

2004 Report of the Activities of the Danish National Research Foundation's Centre for Black Sea Studies

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Introduction

The third year of the Centre was a busy and turbulent year. It was a year of many activities and a year with many individual and collective research trips. One international conference and four one-day seminars were held, supplemented by a series of internal research seminars. The Centre also hosted a number of visiting scholars: most importantly, two of our Kiev collaborators and a Moscow colleague who stayed half a year to write a book for the Centre. No less than three books were published: the second and third volume in the international series, *Black Sea Studies*, and the second volume in the Danish series, *Sortehavsstudier*. It has, thus, been a very productive year for the Centre. As of 1 September 2004, the Centre has held the status of a separate unit directly under the Faculty of Arts.

Staff (2004)

- Director Pia Guldager Bilde (Classical Archaeology), 1.2.2002-01.02.2007
- Professor Sergej Saprykin (Ancient History, Classical Archaeology, Russian Academy of Sciences, Moscow), 1.1.2004-30.6.2004
- Associate Professor Vladimir Stolba (Ancient History, Classical Archaeology), 1.2.2002-01.02.2007
- Assistant Professor George Hinge (Classical Philology), 1.2.2002-31.1.2004
- Assistant Professor Jakob Munk Højte (Classical Archaeology), 1.2.2002-1.2.2007
- PhD student Jesper Majbom Madsen (Ancient History), 1.1.2003-31.12.2005
- PhD student Trine Madsen (Ancient History), 1.1.2003-31.12.2005
- PhD student Jane Hjarl Petersen (Classical Archaeology), 1.7.2003-30.6.2006
- Secretary (part-time) Jytte Brask, 1.3.2002-1.2.2007
- Academic Secretary (part-time) Sine Toft Jensen, 19.5.2003-1.2.2007

George Hinge has obtained a three-year scholarship from the Carlsberg Foundation and has therefore left the Centre.

Highlights of the year

It was a happy day for the Centre when it was made public that our application for a seven-month prolongation (1.7.06-31.1.07) was approved with funding and that we were allowed to apply for an additional three-year prolongation.

In the spring of 2004 the Centre went on a research trip for a month to Ukraine and Southern Russia to study sites of importance for the Centre's work and to strengthen collaboration with colleagues in these parts of our field of research. The scientific outcome was considerable, and it furthermore had the positive effect of better integrating Trine Madsen, who is working in Copenhagen, into the research team.

Work has started on the archaeological material from the lower city of Olbia. Two of the Centre's staff went to Olbia for a month during the summer to initiate this project. It will result in a joint publication together with colleagues from both Ukraine and Russia.

The Centre has published the second and third volumes in the series *Black Sea Studies*. The second volume, *Ancient Fishing and Fish Processing in the Black Sea Region*, Black Sea Studies 2, edited by Tønnes Bekker-Nielsen, is the result of one of the initiatives taken by the Centre in 2003, which is to study the incentives for the colonisation of the region, which turned out to be not only land for grain production, but also both fish and fish products for consumption and as an object of trade.

The third volume, *Chronologies of the Black Sea Area in the Period c. 400-100 B.C.*, Black Sea Studies 3, edited by Vladimir Stolba and Lise Hannestad, is the publication of the results of our first international conference with the participation of twenty-five international specialists, which took place in 2002. The book will undoubtedly

be an important manual and will set the standards for a necessary synchronisation of the chronologies used in the Black Sea region and in the Mediterranean, respectively.

In the second volume of the Danish series, *Sortehavsstudier, Mennesker og guder ved Sortehavets kyster*, edited by Pia Guldager Bilde and Jakob Munk Højte, the papers of the Centre's second annual meeting were published. This volume is the first collective product of the Centre staff. It focuses on the interplay between Greeks and the local inhabitants and thus questions a number of the existing research stereotypes of the region.

Research activities

Results

In 2004, research was done in all four Research Activities:

Research activity 1 Them and us: Cultural strategies and interaction

In 2004, this research activity has addressed various issues concerning cultic and ritual activities and the following results have been made: **RA 1A**: It is universally believed that in the Classical period, monumental (also peripteral) temples were constructed in the Pontic *poleis* and that in this respect the cities came to look like *poleis* in the rest of the Greek world (e.g. Pi_ikjan 1984; Kry_itskij 1993). This view is based on optimistic reconstructions from a few scattered architectural fragments. Our careful scrutiny of the evidence shows that – with one or two possible exceptions – no truly monumental temple was ever built in any of the cities. In this respect a Pontic *polis* looked markedly different from a *polis* in the Greek homeland and in the western colonies (Guldager Bilde 2004a and 2004c).

RA 1A: With roots back in antiquity, religion, cult, and ritual activities have been viewed as a factor separating the ethnic groups of the region (e.g. Herodotos 4.76, 78-80). A number of our studies show that the Greek colonisers were more adaptable to local traditions than is normally acknowledged: (a) Ash hills may constitute the primary centre of ritual activity in Greek cities or they may even supplant temples. This shows the Greeks adapting to or taking over local ritual practices (Guldager Bilde 2004a); **RA 1A.1**: When burials in the Pontic *poleis* are compared with those of the Greek homeland it becomes evident that the Greeks of the Black Sea region were prone to local influence. Grave types such as catacomb graves smeared with red colour and covered with sea weed, the deceased placed in contracted positions, grave goods such as weapons, tools and personal equipment often produced in the style commonly ascribed to the Nomadic cultures are features found in combination with grave types and grave goods traditionally characterised as Greek (Petersen 2004); **RA 4A.1**: The three main strains of gods in Pontos – the local Anatolian gods (e.g. Ma and Men), the Greek gods brought by the Greek colonists, and the Iranian gods introduced under Achaemenid rule – slowly merged and/or adopted elements from each other. The result was a heterogeneous Pantheon. The process is often difficult to trace, as our written sources are practically all Greek and rather late and thus describe the end product of the transformations. Still, it is often possible to distinguish the roots of these syncretistic gods. The Mithras worshipped in Trapezous was distinctly Greek and in Sinope the cult statue of Apollon was given an Iranian appearance during the Hellenistic period. The Iranian god Ahura Mazda became Zeus Stratios and Anahita was identified with Artemis – not just when described in Greek sources but also by the worshippers as evidenced by inscriptions (Guldager Bilde 2003a, b and h; Højte 2004a; BSS 5).

RA 1A.2: Magna Graecia is normally considered particular due to a local preference

for cults with a strong eschatological component, such as Orphism, Pythagoraeism and the cult of Persephone and Dionysos. However, the earliest literary and archaeological evidence for these eschatological preferences is also found in the western Black Sea region (Rusjaeva 1978; Hinge 2004b), but it has been considered slight and isolated. Through an analysis and interpretation of a specific group of terracotta altars we can now demonstrate that (a) these eschatological currents were much more widespread in the western Black Sea region than has been acknowledged until today, that (b) it was connected with the elite, e.g. wealthy landowners, and that (c) it was not confined to the late Archaic and early Classical periods, but also flourished in the second half of the 3rd century to at least the 1st century BC (Guldager Bilde 2004b). The Black Sea region thus provides an interesting parallel to the religious milieu of Magna Graecia, which makes Magna Graecia less particular. What remains to be investigated is therefore whether particular colonial situations provide the same kind of religious response or whether other factors were at stake – for example, the non-Greek indigenous contribution: were the eschatological currents pervading the Black Sea region a response to the local milieu such as the insecure daily life or local crises? Or were they syncretistic movements responding to the mixed ethnic situation?

RA 4A.2: A particular study not envisaged in the contract has been made by Sergej Saprykin (Moscow) at the Centre, who provides an analysis of religion and cult in the Pontic Kingdom.

Research activity 2: Patterns of trade and exchange

This research activity deals with basic conditions for life in the region: resources, production, economy and trade. Two of the subprojects (**RA 2A** and **RA 2C**) have been joined. In economic terms, the Black Sea has always been viewed mainly as a supplier of grain, particularly to Athens. When the question of trade is addressed on the basis of a wider range of literary and archaeological source material, a much more nuanced pattern of economic exchanges at different levels emerges. While there is plenty of evidence of imports from the Aegean in the form of fine ware pottery and wine amphorae, there is hardly any archaeological evidence of commodities travelling in the opposite direction because these, to a large extent, are archaeologically invisible and can only be detected indirectly: grain, cattle, slaves, fish and timber. The issue of trade and trade relations was addressed during the Centre's fourth international conference (May 2004). This was the first study of local, regional and extra-regional patterns of trade and economic transactions focused on the Black Sea region. In addition to demonstrating the long-distance trade, regional economic zones within the Black Sea have become increasingly visible through the study of the circulation of specific goods and artefacts within the region.

Concerning the subproject on fishing and marine resources (**RA 2B**), which has turned out to be of major importance for the study of resources and economy in the Black Sea region in antiquity, the Centre has initiated collaboration with the international research programme History of Marine Animal Populations (HMAP, <http://www.cmrs.dk/Default.asp?ID=1>), the historical component of the Census of Marine Life programme. HMAP aims to enhance knowledge and understanding of how and why the diversity, distribution and abundance of marine life in the world's oceans change in a long-term perspective. Based on our preliminary investigations and findings, the Black Sea region has been chosen by HMAP as the main laboratory where the anthropogenic and natural factors in fishing and marine ecology can be most effectively studied in antiquity. This enables HMAP to acquire a longer chronological perspective in their study, which is necessary in order to determine whether fish resources are affected primarily by anthropogenic factors or not. Through its network the Centre will provide data for this

study, and the analysis will be carried out by an international research team (Arturo Morales-Muñiz and Eufrosia Roselló-Izquierdo, Laboratorio de Arqueozoología. Universidad Autónoma de Madrid, Spain; Ekaterina Antipina and Elena Antipina, Laboratory of Archaeology, Academy of Sciences of Russia, Moscow).

Research Activity 3: Polis and chora

This Research Activity encompasses two projects, the aim of which is to analyse two large data sets concerning two particular sites. The two projects provide us with the unique opportunity to compare the two main *poleis* of the northwestern Black Sea region, Chersonesos and Olbia, in their two main aspects, city and *chora*, based on original data sets. The research focusses on organisation, communication, local interaction between the cities and their hinterland, and “inter-state” interaction.

RA 3A: The Centre’s team is presently engaged in the analysis of Panskoe’s necropolis (Vladimir Stolba) and the settlement’s central area, U7 (Vladimir Stolba, Jakob Højte). The preliminary results show that Panskoe was founded c. 400 BC by the city of Olbia, but half a century later, the fortress was destroyed and the site incorporated into the *chora* of the neighbouring city of Chersonesos. Both the settlement and necropolis provide invaluable archaeological information thanks to the unique combination of the site’s short life with abundant and varied material (pottery, metal, sculpture, coins, inscriptions, etc.), which allows a precise dating also of entire object categories hitherto undated. In addition, the anthropological data allow paleodemographic reconstructions, and the careful examination of paleobotanical evidence from the site and the necropolis have shown a significant economic decline in the early 3rd century BC and pointed at its cause, most likely rapid climatic changes (Stolba 2004b).

RA 3B: In 2003, the project “The Lower City of Olbia in the 5th century BC - 4th century AD (the sector NGS)” was added to this research activity in collaboration with the Academy of Sciences in Kiev (not foreseen in the original contract, but included in the seven-month prolongation). This project involves the analysis, interpretation and publication of the excavations of the lower city of Olbia made by the Kiev team between 1985 and 2002. The work was initiated in January 2004, when two of the leading Ukrainian excavators, Valentyna Krapivina and Nina Lepunskaja visited the Centre for two weeks. It was followed up by one month’s field work in Olbia in August.

The preliminary results of this comparative study make the complex character of these interactions evident. They show the historical and economical development of this micro-region as a sequence of fairly sharp oscillations between periods of upsurge interrupted by periods of severe decline. A finding to be investigated further is the massive presence of mended pottery in particular from the early 3rd century BC until the Roman period, which shows severe restrictions in the circulation of fine ware pottery.

Research Activity 4: The coming of Rome: From Hellenistic kingdom to Roman province

This research activity has mainly focused on the southern shore of the Black Sea. There are two major subprojects: **RA 4A:** the Kingdom of Pontos and **RA 4B:** the Greeks in the Roman Empire. Both subprojects have been the focus of much of the Centre’s research in 2004.

RA 4A: Originally, the Pontic Kingdom was a territorial state in the mountainous regions of the south-eastern Black Sea region, which was ruled by kings of Iranian descent. Under the rule of Mithradates VI at the end of the 2nd century BC the kingdom was extended to encompass not only the adjacent coastal states but also territories in the northern and eastern Black Sea region. The kings and in particular Mithradates VI had to balance power between the local Iranian aristocracy of the core area, the Greek

communities that the kingdom came to include, and the Roman empire, which was advancing eastwards. All three elements have been addressed. (a) In previous research there exists a profound disagreement about the level of Hellenisation of the Pontic Kingdom, ranging from advocates of complete Hellenisation (Vinogradov 1997, 68-69) to notions of a more superficial adaptation of Greek culture for political purposes (Reinach 1895 and followers). In order to understand the process of Hellenisation correctly, it has first of all been necessary to assess the value and meaning of the available sources. The literary sources are all written by pro-Roman authors for a Greek and Roman audience and are strongly biased. Our research has shown that these should be treated with caution and balanced by local sources (epigraphy, numismatics, archaeological finds; Højte 2004a). The question whether Hellenisation was an either/or phenomenon, or whether the king consciously manipulated his mode of appearance and expression in accordance with the ethnicity of a given audience is presently being dealt with (Højte 2004b). (b) It has been a predominant view that the wars between Rome and the Pontic King Mithradates VI, the Mithradatic Wars, were fought on the initiative of Mithradates as an attempt either to enlarge the kingdom or liberate the Greek world (Reinach 1895; McGing 1986; Hind 1994). If attention is drawn to the actual political situation in Rome and Asia Minor, Rome seems to have had a much larger responsibility than previously suggested, and Mithradates' policy to have been less aggressive (Madsen 2005).

The study of Mithradates VI and the poly-cultural Pontic Kingdom along the south coast of the Black Sea intensified significantly when a leading Russian specialist, Sergej Saprykin (Moscow) worked at the Centre for a six-month period (January-June 2004). He was working on a book on ancient cults and religion in the Pontic Kingdom and the policy of the Pontic kings in the northern Black Sea region. Mithradates VI also formed the subject of the Centre's third annual meeting (December 2004). The research will be completed during the seven-month prolongation period with an international conference. We expect the result to be the authoritative monograph on the issue, in which all the interdisciplinary competencies of the Centre's researchers will converge (BSS 12 and BSS 13; see also SHS 3).

Whereas **RA 4A** is concerned with the bipolarity of Hellenism versus Iranianism, **RA 4B** is concerned with Romanisation seen from the outside as well as from the inside: How did Rome adapt existing urban institutions to her own purposes, and how did local elites cope with new power structures in the region? There are three subprojects under **RA 4B**: (a) A study of euergesia and the development of societal structures (PhD project, **RA 4B.1**). This has already provided a picture of the complicated power struggle between the Greek *poleis* and Barbarian tribal leaders. (b) A study of the Romanisation of the provinces *Moesia* and *Bithynia et Pontus* (**RA 4B.2** modified to *Bithynia et Pontus*). It is generally accepted that Rome's eastern provinces were little influenced by Roman culture. Thus it is claimed that local participation was exclusively made in Roman public, religious, and political institutions for pragmatic reasons without leading to the adoption of Roman identity (Swain 1996; MacMullen 2000). It has already been demonstrated that this does not apply to *Bithynia et Pontus*. Here, the inscriptions containing *tria nomina* with Greek cognomens, *tria nomina* for women, and the common use of Latin names among locals without Roman rights indicate an eagerness to appear Roman in public and thereby identify oneself as Roman (Madsen 2004). (c) A study of urban life and urban politics in three Bithynian cities: Nikomedia (mod. Izmit), Nikaia (mod. Iznik) and Prusa (mod. Bursa) will be initiated in 2005 by Tønnes Bekker-Nielsen (**RA 4B.3**).

Revision of the research plan

As a result of the seven-month prolongation, a new Research Activity 5 has been added to

the Centre's research plan:

Research activity 5: Climate changes and long-term history

Partly as a result of the Centre's research, it has become increasingly clear that most of the northern Black Sea region underwent two major transformations, first around 475 BC, and again around 270 BC. On both occasions, a severe cutback in activity has been noted in the *chorai* of the Greek states. By the mid-5th century BC, decline becomes visible further north, at the indigenous sites of the forest-steppe zone (Il'inskaja & Tereno_kin 1983). In the last third of the 5th century BC, the situation in the Greek *chorai* improved when *poleis* expanded their territories noticeably. The palmy days lasted from the late 5th through the 4th century BC, but ended abruptly in c. 270 BC with the total destruction of the rural settlements of nearly all the Greek states in the region. The numismatic evidence reveals that this process was accompanied by severe monetary crises (see Stolba 2003, 2004a, and 2004b).

Most scholars agree in explaining the first crisis by an abrupt change of the balance of power in the region and the large-scale expansion of the Scythian Nomads (e.g. Vinogradov 1983; Tolstikov 1984; contra: Kry_ickij 2001). The second crisis has been explained similarly as a result of a Sarmatian invasion into Scythia (e.g. __eglov 1985; Mar_enko & Vinogradov 1989; 1991; Vinogradov 2003). The factors behind these crises were, however, much more complicated. The works of Polin (1992), Berlizov (2002) and others show an absence of Nomadic burials in the South Russian steppes as well in the 3rd century BC. Thus, there is a considerable chronological gap (c. 100 years) between the fall of Greater Scythia and the first archaeological evidence of the Sarmatian presence west of the River Don.

A number of data from archaeological investigations of Greek rural sites as well as paleobotanical data indicate an abrupt climatic change in the 3rd century BC (Stolba 2004a). The Centre aims to test whether climatic changes were the primary cause of the above-mentioned large-scale changes in the societies of the northern Pontic region in the 5th and 3rd centuries BC. In order to answer this question, the plan is to drill c. 200 cores from two saline lakes. Long sediment sequences will permit comparative studies of the complex interactions among humans, climate and environment. The study will be of major importance for the study of (a) the paleoclimatic history and paleoecology of the northern Black Sea area along with the history of vegetation change caused by humans and climate alterations, (b) the ethno-political and economic history of the northern Black Sea in the second half of the 1st millennium BC including dynamics of the major Nomadic migrations, and the general economic decline of the Greek states in the 3rd century BC, and (c) the chronology of archaeological sites and major human movements in the Crimea and beyond (Stolba 2004c).

Visiting scholars at the Centre

- Professor Sergej Saprykin, Centre for Comparative Studies of Ancient Civilizations, Russian Academy of Sciences, Moscow, 1.1.-1.7.2004.
- Professor Catherine Morgan, Department of Classics, Kings College London, 25.2.-26.2.2004
- Senior researcher Valentyna Krapivina, Institute of Archaeology, Academy of Sciences, Kiev, 26.1-7.2.2004
- Senior researcher Nina Lepunskaja, Institute of Archaeology, Academy of Sciences, Kiev, 26.1-7.2.2004
- Professor Eckart Olshausen, Institute of History, University of Stuttgart, 17.2-18.2.2004.

All the visiting scholars gave public lectures on the occasion of their visit to the Centre.

Congresses and seminars held by the Centre

The Centre has held one international conference, three one-day seminars with the participation of Ukrainian and Russian scholars, a public one-day seminar (in Danish) and six internal research seminars.

(a) An internal international two-day seminar on the lower city of Olbia, University of Aarhus, Centre for Black Sea Studies 27.1.-29.1.2004.

The following topics were discussed with Professor Valentyna Krapivina, Institute of Archaeology, Academy of Sciences, Kiev and Professor Nina Lepunskaja, Institute of Archaeology, Academy of Sciences, Kiev and the staff of the Centre for Black Sea Studies.

Olbia: current state of research (overview).

Sector NGS: topography and architecture (overview).

Sector NGS: excavation 2003.

Sector NGS: stratigraphy and main deposits.

(b) A three-day international conference with twenty invited specialists from the USA, England, France, Russia, Ukraine, Poland, Canada and Denmark on "The Black Sea in Antiquity: Regional and Interregional Economic Exchanges", Sandbjerg, 27.5-29.5. 2004.

Organisers: Vincent Gabrielsen, John Lund and Trine Madsen.

- Jakob Munk Højte & Vincent Gabrielsen, "Welcome and introduction".
- Vakhtina, M., Greek Archaic pottery from the barbarian sites of the forest-steppe zone at the Black Sea coastal zone.
- Karjaka, A., Amphora finds of the 4th century BC from the settlements of the Lower Dnieper region.
- Stolba, V., Trade in wine and chronological implication of amphora stamps.
- Hannestad, L., Timber as a trade resource of the Black Sea.
- Lund, J., Ceramic imports from the Black Sea in the Mediterranean: methodological considerations.
- Domzalski, K., Remarks on the changes in fine pottery Import to the Pontic Area from the Mediterranean in the Hellenistic Period.
- Greaves, A., Milesians in the Black Sea: colonists or traders.
- Reger, G., Traders and travelers in the Black and Aegean Seas.
- Archibald, Z., Contacts between the Ptolemaic kingdom and the Black Sea in the Hellenistic Age.
- Gabrielsen, V., Tribute and taxes: Byzantion and the Black Sea straits.
- Madsen, T., Economic transactions between Greek cities and the barbarian hinterland in the Hellenistic age - the role of euergetai.
- Saprykin, S., Unification of Pontus: Bronze coins of Mithradates Eupator as evidence on commercial relations in the Euxin.
- Moreno, A., Athenian grain imports from the Black Sea in the fifth and fourth centuries BC.
- Braund, D., Demosthenes' Aainst Leptines and grain for Athens.
- Avram, A., Some thoughts about the Black Sea and the slave trade before Roman domination (VIIth-1st c. BC).
- Zhuravlev, D., Roman lamps in the northern Pontic area: distribution, imports and local production.

- Opait, A., A weighty matter: Pontic fish amphoras.
- Bekker-Nielsen, T., The one that got away: a reassessment of the agoranomos inscription from Chersonesos (VDI 1947, 245) and its value as evidence for the extent of the Crimean fish trade.
- Bekker-Nielsen, T., Summary speaker.

The papers are available at the Centre's website:

http://www.pontos.dk/activities_2004.htm#exchange. The conference papers will be published in 2005 as *Black Sea Studies* 4.

(c) Round table seminar on "Mithradates VI and the Kingdom of Pontos", Centre for Black Sea Studies, University of Aarhus, 9.6.2004. The papers are available at the Centre's website: http://www.pontos.dk/round_table_Mithradates/.

Introductory papers:

- Bekker-Nielsen, T., Mithradates VI, a historical personality.
- Madsen, J. M., Mithradates VI in Roman politics.
- Højte, J. M., Portraits and statues of Mithradates VI. Royal propaganda.
- Saprykin, S., Cults and religion in the Pontic Kingdom.
- Stolba, V., Numismatics. Reflections on coin chronology.

(d) One-day seminar (in Danish), the Centre's Annual Meeting open to all and aimed at a general audience: "Mithradates VI af Pontos: gal eller genial?", University of Aarhus, 4.12.2004

Organisers: Jakob Munk, Jesper Majbom Madsen

- Pia Guldager Bilde, "Velkomst". (Welcome).
- Psychologist Karen Lambrinou, "Ledelsesprofiler på godt og ondt set i et nutidigt perspektiv". (Profile of today's leaders).
- Vincent Gabrielsen, "Mithradates og de græske byer". (Mithradates and the Greek cities).
- Jesper Majbom Madsen, "Romernes rolle i de Mithradatiske Krige". (The role of the Romans in the Mithradatic wars).
- George Hinge, "Mithradates' brev: Romkritik eller terroristisk retorik". (A letter of Mithradates).
- Jakob Munk Højte, "Mithradates, Pompeius og Alexander den Store. Det pontiske Kongedømmes endeligt". (Mithradates, Pompeius and Alexander the Great. The end of the Pontic kingdom).
- Tønnes Bekker-Nielsen, "Opsummering". (Summary speaker).

The conference papers will be published as *Sortehavsstudier* 3 (in Danish) in October 2005.

(e) A series of internal seminars called "Thursday seminars" have been held both semesters. The purpose of these seminars is to provide a forum for scholarly exchange for the Centre staff, colleagues, PhD students and graduate students working in the disciplines of the study of antiquity. Six seminars have been held:

18.2.2004:

Dr. Eckart Olshausen: *Griechische Grabinschriften aus Pontos*.

26.2.2004:

Professor Catherine Morgan: *Attic pottery in Taman with particular reference to Phanagoreia*.

25.3.2004:

Trine Madsen: *Trade in the Hellenistic Period between Greek Cities and their Hinterland in the northwestern Corner of the Black Sea Region – the role of the Euergetai.*

17.5.2004

The staff of the Centre gave a report on the research trip to Ukraine and Southern Russia.

22.11.2004:

Mogens Herman Hansen: *Bybefolkningens størrelse i den oldgræske bystatskultur. (The size of the population in the ancient polis).*

9.12.2004:

Anne Marie Carstens: *Akkulturation og arkæologi - eksempler fra det persiske grænseland. (Acculturation and Archaeology – examples from the Persian borderland).*

Research trips

13.4-7.5.2004 the staff of the Black Sea Centre went on a study trip to Ukraine and Southern Russia.

- Pia Guldager Bilde was in Athens 24-27.3, in Rome 13-19.9, 14-20.11 and in Stockholm 1-3.10 to give papers, and she was in St Petersburg 4-23.10 for an intensive Russian language course and also to work in the library of the Academy of Sciences.
- Vladimir Stolba was in St. Petersburg, 10.-17.2.2004, 5.-28.3.2004, Kiev, 1.-25.9.2004, St. Petersburg, 29.10.-1.12.2004 for research purposes.
- Jesper Majbom Madsen went on a field study trip to Anatolia 28.3-11.4.2004. He stayed in Stuttgart, Germany, 26.4-14.7.2004 in order to work with his supervisor Prof. Eckart Olshausen.
- Tønnes Bekker-Nielsen went to Utrecht (Index of Christian Art) to collect material for his lecture at the 4th International Conference on Maritime History, Korfu. 2-4.6.2004. Research trip to Mudanya, Bursa, Iznik and Izmit, 9.-13.10.2004.
- Jakob Munk Højte stayed at the Danish Institute in Rome for research purposes 1.9-9.11.2004.
- Trine Madsen stayed at the University of Oxford to attend a summer school in Greek and Latin epigraphy, 5.-15.7.2004. She went to Stockholm to attend the 25th Nordic History Meeting in Stockholm, 4.-8.8.2004.
- Jane Hjarl Petersen stayed at the Danish Institute in Rome where she wrote a chapter on Taranto in Italy for her PhD thesis.
- Jane Hjarl Petersen and Jakob Munk Højte went on a field campaign to Olbia to study the archaeological material from the lower city, 1.-28.8.2004. 1.-30.3.2004.

Participation in seminars and congresses organised by others

Pia Guldager Bilde

1) Greek temples of the Black Sea region: facts and fiction, The Danish Institute in Athens, 28 March 2004 (paper).

2) Symposium on Romania in connection with the exhibition "Golden Treasures. Romania during 7000 years". 1-3 October 2004. Medelhavsmuseet, Stockholm (with paper).

3) Conference on "Aspects of Ancient Greek Cult". 9-10 January 2004, University of Aarhus.

Trine Madsen

- 1) 25th Nordic History Meeting in Stockholm, 4-8 August 2004.
- 2) Working seminar, Department of History, University of Copenhagen, 24 May 2004 (with paper).

Jane Hjarl Petersen

- 1) Symposium on Romania in connection with the exhibition "Golden Treasures. Romania during 7000 years". 1-3 October 2004. Medelhavsmuseet, Stockholm. (With paper).
- 2) Conference on "Aspects of Ancient Greek Cult". 9-10 January 2004, Department of Classical Archaeology, University of Aarhus.

Jesper Majbom Madsen

- 1) Romaniseringen i den Lilleasiatiske provins Bithynia et Pontus. Assimilation eller modstand. Copenhagen University 22 April 2004 (paper).
- 2) Romanisierung in Bithynia et Pontus. Assimilation oder Widerstreit, Stuttgart University, 15 June 2004 (paper).

Tønnes Bekker-Nielsen

- 1) 4th International Conference on Maritime History, Korfu, 21-26 June 2004 (with paper).
- 2) HMAP-Mediterranean Workshop, Barcelona, 20-22 September 2004 (with paper).
- 3) The Black Sea Past Present and Future, Istanbul, 13-16 October 2004 (session chairman).

Editorial work

Guldager Bilde, P. & Højte J. M. (eds.), *Mennesker og guder ved Sortehavets kyster, Sortehavsstudier 2*, Aarhus 2004.

Bekker-Nielsen, T. (ed.), *Ancient Fishing and Fish Processing in the Black Sea Region, Black Sea Studies 2*, Aarhus 2004.

Stolba, V. & Hannestad, L. (eds.), *Chronologies of the Black Sea Area in the Period c. 400-100 B.C., Black Sea Studies 3*, Aarhus 2004.

Stolba, V. (ed.), *Panskoye I. Vol. 2. The Necropolis*. Aarhus.

Book reviews

Tønnes Bekker Nielsen has reviewed: Konstantin Boshnakov, *Die Thraker südlich vom Balkan in den Geographika Strabos* (Palingenesia, 81). Wiesbaden: Steiner, 2003 and Gilbert Dagron, *Emperor and Priest. The Imperial Office in Byzantium*. Cambridge University Press 2003, in: *Nyt fra historien*, autumn 2004.

Centre publications 2004

NB: not included are individual contributions to BSS 2 and 3 with the exception of those by the Centre staff.

Archibald, Z. 2004

Contacts between the Ptolemaic kingdom and the Black Sea in the Hellenistic Age.
http://www.pontos.dk/trade_konference_2004/ARCH_contacts_ptolemaic.htm

Bekker-Nielsen, T. (ed.), 2004a

Ancient Fishing and Fish Processing in the Black Sea Region. Black Sea Studies 2, Aarhus 2004.

Bekker-Nielsen, T. 2004b

Introduction. In: Bekker-Nielsen, T. (ed.), Ancient Fishing and Fish Processing in the Black Sea Region. Black Sea Studies 2, Aarhus 2004, 9-19.

Bekker-Nielsen, T., 2004c

The Technology and Productivity of Ancient Sea Fishing. In: Bekker-Nielsen, T. (ed.), Ancient Fishing and Fish Processing in the Black Sea Region. Black Sea Studies 2, Aarhus 2004, 83-95.

Bekker-Nielsen, T. 2004d

Pictorial Evidence for Fishing in Late Antiquity and the Early Middle Ages. Will be published in: International Journal of Maritime History. Autumn 2005.

Bekker-Nielsen, T. 2004e

The One That Got Away: A Reassessment of the Agoranomos Inscription from Chersonesos (VDI 1947, 245). Will be published in: Gabrielsen, V., J. Lund, & T. Madsen (eds.), The Black Sea in Antiquity: Regional and Interregional Economic Exchanges. Black Sea Studies 4, Aarhus 2005.

Bekker-Nielsen, T. 2004f

The one That Got Away: A Reassessment of the Agoranomos Inscription from Chersonesos (VDI 1947, 245) and its Value as Evidence for the Extent of the Crimean Fish Trade.

http://www.pontos.dk/trade_konference_2004/BEK_got_away.htm

Bekker-Nielsen, T. 2004g

Source Materials for fishing in Antiquity and the Early Middle Ages.

http://www.pontos.dk/e_pub/TBN%20Paper%20Sources%20for%20ancie.pdf

Bekker-Nielsen, T. 2004h

Overfiskning i antikken. Will be published in Sfinx (with A.L. Lund Jacobsen).

Bekker-Nielsen, T. 2004i

Mithridates VI, a Historical Personality.

http://www.pontos.dk/round_table_mithridates/TBNmithridates_personality.pdf

Guldager Bilde, P. 2004a

Templer ved Sortehavet. In: P. Guldager Bilde & J.M. Højte (eds.), Mennesker og guder ved Sortehavets kyster. Sortehavsstudier 2, Aarhus 2004, 29-51.

Guldager Bilde, P. 2004b

Reflexions on a Group of Terracotta Altars with Representations of Greek Gods. Paper delivered at the international conference: The Golden Treasures of the Dacians. Rumania through 7000 years. Stockholm, Sweden, 2-3 October 2004.

http://www.pontos.dk/e_pub/PGB_Stockholm_foredrag.pdf

Guldager Bilde, P. 2004c

Greek Temples of the Black Sea Region: Facts and Fiction.
http://www.pontos.dk/e_pub/PGB_templer_Athen.pdf

Guldager Bilde, P. 2004d
_to bylo skifskogo v "Skifskoj Diane" iz Nemi? Archeologi_eskie vesti. In print.

Guldager Bilde, P. & J.M. Højte (eds.) 2004
Mennesker og guder ved Sortehavets kyster. Sortehavsstudier 2, Aarhus 2004.

Guldager Bilde, P. & J.M. Højte (eds.) 2004
Forord, i: Mennesker og guder ved Sortehavets kyster. Sortehavsstudier 2, Aarhus 2004, 5-8.

Hannestad, L. 2004a
The Chronology of the Monumental Building U6 at Panskoye I. In: Stolba, V. & L. Hannestad, (eds.), Chronologies of the Black Sea Area in the Period c. 400-100 B.C., Black Sea Studies 3, Aarhus 2004, 179-192.

Hannestad, L. 2004b
Hverdagsguder. Græske terrakotter ved Sortehavet. In: P. Guldager Bilde & J.M. Højte (eds.), Mennesker og guder ved Sortehavets kyster. Sortehavsstudier 2, Aarhus 2004, 65-74.

Hinge, G. 2004a
Dialect Coloring in the Quotations of Classical Greek Poetry. In: G. Rocca (ed.): Dialetti, dialettismi, generi letterari e funzioni sociali. Atti del V Incontro Internazionale di Linguistica Greca. Milano, 12-13 settembre 2002. Edizioni dell'Orso 2004, 303-311.

Hinge, G. 2004b
Herodot zur skythischen Sprache: Arimaspen, Amazonen und die Entdeckung des Schwarzen Meeres. In: Glotta: Zeitschrift für griechische und lateinische Sprache 2005.

Hinge, G. 2004c
Völkerwanderungen in Herodots Geschichtswerk: Griechen und Skythen. In: E. Jerem (ed.), Language and Prehistory of the Indo-European Peoples. Archaeolingua 2005.

Hinge, G. 2004d
Sjælevandring Skythien tur-retur. In: P. Guldager Bilde & J.M. Højte (eds.), Mennesker og guder ved Sortehavets kyster. Sortehavsstudier 2, Aarhus 2004, 11-27.

Højte, J. M. 2004a
The Date of the Alliance between Chersonesos and Pharnakes (IOSPE I2, 402) and its Implications. In: Stolba, V. & L. Hannestad, (eds.), Chronologies of the Black Sea Area in the Period c. 400-100 B.C. Black Sea Studies 3, Aarhus 2004, 137-152.

Højte, J. M. 2004b
The Archaeological Evidence for Fish Processing in the Black Sea Region. In: T. Bekker-Nielsen (ed.), Ancient Fishing and Fish Processing in the Black Sea Region. Black Sea Studies 2, Aarhus 2004 133-161.

Højte, J. M. 2004c

Tempelstater i Pontos: Komana Pontike, Zela og America. In: P. Guldager Bilde & J.M. Højte (eds.), *Mennesker og guder ved Sortehavets kyster*. Sortehavsstudier 2, Aarhus 2004, 75-97.

Højte, J.M. 2004d

Portraits and statues of Mithridates VI. Royal propaganda.

http://www.pontos.dk/round_table_mithridates/HOEJTE_portr_mithrid.htm

Højte, J.M. 2004e

Roman Imperial Statue Bases from Augustus to Commodus. In: A. Brauer (red.), *Acta of the XVIth International Congress of Classical Archaeology*, Boston 2004.

Højte, J.M. 2004f

En streg i sandet. *Sfinx*, 3, 2004, 124-127.

Lund, J. & J. Eiring, 2004

Transport Amphorae and Trade in the Eastern Mediterranean. Acts of the International Colloquium at the Danish Institute at Athens, September 26-29, 2002. *Monographs of the Danish Institute at Athens* 5, Athens 2004.

Lund, J, & V. Gabrielsen 2004

A fishy business: transport amphorae of the Black Sea region as a source for the trade in fish and fish products in the Classical and Hellenistic periods. In: T. Bekker-Nielsen (ed.), *Ancient Fishing and Fish Processing in the Black Sea Region*. *Black Sea Studies* 2, Aarhus 2004, 161-169.

Madsen, J.M. 2004a

The Romanization of the Greek elite in Achaia, Asia and Bithynia: Greek Resistance or regional Discrepancies. Submitted to *Orbis Terrarum*.

Madsen, J.M. 2004b

Provincial population and Roman identity in Bithynia et Pontos. In Print.

Madsen, J.M. 2004c

Romanisierung in Bithynia und Pontus. Assimilation oder Widerstreit,

http://www.pontos.dk/e_pub/JMMprovincial.pdf

Moreno, A. 2004

Athenian grain imports from the Black Sea in the fifth and fourth centuries BC.

http://www.pontos.dk/trade_konference_2004/MOR_athenian_grain.pdf

Olshausen, E. 2004

Stuttgarter Forschungen in Pontos, www.pontos.dk/olshausen/olshausen%203.ppt.

Petersen, J.H. 2004

Greek or Native? A case study of burial customs in the northern and western Black Sea Region- Olbia and Apollonia Pontika. Paper delivered at the international conference: *The Golden Treasures of the Dacians. Rumania through 7000 years*. Stockholm, Sweden, 2 - 3 October 2004.

http://www.pontos.dk/e_pub/JHP_Stockholm-foredrag.pdf

Saprykin, S.Ju. 2004

Unification of Pontus: Bronze coins of Mithridates Eupator as evidence on commercial relations in the Euxin.

http://www.pontos.dk/trade_konference_2004/SAP_unification_pontos.pdf

Stolba, V.F. 2004a

Hellenistic Chersonesos: Towards Establishing a Local Chronology. In: Stolba, V. & L. Hannestad (eds.), *Chronologies of the Black Sea Area in the Period c. 400-100 B.C.* Black Sea Studies 3, Aarhus 2004, 153-177.

Stolba, V.F. 2004b

Fish and Money: Numismatic evidence on the Black Sea fishing. In: T. Bekker-Nielsen (ed.) *Ancient Fishing and Fish Processing in the Black Sea Region.* Black Sea Studies 2. Aarhus 2004, 115-132.

Stolba, V.F. 2004c

Guderne i Chersonesos: Parthenos og Herakles. In: P. Guldager Bilde & J.M. Højte (eds.), *Mennesker og guder ved Sortehavets kyster.* Sortehavsstudier 2, Aarhus 2004, 53-64.

Stolba, V.F. 2004d

Karkinitis and the Bay of Karkinitis: Towards an Evaluation of the Classical Literary Tradition. *Ancient Civilizations from Scythia to Siberia* 10, Leiden 2004, 47-66.

Stolba, V.F. 2004e

The numismatics of Chersonesos and Kerkitis as evidence of Greek and barbarian interrelations in western Tauris. In: *Cités grecques, sociétés indigènes et empires mondiaux dans la région nord-pontique: origines et développement d'une koinè politique, économique et culturelle (VIIe s. a.C. – IIIe s. p.C.).* Proceedings of the Bordeaux Congress: 14-16 November 2002, Bordeaux. In print.

Stolba, V.F. 2004f

The Oath of Chersonesos (IOSPE I2, 401) and Chersonesean Economy in the early Hellenistic period. In: Z.G. Archibald, J.K. Davies & V. Gabrielsen (eds.), *Ancient Economies: 330-31 BCE. Making, Moving and Managing.* Oxford UP. In print.

Stolba, V.F. 2004g

Russian private collections of Greek coins from the Black Sea region (late 19th - early 20th century): the case of Grand Duke Alexander Michailovich. In: J.S. Jensen & T.N. Smekalova (eds.) *The Great Numismatic Collections on the Baltic. From coin collections of the sovereigns to national research institutions.* Materials of the Symposium in Znamenka, 21-25 October 2003. St. Petersburg. In print.

Stolba, V.F. 2004h

Monetary crises in the early Hellenistic poleis of Olbia, Chersonesos and Pantikapaion. Proceedings of the 13th International Numismatic Congress. Madrid. In print.

Stolba, V.F. 2004i

A Greek Private Letter from the settlement of Panskoye (north-western Crimea). VDI. In print.

Stolba, V.F. 2004j

Hellenistic ostrakon from Olbia. Submitted to *Zeitschrift für Papyrologie und Epigraphik*.

Stolba, V.F. 2004k

Northern Black Sea in the 1st millennium BC: human history and climatic changes.

Proposal to SHF and SNF.

Stolba, V.F. & L. Hannestad (eds.) 2004a

Chronologies of the Black Sea Area in the Period c. 400-100 B.C. *Black Sea Studies* 3, Aarhus 2004.

Stolba, V.F. & L. Hannestad 2004b

Introduction. In: Stolba, V. & Hannestad, L. (eds.), *Chronologies of the Black Sea Area in the Period c. 400-100 B.C.*, *Black Sea Studies* 3, Aarhus 2004.

Vakhtina, M.Ju. 2004

Greek Archaic pottery from the barbarian sites of the forest-steppe zone at the Black Sea coastal zone.

http://www.pontos.dk/trade_konference_2004/VAK_archaic_pottery.pdf

Other activities included in the contract

Website

The website has undergone a number of changes and a section in Danish has been added. This contains among other things an extensive photo gallery with pictures from sites and museums on the northern and southern coasts of the Black Sea region taken by the Centre staff. The homepage is being updated by the academic secretary.

Teaching done by the Centre staff

Centre staff offered one course to the institutes concerned with classical studies in the spring term 2004:

- *Rituals and Cults in the Black Sea Region* (Pia Guldager Bilde, Jakob Munk Højte, Jane Hjarl, Vladimir Stolba, Sergej Saprykin, George Hinge).

The PhD students Jesper Majbom Madsen and Trine Madsen both offered courses in the autumn term 2004:

- Jesper Majbom Madsen taught (together with Tønnes Bekker-Nielsen) two courses at the Department of History, Esbjerg: Resistance and Adaptation to Roman Supremacy in Britain and Anatolia and Historical subject 1 - the Period before AD 1650. Cities in the Roman Empire, including cities in Roman Bithynia. Jesper Majbom Madsen and Tønnes Bekker-Nielsen arranged a study tour to Trier, 6.-12.11., for the students attending the courses.
- Trine Madsen taught one course at the Department of History, University of Copenhagen: Kings, Power and Poleis in the Hellenistic Period.
- Tønnes Bekker-Nielsen held a lecture at the University of Southern Denmark on "Fishing in Antiquity", 28.10.2004.

Education

Pia Guldager Bilde took a three-week intensive Russian course in St Petersburg, 4-23.10.
Jane Hjarl Petersen took one-week intensive individual course in Russian, 19.-23.1.
Trine Madsen attended the International Summer School in Greek and Latin Epigraphy at the Centre for the Study of Ancient Documents at the University of Oxford, 5-15.7.

Library

For the past year Jane Hjarl has been responsible for the Centre's library. The Centre has bought a small library left by a deceased Petersburg colleague containing more than 700 volumes.

Preparation of applications

- Vladimir Stolba, preparation of the application to SHF for the international interdisciplinary project "Northern Black Sea in the 1st millennium BC: human history and climatic changes".
- Pia Guldager Bilde, preparation of applications for (a) seven-month prolongation of the Centre and (b) three-year prolongation of the Centre.

Dissemination to the general public

The work and role of the Centre in the archaeological investigations in ancient Olbia was presented on Danish national television in the programme entitled "Past for sale" by Lone Leegaard, on trade in art and antiquities and illegal excavations, 10.10.2004. The programme was repeated with minor changes.

Tønnes Bekker-Nielsen gave two lectures: Storbyen Konstatinopel (The city of Constantinople) and Silkevejen (The Silkroad).

Jesper Majbom Madsen gave one lecture: Den romerske provins Bithynia et Pontos (The Roman province of Bithynia and Pontos).

Additional activities

Meetings of the scientific committee

Two meetings were held by the scientific committee: 31.8.2004, 6.12.2004.

Internal evaluation

The Centre staff held a strategy meeting, 31.8.2004.

References

Guldager Bilde, P. 2003

Gudens bolig? Templer ved Sortehavet.

http://www.pontos.dk/aarsmoede_2003/PGBgudensbolig.htm

Guldager Bilde, P. 2004a

Templer ved Sortehavet. In: P. Guldager Bilde & J. M. Højte (eds.), *Mennesker og guder ved Sortehavets kyster*. Sortehavsstudier 2, Aarhus 2004, 29-51.

Guldager Bilde, P. 2004b

Reflexions on a Group of Terracotta Altars with Representations of Greek Gods.

Paper delivered at the international conference: *The Golden Treasures of the Dacians. Rumania through 7000 years*. Stockholm, Sweden, 2 - 3 October 2004.

http://www.pontos.dk/e_pub/PGB_terracotta_altars.htm

Guldager Bilde, P. 2004c

Greek Temples of the Black Sea Region: Facts and Fiction.

http://www.pontos.dk/e_pub/PGBgreek_temples.htm

Hind, J. 1994

Mithridates. In: *The Cambridge Ancient History*. Cambridge, 129-164.

Hinge, G. 2004b

Sjælevandring Skythien tur-retur. In: P. Guldager Bilde & J. M. Højte (eds.), *Mennesker og guder ved Sortehavets kyster*. Sortehavsstudier 2, Aarhus 2004, 11-27.

Højte, J. M. 2004a

Tempelstater i Pontos: Komana Pontike, Zela og Ameria. In: P. Guldager Bilde & J. M. Højte (eds.), *Mennesker og guder ved Sortehavets kyster*. Sortehavsstudier 2, Aarhus, 75-97.

Højte, J.M. 2004b

Portraits and statues of Mithridates VI. Royal propaganda.

http://www.pontos.dk/round_table_mithridates/HOEJTE_portr_mithrid.htm

Il'inskaja, V.A. & A.I. Tereno_kin 1983

Skifija VII-IV vv. do n.e. Kiev.

Kry_itskij, S.D. 1993

Architektura anti_nych gosudarstv Severnogo Pri_ernomor'ja. Kiev.

Kry_itskij, S.D. 2001

Ol'vija i skify u V st. do n.e. Do pytannja pro skifskij "protektorat". *ArcheologijaKiev* 2, 21-36.

MacMullen, R. 2000

Romanization in the Time of Augustus. London.

Madsen, J.M. 2004

Provincial population and Roman identity in Bithynia et Pontos. In Print.

Mar_enko, K. & Y. Vinogradov 1989

The Scythian period in the northern Black Sea region (750-250 BC). *Antiquity* 63, 803-813.

Mar_enko, K. & Y. Vinogradov 1991

See Vinogradov & Mar_enko 1991.

McGing, B.C. 1986

The Foreign Policy of Mithridates VI Eupator King of Pontus. Leiden.

Pi_ikjan, I.R. 1984

Malaja Asija - Severnoe Pri_ernomor'e. Moskva.

Reinach, Th. 1895

Mithradates Eupator, König von Pontos. Leipzig.

Rusjaeva, A.S. 1978

Orfizm i kult Dionisa v Ol'vii. *VDI* 1, 87-104.

__eglov, A.N. 1985

O greko-varvarskich vzaimodestviyach na periferii ellinskogo mira. In: *Pri_ernomor'e v epojhu ellinizma. Materialy III Vsesojuznogo simpoziuma po drevnej istorii Pri_ernomor'ja, Tshaltubo 1982*, Tbilisi, 185-198.

Stolba, V.F. 2003

Monetary Crises in the early Hellenistic poleis of Olbia, Chersonesos and Pantikapeion. A re-assessment. In: *XIII Congreso Internacional de numismática, Madrid, 15-19 septiembre. Resúmenes de las comunicaciones*. Madrid 2003, 81.

Stolba, V.F. 2004a

The Oath of Chersonesos (*IOSPE I*², 401) and Chersonesean Economy in the early Hellenistic period. In: Z.G. Archibald, J.K. Davies & V. Gabrielsen (eds.), *Ancient Economies: 330-31 BCE. Making, Moving and Managing*. Oxford UP. In print.

Stolba, V.F. 2004b

Monetary crises in the early Hellenistic poleis of Olbia, Chersonesos and Pantikapaion. *Proceedings of the 13th International Numismatic Congress*. Madrid. In print.

Stolba, V.F. 2004c

Northern Black Sea in the 1st millennium BC: human history and climatic changes. Proposal to SHF and SNF.

Swain, S. 1996

Hellenism and empire: language, classicism, and power in the Greek world, AD 50-250. Oxford.

Tolstikov, V.P. 1984

K probleme obrazovanija Bosporskogo gosudarstva (opyt rekonstrukcii voenno-politi_ eskoj situacii na Bospore v konce VI – pervoj polovine V v. do n.e. *VDI* 3, 24-48.

Vinogradov, Ju.G. 1981

Varvary v prosopografii Ol'vii VI-V vv. do n.e. In: *Demografi_ eskaja situacija v Pri_ ernomor'e v period Velikoj gre_ eskoj kolonizacii*. Tbilisi, 131-148.

Vinogradov, Ju.A. 2003

Two Waves of Sarmatian Migrations in the Black Sea Steppes during the Pre-Roman Period. In: P. Guldager Bilde, J.M. Højte & V.F. Stolba (eds.), *The Cauldron of Ariantas. Studies presented to A.N. __eglov on the occasion of his 70th birthday*. Aarhus, 217-226.

Vinogradov, Ju.A. & K.K. Mar_ enko 1991

Severnoe Pri_ ernomor'e v Skifskuju epochu. Opyt periodizacii istorii. *Sovetskaja archeologija* 1, 45-155.

Vinogradov, Ju.G. 1983

Polis v Severnom Pri_ ernomor'e. In: *Anti_ naja Grecija*. Vol. 1. Moscow, 366-420.

Vinogradov, Ju.G. 1997

Der Pontos Euxeinos als politische, ökonomische und kulturelle Einheit. In: H. Heinen (ed.) *Pontische Studien*. Mainz am Rhein, 1-73.