also attested in this period. The full-scale production of the various centres in the Black Sea lasts from one and a half to two decades, as is the case of Amastris up to two and a half centuries as occurs in Sinope (Monachov 2010, 23-4). Their production was destined mainly to the internal Black Sea market, except maybe this of Sinope.

The Black Sea amphorae, found at the Mediterranean, are concentrated mainly in Athens and Rhodes (56% and 14%, according to the calculations of Garlan 2007) and attested in minor quantities in numerous centers across the Mediterranean, such as Pella, Thasos, Corinth, Pergamum, Samos, Miletus, Delos, Cos, Cnidos, Crete, Paphos and Alexandria (Fig. 65). In the Levant they are attested in Beirut, Maresha, Samaria, Akko-Ptolemais, Bekka valley, Jabbul plain, in a period from the beginning of the 3rd century BC to the first decades of the 2nd century BC (Fedoseev 1999, 32-42; Barker 2004, 77, tab. 1; Nicolaou 2005, 258-159, nos. 764-766; de Boer 2008; Lund 2007; Finkelstein - personal communication). Black Sea amphorae have also been found in the central Mediterranean, e.g. in Apollonia in Cyrenaica, Carthage and Tarentum. Others have been discovered within the cargo of a ship, sank in the second quarter of

the 4th century BC near El Sec, in the bay of Palma de Mallorca (Treister 1993; Lawall 2005; Garlan 2007). The ship carried about 500 amphorae: 30% Samian, 15% Sicilian, 11 % Corinthian, 8% Chersonnesian and a Sinopean (pl. 8). Attic ware, bronze vessels and other objects were also discovered aboard, as well as, commercial graffiti (26 Greek and 15 Punic). The ship has been considered to be owned by Carthaginian traders and, according to the scholars, it gradually took cargo from Samos, Athens, Sicily and Carthage towards Spain, i.e. from East to West. The large number of Chersonnesian amphorae enabled Treister (1993, 384) to suppose that the ship was also sailing in the Black Sea.

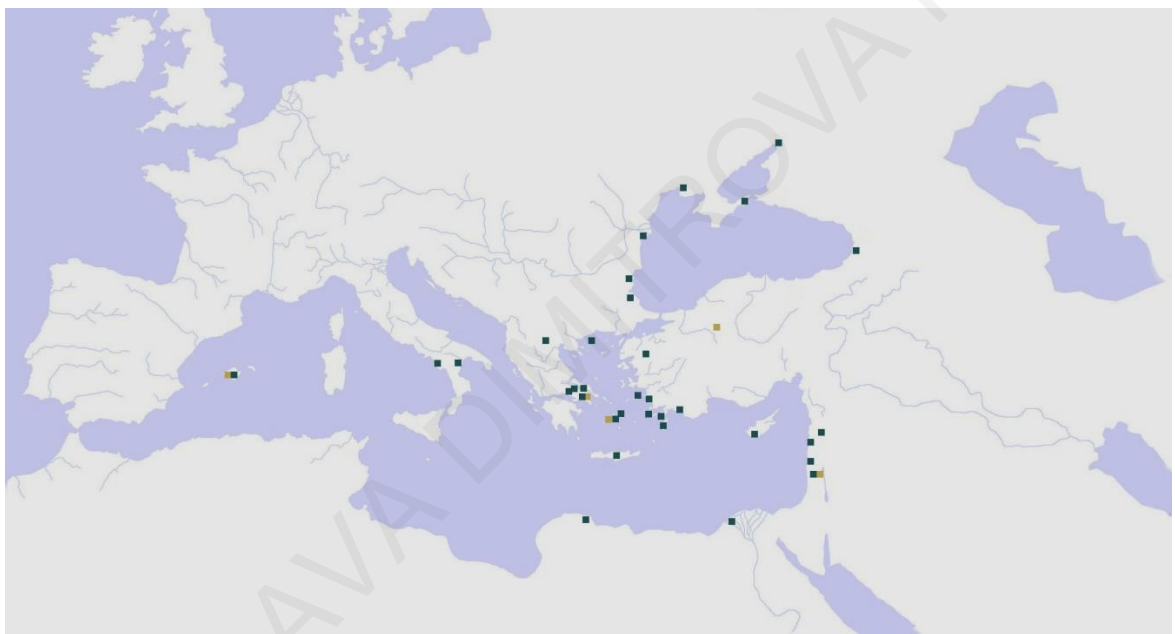


Fig. 65. Distribution of stamped Sinopean (emerald) and other Pontic (amber) amphorae in the Mediterranean and the Black Sea (after various contributions)

While the amphorae from Heracleia and Chersonessos are rare outside the Euxine (such are reported from Gordion, Athens, Delos, El Sec and Caesarea Maritima), the Sinopean ones are spread throughout the Mediterranean and consist of the majority of the Black Sea stamped amphorae, found in the Mediterranean sites (more than 180, cf. de Boer 2013, 109; further on the Sinopean amphorae, see Garlan 2007; de Boer 2008; Lawall 2010; Finkelstein 2011; Lund 2007; Reger 2007; Kramer 2002, 84). This is hardly surprising given the role of the *polis* as a major production centre of amphorae in the Black Sea, its intense commercial connection with the northern Black Sea coast in the Hellenistic period, and its favourable position in the route from the

Mediterranean to the Bosporan kingdom. Its trade with stamped amphorae started in the first quarter of the 4th century (ca. 378 BC), at first concentrated on the northern and western Black Sea coasts, reaching its height between 250 and 210/200 BC (Conovici 1998, 169–80) and from the second quarter-middle of the 4th century BC expanded into the Eastern and Western Mediterranean (Сапрыкин 2002, 93–5). Sinopean amphora stamps ceased to be used after the capture of Sinope by Pharnaces I of Pontus in ca. 183 BC (de Boer 2007, 8).

The analysis of stamped amphorae shows that the international export was placed roughly between 350 and 185 BC. Yvon Garlan distinguished at least three itineraries in their distribution: North Aegean, Athens-Corinth – Delos and East Mediterranean-Rhodes, extended to the Levant. However, other lead to the West Mediterranean and seems coherent with the Punic trade routes (El Sec, Tunis, Malta, South Italy, Cyrenaica, Crete, Cyprus, Lebanon, Israel, Palestine), raising the question of the carriers of this commodity (Garlan 2007, 147). For instance, according to one opinion, they reached Apollonia in Libya through Beirut, as it was on the trade route from the Phoenician coast to the West (de Boer 2007, 8). The research on this topic and reconstruction of trade routes, however, presents a number of difficulties, listed below.

First, the commodities that the Euxine exported are often difficult to trace: as Lund (2007) states, since the quantitative analysis is showing that the import in the Black Sea does not coincide to the export, the export must had been much larger than how it presently appears, but it most probably consists of archaeologically invisible materials - grain, timber, slaves, hides, etc. (Cf. Garlan 2007; Braund *et al.* 2007a). To these, we can add the goods exported in transport amphorae. But tracing those goods is problematic and any attempt for distribution or quantitative analysis is unreliable, as it is very probable that many Pontic amphorae in the Mediterranean have actually remained unpublished or unrecognized. For instance, some scholars evaluate the role of the Sinopean trade in the Mediterranean as negligible, due to the low quantities of amphorae (ca 200), found there in respect of those in the Euxine (more than 20 000 reported only from the Northern zone, Lund 2007, 185). Others proposed a different interpretation of the archaeological evidence: according to de Boer (2013, 112) for instance, *“it is likely that the number of Sinopean amphora (stamps) in the Mediterranean is underestimated due to the lack of excavation and awareness, especially in case of the unstamped amphorae, which probably represent a larger proportion of the total number.”* In fact, some of the amphorae fragments were recognized only by the

accidental presence of a Black Sea expert, like the stamp of Heracleia Pontica at Delos by Y.G. Vinogradov and the Sinopean amphorae 'all along the Syrian coast' by D. Kassab Tezgör (Erten *et al.* 2004). The unstamped amphorae have an even lower prospect to be accurately identified at sites far from the Black Sea. Lund (2007) concludes that "*out of the Black Sea are found only transport amphorae and fine ware in small quantities. But distribution maps often represent the intensity of scholarly research rather than actual distribution of artefacts. For the Black Sea an additional problem is that few scholars who work in the Mediterranean have first-hand knowledge of the products of the Black Sea.*" Taking in mind these constraints, de Boer (2013, 109) recently attempted to calculate the total hypothetical amount of the Sinopean amphorae in the Mediterranean and arrived to a number of ca. 80,000-160,000 between 350 and 185 BC.

The distribution of the recognized amphorae indicates that Athens and Rhodes were apparently the main export channels and the majority of the stamps in these centres are dated to the period between 253 and 185 BC (Garlan 2007; Lund 2007, 185). The written sources of this period also testify that the main trade partners of the Euxine were Rhodes, Delos and Egypt. Epigraphic and archaeological evidence on the other hand has documented the trade along the Syrian coast (see Robinson 1906, 135; Leaf 1916, 11; Burstein 1976, 41-42; Arthur 1998, 168; Doonan 2003, 123; Erten *et al.* 2004, 106; de Boer 2013, 111). Rhodes entered into the trade with the Black Sea in the late 4th century BC, gradually replacing the northern Aegean centres and remained very important trade partner of the Euxine until the end of the 2nd century BC, when a general decline in the Black Sea trade occurred (Данов 1938; 1947; Зеест 1960; Бадалянц 1970; Лазаров 1977; Беликов 2003, 36-7). For this reason, Lund (2007, 189) suggested that the Sinopean amphorae in the Mediterranean were transported through the channels of the Rhodian trade to Cyprus, the Levant and Egypt (for the economic links of Hellenistic Rhodes see e.g. Berthold 1984; Gabrielsen 1999; 2001; cf. also Slotman 2015 for further references). This hypothesis would suggest that Sinope had no proper connections with the Mediterranean, which seems contradictory to the epigraphic evidence (see e.g. Asheri 1973; de Boer 2015; Dan 2009, 95, n.97): a presence of the Sinopean citizens was in many cases attested in the East Mediterranean (Athens, Euboea, Delphi, Cos, Chios, Rhodes, Colophon, Halicarnassus and others, as far as Susa, see e.g. Reger 2007; Ruscu 2008; Dana 2011), by receiving honours for different acts of generosity, or traced by funeral inscriptions, and, vice-

versa, Mediterranean citizens are attested in Sinope (Ruscu 2008). An interesting case is the degree from Histiaia in Euboea from 232-220 BC (IG XII 9 1186), which evidences that Sinope helped the city with 6000 drachmae, possibly in times of a food shortage. This evidence emphasizes a long-term economic relationship, as it grants a reciprocal *isoteleia* and many other mutual privileges for the citizens of the two cities (Reger 2007, 281-2). Histiaia's interests in the Euxine are further evidenced by a proxeny degree for citizens of Tenedos (IG XII 9 1187 from 265 BC, ll. 18, 33) – the island, labelled the “gateway” to the Propontis, as it served as a port where ships needed to stop and wait for favourable winds (Barnes 2006; Mack 2015, 162; cf. Dana 2011 for Pontic citizens at Tenedos). The list of proxenoi in question honours persons from multiple Mediterranean trade centres (Samos, Phaselis, Sidon, Cyrene, Tenedos, Syracuse, Tarentum, Locri and others), evidencing that a long-distance trade was the main ground to their relations with the Histiaia's (Mack 2015, 162-5). It is thereby probable that commercial networks existed, which are still unknown to modern scholars (Reger 2007, 281, n. 42). The formation of such links is justified by the trading and strategic importance of Sinope, which functioned as a centre of production and distribution of commodities towards the Mediterranean (de Boer 2013, 112). The polis and its dependant settlements exported products and raw materials such as metals (iron, steel silver, copper, lead, mercury, Robinson 1906, 142-3; Doonan 2003, 195), red mineral pigment (sinopis, minium, Van Alfen 2002, 138), timber, flax, wool and slaves (Hind 1995-1996, 115) as well as foods such as olive oil, cereals, fresh vegetables, nuts, fish (Leaf 1916; Doonan 2004, 123; 2009). Ancient writings testify that Sinope produced olive oil in contrast to the other cities in the Black Sea (Strab. 2.1.5, 12.3.12, Xen. *Anab* 6.4.6); which corresponds well with the archaeological data (Doonan 2003, 193-4). Further, it distributed products from the northern Pontic regions such as hides, slaves and grain. Nevertheless the lack of archaeological record, it could have also exported oriental goods from Phasis (Robinson 1906, 136-137; Lordkipanidze 2002). But it seems that the fishing industry had an important role in its economy (Doonan 2003; de Boer 2013). In the tributaries and deltas of the Black Sea, large fresh water fish, such as pelamydes, sturgeon, turbot, mullet, dolphin, mackerel and tuna, were predominantly caught and transported to the Mediterranean either salted or pickled (Robinson 1906, 140; Michell 1957, 287; Doonan 2003, 187-192; de Boer 2013, 112), possibly caviar as well. Although until recently very little was known about the way that fish products were traded (Højte 2005, 138; Opaït 2007,

101), the ancient authors reports that the Sinopean fish were a renown and greatly appreciated commodity, and the Sinopean fishing industry and its big profit were of a large scale (Diod 37.3.5, Strab 7.6.2.; 12.2.11-12; 12.3.12; Ael. *NA* 15.3; Opp. *Hal.* 15.5.6; Ath. 3.118; Plin. *NH* 9.18; Din. 1. 43; see the discussion in Robinson 1906; Doonan 2003; de Boer 2013). In the Hellenistic period, Sinope formed depending settlements on the shore, thus showing that the fishing industry was expanding (Doonan 2003; de Boer 2013). Since most of the colonies in the Euxine were situated near excellent fishing grounds, there is ground to suggest that Sinope exported salted fish to the Mediterranean and this can be the very commodity transported in the Sinopean amphorae, which were found all around the Mediterranean (de Boer 2013). The importance of the fish trade can be deduced by the passage of Polybius (4.50), who distinguishes the fish traders and the slave merchants from the other traders entering in the Euxine; however, the fishing trade is difficult to detect, as fish amphorae were probably developed only in the late Hellenistic and Roman period (Højte 2005; de Boer 2013, 112; Opař 2007; Kron 2014). Beforehand, the fish were likely to have been transported in reused or unused amphorae: yet Herodotus (3.5-7) reports the large scale employment of second-hand wine jars for carrying water from Egypt to service the desert road to Syria in the mid-5th century BC. The practice is also traced archaeologically, for instance chemical analyses of the remnants in amphorae found in a shipwreck near Grado have shown that salted fish were put into large variety of amphorae types (de Boer 2013, 112). On a shipwreck near Varna, an amphora from Sinope dated by radiocarbon analysis of the bones between 487 and 277 BC, has evidenced traces from bones of a large catfish species, several olive pits and the remains of resin. Amphorae from Panskoe and Olbia from 3rd-2nd century BC have been documented with remnants of bones and fish scales together with grain and lentil seeds (ibid.; further on amphorae reuse in the Mediterranean for all sorts of commodities – cheese, pickled fish, beer, nuts, honey, funerals, filling of walls, etc. see e.g. Amemiya 2007, 9)

5.1.2. Transport amphorae of Heracleia Pontica and Chersonessos

The export of the other two amphora-producing Pontic centres are less studied. Heracleia Pontica was associated with the production of hazelnuts (Reger 2007, 264)

and the Heracleian wine was well known in Athens (de Boer 2013, 111). This southern area was also rich in barley, wheat, grapes and ship-timber (Hind 1995-1996, 115). Chersonessos on the other hand probably exported low-priced wine (Saprykin 1997). Thus, after the activation of the market due to the grain trade, secondary patterns of trade seemingly developed between the Euxine and the Mediterranean. On the other hand, Heracleian and Chersonnesian amphorae are frequent at Gordion in the 4th - 3rd centuries BC. Yet in the 6th century BC, the amount of Greek, East Greek, and western Anatolian (including Lydian) pottery at Gordion encourages emphasis on an East-West trade route and even the possibility of a concurrent trade route north from Gordion to the Black Sea shores in the framework of the metal trade (fig.66). In the early 4th century BC Gordion began receiving amphorae from Heracleia Pontica. i.e. apparently from the very beginning of their production (on the high and low chronology of the Heracleian amphorae, Kac 2003; Teleaga 2003). The rarity of Heracleian amphorae in the Aegean contrasted with their presence at Gordion provides positive evidence for a northerly trade route from Gordion to the Black Sea coast. In the late 4th century BC the range of Pontic amphorae is amplified by fragments from Chersonessos and Sinope. Thasian imports in the 320-230 BC period are also probably imported from the Black Sea. The steady connection fits well with the Black Sea evidence of significant Persian political and cultural influence in the South and North-East zones after the expedition of Darius in ca. 514-512 BC in Scythia and prior to the expedition of Pericles in ca. 437 BC. Achaemenid objects are distributed in Colchis, Caucasus and Bosporus, while the South coast up to the Caucasus Mountains was incorporated into the Persian Empire from Cyrus's reign until the end of the 4th century BC (Bill 2010, 15-28; for the Persian expeditions at the Black Sea see Miller 1997; Archibald 1998: 179-84; Paspalas 2000; Zournatzi 2000; Treister 2010 for the influence and permeation of Persian art to the Pontic Greek culture⁴)

At Gordion there are also fragments of jars from the Levant, none of which closely datable. The most diagnostic fragment shows a small twisted ear handle typical of Phoenician production, while one wall sherd carries an extended Aramaic dipinto that refers to "jars" along with a personal name. The letter forms apparently may date to the 4th century (Lawall 2010, 165). This information corroborates the notion of Livy (38.18) that this active inland trade centre had connections with the Hellespont, Black

⁴ In 2016 in Phanagoria was found a bilingual Persian royal inscription from the first half of the 5th century BC, probably of Xerxes I (Кузнецов 2018).

Sea and Cilicia, and from the latter region the trade apparently extended until the Levant.



Fig. 66. Inland routes used in Roman times. After Dr. Jean-Paul Rodrigue, Dept. of Global Studies & Geography, Hofstra University, with modifications. https://transportgeography.org/?page_id=1060, (accessed 1st March 2019).

5.2. Glass and faience objects

5.2.1. Description and distribution.

5.2.1.1. Core-formed glass vessels

A great number of core-formed glass vessels were found in the Black Sea region. These belong mainly to the 6th – 4th century BC (for the chronology and typology of the glass vessels in the Black Sea, see Рыбаков 1984, 234, pl.70; for a detailed bibliography on the glass in the Black Sea see more recently Dan 2011a, 219-224., see also p.6 in Appendix 1). Iron Age glass industry appears in the second half of the 8th century BC in Mesopotamia, Phoenicia and Egypt, and generally employs the techniques of the preceding Bronze Age glassmaking, but with some variations in the raw materials (McClellan 1984; Grose 1989, 73; Lightfoot 2001; Blomme *et al* 2016. For a general survey on the glassmaking see Harden 1981; McClellan 1984; Barag 1985 and Grose

1989; on the ancient glass' chemical composition and relevant discussions see e.g. Cosyns and Nys 2010; Henderson 2013; Blomme *et al.* 2016). From the middle of the 6th century BC, glass artefacts - ingots, vessels, beads and pendants - reached the Mediterranean and turned into a recurrent luxury commodity during Classical and Hellenistic times (Harden 1981; McClellan 1984; Arveiller-Dulong and Nenna 2000, 178; Van Alfen 2002, 245; Cosyns and Nys 2010). Before the invention of glass blowing around the 1st century BC, glass artefacts were mainly executed with the core-forming technique – portions of glass applied on a core of clay and organic material placed around a metal rod (on details of this technique see e.g. Grose 1989, 31; McClellan 1984; Stern and Schlick-Nolte 1994, 28-30, 39-40; Островерхов 1993; Nenna 1999, 24-5; Spaer 2001, 35ff).

Core-formed glass vessels were distributed across the Mediterranean, particularly in the Aegean, Rhodes, the Greek mainland, Italy and the Black Sea (McClellan, 1984, Feugère 1989, Van Alfen 2002, Henderson 2013). They received scholarly attention chiefly from the late 1970s onwards (Stern 1977; Harden 1981; McClellan 1984; Seefried 1986; Grose 1989; Feugère 1989; Stern and Schlick-Nolte 1994; further review of the research on core-formed glass vessels see in Cosyns and Nys 2010, 231). The most commonly used typology of these artefacts has been mapped out by Harden (1981) on the basis of the British Museum's glass collection. He classified them to "Mediterranean groups" on chronological basis: Mediterranean Group I (550-400/390 BC), Mediterranean Group II (400/390-300/250 BC), Mediterranean Group III (300/250-50 BC/ AD 10). His work became the basis of McClellan and Grose's more elaborate new typology classification (McClellan 1984; Grose 1989) with occasional minor variations in the date ranges (Cosyns and Nys 2010). Group I is the largest and also the most homogeneous with regard to shape, colour, and decorative pattern (Weinberg and Stern 2009, 20). The workshops of Group I produced four shapes, each of which imitates a shape common in contemporary Attic pottery: the alabastron, the amphoriskos, the oinochoe, and the aryballos, which have been divided into eight subgroups or workshop assemblages (Blomme *et al.* 2016, 1). Finds range from Ionia northward to the Black Sea coasts and west as far as Spain and it is thought that the group has more than one centre of production. On the other hand, Group II is small, about one-quarter the size of Group I. Findspots are no longer concentrated in the eastern Greek world, but on mainland Greece and in central and southern Italy. The alabastron remained the most common shape; the amphoriskos soon went out of

production; and the oinochoe became larger and less elegant. Four completely new shapes appeared: the hydricke, the stannos, the lentoid aryballos, and the unguentarium (thick- and thin-walled). The old zigzag patterns were rarely made; instead, festoons, inverted festoons, and feather patterns dominate.

The output of Group III workshops was much larger than that of Group II. The distribution pattern of Late Hellenistic core-formed vessels has been compared to that of Hellenistic grooved bowls made on the Syro-Palestinian coast (Weinberg and Stern 2009, 20). Two forms dominate in this period: alabastra and amphoriskoi. Both were traditional for core-formed glass but most shapes were radically new. Frequently found in the Greek islands, these vessels are not common on mainland Greece. Their production centre is probably Cyprus (McClellan 1984, 326-7; Cosyns and Nys 2010, 242) and possibly also Rhodes (Rehren *et al.* 2005).

The four main types of vessel shapes of the Mediterranean Group I are the alabastron, amphoriskos, aryballos and oinochoe (Grose 1989; Henderson 2013; Blomme *et al.* 2016). The main issue in the study of these artefacts is the determination of the glassmaking centres, obstructed by the lack of relevant archaeological data such as furnaces, and the complexities presented by the nature of the explored material in chronological and typological terms (cf. Archibald 2007, 253ff). For instance, very few types of these vessels have characteristic features that permit a stylistic approach.⁵ Performing chemical analysis on the other hand requires the examination on a large number of specimens and sand raw materials from possible production centres (cf. Blomme *et al.* 2016). The long life of these objects obstructs further the establishment of date ranges of production and use. Further complication consists in the fact that workshops producing glass artefacts with imported raw material also existed (usually referred as secondary).

Consequently, in order to locate the possible primary workshops of the Mediterranean Group I core-formed glass vessels, alternative methodologies have been applied, which

⁵ Such is for instance the type of *amphoriskoi*, dated to the 2nd -1st century BC, with a particular form, which imitated wine amphorae. The type is largely concentrated in Syria and Cyprus; in minor quantities have been found in the Aegean and South Russia, and single finds have been documented in North Africa, Italy and Spain thus allowing to suppose Syrian/Cypriot production centres and to reconstruct trade routes (Harden 1981, 129ff, groups B.iii-v, McClellan 1984, types IV.B. iii-viii, Cosyns, Nys 2010, 242).

are based on typological, quantitative or chemical criteria (Harden 1981; McClellan 1984; Grose 1989, 60-170; Stern 1999; Arveiller-Dulong and Nenna 2000, 159-60; Van Alfen 2002; Blomme *et al.* 2016), and their development generated different views regarding glassmaking centres. One of the most widely accepted theories recognizes Rhodes as the primary glassmaking centre for these vessels, due to the significant accumulation of glass objects and the excavated wasters, which indicate a glassmaking process (Harden 1981, 55; McClellan 1984; Barag 1985, 57; Triantafyllidis 2000; Blomme *et al.* 2016, 2). The industry's development has been credited either to local or to foreign Mesopotamian craftsmen (Grose 1989; Harden 1981; Henderson 2013). Less popular view adds a production centre in the North Aegean (Stern 1999, 37). Another discussed production centre is the Levant (Harden 1981; McClellan 1984; Van Alfen 2002, 256ff). The latter view was corroborated in a recent research that compared the chemical composition of Mediterranean raw sand materials and glass vessels from the 6th to the 4th century BC, found in Etruria, Sicily, Black Sea and Macedonia. The results showed that "by comparing the elemental composition of hypothetical glasses produced from sand raw materials collected along the coastline of Rhodes to the reduced base glass composition of the core- formed vessels, it can be suggested that such sands are unsuitable for the production of these ancient glasses. Other locations in the Aegean area, i.e. Crete, Corinthia and central Macedonia, can also be largely excluded. A primary Syro-Palestinian provenance is more likely, based on the similarities in elemental and strontium/neodymium isotopic composition between the Mediterranean Group I glass vessels and raw glass chunks and sand raw materials originating from the Levant (Blomme *et al.* 2016, 8)".

It is worth to mention here an innovative approach to the study of the Mediterranean Group I vessels that is currently developing and may provide interesting results. The methodology has been proposed by Cosyns and Nys (2010) and it is based on the vessels' volume. The team argues that since the vessels were produced to contain standardized quantity of perfumes, and since different metric systems have been recognized (an Aegean system following the Attic measures and a Phoenician one that corroborates the Mesopotamian measures), a distribution pattern of the core-formed glass vessels according to the different metric systems enables to understand the connection between different trade networks (Cosyns and Nys 2010; cf. Feugère 1989, who examines the outside dimensions of vessels from the Iberian Peninsula and South France).

The core-formed vessels, found in the Black Sea area, are numerous and belong mostly to the period 6th – 3rd century BC. They are found in both Greek and indigenous sites (Puklina 2010, 489), and present various shape types (alabastra, amphoriskoi, aryballoi, oinochoai etc.), which in most part served as perfume jars (Сагинашвили 1977; Сорокина 1977; Минчев 1980; Рыбаков 1984, 234; Grose 1989; Островерхов 1993; 2001, 3-21; 2006, 131-54; Simonenko 2003; Кунина 1997; Puklina 2010; Henderson, 2013; Tsetskhladze 2015, 15; Dan 2011a, 222, n. 72). The high number of vessels, excavated in the Black Sea therefore shows that their import was undoubtedly linked to a high demand of perfumes, oils and spices (on the use of the glass vessels, see further Fossing 1940; Grose 1989; Lightfoot 2001; Van Alfen 2002, 250). These commercial activities largely involved the Levant in all the ancient period until the late Roman age (Archibald 2007, 264). The link between the import of spices and perfumes, the glass vessels of the discussed group, and alabaster vases, found in tombs throughout the Black Sea, has been discussed by Archibald (2007, 262):

“Of the many commodities that link Egypt and the Levant with the Black Sea for most of antiquity, two in particular stand out. Moreover, they are interconnected. One is glass, and its close relative, faience. The other is the spice trade. The wealthiest tombs of the Bosporan kingdom, Thrace, Colchis and Anatolia frequently contain alabaster jars that would have contained myrrh and perhaps other preserving spices (Hdt 3.20.1., Plin. *NH* 9.13). Glass alabastra are among the earliest examples of core-formed glass vessels, found in the cemeteries of Pantikapaion, Olbia and many coastal and inland sites around the Black Sea. The miniature form of these vessels suggests that they probably contained perfumed oils rather than spices. But there is a striking coincidence of alabaster vessels and glass ones, miniature or otherwise, in the tombs of the better-off in many different parts of the Black Sea’s hinterland and elsewhere. This strongly suggests that the contents of the alabaster and glass vases – at least of the ones in burials – were connected. Arabian spices were certainly being shipped from the Levantine to the Aegean from the 6th century BC onwards, and we would expect demand for such spices, or variations on them, to have been used as economic resources allowed.”

Thus it seems that the local populations of the Black Sea formed a large and profitable market for perfume, oil and spice trade, which resulted in an elevated number of glass and alabastra vessels in the period. Alabaster objects have been discussed thoroughly in several studies, although for what concerns the Euxine there is much to be done in the future (on the distribution of alabaster objects in the Aegean, see Van Alfen 2002, 33-67, 257-259; for such in the Euxine, Toncheva 1972; Archibald 1998, 165, 173; for Thrace, Hayes 1975, 5, 15; for the Colchis, especially Pichvnari, Кахидзе 1977; Vickers and Kakhidze 2004, 211-212, 222), while the import of Egyptian objects that circulated around the Euxine, particularly the Caucasus, the north Black Sea and the Don region, and in the northern Caspian region, seems to have peaked in the 3rd century BC (Алексеева 1972; Большаков and Ильина 1988). The Egyptian products penetrated either by sea, through the Greek poleis (Reger 2007; Литвиненко 1991), where their local imitations were also produced (Островерхов 1976, 86-7), either by land (Крупнов and Пиотровский 1939; on 3rd century Egyptian relations with the Pontic Kingdom, Трейстер 1985). The same might be true for the Levantine products; given the fact that land route was used for centuries (see previous chapter).

5.2.1.2. Rod-formed head-pendants

The most important group of glass objects, found in the Black Sea and relevant to the discussed question, are the rod-formed glass pendants and beads, especially the “mask beads” types, which are commonly accepted to be of Phoenician production. These pendants present quite distinguishable iconography and manufacturing method similar to the core-formed vessels. The most largely used typological systems of the anthropomorphic beads are proposed by Haevernick in 1977 and Seefried in 1982. The former classification is based on 761 objects, the latter on 850 beads pendants studied and 626 published. The present study is based on the Seefried’s classification, which seems to be the most complete and efficient (see detailed review in Dan 2011a, 221). For the sake of clarity, it is reported here. Seefried separates the core glass pendants in 8 types with 21 subtypes and also posts a general chronology of production of each type:

- A. Demonic masks (650-440 BC)
- BA. Double face masks (800-600 BC)
- B. (with subtypes 1-3). Heads with straight hair; (650-400 BC)
- C. (with subtypes 1-6). Male heads with hair on twirls (450-200 BC)
- D. (subtypes 1-2). Female heads (350-40 BC)
- E. (subtypes 1-6). Animals (650- 200 BC).
- F. (subtypes 1-4). Miscellaneous. (F1: mask beads, 500-150 BC)
- NI. Not identified.

Anthropomorphic beads have been widely researched (e.g. Venclová 1974; Tatton-Brown 1981; Haevernick 1977; Seefried 1979; 1982; Spaer 2001), however, in general, no publication with comparative analysis of all such objects presently exists. Their study is complicated due to the fact that despite their presence in many museum collections, they are often not published or just shortly mentioned without detailed description. Their dating is also problematic as they have rarely been found in a secure archaeological context which permits at least approximate dating (Seefried 1982, 25). Regarding the Black Sea, the studies of these objects are also incomplete, without a single monograph on the subject. Moreover, the various publications lack details, many of them are difficult to consult, and they also use different typological classifications. Most complete are the studies regarding the North Black Sea area. These are the general survey on glass beads in the volume dedicated to the zone's history and archaeology (Рыбаков 1984, 237-9, pl. 157-8), the works of Островерхов 1985; Столярова 1997; Столба 2009; along with the typological study of Алексеева from 1978, which classifies the types, without reporting the quantities of artefacts, and the contribution of Ščeglov (2002), concentrated on the mask beads.

Anthropomorphic beads were produced from the beginning of the 6th century BC to the 1st century BC and have been found in the whole of the Mediterranean. They have been found in Carthage more than in any other place, but they also appear in Phoenicia, Cyprus, Sardinia, Sicily, Ibiza and east Spain, Egypt, Crete, Athens, Thebes, Boeotia, South Russia, the Balkans, Italy and Gaul, in sacred or funeral contexts (Dan 2011a, 220) (Fig. 67). Seefried's type types A, B1, B2, C1, C2 dominate in Phoenicia and Cyprus (dating from the 7th to the 4th century BC); C3, C4 and D1– in Carthage from the mid-4th to the end of the 2nd century BC. Most homogenous is the distribution of the BA type

beads, which appear mainly in Egypt and date from the 8th – 7th centuries BC, and of the C3 beads, 90% of which came from Carthage (Seefried 1982, 37ff, 155ff) (p.55).

The spatial and chronological distribution of the glass pendants indicate that their production is related to the Phoenician cultural milieu. There is an ongoing discussion, however, on whether they were manufactured rather in Phoenicia, Carthage or elsewhere. For instance, based on the distribution patterns of the beads, Seefried (1982, 27-8, 65) attributes the earliest glass beads to the East Mediterranean production, but those after the 4th century BC to Carthaginian production. A similar view has been advanced by Haevernick (1981, 194-198), as well as Hermary (2010), who traces these types from the 5th century BC in the Mediterranean, as well as in Al Mina and Sardinia, and assumes as production centres Phoenicia, Cyprus and Rhodes, but in the 4th century BC as the main one Carthage. Tatton-Brown (1981, 143, 147), Uberti (1993, beads: cat. nos. 94-118, pls. 12-17; pendants, nos. 44-93, pls. 8-12), Кунина (1997), Bouzek (2000, 136), and Алексеева (1982, 34ff, 46) support a Phoenician origin for these beads. Other views advocate Rhodian origin, either of local masters, either of Syrian ones, or advocate the existence of Rhodian workshops, working with imported glass (Rehren *et al.* 2005; cf. Arveiller-Dulong and Nenna 2000). Alexandrian production is discussed by Цапова (1978), while lastly, Venclová argues on Pontic production (1974, 1983. Further references on the discussion see e.g. in Seefried 1982, 36ff; Ščeglov 2002; Dan 2011a, 219, 224).

For what concerns the 4th-3rd century BC, a Carthaginian origin for the beads is the most convincing and largely accepted hypothesis, because of the considerable concentration and variety of these objects at Carthage and the Punic coast, as well as because of the fact that in many instances scant evidence from glass production has been discovered around Carthage, which shows that glass furnaces functioned at least from the 4th century BC onwards (Seefried 1982, 37-39; Docter and Sonneveld 2009; Henderson 2013, 222; Larson 2016, 113ff; on the excavation of two glass furnaces, Cintas 1969, 62). Interestingly enough, the beads found in Carthage have shown a very fine craftsmanship, thereby implying a strong tradition in their production much earlier than in 4th century BC (Seefried 1982, 40). The last deduction is strengthened by the discovery in Spain of an anthropomorphic glass bead from the 7th-5th century BC, decorated with a headband of twisted threads and presently located in the Toledo museum (Lightfoot 2001, 63; Cintas 1969, 62). Grounded on this evidence, until further archaeological discoveries or chemical analyses shed more light upon the

question of production centres, it has been generally assumed that, aside from the Egyptian ones (Seefried's type BA), the earliest glass pendants and beads have been in most likelihood produced in Phoenicia (Seefried's type B) (pl. 57) and the artisanry subsequently exported to Carthage, where some new iconographic elements have been introduced and large-scale export started from the 4th century BC onwards (Seefried's types C, D, F1. Seefried 1982, 40; Dan 2011a, 221).

For what concerns the Black Sea, a Carthaginian export in the Euxine in the 4th century BC is also supported by Гороховская and Циркин (1985), Šćeglov (2002) and Копылов (2006), who relates these objects to some evidence for Punic commercial presence in the Don region that shall be discussed later, and in relation to the distribution pattern of the relief beads and pendants in the Mediterranean and the Black Sea (see below). The significant concentration of glass pendants in the North Euxine has been interpreted on the other hand as an indication for the establishment of independent workshops in the area, or at least activity of Phoenician artisans in local ones (Bouzek 2000; Dan 211, 224). This hypothesis has been supported by the discovery of glass manufacturing centre at the Dnieper estuary in Berezan region, which was functioning from the 6th century BC - a unique finding, as glass industry on a large basis is attested in the Black Sea only after the 1st century BC (Рыбаков 1984; Островерхов 1981; 1985, 92-105; 1990, 126-147; 2006, 131-54; Ivachtchenko 1995; Sazanov 1995; Dupont 2002, 43; Столба 2009, 125; Dan 2011a, 220, n,63, 64).

Chemical analysis has also been conducted in an effort to trace the origin of the glass artefacts. For what concerns the beads and pendants, found around the Euxine, Островерхов (1990, 126-47) concluded that highest is the possibility of Carthaginian origin, yet he considered the results as inconclusive, since no comprehensive study on the glass has been made so far. A more recent analysis has detected the Levantine origin of Hellenistic glass beads from Eupatoria (Столярова 1997).⁶ Likewise, a chemical analysis of mask beads from Elizavetovskoe has shown similarities to other glass products of arguably Phoenician production (Лавренова 1994; Копылов 2006). Analysis on glass vessels from Pichvnari in Colchis reflected similarities with vessels found on Rhodes (Shortland and Shroeder 2008). On the other hand, in the settlement these beads have been found in close proximity of a Punic amphora, thus supporting a

⁶ She conducted chemical analysis of 1114 Hellenistic (3rd – 1st century BC) beads of various types, found at Eupatoria, of which 73% resulted to be of "Levantine" origin (Stoliarova 1997).

theory of their Carthaginian origin (Житников and Марченко 1984; Лавренова 1994; Ščeglov 2002; Брашинский and Марченко 1984, 61; Марченко *et al.* 2000, 124- 125, Tab. 28, fig. 55.1) (pl. 7).

Distribution of the glass pendants and beads with human face

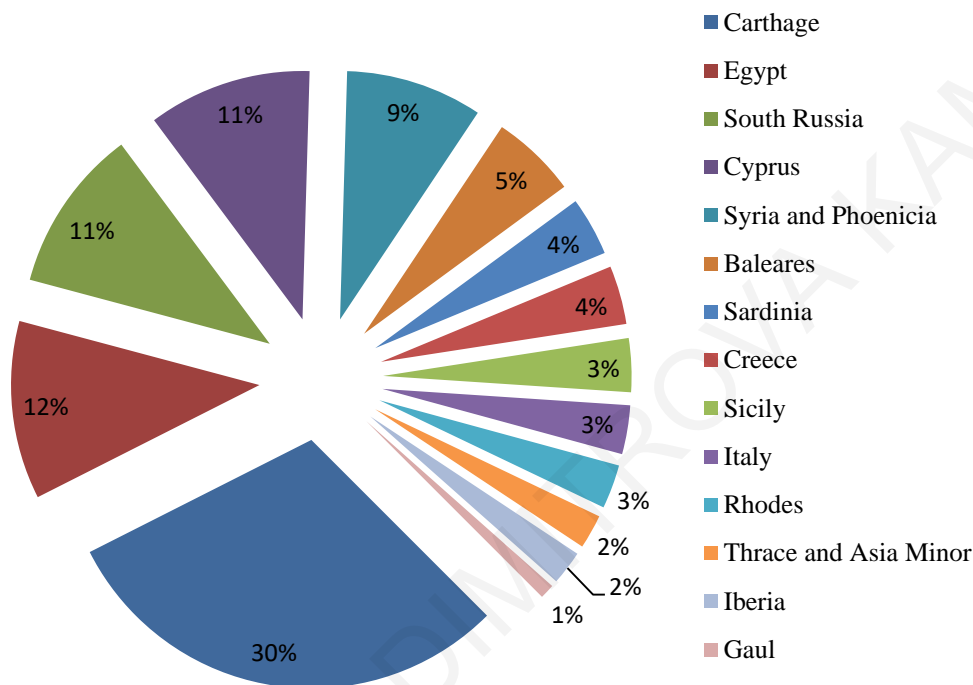


Fig. 67. Glass pendants and beads with human face. World distribution. After the data collected by Seefried 1982, with update

Surprisingly enough, in the Euxine were discovered large quantities of these objects - both Seefried (1982, 155ff) and Haevernick (1977) indicated a proportion of ca. 11%. It is important to note that greater concentration of these objects has been attested in Carthage, Egypt and Black Sea than in mainland Greece (Fig. 69).⁷ The **diversity** of the bead types in the Euxine is also surprising - almost every type, identified by Seefried, is attested there (see examples in Seefried 1982, 163-4; Dan 2011a, 221, n. 65-68).

⁷ Seefried's beads' distribution counts as follows: Syria, Phoenicia and Palestine 57, Cyprus 67, Carthage 190, Egypt 73, Sardinia 27, Sicily 22, Italy 20, Iberia 14, Balears 35, Greece 24, Rhodes 18, South Russia 68, Gaul 6, Balkans 6. It is worthy to mention that regarding the Black Sea, she consulted only publications before 1914.

Such a rich diversity has been discovered only in Carthage, Cyprus, Egypt, Syria and Palestine. All of these data thus imply that the appearance of these objects in the Euxine was not accidental; on the contrary, the particular demand for this commodity in the Pontic market might have been an essential factor in the establishment of a wide-ranging trade. In the Black Sea, these are concentrated in the North and were seemingly imported through the main international ports such as Olbia, Pantikapaion, Elizavetovskoe, and Chersonessos. The most ancient glass beads and pendants are found in Pantikapaion and belong to the beginning of the 5th century BC (Haevernick 1977, 168). They appear consequently in the end of the 5th – 4th century BC in Olbia (Ščeglov 2002, 226-227) and throughout the 4th century BC in other North Pontic poleis, inland centers and tumuli: most of them were found in the Bosporan kingdom, Olbia, Tyras, Chersonessos, Scythian Neapolis, Elizavetovskoe and their adjacent steppe zones (Haevernick 1977, 168; Островерхов 1985; 1988; Ščeglov 2002; Stern and Schlick-Nolte 1994; for Olbia: Алексеева 1978,73; Puklina 2010; or Elizavetovskoe: Копылов 2006, 71; for East Crimea, Масленников 1995a) (pls.56,62), the West Black Sea (Rustoiu 2008; Hermary 2010) (pls.63-4, cf. pl.58) and the eastern Pontic lands - Colchis and Trans-Caucasus (Высотская 1994; Артамонов 1968, 77; Галанина 1980, 54-55; Ščeglov 2002; Leskov *et al.* 1990; Гороховская and Циркин 1985). Although none of these objects has been reported from the southern regions until the present day, small number has been discovered in the western areas (Ščeglov 2002; Rustoiu 2008). These distributive patterns seem to particularly imply an extensive barbarian demand (much larger than the Greek one). It also shows that not all local cultures adopted the use of these objects – while these objects were largely used by the Scythians, these were not popular in other local cultures, such as the Thracian (for a comparative study on these two cultures see e.g. Braund 2015).

5.2.1.3. Mask beads

The mask beads (type F1 of Seefried, type 6 of Haevernick, type 469 of Алексеева, pl. 59) are a group of beads, dated from the 4th - 3rd centuries BC, mainly found in northern Africa and north-eastern Black Sea (Seefried 1982; Haevernick 1977; Алексеева 1978; Гороховская and Циркин 1985; Ščeglov 2002; Копылов 2006; Чандрасекаран 2013) (Fig. 69). The relief images of two or three human heads are presented on these types

of beads, formed of different colours, with eyes composed of three elements, and ranges of curls around (Seefried 1982; Haevernick 1977; Алексеева 1978). They were made either in a variant with a suspension loop (“pendant beads”) or without (“spacer-beads”, “amulets”), thus forming the only type of glass pendants that present a variant without suspension loop (Seefried 1982, 5). In this respect it is accepted that these served mainly as amulets and had apotropaic powers (for details on this discussion, see Seefried 1982, 56-8; Столба 2009). For this reason, the expression of faces was carefully underlined; the choice of colours (blue and partially yellow) is also significant, as it is supposed to repel evil (Haevernick 1977, 152; Столба 2009, 111; for the use of blue against evil eye from the Bronze Age see e.g. Hughes-Brock 1999).

The origin, morphological evolution and chronological distribution of mask beads are well-explored due to the large series of studies that focus on them. These are discussed in the main studies on glass, which are reported above, and especially in the studies of Seefried 1982, Haevernick 1977, 1981, Venclová 1983, Karwowski 2005, Ščeglov 2002, Кунина 1997, Алексеева 1978, Rustoiu 2008).

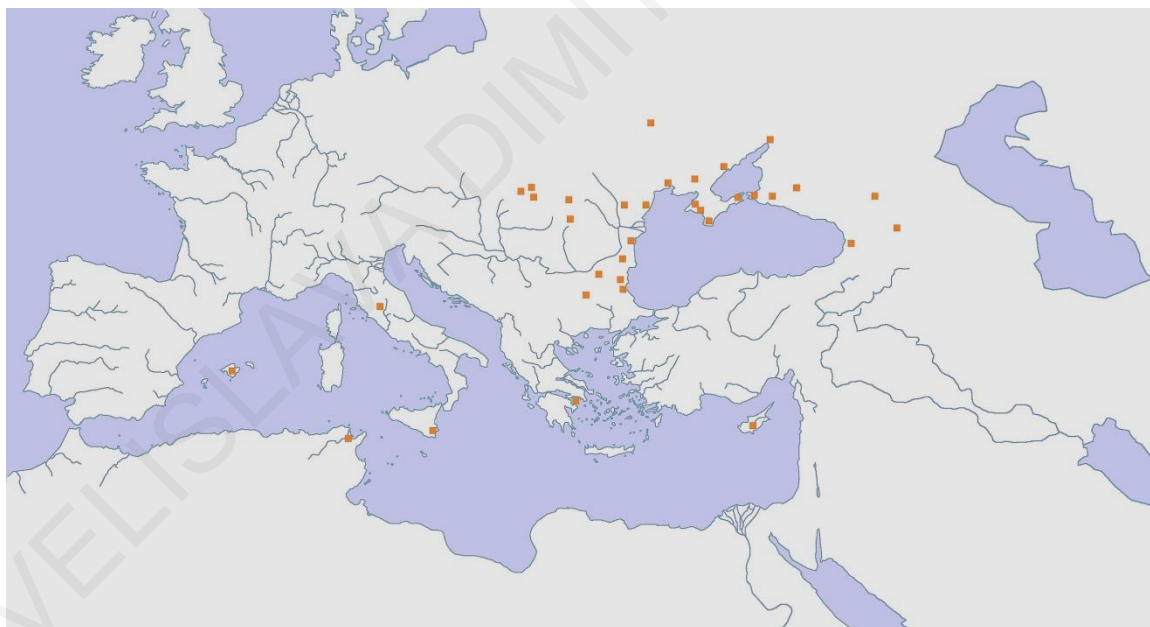


Fig. 68. Distribution of mask beads in the Mediterranean and the Black Sea. After Seefried 1982 and Ščeglov 2002

The most recent attempt to provide a distribution map is made by Ščeglov (2002), who analysed the distribution of the mask beads (i.e. the objects without suspension loop) on the basis of 77 pieces (for comparison, Seefried published 44). This study rendered interesting results: in Carthage and Syria, 11 beads have been found, in Black Sea areas

49, Central Mediterranean 2, Central Europe 5; thus resulting that 64% of the global distribution of these beads has been found around the Black Sea (Fig. 69). In this region, mask beads appear in both Greek and barbarian cultural environment and, and date from the second half of the 4th century until the beginning of the 3rd century BC (Алексева 1978, 34, type 459; Preda and Bârlădeanu 1979, 98-99,104; Дремсизова-Нелчинова 1970; Alexandrescu 1980, 28-29; Rustoiu 2008, 10; Чачева 2015).

Mask beads' world distribution

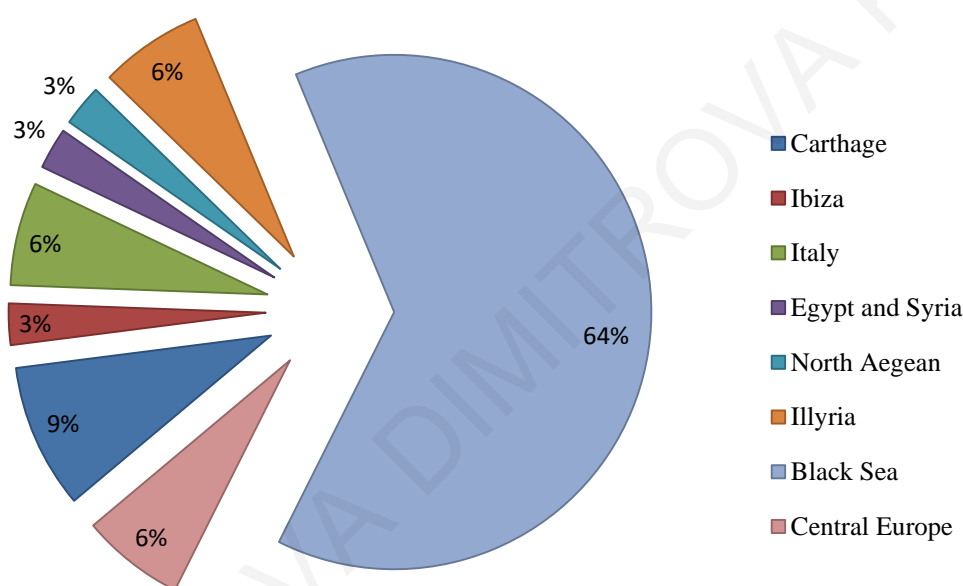


Fig. 69. Mask beads. World distribution. Based on data presented by Ščeglov (2002) with an update.

Imitations of these beads were produced in the Celtic environment from the mid-3rd century BC onwards, in the region between the Carpathians and Balkans, inhabited by the Celts from Central and Eastern Europe, up to the territory of the Iapydes in the present day Croatia (Karwowski 2005) (p. 53).⁸

⁸ The study suggests that this glass jewellery production begun in workshops of the middle Danube in about half a century after the importations of beads ceased. The usage of the beads seems apotropaic, which corresponds to their use in other cultures. The beads have been discovered exclusively in the graves belonging to women and children, thus suggesting that they were worn by individuals to be protected by supernatural powers. The majority of the beads are distributed in the eastern borders of

Not surprisingly, most of the mask beads in the area of the Euxine have been found in the North: in Olbia region 8 pieces (Алексеева 1978, 73; Puklina 2010) (pls.60-61), in Crimea 10 pieces, from which 7 in Pantikapaion and its *chora*, 1 in the *chora* of Chersonessos and 2 in the Crimean steppes (Масленников 1995b), in Kuban and North Caucasus 6 (Артамонов 1968, 77; Галанина 1980, 54-55; Высотская 1994) (pls.65-67), in the northern Voronezh steppes (2) and the Don delta (1). To these, should be added the 5 mask beads from Elizavetovskoe (Копылов 2006, 71, Ščeglov 2002; Stern and Schlick-Nolte 1994) (Fig. 71, pl. 83). Many beads (17) have been discovered in the eastern Black Sea: in the Colchian centers Pichvnari and Ureki 2, in Transcaucasia 15 (Ščeglov 2002; Leskov *et al.* 1990). Less of them have been attested in the western Black Sea colonies and neighbouring hinterland (in the Greek cities Mesambria (1) (pl. 68), Kallatis (1), Istros (1), Apollonia (1), and two in Getan milieu (Rustoiu 2008, Ščeglov 2002) (Fig. 70).⁹ No mask beads have been reported in the southern Black Sea region and adjacent hinterland. Without underestimating the uneven state of research in this region, there is ground to assume that this distributive pattern shows that the beads were generally distributed from the big trading centres Olbia, Pantikapaion, Elizavetovskoe, etc. to the surrounding barbarian hinterland (Haevernick 1977, 168; Алексеева 1978; Островерхов 1985, 92-105; 1988, 262-3; Копылов 2006; Ščeglov 2002).

Ščeglov (2002) has distinguished three iconographic and chronological sub-types of beads with masks in the Euxine (A, B, and C). The first type, according to his study, was largely imported from the first half of the 4th century BC until the third quarter of the 4th century BC; the second type from the last third of the 4th to the first quarter of the 3rd century BC. The third type, from the first half of the 3rd century BC, can be found

the La Tene culture, in centers such as Fintinele (2nd century BC) (pl.72,4), Zimnicea (3rd century BC), Atel-Bratei (La Tène C culture, 3rd/2rd century BC). See further Crisan 1975; Rustoiu 2008) (pl. 72,1-3). Interesting case in the Celtic culture are the metal mask beads. Two examples of such are found in Bulgaria: a golden pendant of double male face from Malomir (Rustoiu 2008) (pl. 70) and a lead grotesque mask pendant with a representation of a male head in Mesambria (Velkov 2005, 110-1, fig.30) (pl.71).

⁹ The present study incorporates also two mask beads from a royal tomb of Sveshtari necropolis from the 4th century BC (pl.69). Further on mask beads from the 4th – 2nd century BC, found in Thrace, see Chicheva 2017.

only in the western colonies Istros, Kallatis and Mesambria (Ščeglov 2002, 219, n. 30, 31, 32, 35). The reason for the massive reduction of the imports to the northern regions after c. 270 BC is not completely clear and Ščeglov has related it with changes in trade routes caused by a crisis in the Black Sea market, triggered by factors, such as the profound political and demographic changes in the northern Black Sea, which occur in the period, when Scythian classical settlements suddenly disappear and excavations attest devastations in the *chorai* of many Greek settlements (Ščeglov 2002, 220).

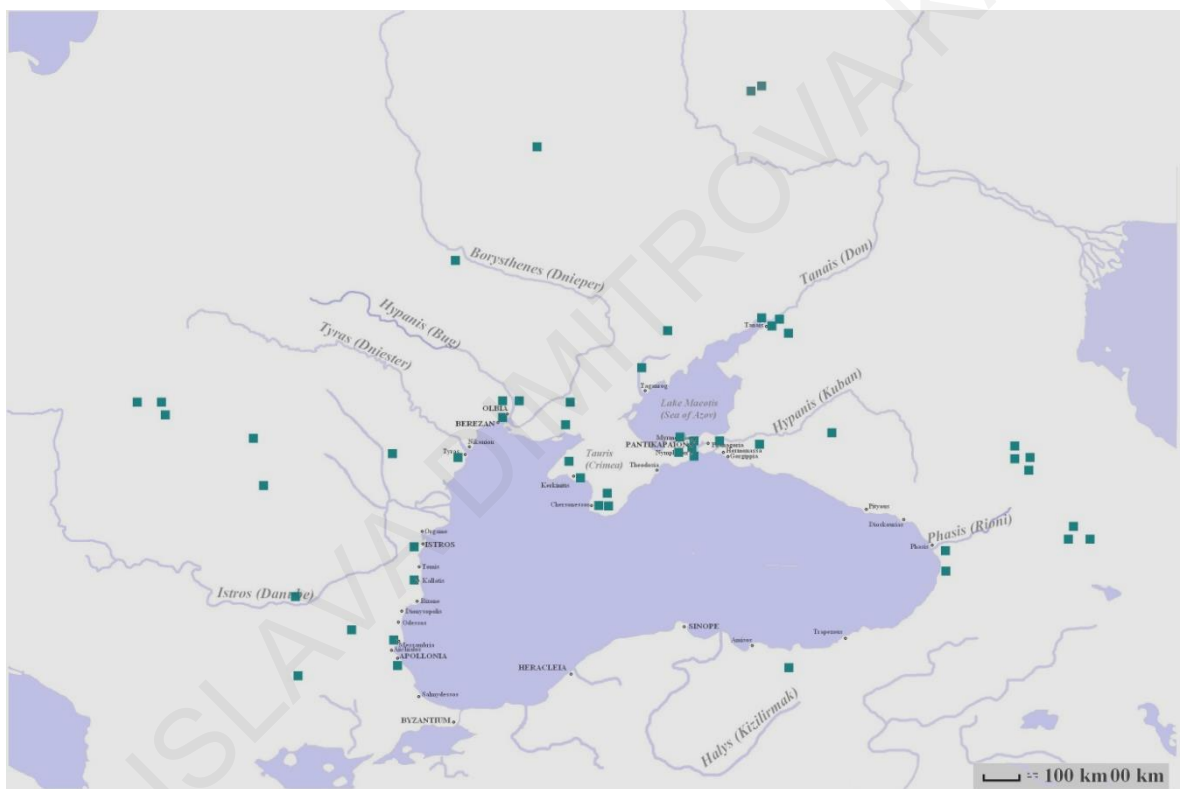


Fig. 70. Distribution of mask beads around the Black Sea in the 4th – 3rd century BC

5.2.1.4. Relief beads and pendants

Another group of beads and pendants with human representations are the types of cameos with double face, both male and female, portrayed in a relief (Haevernick 1981, 188-197; Островерхов 1985, 101; 2006, 148-54; Копылов 2006). Most of them were made of monochrome blue glass; however, some yellow ones without a suspension loop have been discovered in Pichvnari (Чандрасекаран 2013) (p.173). The female [211]

type is more frequent, portrayed with characteristic shoulder-length hair and identified with Astarte, Tanit or Demeter; the male type, identified with Baal or Zeus, was curved either with beard or without, the two types sometimes varying on the both sides of the same bead (Островецков 2006, 148, n. 97) (pl. 76). These objects are found in the form of pendants and beads, the former more popular, while only 10 relief beads exist, and were found at Carthage, Sardinia, Alishar Höyük, Pergamum, and Pichvnari, while one of unknown provenance is kept in Warsaw (Чандрасекаран 2013, 149). The relief beads and pendants are believed to have had an apotropaic function for often being found in tombs, especially in the Levant and North Africa, but served also as an imitation of precious stones and most likely represented highly valued objects (id. 148).

Mask beads. Distribution in the Black Sea.

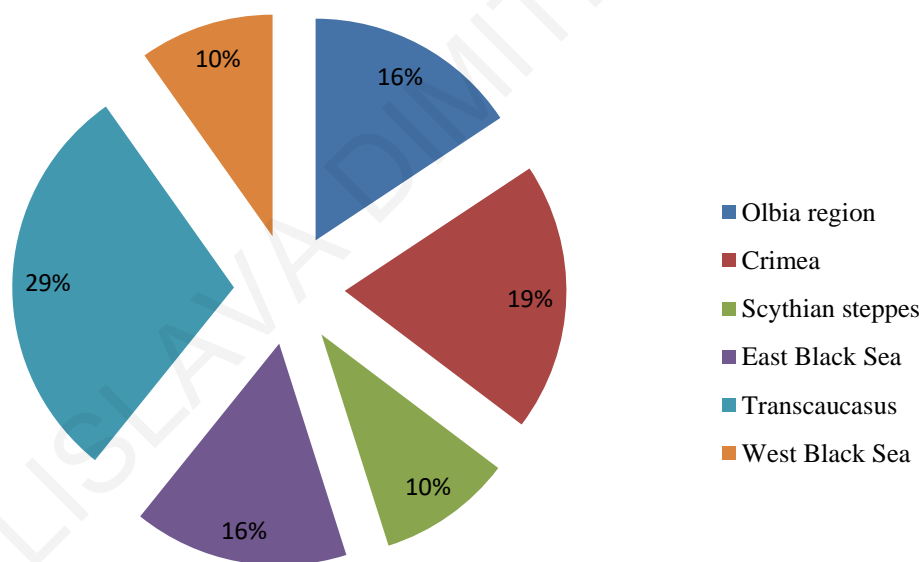


Fig. 71. Mask beads. Distribution in the Black Sea. Based on data presented by Ščeglov (2002) with an update

It is generally accepted that the relief beads and pendants were produced in the Phoenician or Punic workshops, more probably Carthaginian, where about a third of all these artefacts were discovered (id. 147, Dan 2011a, 223, n.76; Schwarzer and Rehren 2013, 112). They were imported to the Black Sea in the 4th-3rd centuries BC, and were not imitated by the local workshops, as testified by their low quantity and

limited period of occurrence (Чандрасекаран 2013). In the Black Sea, they have been found at Elizavetovskoe (Копылов 2006, figs.5-10, Алексеева 1978, 62, 74, types 180-182, tab. 34. 11-17; Schiltz 2001, 105, no. 65), Olbia, Chersonessos, Pantikapaion (Наеве́рник 1968, nos. 63-71), Nosaki kurgan (рл. 74), Chaika settlement (Островерхов 1985, 101) (рл. 75), st. Tenginskij at Kuban river (Эрлих 2011, 69, fig. 22, 26, 27) (Fig. 72).

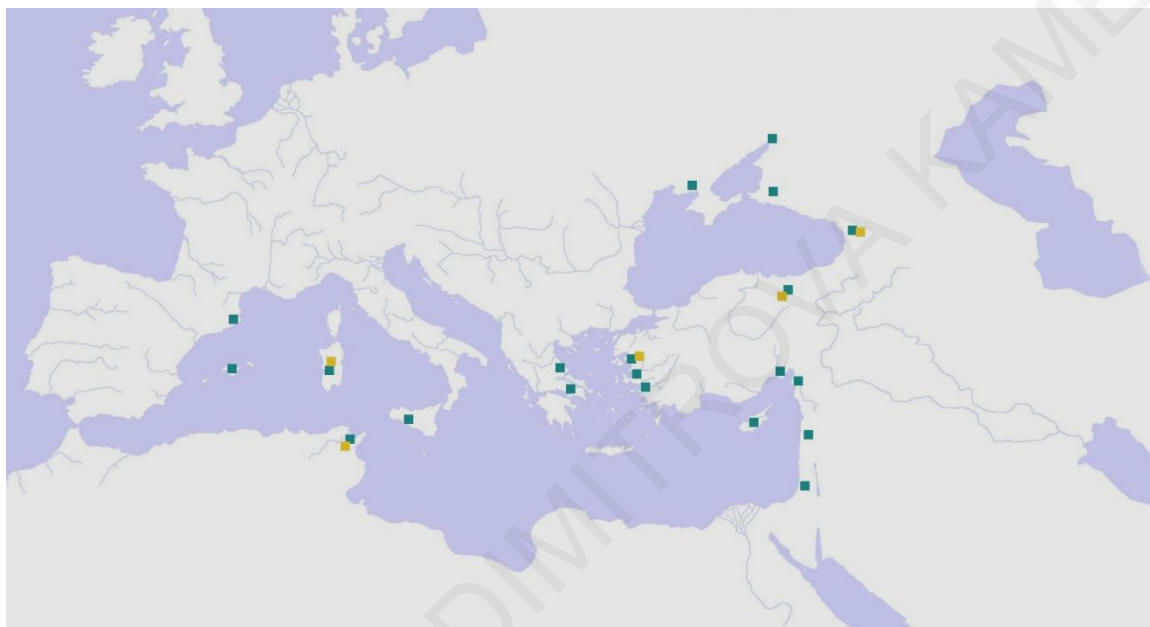


Fig. 72. Distribution of the relief pendants (emerald) and beads (amber) in the Mediterranean and the Black Sea. After Чандрасекаран 2013, 151, рис. 2, with modifications

5.2.2. Function

Seefried has separated the function of the core glass pendants into four categories: 1) an adornment- necklaces, dress decorations, bracelets or ear-rings; 2) a protection against evil spirits; 3) a representation of gods or their attributes and 4) different functions in the regions with no links to the Phoenician/Punic cultural background (Seefried 1982, ix). Further, several different hypotheses have been proposed in regard to the function of the mask beads. Unsuitable to be worn in necklaces, the decorative function seems unlikely and scholars assume that they had served as amulets, in accordance to their apotropaic function in the Levant (Seefried 1982, 56-8, Hermary et al. 2010). Regarding the Black Sea region, an area that lies beyond the Phoenician/Punic cultural milieu, these have been mostly found as single votives in the burials of people from different social ranks, in both Greek and various barbarian peoples (e.g. Scythian, Maeotian, Celtic, Getan). The beads appear predominantly in child graves, but frequently in female ones too (Столба 2009, 122ff). They thereby

seem to have had a general chthonic function, whose features may have varied in the diverse cultures. The scholars thus have basically associated the beads with chthonic cults or with protective (apotropaic) functions (amulets against the evil eye), whose inter-ethnic value explains their popularity in very different cultures (Further discussion in Ščeglov 2002, 220, n. 31-40; Dan 2011a, 219 ff; Столба 2009, 113-4, n. 24).¹⁰ The blue colour, characteristic for these beads, has been continuously used in amulets from ancient times and certainly had a symbolic meaning related to the belief in the evil eye (cf. Hughes-Brock 1999, 285-6; Столба 2009, 111). Concordantly to this view, in the Euxine these beads were found in tombs (always a single one) and rarely in sacred spaces. Such case is the excavation of two mask beads in a temple that belonged to the important, although short-lived, rural settlement Panskoe, located in the distant chora of Chersonessos.

The site had been investigated by a Russian team in 1969-1994 and there is an ongoing collaborative project between the University of Aarhus and the Russian Academy of Sciences that aims to publish the results of the excavations. Only the first volume appeared so far, and it is focused on the temple (Hannestad *et al.* 2002). The latter is a rare finding, whose study greatly amplifies the relatively lower understanding of the religious beliefs of the population in the rural settlements of the North Euxine in respect of the polis, and provides valuable information especially for what concerns the unofficial cults or superstitions. The temple consists of many rooms dedicated to various divinities (Fig. 73). Two mask beads (pl. 54) had been unearthed, along with other artefacts, in the room 12 (ca. 320 BC), which is believed to have been a temple of Demeter and Sabazios. The position of the beads suggests that these were probably pending on the wall in such a way that amulets against evil-eye are displayed even in modern times. This unusual location has triggered various interpretations regarding the use of the beads, such as a relation to chthonic and fertility cults, or even to the cult of Melqart (Столба 2009, 221ff; Ščeglov2002). However, this theory still remains highly debatable and assumptive (see *supra*, p.214).

¹⁰ Common beliefs have been supposed also regarding the interest on other types of glass pendants. For instance, the pigeon-formed glass pendants, which are popular in the Mediterranean and the Black Sea, represent a symbol that exists in a range of ancient cultures: the bird was present in Scythian religious culture, and in the same time it appears as an attribute of the Greek Aphrodite and the Punic Tanit (Островерхов 1991b).



Fig. 73. Panskoe monumental building U6. Aerial view. After Ščeglov 2002, pl. 13, 3

Scholars admit that these objects had protecting functions. Nevertheless, the important role of glass beads in the settlement of Panskoe is evidenced further from the necropolis, where 64 beads of various types are found in 13 tombs, most often of children or young women. Hence, the archaeologists suppose that their original meaning in this locality had not only esthetical value, but also sacral, protective role. Sacral role of glass objects in the Black Sea has been evidenced by a number of other objects, such as the faience scarabs, some groups of which have been attributed to the Phoenician production or merchandise (Bouzek 2000, 136; Alexandrescu and Schuller 1990, 59; Dan 2011a, 217-9) (pls. 44-7). Another unique finding, which adds to the information regarding the use of glass as a sacred material in the Euxine, is an unique imported cast iron knife from the 5th - 4th century BC with a glass handle, found in the rural settlement Nikolaevka, in the chora of Nikonion, on Dniester river (Островерхов 2002, 274-7) (pl. 52). For the time being, however, most scholars see in the glass beads an apotropaic object. This function seems to have been common for the different ethnics where such beads are found, but it does not mean any cultic imitation of the original meaning of these objects in a foreign culture. The general absence of mask beads in the territories, where prevail Thracian ethnics, for instance, indicated different cultic traditions (Ščeglov 2002, 219). The function of the beads in to the Scythian society therefore remains hypothetical - as Dan (2011, 224) has stated, the perception of the different cultures towards the same object cannot be analysed without written sources.

5.2.3 Chronology of the import in the Black Sea

Except from certain objects, found at Elizavetovskoe, whose dating is relatively precise due to their mixture with Greek material, the chronological limits for the import of the glass objects to the Black Sea are difficult to specify: only in few other cases beads and pendants were found in closed archaeological complexes. Such case presents a pendant in the Olbian necropolis (grave 30) dated initially to the 5th or the first half of the 4th century BC (Pharmakowsky 1914, 214), but later Скржинская (1986, 122) dated the archaic tombs in Olbia and respectively the pendants to the 6th century BC. In closed complex are also the pendant found in a Scythian kurgan on the left Dnieper bank (central grave no. 3 at kurgan no. 38, part of the group of kurgans near the village Lyubimovka from the 4th century BC or the first half of the 3rd c. BC, Leskov 1972, 53, fig. 23). The problem of dating although generally prevails for the most glass objects in the Mediterranean and the Black Sea (see discussion in e.g. Seefried 1982; Harden 1981).

The evidence, however, implies that regular import of pendants and beads in the North East Black Sea was effectuated from the first half of the 4th century BC. The import of beads seem to have initiated much earlier than the 4th century BC, since, according to the publications, the first beads and pendants in Olbia were found in archaeological deposit from the 6th century BC, and in Pantikapaion and Nymphaion in contexts from the 5th century BC. Scholars have thereby referred the beginning of this import in the North Black Sea from the 5th century BC and its regularization in the period between the first half and the end of the 4th century BC. In the Bosphorus, the import seems to have ceased around the end of the century for ambiguous reasons, related most likely to local political and demographic changes (Ščeglov 2002). The end of the import is most clear at the Don delta, where Elizavetovskoe settlement was destructed in the end of the 4th century and substituted by a new trade centre, Tanais, which was established shortly after, it is evident from the excavations that glass pendants completely lack in the new settlement (Толочко 2006; Марченко *et al.* 2000). After the ceasing of the exchange pattern with the Bosphorus in the end of the 4th century BC, the mask beads and pendants spread in the zone of Chersonessos and Neapolis, Tyras and the Western Black Sea until the last third of the 3rd century BC (Ščeglov 2002; Копылов 2006). Later, in the late Hellenistic Age, the quantity of glass vessels found in the Euxine decreases (Рыбаков 1984, 235). The import revives with the

introduction of the blown glass technique during the second half of the 1st century BC onwards (Harden 1981, 25). In the first centuries AD, glass was exported from Syria in the Euxine in enormous quantities, where it became once again one of the most popular imports for the native tribes, in many instances occurring in their graves (Minns 1913; Рыбаков 1984, 236; Simonenko 2003; Кунина 2007). Local glass production also developed in the northern Black Sea in the middle of the 1st century BC (Ščeglov 2002; Dan 2011a).

5.3. Numismatic evidence

Another source for reconstructing trade patterns is provided by the study of the **coin circulation**. Pontic coins are found throughout Asia Minor and in the East during the period between the 5th and the 3rd centuries BC, and, in lesser quantities, in other regions. Coins from Sinope and Amisos have been found for instance around the Black Sea, Euboea, Egypt, Afghanistan, Samaria, Sidon, in hoards from the 5th, 4th and 3rd centuries BC (Erciyas 2006, 166ff) (Fig. 74). The hoard found at Bubastis, Egypt (IGCH 1645, buried in 470 BC) contains coins of Zancle, Acanthus, Derrones, Dicea Macedonica, Mende, Potidaea, Terone, Thraco-Macedonia, Thasos, Delphi, Athens, Aegina, Corinth, Paros, Teos, Chios, Samos, Poseidium, Camiros, Phaselis, Salamis, Cyrene and one coin of Sinope. The hoard from Delta, Egypt (IGCH 1650, 375-350 BC) contained official 12 silver coins of Aegina, Arados, Sidon, and an uncertain Syrian mint, along with a Sinope coin. The Afghani hoard (IGCH 1790, 375 BC) contained coins of Messana, Syracuse, Alexander I Macedonia, Bisaltae, Acanthus, Terone, Corcyra, Leucas, Thebes, Athens, Aegina, Melos, Sinope, Clazomenae, Chios, Samos, Caunus, Cnidus, Carpathus, Lindus, Lycia, an uncertain Persian satrap, Kition, Salamis, Sidon, Tyre, Persia, and Barce (Erciyaz 2001, 188-9). On the other hand, Phoenician, Punic, Numidian and Maltese coins from the 5th to the 1st century BC are found in the North and West Black Sea (Kovalenko and Manfredi 2011; Zhuravlev 2012, 30; Bouzek 2015, 161). A very rich 3rd-century hoard from Ukraine for instance contains 1200 gold coins from the reigns of Philip II and Alexander III (Macedonia, Lampsacus, Abydos, Alexandria Troas, Sardis, Teos, Colophon, Ephesus, Magnesia, Miletus, Side, Tarsus, Cyprus, Carrhae, Damascus, Arados, Byblos, Sidon, Tyre, Ace, Babylon, Ecbatana, Susa, Alexandria, Cyrene, Kallatis, Istros, Messana, Odessos, Tomis, Sinope, and an uncertain Euxine mint). Its composition resembles hoards from Asia Minor and the Propontis

from the 3rd and early 2nd centuries BC, suggesting a regular and dynamic trade exchange (Erciyaz 2001, 189; 2006, 169).

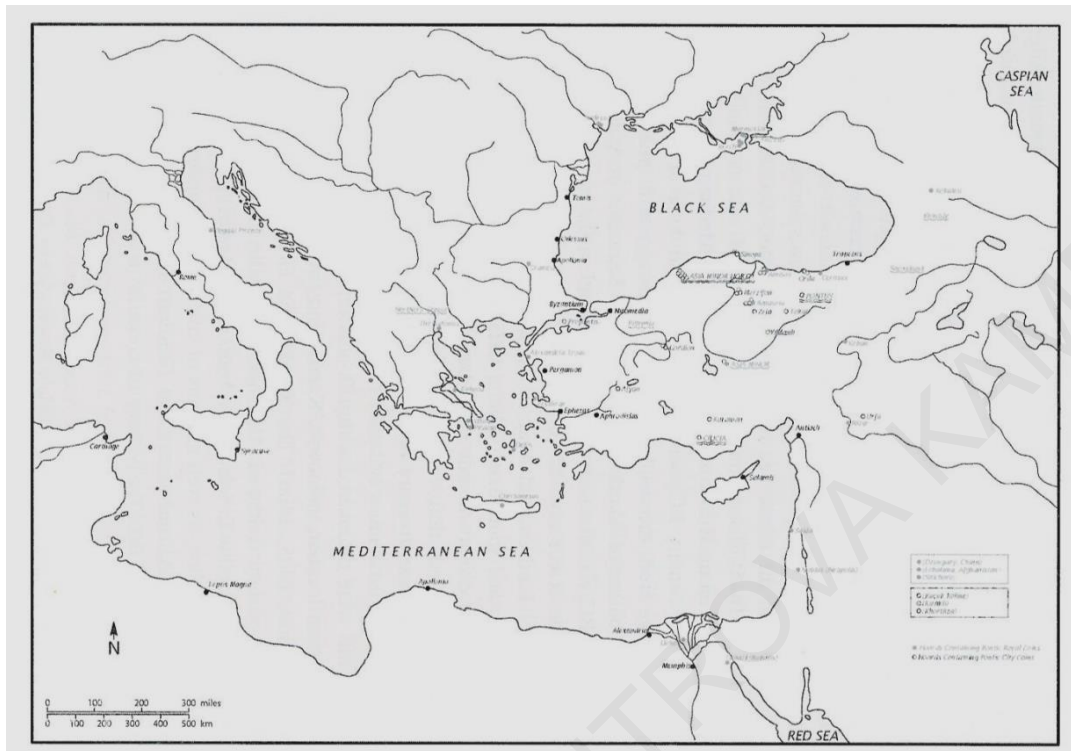


Fig. 74. The distribution map of the coin hoards, which include Pontic coins. The hoards were found in Turkey, Greece, Egypt, Mesopotamia, and around the Black Sea (5th-1st century BC). After Erciyas 2006, 167, fig. 86.

5.4. The grain trade

5.4.1. The Black Sea and Athens

In the first half of the 4th century onwards, the archaeological records testify considerable changes in the Black Sea trade (Bouzek 1989a). Indeed, the new dynasty of the Bosphoran kingdom, the Spartocids, that came to power in 438 BC, gradually conquered vast agricultural territory, took control on the grain production, and established a large-scale grain commerce with the Mediterranean, mainly Athens, that lasted for over a century (Гайдукевич 1949; Блаватский 1954; Виноградов 1980; Шелов-Коведяев 1985; Bouzek 1989a; Васильев 1992; cf. also Ulitin 2013; Oller 2013), changing the previously established trade routes. The chronological limits of the grain trade between Athens and the Euxine range at least from the end of the 5th century BC, when the Pontic region developed into one of the greatest providers of

grain for the growing polis, supplying half of the overall grain import (Garnsey 1985; Bouzek 1989a; Кузнецов 2000; Reed 2003; Oliver 2007; Moreno 2007; Tsetskhladze 2008). The most illustrating report regarding the Pontic grain trade in the period is the speech *Against Leptines* of Demosthenes, where the author calculates that Leucon I (389-349 BC) sends to Athens 400,000 *medimnoi*¹¹ of wheat annually:

[31] ἴστε γὰρ δὴπου τοῦθ', ὅτι πλείστῳ τῶν πάντων ἀνθρώπων ἡμεῖς ἐπεισάκτω σίτῳ χρώμεθα. πρὸς τοίνυν ἅπαντα τὸν ἐκ τῶν ἄλλων ἐμπορίων ἀφικνούμενον ὃ ἐκ τοῦ Πόντου σίτος εἰσπλέων ἐστίν. εἰκότως: οὐ γὰρ μόνον διὰ τὸ τὸν τόπον τοῦτον σῖτον ἔχειν πλεῖστον τοῦτο γίγνεται, ἀλλὰ διὰ τὸ κύριον ὄντα τὸν Λεύκων' αὐτοῦ τοῖς ἄγουσιν Ἀθήναζε ἀτέλειαν δεδωκέναι, καὶ κηρύττειν πρώτους γεμίζεσθαι τοὺς ὡς ὑμᾶς πλέοντας. ἔχων γὰρ ἐκεῖνος

[31] "For you are aware that we consume more imported corn than any other nation. Now the corn that comes to our ports from the Black Sea is equal to the whole amount from all other places of export. And this is not surprising; for not only is that district most productive of corn, but also Leucon, who controls the trade, has granted exemption from dues to merchants conveying corn to Athens, and he proclaims that those bound for your port shall have priority of lading. For Leucon, enjoying exemption for himself and his children, has granted exemption to every one of you.

ἐαυτῷ καὶ τοῖς παισὶ τὴν ἀτέλειαν ἅपाσι δέδωκεν ὑμῖν.

[32] τοῦτο δ' ἡλίκον ἐστὶ θεωρήσατε. ἐκεῖνος πράττεται τοὺς παρ' αὐτοῦ σῖτον ἐξάγοντας τριακοστήν. αἱ τοίνυν παρ' ἐκείνου δεῦρ' ἀφικνούμεναι σίτου μυριάδες περὶ τετταράκοντ' εἰσί: καὶ

[32] See what this amounts to. He exacts a toll of one-thirtieth from exporters of corn from his country. Now from the Bosphorus there come to Athens about four hundred thousand bushels; the figures can be checked by the books of the grain commissioners. So for each three hundred thousand bushels he makes us a present of ten

¹¹ A medimnos is the largest Greek unit of measurement of dry substances and in Attica was equal to approximately 51.8 litres (Lang and Crosby 1964, 41ff)

τοῦτ' ἐκ τῆς παρὰ τοῖς *thousand bushels, and for the*
σιτοφύλαξιν ἀπογραφῆς ἄν τις *remaining hundred thousand a present*
ἴδοι. οὐκοῦν παρὰ μὲν τὰς *of roughly three thousand.* (Dem.
τριάκοντα μυριάδας μυρίους 20.31-2, Trans. C. A. Vince and J. H.
δίδωσι μεδίμνους ἡμῖν, παρὰ δὲ Vince, LCL 238, 1926)
τὰς δέκα ὥσπερανεὶ
τρισχιλίους.

This passage is differently interpreted by the scholars. Some believe in its accuracy, arguing that the fact that Demosthenes held the position of *sitones*, a person responsible for the grain supplies of the city, and thus gives ground to believe that he was very much aware of the situation (see argumentation of this view in e.g. Moreno 2007; Hunt 2010, 37). Antithetic interpretations, who defend the so called minimalistic view of the Pontic grain trade, interpret the information as incorrect, arguing that Demosthenes consciously exaggerated the importance of the Black Sea market because of his family business in the Bosphorus and his personal profit of the region (see argumentation in Braund 2007; Tsetschladze 2008). The latter opinion is, on our view, less convincing (for attempts to calculate the volume of grain trade of the epoch, see also Одрин 2015, 85-98; Кузнецов 2000, 107-20; Amemiya 2007, 112).

Other testimonies of the grain trade between Athens and the Bosphorus corroborate the numbers, given by Demosthenes. Theopompus (FGrH 115 F292) and Philochoros (FGrH 328 F162) testify that in 340 BC Philip II captured at Hieron 180 or 230 ships, carrying grain to Athens, which, according to the calculations of Alfonso Moreno (2007, 70), transported at least 540 000 medimnoi of grain (for an estimation of the ship capacities of the epoch see further Casson 1971, 183-199). Further, Strabo (7.4.6) claimed that once the Bosphoran king sent to Athens 2 100 000 medimnoi, a passage that receives many controversial interpretations (see debate in Кузнецов 2000, 111; Moreno 2007, 70; Braund 2007; Tsetschladze 2008). The same Demosthenes reports that in a year of great famine (about 360 BC), the king sent a surplus, which the Athenians sold at a profit of fifteen talents (Dem. 20.32-3; cf. Burstein 1978).

The impressive volume of Pontic grain supply, reported by the written sources, was coming to Athens most of all from the territory, controlled by the Bosphoran Kingdom, seeing that the Spartocids were especially interested in the Athenian market and

exerted some serious political efforts to maintain it (Allen 2003, 235ff.). The Bosphoran state granted privileges to the merchants who took grain to Athens, such as *ateleia* and loading priority, and acted as generous benefactors in times of need (for further discussion of this topic, Moreno 2007, 72ff). In exchange, Athens exported various goods to the Black Sea region (Rostovtzeff 1967, 98ff) and, according to the archaeological material, continued to be the main trading partner of the Bosphoran kingdom and the other Greek colonies of the Euxine during the whole 4th century BC (Bouzek 1989a, 257-259; Oliver 2007, 35ff).

Consequently to the intensification in the commercial traffic, the Kingdom turned to an exceptionally profitable business destination, which naturally attracted traders from both Pontic and Mediterranean centres. The broad connections of the kingdom with the Mediterranean are revealed by the funerary steles of the 4th- 3rd century, found in its capital and main emporium Pantikapaion. These have preserved the names of traders coming from various Euxine poleis, mainland Greece, Italy, East Mediterranean and Cyprus (i.e. from Tion, Mantinea, Mytilene, Chios, Colophon, Cyprus, Syracuse, Syria; CIRB 20, 22, 203, 208, 237, 246, 1233, Cf. Minns 1913, 384; 637; for a study of patterns of mobility, based on the Pantikapaion funerary steles, see Kreuz 2012 and Bekker-Nielsen 2003, who advances the interesting suggestion that an entire family from Syracuse was buried there). Moreover, during the 4th century BC, the Scythian royal court attracted many foreign artisans, especially from Macedonia but also from other Mediterranean regions, possibly from southern Italy (Treister 2001b, 79).

5.4.2. *Phoenician networks and the grain trade*

Among the traders, involved in the grain trade, we find also Phoenicians. These merchants acted in many Mediterranean centres, especially Athens (Lipinski 2004, 169ff), and seem to have played an essential role the long-distance trade of the 4th-3rd century BC, while acting as grand-scale investors, exercising banking activities and later on, in the Hellenistic period, organizing numerous advanced commercial companies on family-owned principles that covered all the aspects of the trade – ownership of the vessels, investment of capital for a commercial trip, human resources needed for realization of a trip, and other related activities (Pouilloux 1975; Baslez

1987, 279ff; Lipinski 2004, 169ff.). The Athenian state in particular seems to not only have tolerated, but also accepted the Phoenician-speaking community (for the Athenian politics of attracting foreigners to do business in Athens during the 4th century BC, see Ober 2009, 155-78). The decree of Straton from 376/5 BC (IG II² 141) exempted the Sidonian metics from the metic tax. A 3rd century BC bilingual inscription from the Piraeus attests the existence of a community of self-governing Sidonian property owners, who lived in the Piraeus and participated in Athenian civic life, but retained the political organization of the Phoenician city-state (*KAI* 60, See Baslez 1987; Briquel-Chatonnet 1995). A Kitian community of traders, artisans, slaves etc. on the other hand worshipped Aphrodite Ourania (IG II² 337 is a text that announces an obtained permission to establish a temple of Aphrodite, see pl. 40. Another inscription, IG II² 4636, related to the matter, is a dedication to the goddess from the 4th century BC. Cf. also SEG 41:182, 57:198 on an inscription of the treasury box of Aphrodite Ourania in the temple of Aphrodite and Eros from the beginning of the 4th century BC). The written evidence indicates that the cult was considered non – Greek by the Athenians (Fraser 1970, 36; Lipinski 2004, 110). The tendency of attracting Phoenician communities reflected in a gradual change in the Greek perception of the Phoenicians, who became largely associated with richness and wealth (Baslez 1987, 273; cf. further Garlan 1988, 65 for observations on a general change in the mentality regarding the manufacturing sector between the 5th and 4th century, and the vanishing of the ridiculing attitude towards those who had increased their fortunes through manufacturing).

Sea trade was a business often effectuated by the joint efforts of several traders (from the large body of studies on the Greek seamanship, see for instance Casson 1971;1979;1991; Chang 1975; Boardman 1980; Reed 2003; Arnaud 2011; Kron 2015). Commercial enterprises in this period involved *emporoi*, merchants who effectuated the trips, *naukleroi*, who owned the ship, and people who provided the capital, or “sleeping partners” (Arnaud 2011, 68ff; Reed 2003; Bogaert 1968; Casson 1954; Knorringa 1926). It seems that it was not unusual for the Phoenicians to act as sleeping partners. A man from Tripolis loaned money without interest to the inhabitants of the island of Tenos in the 3rd century BC (IG XII, 5 845), and Jason from Arados, an eminent resident of Delos loaned finances to the polis and to many citizens (IG XI, 4, 776; IG XI, 4, 1203), the same did his son Straton (I Delos 313a, 9; see further comments on these

inscriptions in Baslez 1987). Another Delian of Phoenician origin, a certain Apollonios, invested in properties and acted as guarantee for buying a property to a Delian man (I Delos 400). The same did Gerostratos or Gerush, son of Theodoros, and Heliodoros, son of Simon, in the 2nd century BC. In the 1st c. BC, Philostrates of Ascalon, and Simalos of Salamis, acted as bankers, the latter unofficially participating in politics as well. Except the family-base business associations, there are attested also inter-ethnical associations of Greeks and Phoenicians (ibid.).

A wealthy Phoenician, related to the Euxino-Athenian trade, is a certain Theodoros, named „the Phoenician”, who invested in commercial trips to the Bosphorus in the 4th century BC and probably was a money-lender of big scale loans, residing in the Piraeus (Dem. 34. 6; Bogaert 1965, 140, n.1; Knorringa 1926).

Such entrepreneur is also Heracleides from Salamis, in whose honour the Athenians issued between 330/329 and 325/4 BC a series of five degrees (IG II² 360, SEG 13:40, 24:101, 26:79, 38:66) (pl. 37) that aimed to honour his continuous generosity and support during severe grain shortages (for the chronology of these, Garnsey 1988, 154-155). One of the degrees tells for example that Heracleides purchased grain from the Bosphorus and sold it at reduced prices to the Athenian citizens, while further donating 3000 drachmae to the state for purchasing more grain as well (IG II² 360, l. 66ff.; see also the translations and comments on these texts in Bagnall and Derow 1981, 106-108, no.62; Casson 1991, 110-111; Reed 2003, 128-129, no. 60). Heracleides' generosity contrasts to the deeds of other traders, who contrarily profited from periods of crisis. For instance, in 332-23 BC Cleomenes of Egypt bought wheat at 10 drachmas per medimnos and sold it at 32 drachmas per medimnos. Thus, generosity acts were much appreciated and acknowledged (cf. also the decree of ca. 300 BC, where Agathocles of Rhodes was proposed to be granted citizenship for selling wheat at a price lower than the Agora rate; Amemiya 2007, 68).

The decrees, dedicated to Herakleides do not provide much personal information about him, although scholars believe that he was a wealthy ship-owner and trader (*naukleros* and *emporos*), i.e. an independent entrepreneur, who transported his merchandize on his own ship(s) (about the terms *emporoi* and *naukleroi* see e.g. Reed 2003, 7-15; Hind 1995-1996; Knorringa 1926; on the loan practices Arnaud 2011, 68ff, in particular 73-74 with refs.; Casson 1971; 1979; Bogaert 1968). His origins were certainly Phoenician, as indicated by the scale of his commercial operations, as well as

his name - Herakleides is the Greek translation from Abdmelqart, commonly used by Hellenised Phoenicians in the Classic and Hellenistic period (Briquel-Chatonnet 1995; Pouilloux 1988, 69; Masson 1969, 699; Fraser 1970, 31). His residence is unknown; the fact of his continuous support of Athens has led to the suggestion that he resided there (i.e. with a metic status), but this was in no way evidenced by the received honours (Reed 2003, 129).

The decrees for Herakleides on the other hand give us more information regarding the transportation process. The text reports an episode, when his cargo was confiscated while passing near Heracleia Pontica on the south Euxine shore (IG II² 360, l.28ff). The polis in question stands on a main sailing route from the Mediterranean to the Bosporan Kingdom's *emporion* (Гайдукевич 1949; Arnaud 1992, 2011) (Fig. 7). In the period, the commercial traffic used two main routes, the Northern one passed along the West coast of the Black Sea up to Istros, where ships crossed the Euxine eastwards or continued with the coastal trip until reaching the Tauric peninsula. The Southern and shorter route involved a sailing along the south coast until reaching the cape Carambis, and then crossing the Euxine northwards, up to the cape Criumetopon (Strab. 7.4.3; detailed discussion on the Euxine trade routes see in Гайдукевич 1949; for the view that the South route was be opened as early as in the 6th c. BC, in Tsetskhladze 2013a, 77; for maps of the open sea and coastal routes in the Euxine, Arnaud 1992). Most of the traders of the period apparently used the Southern routes, as suggests in a speech, written probably in the 340's BC (Oliver 2007, 24-25), where Demosthenes speaks about a ship sailing to the Bosphorus that had to effectuate "*a voyage from Athens to Mende or Scione, and thence to Bosphorus—or if they so choose, for a voyage to the left parts of the Pontus as far as the Borysthenes*" (Dem. 35.10, trans.: A. T. Murray 1936, LCL 318). One of the most important transit ports on the Southern route was Heracleia Pontica. The colony did not possess proper production of grain, but occasionally participated in its trade: for instance, Heracleian grain traders once contributed to the Athenian grain import (IG II² 408) and, in times of cases of crisis, the tyrant Dionysios of Heracleia also donated grain to Athens (IG II² 363; Saprykin 1997, 147). The relationship between Heracleia and the Bosporan kingdom was fairly unstable due to their economic rivalry (Saprykin 1997, 107ff). Only few decades before the conflict with Herakleides of Salamis, Heracleians had entered in a war with the Kingdom for the control over the *emporion* Theodosia, which in the end was won by the Bosporans (Burstein 1974). In this respect, the aforementioned episode of cargo

confiscation in all probability reveals the strained relations of rivalry in the Euxine, which occasionally obstructed the international trade. Such conflicts occurred in many occasions during the Classic and Hellenistic period, the most critical among which probably the closing of the Pontic entrance by the Byzantines in the 2nd century BC, after a disagreement on the taxes. The conflict was finally resolved with the joined efforts of the Rhodians and the Balkan Celtic Kingdom (Polyb. 4.36. Burg 2004, Ager 1997, 142ff, no.51).

Herakleides' issue on the other hand ended with an embassy, sent by the Athenians with demands to return the cargo back and to guarantee the safety of the future traders directed to Athens. The eagerness to negotiate with Heracleia was of course far beyond the simple will to help the trader; it formed just one of the many episodes, in which the Athenians intervened in the Pontic affairs in order to protect their interests there (cf. Gallo 2013).

The complicated organization and realization of the Euxino-Athenian trade is reflected in another essential source: the speeches of Demosthenes, written for trials on business frauds in the sea trade.¹² In particular, the speech *Contra Lacritus*, which was concerned with the commercial trip of Artemon of Phaselis to the Bosphorus, reflected a case where Greeks and Phoenicians were involved in the Pontic market. In this particular case, the enterprise involved men from Athens, Boeotia, Ionia, Lycia, Caria, Cyprus and the Euxine, demonstrating the international character of the long-distance trade in the period. According to the text, Artemon decided to participate in the Atheno-Pontic grain trade and Androkles of Athens invested 3000 drachmae in the planned voyage. In agreement with the stipulated contract between them, Artemon was not allowed to make another loan. He was supposed to sail in a twenty-oared ship with a cargo of 3000 jars of wine to buy at the port of Mende or Scione, and to sell it at the Bosphorus or Borysthenes. He was then expected to buy a cargo of grain with the

¹² In Athens, the disputes involving overseas trade were subject of special court rules, *dikai emporikai*, that facilitated the foreigners, who were usual participants in such (Cohen 1979). The speeches, written for these trials, are therefore among the most important sources for the ancient maritime trade studies, especially the five speeches of (Pseudo) Demosthenes (32, 33, 34, 35 and 56), concerning the import of grain. These show among other things that the main suppliers for Athens were Sicily, the Pontus (nos. 34 and 35) and Egypt (for the Athenian dependence on grain and the maritime court trials see further e.g. Cohen 1973, Garnsey *et al.* 1983, 40ff, Olivier 2007, Lambert 2012; see further references on the topic in Rawson 2012).

earned money, bring it back to Athens to sell it in the local market, and, in 20 days, reimburse the investment to Androkles along with the agreed interest.¹³ Artemon, however, took another loan in Athens, bought only 450 jars of Mendean wine and sold them in the Bosphorus. There, he purchased only one or two hampers of wool, 2-3 bales of goatskins, and agreed to transport a farmer carrying 80 casks of Coan wine and 11-12 pots salt fish from the port of Pantikapaion to the near *emporion* Theodosia. Unfortunately, he died during the trip. His brother Lacritus, who sailed with him, later stated in the court that all the merchandise was bought as a return cargo for Athens. But in fact, Lacritus took yet another credit from a Chian trader in the Bosphorus to buy grain and promised him to sell it to Chios, disregarding the contract with Androkles and the laws of Athens that impeded the merchants resident at Athens to transport grain to any other place than the Athenian market or lend money on any vessel which is not going to bring grain to Athens (Dem. 34.37; 35.51; Oliver 2007). He then sailed to Athens, hid the ship in a nearby port and reported to Androkles that the ship sank and he could not reimburse the loan, while intending to sail to Chios later and keep the profit for himself (Carey 2012, 137ff).

To complicate things even more, the ship in question was owned jointly by Hyblesios and Antipatros from Kition. The former's social status is ambiguous because he was named without patronymic like a slave (Скржинская 1994, 127), while the latter appears to be a wealthy Phoenician merchant. The name Antipatros was common in Kition and it is interpreted as a translation of the Semitic name Sem, meaning "the first son" (Lipinski 2003, 100; Briquel-Chatonnet 1995). Demosthenes states that some of the slaves of this Cypriot, such as Erasicles, the captain, formed the crew and became witnesses during the process (Dem. 35.33. Cf. Baslez 1987, 280; Raptou 2000, 25-26; for alternative interpretation see Reed 2003, 109). The case of Antipatros is extremely interesting, as it shows that the commercial profit from supplying Athens with Bosphoran grain attracted traders from distant Mediterranean centres. Moreover, it

¹³ Lenders provided the capital for the enterprise by bottomry loans made with the ship and/or the cargo as security. The lender was entitled to receive the capital and the interest only when the ship safely returned to Athens. Because of the high risk, the interest rates on the bottomry loans were considerably higher than the other kinds of loans: e.g. the lender in the speech in question demands an interest rate of 22.5% if the ship were to sail through the Bosphoran Strait before mid-September and requires 30% after that date. In contrast, in the case of loans on the security of real property, the interest rate was normally 12 percent per annum (Casson 1979, Reed 2003, 25; Ammemiya 2007, 87).

evidenced a tendency of traders to work in partnership in order to cover all the aspects of the trade (Baslez 1987, 275-281). Antipatros in particular did not seem to have been linked with the Kitian community in Athens (Raptou 1999, 163ff; Pouilloux 1988, 96) and rather collaborated with other traders from Halicarnassus, Phaselis and maybe Samos - apart from Artemon of Phaselis, who loaned the ship, he worked with the trader Hippias from Halicarnassus, who was transported on the ship as supercargo and the co-owner of the ship Hyblesios, who owns a typical Samian name (for the role of Phaselis in the trade for Athens and its links with Phoenicia, cf. Reed 2003, 32ff.). The presence of Eastern Mediterranean traders in the Black Sea was probably strong in this period, judging by the notion of Demosthenes (35.53) about two ship-wrecked Phaselitan traders who encountered by chance a compatriot ship-owner in the Bosphorus, enabling them to return to Athens with him. Recently, bronze Phaselitan coins from the 3rd century BC have been found at the Taman peninsula (Абрамзон 2018, 24).

Unfortunately, no other information about Antipatros is available; the present knowledge about private affairs is generally incomplete and transmitted almost exclusively through the speeches of the Athenian orators written for the court and concentrated on specific people and events. Therefore, in even lesser extent we possess knowledge regarding the people who formed the ship-crews. Indeed, the information regarding the ordinary people is revealed mostly by the epigraphic evidence.

An interesting case of such is the simple funeral stele of a man called Aristokrates from Cyprus, found in Pantikapaion, which revealed his humble origin, but gives little information about the way he came to this polis. Only a few cases of ordinary Cypriots have been attested abroad, mainly in Attica (Raptou 1999, 16). Among them, the mercenaries, artisans or merchants are usual to find (Nicolaou 1986, 426-428; Raptou 2000, 23ff). In the case of Aristokrates, the scarcity of information from his grave has rendered difficulties to draw firm conclusions about his life and ethnic identity. However, the lack of decoration of the stele, along with an error in the name, has indicated a modest funeral; it is thus plausible to suggest that although he was a free man, he had a relatively low social status. As the grave is an isolated finding in the area, it more likely points to a merchant or sailor, who came with a merchant ship; however, his role on the trip seems impossible to deduce so far (Kreuz 2012). Therefore, it could be even speculated that he was a part of the crew of his compatriots, as if the presence

of Eastern traders in the Bosphorus was common in this period, the same may have been true for their crews and people travelling as an addition to the ships' main cargo. On the other hand, the fact that his patronymic was indicated as Cyprus instead of a particular polis maybe indicates that he was buried by foreigners without knowledge of the island. Further, the ethnicity of this man could only be deduced by his name and remains also ambiguous. Cases of Phoenicians, whose names originated from the roots *Aristos* and *Kratos*, are well documented: such as Ariston, *emporos* from Tyr, a friend of Hannibal, sent by him on a mission from Ephesus to Carthage (App. Syr 8.); Aristoklea from Kition, who made a dedication to Aphrodite Ourania in Athens in the 4th century BC (IG II² 4636); Antipatros/Shem from Ashkelon, who died in Athens in the 4th century BC or Domsalos from Sidon, who erected his funeral stele (IG II 2836) (pl. 41), Epikrates (IG II² 10279) and Socrates (IG II² 8358), were residents of the Sidonian community in Athens (for other cases in Egypt, Rhodes and Cos, see Raptou 1999;2000; Pouilloux 1988). These parallels cannot provide conclusive evidence, yet render possible the Phoenician origin of Aristokrates (cf. Yon 1992, 252). The route that led the man to such distant destination might have passed through Athens, following the strong business interests and the intensified trading of the polis with the Bosphorus (Dimitrova 2018).

Other intriguing epigraphic evidence is the funerary stele of Eirene of Byzantium, a woman, buried near the Piraeus in the beginning of the 4th century BC. The Greek words on her bilingual Greco-Phoenician stele (IG II² 8440, KAI 56) (pl. 39)¹⁴ were carved under an image of woman standing erect and carrying a child, and the Phoenician text was placed under an image of a seated woman. A simple inscription - "Eirene, a citizen of Byzantium" marks the resting-place this person, probably the wife of a merchant. The importance of this evidence consists in the fact that it is the only attestation of the presence of Phoenicians in Byzantium until the Roman age (Kenrich 1955).¹⁵

¹⁴ The custom was relatively diffused in the period: other bilingual inscription in Greek and Phoenician are for instance the funeral stele of the Sidonian Artemidorus, son of Heliodorus, and the inscription to the memory of Numenius from Kition (see further Lipinski 2004, 171).

¹⁵ Speculative case is the interpretation of the name 'Αδων, which appeared on silver coins of Chersonessos at the end of the 4th century BC, as being Phoenician (Lipinski 2004, 100, n. 374. Contra: Stolba 1996, 441-442)

5.5. Votive objects

In many cases, commercial relations trigger intercultural exchanges. For what concerns the Classic and Hellenistic Euxine, a broad penetration of local “barbaric”, Egyptian and Asian cults enriched the local Greek religious pantheon (Bouzek 1999; Русяева 2005; Balena 2013). For instance, a curious dedication, found near Pantikapaion, provides a clue towards an interesting cultural link between the Bosphorus and the Levant. It is unique in its principle due to a specific mention of a divine couple, otherwise unattested (CIRB 1015; IoSPE II 346). The inscription was engraved on the stand of a statue, representing two figures, a male, which is lost, and a female, which is now in the Kerch museum. It was found at the shore of the Ahtanizovsko Lake, within the chora of Phanagoria, in 1804. The inscription itself is in the Hermitage museum (IoSPE II, 346; CIRB 1015; SEG 45:1016) (pl. 36).

[Κο]μοσαρύη Γοργίππου θυγάτηρ Παιρισάδους γυνή εὐξαμένη
[ἀν]έθηκε ἰσχυρῶι θειῶι Σανεργει καὶ Ἄσταραι, ἄρχοντος Παιρισάδους
Βοσπόρου καὶ Θεοδοσίας καὶ βασιλεύοντος [Σιν]δῶν καὶ Μαιτῶν πάντων
καὶ Θατέων.

*“Komosarye, daughter of Gorgippos, wife of Perisades,
dedicated to the strong gods Sanergos and Astarta, on the time of Perisades,
archontos of the Bosphorus and Theodosia, and king of the Sindoi, Maitoi,
and Thatei”*

The official character of this cult is obvious as the worshipper, Komosarye, was the wife (but also first cousin) of Perisades I (344-310 BC), ruler of the Bosporan kingdom. The name of the female goddess is a rare form of Astarte, and yet Boeckh (CIG II² 119), who first published it, was also the first researcher to associate these two forms of the name with the same deity. Interestingly, this form of the name is attested in only one other occasion, in a 3rd century BC dedication, made in Memphis by Abrames, son of Abdastaratos of Sidon (SEG 24:1200).

ὑπὲρ βασ(ιλέως) Πτολ(εμαίου) καὶ βασ(ιλίσσης) Ἀρσινόης
Ἀβράμης υἱὸς Ἀβδασταράτου Σιδωνίου
Ἀστάραι θεᾶι πατρίαι μεγάληι μεγάληι ἐπ' ἀγαθῶι.

*“For the health of the king Ptolemaios and the queen Arsinoe,
Abrames, son of the Sidonian Abdastaratos,
to Astara, goddess of his fathers, two times great, for the good.”*

The goddess in the inscription is clearly Astarte, the principal deity of Sidon at least from the 4th century BC (Patai 1990, 56-7). That she was worshipped in Memphis in the 3rd century BC, testifies also a petition from the “Phoenicio-Egyptian” priests of this cult, found in the archive of Zenon (Boyaval 1966, 75-80). The fact that both forms are found in non-Greek milieu seems to imply that, in both cases of its appearance, the form Astara reflected a local dialect version of the name.

In the Greek *interpretatio graeca*, Astarte was identified as Aphrodite Ourania (see discussion in e.g. Burkert 1985, 95ff; 1992; Baslez 1986, 300- 303; Budin 2003; 2004; cf. also Wallensten 2014 for a study composite deities). The same counts also for the Euxine, where the inscription of Komosarye is correlated to the cult Aphrodite Ourania that spread throughout the Euxine from the 4th century BC (Русяева 2005; Ustinova 1998; 1999; Сапрыкин 2009; Hermary 2013). The polyvalent nature of Aphrodite Ourania encompassed both eastern elements and indigenous female cults such as the Sindo-Maeotian Great goddess and the Scythian Agrimpasa, which was literally identified by Herodotus as Ourania (Hdt 4.76; for the similarities of these divinities' features and the Levantine origin of the latter, Ustinova 1999, 52ff). Probably for this reason, her cult gained such importance to become an official dynastic cult of the Bosporan kingdom. The goddess was portrayed on coins seated on a throne with a mace in one hand, an apple or patera in the other, wearing a high headdress, and with Eros standing in front of her (Kobylyna 1976; Ustinova 1998; 1999; Hermary 2013; for the strait links of the cult of Aphrodite Ourania with the politic power, Sabbatucci 1998; for general studies on the worship of Aphrodite in her various *epicleseis* in the Black Sea see e.g. Kobylyna 1976; Русяева 1992; 2005; Alexandrescu Vianu 1997; Ustinova

1998; 1999; Скржиньска 2006; Сапрыкин 2009; Demetriou 2010a; Hermary 2013; Buzoianu and Bărbulescu 2013; Balena 2013) (pls. 32, 33).

The oriental aspects of her cult in the Bosphorus are archaeologically visible. The excavations in her temple in Myrmekion, which belongs to the 4th century BC revealed eastern practices (Гайдукевич 1949, 182; Hermary 2013, 50). There have been found offerings of fish bones ¹⁶ along with female statues holding their breasts and dedications to Zeus Soter. This epithet of Zeus is particularly instrumental to indicate a non-Greek, specifically eastern deity (for the association of Zeus in the Phoenician pantheon, Baslez 1986, 292-300; for the salvative nature of the Semitic gods, Berchem 1967, 103). For instance in Cos, a bilingual Phoenician and Greek dedication shows a cult for a divine couple: Astarte in the Greek text is referred as Aphrodite Pontia, and her companion Baal as Zeus Soter (Bonnet 1988, 378ff; for the links of Astarte with the sea, Parker 2002). It is curious to mention that one of the archaic terracottas of a female deity, discussed previously (p. 170), was actually found in the sanctuary of Aphrodite Pontia in Istros (Alexandrescu Vianu 1994). In the temple of Myrmekion were found also representations of Aphrodite - Isis, Aphrodite accompanied by a lion, a symbol of Astarte (pl. 31) and other indications of eastern cult practices (Alexandrescu Vianu 1997, 29-30, with a remark of the approximation of these cults in Kition; cf. Wallensten 2014).

On the other hand, the temple of Aphrodite Ourania *Apatouria* in Phanagoria - the Asian capital of the kingdom - that was used from the mid-6th century BC until the beginning of the 4th century AD (Kobyлина 1976, 57), presents some features clearly distinct from the religious tradition of Miletus and Teos, the founders of the colony, that most probably reflects the local tradition (Balena 2013).

The ways of the penetration of the eastern elements in the local cult practices in the Euxine has been discussed most recently by Hermary (2013). He associated Aphrodite Ourania from the 4th-3rd century BC with Aphrodite Syria from the 6th and 5th century BC, considering the fact that the cult evolved to a certain extent, however, apparently remained very popular in the Black Sea and preserved its oriental features in time (Hermary 2013). Aside from the inherited archaic beliefs, penetration of eastern cult

¹⁶ Fish votives are related to Ourania also in other cases from the Roman period, such as her statues holding fish in Tanais from the 2nd-3rd century AD, and similar one in Abritus (Kobyлина 1976, 26).

practices and their fusion in the indigenous pantheon could have occurred in various ways. Cultural influence is often transmitted with political or commercial interethnic contact, as for instance occurs in the Euxine in the 3rd century BC, when the strengthened bonds between the Bosphoran kingdom and the Ptolemaic dynasty reflected on the religious cults in the Euxine, as the cults of Isis, Sarapis and Anubis gained considerable popularity in the Northern and Western regions of the Black Sea (Reger 2007, 279, 280, nota 31; Tacheva-Hitova 1983, 3-64; Vinogradov and Zolotarev 1999; Archibald 2007; Сапрыкин 2009). In an indirect way, Levantine cult influences had possibly been transmitted through Pontic Cappadocia, a zone of strong influence of the cult of Astarte and where popular female cults that represent similar features persisted until the Roman period. Such elements present the cults of the moon goddesses (Ma), worshipped at Pontic Comana and Cappadocian Comana, in whose temple was practiced sacred prostitution, and the Armenian Anahit, worshipped at Acilisena, to whom maidens were consecrated before marriage (Сапрыкин 2009, 217, 255; on the sacred prostitution see e.g. Budin 2004; Lipinski 2014). In the Greek pantheon these cults were associated with Cybele, Artemis Tauropolos (pl. 31) and in some cases with Aphrodite in her royal aspect (Сапрыкин 2009, 352; on the cult of Artemis Tauropolos, see Guldager Bilde 2003; Лисин 2016; for a general survey on the Greek counterparts of Astarte, Budin 2004).

For what concerns the accompanying deity of Astara, Sanergos, the scholars have associated him with Heracles (Minns 1913, 617, Гайдукевич 1949). The ground of this view lies in the fact that Heracles was the companion of Aphrodite Ourania in the local conception (Ustinova 1999, 52-3), as in a myth (Strab. 11.2.10) Heracles interfered in the deceit, ἀπάτη, which Aphrodite used against the giants (Ustinova 1999, 52). Moreover, he was identified by the Greeks with the male companion of Astarte, often attested in the East and in several cases appears with the epithet Sandas or Sandon, as he was identified with the Clinician divinity Sandon (Goldman 1949; Rostovtseff 1967; Ustinova 1999). The meaning of the name is supposed by Minns (1913, 617) to be a reflection of the Babylonian deities San or Negral, or even of the both combined (on the myths related to Aphrodite in the North Black Sea, see Скржиньска 2006; Тохтасъев 1983).

5.6. Reconstructing exchange routes

The research on the ways of penetration of glass beads and pendants in the Black Sea triggers much debate, partially due to the controversial identification of workshops in the Aegean and East Mediterranean (see discussion *supra*, p. 199). Various hypotheses had been advanced. While Boucher (1973, 850-965), believed that one or more inland trading routes was established between Etruria and the Black Sea, maritime import are more often considered, and scholars have proposed Rhodes, Egypt, Macedonia, the Levantine coast as region of import (Shortland and Shroeder 2008; Archibald 2007, 265-6; Dan 2011a, 223). Reviewing various hypotheses for the distribution of these artefacts in the Black Sea, Seefried (1982) concluded that these objects were most likely carried by Phoenician or Egyptian traders (on the connections between the Black Sea and Egypt, see Archibald 2007; Reger 2007; Трейстер 1985). However, given the fact that that the variety of beads found in Egypt or Phoenicia is less diversified than the ones found in Carthage and the present-day southern Russia and the discovery of some Punic pottery at Elizavetovskoe settlement have resulted in a more recent view that considers more probable a direct trade with Carthage (Ščeglov 2002; Гороховская and Циркин 1985; Treister 1993; Копылов 2006). Certainly, beads could have been imported by more centres of production or distribution, as these were transported as complementary merchandise, and the establishment of local secondary glass workshops seems also plausible (Островерхов 1985, 99; Копылов 2006; Dan 2011a, 223).

The hypothesis of a trade network, linking the Euxine with Carthage or establishing of a “know-how” network by transferring skills seems difficult to imagine due to the long distance and the scarcity of evidence, however, the up-to-date archaeological material requires one to consider this possibility. A trade route that would link Carthage to the Black Sea has been considered by many scholars: for instance, on the basis of similarities of ivory artwork (appliqués destined for wood sarcophagus) and analysis of artistic similarities of Carthaginian and Italic workshops, Picard (1979, 108) supposed that a commercial-cultural exchange with the Black Sea passed through Tarentum, and was active in the period end of 4th – mid 3rd century BC, possibly in parallel to other linking points on the Levantine coast. Stylistic analogies of bronze artefacts from Carthage and Tarentum with Pontic vessels are evidenced more recently by Boltrik *et al.* (2011). Towards such trade points the distribution of the

core-glass pendants of Seefried's CIII type, which in the Eastern Mediterranean is practically limited to the Black Sea zone (Seefried 1982, 43). Ceramic evidence also enables to suggest that a trade route was developed in the 4th century BC, connecting Carthaginians to the northern and north-eastern Black Sea: an intact Punic amphora was found in the 1980-s at the Elizavetovskoe site along with numerous glass beads and pendants (Житников and Марченко 1984; Копылов 2006) (pl. 7). Punic coins appear in the North parts of the Black Sea in the end of the 5th century BC; some of them are of the Sicilian mint (Kovalenko and Manfredi 2011). To the implicit evidence for a West Mediterranean commercial direction via Italy to the Euxine, can be added the Etruscan jewellery, faience and bronze commodities from the second half of the 4th – 3rd century BC, found in various North-Pontic centres, such as Pantikapaion, Gorgippia, Nymphaion, and in the hinterland, on the Dnieper trade route and Thrace (e.g. Mezek, Targovishte, Zimnicea. Alexandrescu 1975, 71-2; Treister 1991a; on Etrurian gems and rings, imported to the Black Sea in the 4th-3rd c. BC, Рыбаков 1984, 240; see also Markoe 2000; Moscati 1992 for the trade between Carthage and Etruria).

A possible marine route, linking western Mediterranean centres and Black sea region, is exposed indirectly by the study of the transport amphorae. Among those, imported in Carthage in this period, are found North Aegean vessels (Bechtold 2010, 38ff). The amphorae, according to the author, emphasize the existence of “an important trade route leading from the northern Aegean area via Athens/Piraeus, along the southern Italian and Sicilian coasts, down to the North African coast with Carthage as one of the most significant ports of call”. Data collected from contemporary shipwrecks also render plausible the proposed by Bechtold trade pattern. The El Sec shipwreck from the mid-4th century, found near Mallorca (Rouillard and Villanueva-Puig 1987, 15-146) was a Punic vessel, carrying Attic pottery and amphorae from the North Aegean and the Euxine (Cerde 1987, 68; Treister 1993, see supra, p. 177). A ship, sunk near Porticello, Sicily, contained amphorae from the Aegean, the Euxine, the West Mediterranean and Carthage (Treister 1991a, 233-238). An ancient ship, found near Alonnisos island (Ikos), which appear to have sailed across the Mediterranean in the beginning of the 4th century BC, contained 30 bowls of most likely South Italian production (Hadjidaki 1996, 583, cat. no. 15). On the other hand, amphorae from the Northern Sporades (possibly Ikos) had been imported to the Black Sea area as early as in the 5th century BC, becoming widespread in the 4th century BC (Handberg and Petersen 2006, 5). It is worthy to report also the view of Seefried (1982, 44), who

believes that in terms of bead distribution, trans-Mediterranean trade through Athens or Thebes seems more probable than through the East Mediterranean centres in Egypt, Syria or Phoenicia, while Сорокина (1977) related the appearance of those beads in the Black Sea with the overcoming of the Athenian trade on the east Greek one during the 5th century BC.

Thus, several independently conducted studies put forward the idea that a trade route from Carthage to the North Aegean or the Euxine through South Italy was in place in the 4th century BC. This suggestion seems to be consistent also with the **written evidence** regarding Carthaginian links with Greece. Carthaginian individuals - in most part traders - are attested from the 4th century BC onwards in Athens, Thebes, Astipalaia, Delos, Chios, Cos, Rhodes, Egypt (Lipinski 2004, 175). For instance, a Carthaginian individual is mentioned on a Theban inscription from the mid-4th century BC: „Nobas, son of Axioubos”, probably Nubo or Nabal (both rare Carthaginian names), son of Hasdrubal or Esibaal, received honours from the Boeotian League, in which Thebes was the dominant city (IG VII 2407, now lost). The reasons for honouring the man are not explicit, although some scholars have suggested that he was possibly a naval architect, who assisted in the creation of the Theban fleet, while others relate his presence to trade (for further discussion and references see e.g., Fossey 2014, 3; Ferrario 2014, 266ff; cf. Tejada 2015, 53, n.3). For what concerns Athens, the evidence attests an intensification of political and trade relationships with Carthage from the second half of the 5th century BC, when apparently the Punic power became more active in the political spheres of Greek states, while Athenian imperial desires turn to the West Mediterranean (for detailed discussion, Rainey 2004, 208-12). Diplomatic relations were developed, and there is evidence that Athens sent delegations to Carthage in 415/4 and in 406 BC (Thuc. 6.88.6, IG I³ 123; on the relations between Athens and Carthage, Meritt 1940). Greek mercenaries are also attested in Carthage from the end of the 5th century BC (for an overview of Greek mercenaries fighting in Carthaginian armies, Ameling 1993, 218-220). Diplomatic relations were maintained in the 4th century, when an official Carthaginian embassy, comprised of two men: Synalos and Bodmilcar, was sent to and honoured in Athens (IG II² 418, ca 330 BC). According to Walbank (1985, 111), their mission was possibly to negotiate an agreement for grain supply. Moreover, he convincingly suggests that this embassy might had been transported in the ships of two Tyrians, Hieron and Apses, father and son, grain traders sailing between Carthage, Italy and Tyre, who have been honoured by the

Athenians in the same period (after 332 BC) supposedly for this function (IG II² 342; IG II³ 468) (pl. 38). The chronology of these events is consistent with the reports of the ancient authors that the Carthaginians rescued a considerable amount of the civilian population from Tyre before Alexander finally captured the city in 332 BC (Diod. 17.41.1-2, 46.3-4, Just. *Epit.* 11.10.). After that event diplomatic relations with the Hellenistic states were preserved in order to preserve the traditional trade routes with Egypt and Levant, and the Carthaginian interests in the North Aegean in the end of the 3rd century BC are evidenced by a treaty against Rome, stipulated in 215 BC, during the Second Punic War, with the Macedonian ruler Philip V (Polyb. 8.9. Rainey 2004, 214-5).

The written texts provide important information also regarding the trade relations of the period. In Hermippos' comedy from ca 430 BC, Carthage is one of the markets which regularly imported in Athens carpets and richly decorated pillows (Ath. 1.28a). The polis, according to the 4th century comic poet Antiphanes, supplies Athens with kale (Ath. 1.28d), while Arcestratus speaks the imported Punic wine in regard to the same period (Ath. 1.29b.c). These notions suggest that a number of Carthaginian goods were highly valued in Greece and that there was an active trade in such goods between Carthaginian ports and mainland Greece. Again as in other developed areas with which Carthage traded, there is little archaeological evidence suggesting such a connection, due to the invisibility of mainly perishable commodities (Rainey 2004, 207, n.94, see Ch. 4).

Written evidence in favour of Carthaginian import in the Black Sea are the commercial graffiti, found on Attic ware in a 4th century BC layer of Phanagoria, recently recognized by Jean-Paul Morel (2002, 332-333) as Punic, and a fragmentary inscription from the Istros, which evidences the presence of a Carthaginian grain trader in the end of the 3rd century BC in the polis, where he was honoured (see *infra*, p. 257).

As it was touched upon in the previous chapters, Carthaginian ships transported a number of perishable commodities: Carthage produced for instance finely embroidered and dyed cotton, linen, wool, and silk, as well as artistic and functional pottery, faience, incense, perfumes, food such as salted fish and fish sauce. Its artisans worked with glass, wood, alabaster, ivory, bronze, brass, lead, gold, silver, and precious stones to create a wide array of goods, including mirrors, highly admired furniture and cabinetry, beds, bedding, and pillows, jewellery, arms, implements and household

items (Scullard 1955; Lipinski 2004, 174ff; Bonnano 1990, 215; for the production and trade the textiles in the Greek world see Van Alfen 2002, 223-33). Carthaginian traders, like the Phoenicians, brokered either commodities of their own production or the manufactured and agricultural products of other peoples, which suggests that those traders who reached the Euxine might have also imported Greek, Egyptian and Etruscan commodities of high demand there (On Egyptian imports, Reger 2007; Литвиненко 1991; Крупнов and Пиотровский 1939 (for land routes); on local imitations of Egyptian production in the Euxine, Островерхов 1976, 86-7; on 3rd century Egyptian relations with the Pontic Kingdom, Трейстеп 1985. On Etruscan commodities in the Black Sea in the 4th-3rd century BC, Alexandrescu 1975, 71-2, Treister 1991a; Рыбаков 1984, 240; for the trade between Carthage and Etruria, Markoe 2000; Moscati 1992). Hence, in order to analyse the hypothesis of Carthaginian trade in the Black Sea, other Mediterranean imports in the Black Sea have to be also considered, i.e. the distribution patterns of ceramics, faience objects, jewellery,¹⁷ etc. (Ščeglov 2002) and their study should be analysed in the perspective of the traffic of goods between the Aegean and the Euxine, as international and regional exchange patterns existed in parallel of the extended grain trade that involved the zone in the 4th – 3rd century BC (Archibald 2013). In any case, the further study on this topic can render a new impact on our understanding for the traffic of goods in the eastern Mediterranean.

The main reasons for the establishment of the hypothesized long-distance trade route, direct or not, scholars have seen in the great demand for the glass pendants and beads in some local cultures around the Black Sea, such as Scythians, Maeotians, and the Trans-Caucasian tribes (Ščeglov 2002), as well as the enormous profit of the grain trade that attracted traders from all the Mediterranean (Сорокина 1977). The great demand for these luxury items is revealed by an inscription, found accidentally by tourists in 2013 in the ruins of the ancient Greek-barbarian settlement Chaika in Crimea, which bestows a glimpse into the functioning of the local market in the 4th-3rd

¹⁷ Гороховская and Циркин (1985) advanced the theory that some golden necklaces from 4th-3rd century BC, found in South Russia, belong to a Carthaginian production. These necklaces were found in Pantikapaion, Olbia, the Caucasus and Don region (Гороховская and Циркин 1985; Вахтина 1988; Lavrenova 1994). Indeed, some elements of their execution belong to a group, which, according to the study of Quillard on Carthaginian jewelry, is known otherwise only from Sardinia, Ibiza and Cyprus (Quillard 1979, 109).

century BC. The text lists names of buyers and luxury commodities, such as precious stones, destined for the wives and daughters of these men. The list was apparently scratched by a Greek trader on an ostrakon before departure, and provides unique evidence that long-distance traders fulfilled specific orders for their local clients.¹⁸ It has been suggested that the initial contact with Carthage was established through Athens, which, as seen above, had intense links to the Black Sea and very good relationship with Carthage as early as in the 5th century BC, and later developed into direct connections (Сорокина 1977, 115ff; Гороховская and Циркин 1985; Ščeglov 2002; Morel 2002, 333).

The supply in the zones of habitation of the local populations in the Euxine was effectuated through the big trade centres (e.g. Olbia, Chersonessos, Pantikapaion, Elizavetovskoe, Phanagoria), from where the beads and other perishable commodities were distributed among several territorially extended cultures, such as Scythian agricultural and pastoral populations, the Sindo-Maeotian group in West Caucasus, the populations in the Trans-Caucasus, the Getan milieu, reaching lands as distant as Middle Don, Kuban, and the Ural Mountains (Haevernick 1968; Ščeglov 2002; Копылов 2006). For the regular character of the imports of these artefacts testify particular structures, which functioned as permanent commercial points, named by the archaeologists “glass shops”. Such structure have been found until now in the Olbian agora (Островерхов 1988, 262-263), while Островерхов (1991, 175) supposes that more permanent or seasonal glass shops were established in the North – East - at Nikonion, Tyras, Istros or in the Scythian seasonal markets near the villages Orlovka on the Danube and Tiraspol on the Dniester (for similar “shops” in the Mediterranean, see e.g. Woolley 1938, 1-30). The most explicit evidence of a thriving glass shop although has been found at Elizavetovskoe, where a sudden fire in the second quarter of the 4th century BC destroyed the structure and the archaeological deposit is well preserved (Столба 2009, 124; Yakovenko 1987; Островерхов 1985, 92-105; 1991). The “shop” was located in the Complex 18 of the urban centre, in a one-room dugout (Житников and Марченко 1984) (рл. 82). There the archaeologists uncovered more than 100 glass beads and pendants, 10 cowry seashells (for the

¹⁸ The evidence is unpublished. For an interview with the leading archaeologist and a photo see <https://www.segodnya.ua/regions/krym/Sensacionnaya-nahodka-v-Krymu-prolila-svet-na-delovye-otnosheniya-grekov-i-varvarov-460241.html> (accessed 04.10.2017)

distribution of the cowry seashells in the Black Sea area, see Столба 2009, 113ff, with further references), 5 faience beads, and other glass artefacts (Копылов 2006) and jewellery (Вахтина 1988). The polychrome core-formed glass pendants were numerous (2 whole and 32 fragments) with dating to the first half of the 4th century BC (all of them group to the Seefried's type B). The type of the two integrally preserved pendants is B3, a group, dated by Seefried to the 5th century BC. Two relief pendants with double female face have been also found, one in Complex 18, another one within the settlement (Копылов 2006). Other three relief beads (without suspension loop) were found in the settlement, one in the neighbouring complex 16 (from the second half of the 4th c. BC) (pl. 81), where they were unearthed along with a whole Punic amphora (Копылов 2006, Житников and Марченко 1984, Копылов 2000) (pls. 7, 83). Further, glass objects were found in the necropolis of Elizavetovskoe. In kurgan no.7 from the first half of the 4th century BC, a glass oinochoe for aromatic oils was discovered, about which the publishers have drawn parallel to an oinochoe from the necropolis Puig des Molins (Ibiza) from the 6th century BC (Копылов 2006, 71). In the kurgan n.133 from the second half of the 4th century BC were uncovered five mask beads, which on the view of the publisher have been probably made in the same workshop (ibid.) and a relief pendant of double female head (id., 173; Житников and Марченко 1984).

5.7. Discussion

To sum up, the present chapter discusses the evidence, roughly related to the period between the end of the 5th century BC and the end of the 3rd century BC. This period opens with deep economic changes in the Black Sea, which lead to a great intensification of the international trade and a period of prosperity for the whole region. The process begins from the end of the 5th century BC, when a large-scale grain commerce between the Bosporan kingdom and Athens is gradually established to last over a century (Гайдукевич 1949; Блаватский 1954; Виноградов 1980; Шелов-Коведяев 1985; Bouzek 1989a; Васильев 1992; cf. also Ulitin 2013; Oller 2013). While the grain production of the Bosporan Kingdom reaches enormous annual amounts, its most important export channel becomes Athens, with the Black Sea supplying half of the overall grain import of the polis in the 4th century BC (Garnsey

1985; Bouzek 1989a; Кузнецов 2000; Reed 2003; Oliver 2007; Moreno 2007; Tsetschladze 2008; Bouzek 1989a, 257-259; Oliver 2007, 35ff). Naturally, the profitable trade network involved many Mediterranean centres. The broad demand for Bosporan grain is well illustrated by the funerary steles of the period. The necropolis of Pantikapaion, the capital and key emporium of the Bosporan kingdom, has preserved the names of traders, coming from various Pontic and Mediterranean poleis, in particular from Tion, Mantinea, Mytilene, Chios, Colophon, Cyprus, Syracuse, Syria, etc. (Kreuz 2012; Bekker-Nielsen 2003). The numismatic studies also provide evidence of regular and dynamic relations with all the Mediterranean. The vast international connections of the Bosporan kingdom trigger the penetration of eastern cults, such as the royal cult of Astarte, a female deity, whose name is a variation of Astarte. In effect, Phoenician traders are attested to participate in the vivid international exchange. These merchants seem to have played an essential role in the long-distance trade of the 4th-3rd century BC, acting as grand-scale investors, owners of vessels and providers of human resources, needed for realization of a trip (Pouilloux 1975; Baslez 1987, 279ff; Lipinski 2004, 169ff). Phoenician sea traders are attested in many Mediterranean centres, especially in Athens (Lipinski 2004, 169ff). The names of some of them are preserved in the epigraphic evidence and in the speeches of Demosthenes, written for court cases on frauds in the international sea trade (e.g. Theodoros the Phoenician, Heracleides from Salamis, Antipatros from Kition, Aristokrates from Cyprus and Eirene from Byzantium). Curiously, many of those seem to be Cypriot in origin.

The analysis of the written sources emphasizes some interesting details. Firstly, the individuals, involved in the Atheno-Bosporan trade are not only residents in Athens, but in many cases foreign investors. Among the latter often emerge citizens of Samos, Halicarnassus, Phaselis, Cyprus and other East Mediterranean centres. This seems to suggest that the trade connections between the Black Sea and the East Mediterranean were rather transformed than declined. Secondly, the commodities of import in the Black Sea are usually wine, boarded at a North Aegean centre, such as Thasos, Mende, Scione, and the Northern Sporades or else, while the export commodities are grain and other, in most part archaeologically invisible, goods, such as raw materials, metals, slaves etc. This means that the archaeological evidence for the trade is limited.

The most characteristic objects that give important clues on the links between the Levant and the Black Sea are the glass objects, whose great numbers and diversity in

the Black Sea during the studied period are remarkable. The chapter focuses on some types of core-formed **glass vessels**, which are related to the trade of perfumes and spices (Archibald 2007, 262) and especially on the diffusion of anthropomorphic beads and pendants, such as rod-formed glass pendants and beads, mask beads, and relief beads, which the scholarly community accepts to be of Phoenician origin. The study analyses in detail the typology of the latter, as well as their origin, distribution in the Mediterranean and the Black Sea, chronology of import, trade routes, and function in various cultures. The results of this analysis show that these objects appear in much larger quantities in the Black Sea than in the Greek mainland. The wide diversity of the bead types in the Euxine is also surprising (Seefried 1982, 163-4; Dan 2011a, 221, n. 65-68) because it parallels only the areas of Carthage, Cyprus, Egypt, Syria and Palestine. In the Black Sea, these artefacts are found in the Greek emporia, such as Olbia, Tyras, Chersonessos, Scythian Neapolis, Elizavetovskoe, and in large territories of the hinterland, such as the Scythian steppes, East Crimea, Thrace, Colchis and Trans-Caucasus. Their distributive pattern thereby seems to imply penetration by sea and an extensive barbarian demand (Haevernick 1977, 168; Островерхов 1985; 1988; Алексеева 1978, 73; Puklina 2010; Копылов 2006, 71; Масленников 1995a; Ščeglov 2002; Stern and Schlick-Nolte 1994; Rustoiu 2008; Hermary 2010; Высотская 1994; Артамонов 1968, 77; Галанина 1980, 54-55; Ščeglov 2002; Leskov *et al.* 1990) (pls.6:56-62).

The data, provided by the anthropomorphic glass beads and pendants thus implies that the appearance of these objects in the Euxine should not be considered accidental or insignificant; on the contrary, the particular demand for this commodity in the Pontic market might have been an essential factor in the establishment of a regular trans-Mediterranean network. This deduction triggers a wide discussion on the **function** that these objects might have had in the local societies, related to the question whether these introduced trans-cultural symbolisms or adopted a new meaning for the Black Sea societies. The issue might be resolved by studying their places of discovery. Around the Black Sea, beads and pendants are found as single votives in the burials of people from different social ranks, in both Greek and various barbarian cultures, such as Scythian, Maeotian, Celtic, and Getan. They appear predominantly in child graves, but frequently in female ones, and even in royal tombs (Столба 2009, 122ff). Scholars, therefore, suppose that these had a chthonic function, whose features may have varied in the diverse cultures. The scholars have also

associated the beads with protective (apotropaic) functions (amulets against the evil eye), whose inter-ethnic value would explain their popularity in very dissimilar cultures, such as the Phoenician/Punic and the Scythian (further discussion in Ščeglov, 220, n. 31-40; Dan 2011a, 219 ff; Столба 2009, 113-4, n. 24).

For what concerns the chronology of the imports of glass beads and pendants in the Euxine, scholars estimate the start of the imports in the 6th century BC, according to the dating of the most archaic ones. The regularization of their import, however, occurs only in the 4th century BC and the import ceases quite abruptly around ca. 270 BC. Ščeglov (2002) has distinguished three iconographic and chronological sub-types of beads with masks in the Euxine (A, B, and C). The first type, according to his study, was largely imported from the first half of the 4th century BC until the third quarter of the 4th century BC; the second type from the last third of the 4th to the first quarter of the 3rd century BC. The third type, known only from the first half of the 3rd century BC, was found only in the western colonies Istros, Kallatis and Mesambria (Ščeglov 2002, 219). It seems that after the ceasing of the exchange pattern with the Bosphorus in the end of the 4th century BC, the mask beads and pendants spread in the zone of Chersonesos and Neapolis, Tyras and the Western Black Sea, and were imported there in decreased quantities until the last third of the 3rd century BC (Ščeglov 2002, Копылов 2006). The reasons for the massive reduction of the imports after 270 BC is ambiguous, and Ščeglov has related it with changes in trade routes, caused by the contemporary crisis in the Black Sea market, triggered by the profound political and demographic changes in the northern Black Sea (Ščeglov 2002, 220).

The trade routes for the import of the anthropomorphic glass beads and pendants trigger much debate. It is currently accepted, at least for the 4th-3rd century BC that these products were Carthaginian rather than Phoenician. Scholars, therefore, have proposed Rhodes, Egypt, Etruria, Macedonia, the Levantine coast as intermediary centres for the import of the anthropomorphic glass beads and pendants in the Black Sea (Boucher 1973, 850-965, Shortland and Shroeder 2008, Archibald 2007, 265-6, Dan 2011a, 223). Certainly, beads might have been imported contemporarily by a number of centres of production or distribution, as these were carried as complementary merchandise, and the establishment of glass workshops in the local emporia is also probable (Островерхов 1985, 99; Копылов 2006; Dan 2011a, 223). According to Seefried (1982), the author of the most detailed study on these beads,

these were most likely carried by Phoenician or Egyptian traders. However, the fact that the types of beads, found in Egypt or Phoenicia, are less diversified than the ones, found in Carthage and the present-day southern Russia, combined with the discovery of some Punic pottery in the Black Sea and Black Sea pottery in Carthage, have resulted in a more recent view that considers more probable a trade with Carthage (Ščeglov 2002; Гороховская and Циркин 1985; Treister 1993; Копылов 2006).

Several independently conducted studies put forward the idea that a trade route from Carthage to the North Aegean or the Euxine functioned in the 4th century BC. In effect, there is strong evidence that such a trade route was open in the studied period and the exchange seems to have been most intense in the period between the end of 4th – mid 3rd century BC. The study of the anthropomorphic glass beads for instance shows very interesting results. The fact that these are significantly concentrated in the Black Sea, in a much more large quantities than other Mediterranean zones, except Carthage and Phoenicia, and the rich variety of types, found in the Euxine, as well as the creation of “glass shops” in a range of emporia in the Black Sea, combined with the distribution of the C3 Seefried type, which in the Eastern Mediterranean is practically limited to the Black Sea zone, show not only that the Black Sea was an important market for these luxury objects, but also evidence a possibility that these were carried directly from the production centre (Seefried 1982, 43). Other evidence corroborates this view. Punic coins appear in the North parts of the Black Sea in the end of the 5th century BC, some of them of Sicilian mint, and also Phoenician, Numidian and Maltese coins from the 5th to the 1st century BC are found in the North and West Black Sea (Kovalenko and Manfredi 2011; Zhuravlev 2012, 30; Bouzek 2015, 161). Studies of iconographic similarities of ivory and bronze objects seem to suggest a commercial-cultural exchange between Carthage and the Black Sea, which passed through South Italian centres, such as Tarentum (Picard 1979, 108; Boltrik *et al.* 2011). Important data about this trade provide the trade amphorae and the epigraphic inscriptions. In this period Punic amphorae appear in the distant Black Sea emporium Elizavetovskoe, whose main market of trade was related to the adjacent nomad tribes (Житников and Марченко 1984; Копылов 2006) (pl. 7). On the other hand, North Aegean vessels appear among the imported ware in Carthage (Bechtold 2010, 38ff). The El Sec shipwreck from the mid-4th century, found near Mallorca (Rouillard and Villanueva-Puig 1987, 15-146) carried Attic pottery, North Aegean and Black Sea amphorae (Cerdeja 1987, 68; Treister 1993; see *supra*, p. 177). On the Porticello shipwreck near

Sicily, were found amphorae from the Aegean, the Euxine, the West Mediterranean and Carthage (Treister 1991a, 233-238). The remains of a ship, found near Ikos, contained 30 bowls of most likely South Italian production, while the links between the island in the Black Sea intensify in the 4th century BC (Hadjidaki 1996, 583, cat. no. 15; Handberg and Petersen 2006, 5).

In the present stage of research it seems therefore difficult to discard the possibility of a direct trade. Dan's concept (2011,214) that « *la distance entre les centres de production et de distribution se traduisait sans doute dans la valeur économique et sociale de ces produits* » is applicable here very well, given the high demand and serious potential profit of this exchange.

The reconstruction of the trade routes of penetration of Carthaginian merchandise in the Black Sea is based on the study of the archaeological and epigraphic evidence. Diplomatic relationships between Athens and Carthage are attested in the written sources from the late 5th century BC (Thuc. 6.88.6, Eurip. *Phoen.* 202-214, 2 80-288, 964) and Carthage seems to have become one of the regular suppliers in Athens, known for its characteristic commodities (Harris 2002). Carthaginian individuals are attested epigraphically from the 3rd century BC onwards in the Black Sea, Athens, Astipalaia, Delos, Chios, Cos, Rhodes, and Egypt (Lipinski 2004, 175). Further, numerous Punic amphorae from the 5th century BC, used to carry salted fish are found in Corinth, suggesting a steady commercial relationship (Maniatis *et al.* 1984). A Carthaginian individual is mentioned on a Theban inscription from the mid-4th century BC (Fossey 2014, 3; Ferrario 2014, 266ff; Tejada 2015, 53, n.3). On the other hand, archaeological evidence suggests that Rhodes entered into the trade with the Black Sea in the late 4th century BC, gradually replacing the northern Aegean centres and remained very important trade partner of the Euxine until the end of the 2nd century BC, when a general decline in the Black Sea trade occurred (Данов 1938, 1947; Зеест 1960; Бадальянц 1970; Лазаров 1977; Беликов 2003, 36-7).

In sum, evidence is consistent with the functioning of a 5th -4th century BC trans-Mediterranean trade route(s), one of which passed through the southern Italian / Sicilian coast, a mainland Greek centre such as Corinth, Athens or Thebes, and proceeded in the North Aegean (Seefried 1982, 44; Сорокина 1977). Its opening was in all probability related to the switch in the trade routes, when the Athens becomes the primary trade partner in the place of the Ionian colonies during the 5th century BC.

A parallel route through Alexandria and Rhodes is attested in the 3rd century BC, when Rhodian and Egyptian imports in the Euxine intensified (Picard 1983, 726; Morel 1995; Lungu 2014, 27ff).

The trade network of the mask beads and pendants probably ended in the second half of the 3rd century BC due to the economic crisis in the northern Black Sea economy, followed by an abrupt decrease of demand. Yet the connections between the Euxine, the Levant and Carthage continued in the Hellenistic period, as shown by the Sinopean amphorae, found in the Levant and in the West Mediterranean in the 3rd and the beginning of the 2nd century BC. Sinopean amphorae production started in the first quarter of the 4th century (ca. 378 BC). Sinope exported various products and raw materials such as metals (iron, steel silver, copper, lead, mercury), pigments, timber, flax, wool and slaves, as well as foods such as olive oil, cereals, fresh vegetables, nuts, and fish (Doonan 2004, 123; 2009) and its trade in amphorae was in all likelihood related to the salted fish production for which the polis was renown (Doonan 2003; de Boer 2013). The most ancient amphorae of Sinope are distributed on the northern and western Black Sea coast, while their distribution in the Mediterranean occurs between 350 and 185 BC, the export ceasing only after the capture of Sinope by Pharnaces I of Pontus in ca. 183 BC (Conovici 1998, 169–80; Сапрыкин 2002, 93–5; de Boer 2007, 8). The study of their distribution and chronology is of significant importance for the ancient long-distance trade research, as it provides a unique opportunity to trace an export route from the Black Sea and thus detect otherwise invisible trading connections (Garlan 2007; Braund *et al.* 2007a). It is worthy to mention, however, that so far only stamped amphorae of Sinope have been reported from the Mediterranean and it is very likely for a large part of the Sinopean production, exported in the Mediterranean, to remain invisible for the scholars. Fragments of Sinopean stamped amphorae are found mainly at Athens and Rhodes (56% and 14%, according to the calculations of Garlan 2007), but attested also in numerous centres across the Mediterranean, such as Pella, Thasos, Corinth, Pergamum, Samos, Miletus, Delos, Cos, Cnidos, Crete, Paphos and Alexandria (Fig. 65). In the Levant these are reported from Beirut, Maresha, Samaria, Akko-Ptolemais, Bekka valley and Jabbul plain, in a period from the beginning of the 3rd century BC to the first decades of the 2nd century BC (Fedoseev 1999, 32-42; Barker 2004, 77, tab. 1; Nicolaou 2005, 258-159, nos. 764-766; de Boer 2008; Lund 2007; Finkelstein - personal communication). Evidence for a land route connecting the South coast of the Black Sea and the Levant provide the

Heracleian and Chersonnesian amphorae at Gordion dated in the 4th-3rd centuries BC. This inland trade centre was an “unusually active participant in long-distance trade” having connections with the Hellespont, the Black Sea, Cilicia and Phoenicia (Lawall 2010).

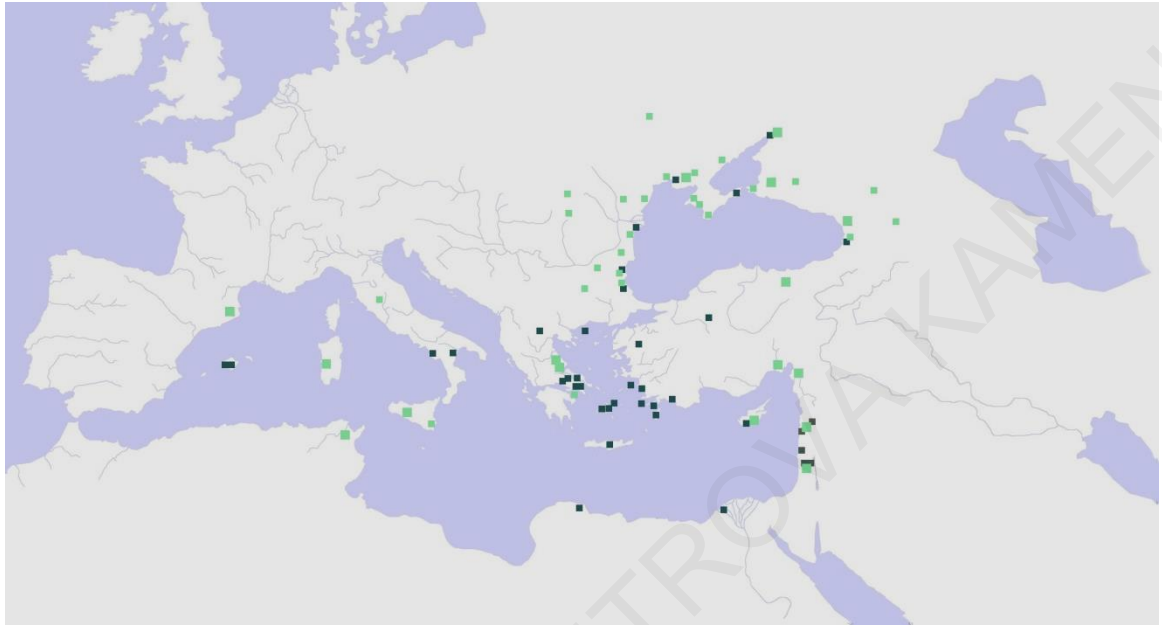


Fig. 75. Import (chartreuse) and export (emerald) of the Black Sea in the Mediterranean in the 4th-3rd century BC. Distribution map based on, respectively, relief beads/pendants and Black Sea amphorae distribution.

Black Sea amphorae are found also in the western Mediterranean, e.g. in Apollonia in Cyrenaica, Carthage and Tarentum. Others have been discovered on the El Sec shipwreck archaeological site in the bay of Palma de Mallorca (Kramer 2002, 84). Their distribution seems coherent with the Punic trade routes (El Sec, Tunis, Malta, South Italy, Cyrenaica, Crete, Cyprus, Lebanon, Israel, and Palestine; Garlan 2007, 147).

Thus, after the activation of the market due to the grain trade, secondary patterns of trade seemingly developed between the Euxine and the Mediterranean. The international traffic in the late 5th – 4th century BC passed from the Euxine to the North Aegean and Athens, while from the late 4th - early 3rd century BC, also to Rhodes, Delos, the Levant and Egypt. From these centres, the trade was extended also the West Mediterranean, through North Africa or South Italy, to Carthage. A land routes functioning at least from the early 4th century BC, connects the South Black Sea region to Gordion, East Greece, Cilicia and the Levant.

CHAPTER 6

GRECO-PHOENICIAN AND PUNIC NETWORKS AND THE EUXINE (2ND – 1ST CENTURY BC)

6.1. Pottery

6.1.1. Semi fine tapered amphoriskoi and Palestinian cups

A group of late Hellenistic semi fine tapered amphoriskoi, 17,5 to 24,5 cm high, with volume 150 ml to 200 ml, are found at several sites in the Western and Northern Black Sea. Initially attributed to the local production, these have been recently studied by Lungu (2007, for the West Pontic zone) and Papuci-Władyka (2012, for the North Pontic zone). Both works concluded that these objects are of Phoenician production. The amphoriskoi are quite easily recognizable, although individual vessels differentiate in details. Vasilica Lungu (2007) has attributed these vessels to the Type 2 of the Tel Anafa late Hellenistic semi fine tapered amphoriskoi with pointed toe, which were produced in a limited period from the second half of the 2nd century BC to the 1st century BC, and used in the trade of oils and perfumes. These jars are known mainly from the late Hellenistic levels of Levantine centres such as Sidon (28 specimens), Tel Kedesh (30 specimens), Tel Anafa - where there are especially frequent, as 177 specimens have been found until now, Dor, Beirut, Maresha (26), Shiqmona (27), Akko (22), Ashdod (23), Jerusalem (25), Polis, Amathous and Paphos, where 31 specimens were found in the House of Dionysus in a context from 150 to 100 BC; such jars have been also discovered in minor quantities or as isolated finds on Tarsus (3), Delos, Aegina, Athens (14), Eretria (2), Olympia, Ambracia, Delos, Pithekoussai (1), Pompeii (1), Abdera (3), Pella (2), Babylon and Mesopotamia etc. (Lungu 2007, 113-4; Papuci-Władyka 2012, 568; Ackermann 2017, 72). The publisher of the Tel Anafa finds A. Berlin (1997, 54–57) has referred to them as „*the final and apparently most successful vessel [...] to be associated with the Phoenician unguent industry*” because of their considerable popularity not only in the Levant, Syria and Mesopotamia, but also in the eastern part of the Mediterranean.

In the Black Sea region, these vessels were found in limited quantities at Tomis, Kallatis, Făgărașul Nou (initially attributed to local production), Bizone, Apollonia (Иванов 1963, 257–258, no. 748a, pl.129), Pantikaraion (Масленников 2003, 81, 85, fig. 51), Olbia, Tauric Chersonessos and their zones of redistribution (Lungu 2007, 112-113)

(Fig. 76; pls. 9- 12). The nine examples from Tomis region have displayed very common characteristics, which suggest a close origin, and were dated around the middle of the 2nd century BC (ibid.) (pl. 11). In Olbia, three specimens were discovered in graves (Парович-Пешикан 1974, 87, fig. 81:1-3 and 108) and one has been more recently found in the collection of the Jagiellonian University in Krakow (Papuci-Władyka 2012). In the Northeast, three specimens from Chersonessos and two from the Pantikapaion chora were found in settlement contexts (Lungu 2007, 112). Papuci-Władyka (2012) noted that their distribution in the Black Sea seems rather random, but progressive.

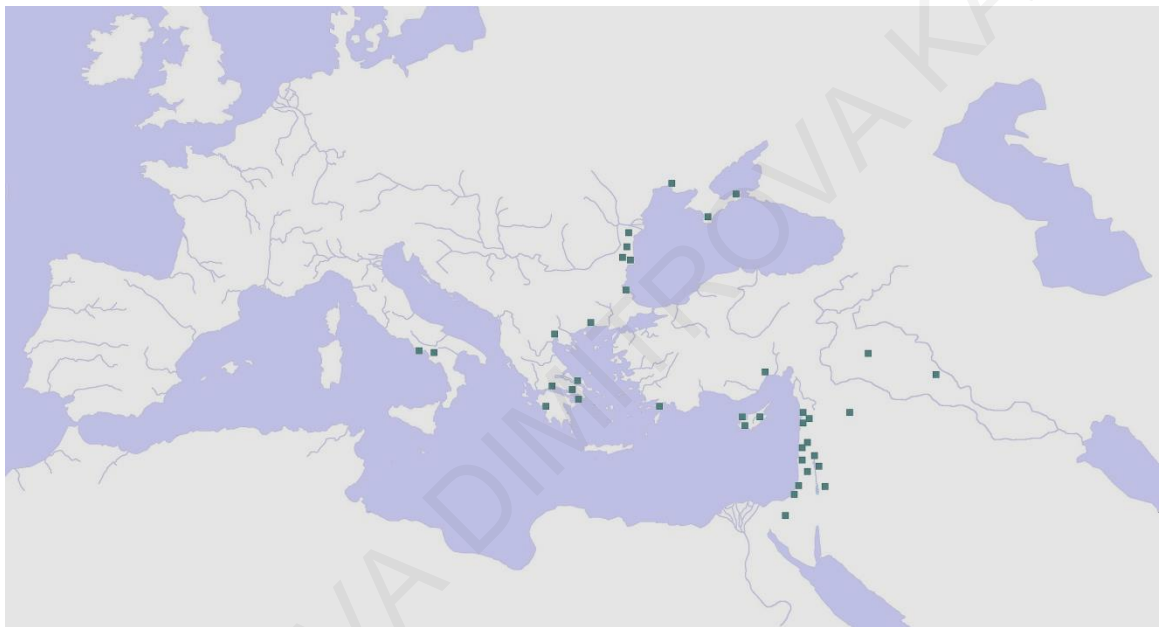


Fig. 76. Distribution of semi fine tapered amphoriskoi in the Mediterranean.

The vessels in question were used for transporting and storing various kinds of oils and perfumes. In the Euxine these vases are found more frequently as funerary luxury gifts, substituting the more common lekythoi or unguentaria of the Greek tradition, but also in settlements. Their rather small quantity seems to suggest a limited import. The highest concentration of these vessels has been documented in the necropolis of Tomis, where they have been found in six graves, which form around 8% from the total amount of burials in the whole necropolis consisting of 75 graves (id., 115). Their concentration and funeral context of their usage in Tomis, according to Lungu (2007, 112), may indicate that their import was instrumental to the needs of a small Levantine community in the city; nevertheless, the evidence is too scanty to validate such a hypothesis. Interesting to note, however, that the cult of Theos Hypsistos, attested by inscriptions from the 2nd century BC onwards at the polis, according to some scholars

suggests the presence of settled Jewish individuals (Pippidi 1988, 204-205; further on the settlement of Jews in other Euxine centres, see *infra*).

A type of Hellenistic vessel has also attracted scholarly attention on the links between the Levant and the Black Sea. These are the so called Palestinian cups, a subgroup of the Hellenistic colour-coated ware A, which are mainly diffused in the Syro-Palestinian coast, Cyprus and Cilicia, while outside this region these are found in the Black Sea, in particular in the zone around Pantikapaion, and in coastal Aegean centres. Despite the name of this form, researchers have estimated that it was produced in various Eastern Mediterranean centres, such as Rhodes, Cyprus, Alexandria, Beirut, Athens, and is probably Greek by origin (Ackermann 2017, 71-2).

6.1.2. Punic and Italian amphorae

Fragments of Punic and other West Mediterranean amphorae have been found in the late Hellenistic layers of the Lower Olbia quarters (Lawall *et al.* 2010, 397-8, pls 302-3) (Fig. 31: 20). This sector of Olbia is among the best-excavated sites on the Black Sea and besides, it represents the first case in the entire zone of a complete publication of “an entire living quarter with full documentation of the various types of archaeological sources” (Lejpunskaja *et al.* 2010).

The Punic and Italian amphorae were recognized for the first time in 1999 by N. Lejpunskaya in a particularly valuable work that opened up a possibility to revise the excavated material and as a consequence, some concepts of Olbia’s trade connections in the Late Hellenistic period (Лейпунська 1999b, 64-67). The Punic types now known from Lower Olbia are Maña C1 and C2, which belong to two distinguishable fabric groups, generally dated to the first half of the 2nd century BC (Maña 1951; Lawall *et al.* 2010; Lawall *et al.* 2014, 33) (pls. 13-15). Contemporary Italic amphorae are also present at the site (Лейпунська 1999, 234-5) (pls. 16-18). The Italic ones consist of two types: the Late Greco-Italic/early Dressel I jar, likely Campanian, and the Adriatic Lamboglia 2. The first one belongs to the period 200-130 BC; the second one is dated to the first half of the 2nd century BC, although it should be noted that in the Eastern Mediterranean the type is most commonly found in the contexts from the very late 2nd or early 1st century BC (Lejpunskaja *et al.* 2010, 404-405; Bouzek 1990, 127, fig. 38).

Amphorae of Spanish production are also identified by Лейпунська (1999, 234-5) (Fig. 77).

N°	Centres	VI ^e	V ^e	IV ^e	III ^e	II ^e	I ^{er}
1	Chios	■	■	■			
2	Samos	■	■	■			
3	Lesbos	■	■	■			
4	Clazomènes	■	■	■			
5	Corinthe	■	■	■			
6	Égine	■	■	■			
7	Ionie	■	■	■			
8	Grèce du Nord	■	■	■			
9	Mendè	■	■	■			
10	Thasos	■	■	■	■		
11	Péparèthos	■	■	■	■		
12	Akanthos	■	■	■	■		
13	Amphipolis	■	■	■	■		
14	Héraclée	■	■	■	■		
15	Sinope	■	■	■	■	■	
16	Amatris	■	■	■	■	■	
17	Colchide	■	■	■	■	■	■
18	Cheronèse	■	■	■	■	■	
19	Bizonè (?)	■	■	■	■	■	
20	Rhodes	■	■	■	■	■	■
21	Cos	■	■	■	■	■	■
22	Cnide	■	■	■	■	■	■
23	Paros	■	■	■	■	■	
24	Carthage (?)	■	■	■	■	■	
25	Espagne	■	■	■	■	■	
26	Italie	■	■	■	■	■	■

Fig. 77. The main trade amphorae, found in Olbia, and their chronology (6th- 1st century BC). After Лейпунська 1999, 237

The West Mediterranean imports were, in all probability, part of the same networks which imported the Punic merchandise. The closest parallel of the Olbian Punic amphorae are reported from Pizzica Pantanello, where these were found along with Greco-Italic ware. In Olbia, the West Mediterranean types appear in the first half of the 2nd century BC and mix with the usual ware from Pergamon, Chersonessos, Sinope, Heracleia Pontica, Rhodes, Cnidos, Cos, Halicarnassus and Paros (for the imports in Olbia in the period, Лейпунська 1999; Lawall 2014; for re-evaluation of the distribution centres of Olbia and a discussion of the erroneous attribution of West Mediterranean ware as Pergamenian, see Poblome *et. al.* 2001; Handberg and Petersen 2006). Curiously, in the same period appear also imports from the North Peloponnesus,

suggesting that the trade route could have passed through this zone. Because of this new trade network, the 2nd century (200-130 BC) is defined as Period 5 of Lower Olbia. The trade route seems to come to an end in the 140-130s, when the sector was temporarily abandoned due to some catastrophic event, perhaps a successful siege (Guldager Bilde 2010, 118; Lawall *et al.* 2014)

6.1.3. Campana A Ware

Along with the Italian trade amphorae, **Campana A ware** (bowls, plates, and jugs) also occurred in Istros and Olbia in the mid-2nd century BC (pls. 19-21). Produced in the area around the Naples bay, this pottery group was amongst the finest tableware, distributed throughout the Mediterranean in the 2nd century BC (Morel 1986).

In the Pontic area, the attention on the Campana A ware was posed by Lungu in 2009, in a contribution, focused on specimens from Istros. This study is followed by the contribution of Handberg and Petersen in 2010, incorporated in the valuable project aimed to publish all finds from the archaeological excavation at Lower Olbia until 2002. The authors claim that the publication of the Lower Olbia's specimens constitutes "*the largest published collection to date*" from the Euxine, adding that this group "*has largely been overlooked as a substantial group at Black Sea sites*" (Handberg and Petersen 2010, 248). This opinion corroborates with the fact that in some cases these finds have been erroneously identified and published (Lungu 2007; 2009, 25; Poblome *et al.* 2001; Handberg and Petersen 2006), which evidences the need for a more refined approach to the consumption and trade patterns of imported Hellenistic pottery in the Black Sea region (Handberg and Petersen 2006). These authors amplified their analysis in a second publication, which focuses on the distribution of Campana A ware in the Euxine and the Levant (Handberg *et al.* 2013).

According to these studies, the chronological range of the imports and the contextual evidence show that import of Campana A to the Black Sea area was initially limited and intensified only towards the middle of the century before ceasing by its end (Handberg *et al.* 2013). The Pontic sites, where Campana A ware has been reported, are Lower Olbia and Kozyrka 2 in its chora, Istros and its close settlements Aegyssus (Tulcea), Sarichioi-Sărata, Satu Nou, and Albești, as well as the Crimean Chersonesos, Kalos Limen, Scythian Neapolis (in religious context), Bol'shoj Kastel, Nymphaion, Chaika,

Myrmekion. In all these sites they are found in minor quantities - larger accumulation of finds is attested in Lower Olbia and Istros (respectively 13 and 10 specimens; Lungu 2014, 24; Handberg and Petersen 2006, 3; 2010, 248-249, pls. 98-152; see also n. 460 for relevant bibliography). Their dating has been determined to the first half and the beginning of the 3rd quarter of the 2nd century BC (Lungu 2009; 2014, 25; Handberg *et al.* 2013, 60). Their limited number corresponds to the discrete quantities found in the centres of the Aegean, the Eastern Mediterranean, the Levant and Egypt, explained by the scholars to their role as fill in the main cargo of the ships (e.g. Lungu 2014; Gill 1988; Morel 1986; Boardman 1980).

Many of the vessels were decorated with a leaf motive, dated by Handberg *et al.* (2013) to the third quarter of the 2nd century BC. Four of the Campanian ware fragments in Lower Olbia are stamped with characteristic tulip-shaped motives “Bowls and plates with this stamp are probably products of a Sardinian workshop, since the motive is particularly common on this island and also found in samples from Punta Scaletta shipwreck off the coast of Toscana” (Handberg and Petersen 2010, 249). Sardinian and Campanian pottery could have been among the commodities, traded by Carthaginian traders, as the commercial links between Carthage and Campania were growing important after the first Punic war in the end of the 3rd century BC until 146 BC (Bechtold 2010, 67).



Fig. 78. Campana A jug from Lower Olbia. After Handberg *et al.* 2013, 61, fig.5

6.2. Glass and faience objects

For what concerns the glass production, round the middle of the 2nd century BC or shortly thereafter, the art of core-forming experienced a vigorous revival. In this period, styles, shapes, and techniques seem relatively homogenous, suggesting that the workshops of Mediterranean Group III (mid-2nd century BC to first decade of 1st century AD) were located in proximity to each other. Suggested centers of production

are Cyprus and Rhodes (Weinberg and Stern 2009, 20). Two forms dominate: alabastra and amphoriskoi and most shapes were radically new (id., 21). Among the few types of the **glass amphoriskoi** whose characteristic features allow an iconographic study (see discussion supra, p.199), there is a type of amphoriskos dated in the 2nd -1st century BC with a particular form, which imitated wine amphorae. It is largely concentrated in Syria and Cyprus and therefore probably had been produced in this zone; in minor quantities this type have been found in the Aegean and North-East Black Sea and Crimea, and single finds are documented in North Africa, Italy and Spain (Harden 1981, 129ff, groups B-iii, B-iv, B-v.; on the finding spots on the Black Sea, Колесниченко 2018, 106; Fossing 1940, 120, n. 1,2; on the possible Cypriot origin McClellan 1984, 326-7; cf. Cosyns and Nys 2010, 242 for the question of Cypriot glass production: although no glass workshop has yet been detected on the island, the authors argue convincingly in favour of glass production in Amathous in the late 2nd and/or 1st century BC).

6.3. Numismatic evidence

In 2003, in the South-East chora of Phanagoria (Solenoj 3 settlement), a hoard of more than 15 000 bronze coins was found, dating from the 4th-1st century BC, and closed around 88/87 BC. It includes mainly local pieces, but also bronze coins, some previously unrecorded, of Athens, Eretria, Amisos, Sinope, Alexandria Troas, Chios, Mytilene, Rhodes, Chalcedon (?), (Prusias I Cholus) and Tyre (Seleucus IV Philopator) (Абрамзон 2018, 6). These coins, so far unattested in the Euxine, are the smallest denominations of the issuing states – a type that, according to specialists, served for local use and rarely circulated much beyond the boundaries of the issuing state (Jones 1963, 313–24). This suggests that the coins at Solenoj-3 were most likely collected by a local trader who undertook a voyage in the Eastern Mediterranean around 100 BC. The supposed trade route was the Southern Black Sea, the Ionian coast, Delos and Tyre (Абрамзон 2018, 8-10; cf. the reconstructions of a voyage on the basis of numismatic finds in Sheridan 1971, 1127–1133; Gitler and Kahanov 2002, 259–268). The fact that the hoard is found in the rural zone of the Taman peninsula on the other hand demonstrates that the voyage could be related with the local grain production - wheat, barley, millet, beans - largely exported from this zone (on Bosporan traders, attested

in the Hellenistic period at Athens, Chios, Rhodes, Delos, Egypt, see for instance Гайдукевич 1949, 198; Кошеленко *et al.* 2010, 282–283; Dana 2011). Other isolated numismatic finds from Crimea, such as a copper coin from Judea, dated from the 103–37 BC and a hemichalcus of Arados might suggest even more Southern trade destinations (Абрамзон 2018, 16; here could be worthy of mention the iconographic similarities between late Hellenistic Bosphoran multi-nozzled lamps, found at the sanctuary of Beregovoj-4 of Pantikapaion and recent finds of multi-nozzled lamps from Petra, dated to the same period (Zhuravlev 2012, 30).

6.4. Reconstructing exchange routes

The presented evidence suggests a certain intensification of the trade routes from the Euxine to Asia Minor and the Levant. This phenomenon overlaps with a revival of the trade between the Levant and Western Asia Minor, with the trade routes extended to the Aegean. The evidence from the Levant for instance shows an increase in trade with Rhodes and the cities of western Asia Minor in the second half of the second century BC; noteworthy among others the amphora stamps found at Gezer (Rhodes, Thasos, Chios, Paphos, Cnidos), Akko (Thasos, Sinope, Chios, Cos, Cnidus, Rhodes, Paros, Kourion, Tyre), Samaria (Thasos, Sinope, Chios, Cos, Cnidus, Rhodes, Kourion, Paros) and Maresha (Thasos, Sinope, Chios, Cos, Cnidus, Rhodes, and Pamphylia) (Gitler and Kahanov 2008, 394; Finkielsztejn 2001 for detailed bibliography).

In the 2nd century BC, the Olbian import pattern resembles that of other Pontic sites: a Rhodian predominance, combined with activity of other south-eastern Aegean producers, especially those from Cos and Cnidos, formed a customary trading phenomenon documented at numerous sites in the Aegean and Euxine, which shows that Olbia was part of a large international network (on the Pontic trade in this period see e.g. Bouzek 1990; Зеец 1960; the contributions on the Pontic trade in Faudot *et al.* 2002; Gabrielsen and Lund 2007; Tzochev *et al.* 2011; and those regarding the amphorae deposits and trade of various poleis in Grammenos and Petropoulos 2003; 2007; on the Olbian economy see more in detail the contributions in Lejpunskaja *et al.* 2010; see further Беликов 2003 for the large Rhodian imports in the Euxine before the end of the 1st century BC, fundamental part of which was intermediary; on the Cnidian, Ефремов 1992). The presence of imports from Italy and the Punic North

Africa, although, seems a result of different connection patterns. Various hypotheses have been advanced on the question who brought the Campana A to the Euxine. Handberg seem to accept as more probable the non-commercial distribution patterns such as personal items of travellers, exotic possessions of the elite or gifts (Handberg *et al.* 2013, 61-7), Lungu on the other hand connects their presence to the contemporary appearance of Punic and Campana amphorae in the same sites and admits the possibility that they were brought in the ships of Italian or Punic traders (Lungu 2014). Furthermore, the West Mediterranean imports in the Euxine are likely to have been due to inter-regional links that profited the intermediate role of centres with good connections with the West (Papuci-Władyka 2012). The obvious solutions are the islands of Rhodes or Delos; in effect, the closest match for the range of the Black Sea Campana A types from the East Mediterranean is present at Delos in significant quantities (Lungu 2014, 27; Handberg and Petersen 2006, 2010, Handberg *et al.* 2013; cf. Morel 1986, 487, who advances the notion that the island had a role in supplying ports in the eastern Mediterranean with Campana A pottery). With the change in its status, in the middle of the 2nd century BC the island became a commercial hub between Italy, the Aegean and the eastern Mediterranean, with substantial communities of Greek, Italic and Phoenician merchants (Poblome *et al.* 2001; on the high number of Phoenician traders in Delos in the 2nd century BC, see e.g. Baslez 1987, 275-276, 281, n. 93; for Carthaginians in Delos, Dridi 2010; Baslez 2000; for Italians in Delos e.g. Tang 2005, 14ff; Bresson 2002). On the other hand, its links to the Euxine are evidenced either archaeologically either in the written testimonies (for the links of Delos with the Black sea e.g. Reger 2007, 278-9; Picard 1983; Беликов 2003; Бадальянц 1970, 1999; for the slave export from the Black Sea, e.g. Гольденберг 1953; Рыбаков 1984, 174ff; Garlan 1988; Braund and Tsatskheladze 1989; Avram 2007a).

Interestingly, the route from Delos to the Euxine passes through the Asian Minor coast, but surprisingly, the Campana A is absent from major ports such as Ilion, Pergamon, Ephesus, Miletus and Halicarnassus (Handberg *et al.* 2013, 67). In addition, a type of Campanian pottery, reported from Olbia and Istros (plate, decorated with a large rosette), recently analysed by Lungu (2014, 27), shows typological and stylistic similarities to specimens from Carthage and Lattes (Morel 1981; Py 1990), which are rarely attested in the West and are absent from Delos, East Anatolia or the Levantine coast. This type is among the most ancient Campanian wares from the Black Sea, dated

in the beginning of the 2nd century BC (ibid), which correspond chronologically to the Punic amphorae identified at Olbia and the written evidence for the presence of a Punic trader in Istros (infra), thus suggesting the existence of alternative networks and even direct import to the Eastern Mediterranean from Carthage (Lungu 2014, 27).

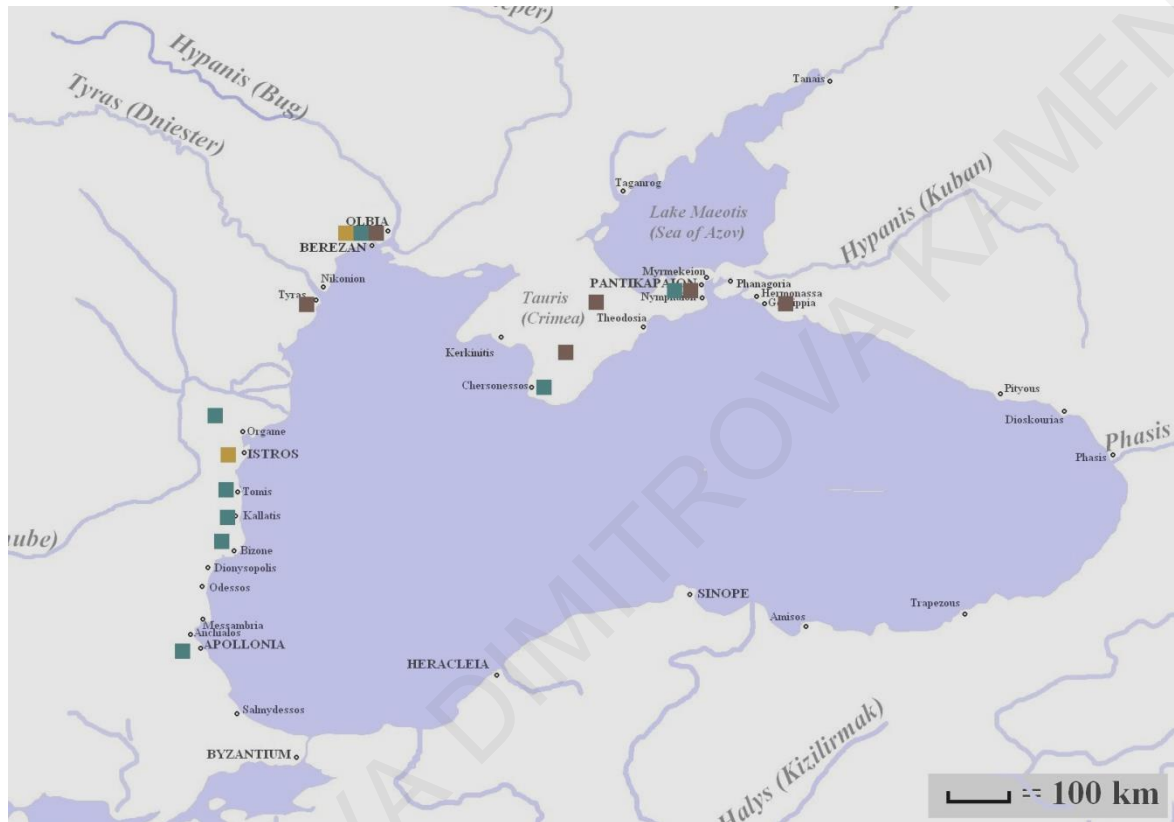


Fig. 79. Distribution of semi-fine tapered amphoriskoi (emerald), glass amphoriskoi (auburn); Punic goods (amber) in the Black Sea in the 2nd- first half of the 1st century BC.

The appearance of the discussed West Mediterranean vessels from the Black Sea coincides with a period of increased revival of the commercial relations between the Eastern and Western Mediterranean (Zalesky 1983), evidenced by the increased number of Italic products, especially from the Latium-Campania and Adriatic regions, brought into the Aegean, and the influx of Italic people in the Aegean in the second half of the 2nd century BC (Pasqual Berlanga and González Cesteros 2018, 168). The period between the end of the Second (201 BC) to the end of the Third (146 BC) Punic War was flourishing also for the Carthaginian international trade, especially regarding the export of the food production of Tunis-Carthage and Ibiza areas (Hoyos 2015; Ruscu 2002, 226; Pasqual Berlanga and González Cesteros 2018, 168; Bechtold 2007; 2010; Morel 1995; Tsirkin 1987; on the links between the Carthaginian commercial activity

and that of Ibiza, Ramón 2008). Carthaginian imports in the East Mediterranean are testified by the written sources (Livy 36.3.1 speaks of grain supplies for the Roman army in Greece) and archaeologically visible and in the scarce amount of amphorae attested in Athens, Corinth, Ephesus (Lawall 2006; Bezecky 2013) and Pompeiopolis in Cilicia (Ferrazzoli 2010).

In the same period, around 200 BC, an honouring decree has documented the presence of a Carthaginian trader in Istros (IScM I 20, cf. the comments in e.g. Avram 2007b, Dridi 2010; for a review of the publications and relevant discussion, Lungu 2014) (pl. 42). The uniqueness of the inscription in the Euxine is not surprising, as Carthaginians are very rarely attested epigraphically in the entire Mediterranean (Dridi 2010, cf. *supra*). The name of the trader is not preserved, but he seems to have been a grain dealer. Although the inscription is fragmentary, its rough translation could be probably read as follows (trans.:author):

[ἔδοξε τῆι βουλῆι καὶ τῶι δήμῳι {²⁶δήμῳι}²⁶. ἐπι[μηνι]-
 [εὐοντος Ἀπατο]υρίου τοῦ Παρμενίσ[κου]
 [ὁ δεῖνα — — — —]ημου εἶπεν· ἐπειδ[ῆ]
 [ὁ δεῖνα — — — —]ριδου Καρχηδόν[ιος]
 [σῖτον μεταπεμψάμεν]ος εἰς τὴν πόλιν, π[αρα]-
 [κληθεῖς ὑπὸ τῶν ἀρ]χόντων καὶ τοῦ [δή]-
 [μου c.12. . . .]αι καὶ παρα{α}ποδόσθα[ι] {²⁶παραποδόσθα}²⁶
 [— — — — — — — — — —]ετασθαι τὰ σιτικά
 [— — — — — — — — — —]ασε πόλει [— — — —]
 [— — — — — — — — — —]ρ[— — — — — — — —]
 [— —]

When Apathourios, a son of Parmeniskos, was leading the council, (?) made the motion. Because (?) from Carthage, sent in the city for grain, was asked by the council and the people, and being in possession of (....) the food (.....)

The fragmentariness and the uniqueness of the inscription have left room for some speculation. In particular, some scholars advanced the opinion that the trader was not from Carthage but from Chalcedon, whose names in the Greek language differ for only one letter (see e.g. Avram 2007; Lungu 2014). However, it seems improbable that official document would contain such an error. Furthermore, the presence of Chalcedonians in Istros is too rare to approve such view (IScM 5, cf. also Dana 2011 on the question of the inter-Pontic mobility). An interesting case of an analogous misinterpretation occurred in the study of a bronze statue, held in the Bardo museum. The object was initially assigned to the painter Boethus of Carthage (Βοήθος Καρχηδόνιος), an artist from the 2nd century BC, due to an incorrect reading of the signature in expectation that the author would be a local artist; later, a more careful examination of the signature demonstrated that he actually was Boethus of Chalcedon (Βοήθος Καλχηδόνιος), an artist from the 3rd century BC (cf. Picard 1952, 83-116; Dridi 2010, 98. For further cases of confusion between the names of the two poleis, Avram 2007b).

Most scholars, however, accept that the inscription indicated the presence of a Carthaginian and justify his presence as an initiative of long distance business with grain, or a sign of a Carthaginian effort to open new markets after 201 BC (Rostovtseff 1967; Lambrino 1927-1932, 401-403; Шифман 1958, 118-121; Pippidi 1983; Dridi 2010; contra e.g. Robert, *BE* 1962, 427, no. 237; Avram 2007b, 85-6; for a review of the discussion, as well as a suggestion that the anonymous trader might have been settled at Delos, see Lungu 2014, 22¹⁹). The help provided by the Carthaginian trader to Istros could be linked to the well known difficulties of the polis, arisen from its rather complicated relationship with neighbouring tribes, and aggravated by serious economic problems (Pippidi 1971, 102-109). Given the archaeological evidence presented above, the final destination of his trip could also have been Olbia.

¹⁹ Interesting to add that in the 1st century BC the rich Phoenician merchant from Delos **Dies from Tyre**, who resided in Athens, became involved in the side of Mithridates (120-63BC), by providing a refuge to Athenion, who had come to Athens to stir up a movement against Rome (Dow 1942, 311-314). The trade with the Black Sea, however, declined when the troops of Mithridates plundered the island of Delos in 88 BC (Lipinski 2004, 169).

The date of this inscription corresponds to that of the Punic amphorae from Olbia and the Campanian ware, decorated with a large rosette, from Istros (Lungu 2014, 30); if accepted that the visit of this individual was a part of the Olbian trade connections with the West, it would suggest that these relations had endured for more than half a century. It is worthy to note that some glossed bowls, possibly Campanian, found in levels from the end of the 3rd century BC in Olbia, can be interpreted as an indirect evidence for this chronology (Handberg and Petersen 2010, 241. pls.137, 149) (pls. 19-21; Fig. 78).

The economic situation in the Euxine in the 2nd century BC was favourable for speculation with grain. According to the famous description of Polybius (4.38), in the Black Sea periods of surplus of grain and grain export altered with periods of great shortage of grain and grain import (on the Black Sea economy during the 2nd century BC, see e.g. Hind 1995-1996; Reger 2007; Kassab Tezgör and Inaishvili 2010; various contributions in Tzochev *et al.* 2011; Ulitin 2013). It seems that the Punic imports in this period arrived in the western ports rather than in the Bosporan kingdom.

For the political connectivity of the Euxine with remote zones testify references for the journey of other individuals. The Carthaginian general **Hannibal Barca** for instance was active in this zone, after leaving Carthage in 195 BC (Mills 2008). He arrived initially at Tyre and later was accepted at Ephesus by Antigonos III, to whom he provided his military services during his wars with the Romans. After the peace of Apamea in 188 BC, he left the Syrian king in order to escape Roman capture (Serge 1995). According to apocryphic stories reported by Plutarchus (*Lucul.* 32.3) and Strabo (11.14.6), he received hospitality at the court of Artaxias I, a Seleucid vice-regent who had declared himself king of Greater Armenia. There he supposedly planned and supervised the building of the new royal capital Artaxata, modern Yerevan. In reality, after a short stay in Crete, Hannibal was provided refuge by the king Prusias I of Bithynia and later supported him in a war against Pergamon, ruled in this period by king Eumenes II Soter, in which the Carthaginian admiral defeated the Pergamene fleet in 184 BC. However, this was his last victory in life, as Romans promptly intervened in a war in favour of their Pergamene ally, threatening Prusias I to extradite Hannibal. In order to avoid falling into the hands of Romans, the Carthaginian general thereby poisoned himself in the winter of 183/182 BC.

The first century BC is a period of decrease in the commercial traffic between the Euxine and the Mediterranean due to the continuing wars of Rome with the Pontic king Mithridates. Only after the death of the latter in 63 BC and the pacification of the territories, the economic situation became once again favourable, with the late Hellenistic trade routes preserved (Bounergu 2014). Flavius Josephus (16.2.2) testifies that in 14 BC, the king of Judea Herod joins Marcus Agrippa in a voyage in the Bosphoran kingdom with a squadron of ships (Hohlfelder 2000, 247) to become his ally and consultant in wars and diplomatic missions (Lichtenberger 2009, 47). The source is explicit about the trade route used by Herod in the voyage to and from the Black Sea. In arrival, Herod travels from Judea to the Euxine by sea, passing through Rhodes, Cos, Lesbos, Chios, Byzantion, Sinope, i. e the traditional maritime trade route, and in return, he prefers the land route from Sinope through Paphlagonia, Cappadocia to Ephesus (Абрамзон 2018, 10-11).



Fig. 80. Dedication to Thea Syria. Constanta, 2nd century AD. After Bărbulescu, Rădulescu 1994 167, fig.5

In this respect is it interesting to note that from the end of the 1st century BC - beginning of the 1st century AD, in the Bosphorus is documented the settling of Jewish communities. There have been found various gravestones, manumissions, onomastics and dedications to Theos Hypsistos (Gibson 1999). The funeral inscriptions, the earliest among which dated in the 16 AD (CIRB 985), were found in Chersonessos, Phanagoria, Pantikapaion and their chorai (Lipinski 2004, 535; Даньшин 1993;

Gibson 1999) (pl. 43) i.e. locations related with the international trade and possibly visited by Herod in this mission. The Jewish communities persisted in Phanagoria for centuries, and the city was even named “a Jewish city” in the 9th century AD (Даньшин 1993).

Archaeological evidence of direct contact with the Levant amplifies with the notions of recovered commercial and cultural links with the Mediterranean from the 1st century AD onwards. In a different political context, the volume of amphorae from the Black Sea, found in various Mediterranean centres including the Levant and Cyprus increases during this period (Kassab Tezgör and Touma 2001; Abadie-Reynal 1999, 259) and Levantine Late Roman amphorae are largely distributed in the Euxine (Забелина 1984, 150-151; Abadie-Reynal 1999, 262; Kassab Tezgör and Touma 2001). Roman lamps of Levantine origin have been also recognized in the region, while glass and faience objects are imported from the Levant in high quantities. Faience pendants from the 1st century AD in the form of Bes that are found in Olbia and Chersonessos are attributed by some scholars to a Levantine origin (Bouzek 2000, 136; Алексеева 1978) (pl. 47). Three cylindrical glass vessels, from the 1st century AD or the early 2nd century AD, which bear the inscription ΛΑΒΕ ΤΗΝ ΝΕΙΚΗΝ, are found at Gorgippia and Pantikapaion. These seem to belong to the series of cylindrical glass vessels with felicitations and manufactured in the Levant and Cyprus (Сорокина 1998, 39-40; Алексеева and Сорокина 2007, 29-30) and found as well in Sardinia, Greece, Sidon (Harden 1935). A type of balsamaria from the mid-1st – mid 2nd century AD, very rare in the Mediterranean and mostly found on Cyprus, Syria and Egypt, were excavated in the Euxine - 10 in Gorgippia, some similar in Colchis (Сагинашвили 1977, 126-130). A two-headed glass flask found at the Chersonessos belonged to a type distributed in the Levant in the 1st – early 2nd century AD (Abramzon *et al.* 2012, 246). A glass amphora from Odessos has a direct analogue with the finds from Cyprus. In addition, sarcophagi found in the North Black Sea region and dated from the 1st-2nd century AD are apparently highly influenced by the Anatolian or Phoenician art (Lévêque 1986). Lastly, communities of Syrians install in Dobrudzha in the early Roman period, traceable in Dacia, Moesia Inferior and Thrace by the funeral inscriptions (on these epigraphic testimonies, most recently Avram 2016, 143-5) as well as the spread of the Thea Syria's cult (Fig. 80) in the 2nd and the 3rd century AD (Bărbulescu and Rădulescu 1994; Tacheva-Hitova 1983, 264-5; for the worship of the Syrian goddess in the Roman army in the beginning of the 2nd century AD, and a

detailed review of the arguments in favour of the identification of the deity with the Phoenician Tanit, see further Cuff 2010, 193-195).

6.5. Discussion

In sum, this chapter analyses archaeological, epigraphic, numismatic, and written evidence that concerns the 2nd and the 1st century BC. A recent archaeological find provides a unique glimpse into the links between the Bosphorus and the Levant in the late Hellenistic period. An ancient hoard, found in the chora of Phanagoria consists of more than 15 000 bronze coins from the 4th-1st century BC, among which low-value coins of Athens, Eretria, Alexandria Troas, Chios, Mytilene, Rhodes and Tyre (Абрамзон 2018, 6). The location of burial demonstrates that the collection of the hoard was related with the local grain production and its exportation in the Mediterranean. Therefore, the hoard belonged in all probability to a local trader, who traded in the Eastern Mediterranean around 100 BC or slightly later, using the ancient sea route from Taman to the Southern Black Sea and in the Mediterranean, to Delos and Athens and South coast along the Ionian coast until reaching the Levant (Абрамзон 2018, 8-10; cf. the reconstructions of a voyage on the basis of numismatic finds in Sheridan 1971, 1127–1133; Gitler and Kahanov 2002, 259–268). Commercial exchange between the Levant and the Black Sea in the 2nd century BC is evidenced by further archaeological evidence. For instance, a series of Phoenician semi fine tapered amphoriskoi were imported in this period in the Black Sea. These jars, produced from the second half of the 2nd century BC to the 1st century BC, were used as containers of oils and perfumes. These are reported mainly from Levantine centres such as Sidon, Dor, Maresha, Akko, Paphos, and Tel Anafa - where there are especially frequent, as 177 specimens have been found until now, but have been also discovered in minor quantities or as isolated finds on Mediterranean sites such as Delos, Aegina, Athens, Pithekoussai, Pompeii, Abdera, Pella, etc. (Lungu 2007, 113-4 with references). In the Black Sea region, these vessels were found in limited quantities at coastal centres such as Tomis, Kallatis, Bizone, Apollonia, Pantikapaion, Olbia, Tauric Chersonessos and their zones of redistribution. They are found in funeral and urban context and belong to the second half of the 2nd century BC (Lungu 2007, 112-113). The concentration of those jars Tomis leads Lungu (2007, 112) to the suggestion that that their import was instrumental to the needs of a small Levantine community in the city; in this respect, it is interesting to note that from the 2nd century BC onwards at the polis is attested

the cult of Theos Hypsistos, which, according to some scholars, suggests the settling of Jewish individuals (Pippidi 1988, 204-205). Either way, the amphoriskoi show that a trade network of Levantine imports was active in the second half of the 2nd century BC. Some glass imports also corroborate this notion. For instance, in the North-East Black Sea are found specimens of a characteristic type of glass amphoriskoi from the 2nd -1st century BC with a recognizable form, which imitated wine amphorae. This type is largely diffused in Syria and Cyprus, while in minor quantities specimens have been found in the Aegean and North-East Black Sea, and single finds are documented in North Africa, Italy and Spain (Harden 1981, 129ff, groups B-iii, B-iv, B-v.; on the find spots on the Black Sea, Колесниченко 2018; Fossing 1940, 120).

Trade routes to and from the Punic dominions are also discussed in this chapter. Fragments of Punic and other West Mediterranean amphorae have been found in the late Hellenistic layers of the Lower Olbia quarters (Lawall *et al.* 2010, 397-8, pls 302-3) (Fig. 31: 20). These are dated to the first half of the 2nd century BC (200-130 BC ca), and were apparently imported by the same network(s) (Lejpunskaja *et al.* 2010, 404-405). These appear concurrently with North Peloponnesian imports, giving some grounds to suggest a corresponding route of import. The imports come to an end in the 140-130s, due to some catastrophic event in Olbia, perhaps a successful siege (Guldager Bilde 2010, 118; Lawall *et al.* 2014). Moreover, in the 2nd century BC in the Black Sea penetrates Campana A ware (bowls, plates, and jugs) (pls. 19-21). Such has been reported from Lower Olbia, Istros and their chorae, the Crimean Chersonessos, Kalos Limen, Scythian Neapolis (in religious context), Bol'shoj Kastel, Nymphaion, Chaika, and Myrmekion, mainly in contexts of the first half of the 2nd century BC (Lungu 2009; 2014, 25; Handberg *et al.* 2013, 60). Their limited number corresponds to the discrete quantities found in the Aegean, the Eastern Mediterranean, the Levant and Egypt, and is explained by the scholars for their role as fill in the main cargo of the ships (e.g. Lungu 2014, 24; Gill 1988; Morel 1986; Boardman 1980; Handberg and Petersen 2006, 3; 2010, 248-249). Among the types of Campana A pottery in Olbia and Istros scholars have identified specimens, which correspond to finds in Sardinia, Carthage and Lattes, some of which are not attested at Delos, East Anatolia or the Levantine coast. These specimens are among the most ancient Campanian wares from the Black Sea, dated in the beginning of the 2nd century BC and correspond chronologically to the Punic amphorae, identified at Olbia and the epigraphic evidence of the presence of a Punic trader in Istros (*infra*).

The presented evidence emphasizes the commercial links between different Black Sea centres and the Levant in the second half of the 2nd century BC, a period of revival in the trade between the Levant, the Ionian coast and the North Aegean (Gitler and Kahanov 2008, 394; Finkielsztein 2001). The first half of the 1st century BC on the other hand is a period of decrease in the commercial traffic between the Euxine and the Mediterranean, due to the continuing wars between Rome and the Pontic king Mithridates. Only after the death of the latter in 63 BC and the pacification of the territories, the economic situation becomes once again favourable for trade, which exploits the late Hellenistic trade routes (Bounergu 2014). Flavius Josephus (16.2.2) provides a very detailed itinerary, while describing the voyage of Herod from Caesarea to the Bosphoran Kingdom in 14 BC (Hohlfelder 2000, 247; Lichtenberger 2009, 47). On arrival, Herod uses the traditional maritime trade routes through Rhodes, Cos, Lesbos, Chios, Byzantium, Sinope, while in return he prefers travelling partially by land, using the route from Sinope to Ephesus through Paphlagonia and Cappadocia (Абрамзон 2018, 10-11). It is worthy to mention that it is in the period when this voyage is undertaken, that the establishment of Jewish communities in Chersonessos, Phanagoria, Pantikapaion and their chorae begins. The Jewish community in Phanagoria thrived over time and the city was even called “a Jewish city” in the 9th century AD (Даньшин 1993; Lipinski 2004, 535; Gibson 1999). The trade routes from and to the Levant therefore seem to have been vividly exploited, the trade both direct and indirect. The imported commodities might have been used by newly settled Levantine communities, while carriers might have been traders from the Black Sea, the Levant or intermediary entrepreneurs. For what concerns the West Mediterranean objects in the Black Sea, these have received different interpretations. Some scholars tend to see the West Mediterranean imports as related to the traditional trade networks of Rhodes and Delos (Papuci-Władyka 2012), while others advance the idea of alternative networks through the Peloponnesus (Lungu 2014, 27). Various hypotheses have been advanced also on the question regarding the carriers of Campana A into the Euxine ports. Handberg *et al.* (2013, 61-7) seem to accept as more probable the non-commercial distribution patterns such as personal items of travellers, exotic possessions of the elite or gifts, Lungu (2014) on the other hand connects their presence to the contemporary appearance of Punic and Campana amphorae in the same sites and admits the possibility that they were brought in the ships of Italian or Punic traders.

CHAPTER 7

CONCLUSIONS

This dissertation aimed to undertake a comprehensive analysis of the commercial and cultural exchange between the Black Sea, the Levant and the Punic world in the pre-Roman period and in particular to examine processes, causes and consequences in the time span between the Greek colonisation and the Roman conquest of the territories around the Black Sea. This exploratory research, spurred by the accumulation of various archaeological data in the last few years, was intended to give insight into a disregarded subject, to add to the studies of ancient trade and intercultural interconnections, and to help reducing the “deep fragmentation” in the scientific community in terms of the Black Sea studies (Vlassopoulos 2013, XV), by facilitating the collaboration between the Western and the Eastern scientific community.

To this end, the distribution of goods, people and ideas was thoroughly examined, as well as the chronological limits of import and export of various goods and the cultural outcome of the commercial exchange. Accordingly, in view of the sporadicity of interaction between the two distant regions under study and the indirect character of exchange, this study focused on analysing consumption patterns and reasons that triggered the exchange. The study exploited all available archaeological and literary sources in a multidimensional analysis (Tsetschladze 1992, vii); however, given the perishable nature of Pontic exports in the Mediterranean, it was by necessity centred on the archaeological material from the Black Sea. The amphorae distribution provides an illustrative example of the considerable discrepancy in evidence that needed to be considered in this research. While exporting mainly grain, slaves, raw metals, barbarian artisanship and so on, the Black Sea imported large amounts of wine and olive oil from the Mediterranean. In result, to the enormous amount of Mediterranean amphorae, found all around the Black Sea corresponds a negligible and chronologically limited quantity of Black Sea amphorae reported from the Mediterranean, the obvious lacunosity of which evidence obstructs the quantitative or distribution analysis of the Black Sea export (Lund 2007, 183-94; Kramer 2002, 92; Garlan 2007, 143-8). This particularity determined the adoption of a case-by-case approach that enables to achieve an accurate interpretation of the economic processes in the cases where there are not enough examples of a particular item to form a good statistical base (Van Alfen 2002, 275). By defining and applying the most appropriate approach in order to

complete the task of tracing Euxino-Levantine relations, considering the particularities and obstacles of research described in the Introduction, this work has shed new light to the patterns of ancient trade and the role of the Black Sea in the East Mediterranean traffic of goods, while in the same time resulted in the development of hypotheses for potential future research.

To summarize the main questions and results of this study, current research estimates that Levantine imports penetrate in the Black Sea from the second half of the 7th century BC onwards (with few exceptions of disputed earlier dating), i.e. immediately after the Greek colonisation. While in the initial phase the imported goods are mainly agricultural, with the second wave of colonisation in the mid- 6th century BC in the Euxine penetrate also Levantine metal and glass workmanship of religious or symbolic nature. Namely, large quantities of basket-handle amphorae and Levantine jugs were imported in a relatively short time span between the end of the 7th century and the beginning of the 6th century BC. This period correlates to a transformation in the Black Sea channel of trade, detected only very recently: while the earliest imported Greek pottery consists chiefly from Milesian and North Ionian ware, from the end of the 7th - early 6th century BC, South Ionian production becomes more prominent (Tsetskhladze 2015, 28). It would seem that the change was related to the resumption of mercenary and commercial interaction in the Eastern Mediterranean in the second half of the 7th century BC, a process described by Morris (2000, 257-261) as a “collapse of distance”, which drew together over the course of just a quarter century certain peoples around the eastern Mediterranean “closer than ever before since the Bronze Age” (see further the discussion in Fantalkin 2006, 203-4). The intensification of the exchange between East Greece and the Levant apparently affected the “freshly” colonised Black Sea and shortly the zone seems to have entered in the zone of interest of the South Ionian and Cypriot trade in the framework of the preferential consumption networks, i.e. the movement of goods beyond the trade of precious metals and fine painted pottery visible in the East Mediterranean from the 7th century BC. This trade of “semi-luxuries”, to use the Foxhall (2005) definition, goods would distribute processed agricultural goods such as wine and olive oil that become fashionable, despite being unnecessary in the sense of basic availability. For what concerns the Levantine material from the Black Sea, the restricted period of distribution of these amphorae seem to reveal a short term trade route, i.e. a route beyond the usual channels of import. In this respect the Berezan finds seem to corroborate the theory that attributes an important role of

Cyprus in the Mediterranean trade in the second half of the 7th century BC, advanced by some recent studies. While studying the archaic Cypriot ships, wrecked at the Kekova Adası, Kepçe Burnu and Çaycağız Koyu, Greene, Leidwanger and Özdaş (2013, 34) affirm that “we might look toward the island as an intermediary - and perhaps facilitator - in these renewed cultural contacts.” Spataro and Villing (2009) also underline the island’s role in the long-distance trade of the epoch while studying the distribution of mortaria and argue that “the wide distribution of Cypriot mortaria in the Eastern Mediterranean for several centuries from around 700 BC onwards must be seen in the context of an increasingly interconnected Mediterranean with far-reaching trade routes along which travelled not only staples of daily life and luxury goods but also new culinary practices.”

However, basket-handle amphorae, as the same Alexandra Villing and Udo Schlotzhauer (2006, 7) point out, may have been traded not merely by Cypriots and Phoenicians but also by Greeks. For what concerns the Black Sea, it is likely that Miletus and South Ionian centres acted as intermediaries, given that the pottery production of Ionian centres such as Chios, Clazomenae, Lesbos and Miletus is the most diffused in the Archaic Euxine, comprising around 80% of all imported pottery fragments (Bouzek 2008), and agricultural goods, such as wine constituted a significant part of the Milesian imports in Berezan (Dupont 2003, 143; 2005).

Far from resolved for the moment is also the question about the intensity of demand. In the case that the amphorae arrived in the Black Sea filled with their original content, is this import a result of the Cypriot spreading of “new culinary practices”, as argued by Spataro and Villing (2009)? Another unknown element in the picture is the ethnic composition of the Greek colonies and in particular the possible presence of Levantine groups of settlers in the Euxine. The import of Cypriot (?) votive objects and the spread of the cult of Aphrodite Syria in the West coast of the Black Sea and Olbia from the second half of the 6th century BC seems to demonstrate a noteworthy eastern impact on the religious life of the colonies, which may be justified by the presence of a North Syrian/Cypriot community among the Greek colonists in Olbia and Istros (Alexandrescu Vianu 2004, 85). The phenomenon occurs in a period when the economic situation of the Black Sea was deeply changed. In effect, from the mid-6th century BC onwards in the Black Sea begin to penetrate imported goods from a wider range of Mediterranean centres such as Miletus, Samos, Chios, the Hellespont, Cyme, Corinth, Laconia, Athens, Lydia, Phrygia, Etruria, Locri, Palestine, Cyprus, Cyrene and

more (Boardman 1998; Буйских 2013а; Tsetskhladze 2015, 28; Buyskikh 2017, 7). The increase in the trade's volume is due to the immense growth of the Greek population of the Black Sea by a large secondary wave of colonisation, which takes place after the conquest of Media by Cyrus in 546 BC and results in a much denser occupation of the Black Sea shores (e.g. Snodgrass 1994; Tsetskhladze 1994; Koshelenko and Kuznetsov 1998). Among other things, this process triggers a greater demand for exotic goods and objects of religious and symbolic nature (votive statuettes, glass and faience beads and pendants), which leads further to an increased import of Egyptian and Levantine production (Большаков and Ильина 1988, 62). The major cause for the Black Sea market to attract such wide-ranged import lies, however, in the fact that the local market greatly exceeded the territories of the Greek colonies and their chora. A significant part of the Mediterranean commodities such as food (especially wine and olive oil), artisanry, votives that were exchanged for metals, raw materials, slaves, grain, honey, salted fish and many more, were in effect destined for the barbarian market, as the Pontic apoikiai were in close contact with the local cultures and consequently to long-distance nomad and caravan routes that crossed the Scythian steppes, Transcaucasus and Asia Minor. It is hardly surprising therefore that the Black Sea markets functioned as trans-cultural trade hubs, where the Mediterranean imports of interest for the local populations were exchanged for barbarian production such as metals, raw materials, slaves, grain, honey, salted fish and many more, and were distributed in the hinterland so far as hundreds of kilometres from the shore (see e.g. Tsetskhladze 1998, 10; 2013, 70, fig. 2). This process is most evident after 480BC, when, with the consolidation of the Bosporan kingdom, the centre of the Euxine trade shifts from Olbia/Berezan region to Crimea and Taman peninsulas (Гайдукевич 1949; Блаватский 1954; Виноградов 1980; Шелов-Коведяев 1985; Bouzek 1989a; Васильев 1992; Ulitin 2013; Oller 2013). In the course of the 5th century BC, the Kingdom develops a large-scale production and trade with grain products. The most ancient record for this export is provided by Herodotus, who reports Greek ships transporting Black Sea grain through the Hellespont near Abydos in 480 BC (7.147.2—3). The peak in the grain trade occurs between the second half of the 5th and the early 3rd century BC with the development of a large-scale commercial exchange between the Bosporan kingdom and Athens (Bouzek 1989a, 249-59; Kakhidze 2005, 115-118; Tsetskhladze 2008, 52-74). During the 4th century BC, with the grain production of the Bosporan Kingdom reaching

enormous annual amounts, it achieves unparalleled importance for Athens, supplying the half of the overall grain import of the polis (Garnsey 1985; Bouzek 1989a; Кузнецов 2000; Reed 2003; Oliver 2007; Moreno 2007; Tsetschladze 2008; Bouzek 1989a, 257-259; Oliver 2007, 35ff). The same is true for the Black Sea, where Athens replaces the Ionian coast as dominant axis of exchange.

The analysis of the literary sources demonstrates that Atheno-Bosporan trade was heavily dependent on foreign investors, among which often emerging citizens of South Ionian centres and the Levant. From the beginning of the 4th century BC, Phoenician merchants seem to have played a significant role, acting as grand-scale investors, owners of vessels and providers of human capital (Pouilloux 1975; Baslez 1987, 279ff; Lipinski 2004, 169ff.). Levantine involvement in the Black Sea trade is, however, invisible in the archaeological context except maybe through the study of core-formed glass vessels, related to the trade of perfumes and spices, which in the current state of research is problematic (Archibald 2007, 262). Conversely, important testimonies for this trade are the Black Sea amphorae reported from a range of Mediterranean centres from the mid-4th century BC to the second decade of the 2nd century BC (Conovici 1998, 169–80; Сапрыкин 2002, 93–5; de Boer 2007, 8). In most part these belong to Sinope that in all likelihood exported salted fish (Doonan 2003; de Boer 2013). It is worth mentioning, however, that so far only stamped amphorae of Sinope have been reported from the Mediterranean and it is very likely that a large part of the Sinopean and generally of the Black Sea production remains invisible as it is not recognized by scholars (Garlan 2007; Braund *et al.* 2007a). Fragments of Sinopean stamped amphorae are found mainly at Athens and Rhodes (56% and 14%, according to the calculations of Garlan 2007), but attested also in numerous centres across the Mediterranean, such as Pella, Thasos, Corinth, Pergamum, Samos, Miletus, Delos, Cos, Cnidos, Crete, and Alexandria (Fig. 65). In the Levant these are reported from Beirut, Maresha, Samaria, Akko-Ptolemais, Bekka valley, Jabbul plain and also Paphos, in a period from the 3rd to the beginning of the 2nd century BC (Fedoseev 1999, 32-42; Barker 2004, 77, tab. 1; Nicolaou 2005, 258-159, nos. 764-766; de Boer 2008; Lund 2007; Finkelstein - personal communication). Since an intensification of the Egyptian imports in the Black Sea is attested in the 3rd century, it is possible that the exports in the Levant are related to the Egyptian trade (Picard 1983, 726; Morel 1995; Lungu 2014, 27ff; Reger 2007). There is no evidence that regards the first half of the 2nd century BC, but some types of amphoriskoi ascertain that Levantine oils and perfumes

were imported in the Black Sea in the second half of the 2nd century BC and the first half of the 1st century BC. Namely, in the North-East Black Sea are found specimens of glass amphoriskoi from the 2nd -1st century BC, which belong to a type that is largely diffused in Syria and Cyprus, while in minor quantities it is attested in the Aegean, North Africa, Italy and Spain (Harden 1981, 129ff, groups B-iii, B-iv, B-v.; on the finding spots on the Black Sea, Fossing 1940, 120; Колесниченко 2018). Further, a series of Phoenician semi fine tapered amphoriskoi were found in the West and North Black Sea in funeral and urban contexts that belongs to the second half of the 2nd century BC (Lungu 2007, 112-113). According to Lungu, the concentration of those jars at Tomis suggests that their import was instrumental to the needs of a small Levantine community in the city; this view seems to correlate with Pippidi's interpretation (1988, 204-205) of contemporary votive evidence as an indication of a Jewish presence in the polis. The assumption of the Romanian archaeologists complements the evidence that Jewish community is established in Pantikapaion, Chersonessos, Phanagoria and their chorae around the second half or the end of the 1st century BC (Даньшин 1993; Lipinski 2004, 535; Gibson 1999). The involvement of the latter region with the Levant in the framework of the grain trade during the end of the 2nd-beginning of the 1st century BC is shown by numismatic evidence. The Black Sea material concurs with a period of revival in the trade between the Levant, the Ionian coast and the North Aegean in second half of the 2nd century BC (Gitler and Kahanov 2008, 394; Finkielsztejn 2001). The first half of the 1st century BC on the other hand is a period of decrease in the commercial traffic between the Euxine and the Mediterranean, due to the continuing wars between Rome and the Pontic king Mithridates; after the death of the latter in 63 BC and the pacification of the territories, the economic situation becomes once again favourable for trade, which exploits the late Hellenistic trade routes (Bounergu 2014).

For what concerns the trade routes, the research has shown that in the entire period of study the sea route from the Levant to the Black Sea passed around the Anatolian coast to the Hellespont, while in the Black Sea, the ships needed to choose between the two main trade partners, sailing from Sinope to Pantikapaion/Phanagoria, or from the West coast to Olbia (Абрамзон 2018, 8-10; Sheridan 1971, 1127-1133; Gitler and Kahanov 2002, 259-268). From the Levant, the Black Sea was reachable also by land. This connection is relatively less studied and maybe less intense but nevertheless

significant; in effect, the route linking the Syro-Palestinian coast with the South East coast of the Euxine may have existed already since the 2nd millennium, as attested by Hittite and Assyrian documents such as the Kültepe texts - a collection of trade documents found in the largest Anatolian *kārum* of Kanesh, located near the Halys river (Bryce 2009, 785; Burney 2004; Hoffner and Beckman 1990, 62-63; de Boer 2015, 74; Manoledakis 2013, 84) (Fig. 57). For what concerns the Early Iron Age (10th-6th century BC), literary sources such as the Old Testament and various Assyrian texts indicate an interaction between Tyre and Black Sea nations as the Armenians, Tibarenians and Moschians, who inhabited the metalliferous regions on the south-eastern shores of the Euxine and traded iron, gold and copper, slaves and horses (Boyle 2012, 24-5; Bennett 1967, 6; Lehmann 2008, 226; Curtis 1988) (Fig. 55). These notions are consistent with some archaeological finds, in particular several groups of iron weapons and tools of central-Anatolian type, whose mapping seems to emphasize a connection route from Sinope/Amisos region to the Taurus Mountains and the Cilician littoral (Стоянов 2000; Stoyanov 2010, 409-10; Georgieva 1997; *contra*, Tsetskhladze 2013a; Avram *et al.* 2004, 962-3; Boardman 1980, 242-255) (Fig. 56). Moreover, a land route from the North shore of the Black Sea through the Trans-Caucasus to Central Anatolia and the Levant was used multiple times in the 7th and 6th century by migrating tribes: the most famous instances are the invasion of the Cimmerians in Anatolia in the beginning of the 7th century BC and their establishment in Phrygia and Lydia in the course of the same century (Bouzek 2008, 15; Xydopoulos 2015), followed by a Scythian invasion that extended into an expedition to Egypt and Palestine (Piankoff 1949; Tuplin 2004; Bromily 1995, 364). Indirect trade may have been preserved in later periods, as in Gordion along with Pontic amphorae from the 5th-3rd century BC were found along with Levantine jugs. The literary evidence that provides a detailed itinerary is the much later account of Flavius Josephus (16.2.2) of the voyage of Herod from Caesarea to the Bosporan Kingdom in 14 BC (Hohlfelder 2000, 247; Lichtenberger 2009, 47) who in return travels by land from Sinope to Ephesus through Paphlagonia and Cappadocia (Абрамзон 2018, 10-11).

Fig. 81. Chronology of the closely dated finds, related to Levantine-Euxinian exchange.

	7 th century BC	6 th century BC	5 th century BC	4 th century BC	3 rd century BC	2 nd century BC	1 st century BC	
	700-675 BC	675-650 BC 650-625 BC 625-600 BC 600-575 BC	575-550 BC 550-525 BC 525-500 BC	500-475 BC 475-450 BC 450-425 BC 425-400 BC	400-375 BC 375-350 BC 350-325 BC 325-300 BC	300-275 BC 275-250 BC 250-225 BC 225-200 BC	200-175 BC 175-150 BC 150-125 BC 125-100 BC	100-75 BC 75-50 BC 50-25 BC 25-1 BC
Levantine imports		■	■	■	■		■	
Black Sea exports						■		

The fact that Punic artefacts resemble closely those from the Levant led to the decision to also explore the extent of trade links with the Punic world and the Central Mediterranean in general. The study showed that West Mediterranean imports (Punic, South Italic and Etruscan) penetrate in the Black Sea concurrently with the second wave of colonisation, which takes place after the conquest of Media by Cyrus in 546 BC. Between the end of the 6th and the first half of the 5th century BC, West Mediterranean imports increase. South Italic artefacts are attested in the North and West Black Sea, in Greek colonies and Scythian kurgans, while the Etruscan imports are found in North and East Black Sea. The limited period of import and distribution within the most active Greek emporia and Scythian settlements seems to suggest the emergence of a temporary pattern of penetration of artefacts and iconographic models. Even though some scholars have argued that Italian or Carthaginian ships could have episodically reached the Black Sea region (Treister 1993, 381), it seems more probable that in this period West Mediterranean goods penetrated in the Black Sea through the Ionian colonies, especially in view of the close connections between Miletus and Italian colonies such as Sybaris (Gorman 2001, 53); potential intermediary centres could be Aegina and even the Levantine coast (Domăneanțu 1988, 25) (Fig. 75). For what concerns the Punic imports, these seem sporadic in this period, while the exchange seemingly enhances during the 4th-3rd century BC. The most illustrative objects that testify the commercial exchange between the Punic world and the Black Sea are the anthropomorphic glass beads and pendants of Phoenician, primarily Carthaginian, origin, such as rod-formed glass pendants and beads, mask beads, and relief beads, which penetrate in the Black Sea from the 6th century BC but became more popular in the 4th-3rd centuries BC. Surprisingly, the number and diversity of the bead types in the Euxine parallels only to that of Carthage, Cyprus, Egypt, Syria and Palestine (Seefried 1982, 163-4; Cf. Dan 2011a, 221, n. 65-68), while it is much lower in the mainland and

East Greece, the Aegean and Italy. Their import ceased abruptly around the mid-3rd century BC following a crisis in the North-East Black Sea market, where the demand was greatest. There is no other evidence that correlates and would help to explain this massive import, except probably the minor amount of Black Sea amphorae, attested between 350 and 183 BC in Apollonia in Cyrenaica, Carthage, Tarentum and the El Sec shipwreck in the bay of Palma de Mallorca (Kramer 2002, 84). For what concerns the patterns of trade, beads might have been easily imported through multiple routes, while glass workshops, attested in several Black sea emporia leave open the possibility of local production, contradicted by the presence of a Punic amphora in such a glass shop (Островерхов 1985, 99; Копылов 2006; Dan 2011a, 223). Scholars have proposed Rhodes, Egypt, Etruria, Macedonia, the Levantine coast as intermediary centres for the import of the anthropomorphic glass beads and pendants in the Black Sea (Boucher 1973, 850-965; Shortland and Shroeder 2008; Archibald 2007, 265-6; Dan 2011a, 223). According to Seefried (1982), the author of the most detailed study on these artefacts, these were most likely carried by Phoenician or Egyptian traders. A more recent view argues for a direct trade between the Black Sea and Carthage (Гороховская and Циркин 1985; Treister 1993; Ščeglov 2002; Копылов 2006), because the beads and pendants reported from Egypt and Phoenicia are less diversified than those found at Carthage and Black Sea, and because in this period Punic pottery was found in a glass workshop on the Bosphorus, while Black Sea pottery was reported from a Punic vessel. In effect, several independently conducted studies put forward the idea that a trade route from Carthage to the North Aegean or the Euxine has functioned in the mid- 4th – mid 3rd century BC; these regard the glass beads (Seefried 1982, 43), numismatic evidence (Kovalenko and Manfredi 2011; Zhuravlev 2012, 30; Bouzek 2015, 161), ivory and bronze objects (Picard 1979, 108; Boltrik *et al.* 2011), and pottery (Житников and Марченко 1984; Копылов 2006; Treister 1991a, 233-238) (pl. 7). The theory is credible given the fact that diplomatic and trade relationships between Carthage, Athens (Harris 2002) and other mainland Greek centres such as Corinth and Thebes are attested from the late 5th century BC (Maniatis *et al.* 1984; Fossey 2014, 3; Ferrario 2014, 266ff). It appears therefore that the activation of the market that brought Carthaginian production to the Black Sea was in all probability related to the escalation of the Atheno-Bosporan trade. The evidence suggests that in the 4th century BC the main centre of redistribution was Athens, while from the late 4th and in the 3rd century BC Rhodes, Delos, the Levant and Egypt also

Mediterranean (Zalessky 1983), evidenced by the increased number of Italic products, especially from the Latium-Campania and Adriatic regions, brought into the Aegean, and the influx of Italic people in the Aegean in the second half of the 2nd century BC (Pasqual Berlanga and González Cesteros 2018, 168). The first half of the 2nd century BC, that is to say the period between the end of the Second and the end of the Third Punic War is also a period of flourishing for the Carthaginian international trade, especially regarding the export of the food production of Tunis-Carthage and Ibiza areas (Hoyos 2015; Pasqual Berlanga and González Cesteros 2018, 168; Bechtold 2007; 2010; Morel 1995). For what concerns that Black Sea, in this period the internal economic situation was favourable for speculation with grain.

Concluding remarks

To sum up, while taking in consideration the particularities of the studied material, namely, the scarcity of evidence due to the perishableness of many of the exchanged commodities, the general lack of closely dated objects (figs.81-2) and the uneven state of research of the archaeological sites that concern this trade, the research aimed to analyse events and processes and shed light on the distribution, chronology and impetus of commercial traffic of goods, identify carriers and evaluate the cultural value of the imported goods in the receiving market.

The research showed that Levantine products penetrate in the end of the 7th century BC, at the same time as the first Ionian colonisation. After the second wave of colonisation in the mid-6th century BC their import preserves its sporadic character, but seems to change in nature, while acquiring also a notable religious aspect. Most of the finds of interest of this study are reported from the West and especially the North Black Sea, which most likely reflects the state of current research rather than the real distribution pattern. The decisive factor that continually triggered the establishment of temporary long-distance trade networks between the two distant zones seems to be favourable factors in the Black Sea in a time period concurrent to intensification in the economic ties between East Greece and the Levant. The individuals, involved in this trade, are identifiable only from the 4th century BC, when Greeks, Black Sea traders, Phoenicians and Carthaginians are attested to have taken part in it. Private entrepreneurs were certainly engaged already from the opening of the Black Sea markets to the Mediterranean merchandise, a process that resulted from the increased

seaborne activity of East Greece and the trade of preferential consumption of the late 7th century BC. The interest in the Pontic trade increased in later epochs and the interruptions in the Levantine trade seems to occur only during temporal crises in the receiving market, and re-emerge in times of prosperity. From the 4th century BC onwards, commercial behaviour of Phoenician traders evolves towards the large-scale, long distance trade. This tendency, combined with the growth of the high quality grain production in the Bosphorus, easily lead to an elevated interest of these merchants in the Black Sea market and may also explain the contemporary Punic merchandises found in the Western and Northern Black Sea (Копылов 2006; Vasil'ev 2003, 70ff; Ščeglov 2002, 217; Dan 2011a, 219ff; Лавренова 1994; Гороховская and Циркин 1985). The collapse of the Bosporan-Athenian grain trade network apparently did not affect the exchange: from the 2nd century BC, Levantine and Punic imports once again appear in the West Black Sea, persisting for about a half century before the collapse of the market because of Scythian attacks on Olbia.

For what concerns the demand of Levantine production, the character of import suggests a significant cultural influence. Yet in the 6th century BC, the distribution of Mediterranean pottery to the Black Sea demonstrates an expanding of cultural horizons (Буйских 2017, 201). In this period, the cult of Aphrodite Syria, unattested elsewhere, appears in the West Black Sea, i.e. in the midpoint of the Euxinian international trade. According to Antoine Hermary, later the cult is transformed in Aphrodite Ourania and diffused North in the territories of the Bosporan Kingdom. This view concurs with the establishment of royal cult for Astara and Sanergos in the Kingdom, which seems to be profoundly influenced by the cult of Astarte. Punic imports in the Black Sea have also votive character, as protective or chthonic artefacts. What is more, the concentration of the studied material in the zones of major ports and redistribution centres for trade with vast hinterland territories, such as Istros, Olbia, Pantikapaion and Elizavetovskoe, suggests further that those artefacts were mainly imported on demand of the local tribes (Лавренова 1994). The interest of the inland population in objects that we attribute to Phoenician merchandise seems to emphasize a particular aspect of the culture of the Northern Black Sea tribes that enables to adopt products of a remote culture and adapt them into the proper cultural milieu. It seems that for this reason the cultural value of the studied interaction, at least for what concerns the Black Sea, greatly exceeds the commercial outcome of a sporadic trade

exchange. This perspective of the links between two geographically and culturally distant regions provides stimulating perspectives for future examination.

As shown in this summary of results, this research procured an accurate interpretation of economic processes and added to the re-conceptualisation in the conventional approach to the Black Sea archaeology. The outcomes of this pilot survey enhance future research on the connections between the Black Sea, the Levant and West Mediterranean. Such enquiries will certainly contribute to the better understanding of the relations between the Eastern and Western Mediterranean and can further facilitate a much-needed review of Black Sea international economic relations.

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ABBREVIATIONS OF REFERENCE WORKS

AA: Archäologischer Anzeiger

AAA: Athens Annals of Archaeology

ACSS: Ancient Civilizations from Scythia to Siberia

ΑΕΜΘ: Αρχαιολογικό Έργο στη Μακεδονία και Θράκη

ASAE: Annales du Service des antiquités de l'Égypte

AJA: American Journal of Archaeology

AIHV: Association Internationale pour l'Histoire du Verre

AMA: Античный мир и археология

AR: Archaeological Reports

ARA reports: Caiete ARA - Arhitectură, restaurare, arheologie.

ASAE: Annales du Service des Antiquités de l'Égypte

BE: Bulletin épigraphique

БИ: Боспорские исследования

CAH: Cambridge Ancient History

CCEC : Cahiers du Centre d'Etudes Chypriotes

CIPOA: Cahiers de l'Institut du Proche-Orient Ancien du Collège de France

DHA: Dialogues d'histoire ancienne

IGSK: Inschriften griechischer Städte aus Kleinasien

Historia: Historia: Zeitschrift für Alte Geschichte

BABesch: Bulletin antieke beschaving: Annual Papers on Classical Archaeology

BASOR: Bulletin of the American Schools of Oriental Research

BAR: British Archaeological Reports

Barr: Talbert R. J. A. (ed.) 2000, *Barrington Atlas of the Greek and Roman World*, Princeton, NJ: Princeton University Press

BCH : Bulletin de correspondance hellénique

BICS: Bulletin of the Institute of Classical Studies of the University of London

BIFAO : Bulletin de l'institut français d'archéologie orientale

BSA: Annual of the British School at Athens

BSS: Black Sea Studies

CCEC : Cahiers du Centre d'Études Chypriotes

CTH : Catalog der Texte der Hethiter

DHA: Dialogues d'histoire ancienne

EPRO : Études préliminaires aux religions orientales dans l'Empire romain

EtudTrav: Études et Travaux (Institut des Cultures Méditerranéennes et Orientales de l'Académie Polonaise des Sciences)

JHS: Journal of Hellenic Studies

JGS : Journal of Glass Studies

JFA: Journal of Field Archaeology

JRA: Journal of Roman Archaeology

JRS: Journal of Roman Studies

IFAO: Institut français d'archéologie orientale

IFEA: Institut Français d'Études Anatoliennes

ИБАИ: Известия на българския археологически институт

ИИАО: *Из истории античного общества, Межвузовский сборник научных трудов*

ИНМБ: Известия на Народния Музей – Бургас

ИНМВ: Известия на Народния Музей – Варна

КСИА: Краткие сообщения Института археологии

МИА: Материалы и исследования по археологии СССР

МВ: Madrider Beiträge

ММJ: Metropolitan Museum Journal

НЭ: Нумизматика и эпиграфика

ОСМА: Oxford Centre for Maritime Archaeology

OJA: Oxford Journal of Archaeology

РОСА: Postgraduate Cypriot Archaeology Conference

РА: Российская археология

RA: Revue archéologique

RE: A. Pauly, G. Wissowa, *Real – Encyclopädie der Classischen Altertumswissenschaft* (1893–1978).

REA : Revue des Études Anciennes

RSF: Rivista di Studi Fenici

СА: Советская Археология

САИ: Археология СССР. Свод археологических источников

SCIVA: Studii și cercetări de istorie veche și arheologie

СГМИИ: Сообщения Государственного Музея Изобразительных искусств имени А.С. Пушкина

SIMA: Studies in Mediterranean Archaeology

ТАРА: Transactions of the American Philological Association

TEAS: Twayne's English authors series

ТМОМ : Travaux de la Maison de l'Orient méditerranéen

ТРАПА: Transactions and proceedings of the American Philological Association

ВДИ: Вестник Древней Истории

ZPE: Zeitschrift für Papyrologie und Epigraphik

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INDEX LOCORUM

Literary sources

- Aelian
On the Nature of Animals
15.3, 197
- Aeschylus
Prometheus Bound
301-02, 61
- Anonymous
Periplus of the Euxine Sea
3.5, 137
101, 147
- Apollonius of Rhodes
Argonautica
2. 178, 137; 237
2. 234-9, 137
2.140, 140
2.1002, 60
- Apollodorus
Bibliotheca
3.1.1, 137;138
3.4.1, 137
- Appian
Mithridatic Wars
15.103, 61
Syrian Wars
8, 230
- Arrian
Periplus of the Euxine Sea
24.3, 147
- Athenaeus
1.28, 146
1.28a, 239
1.28d, 239
1.29b.c, 239
3.118; 197
4.76, 146
- Bible
Amos
1.6; 178
1.9, 178
Ezekiel
27.12-24, 141
- 27.13, 179
27.14, 179
32.26, 178
38.2, 178
39.1, 178
Genesis
10.2, 178
Isaiah
66.19, 178
- Clement of Alexandria
Stromata
1.16.3, 138
- Demosthenes
20.31-2, 221
20.32-3, 223
34.6, 225
34.37; 229
35.10, 227
35.33., 229
35.51, 229
35.53, 229
- Dinarchus
1. 43, 197
- Diodorus
17.41.1-2, 238
37.3.5, 197
46.3-4, 238
- Euripides
Iphigenia at Aulis
107, 40
- Eusebius
Chronica
2.35, 140
- Flavius Josephus
16.2.2, 263; 267; 275
- Hegesippos of Mekyberna
F3, 137
- Herodotus
1.16.4, 71
1.103-105, 145
1.105.2-3, 177
1.194, 178

2. 61, 146
 2.44, 138
 3.5-7, 197
 3.6-2, 125
 3.20.1, 203
 3.94, 178
 3.116, 61
 4.85.2-86.4, 39
 4.152, 181;190
 4.108-109, 96
 4.152, 181, 191
 4.17.2, 112
 4.38, 78
 4.53, 111
 4.76, 233
 4.86.4, 39
 6. 46-7, 138
 6.47, 138
 7.147, 181, 190
 7.147.2—3, 112

Hesiod
Catalogue of Women
 F138, 137

Homer
Iliad
 23.740, 125
 23.740-49, 125
 23.741-50, 138
 23.742-744, 125
Odyssey
 4.615-619, 125
 14.287, 125
 15.415, 125
 15.459; 125
 18.32, 125

Justin
Epitome
 11.10, 238

Lucian
Toxaris
 4, 58

Oppian
Haliutica
 15.5.6; 197

Ovid
Tristia
 4.4.55ff, 40

Pausanias
 1.14.7, 177
 5.25.12, 138

Pherecydes
 F86, 137

Philochoros
 F162, 223

Pindar
Nemean Odes
 4.49, 39

Pliny
Natural History
 4.76, 40
 6.1, 40
 6.7, 147
 7.197, 138
 9.18; 197
 9.13, 203

Polybius
 4.36, 227
 4.38, 262
 4.50, 197
 8.9, 239

Pomponius Mela
 2.2, 147

Ps.-Aristotle
Mirabilia
 48 (833), 63
 62 (835a), 62
Peplos
 49, 61

Ps.-Scylax
Periplus
 39, 125
 66, 135
 68, 39
 112, 125

Ps.-Scymnos
 735ff, 40

Scholia to Apollonius of Rhodes
 1.1177, 146
 2. 177. 8, 139
 2.177, 137
 2.723, 140
 2.748, 140
 11.941, 139

Strabo	<i>I Delos</i>
1.2.39, 61	313a, 9, 225
7.4.3, 38; 227	400, 225
2.1.5, 196	<i>IG I³</i>
3.2.12, 71	71, 113
7.3.6, 40	123, 238
7.4.3, 38; 226	<i>IG II</i>
7.4.6, 223	2836, xvi, xvii, 230, 379, 403
7.6.2, 197	<i>IG II²</i>
11.2.4, 147	141, 224
11.2.10, 235	337, xvi; xviii; 177; 224; 376; 403
11.14.6, 262	342, 238; 339
11.14.9, 178	360, xvi; xvii; 225; 226; 367; 401
12.2.11-12; 197	363, 227
12.3.12, 196; 197	408, 227
14.5.28, 138	418, 238
Theopompus	4636, 224; 230
F292, 223	8358, 230
Thucydides	8440, xvi; xvii; 231; 375; 402
1.8, 146	10279, 230
6.88.6, 238; 247	<i>IG II³</i>
Xenophon	468, xvi; xvii; 238; 373; 402
<i>Anabasis</i>	<i>IG VII</i>
6.4.6, 196	2407, 238
5.34, 178	<i>IG XI.4</i>
5.5.1-2, 63	776, 225
5.5.2, 178	1203, 225
Epigraphical sources	<i>IG XII.5</i>
<i>CIG II²</i>	845, 225
119, 232	<i>IG XII.9</i>
<i>CIRB</i>	1186, 92; 196
20, 223	<i>IoSPE II</i>
22, 223	346, 231; 232; 400
203, 170; 189; 224	<i>IscM I</i>
208, 223	5, 261
237, 223	20, xvi; xvii; 260; 381; 404
246, 223	<i>KAI</i>
985, 264	56, 231
1015, 177; 231; 400	60, 224
1233, 224	<i>SEG</i>
<i>Dubois</i>	13:40, 225
73, 175; 186; 400	24:101, 225
74, 175; 185	24:1200, 232

26:79, 224
36:758, 176
38:66, 226

45:1016, 232; 400
57.198, 224

41:182, 224

ALINA VELISLAVA DIMITROVA KAMENOU

APPENDIX 1

TRANSLATED INSCRIPTIONS

Inscr. 1. IG II² 360

Five decrees honoring Heracleides of Salamis. Athens, 330/29-328/7 and 325/4 BC.

Translation: Stephen Lambert,

<https://www.atticinscriptions.com/inscription/IGI2/360>



A. Greek translation

θεο[ί].

ἐπ' Ἀντικλέους ἄρχοντος ἐπὶ τῆς Αἰγεΐδος πέμπτ-
ης πρυτανείας, ἧ Ἀντιφῶν Κοροΐβου Ἐλευσί ἐγρα-
μμάτευεν· ἑνδεκάτη· τετάρτη καὶ τριακοστῆ τῆς πρυταν-
είας· τῶμ προέδρων ἐπεψήφισεν Φίλυλλος Ἐλευσί·
Δημοσθένης Δημοκλέους Λαμπρεὺς εἶπεν· ἐπειδ-
ὴ Ἡρακλείδης Σαλαμίνιος διατελεῖ φιλοτιμούμ-
ενος πρὸς τὸν δῆμον τὸν Ἀθηναίων καὶ ποιῶν ὅτι δ-
ύναται ἀγαθόν, καὶ πρότερόν τε ἐπέδωκεν ἐν τῆ σ-
πανοσιταί :XXX: μεδίμνους πυρῶν :Γ: δράχμου-
ς πρῶτος τῶν καταπλευσάντων ἐνπόρων· καὶ πάλιν
ὅτε αἱ ἐπιδόσεις ἦσαν ἐπέδωκε :XXX: δραχμὰς εἰ-
ς σιτωνίαν, καὶ τὰ ἄλλα διατελεῖ εὖνους ὦν καὶ φι-
λοτιμούμενος πρὸς τὸν δῆμον· δεδόχθαι τῶι δήμω-
ι ἐπαινέσαι Ἡρακλείδην Χαρικλείδου Σαλαμίνι-
ον καὶ στεφανῶσαι χρυσῶι στεφάνωι εὐνοίας ἕνεκ-
α καὶ φιλοτιμίας τῆς πρὸς τὸν δῆμον τὸν Ἀθηναίων·
εἶναι δ' αὐτὸν πρόξενον καὶ εὐεργέτην τοῦ δήμου
τοῦ Ἀθηναίων αὐτὸν καὶ ἐγγόνους, εἶναι δ' αὐτοῖς
καὶ γῆς καὶ οἰκίας ἔγκτησιν κατὰ τὸν νόμον καὶ σ-
τρατεύεσθαι αὐτοὺς τὰς στρατείας καὶ εἰσφέρει-
ν τὰς εἰσφορὰς μετὰ Ἀθηναίων. ἀναγράψαι δὲ τόδ-
ε τὸ ψήφισμα τὸν γραμματέα τὸν κατὰ πρυτανείαν
καὶ τοὺς ἄλλους ἐπαίνους τοὺς γεγενημένους αὐ-
τῶι ἐν στήλῃ λιθίνει καὶ στήσαι ἐν ἀκροπόλει, ε-
ἰς δὲ τὴν ἀναγραφὴν τῆς στήλης δοῦναι τὸν ταμία-
ν ΔΔΔ δραχμὰς ἐκ τῶν εἰς τὰ κατὰ ψηφίσματ' ἀναλισ-
κομένων τῶι δήμωι. vac.

Τηλέμαχος Θεανγέλου Ἀχαρνεὺς εἶπεν· ἐπειδὴ Ἡρ-
ακλείδης Σαλαμίνιος ἐπέδωκεν τὸν σῖτον τῶι δή-
μωι πεντέδραχμον πρῶτος τῶν καταπλευσάντων ἐ-
μπόρων ἐπ' Ἀριστοφῶντος ἄρχοντος, ἐψηφίσθαι τῶ-

ι δήμῳ ἐπαινέσαι Ἡρακλείδην Χαρικλείδου Σαλαμίνιον καὶ στεφανῶσαι αὐτὸν χρυσῶι στεφάνῳ φιλοτιμίας ἔνεκα τῆς εἰς τὸν δῆμον τὸν Ἀθηναίων· ἐπειδὴ δὲ καταχθεις ὑπὸ Ἡρακλεωτῶν πλέων Ἀθήναζε παρειρέθη τὰ ἰστία ὑπ' αὐτῶν, ἐλέσθαι πρεσβευτὴν ἓνα ἄνδρα ἐξ Ἀθηναίων ἀπάντων, ὅστις ἀφικόμενος εἰς Ἡράκλειαν ὡς Διονύσιον ἀξιώσει ἀποδοῦναι τὰ ἰστία τὰ Ἡρακλείδου καὶ τὸ λοιπὸν μηδέν' ἀδικεῖν τῶν Ἀθήναζε πλεόντων· καὶ ταῦτα ποιῶν τὰ τε δίκαια ποιήσει καὶ οὐθενὸς ἀτυχήσει τοῦ δήμου τ[ο]ῦ Ἀθηναίων] τῶν δικαίων· δοῦναι δὲ τῶι αἰρεθέντι πρεσβευτεῖ εἰς ἐφόδια τὸν ταμίαν τοῦ δήμου ΔΔΔ δραχμὰς ἐκ τῶν κατὰ ψηφίσματ' ἀναλισκομένων τῶι δήμῳ. εἰρέθη πρεσβευτὴς Θηβαγένης Ἐλευσίνιος. vac.

Τηλέμαχος Θεαγγέλου Ἀχαρ εἶπεν· ἐψηφίσθαι τῶι δήμῳ τὴν βουλὴν προβουλεύσασαν ἐξενεγκεῖν εἰς τὴν πρώτην ἐκκλησίαν περὶ Ἡρακλείδου καθότι εὐρήσεται ἂν τι δύνηται ἀγαθὸν παρὰ τοῦ δήμου τοῦ Ἀθηναίων. vac.

Κηφισόδοτος Εὐαρχίδου Ἀχαρνεὺς εἶπεν· περὶ ὧν ὁ δῆμος προσέταξεν τῇ βουλῇ προβουλεῦσαι περὶ Ἡρακλείδου τοῦ Σαλαμίνιου, δεδόχθαι τῇ βουλῇ, ἐπειδὴ Ἡρακλείδης καταπλεύσας Ἀθήναζε σῆτον ἄγων ἐπέδωκεν τῶι δήμῳ τρισχιλίους μεδίμνους πέντε δραχμῶν ἕκαστον, τοὺς προέδρους οἳ ἂν λάχωσιν προεδρεύειν εἰς τὴν πρώτην ἐκκλησίαν προσαγαγεῖν Ἡρακλείδην πρὸς τὸν δῆμον καὶ χρηματίσαι, γνώμην δὲ ξυμβάλλεσθαι τῆς βουλῆς εἰς τὸν δῆμον ὅτι δοκεῖ τῇ βουλεῖ ἐπαινέσαι Ἡρακλείδην Χαρικλείδου Σαλαμίνιον καὶ στεφανῶσαι χρυσῶι στεφάνῳ ἀπὸ 22 δραχμῶν· εἶναι δ' αὐτῶι καὶ εὐρέσθαι παρὰ τοῦ δήμου ὅτι ἂν δύνηται ἀγαθόν, ὅπως ἂν καὶ οἱ ἄλλοι φιλοτιμῶνται εἰδότες, ὅτι τιμᾶι καὶ στεφανοῖ ἢ βουλὴ τοὺς φιλοτιμουμένους. vac.

Φυλεὺς Πausανίου Οἰναῖος εἶπεν· ἐπειδὴ Ἡρακλείδης Σαλαμίνιος καταπλευ-
 σας Ἀθήναζε σῖτον ἄγων ἐπ' Ἀριστοφῶντος ἄρχοντος ἐπέδωκεν τῷ δήμῳ XXX με-
 δίμνους ͵ϛ δράχμους καὶ διὰ ταῦτα ὁ δῆμος ἐψηφίσατο αὐτῷ τὴν βουλὴν προβου-
 λεύσασαν ἐξενέγκειν εἰς τὸν δῆμον καθ' ὅτι εὐρήσεται ἄν τι δύνηται ἀγαθὸν παρὰ
 τοῦ δήμου τοῦ Ἀθηναίων, καὶ πάλιν ἐπ' Εὐθυκρίτου ἄρχοντος ἐπέδωκεν τῷ <δήμῳ> εἰς
 σιτωνίαν XXX δ-
 ραχμᾶς, δεδόχθαι τῇ βουλῇ τοὺς προέδρους οἳ ἂν λάχῃσι προεδρεύειν εἰς τὴν κυρίαν
 ἐκκλησίαν προσαγαγεῖν Ἡρακλείδην πρὸς τὸν δῆμον καὶ χρηματίσαι, γνώμην δὲ ξυ-
 μβάλλεσθαι τῆς βουλῆς εἰς τὸν δῆμον ὅτι δοκεῖ τῇ βουλῇ ἐπαινέσαι Ἡρακλείδην
 Χαρικλείδου Σαλαμίνιον καὶ στεφανῶσαι χρυσῷ στεφάνῳ ἀπὸ ͵ϛδραχμῶν·
 εἶναι δ' αὐτῷ καὶ εὐρέσθαι ἀγαθὸν [πα]ρὰ τοῦ δήμου ὅτου ἂν δοκεῖ ἄξιος εἶναι, ὅπως
 ἂν καὶ οἱ ἄλλοι ἐθέλωσι [ἐτοίμ]ω[ς] εὐεργετεῖν τὴν βου]λὴν καὶ τὸν δῆ[μ]ο[ν] ὀρῶντες
 τοὺς φιλοτιμουμέ[νους] — — — — — τὸν] δῆμον
 — — — — — πᾶσ[α]ς
 α — — — — — vac.

in corona:	in corona:	in corona:	in corona:
ὁ δῆμος	ὁ δῆμος	ἡ βουλή	ἡ βουλή

B. English translation

Gods.

Decree 5 (325/4). In the archonship of Antikles (325/4), in the fifth prytany, of Aigeis II, for which Antiphon son of Koroibos of Eleusis was secretary. On the eleventh, the thirty-fourth of the prytany. Of the presiding committee Philyllos of Eleusis was putting to the vote. Demosthenes son of Demokles of Lamprai proposed: since Heracleides of Salamis continues to show love of honour towards the Athenian People and to do whatever good is in his power; and both previously donated in the grain shortage 3,000 medimnoi of wheat at 5 drachmas, being the first of the merchants to sail in, and again when there were the public subscriptions, donated 3,000 drachmas for grain purchase, and in other respects continues to be well disposed and honour-loving towards the People, the People shall decide: to praise Heracleides son of Charikleides of Salamis and crown him with a gold crown for his good will and love of honour towards the Athenian People; and he shall be proxenos and benefactor of the

Athenian People, himself and his descendants; and they shall have right of ownership of land and a house according to the law and they shall do military service and paycapital taxes with the Athenians; and the prytany secretary shall inscribe this decree and the other praises there have been for him on a stone stele and stand it on the acropolis;and for inscribing the stele the treasurer shall give drachmas from the People's fund for expenditure on decrees.

Decree 3 (330/29-328/7). Telemachos son of Theangelos of Acharnai proposed: since Heracleides of Salamis donated grain to the People at five drachmas, as first of the merchants to sail in the archonship of Aristophon (330/29), the People shall resolve: to praise Heracleides son of Charikleides of Salamis and crown him with a gold crown for his love of honour towards the Athenian People; and since on his voyage to Athens he was brought to land by the Herakleots and deprived by them of his sails, to elect as an envoy one man from all the Athenians to go to Herakleia to Dionysios and to request him to return Heracleides' sails and refrain in future from wronging those sailing to Athens; and by acting in this way he will be acting justly and will not fail to be treated justly by the Athenian People; and the treasurer of the Peoples hall give drachmas travelling expenses to the elected envoy from the People's fund for expenditure on decrees.Thebagenes of Eleusis was elected envoy.

Decree 1. Telemachos son of Theangelos of Acharnai proposed: the Peopleshall resolve: that the Council shall formulate and bring forwardto the next Assembly a proposal about Heracleides, for him to obtain whatever benefit he can from the Athenian People.

Decree 2. Kephisodotos son of Euarchides of Acharnai proposed: concerning the People's instruction to the Council to formulate a proposal about Heracleides of Salamis, the Council shall decide: since Heracleides, having sailed to Athens bringing grain, donated to the People three thousand medimnoi at five drachmas each, the presiding committee allotted to preside at the next Assembly shall introduce Heracleides to the People and put his case on the agenda, and submit the opinion of the Council to the People,that it seems good to the Council to praise Heracleides son of Charikleides of Salamis and crown him with a gold crown of 500 drachmas; and he shall be permittedto obtain from the People whatever benefit he can, so that others

may also show love of honour, knowing that the Council honours and crowns those who show love of honour.

Decree 4. Phyleus son of Pausanias of Oinoe proposed: since Heracleides of Salamis, having sailed to Athens bringing grain in the archonship of Aristophon (330/29), donated to the People 3000 medimnoi at 5 drachmas and for that the People resolved that the Council should formulate and bring forward to the People a proposal for him to obtain whatever benefit he could from the Athenian People, and again in the archonship of Euthykritos (328/7) he donated to the People for grain purchase 3000 drachmas, the Council shall decide: that the presiding committee allotted to preside at the Principal Assembly shall introduce Heracleides to the People and put his case on the agenda and submit the opinion of the Council to the People, that it seems good to the Council, to praise Heracleides son of Charikleides of Salamis and crown him with a gold crown of 500 drachmas; and that he be permitted to obtain from the People whatever benefit he may be worthy of, so that others may also wish . . . the Council and the People, seeing that those who are honour-loving . . . the People . . . all . . .

Inscr. 3. IG II² 8440

Funeral Stele of Eirene of Byzantium with a bilingual epitaph

Athens, 4th century BC. CIS I,1 tabulae, pl. 23.



A. Phoenician translation

ⲙⲓⲣⲏⲛⲉ ⲃⲩⲗⲁⲛⲧⲓⲁ

B. Greek Translation

ΕΡΗΝΗ : ΒΥΖΑΝΤΙΑ

Ἐ(ι)ρήνη Βυζαντία

C. English translation

Eirene, from Byzantium.

Inscr. 4. IG II² 337

The Kitians granted permission to found a sanctuary of Aphrodite (IG II² 337). Athens, 4th century BC.

Translation:

Stephen

Lambert,

<https://www.atticinscriptions.com/inscription/IGII2/337>



A. Greek translation

[θ]εοί.

ἐπὶ Νικοκράτους ἄρχοντος
ἐπὶ τῆς Αἰγεΐδος πρώτης
πρυτανείας τῶν προέδ-

ρων ἐπεψήφισεν Θεόφιλος Φηγούσιος· ἔδοξεν τῆι βουλευεῖ Ἀντίδοτος Ἀπολλοδώρου Συπαλήττιος εἶπεν· περὶ ὧν λέγουσιν οἱ Κιτιεῖς περὶ τῆς ἰδρύσειως τῆι Ἀφροδίτῃ τοῦ ἱεροῦ, ἐψηφίσθαι τεῖ βουλευεῖ τοὺς προέδρους οἱ ἂν λάχωσι προεδρεύειν εἰς τὴν πρώτην ἐκκλησίαν προσαγαγεῖν αὐτοὺς καὶ χρηματίσαι, γνώμην δὲ ξυνβάλλεσθαι τῆς βουλῆς εἰς τὸν δῆμον ὅτι δοκεῖ τῆι βουλευεῖ ἀκούσαντα τὸν δῆμον τῶν Κιτιείων περὶ τῆς ἰδρύσειως τοῦ ἱεροῦ καὶ ἄλλου Ἀθηναίων τοῦ βουλομένου βουλευέσασθαι ὅτι ἂν αὐτῶι δοκεῖ ἄριστον εἶναι. ἐπὶ Νικοκράτους ἄρχοντος ἐπὶ τῆς Πανδιονίδος δευτέρας πρυτανείας· τῶν προέδρων ἐπεψήφισεν Φανόστρατος Φιλαίδης· ἔδοξεν τῶι δήμῳ· Λυκῶργος Λυκόφρονος Βουτάδης εἶπεν· περὶ ὧν οἱ ἔμποροι οἱ Κιτιεῖς ἔδοξαν ἔννομα ἰκετεύειν αἰτοῦντες τὸν δῆμον χωρίου ἔνκτησιν ἐν ᾧ ἰδρύσονται ἱερὸν Ἀφροδίτης, δεδόχθαι τῶι δήμ-

ωι δοῦναι τοῖς ἐμπόροις
τῶν Κιτιέων ἔνκτησι[ν] χ[ω]-
ρίου ἐν ᾧ ἰδρῦσονται τὸ
ἱερὸν τῆς Ἀφροδίτης καθ-
άπερ καὶ οἱ Αἰγύπτιοι τὸ
τῆς Ἴσιδος ἱερὸν ἰδρυντ-
αι.

A. English translation

Gods.

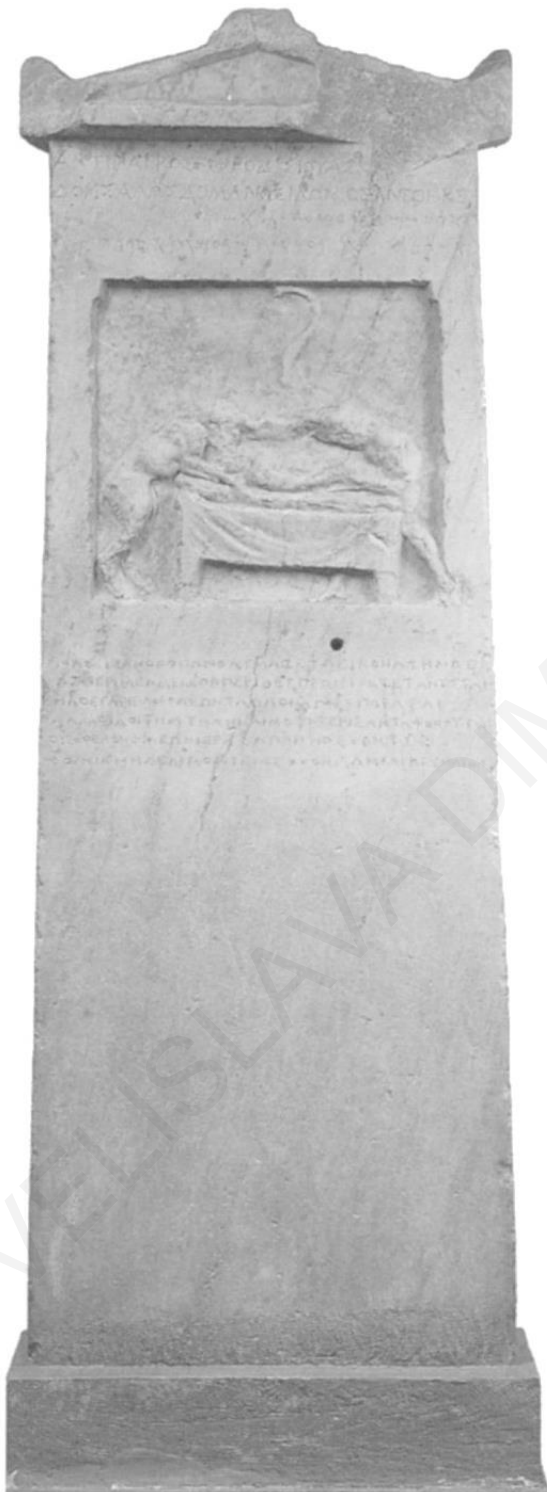
Decree 1. In the archonship of Nikokrates (333/2), in the first prytany, of Aigeis II. Of the presiding committee Theophilos of Phegous was putting to the vote. The Council decided. Antidotos son of Apollodoros of Sypalettos proposed: concerning what the Kitians say about the foundation of the sanctuary of Aphrodite, the Council shall resolve: that the presiding committee allotted to preside at the next Assembly shall introduce them and place the matter on the agenda and submit the opinion of the Council to the People that it seems good to the Council that the People, having heard the Kitians concerning the foundation of the sanctuary, and any other Athenian who wishes, shall deliberate as seems to it best.

Decree 2. In the archonship of Nikokrates (333/2), in the second prytany, of Pandionis III. Of the presiding committee Phanostratos of Philaidai was putting to the vote. The People decided. Lykourgosson of Lykophon of Boutadai proposed: concerning what is deemed to have been the lawful supplication of the Kitian merchants who are asking the People for right of ownership of a plot of land on which to found a sanctuary of Aphrodite, the People shall decide: to grant the Kitian merchants right of ownership of a plot of land on which to found a sanctuary of Aphrodite, as the Egyptians have founded a sanctuary of Isis.

Inscr. 5. IG II 2836

Funeral stele of the Phoenician Shem/Antipatros with a bilingual epitaph on the upper part (IG II 2836). Kerameikos, Athens, 4th century BC. After Stager 2005, 429, fig. 2.

Translation: J. Hackett (Greek epitaph), J. M. S. Stager (Phoenician epitaph and epigram)



A. Greek translation

Ἀντίπατρος Ἀφροδισίου Ἀσκα[λωνίτης].
Δομσαλῶς Δομανῶ Σιδώνιος ἀνέθηκε.

’NK ŠM [.] BN ’BD’ŠTRT ’ŠQLNY
’Š YṬN’T ’NK D’MŠLḤ BN D’MḤN’ ŠDNY

μηθεὶς ἀνθρώπων θαυμάζετω εἰκόνα τήνδε,
ὡς περὶ μὲν με λέων, περὶ δὲγ πρῶιρ’ <έ>γκτετάνυσται.
ἦλθε γὰρ εἰχθρολέων τάμα θέλων σποράσαι
ἀλλὰ φίλοι τ’ ἤμυναν καὶ μοι κτέρισαν τάφον οὔτηι,
οὓς ἔθελον φιλέων, ἱερᾶς ἀπὸ νηὸς ἰόντες·
Φοινίκην δ’ ἔλιπον, τεῖδε χθονὶ σῶμα κέκρυνμαι.

B. English translation

Antipatros, son of Aphrodisios, the Ashkel(onite).
Domsal?s, son of Doman?, the Sidonian, dedicated (this stele).

I (am) Shem[.], son of ’BD’ŠTRT (Abdashtart), the Ashkelonite.

(This is the stele) which I, D’MŠLḤ (Domseleh), the son of D’MḤN’ (Domhan?) the Sidonian, erected.

Let no man wonder at this image that on one side of me depicts a lion and on the other side of me depicts the prow of a ship. For the hateful lion came, wishing to destroy my things, but my friends warded [the lion] off and buried me here in this tomb, the [friends] whom I loved and for whom I wished, as they departed from the sacred ship. I left Phoenicia and I, a body, am buried in this land.

Inscr. 6. IScM I 20

Honoring decree for (?) from Carthage (IScM I 20). Istros, ca. 200BC. After Dridi 2010, 97,fig.13.



A. Greek translation

[ἔδοξε τῆι βουλῆι καὶ τῶι δήμῳ] {²⁶δήμῳ}²⁶. ἐπι[μηνι]-
[εὐοντος Ἀπατο]υρίου τοῦ Παρμενίσ[κου]
[ὁ δεῖνα — — —]ημου εἶπεν· ἐπειδ[ὴ]
[ὁ δεῖνα — — —]ριδου Καρχηδόν[ιος]
[σίτον μεταπεμψάμεν]ος εἰς τὴν πόλιν, π[αρα]-
[κληθεῖς ὑπὸ τῶν ἀρ]χόντων καὶ τοῦ [δή]-
[μου c.12. . . .]αι καὶ παρα{α}ποδόσθα[ι] {²⁶παραποδόσθαι}²⁶
[— — — — — — — —]ετασθαι τὰ σιτικά
[— — — — — — — —]ασε πόλει [— — —]
[— — — — — — — —]ρ[— — — — —]
[— — — — — — — —]

B. English translation

When Apathourios, a son of Parmeniskos, was leading the council, (?) made the motion. Because (?) from Carthage, sent in the city for grain, was asked by the council and the people, and being in possession of (....) the food (.....)

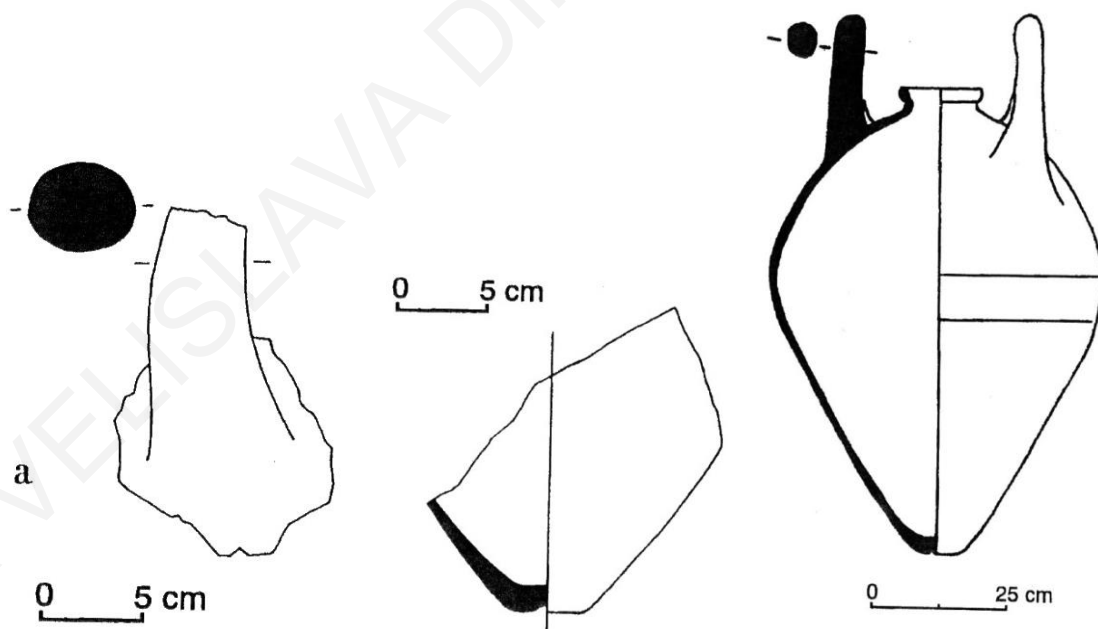
APPENDIX 2

PLATES

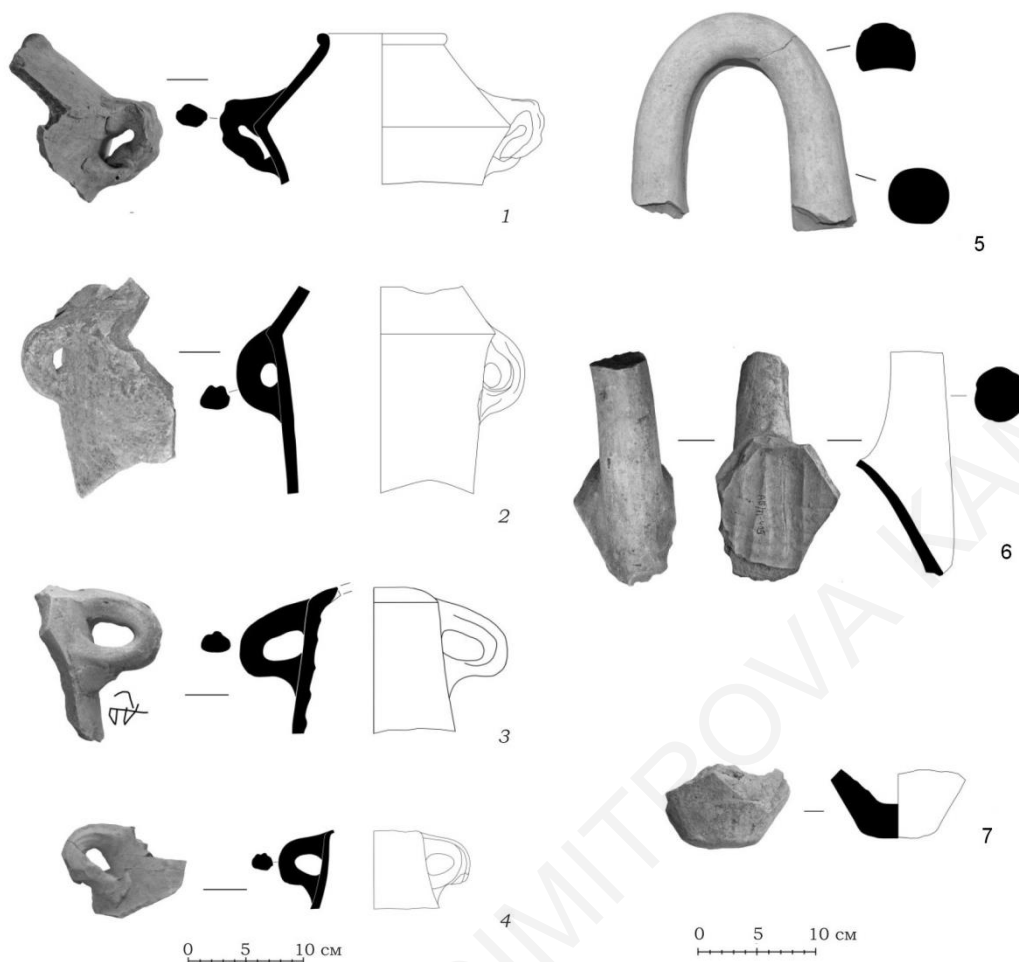
POTTERY



1. Fragments of Cyprote White Painted IV ware, found at Berezan. After Alexandrescu 1978, 63, no. 256.



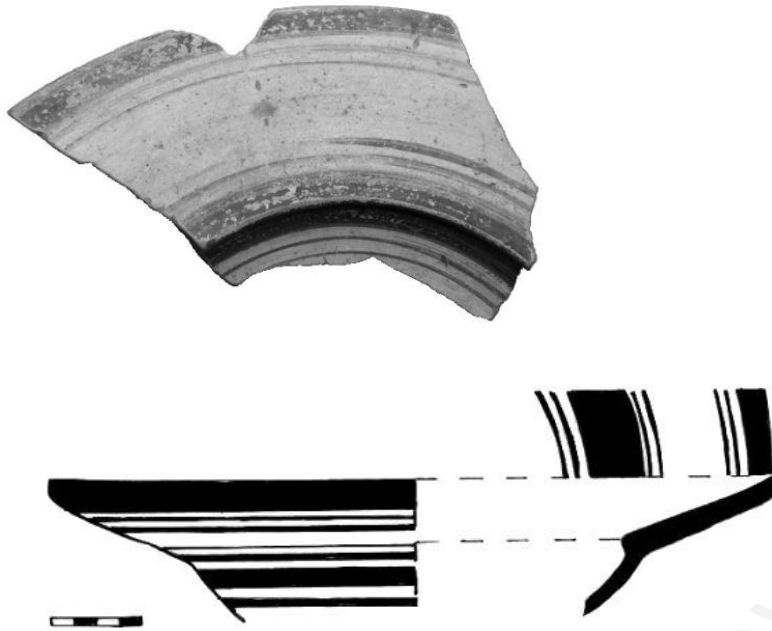
2. Fragments of loop-handle pottery found at Berezan compared to an amphora from Tell Keisan (left). Second half of the 6th century BC. After Дюпон, Назаров 2003, p. 143, fig.1.



3. Fragments of archaic amphorae from the unpublished collection of Lapin's excavations. Provenance: 1, 2, 3, 4 Palestina; 5,6, 7 - Cyprus. After Буйских; 2017, 204, рис1; 205, рис2.



4. Archaic fish plate from Berezan. After Dupont, Lungu 2007, 132, fig. 5



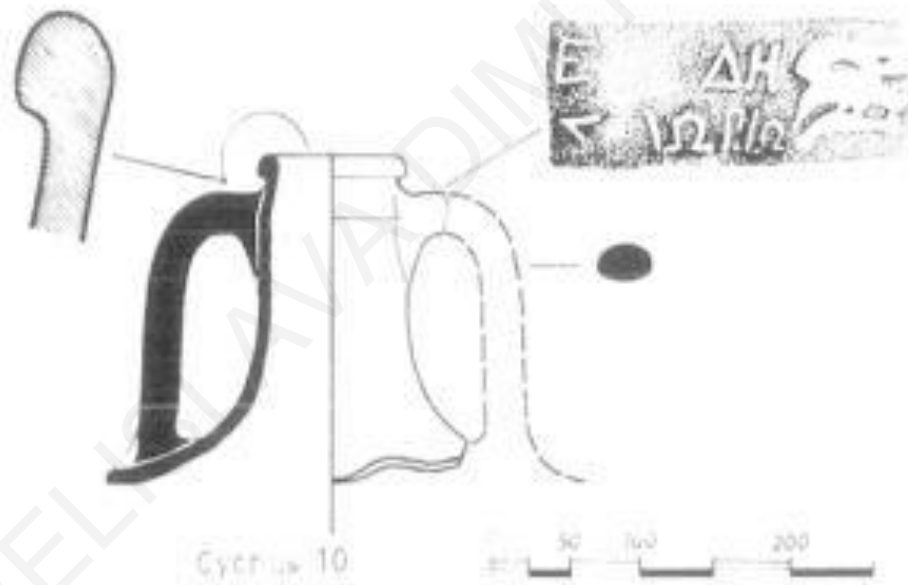
5. Fragment of an archaic fish plate from Berezan. After Dupont, Lungu 2007, 132, figs. 5; 7, 7a



6. Fragment of a Sicilian amphora found at Berezan. 2nd – 3rd quarter of the 6th century BC. After Dupont 2003, 25, fig. 8.



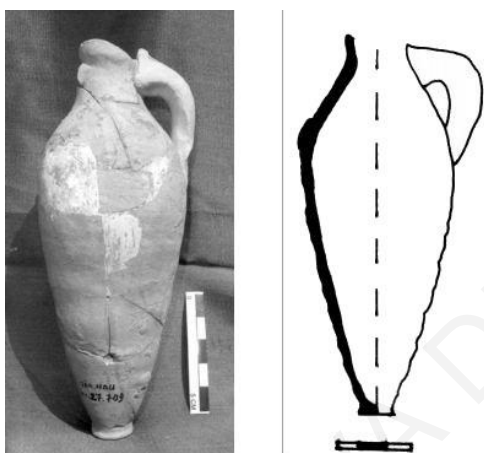
7. Punic amphora from Elizavetovskoe settlement. Second half of the 4th century BC. After Kopylov 2006, 73, рис. 1



8. Fragment of a stamped Sinopean amphora found at the El Sec shipwreck. After Cerda 1987, 90, fig.19



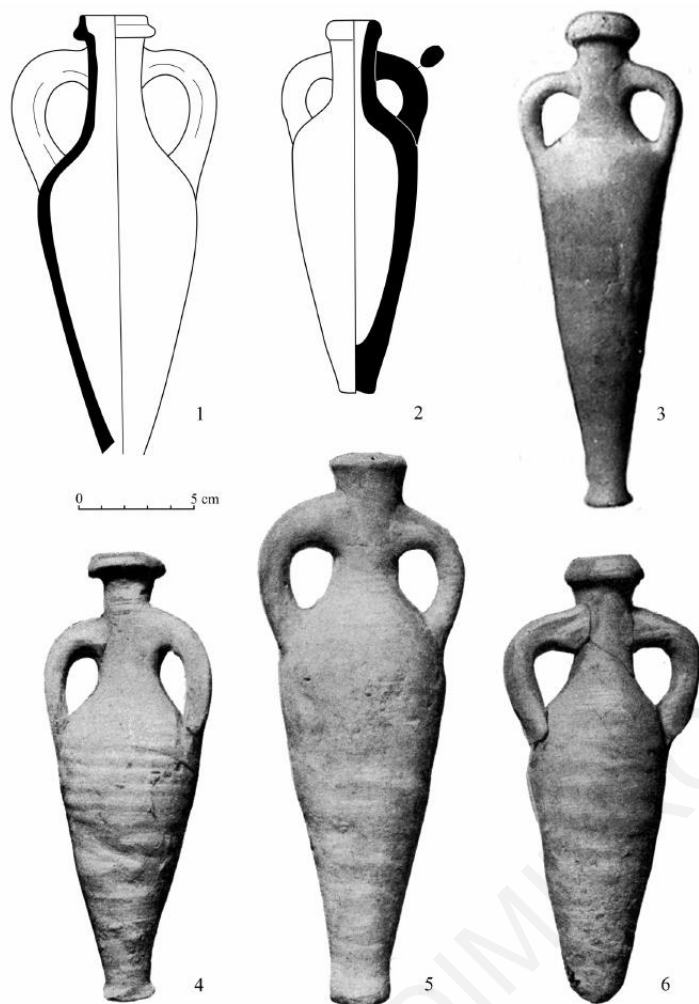
9. Amphoriskos from Olbia. Second half of the 2nd century BC. 16,5cm. After Papuci-Władyka 2012, 568, fig. 3.



10. Amphoriskos from the locality Făgărașul Nou, Tulcea region. After Lungu 2007, 121, pl. 2/2



11. Amphoriskoi from the necropolis of Tomis. Second half of the 2nd century BC. After Lungu 2007, 120, pl.1/1-3.



12. Amphoriskoi from various Black Sea centers: 1 - Olbia, 2- necropolis of the Tauric Chersonessos, 3- necropolis of Apollonia Pontica, 4-6 - Tauric Chersonessos. After Papuci-Władyka 2012, 570, fig. 4



13. Fragment of a Punic transport amphora found at Olbia, sector NGS. Middle of the 2nd century BC. H 6,9 cm. After Lawall *et al.* 2010, 397, L- 309, pl. 298.



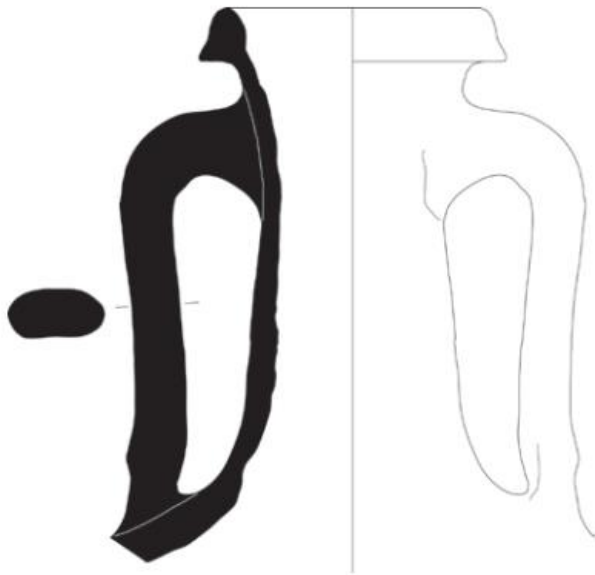
14. Fragment of a Punic transport amphora, found at Olbia, sector NGS. First half of the 2nd century BC. H 10,5 cm. After Lawall *et al.* 2010, 397, L- 307, pl. 298.



15. Fragment of a *Maña* C2 amphora found at Olbia, sector NGS. H 10,3 cm. After Lawall *et al.* 2010, 404, L- 370, pl. 301.



16. Fragment of a Campanian amphora found at Olbia, sector NGS. 140 BC ca. H 32 cm. After Lawall *et al.* 2010, 398, L- 314, pl. 299.



17. Fragment of a Lamboglia 2 amphora found at Olbia, sector NGS. H 32,4 cm. After Lawall *et al.* 2010, 398, L- 314, pl. 299.



18. Late Greco-Italic - early Dressel I amphora found at Olbia. H 80 cm. After Lawall *et al.* 2010, 404, L- 370, pl. 30

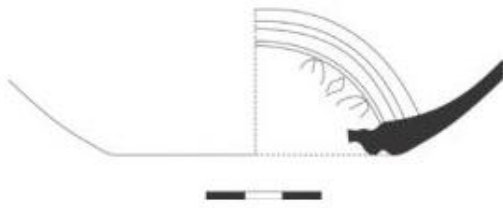


Fig. CaA 1a.



Fig. CaA 1b

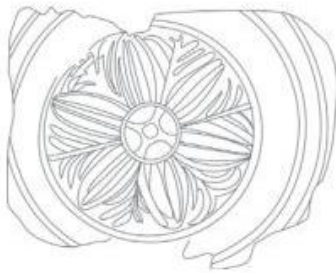


Fig. C1 (D'après Morel 1999, fig. 28)



Fig. O1 (D'après Levi 1964, fig. 6.1.)

19. Fragments of Campanian A ware. Figs. CaA1a-b: found at Istros, fig. O1: Olbia, fig. C1: Carthage. After Lungu 2014, 28, fig. CaA2.



Da-575





Da-576



Da-576



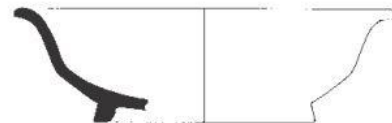
Da-577



20. Fragments of Campanian pottery, found at Olbia. 150-130 BC H 3,1; 3; 2.7 cm. After Handberg and Petersen 2010, 249, pl. 141,151



Da-491



21. Fragments of Campanian pottery found at Olbia. Early 3rd century BC H 4,5;. After Handberg and Petersen 2010, 241, pl. 137,149

TERRACOTTA



22. Upper part of a figurine found at Istros. 6th-5th century BC. 6cm. After Alexandrescu Vianu 1997, 21, fig. 6a



23. Lower part of a figurine found at Istros. 6th-5th century BC. 5cm. After Alexandrescu Vianu 1997, 21, fig.6b



24. Figurine from Istros. Private collection. After Alexandrescu Vianu 1997, 20, fig. 5a-c. Cf. Hermary 2013, 48, fig.1



25. Bronze figurine of a seated goddess found at Seville. 7th century BC. Commonly referred as "Astarte from Seville". Height 16, 5 cm. Photos after Blasquez 1968, tav. 34 A-B (left); Quattrocci Pisano 1972, 110, tav. 31 (center and right).



26. Terracotta figurines found at Arsos, Cyprus. After Karageorghis 2005, fig.193, (left), fig. 182 (right). Cf Hermary 2013, 48, 49, figs. 2,4.



27. Fragment of a terracotta figurine, found at Istros. After Hermary 2013, 48, fig.3



28. Fragment of a terracotta statuette representing a male head, found at Istros. After Alexandrescu 1978, 487-488; 1997, 23, fig. 7a-b.



29. Terracotta statuette representing a seated couple, found at Berezan. After Alexandrescu Vianu, 1997, 18, fig. 2; 2004, 85.



30. Fragment of a terracotta statuette representing Artemis Tauropolos with a bull head, found at Pantikapaion. 2nd century BC. After Сапрыкин 2009, рис. 135



31. Fragment of a terracotta statuette representing Astarte-Aphrodite Ourania with a lion. Found at Myrmekion. 4th century BC. After Alexandrescu Vianu 1997, 29, fig. 11



32. Terracotta statuette representing Aphrodite Ourania, found at Phanagoria. 2nd- 1st century BC. After Кобылина 1978, 105, fig. 54



33. Terracotta statuette representing Astarte-Aphrodite Apatouria. Found in the vicinities of Gorgippia. 3rd century BC. After Кобылина 1978, 106, fig. 55



34. Protomes of a female divinity whose hands are holding the breasts. a - Chersonessos, b, c,- Panskoe, d - Nymphaeion, e, f, - Olbia, g - Theodosia, h - Myrmekion, k - Kerkinitis, l - Chaika, m - Tiritake. Identities uncertain. After Bizoianou 2013, 56, fig.2.

INSCRIPTIONS



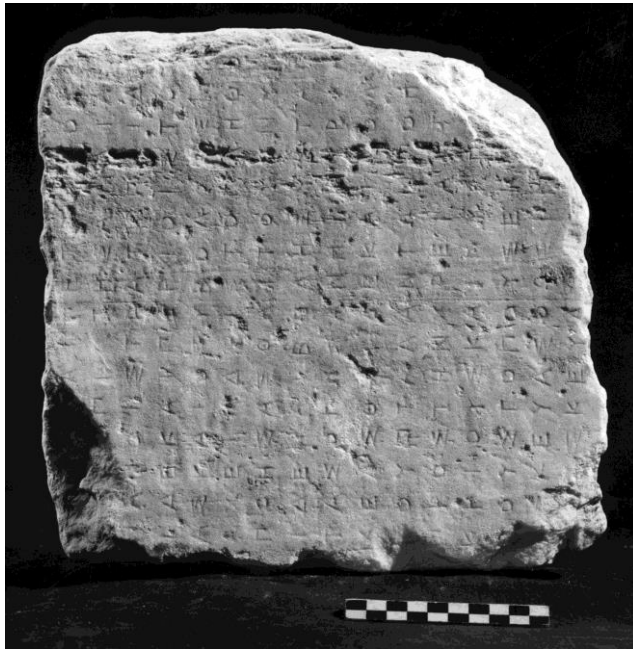
35. A dedication to Aphrodite Syria. Graffito on the exterior of a black-glazed cup. Olbia. 5th century BC. After Dubois 1996, 122, no. 73



36. Fragment of a statue. Phanagoria, second half of the 4th century BC. After Ашик 1848, pl. IX, n.9. On its base is found a dedication to the deities Astara and Sanergos, made by the Bosporan queen Komosarye (IoSPE II, 346; CIRB 1015; SEG 45:1016).



37. Five decrees honoring Heracleides of Salamis. (IG II² 360).Athens, 330/29-328/7 and 325/4 BC. Photo: Courtesy of the *Epigraphic Museum of Athens*.



38. Honorific decree for Apses and Hieron (?) of Tyre. (IG II³ 468). Athens, after 332 BC. Three fragments, nearly joining, of a stele of white marble. Photo: Courtesy of the Epigraphic Museum of Athens.



39. Funeral Stele of Eirene of Byzantium with a bilingual epitaph (IG II² 8440). Athens, 4th century BC. CIS I,1 tabulae, pl. 23.



40. (left). The Kitians granted permission to found a sanctuary of Aphrodite (IG II² 337). Athens, 4th century BC. Photo: Courtesy of the Epigraphic Museum of Athens.

41. (right) Funeral stele of the Phoenician Shem/Antipatros with a bilingual epitaph on the upper part (IG II 2836). Kerameikos, Athens, 4th century BC. After Stager 2005, 429, fig. 2.

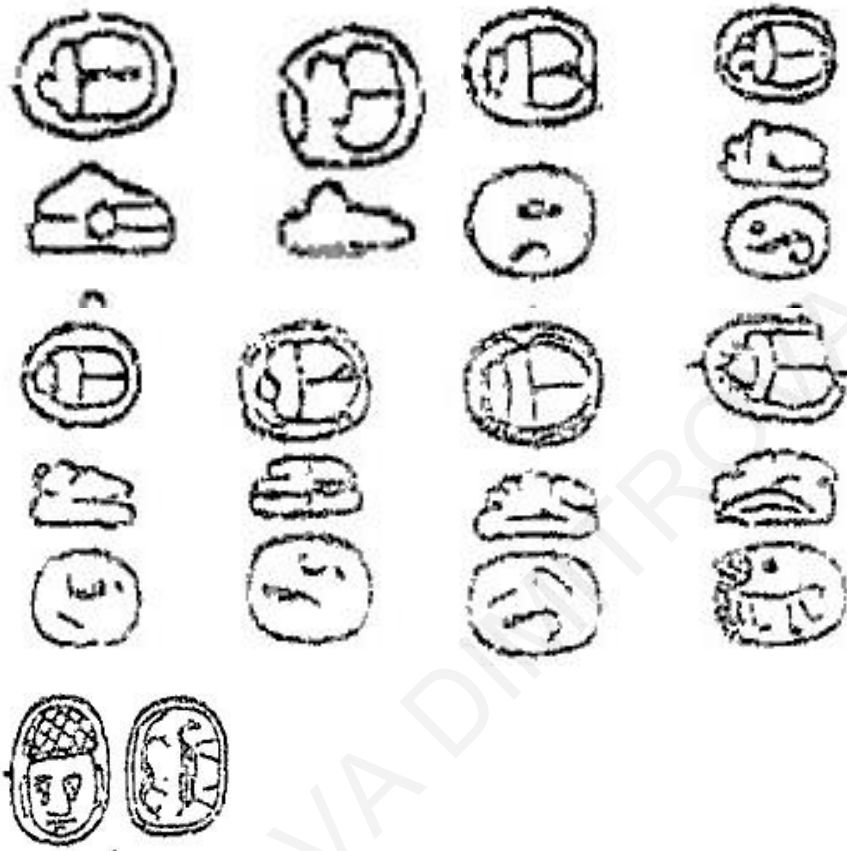


42. Honoring decree for (?) from Carthage (IScM I 20). Istros, ca. 200BC. After Dridi 2010, 97,fig.13

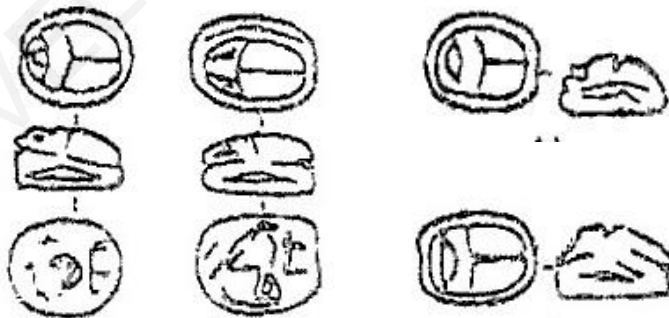


43. Judaic gravestone from Vyshesteblievskaya-11 settlement in the vicinities of Phanagoria. Late Classic - Early Medieval period. After Kashaev 2005, 315, fig.4

FAIENCE OBJECTS



44. Scarabs from Olbia. 6th - 5th century BC. After Bouzek 2000, 137, fig.2



45. Scarabs from Pantikapaion. 6th - 5th century BC. After Bouzek 2000, 137, fig.2

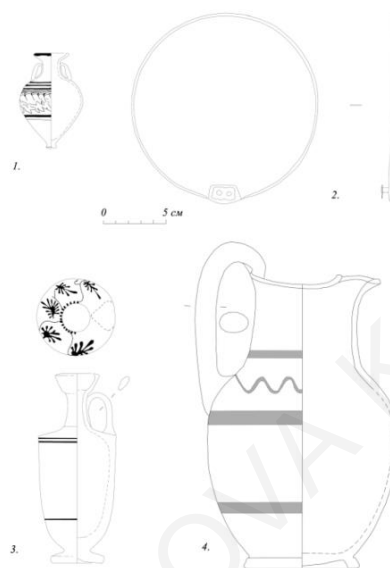
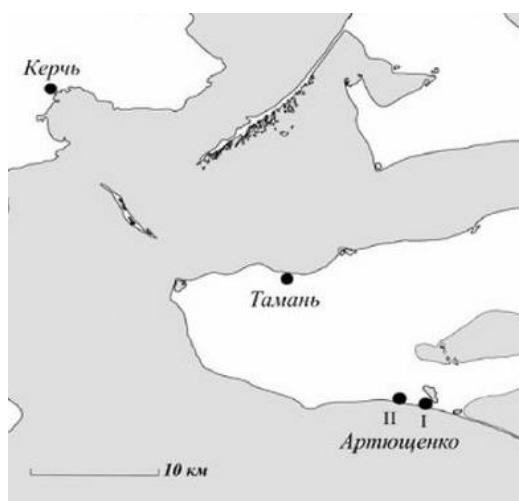


46. Stone seals from Nymphaeum attributed to Phoenician production. 7th- 6th century BC. After Neverov 1995, 74, tab. XII, 6; 2000, 187, figs. 18, 20b; Рыбаков 1984, pl. 159



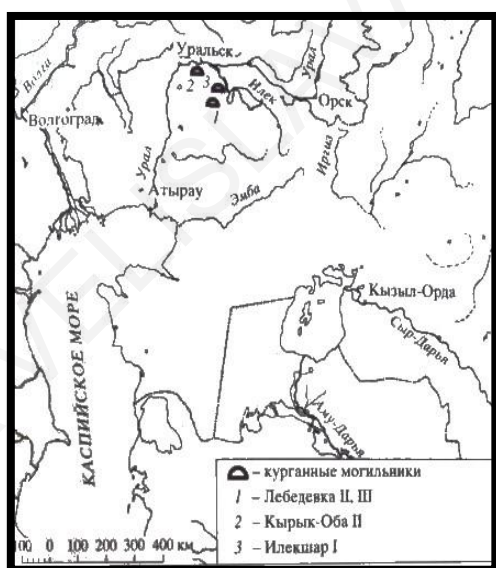
47. Late Hellenistic faience pendants with a representation of Bes from the Euxine. 1, 2: Olbia, 3: Chersonesos. After Bouzek 2000, 137, fig.3

GLASS CORE FORMED OBJECTS



48. Location of the settlement Artiuschenko-2 on Taman peninsula. After Стоянов 2010, 229, рис.1

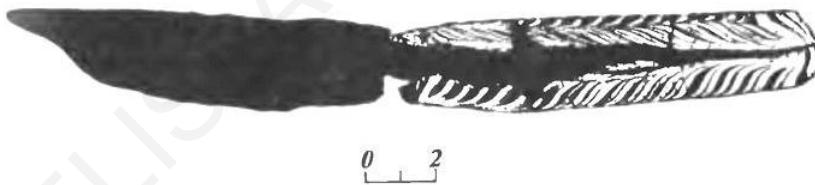
49. Finds in the burial of a 15-18 years old girl (grave no.6) of the Artiuschenko-2 necropolis, among which an amphoriskos of the "Phoenician" type from the second half of the 6th - first half of the 5th century BC from blue glass with yellow and white paste ornaments, H 7,8cm, D 5 cm. After Кашаев 2009, 188.



50. The position of the kurgans Lebedevka II-III (1), Kyryk -Oba II (2), and Ilekshar I (3), located on the North of the Caspian sea (in modern Kazakhstan). After Гудалов 2009, 185, рис. 1



51. Vessels of "Phoenician" glass in the Southern Ural. a - Илекшар, After Smirnov 1964, 325, fig. 32e; b - Курук-Оба II, Лебедевка II. After Гуцалов 2009, 185, рис. 3.



52. Iron knife with a glass handle. Nikojevka kurgan, Nikonion chora, tumulus 15. 5th - 4th century BC. After Островерхов 2002, 275, рис. 1.

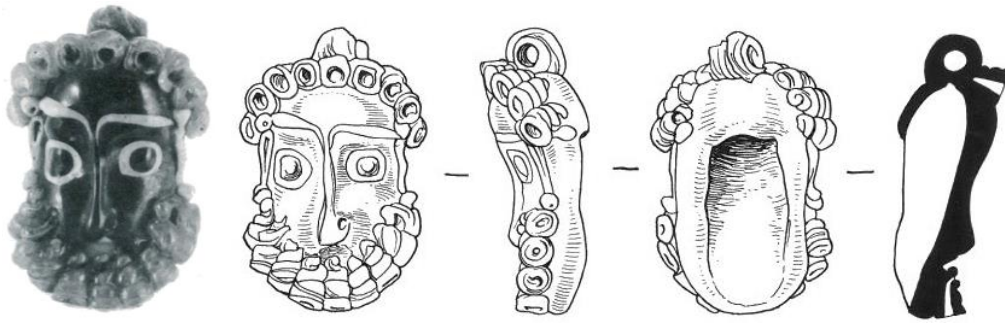
GLASS PENDANTS



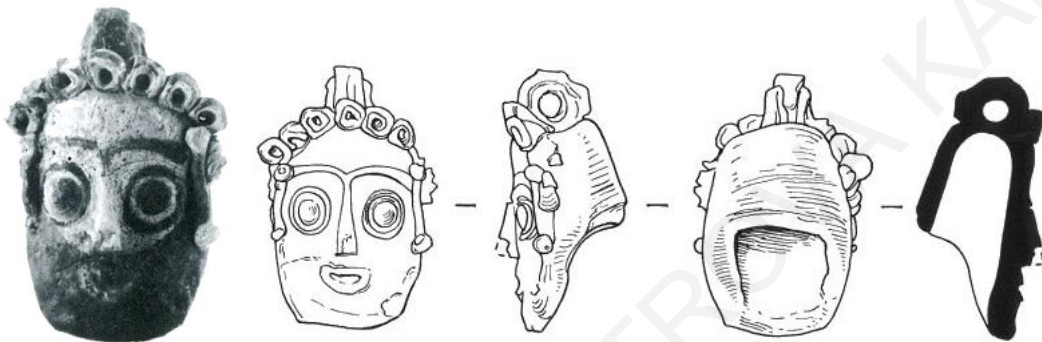
53. Distribution of mask beads and their imitations in the Euxine and the Celtic area. After Karwowski 2005, 164, fig.8



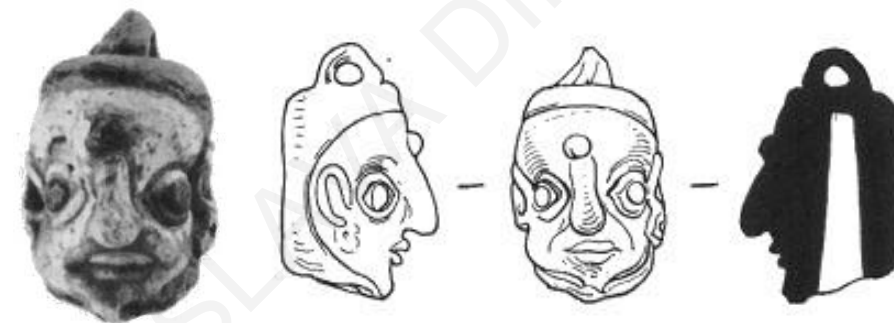
54. Two mask beads (Seefried type F1) found in the building U6, room 12 of the Panskoe settlement (presumed sanctuary of Sabazios and Demeter). Decorated with two representations of human faces, of opaque dark blue colour of eyes and hair and rows of bulbs. Badly burnt. With reconstruction. Dimensions: H 3,4cm, D 2cm (left); H 3,1cm, D 1,8cm (right). After Ščeglov 2002, 217, pl. 149.



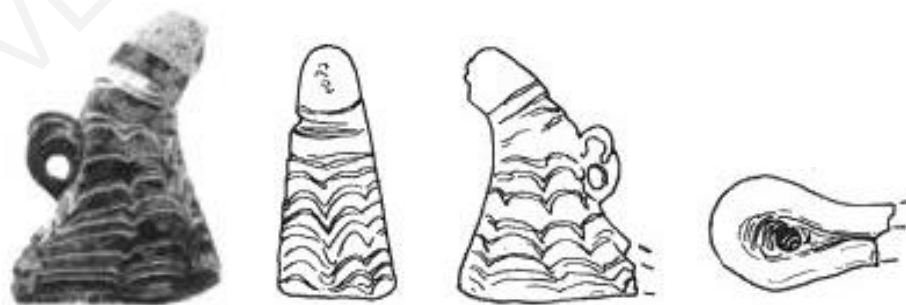
55. Glass pendant from South Russia (Seefried's type C3). 4th -3rd century BC Dark blue, yellow and white coloured. H 6,2cm, D 4cm. British museum. After Harden 1981, pl. 27, no. 423.



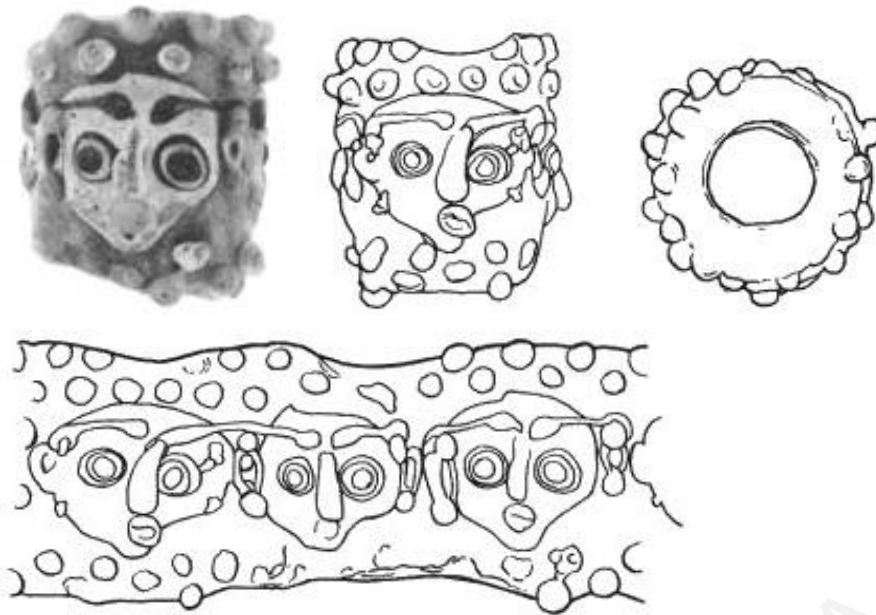
56. Glass pendant from Olbia (Seefried's type C1). 4th - 3rd century BC Green, yellow and dark blue coloured. British Museum. After Harden 1981, pl. 27, no. 424.



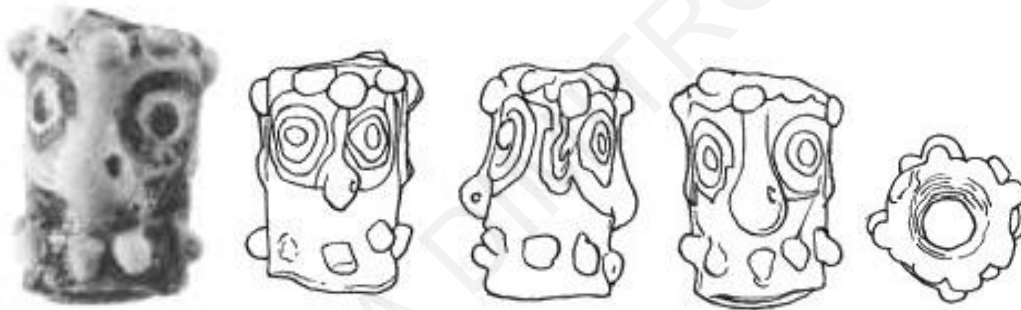
57. Glass pendant found in South Russia (Seefried type B1). early 6th – 4th century BC. Black and white coloured. H 3cm, D 1,7cm. After Harden 1981, pl. 26, no.407



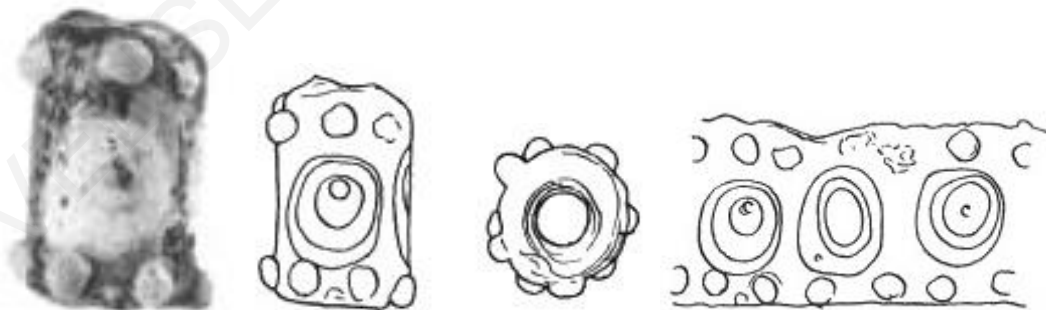
58. Glass pendant in form of a bird, found in South Russia (Seefried type E3). Late 5th - early 3rd century BC. Dark blue, yellow and white coloured. H 2,8, D 1,9, British museum. After Harden 1981, pl. 28, no.442



59. Mask bead from South Russia (Seefried type F1). 4th-3rd century BC. Dark blue, white, orange coloured. Decorated with rows of blobs. 3,3cm, D 2,8cm. After Harden 1981, pl. 29, no. 446



60. Mask bead from Olbia (Seefried type F1). 4th - 3rd century BC. Dark blue, orange, white coloured., decorated with rows of blobs. H 2.7 cm, D 1,7 cm. After Harden 1981, pl. 29, no. 449



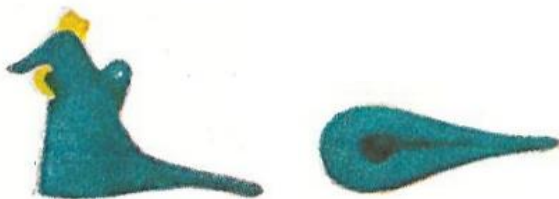
61. Mask bead from Olbia (Seefried type F1). 4th-3rd century BC. Dark blue, white, orange coloured. Decorated with rows of blobs. H 2,5, D 1,3. After Harden 1981, pl. 29, no. 450



62. Glass pendants from Olbia (Seefried type C). Left: Pendant of polychrome glass, found at Lower Olbia. H 2,2, D 2,2. 4th century BC. After Puklina 2010, 495, Re-83, pl. 372. Right: Glass pendant from Olbia, 5th-4th century BC. After von Saldern *et al.* 1974, 83, no. 225; photo: J. Paul Getty Museum



63. Glass pendant from Apollonia Pontica (Seefried type C1). Polychrome glass. Found among the funeral offerings in a child's tomb in the necropolis of the polis. 370-350 BC. After Hermary *et al.* 2010, 102, SP 327, pl. 32d.



64. Glass pendant in the form of bird from Apollonia Pontica (Seefried type E). Middle of 4th century BC. After Венедиков *et al.* 1963, 310, no. 998, tab. 163,164



65. Map of the Caucasus region.



66. Mask beads found at Uliap, kurgan 5 and sanctuary. Polychrome glass, H 3,3-3,5cm. 4th century BC. After Leskov *et al.* 1990, cat. 162



67. Mask bead found at Taujchabl' tomb 57 (the funeral monument of Pshish). 4th-3rd century BC. Opaque white and azure glass. H 4 cm. After Leskov *et al.* 1990, cat. 163



68. Mask bead found in the tomb I/1963 in the necropolis of Mesambria, 4th -3rd century BC. Polychrome glass, H 4,3cm, D 2cm. After Velkov 2005, 92, fig. 1/10.



69. Mask beads found in a funeral monument at Sveshtari necropolis. 4th - early 3rd century BC. After the review of the exposition "Bulgarian archaeology 2014" <http://programata.bg/?p=162&l=1&c=1&id=86322>

CELTIC IMITATIONS OF MASK BEADS



70. Gold pendant in form of double human face found at Malomir, Bulgaria. End of the 4th-first half of the 3rd century BC. History Museum of Shumen, Bulgaria. After Rustoiu 2008, 10, fig.1-2.



71. Lead pendant with human representation, found at Mesambria. H 0.25m. After Velkov 2005, 111, fig.30.

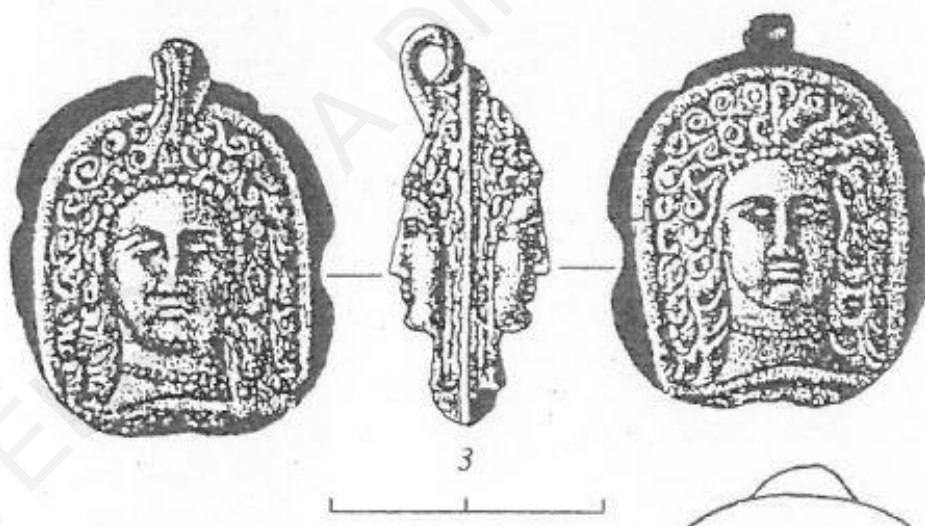


72. Mask beads (from left to right) from Mangalia, Pişcolt, Vác. After Karwowski 2005, 167, fig. 6; and from the Livadă locality of the village Fîntînele, Matei region, Bistritsa-Nasaud district, Romania. 4,7cm, daim. 2cm. After Crişan 1975, 47, fig. 3.

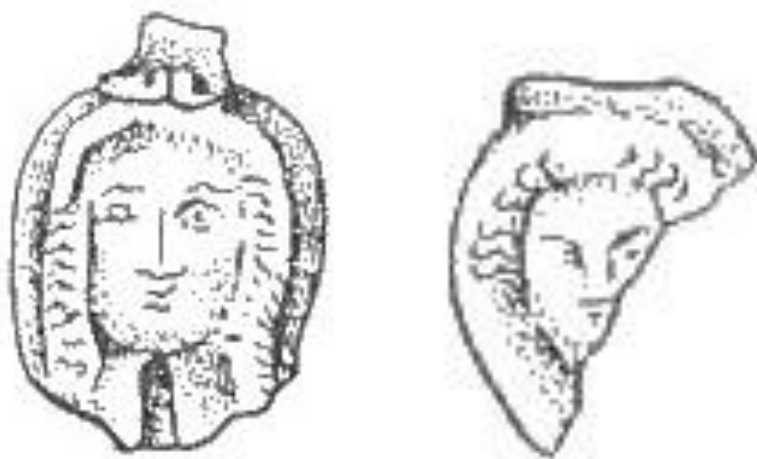
RELIEF PENDANTS (DOPPELKÖPHEN)



73. Relief pendant from Pichvnari. 4th-3rd century BC. After Чандрасекаран 2013, 167, рис. 1



74. Relief pendant from the Scythian Nosaki necropolis, kurgan 4, tomb 1. 4th - 3rd century BC. After Островерхов 2006, 145, рис. 7.



75. Relief pendants from Chaika settlement (left) and Pantikapaion (right). 3rd century BC. After Островерхов 2009, 76, рис. 10.



76. Relief pendant with a double male face found at Lower Olbia. H 1,2 cm. 3rd century BC. After Puklina 2010, 493, Re-55, pl.37

ELIZAVETOVSKOE SETTLEMENT AND EMPORION



77. The mouth of the Don river, with the location of Taganrog, Elizavetovskoe settlement and Tanais. After Kopylov 2011, 233, рис. 1

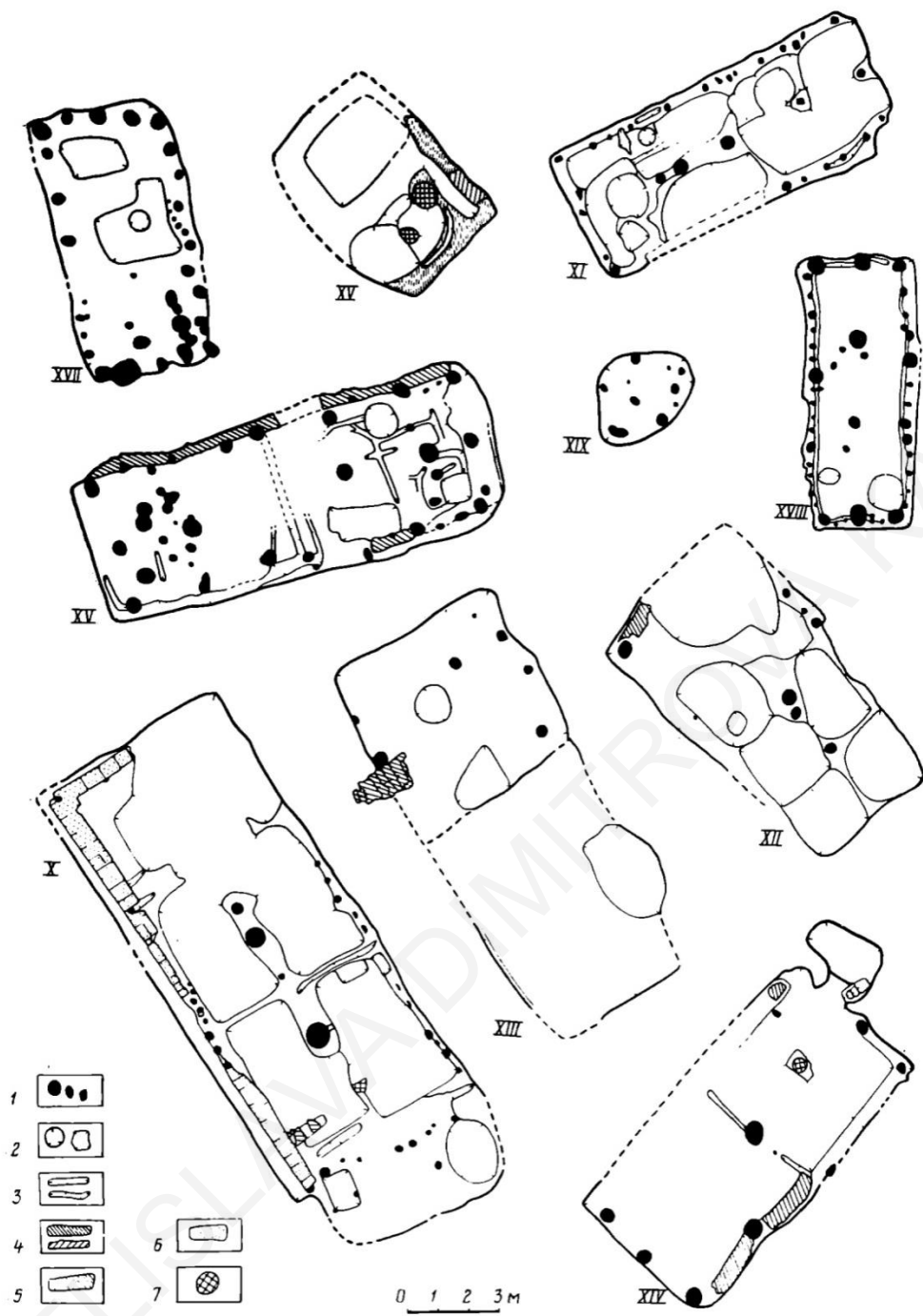


- Условные обозначения:
- железнорудные районы: 1- Криворожский ; 2- Керченский,
 - золото-полиметаллические месторождения Нагольного края,
 - марганцевые руды,
 - золото-меднорудные районы: 3- Бахмутская котловина; 4- Урупо-Лабинский рудный узел.

78. Map of the metalliferous zones in the Crimea steppes and the Don region. Legend (from up to bottom): Iron, gold, mangan, copper. Копылов 2009, 29, рис. 2



79. Satellite view of the archaeological site “Elizavetovskoe settlement 6th – 2nd century BC” , (outlined in red). Dimensions: ca 55 ha. After the website of the Ministry of culture, Rostov region (<http://mkro.donland.ru/Blog/ViewPost.aspx?pageid=56664&ItemID=65154&mid=51717>, accessed 18th July 2017)



80. Plan of Elizavetovskoe settlement, buildings X -XIX. 1. Pits from the pillars; 2. Pits 3. Trenches, 4. Stone deposits; 5, 6, Brick and other material 7. Furnaces. After Житников and Марченко 1984, 163, рис.1



81. Elizavetovskoe settlement, the remains of the building 16. 1. A view from the East; 2, 3. The north wall. After Житников and Марченко 1984, 166, рис. 3

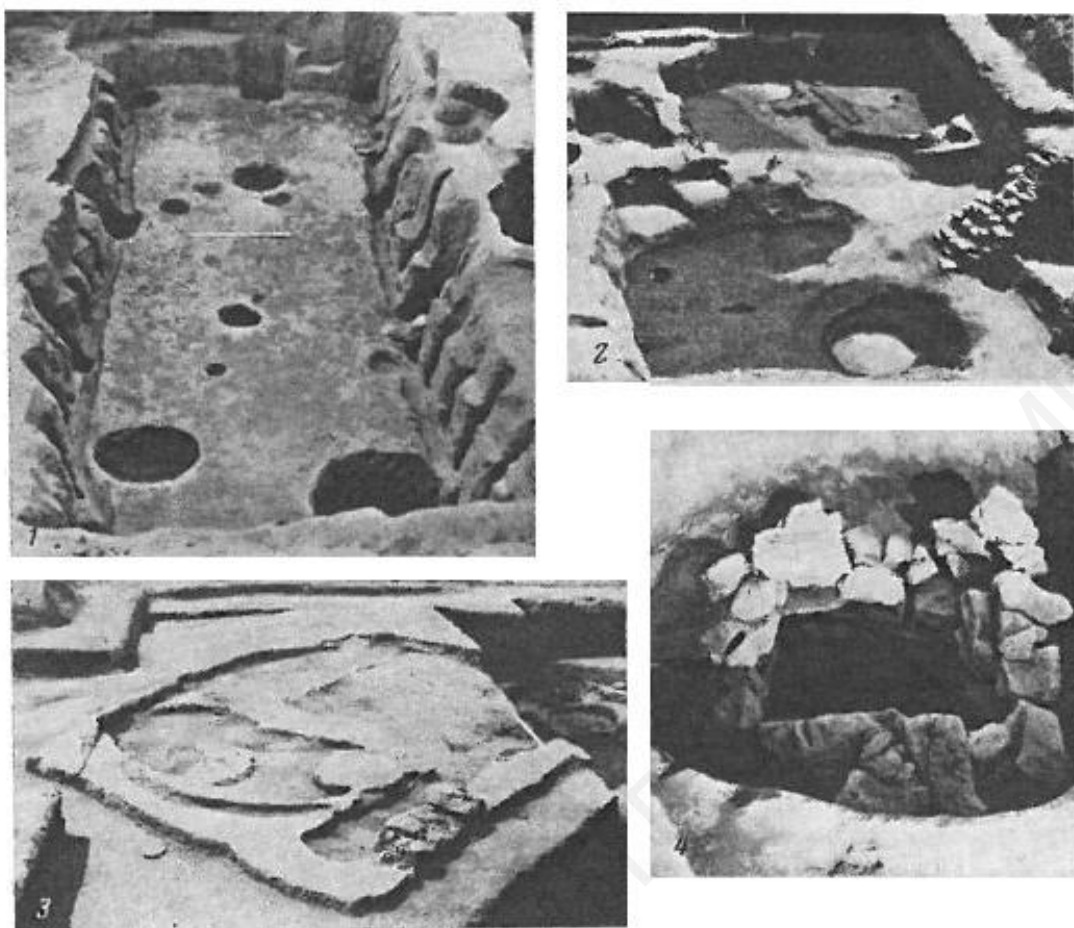


Рис. 4. 1 — строительный комплекс XVIII, вид с юга; 2 — строительный комплекс XIII, вид с севера; 3 — строительный комплекс XV, вид с востока; 4 — каменный колодец

82. Elizavetovskoe settlement, the remains of the building 18. 1. View from the south. 2. View from the north; 3. View from the East, 4. Stone well. After Житников and Марченко 1984, 167, рис. 4



83. Finds from Elizavetovskoe settlement, related to the Punic trade. 1 - Punic amphora, 2 - 'Phoenician' oinochoe, 3 - glass pendants with human faces, 4 - mask beads, 5-10 - relief pendants. After Kopylov 2006, рис. 1.