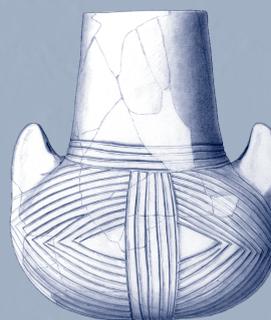


Edited by

Martin Furholt, Marzena Szmyt and Albert Zastawny

The **Baden Complex** and the Outside World



Studien zur Archäologie in Ostmitteleuropa
Studia nad Pradziejami Europy Środkowej

4

Studien zur Archäologie in Ostmitteleuropa · Band 4
Studia nad Pradziejami Europy Środkowej · Tom 4

STUDIEN ZUR ARCHÄOLOGIE IN OSTMITTELEUROPA • Band 4
STUDIA NAD PRADZIEJAMI EUROPY ŚRODKOWEJ • Tom 4

Herausgegeben von / Redaktorzy

JOHANNES MÜLLER
Kiel

JANUSZ CZEBRESZUK
Poznań

SŁAWOMIR KADROW
Kraków

Editorial offices: Martin Furholt, Ines Reese, Emily Schalk, Marzena Szmyt
Layout and digital editing: Ines Reese
Cover design: Holger Dieterich, Ines Reese

The Baden Complex and the Outside World

Proceedings of the 12th Annual Meeting of the EAA in Cracow
19–24th September 2006

Edited by

Martin Furholt, Marzena Szmyt and Albert Zastawny,
in cooperation with Emily Schalk



2008

In Kommission bei

Dr. Rudolf Habelt GmbH, Bonn

The publication of the book
was sponsored by the Christian-Albrechts-University in Kiel;
the Institute for Eastern Studies of the Adam Mickiewicz University in Poznań, the Poznań Prehistoric Society,
and the Cracow Team for Archaeological Supervision of Motorway Construction
(Institute of Archaeology and Ethnology, the Polish Academy of Sciences,
Archaeological Museum in Cracow and the Jagiellonian University)



ISBN 978-3-7749-3599-0

Die Deutsche Nationalbibliothek verzeichnet diese Publikation in der
Deutschen Nationalbibliografie.

Detailliertere bibliografische Daten sind im Internet über
<<http://dnb.d-nb.de>> abrufbar.

The German National Library Cataloguing Publication Data:

A catalogue record for this book is available at
the German National Library (<<http://dnb.d-nb.de>>)

©2008 Authors and the editors

Alle Rechte, auch die des auszugsweisen Nachdrucks,
der fotomechanischen oder digitalen Wiedergabe und der Übersetzung, vorbehalten.
printed by Druckhaus "Thomas Müntzer"; Bad Langensalza

Contents

Preface of the series' editors	7
Preface	9

The Baden Complex: General Views

<i>Martin Furholt</i> Culture History Beyond Cultures: The Case of the Baden Complex	13
<i>Maximilian O. Baldia, Douglas S. Frink and Matthew T. Boulanger</i> Problems in the Archaeological Legacy: The TRB/Lengyel-Baden Conundrum.	25
<i>Claudia Sachße</i> Baden Cultural Identities? Late Copper Age Funerals Reviewed	49

The Baden Complex: Regional Views

<i>Tünde Horváth</i> Balatonöszöd - an Unusual Baden Settlement?	71
<i>Róbert Patay, Katalin Herbich, Pál Sümegi</i> Late Copper Age Settlement of Ecsér (County Pest, Hungary): Archaeological and Environmental Archaeological Investigations	89
<i>Kitti Köhler</i> The Physical Anthropological Characterization of the Population Connected to the Baden Culture in Hungary	95
<i>Eva Horváthová</i> About the Development of the Baden Culture in the Region of the Northern Tisza River in Slovakia.	111
<i>Jana Šuteková</i> The Jevišovice Culture in Slovakia.	131
<i>Paweł Valde-Nowak</i> An Isolated Grave of the Baden Culture in the Beskidy Mountains.	139
<i>Andrzej Pelisiak</i> The Jurassic Flint Type G in Central Europe in the Late Neolithic (3100 – 2300 BC)	147

The Baden Complex and the Outside World

Lolita Nikolova

Balkan-Anatolian Cultural Horizons from the Fourth Millennium BC
and Their Relations to the Baden Cultural Complex 157

Christian Mayer

Mappings of the Late Neolithic Cultures in the Austrian Danube Region 167

Albert Zastawny

The Baden and the Funnel Beaker-Baden Settlement in Lesser Poland 177

Agnieszka Przybył

Badenization of the Late Neolithic Funnel Beaker Culture Societies
between Oder and Vistula Basins in the Light of ¹⁴C-Datings. 189

Małgorzata Rybicka

Settlement, Chronology and Economy of the
Funnel Beaker-Baden Society in Kujavia and the Gostynin Lake District 205

Marzena Szmyt

Baden Patterns in the Milieu of the Globular Amphorae:
Transformation, Incorporation and Long Continuity
A Case study from the Kujavian Region, Polish Lowland 217

Hanna Kowalewska-Marszałek

The Most Distant Outskirts. The Baden Elements in the Złota Culture (Little Poland) 233

Piotr Włodarczak

Corded Ware and Baden Cultures.
Outline of Chronological and Genetic Relations Based on Finds from Western Little Poland 247

Maximilian O. Baldia, Douglas S. Frink and Matthew T. Boulanger

The Earthen Long-Barrow of Džbán, Moravia, Czech Republic and its Implications
for the Interaction between the Nordic Funnel Beaker and the Southern Baden Culture 263

Mikhailo Videiko

Baden Culture Influences to the East of the Carpathian Mountains 289

PREFACE OF THE SERIES' EDITORS

The “Baden Complex” provides a highly relevant link to our understanding of the Late Neolithic in Eastern Central Europe, since it occurs in a time of major cultural change, marking an important step in the transition from a Neolithic to an Early Bronze Age Society. In particular, the wide distribution of the Boleráz-Cernavodă III Pottery, as traceable along the course of the river Danube, reveals the development of far-reaching cultural communication then co-occurring with the first appearances of major technological innovations in Central Europe.

What stands behind these cultural phenomena mentioned, how can we conceptualise the “Baden Complex” and how does it relate to other archaeological complexes? New evidence dealing with these issues has been presented by an international circle of archaeologists at the Annual Meeting of the European Association of Archaeologists (EAA) held in Cracow in 2006 and is addressed by the papers

in this volume. The studies presented here show the diversity of a broad international research community as represented by researchers from almost a dozen countries. In this way they reflect the current state of research on the Baden Complex.

With its clear regional focus on Eastern Central Europe the volume was predestined for our series “Studien zur Archäologie in Ostmitteleuropa (SAO) – Studia nad Pradziejami Europy Środkowej (SPEŚ)”. For the first time a volume of this series is published in English and may thus reach a broad international scientific audience.

We would like to thank the EAA and the organisers of the Annual Meeting in Cracow as well as the session organisers, the participants and the authors.

*Janusz Czebreszuk, Sławomir Kadrow
and Johannes Müller*

PREFACE

The Baden Complex denotes a set of traits in the material culture that has evoked a great deal of interest in the research of Late Neolithic/Eneolithic/Chalkolithic period, as it shows a wide distribution and far reaching influences into several regions of Europe. Parallels in the pottery style are visible as far as to the Aegean.

Apart from these patterns in pottery style, the Baden Complex has also played an important role in large-scale models of human prehistory, the most influential today still being Andrew Sherratt's model of a Secondary Products Revolution (Sherratt 1981). The wide spread distribution of the Boleráz-Cernavodă III pottery and the temporal coincidence with the earliest appearance of wheeled vehicles have, amongst others, recently been emphasized by Joseph Maran (1998; 2001; 2004). Joachim Köninger, Martin Kolb und Helmut Schlichtherle (2001) stress the presence of Boleráz and Baden pottery in southern Germany and Switzerland and the possible connections to a set of innovations. Thus, Sherratt's ideas of 1981 still seem up to date, in spite of much critique they have provoked.

A better understanding of the Baden Complex does not only mean to get a better grip on the prehistory of the Carpathian Basin and the adjoining areas but is of greater importance to the whole understanding of the prehistoric development of Central, Eastern and South-Eastern Europe. An improved chronological framework will help us to understand the processes of change, both in material culture as well as in technology and economy. This may help us to build up plausible models of social and ideological change that seems virulent at the start of the Bronze Age in South-Eastern Europe and at the turn to the Corded Ware/Beaker Period in Central Europe.

Thus, this volume aims at two main goals: The first is a better understanding of the cultural phenomenon itself, the other an examination of the supra-regional patterns mentioned.

In the last years there has been exciting new discoveries and also research on different aspects of the Baden Complex, much of which was presented at the EAA meeting in Cracow 2006. All papers discussed there have been included in this book as well as papers of some authors who had not been able to participate in the meeting (Eva Horváthová,

Hanna Kowalewska-Marszałek, Agnieszka Przybył and Piotr Włodarczak).

In the first parts of the book one can find a set of comprehensive papers, dealing with an overall understanding of the complex. The authors stress the encumbrance inherited bad concepts, weak methods and data acquisitions have caused to an understanding of the nature of the Baden Complex and try to give alternatives. Martin Furholt broaches the issue of the concept of the archaeological culture that has long been central to the „Culture History Approach” still dominant in Central and Eastern Europe. Although that concept is to be abandoned, the approach, in his opinion, remains an important constituent to the discipline. Maximilian O. Baldia, Douglas S. Frink and Matthew T. Boulanger deal with problems caused by what they term „our archaeological legacy” and demonstrate incongruities in the concepts, typologies and dating systems by confronting them to their field work on the „mixed” Funnel Beaker-Baden sites in Moravia. Claudia Sachße accounts for her in-depth analysis of the burial customs connected to the Baden Complex. Her results are very instructive in terms of an overall understanding of the cultural phenomenon. Regional traditions dominate burial customs in the Carpathian Basin and adjacent areas. Assuming that burial practises to a certain measure do reflect group identity, certain unifying tendencies among people using Baden style pottery may be observed, although the regional units emerging within that context seem to correspond quite well with the cultural borders observed in the time before the appearance of Baden pottery.

In the second part of the volume investigations of regional character are discussed. Tünde Horváth presents the results of a rescue excavation in the settlement site of Balatonőszöd, where large-scale exploration revealed extraordinary evidence concerning ritual behaviour and settlement structure. She also deals with the question of the identification of house structures in settlements connected to the Baden Complex as do Róbert Patay, Katalin Herbich and Pál Sümegi at the instance of the settlement site of Ecser, from where they also present macrobotanical evidence. Kitti Köhler discusses physical anthropological investigations on skeletons

from burial grounds in Hungary, containing Baden style pottery. They show a higher degree of heterogeneity than older samples connected to the Bodrogkeresztúr Complex. Köhler is also concerned with the question whether migration played any role in the formation of the Baden Complex. Jana Suteková presents her investigations on the pottery of the Jevišovice style of the Kočín site in south-western Slovakia, thus giving the first detailed account on this eastern periphery of that style whose existence has but recently been discovered. Moving to the north Paweł Valde-Nowak reports the find of an isolated grave containing a Baden style amphora in the Carpathian Mountains. Andrzej Pelisiak deals with the “most Badenian flint”, the Jurassic Flint type G, a raw material almost exclusively used in the settlements of the Zesławice-Pleszów group near Cracow, but also being subject to long-distance exchange.

The third part of the volume is dedicated to the problem of “outbound” relations, that is, the relations of the Baden Complex to material classified differently. Both encompass Baden influences in distant regions as well as the relations to different styles in one region. Lolita Nikolova shows a chronological scheme related to Eastern and South-Eastern Europe and proposes the existence of a far-reaching cultural network in the second half of the 4th millennium BC encompassing the regions of the Baden Complex, the Pontic area, the Balkans, the Aegean and even Western Anatolia. Christian Mayer presents a row of mappings of different complexes from the Late Neolithic in the Austrian Danube Region, along with a thorough critique of these sources. Albert Zastawny gives account of the Baden Complex in Little Poland, where quite different models of cultural influences are observable. Agnieszka Przybył discusses a new absolute chronology of “badenized” Funnel Beaker settlement on Polish Lowland. For the Kujavian region and adjacent areas Małgorzata Rybicka deals with the Baden influences on Funnel Beaker complexes, even speaking of a Funnel Beaker-Baden society. In her paper Marzena Szmyt gives a review of Baden patterns adopted by societies related to the Globular Amphora materials. She tries to explore their signi-

ficance and shows that such patterns were used as one of the components building a self-identity of the communities connected to the Globular Amphora regional group in Kujavia. Hanna Kowalewska-Marszałek examines a role of “Baden” elements in the syncretic assemblages of the Złota type. Piotr Włodarczak is concerned with Baden pottery typological traits in the Little Poland Corded Ware, even proposing an important role of these influences in the formation of the latter, but also pointing out the importance of Post Baden (Jevišovice B) influences on the later Corded Ware. Finally, turning to the east, Baden influences in the Cucuteni-Tripolye complex east of the Carpathian Mountains are discussed by Mikhailo Videiko.

Obviously, the papers reflect quite different, partially even opposing concepts concerning the nature of the Baden Complex. These differences are due to different schools and research traditions in the different countries. However, it seems appropriate to put them together in one volume, as the recognition of these conceptual differences is crucial to an understanding of the interpretations based on them. We are happy to be able to present such a wide range of papers from a highly international community. It seems beneficial to unite the papers, as diverse they may sometimes seem, into one volume, using one language. We chose English, as we believe it will reach the greatest audience, parts of which will so far have had problems to get an overview over the research on the Baden Complex.

We hope this volume will contribute to a better understanding of the cultural phenomena behind the „Baden Complex”. Maybe the compilation of different approaches, as presented here, will further international exchanges of ideas, knowledge and resources and promote discussions on the subject.

Finally, we wish to thank the editors of the SAO/SPEŚ for including this volume into the series, the sponsoring institutions for their support and Ines Reese, Emily Schalk and Holger Dieterich for their professional editorial and graphical work.

*Martin Furholt, Marzena Szmyt
and Albert Zastawny*

Balkan-Anatolian Cultural Horizons from the Fourth Millennium BC and Their Relations to the Baden Cultural Complex

By Lolita Nikolova

Introduction

In our study on the Cernavodă III - Boleráz horizon, we pointed to the importance of the Hotnitsa-Vodopada site for the analysis of the beginning of the Bronze Age in the Lower Danube region and generally in the Balkans. The goal of this paper is to further expand the research towards West Anatolia and to connect the earlier Early Bronze basic sites in cultural horizons, which will be related to the Baden cultural complex. Basing our argument upon comparative ceramic, radiocarbon and archaeomagnetic evidence, we will demonstrate that the Balkans and West Anatolia shared some similar cultural processes during the fourth millennium BC. Two cultural horizons¹ can be argued as stages in the genesis of the Bronze Age in the western Pontic region: Hotnitsa-Vodopada - Ilipinar IV - Kuruçay 6A-6, and Dubene-Sarovka IIA - Dyadovo 12/13 - Drama-Merdzhumekya - Kum Tepe

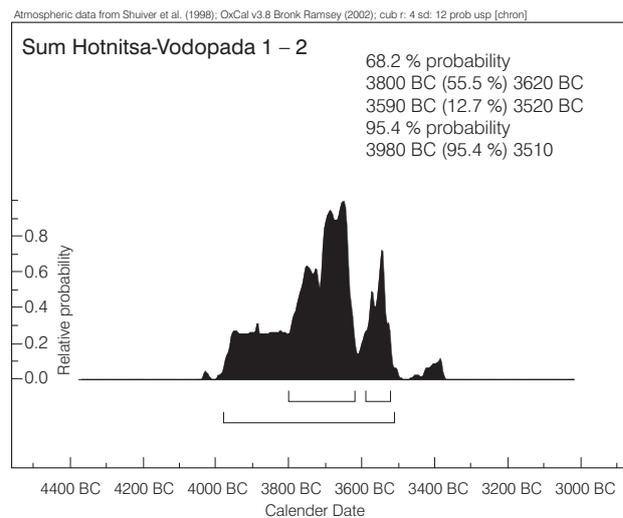


Fig. 1. Sum-probability of the radiocarbon dates from Hotnitsa-Vodopada. (n=6).

Cultural Horizon

For the time being, the site of Hotnitsa-Vodopada (NIKOLOVA 1999 and references cited there) best represents the beginning of the Early Bronze Age in the Balkans (cp. MANZURA 2003). The pottery has some analogies with the Cernavodă I Culture as well as with Oltenița-Renie II in Muntenia (Romania), and with Koprivets (Northeast Bulgaria), Ovcharovo-Platoto and others (NIKOLOVA 2001 and references cited there). The metal finds from Hotnitsa-Vodopada represent some of the earliest high-arsenic bronze finds south of the Danube River, but typologically the dagger found there relates the site with the Middle Danube (Hotnitsa-Vodopada - Topolje

- Mondsee horizon) (VAJSOV 1993: Fig.12: 1). The radiocarbon dates (Fig. 1) are comparable with the earliest Baden dates from Central Europe, and, attributing Hotnitsa-Vodopada to the first stage of the Cernavodă III Culture (NIKOLOVA 2001)², we have determined that the Baden - Cernavodă III horizon in the Middle and Lower Danube basin began about 3600 BC.

Of significance for our argument are some analogies in the pottery from Hotnitsa-Vodopada and from West Anatolia - Ilipinar (ROODENBERG/THISSEN 2001; ROODENBERG 2001) and Kuruçay (DURU 1996). One of the lines of comparison is Ilipinar IV

¹ Compared to the chronological horizon, the cultural horizon includes sites or cultures, which could be only partially synchronous.

² Recently, I. MANZURA (2003) defined Hotnitsa-Vodopada as an independent group.

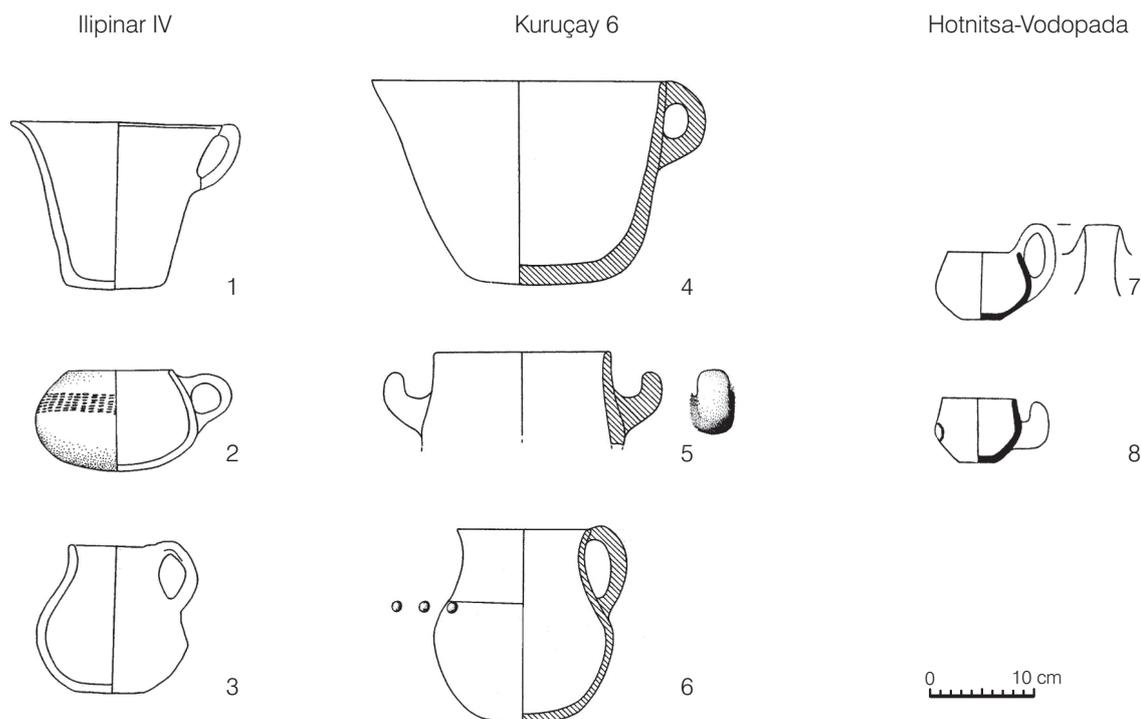


Fig. 2. Comparable table of pottery from Ilipinar IV, Kuruçay 6 and Hotnitsa-Vodopada.

(Northwest Anatolia); vessels with a rounded body are present there and in Hotnitsa-Vodopada. However, at the latter site the cups documented show a high handle (Fig. 2, 7). The other line of comparison is Kuruçay 6 (Southwest Anatolia), where a specific arch-shaped handle establishes a connection (Fig. 2, 5, 8). Since all of these sites are very distant, we believe that the similarity could indicate an indirect relationship and that it points to one of the directions of the flow of cultural interactions in the eastern Balkans within the earlier fourth millennium cal BC, that is, contacts with Anatolia. Inasmuch as pottery is a very ambiguous record, it is worth noting that Ilipinar IV and Northwest Anatolia were an integrated part of the earliest distribution of arsenic bronze in the western Pontica (BEGEMANN et al. 1994) (Fig. 3). Typologically, the daggers of Ilipinar are similar to the Bodrogkeresztúr type from Central Europe (VAJSOV 1993, Fig. 34), although the last were made of poor copper (VAJSOV 1993). Technologically, the Ilipinar bronze finds are in one group with the high-arsenic finds from Hotnitsa-Vodopada and Usatovo (or Tripolje CII) (see the map in VAJSOV 1993 for the arsenic bronze finds from Usatovo).

High arsenic bronze technology in Anatolia is steadily practiced at least from the beginning of the fourth millennium cal BC (YENER 2000). The finds from Ilipinar IV not only confirm this early dating, but probably show that the direction of the distribution of this innovation was from Anatolia to the eastern Balkans (towards the Cernavodă III - Usatovo horizon), and/or there were social interactions.

The sum probability of radiocarbon dates from Ilipinar (3940 BC³ – 3530 BC at 68.2% probability) (Fig. 4) yield a very vast span, but in general the values correspond to the sum probability of the dates from Hotnitsa-Vodopada – 3800–3520 cal BC. The later values of the dates from both sites parallel the radiocarbon dates from Kuruçay – 3630–3360 BC (Fig. 5). Thus, the overlapping date for all three sites is about 3600 BC, which has been accepted as an approximate starting date for Hotnitsa-Vodopada in the Yantra Valley. However, the typological similarity between the daggers from Ilipinar and Bodrogkeresztúr may indicate that the cemetery of Ilipinar IV was founded earlier. Later Bodrogkeresztúr is documented at the Ostrovul Corbului

³ The abbreviation “BC” refers to the calibrated date. Uncalibrated dates are referred to as “bp” (Ed.).



Fig. 3. Horizon Kuruçay 6 - Ilipinar - Hotnitsa-Vodopada. Comparable metal and ceramic data.

cemetery (NIKOLOVA 1999). This cemetery chronologically follows Telish 3, which dates from c. 4050 BC. On the other hand, in Central Europe the latest Bodrogkeresztúr possibly corresponds to the early Scheibenhengel horizon (NIKOLOVA 1999). Thus, it could be argued, in light of metal finds from Central Europe, that the beginning of the Ilipinar IV cemetery could even be about 3900 BC. As we do not know the duration of use of these daggers, and as the cemetery data of Ilipinar IV is not complete-

ly published, for the time being it is reasonable to offer tentative dates from about 3900/3800 BC to about 3600/3530 BC⁴.

In view of the comparable data discussed above, the cultural horizon possibly begins with Ilipinar IV (c. 3900/3800 BC) and ends with Hotnitsa-Vodopada and Kuruçay (after 3600 BC) (Fig. 5; 6). Following the West Pontic periodisation systems, the beginning of Ilipinar IV could have been in the later Final Copper Age as is presented in Fig. 7.

⁴ In a preliminary communication J. ROODENBERG (2001) compares Ilipinar IV with Stara Zagora-Bereket, but in light

of recent evidence the latter cemetery follows Ilipinar IV.

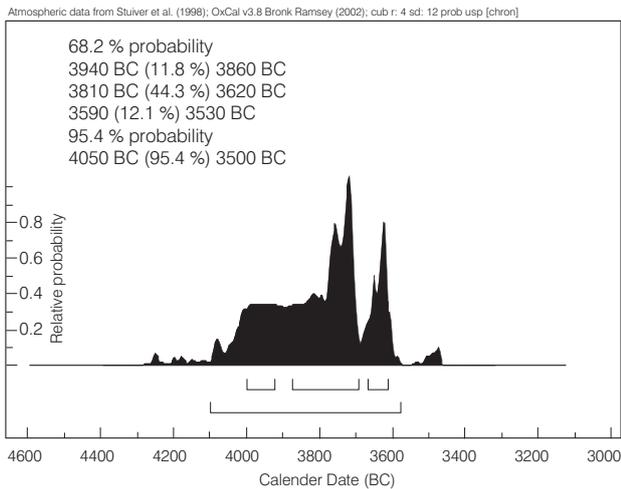


Fig. 4. Sum-probability of the radiocarbon dates from Ilipinar IV. (n=2).

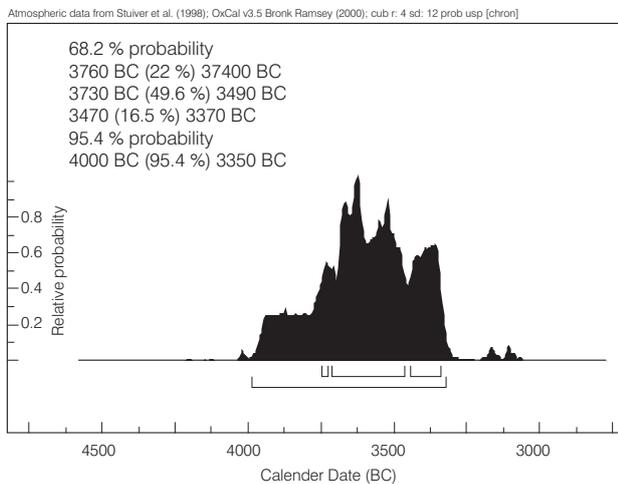


Fig. 5. Sum-probability of the radiocarbon dates from Hotnitsa-Vodopada, Ilipinar IV, Kuruçay 6A & 6b. (n=14).

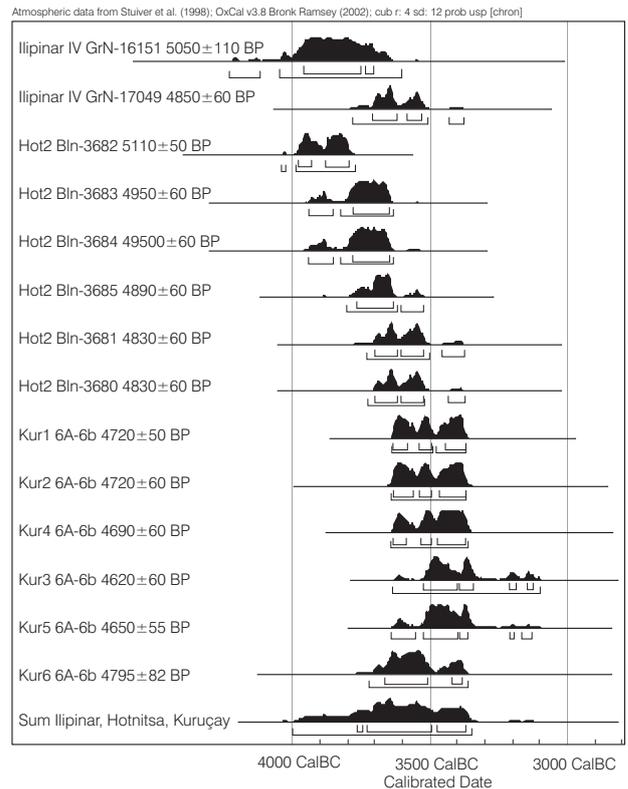


Fig. 6. Calibrated radiocarbon dates from Hotnitsa-Vodopada, Ilipinar IV, Kuruçay 6A & 6b. (n=14).

Earlier Dubene-Sarovka IIA - Drama-Merdzhumekya - Earlier Kum Tepe IB

Earlier Dubene-Sarovka IIA - Drama-Merdzhumekya - earlier Kum Tepe IB is the second important cultural horizon that can be defined as related to the genesis of the Bronze Age in the West Pontic region. Dubene-Sarovka is located in the Upper Stryama River valley (NIKOLOVA 2000). The Early Bronze levels were divided into three stages: Dubene-Sarovka IIA, IIB and IIC (a total of nine building levels documented stratigraphically in different parts of the sites for the time being), with the earliest (IIA) representing the Early Bronze I on the tell (Dubene-Sarovka 6-9). The levels of stage IIA are not excavated extensively, but the control trench from 2000 reveals four levels, which were below the ones excavated in 1993–1999 and represent an extended

duration of the Early Bronze I multilevel village. In view of the stratigraphic data (NIKOLOVA 2000), one radiocarbon date (NIKOLOVA/GÖRSDORF 2002) and the archaeomagnetic data (KOVACHEVA ET AL. 2002), one can argue that Dubene-Sarovka II was founded before Yunatsite 17, belonging to the earliest phase known for now of the Early Bronze Age in western Thrace.

The range of the radiocarbon date Bln-5233 (4571 ± 32 BP) from Dubene-Sarovka IIA obtained at the depth of 1.90–2.46 m ($+313.10/+312.54$ m a.s.l.) lies between 3490 BC and 3120 BC at 68.2% probability (NIKOLOVA/GÖRSDORF 2002) (Fig. 5; 6; 8). The date has been supplemented by archaeomagnetic samples that demonstrate the relative chron-

Period	Ca/BC	The Yantra Basin (North Central Bulgaria)	The Sryama Basin (South Central Bulgaria)	The Upper Maritsa Valley	The Suzljka Basin (Southeast Bulgaria)	The Lower Tundhza Basin (Southeast Bulgaria)	Northwest Anatolia	Southwest Anatolia	Period
Early Bronze I	3000			Yunatsite	Ezero				The so-called Late Chalcolithic
	3100			17-15	13-11				
	3200		Dubene- Sarovka IIA		Dyadovo				
	3300				Pythoi 1-9 (?)		Kumtepe IB		
	3400					Drama- Merdzhumekya			
Final Copper	3500	Hotnitsa- Vodopada 1-2						Kuruçay 6A-6	
	3600								
	3700								
	3800						Ilipinar IV		
	3900								
4000									

Fig. 7. Cultural sequence in the western Pontic region (Early Bronze I).

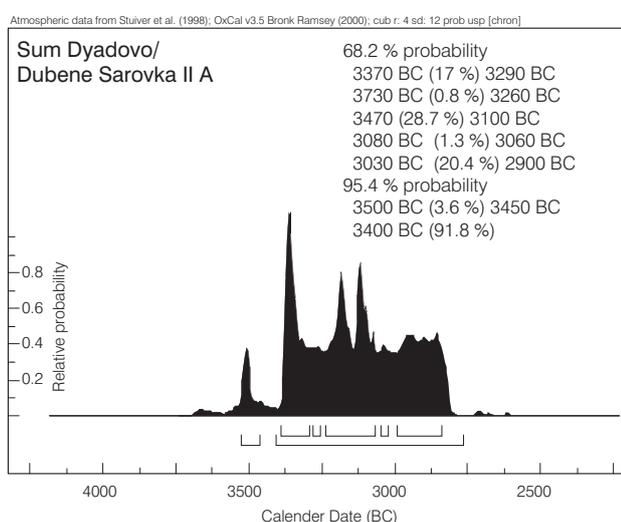


Fig. 8. Sum-probability of the radiocarbon dates from Dyadovo and Dubene-Sarovka IIA. (n=4).

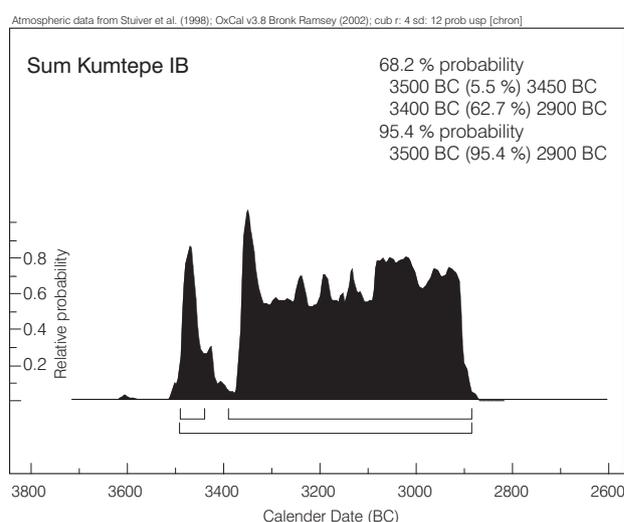


Fig. 9. Sum-probability of the radiocarbon dates from Kumtepe IB. (n=4).

ological priority of Dubene-Sarovka IIA in comparison to the earlier Yunatsite horizons from the Early Bronze Age (KOVACHEVA ET AL. 2002). In light of comparative chronology, the earliest Bronze Age horizon on the last tell, Yunatsite 17, dates to c. 3300 BC (NIKOLOVA 2000).

In western Thrace and in the upper Maritsa River valley in particular, Early Bronze I is represented at Yunatsite 17–15 as well as by the earliest Bronze Age levels of Ognyanovo (NIKOLOVA 1999; LESHTAKOV 2000). There is also data from Plovdiv-Nebet Tepe, which perhaps indicate an Early Bronze I occupation (see the discussion in NIKOLOVA 1999).

Recently, important new evidence has been published from Drama-Merdzhumekya (the lower Tudzha Valley in Southeast Bulgaria). At that site settlement pottery with some parallels at Cernavodă

III was found (LICHARDUS/ILIEV 2001) as well as at Dubene-Sarovka IIA, Dyadovo and Karanovo VIIA (NIKOLOVA 2003). Evaluation of the site data suggests that the pottery from Drama-Merdzhumekya represents the earliest phase of the Ezero Culture in Thrace, thereby demonstrating that the genesis of the Ezero Culture was a long process (NIKOLOVA 2003).

New data also came from the Dyadovo tell (Suzljka basin, Southeast Bulgaria) including radiocarbon dates (Fig. 8). The pottery from the ovens of the lowest Early Bronze levels (in the Japanese Sector) has the typical early Ezero under-rim ornaments (KAMURO ET AL. 2000), but it lacks the other specific characteristics of the Ezero 13 ceramic style.

The pottery of Karanovo VIIA also differs in some details from Ezero 13 (NIKOLOVA 1999 and references cited there). Although the published information

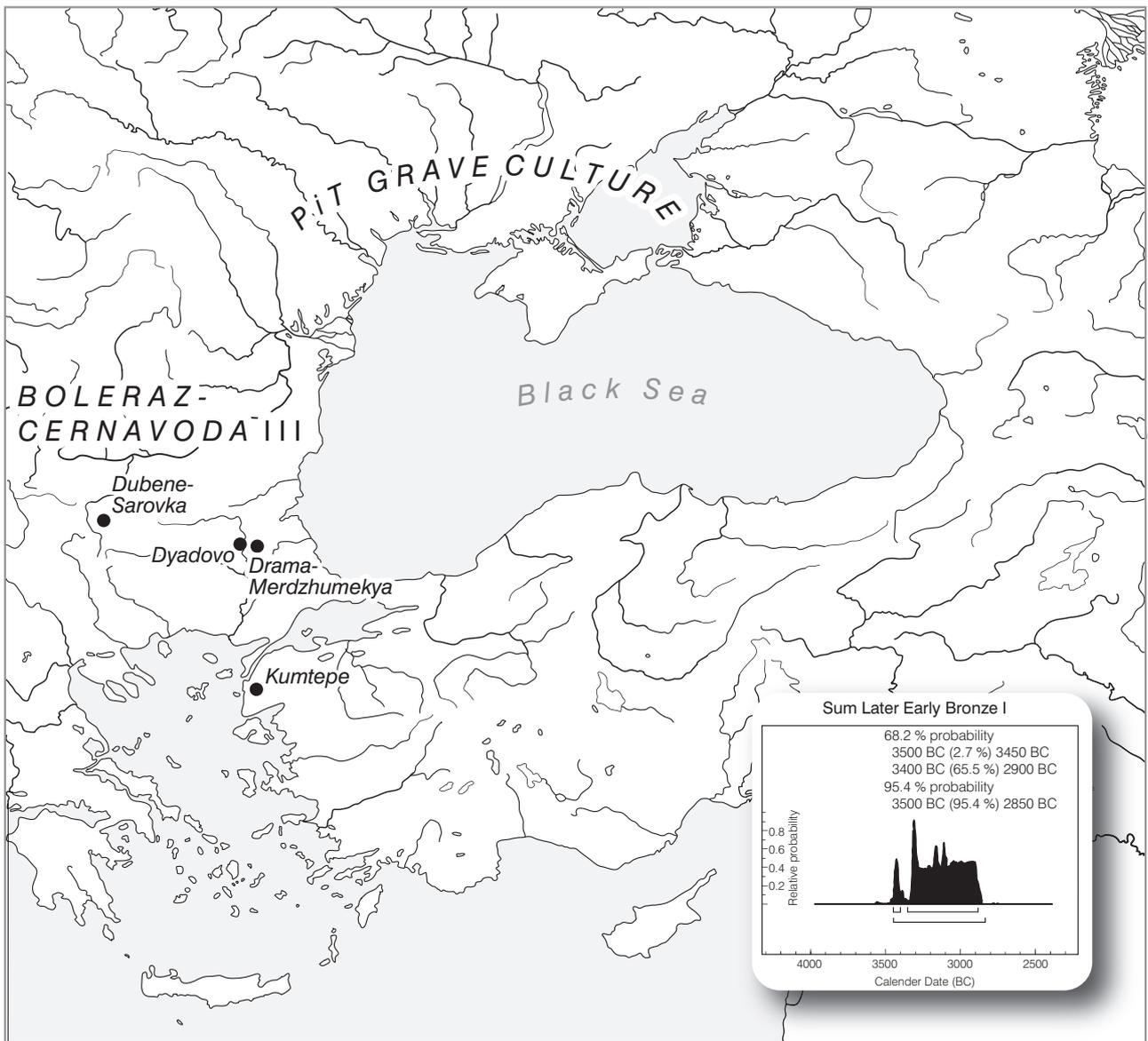


Fig. 10. The western Pontica in later fourth millennium cal BC (newly investigated sites).

on ceramic material from all three listed sites (Drama-Merdzhumekya, Dyadovo and Karanovo VIIA) is very limited, we can determine, basing upon comparative analysis, that the beginning of the Early Bronze Age cultures in northeastern Thrace (the Ezero Culture) was earlier than Ezero 13. Two new chronological levels have possibly been documented: Drama/Merdzhumekya and Dyadovo (the ear-

liest Early Bronze levels) /Karanovo VIIA.

The radiocarbon dates from Kum Tepe IB came from a well-documented stratigraphic context (KORFMANN ET AL. 1996; GABRIEL 2001). The range of two specific dates from the IB layer is between 3500 BC and 3020 BC (at 68.2% probability) (Fig. 9). The pottery is typical of the pre-Troy stage of the Early Bronze Age development in Northwest Anatolia.

Discussion

Recent data that include new regional evidence for a cultural sequence (Fig. 7) indicate that the origin of the Bronze Age in the Western Pontic region

was the result of an interrelated process of multi-aspected cultural interactions between close and distant communities. In our view, at this early stage the

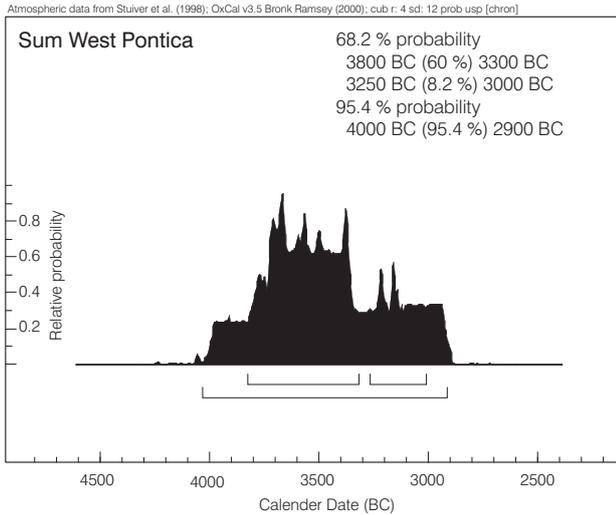


Fig. 11. Sum-probability of the radiocarbon dates from the sites discussed in the text. (n=22).

semi-mobile Balkan and Western Anatolian groups were involved in different kinds of interaction, including possible transhumance-traders of metal and other goods. To add weight to this hypothesis, we refer to the assertion that pottery with analogies at Hotnitsa-Vodopada was found at Drama-Merdzhumekya (LICHARDUS/ILIEV 2001). This finding marks one of the interrelated points between the eastern Balkans and western Anatolia.

On the other hand, Kuruçay 6A was explained as a new culture in Southwest Anatolia (DURU 1996). As a support for our hypothesis, metal finds from Kuruçay have analogies at Ilipinar. We can add that there exist some typological similarities or common tendencies in the morphological development in the pottery of Kuruçay 6A–6 and Ilipinar IV (Fig. 2:1–6). These similarities also relate the former site to Northwest Anatolia. Unfortunately, Western Anatolia from the earlier fourth millennium cal BC is not well known, and for now we can only hypothesize that the ceramic changes possibly relate to social changes and economic developments of the semi-mobile and semi-sedentary communities in the different parts of western Anatolia during the earlier fourth millennium cal BC (for the Balkans see NIKOLOVA 2003).

The significant scientific value of the recent complex investigation into the cultural processes in the Balkans and Anatolia stems from the fact that for several decades it has been popular for social scientists to posit an invasion theory as the genesis of the Bronze Age in the Balkans. According to this theory (especially the works of MARIA GIMBUTAS), the beginning of the Bronze Age in the Balkans was closely interrelated with the nomadic tribes of the Pit Grave Culture (the so-called Kurgan Culture) from

the Northwest Black Sea. According to the invasion theory, these nomads gradually penetrated into the Balkans during the fourth millennium cal BC. Recent research, however, suggests that the change in the material culture of the Balkans in the latest fifth and during the fourth millennium cal BC was the result of a complex of factors. At its core were the social changes and transformations of Old Europe from a sedentary and semi-mobile system to a system of mobile and semi-mobile communities (NIKOLOVA 2003). The process was mostly internal within the latest fifth and earlier fourth millennium cal BC, while in the later fourth millennium cal BC there was a reverse process of sedentarisation, one of the causes of which was possibly climatic variations as recently documented by geomorphological research at Dubene-Sarovka (KENDEROVA 2000).

Therefore, in light of recent evidence, one can argue that the later fourth millennium cal BC consisted of a dynamic process of graduated sedentarisation of Thrace by groups of communities that may have had dominant mobile or semi-mobile socio-economic structures in the earlier fourth millennium cal BC, archaeologically documented in the Central Rhodopes (the Yagodina group, Final Copper Age).

In modern historiography, the fourth millennium cal BC of western Anatolia is usually defined as Late Chalcolithic (ROODENBERG 1995; ROODENBERG/THISSEN 2001; cp. YAKAR 1985). However, such a definition does not describe the cultural process, since the Chalcolithic period in Anatolia started in the sixth millennium cal BC (YAKAR 1991). Arsenic bronze had been known and widely distributed since the earlier fourth millennium cal BC (YENER 2000), and there are periodisation differences between eastern and western Anatolia. Thus, another school of thought that sees the genesis of the Bronze Age in Anatolia in the later fourth millennium cal BC and even earlier (KAVTARADZE 1999) deserves attention. We propose that Ilipinar IV and Kuruçay 6A-6 were at least partially synchronous and represent the earliest Early Bronze Age in western Anatolia. However, it is possible that the cemetery of Ilipinar IV was founded in the Final Copper Age (see above).

Another early stage of Early Bronze in western Anatolia is documented at Kumtepe IB. It is the so-called pre-Troy stage, named from the time before the re-excavation of the site when that stage was known only ceramically. The investigation of the team of PROF. M. KORFMANN confirms that Kumtepe IB dates to the later fourth millennium cal BC (KORFMANN ET AL. 1996). The radiocarbon dates are close to both Sitagroi IV (see the discussion for Sitagroi IV in NIKOLOVA 1999), as well as to the newly obtained date from Dubene-Sarovka IIA.

The correlation of the new stratigraphic, typological and radiocarbon data from the sites of Kumtepe IB, Drama - Merdzhumekya, and Dubene-Sarovka IIA represent the second cultural horizon in the Early Bronze Age I in the Western Pontica, dating from c. 3400 BC. Strictly interpreted, the radiocarbon dates offer possible dating as early as c. 3500 BC (68.2% probability) (Fig. 9), while the sum-probability of the discussed radiocarbon dates from Ilipinar, Kuruçay, Kumtepe IB, Hotnitsa-Vodopada, Dyadovo

and Dubene-Sarovka IIA (Fig. 5; 6) is between 3800 BC and 3000 BC (at 68.2% probability) (Fig. 11).

The increasing evidence for a cultural transformation stands in contrast to the invasion model of M. GIMBUTAS. Because the evidence of the North Pontic region is very limited in the eastern Balkans in the earlier fourth millennium cal BC, we assume that nomads were also integrated in the West Pontic cultural network, not as invaders, but as partners and groups with similar social-economic structures.

Relations with the Baden Cultural Complex

Since the Baden cultural complex developed over a vast territory, we will limit our conclusions to the areas which were close to the Yunatsite Culture.

First of all, we need to stress the fact, that in the old scheme the basic comparative site from Thrace was the Ezero tell. However, the Baden cultural complex is a central European phenomenon, and there are no direct contacts between the Ezero and this complex. It is the earlier Yunatsite Culture (NIKOLOVA 2000) that contains some analogies in the pottery with early Baden, but they developed in a different cultural context. Most typical are the burials in settlements, which at the Yunatsite tell include mostly infants while the typical village burials of the Baden population were adults. However, there are two adult graves at the Yunatsite (possibly the 16th horizon), although they occurred in the context of typical infant burials. These cultural characteristics may be an argument that the similarity in the pottery was a result of contacts, but not a strong migration from the Middle Danube region.

In relative chronological terms, our first horizon corresponds to the Boleráz in the Middle Danube (see also NIKOLOVA 2001). The Boleráz analogies closest to Thrace come from Radomir-Vakhovo and from Vaksevo in the Struma valley, where the Boleráz influence was especially strong. However, both sites do not consist of thick layers from Early Bronze I, and there are missing radiocarbon dates,

on the one hand. On the other hand, analogies with the Yunatsite I Culture exist as elements in the general style of the channeled pottery. It is also worth noting that we do not have typical Classical Baden pottery in the Struma River valley, for instance like in the region of Banat. In other words, the archaeological data do not allow us to argue with certainty that late Boleráz finds in the Struma valley pre-date the beginning of Dubene IIA and Yunatsite 17. The indirect radiocarbon dates favor such conclusions, while the general distinctiveness of the Yunatsite 17–15 and Dubene IIA make the pottery closer to Boleráz than to later Baden.

We have two opportunities to resolve the problem. First, we have to give priority to the radiocarbon dates and to acknowledge that about 3300/3200 cal BC contacts of the South Balkans with the Middle Danube were limited; in the latest fourth millennium in the Yunatsite Culture we can document retarded Boleráz elements together with typical Yunatsite-style elements. Then, our first horizon is synchronous with Boleráz, and the second horizon – with Classical Baden.

The second model is to accept that the beginning of the Yunatsite Culture corresponds to the latest Boleráz. Then, we have to date the end of the southern peripheral regions of Boleráz at 3300/3200 cal BC.

We believe that new radiocarbon and stratigraphic data would help to resolve the problem.

Conclusion and Summary

Recent archaeological evidence suggests that similar cultural processes and strong interactions between communities developed in vast regions of the prehistoric Circumpontic region. During the fourth millennium cal BC these processes and interactions produced a similarity in the material culture and the distribution of advanced bronze technology, as initiated by arsenic bronze artifacts (the so-called Circumpontic metallurgical province, after E. CHERNYKH). It can be presumed that arsenic

bronze technology was invented in Anatolia and then spread rapidly in the western Pontica during the first half of the fourth millennium cal BC (and even to Central Europe – e.g. Mondsee (BEGEMANN ET AL. 1994)), or at least there were intensive social interactions in the distribution of this innovation. We assume that the transmitters of this innovation were transhumance-traders from Anatolia and the Balkans. The data from Thrace confirm a graduated sedentarisation of this territory during

the period of the initial development of the Ezero and Yunatsite Cultures (the later fourth millennium cal BC).

Ceramic evidence, metal finds and radiocarbon dates constitute a basis from which to argue that Hotnitsa-Vodopada - Ilipinar IV and Kuruçay 6A-6 represents a cultural horizon, which possibly represents the end of the Final Copper Age (earlier Ilipinar) (?) and the genesis of the Early Bronze Age in the western Pontic region, to which also the Usatovo culture (that is, the horizon of the first high-arsenic bronze finds in the western Pontica) belongs (approx. 3800 BC–3600/3500 BC). Recent stratigraphic, ceramic, radiocarbon and archaeomagnetic data allow one to posit a second Early Bronze cultural horizon in the western Pontica – earlier Dubene-Sarovka IIA - Dyadovo 13/12 - Drama-Merdzhumekya - earlier Kum Tepe IB (c. 3400–3300/3200 BC), which preceded Ezero 13 - Yunatsite 17. Both horizons correspond to Boleráz and Classical Baden in the Middle Danube basin in light of the radiocarbon dates, while typologically at least the beginning of the second horizon could have overlapped with latest Boleráz to the south of the Danube.

This study demonstrates the benefit of complex comparative research of archaeological sites from distant, yet interrelated regions in Eurasia. It offers the thesis of an interrelated genesis of the Bronze Age in the Balkans and in Anatolia. The archaeological data are in accord with recent Indo-European research, which describes the prehistoric continuity

of the Balkans and Indo-Europeanisation as a long process of development of the autochthonous population (STEFANOVICH 2003 and ref. cited there).

Thus, in light of recent evidence, a theory of interactivity can be proposed for the genesis of the Bronze Age in the western Pontica, which included western Anatolia, the eastern and central Balkans and the Northwest Black Sea. In this large region we can also include the Middle Danube basin, expressively demonstrated by the Boleráz-Cernavodă III horizon. We aver that a process of similar social change and transformation characterized both near and distant communities in this vast region. The Baden cultural complex was, through the central Balkans and the Danube, integrated into the western Pontica cultural network and possibly even continental Greece was linked. In vast regions of Eurasia, comparable cultural processes and strong interactions between communities resulted in a similarity in the material culture and in the distribution of advanced bronze technology, initiated by high-arsenic bronze artifacts. The bearers of the earliest bronze cultures were mostly mobile and semi-mobile communities, with tendencies toward sedentarisation.

Lolita Nikolova

International Institute of Anthropology

29 South State Street #206

Salt Lake City, Utah 84111

USA

Abstract

In our study on the Cernavodă III - Boleráz horizon, we pointed to the importance of the Hotnitsa-Vodopada site for the analysis of the beginning of the Bronze Age in the Lower Danube and generally in the Balkans. The goal of this paper is further to expand the research towards West Anatolia and to connect the earlier Early Bronze basic sites in cultural horizons, which will be related to the Baden cultural complex. Basing our argument upon comparative ceramic, radiocarbon and archaeomagnetic evidence, we will demonstrate that the Balkans and western Anatolia shared some similar cultural processes during the fourth millennium cal BC. In light of recent evidence, a theory of interactivity for the genesis of the Bronze Age in the western Pontica, which included western Anatolia, the eastern and central Balkans, and the Northwest Black Sea,

can be proposed. In this large region we can also include the Middle Danube basin, expressively demonstrated by the Boleráz-Cernavodă III horizon. We aver that a process of similar social change and transformation characterized both near and distant communities in this vast region. The Baden cultural complex was, through the Central Balkans and the Danube River, integrated into the western Pontica cultural network and possibly even continental Greece was linked. In vast regions of Eurasia, comparable cultural processes and strong interactions between communities resulted in a similarity in the material culture and in the distribution of advanced bronze technology, initiated by high-arsenic bronze artifacts. The bearers of the earliest Bronze cultures were mostly mobile and semi-mobile communities, with tendencies toward sedentarisation.

REFERENCES

- Begemann et al 1994: F. Begemann/E. Pernicka/S. Schmitt-Strecker, Metal Finds from Ilipinar and the Advent of Arsenical Copper. *Anatolica* 20, 1994, 203–209.
- Boehmer/Maran 2001: R.M. Boehmer/J. Maran (Eds.) 2001 *Lux Orientis. Archäologie zwischen Asien und Europa. Festschrift für Harald Hauptmann zum 65. Geburtstag* (Rahden/Westf. 2001).
- Duru 1996: R. Duru, Kuruçay Höyük II. Results of the Excavations 1978–1988. The Late Chalcolithic and Early Bronze Settlements. *Türk Tarih Kurumu Basimevi* (Ankara 1996).
- Gabriel 2001: U.M. Gabriel, Eine neue Sichtweise des “vortrojanischen Horizontes”. *Ergebnisse der Ausgrabungen am Kumtepe 1993–1995*. In: P. Roman/S. Diamandi (Eds.), *Cernavodă III - Boleráz. Ein vorgeschichtliches Phänomen zwischen dem Oberrhein und der unteren Donau. Symposium Mangalia/Neptun (18.–24. Oktober 1999)* (București 2001) 84–87.
- Hauptmann et al. 1999: A. Hauptmann/E. Pernicka/Th. Rehren/Ü. Talçin. (Eds.), *The Beginning of Metallurgy. Proceedings of the International Conference “The Beginning of Metallurgy”*, Bochum 1995. Dt. Bergbau-Museum. Bochum. *Der Anschnitt* 9, 1999 Veröffentlichungen aus dem Deutschen Bergbau-Museum No. 84 (Bochum 1999).
- Kamuro et al. 2000: H. Kamuro, Structures and Pottery (in Japanese). In: T. Sekine/H. Kamuro (Eds), *Djadovo excavation 1999. A Preliminary Report on the 13th Excavation at Dyadovo, Bulgaria. Tokai University Thracian Expedition. Dyadovo Studies* 3 (Tokay 2000) 17–111.
- Kavtaradze 1999: G. L. Kavtaradze, The Importance of Metallurgical Data for the Formation of Central Transcaucasian Chronology. In: A. Hauptmann/E. Pernicka/Th. Rehren/Ü. Talçin. (Eds.), *The Beginning of Metallurgy. Proceedings of the International Conference “The Beginning of Metallurgy”*, Bochum 1995. Dt. Bergbau-Museum. Bochum. *Der Anschnitt* 9, 1999 Veröffentlichungen aus dem Deutschen Bergbau-Museum No. 84 (Bochum 1999) 67–101.
- Kenderova 2000: R. Kenderova, Geomorphological Investigations of the Dubene-Sarovka Area and the Sanctuary near the Village of Dositeevo. In: L. Nikolova (Ed.), *Technology, Style and Society. BAR Int. Ser. 854* (Oxford 2000) 375–385.
- Korfmann et al. 1996: M. Korfmann/Ç. Girgin/Ç. Morçöl/S. Kılıç, Kumtepe 1993: Bericht über die Rettungsgrabung. *Studia Troica* 7, 1996, 237–289.
- Kovacheva et al. 2002: M. Kovacheva/M. Kostadinova/N. Jordanova/V. Gigov, Bronze Age Sarovka Site Near Dubene. In: L. Nikolova (Ed.), *Material Evidence and Cultural Pattern in Prehistory. International Institute of Anthropology and Prehistory Foundation. Salt Lake City, Sofia & Karlovo. Reports of Prehistoric Research Projects* 5, 2001 (2002) 89–96.
- Leshtakov 2000: K. Leshtakov, Pottery from Maltepe near Ognyanovo (Characteristics, Chronology and Interrelations). In: L. Nikolova (Ed.), *Technology, Style and Society. Oxford. BAR Int. Ser. 854* (Oxford 2000) 241–271.
- Lichardus/Iliev 2001: L. Lichardus, I.K. Iliev, Die Cernavodă III-Siedlung von Drama-Merdžumekja in Südostbulgarien und ihre Bedeutung für Südosteuropa. In: P. Roman/S. Diamandi (Eds.), *Cernavodă III - Boleráz. Ein vorgeschichtliches Phänomen zwischen dem Oberrhein und der unteren Donau. Symposium Mangalia/Neptun (18.–24. Oktober 1999)* (București 2001) 166–198.
- Manzura 2003: I. Manzura, Innovations in the Ceramic Style and the Bronze Age Genesis in the Northeast Balkans. In: Nikolova L. (Ed.), *Early Symbolic Systems for Communication. BAR Int. Ser. 1139* (Oxford 2003) 313–335.
- Nikolova 1999: L. Nikolova, The Balkans in Later Prehistory. *BAR Int. Ser. 791* (Oxford 1999).
- Nikolova 2000: L. Nikolova, The Yunatsite Culture: Periodization, Chronology and Synchronizations. *Reports of Prehistoric Research Projects* vol. 2–3, 1999 (2000), 33–97.
- Nikolova 2001: L. Nikolova, Approach to the Genesis and Initial Development of the Early Bronze Age Cultures in the Lower Danube Basin and in the Southern Balkans. In: P. Roman/S. Diamandi (Eds), *Cernavodă III - Boleráz. Ein vorgeschichtliches Phänomen zwischen dem Oberrhein und der unteren Donau. Symposium Mangalia/Neptun (18.–24. Oktober 1999)* (București 2001) 236–261.
- Nikolova/Görsdorf 2002: L. Nikolova/J. Görsdorf, New radiocarbon dates from the Balkans (Dubene-Sarovka) (Approach to the Early Bronze Absolute Chronology in Upper Thrace). *Radiocarbon* 44, 2, 2002, 531–540.
- Nikolova 2003: L. Nikolova, Archaeology of Social Change: A Case Study from the Balkans. In: Nikolova L. (Ed.), *Early Symbolic Systems for Communication. BAR Int. Ser. 1139* (Oxford 2003) 9–19.
- Parzinger 1993: H. Parzinger, *Studien zur Chronologie und Kulturgeschichte der Jungstein-, Kupfer- und Frühbronzezeit zwischen Karpaten und Mittlerem Taurus. Römisch-Germanische Forschungen* 52 (Mainz 1993).
- Roodenberg 1995: J. Roodenberg (Ed.), *The Ilipinar Excavations. Nederlands Historisch-Archaeologisch Instituut* (Istanbul 1995).
- Roodenberg 2001: J. Roodenberg, A Late Chalcolithic Cemetery at Ilipinar in Northwestern Anatolia. R.M. Boehmer/J. Maran (Eds.) *Lux Orientis. Archäologie zwischen Asien und Europa. Festschrift für Harald Hauptmann zum 65. Geburtstag* (Rahden/Westf. 2001) 351–355.
- Roodenberg/Thissen 2001: J. Roodenberg/L. Thissen (Eds.) *The Ilipinar Excavations II. Nederlands Instituut voor het Nabije Oosten* (Leiden 2001).
- Stefanovich 2003: M. Stefanovich, Archaeology, Linguistics and Genetics: Indo-European Studies at the Beginning of the 21st Century. In: Nikolova L. (Ed.), *Early Symbolic Systems for Communication. BAR Int. Ser. 1139* (Oxford 2003) 1–7.
- Vajsov 1993: I. Vajsov, Die frühesten Metalldolche Südost- und Mitteleuropas. *Prähistorische Zeitschrift* 68, 1993, 103–145.
- Yakar 1985: J. Yakar, The Later Prehistory of Anatolia: The Late Chalcolithic and Early Bronze Age. *BAR Int. Ser. 268* (Oxford 1985).
- Yakar 1991: J. Yakar, *Prehistoric Anatolia: The Neolithic Transformation and the Early Chalcolithic Period*. Tel Aviv University & Sonia and Marco Nadler Institute of Archaeology (Tel Aviv 1991).
- Yener 2000: K.A. Yener, *The Domestication of Metals: The Rise of Complex Metal Industries in Anatolia* (Boston/Köln 2000).



The Baden Complex (3600–2900 calBC) denotes a set of traits in the material culture that has evoked a great deal of interest in the research of Late Neolithic/Eneolithic/Chalcolithic period. It is highly relevant to our understanding of this period in Eastern Central Europe, representing a time when major changes occurred in the archaeological record, marking an important step on the way from a Neolithic to an Early Bronze Age Society.

What lies behind these cultural phenomena, how do we conceptualise the “Baden Complex” and how does it interact with other archaeological complexes? These questions are addressed by the papers included in this volume.

In the last years exciting new discoveries have been made and also research on different aspects of the Baden Complex has taken place, much of which was presented at the Annual Meeting of the European Association of Archaeologists (EAA) in Cracow 2006. All papers discussed there have been included in this book. It unites a wide range of research activities from a highly international community into one volume.