

UNIVERSITATEA „ALEXANDRU IOAN CUZA” IAȘI
FACULTATEA DE ISTORIE
CENTRUL INTERDISCIPLINAR DE STUDII ARHEOISTORICE

ITINERA IN PRAEHISTORIA

STUDIA IN HONOREM MAGISTRI NICOLAE URSULESCU
QUINTO ET SEXAGESIMO ANNO

Ediderunt

VASILE COTIUGĂ,
FELIX ADRIAN TENCARIU ET GEORGE BODI



EDITURA UNIVERSITĂȚII „ALEXANDRU IOAN CUZA” IAȘI

ITINERA IN PRAEHISTORIA

**Studia in honorem magistri Nicolae Ursulescu
quinto et sexagesimo anno**

UNIVERSITATEA „ALEXANDRU IOAN CUZA” IAȘI
FACULTATEA DE ISTORIE
CENTRUL INTERDISCIPLINAR DE STUDII ARHEOISTORICE

ITINERA IN PRAEHISTORIA

**Studia in honorem magistri
Nicolae Ursulescu
quinto et sexagesimo anno**

**Ediderunt
Vasile Cotiugă, Felix Adrian Tencariu et George Bodi**

**Editura Universității „Alexandru Ioan Cuza” Iași
2009**

The book was elaborated within
the *Interdisciplinary Center for Archaeological Studies*

This publication was financially supported by
the *Cucuteni pentru mileniul III* Foundation (president: dr. Romeo Dumitrescu)
Some papers were written in the frame of the research grant No. 1361,
financially supported by CNCSIS

On the cover: *pot with lid from Isaiia (Iași county) - Precucuteni culture*
Cover design: Felix Adrian Tencariu

The English translations were revised by:

Adrian Poruciuc
Oana Macari
Norbert Poruciuc

The French translations were revised by:

Olivier Weller
Marius-Tiberiu Alexainu
Roxana-Gabriela Curcă
Diana-Măriuca Vornicu
Andreea Vornicu

Descrierea CIP a Bibliotecii Naționale a României

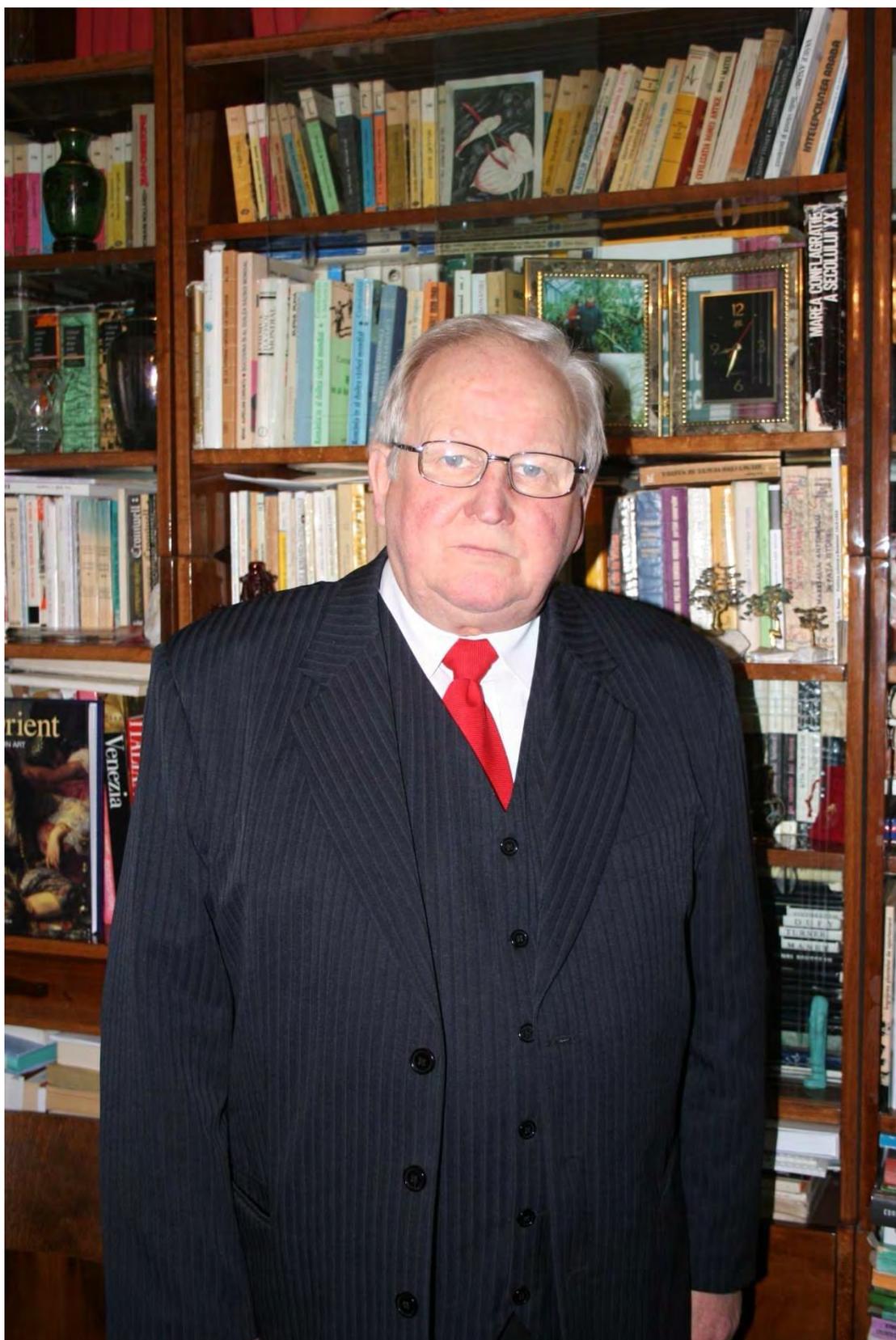
**Itinera in praehistoria. Studia in honorem magistri
Nicolae Ursulescu quinto et sexagesimo anno**

eds.: Vasile Cotiugă, Felix Adrian Tencariu, George Bodi.
- Iași: Editura Universității "Al. I. Cuza" Iași, 2009

Bibliogr.
ISBN

- I. Cotiugă, Vasile (ed.)
- II. Tencariu, Felix-Adrian (ed.)
- III. Bodi, George (ed.)

© Editura Universității "Alexandru Ioan Cuza" Iași
700511, Bd. Carol I nr. 11, tel./fax: 0232-314947



MAGISTER NICOLAE URSULESCU

CONTENTS - SOMMAIRE - CUPRINS

<i>Tabula gratulatoria</i>	7
<i>Réflexions sur un anniversaire</i> (Victor SPINEI).....	11
<i>Bibliographie des travaux de Nicolae Ursulescu</i> (Diana-Măriuca VORNICU).....	15
Mircea PETRESCU-DÎMBOVIȚA, <i>Quelques données concernant les habitats du complexe énéolithique d'Ariuşd-Cucuteni-Tripolye</i>	25
Attila LÁSZLÓ, <i>A la recherche du temps perdu. The First Decades of Search for Cultural and Chronological Connections of the Ariuşd-Cucuteni-Tripolye Civilization</i>	31
Octavian BOUNEGRU, <i>Carl Schuchhardt: notes sur les débuts de la recherche archéologique à Cucuteni</i>	45
Sándor-József SZTÁNCSUJ, <i>Interdisciplinary Archaeological Research in South-East Transylvania during the First Half of the 20th Century</i>	51
Dumitru BOGHIAN, <i>Gestualité et sémantique dans la plastique anthropomorphe de la culture Précucuteni. Entre tradition et innovation</i>	61
Diana-Măriuca VORNICU, <i>New Data on the Pre-Cucuteni Culture's Relations with the Cultures South of its Territory</i>	81
Ion MAREŞ, Constantin-Emil URSU, Bogdan-Petru NICULICĂ, <i>Un complexe archéologique de l'habitat de la culture Précucuteni III de Iţcani-Ferma 2 (Suceava, dép. de Suceava)</i>	91
Paraschiva-Victoria BATARIUC, Constantin-Emil URSU, <i>Small Finds Dating from the Pre-Cucuteni Culture, from Mihoveni-Cahla Morii</i>	107
Marin DINU, <i>Towards a New Systematization of the Cucuteni Culture</i>	115
Corneliu BELDIMAN, Diana-Maria SZTANCS, <i>Matière, artefact, symbole. Dents percées et imitations dans les dépôts d'objets de prestige de la culture Cucuteni</i>	137
Luminiţa BEJENARU, Romeo CAVALERIU, <i>Animal Husbandry in the Cucuteni A Settlements</i>	155
Sergiu HAIMOVICI, <i>The Ariuşd and the Cucuteni Cultures. A Comparative Evaluation of the Archaeozoology Characteristics</i>	161
Ovidiu COTOI, <i>Observations on the Source Areas of Raw Materials Used for Stone Tools within the Context of Exchanges among the Cucuteni Communities</i>	167

Bogdan-Petru NICULICĂ, <i>Sceptres cruciformes en pierre de l'Énéolithique découverts sur le territoire de la Moldavie</i>	179
Ruxandra ALAIBA, <i>Quelques remarques sur la céramique peinte de groupe culturel Horodiştea/Erbiceni - Gordineşti</i>	193
Sabin-Adrian LUCA, <i>Issues in Defining the Foeni-Mintia Cultural Group in Transylvania</i>	199
Gheorghe LAZAROVICI, Cornelia-Magda LAZAROVICI, <i>Cheile Turzii - Peştera Ungurească / Peştera caprelor: Scheibhenckel - Bodrogkeresztúr Horizon. Archaeological Excavations 2003-2004</i>	211
Marius CIUTĂ, <i>A Chalcolithic Cultural Pit (Bothroy) Discovered at Şeuşa-Gorgan (Alba County)</i>	227
Mihai GLIGOR, <i>Contributions to the Absolute Chronology of the Neolithic and Chalcolithic of Transylvania</i>	235
Dragoş DIACONESCU, <i>Considerations Concerning the Habitat of the Tiszapolgár Culture in Romania</i>	245
Florin DRAŞOVEAN, <i>Aspecte regionale în procesul de neolitizare a Banatului. Locuirea Starčevo-Criş de la Foeni-Sălaş</i>	269
Pavel MIREA, <i>On Vădastra Habitation in Southern Romania: Context and Results from the Teleorman Valley</i>	281
Adrian PORUCIUC, <i>"Egyptoid" and "Semitic" Elements as Relics from Prehistoric Substrata of European Languages</i>	295
Vasile COTIUGĂ, <i>Experimental Archaeology: the Burning of the Chalcolithic Dwellings</i>	303
Olivier WELLER, <i>Exemples ethnographiques d'organisation du travail: les différentes exploitations de sel dans les Hautes Terres de Nouvelle-Guinée</i>	343
Abbreviations - Abréviations - Abrevieri.....	351

TABULA GRATULATORIA

Ion AGRIGOROAIEI (Iași)
Ruxandra ALAIBA (Iași)
Emilian ALEXANDRESCU (București)
Marius ALEXIANU (Iași)
Radian-Romus ANDREESCU (București)
Mugur ANDRONIC (Suceava)
Mircea ANGHELINU (Târgoviște)
Dan APARASCHIVEI (Iași)
Adrian ARDEȚ (Caransebeș)
Tudor ARNĂUȚ (Chișinău)
Roxana ASĂNDOAE (Iași)
Andrei ASĂNDULESEI (Iași)
Costică ASĂVOAIEI (Iași)
Mircea BABEȘ (București)
Radu-Ștefan BALAUR (Iași)
Paraschiva-Victoria BATARIUC (Suceava)
Victor BAUMANN (Tulcea)
Dan BĂCUEȚ-CRIȘAN (Zalău)
Sanda BĂCUEȚ-CRIȘAN (Zalău)
Gabriel BĂDĂRĂU (Iași)
Adrian BĂLĂȘESCU (București)
Luminița BEJENARU (Iași)
Corneliu BELDIMAN (București)
Cătălin-Dragoș BEM (București)
Carmen BEM (București)
Doina BENEĂ (Timișoara)
Veaceslav BICBAEV (Chișinău)
George BILAVSCHI (Iași)
Neculai BOBICĂ (Iași)
George BODI (Iași)
Dumitru BOGHIAN (Suceava)
Ovidiu BOLDUR (Bacău)
Neculai BOLOHAN (Iași)
Ilie BORZIAN (Chișinău)
Adriana BOUNEGRU (Iași)
Octavian BOUNEGRU (Iași)
Mihalache BRUDIU (Galați)
Bianca Ingridt BULGARU (Reșița)
Ovidiu BURUIANĂ (Iași)
Gheorghe I. CANTACUZINO (București)
Ioan CAPROȘU (Iași)
Viorel CĂPITANU (Bacău)
Marin CÂRCIUMARU (Târgoviște)
John CHAPMAN (Durham)
Stela CHEPTEA (Iași)
Costel CHIRIAC (Iași)
Vasile CHIRICA (Iași)
Adrian CIOBANU (Roman)
Dan CIUBOTARU (Timișoara)
Horia CIUGUDEAN (Alba Iulia)
Ioan CIUPERCĂ (Iași)
Marius-Mihai CIUTĂ (Alba Iulia)
Beatrice CIUTĂ (Alba Iulia)
Ionel CÂNDEA (Brăila)
Gheorghe CLIVETI (Iași)
Constantin CLOȘCĂ (Iași)
Mihai COJOCARIU (Iași)
Victor COJOCARU (Iași)
Aneta CORCIOVA (Iași)
Jean-Marie CORDY (Liège)
Anca COROLIUC (Iași)
Vasile COTIUGĂ (Iași)
Ovidiu COTOI (Galați)
Marius COZMA (Roman)
Cristina CREȚU (Iași)
Roxana CURCĂ (Iași)
Paul DAMIAN (București)
Lidia DASCĂLU (Iași)
Elena DELEANU (Fălticeni)
Valentin DERGACEV (Chișinău)
Dragoș DIACONESCU (Sibiu)
Maria DIACONESCU (Botoșani)
Marin DINU (Iași)
Roxana DOBRESCU (București)
Florin DRAȘOVEAN (Timișoara)
Emilia DUMITRESCU (București)
Romeo DUMITRESCU (București)
Gheorghe DUMITROAIA (Piatra-Neamț)
Georgeta EL SUSI (Reșița)
Sergiu Constantin ENEA (Târgu Frumos)
Alin FRÂNCULEASA (Ploiești)
Radu-Gabriel FURNICĂ (Iași)
Daniel GARVĂN (Piatra-Neamț)
Mihai GLIGOR (Alba Iulia)
Sorin-Ștefan GOROVEI (Iași)
Maria-Magdalena GOROVEI (Iași)
Sergiu HAIMOVICI (Iași)
Constantin HAITĂ (București)
Svend HANSEN (Berlin)
Puiu HAȘOTTI (Constanța)

Florin HĂU (Suceava)	Lucian MUNTEANU (Iași)
Cătălin HRIBAN (Iași)	Sergiu MUSTEAȚĂ (Chișinău)
Arina HUȘLEAG (Iași)	Crișan MUȘETEANU (București)
Gheorghe IACOB (Iași)	John NANDRIȘ (Londra)
Mihai IACOBESCU (Suceava)	Marian NEAGU (Călărași)
Silvia IACOBESCU (Bacău)	Marin NICA (Craiova)
Constantin ICONOMU (Iași)	Andrei NICIK (Chișinău)
Ioan IGNAT (Iași)	Dorin NICOLA (Piatra-Neamț)
Mircea IGNAT (Suceava)	Bogdan NICULICĂ (Suceava)
Sorin IGNĂTESCU (Suceava)	Ion NICULIȚĂ (Chișinău)
Ion IONIȚĂ (Iași)	Ionuț NISTOR (Iași)
Mihai IRIMIA (Constanța)	Irina OBERLÄNDER-TÂRNOVEANU (București)
Lăcrămioara-Elena ISTINA (Bacău)	Marcel OTTE (Liège)
Marius ISTINA (Bacău)	Stănică PANDREA (Brăila)
Gheorghe IUTIȘ (Iași)	Gheorghe PAPUC (Constanța)
Carol KACSÓ (Baia Mare)	Valentin Aurel PARNIC (Călărași)
Raluca KOGĂLNICEANU (Iași)	Iuliu PAUL (Alba Iulia)
Attila LÁSZLÓ (Iași)	Eugen-Cristian PAVELEȚ (Ploiești)
Ciprian LAZANU (Vaslui)	Tiberiu PĂRPĂUȚĂ (Iași)
Cornelia-Magda LAZAROVICI (Iași)	Mircea PETRESCU-DÎMBOVIȚA (Iași)
Gheorghe LAZAROVICI (Cluj-Napoca)	Zeno Karl PINTER (Sibiu)
Cătălin Alexandru LAZĂR (București)	Alexandru-Florin PLATON (Iași)
Daniel LAZĂR (Iași)	Nelu Cristian PLOSCARU (Iași)
Mihai LAZĂR (Suceava)	Dragomir Nicolae POPOVICI (București)
Codrin LĂCĂTUȘU (Iași)	Rodica POPOVICI (Iași)
Gabriel LEANCA (Iași)	Eugenia POPUȘOI (Bârlad)
Oleg LEVIȚKI (Chișinău)	Adrian PORUCIUC (Iași)
Vasile LICA (Galați)	Mirela PRAISLER (Galați)
Sabin Adrian LUCA (Sibiu)	Constantin PREOTEASA (Piatra-Neamț)
János MAKKAY (Budapesta)	Valentin RADU (București)
Bogdan-Petru MALEON (Iași)	Laurențiu RĂDVAN (Iași)
Mircea MAMALAUȚĂ (Bârlad)	Elena RENȚA (Slobozia)
Igor MANZURA (Chișinău)	Ioana Mirabela ROBU (București)
Ioan MAREȘ (Suceava)	Petre I. ROMAN (București)
Marcello MARIN (Foggia)	Gheorghe ROMANESCU (Iași)
Gheorghe MATEI (Slobozia)	Alexander RUBEL (Iași)
Zoia MAXIM (Cluj-Napoca)	Ciprian SANDU (București)
Florica MĂȚĂU (Iași)	Ion SANDU (Iași)
Aurel MELNICIUC (Botoșani)	Silviu SANIE (Iași)
Cristian MICU (Tulcea)	Șeiva SANIE (Iași)
Lucrețiu MIHĂILESCU-BÎRLIBA (Iași)	Eugen SAVA (Chișinău)
Virgil MIHĂILESCU-BÎRLIBA (Iași)	Letiția-Florența SCARLAT (Iași)
Bogdan MINEA (Iași)	Cristian SCHUSTER (București)
Pavel MIREA (Alexandria)	Cristian SECU (Iași)
Nicolae MIRIȚOIU (București)	Michel-Louis SEFERIADES (Paris)
Ioan MITREA (Bacău)	Eduard SETNIC (Botoșani)
Iulian MOGA (Iași)	Gavrilă SIMION (Tulcea)
Adriana MOGLAN (Iași)	Mihaela SIMION (București)
Dragoș MOISE (Adelaide)	Valeriu SÎRBU (Brăila)
Dan MONAH (Iași)	Loredana-Ștefania SOLCAN (Iași)
Felicia MONAH (Iași)	Ion SOLCANU (Iași)
Ion MOTZOI-CHICIDEAN (București)	Victor SPINEI (Iași)
Elena-Roxana MUNTEANU (Piatra-Neamț)	

Simina STANC (Iași)	Mircea UDRESCU (Liège)
Lăcrămioara STRATULAT (Iași)	Vasile URSACHI (Roman)
Rodolfo STRICCOLI (Bari)	Constantin-Emil URSU (Suceava)
Alexandru SUCEVEANU (București)	Gabriel VASILE (București)
Sándor SZTANCSUJ (Sfântu Gheorghe)	Mihail VASILESCU (Iași)
Paul ȘADURSCHI (Botoșani)	Valentin VASILIEV (Cluj-Napoca)
Done ȘERBĂNESCU (Oltenița)	Mădălin-Cornel VĂLEANU (Iași)
Octavian ȘOVAN (Botoșani)	Bogdan VENEDICT (Iași)
Felix-Adrian TENCARIU (Iași)	Mirela VERNESCU (Brăila)
Dan Gh. TEODOR (Iași)	Adrian VIȚALARU (Iași)
Silvia TEODOR (Iași)	Florin VLAD (Slobozia)
Silviu TEODOR (București)	Valentina Mihaela VOINEA (Constanța)
Laurens THISSEN (Amsterdam)	Andreea VORNICU (Iași)
Ion TODERAȘCU (Iași)	Diana-Măriuca VORNICU (Iași)
Henrieta TODOROVA (Sofia)	Alexandru VULPE (București)
Mihai TOMESCU (București)	Petronel ZAHARIUC (Iași)
Florin TOPOLEANU (Tulcea)	Aurel ZANOCI (Chișinău)
Claudiu TOPOR (Iași)	Olivier WELLER (Paris)
Senica ȚURCANU (Iași)	Mihai WITTENBERGER (Cluj-Napoca)

RÉFLEXIONS SUR UN ANNIVERSAIRE

VICTOR SPINEI

Notre collègue et ami Nicolae Ursulescu est arrivé au seuil du bel âge des bilans et des éclaircissements de soi-même. Il a la satisfaction – qui n'est pas seulement la sienne – des réalisations autant dans la vie familiale que dans celle professionnelle.

Pour tous ceux qui ont eu l'occasion de le connaître, cette appréciation n'est pas le moins du monde sans support authentique, puisque, en définitive, le professeur Nicolae Ursulescu a cueilli les fruits de sa manière persévérante et sérieuse d'agir dans tout ce qu'il entreprenait. Il a eu la chance de bénéficier déjà en famille d'une éducation soignée, où on lui encourageait les penchants vers les lectures variées, en privilégiant celles de la sphère des sciences humaines.

Ce qui l'en a attiré le plus, ce furent celles ayant des tangences aux horizons fascinants de l'histoire. Sur le parcours des études universitaires on lui a donné l'attachement pour un domaine apparemment moins spectaculaire – la préhistoire –, mais non moins dépourvu d'attractivité. A sa formation comme spécialiste, un apport essentiel ont eu ses mentors de *Alma mater* de Iași – les professeurs Mircea Petrescu-Dîmbovița et Marin Dinu –, dont il allait devenir le proche disciple. Comme l'investigation de certaines périodes de la préhistoire des zones extra-carpatiques se trouvait à l'époque dans un état ancien, avec pas mal de problèmes situés à un échelon précaire des connaissances, on a dû faire des efforts assidus pour les retirer du cône d'ombre où ils étaient enfouis.

Ces inconvénients ne réussirent pas à l'en dissuader, bien au contraire il en fut

incité à s'acharner pour les évincer. D'ailleurs, il est à souligner qu'il a toujours été tenté par les provocations difficiles. Il n'a jamais conçu de suivre dans le domaine de la science les sentiers longuement battus par les prédécesseurs, cherchant avec obstination à trouver ses propres voies pour déceler et démontrer la vérité. La réceptivité pour tout ce qui est nouveau lui est devenue précepte dans ce qu'il a entrepris sur toute la trajectoire existentielle. La polarité vers les segments inédits du passé lointain ne fut pas synonyme de flottements dans la sphère des énoncés spéculatifs ou fantaisistes, mais des prospections intensives à l'échelle synchrone et diachronique dans le matériau récupéré autant dans les régions carpato-danubiennes, que dans les zones éloignées de l'Orient et de l'Occident.

Nicolae Ursulescu a réalisé que pour formuler des interprétations viables il était impérieusement nécessaire d'accroître la base informative, ce qui était faisable par un plus ample flux des recherches archéologiques. C'est pourquoi, une fois passé son examen de diplôme universitaire, année après année, à la file, il a entrepris des sondages et des fouilles dans de nombreux sites archéologiques de Moldavie, dont il a mis à profit, avec exigence, les résultats dans diverses études disséminées dans des périodiques de spécialité, ainsi que dans des monographies qu'il a publiées seul ou avec ses plus jeunes collaborateurs. En concordance avec les exigences actuelles de la prospection de la préhistoire, il a fait preuve d'une réceptivité particulière face aux valences des investigations à caractère interdisciplinaire, faisant équipe de manière fructueuse avec des spécialistes d'autres

domaines scientifiques, dans le but que les vestiges mis à jour grâce aux fouilles à caractère méthodique soient les plus révélateurs possible. Pour que le matériau archéologique puisse devenir connu de manière directe aux spécialistes et au large public, il s'est préoccupé en égale mesure de sa valorisation dans le domaine des musées.

Tout en partant de ses propres découvertes, étant en même temps au courant, de près, avec les réalisations des collègues de métier de l'est et du centre de l'Europe, il a élaboré un grand nombre de travaux ayant une palette thématique variée, à partir de simples notes et rapports de fouilles, jusqu'aux traités synthétiques recouvrant un étendu périmètre spatial, publiés dans notre pays et à l'étranger, et dédiés de façon prioritaire aux époques préhistoriques, du néolithique ancien et jusqu'à la période de la civilisation géto-dace.

Son œuvre scientifique l'a imposé indubitablement comme l'un des spécialistes d'authentique prestige sur le plan national et international. A cela a contribué sans aucun doute sa participation à nombre de symposiums, congrès et réunions savantes de Roumanie et d'outre frontières, là où ses interventions ont été de nature à provoquer souvent des débats incitants pour leur manière tranchante de répudier des théories désuètes, alourdies des alluvions des temps, tout en suggérant en revanche d'autres perspectives d'interprétation des phénomènes. De sa création scientifique il ressort le fait que certaines réalités caduques ont leur flux et reflux propres, que leur unicité et particularisme réside dans l'universalité de celles-ci, que des éléments culturels apparemment hétérogènes ont en essence de fortes connexions souterraines, que l'univers existentiel analysé n'est pas clos et immuable.

Le professeur Nicolae Ursulescu a assemblé de façon harmonieuse l'activité scientifique et didactique, se vouant avec passion au parrainage des étudiants désireux d'approfondir le domaine de l'histoire ancienne. L'activité sur le champ de la didactique n'a pas seulement compris les séminaires-ateliers, les cours, mais aussi la

pratique archéologique et la coordination des travaux de diplôme ou de doctorat. Toute cette activité a porté le sceau d'une correction ferme, manifestée par ponctualité et rigueur, doublée de l'acquisition de méthodes modernes d'enseignement, de nature à rendre plus accessible la substance des cours et à capter l'intérêt de l'auditoire.

En qualité de professeur, il ne s'est pas contenté de transmettre seulement des connaissances, mais aussi des énergies nouvelles. On doit encore remarquer sa générosité particulière dont il a fait preuve vis-à-vis de tous ses collaborateurs, y compris et surtout pour les jeunes, auxquels il n'a jamais refusé un conseil bien avisé, le soutien dans l'élaboration des ouvrages, les recommandations pour l'obtention des bourses d'études et de recherche, etc.

La même générosité et sollicitude il les a manifestées par l'engagement dans divers projets de recherche assumés dans les institutions universitaires où il a travaillé, gaspillant d'abondance temps et énergie au profit de la collectivité. Sa présence tonique a stimulé le potentiel intellectuel des disciples et des collègues. L'expérience du labeur déployé durant plus d'une quarantaine d'années lui a appris que, dans les activités déroulées, prépondérante s'avère être la créativité propre, et non pas l'exploitation de la créativité des autres, qui ne peut conduire qu'à des progrès artificiels. D'autre part, il a réalisé, avec la modestie de l'homme de science authentique, qu'il doit se tenir à l'écart des vanités dérisoires de formuler des verdicts à velléités axiomatiques, tout en acceptant l'idée que certaines appréciations seront susceptibles de remaniements ultérieurs.

Suite à ce succinct bilan des réalisations du professeur Nicolae Ursulescu, nous pourrions conclure qu'il a thésaurisé les fruits de son labeur plein de ténacité et de dévouement dans une multitude d'ouvrages doctes, mais aussi dans la somme des réussites professionnelles de ses étudiants et doctorants.

Pour tout ce qu'il a fait – et ce n'est pas peu de chose –, les collègues, les disciples et les amis expriment leur admiration et reconnaissance, dans l'espoir d'une

collaboration fructueuse les années à venir et lui souhaitent de tout cœur harmonie et accomplissements dans la vie familiale, de

nouveaux succès dans son „topos” de prédilection: l'archéologie préhistorique, là où il est déjà un nom tout à fait consacré.

Un sincère et chaleureux
BON ANNIVERSAIRE!

Traduit par Michaela Spinei

BIBLIOGRAPHIE DES TRAVAUX DE NICOLAE URSULESCU*

I. Volumes

A. Ouvrages de spécialité

- 1 *Primele culturi neolitice pe teritoriul Moldovei*, Iași, 1983, 25 p.
- 2 *Evoluția culturii Starčevo-Criș pe teritoriul Moldovei*, Muzeul Județean Suceava, 1984, 136 p.
- 3 *Dacia în cadrul lumii antice*, Editura Unirea, Iași, 1992, 60 p.
- 4 *Istoria Românilor. Compendiu* (coordonateurs: Ion Agrigoroaiei, Ion Toderașcu), Editura "Cultura fără frontiere", Iași, 1996, p. 15-54 (*L'époque ancienne*).
- 5 *Începuturile istoriei pe teritoriul României*, Casa Editorială "Demiurg", Iași, 1998, 200 p.; édition revue, 1999.
- 6 *Contribuții privind neoliticul și eneoliticul din regiunile est-carpătice ale României*, vol. 1, Editura Universității "Al. I. Cuza" Iași, 2000, 388 p.
- 7 *Istoria României*, vol. I, *Moștenirea timpurilor îndepărtate* (coordonateurs: Mircea Petrescu-Dîmbovița, Alexandru Vulpe), Editura Enciclopedică, București, 2001, p. 111-116, 122-148.
- 8 *Începuturile istoriei pe teritoriul României* (second édition, revue et additionné), Casa Editorială "Demiurg", Iași, 2002, 202 p.
- 9 *Pretești-"Haltă". O așezare cucuteniană pe valea Șomuzului Mare*, Casa Editorială "Demiurg", Iași, 2003, 158 p. (en collaboration avec Sorin Ignătescu).
- 10 *Religie și magie la est de Carpați acum 7000 de ani. Tezaurul cu obiecte de cult de la Isaiia*, Casa Editorială "Demiurg", Iași, 2006, 156 p. (en collaboration avec Felix Adrian Tencariu).

B. Ouvrages didactiques

- 11 *Istoria comunei primitive*, cours lithographié, Institutul Pedagogic Suceava, 1972, 65 p.
- 12 *Istoria veche universală*, cours lithographié, Institutul de Învățământ Superior Suceava,

1977, 340 p.

- 13 *Istoria românilor*, vol. I (*Antică*), Editura Universitas, Chișinău-Iași, 1991, 227 p. (en collaboration avec Nelu Zugravu et Ion Toderașcu; rédaction personnelle p. 6-70: la period pré-romaine).
- 14 *Civilizații preistorice și antice pe teritoriul României*, Universitatea "Al. I. Cuza" Iași, 2005, 112 p. et 43 fig. (en collaboration avec Nelu Zugravu); réédité 2006.
- 15 *Neoliticul și eneoliticul României în contextul Europei și al Orientului Apropiat*, cours de spécialité, Universitatea "Al. I. Cuza" Iași, 2007, 48 p.

C. Ouvrages touristiques

- 16 *Vatra Dornei*, Editura Sport-Turism, București, 1977, 70 p. (en collaboration avec I. Popescu-Argeșel); versions en: roumaine, anglais, français, espagnol, allemand.
- 17 *Rădăuți*, Editura Sport-Turism, București, 1978, 60 p. (en collaboration avec I. Popescu-Argeșel).
- 18 *Suceava. Ghid turistic al județului*, Editura Sport-Turism, București, 1979, 184 p. (en collaboration avec huit auteurs); versions en: roumaine, français, anglais, allemand.

D. Ouvrages édités

- 19 *La civilisation de Cucuteni en contexte européen* (éditeurs: Mircea Petrescu-Dîmbovița, Nicolae Ursulescu, Dan Monah, Vasile Chirica), BAI I, Iași, 1987.
- 20 *Cucuteni 120 - Valori universale*, BAI XVII (coordonateurs: Nicolae Ursulescu et Cornelia-Magda Lazarovici), Editura Sedcom Libris, Iași, 2006, 224 p.
- 21 *Dimensiunea europeană a civilizației neolitice est-carpătice* (éditeur et coordonnateur: Nicolae Ursulescu), Editura Universității "Al. I. Cuza" Iași, 2007, 258 p.

* Liste rédigée avec l'aide de Diana-Măriuca Vornicu.

II. Études, articles, résumés des communications, rapports archéologiques, chroniques scientifiques, compte-rendus

1970

- *Neoliticul timpuriu pe teritoriul Sucevei*, LSCD, I, p. 257-262.
- *Compte-rendu: Unitate și continuitate în istoria poporului român, București, 1968*, AIIAI, VII, p. 367-374 (en collaboration avec Nicolae Corivan).

1971

- *Coordonate specifice ale civilizației carpatice în lumina raportului național-universal*, LSCD, II, p. 249-253.

1972

- *Problema continuității în lumina unei interpretări statistice a izvoarelor literare despre Dacia*, Crisia, 2, p. 175-182.
- *Topoarele perforate din cadrul culturii Criș de pe teritoriul României*, Carpica, V, p. 69-78.

1973

- *Așezările omenești de pe teritoriul Sucevei până în secolul al VI-lea e.n.*, Suceava, III, p. 47-61.
- *Succese ale cercetării arheologice (privind istoria veche) în județul Suceava în anii puterii populare (1947-1972)*, Suceava, III, p. 9-15.

1974

- *Domnia lui Burebista în opera lui Strabo*, SAI, XXVI, p. 99-103.

1977

- *Concepția lui Dimitrie Onciul referitoare la formarea poporului român, în lumina actualelor cercetări despre complexul cultural Dridu*, Suceava, IV, p. 93-104.
- *Tudor V. Stefanelli*, Suceava, IV, p. 279-288.
- *Exploatarea sării din saramură în neoliticul timpuriu, în lumina descoperirilor de la Solca (jud. Suceava)*, SCIVA, 28, 3, p. 307-317.
- *Simpozionul internațional "Necropola de la Varna și problemele chalcolithicului"*, RMM, 8, p. 89.
- *Săpături arheologice în județul Suceava (1972-1976)*, Suceava, IV, p. 317-324 (en collaboration avec Mircea Ignat).
- *Compte-rendu: Al. Odobescu, Opere, vol. IV, București, 1976*, AIIAI, XIV, p. 591-592.
- *Compte-rendu: Dicționar de istorie veche a României, București, 1976*, AIIAI, XIV, p. 593-596.

1978

- *Mormintele Criș de la Suceava-Platoul*

cimitirului", Suceava, V, p. 81-88.

- *Cercetările arheologice de la Mihoveni (Suceava) – 1973*, Suceava, V, p. 89-107 (en collaboration avec Paraschiva-Victoria Batariuc).
- *Sur les débuts du Chalcolithique à l'Est des Carpates*, SPh, 1-2, p. 130-135.
- *Materiale arheologice din județul Botoșani în colecția cabinetului de istorie veche a Institutului de Învățămînt Superior din Suceava*, Hierasus, I, p. 243-256.

1979

- *Așezarea culturii ceramicii liniare de la Mihoveni (jud. Suceava)*, SCIVA, 30, 2, p. 271-284 (en collaboration avec Paraschiva-Victoria Batariuc).
- *Cercetările arheologice din 1978 de la Preotești-Haltă (jud. Suceava)*, Materiale, XIII, p. 35-44.

1980

- *Recunoașteri arheologice în comuna Verești (jud. Suceava)*, Suceava, VI-VII (1979-1980), p. 21-32.
- *Descoperiri arheologice din secolele XIV-XV de la Suceava-Parcul Cetății"*, ArhMold, IX, p. 93-101 (en collaboration avec Rodica Popovici).

1981

- *Unele aspecte privind formarea poporului român în opera lui Nicolae Iorga*, Hierasus, III, p. 145-150.
- *Evoluția habitatului din bazinul Șomuzului Mare, în zona comunei Preotești*, Suceava, VIII, p. 169-182 (en collaboration avec Ștefan Manea).
- *Un opaiț roman descoperit la Plăvălari (com. Udești, jud. Suceava)*, Suceava, VIII, p. 553-556 (en collaboration avec M. Camilar).
- *Șantierul arheologic Preotești-Cetate, 1979. Raport preliminar*, CA, IV, p. 54-57 (en collaboration avec Dragomir Popovici).

1982

- *Aspect sau fenomen de tip Sudjiți?*, Suceava, IX, p. 479-486.
- *Șantierul arheologic Preotești-Cetate (jud. Suceava)*, CA, V, p. 23-27 (en collaboration avec Dragomir Popovici).

1983

- *Începutul primei epoci a fierului în nordul Moldovei în lumina cercetărilor de la Preotești (jud. Suceava)*, in vol.: *Documente recent descoperite și informații arheologice*, București, p. 25-32 (en collaboration avec Dragomir Popovici).

- *Contribuții la cunoașterea tipologiei și evoluției pieselor de piatră șlefuită cu tăiș din cultura Starčevo-Criș pe teritoriul Moldovei*, BSIS, p. 21-41.

- *Contribuții la cunoașterea evoluției și poziției cronologice a culturii Starčevo-Criș pe teritoriul Moldovei*, Suceava, X, p. 261-382.

- *Unele date privind posibilitatea practicării agriculturii de tip ciclic în cadrul primelor culturi neolitice pe teritoriul Moldovei*, Hierasus, V, p. 37-43.

- *Activitatea Laboratorului de cercetări istorice în primul semestru al anului 1983*, BSIS, p. 175-176.

- *Compte-rendu: E. Comșa, Neoliticul în România, București, 1982*, Suceava, X, p. 893-895.

1984

- *Tradiții geto-dacice ale luptei pentru independență a poporului român*, STU, III, p. 493-499.

- *Cercetările arheologice de la Preotești, CA*, VII, p. 81-84 (en collaboration avec Dragomir Popovici).

1985

- *Considerații istorice privind tipurile de așezări ale culturilor Starčevo-Criș și ceramicii liniare din Moldova*, Suceava, XI-XII (1984-1985), p. 95-100.

- *Elemente ale unității vieții materiale și spirituale pe ambii versanți ai Carpaților Orientali în perioada veche a istoriei României*, STU, IV, p. 332-339.

1986

- *Noi date privind evoluția Hallstattului timpuriu în nordul Moldovei*, SympTh, IV, p. 43-44 (en collaboration avec Paul Șadurschi)

- *Șantierul arheologic Preotești-“Dealul Cetății” (jud. Suceava)*, 1983, CA, VIII, p. 37-41 (en collaboration avec Dragomir Popovici).

- *Săpăturile din 1985 din necropola tumulară de la Prăjeni (jud. Botoșani)*, Hierasus, VI, p. 15-23 (en collaboration avec Paul Șadurschi).

1987

- *L'idole androgyne de Mihoveni (dép. de Suceava)*, in vol.: *La civilisation de Cucuteni en contexte européen* (éditeurs: Mircea Petrescu-Dîmbovița, Nicolae Ursulescu, Dan Monah, Vasile Chirica), BAI I, Iași, p. 309-312 (en collaboration avec Paraschiva-Victoria Batariuc).

- *Contribuția cercetărilor arheologice din județul Suceava la cunoașterea evoluției neoneoliticului din Moldova*, Suceava, XIII-XIV (1986-1987), p. 69-74.

- *Contribuții la cunoașterea așezărilor de pe teritoriul Siretului înainte de constituirea orașului medieval*, Suceava, XIII-XIV (1986-1987), p. 85-101 (en collaboration avec Mugur Andronic și Florin Hău).

- *Contribuții la cunoașterea ritului funerar din Bronzul mijlociu în nordul Moldovei*, SCIVA, 38, 1, p. 72-76 (en collaboration avec Dragomir Popovici).

- *Compte-rendu: Eneolit SSSR, Moskva, 1982*, ArhMold, XI, p. 269-271 (en collaboration avec Alexandru Andronic).

1988

- *Formarea poporului român și a limbii sale în opera lui Gheorghe Brătianu*, in vol.: *Confluente istoriografice românești și europene. Gheorghe I. Brătianu* (éditeur: Victor Spinei), Iași, p. 71-84.

- *Premise ale fenomenului urbanizării în istoria veche a României*, in vol.: *Istorie și civilizație* (éditeur: Ion Toderășcu), Iași, p. 21-30.

- *Unele observații privind locuințele culturii Starčevo-Criș din Moldova*, Hierasus, VII-VIII, p. 7-15.

- *Date istorico-arheologice privind dinamica locuirii în bazinul Miletinului (zona comunei Prăjeni, jud. Botoșani)*, Hierasus, VII-VIII, p. 281-298 (en collaboration avec Paul Șadurschi).

- *Mormintele de inhumație, de tip Costișa, descoperite la Prăjeni (jud. Botoșani)*, SCIVA, 39, 1, p. 45-52 (en collaboration avec Paul Șadurschi et Dan Botezatu).

- *Concepția lui Gheorghe Brătianu despre rolul factorului dacic în etnogeneza românilor*, SympTh, VI, p. 21.

- *Disciplina de Probleme fundamentale ale istoriei României în fața exigențelor unei noi calități*, in vol.: *Contribuția învățămîntului politehnic la dezvoltarea ramurilor de vîrf ale industriei din România. Lucrările sesiunii jubiliare de comunicări științifice*, vol. XIV, Iași, p. 68-71.

- *Compte-rendu: The Neolithic of Europe, vol. I, Southampton-London, 1986*, ArhMold, XII, p. 326-327.

- *Compte-rendu: N. Kalicz, Kőkori falu Aszód, 1985*, ArhMold, XII, p. 328-329.

1989

- *Despre datarea sfîrșitului lui Decebal și al războaielor daco-romane*, SympTh, VII, p. 331-332.

- *Compte-rendu: La genèse et l'évolution des cultures paléolithiques sur le territoire de la Roumanie, Iași, 1987*, AȘUI-Istorie, XXXV, p. 89-90.

1990

- *Concepția lui Gheorghe Brătianu despre rolul mediului geografic în etnogeneza și evoluția istorică a românilor*, LSGDC, 9 (1988), p. 481-487.
- *Preocupări ale abatelui Henri Breuil privind unele descoperiri arheologice din România*, AȘUI-Istorie, XXXVI, p. 127-130.
- *Contribuții privind evoluția culturii ceramicii liniare pe teritoriul Moldovei*, ArhMold, XIII, p. 13-47.
- *Considerații privind semnificația cuvântului cométai*, SympTh, VIII, p. 153-154 (en collaboration avec Mihail Vasilescu).
- *Călătorie arheologică în Franța*, AȘUI-Istorie, XXXVI, p. 203-206.
- *Profesorul Marin Dinu la a 65-a aniversare*, AȘUI-Istorie, XXXVI, p. 219-221.
- *Compte-rendu: J. Guilaine, A. Freises, R. Montjardin, Leucate-Corrège, Habitat noyé du Néolithique Cardial, Toulouse et Sète, 1984*, AȘUI-Istorie, XXXVI, p. 166-167.

1991

- *La civilisation de la céramique rubanée dans les régions orientales de la Roumanie*, in vol.: *Le Paléolithique et le Néolithique de la Roumanie en contexte européen*, (éditeurs: Vasile Chirica, Dan Monah), BAI IV, Iași, p. 188-224.
- *Influences de type Vinča dans le Néolithique ancien de la Moldavie*, Banatica, XI, p. 157-172 (en collaboration avec Valentin Dergacev).
- *Considerații privind semnificația cuvântului cométai*, TD, XII/1-2, p. 133-135 (en collaboration avec Mihail Vasilescu).
- *Tipologhija i struktura neolitičeskich poselenii Moldavy*, in vol.: *Drevnejšie obščnosti zemledel'tsev i skotovodov Severnogo Pričernomor'ja (V tys. do n.e. –V v. n.e.)*, (éditeur: E. Jarovoi), Kiiiv, p. 7-9.
- *Compte-rendu: Archäologische Nachrichten aus Baden, 38-39, Freiburg, 1987*, ArhMold, XIV, p. 167.
- *Compte-rendu: Chipped Stone Industries of Early Farming Cultures in Europe, Warszawa, 1987*, ArhMold, XIV, p. 323-325 (en collaboration avec Florentin Burtănescu).

1992

- *Inscripția cu semne runice de la Herla (com. Slatina, jud. Suceava)*, AȘUI-Istorie, 37-38 (1991-1992), p. 81-86.
- *Contribution à la connaissance des liaisons entre le bassin supérieur de Tisza et l'espace est-carpatique au début du Hallstatt*, SympTh, 9, p. 122-123 (en collaboration avec Paul Șadurschi).
- *Sesiunea științifică "Istoria spațiului carpato-nistran până în secolele XV-XVII"*, AȘUI-Istorie, 37-38 (1991-1992), p. 368-369.

- *Viața științifică a Facultății de Istorie*, AȘUI-Istorie, 37-38 (1991-1992), p. 365-366.
- *"Cultura Vinča și legăturile sale" – Simpozion internațional de arheologie (Reșița-Băile Herculane-Timișoara, 12-17 mai 1991)*, AȘUI-Istorie, 37-38 (1991-1992), p. 366-367.

1993

- *Continuité et restructurations culturelles et ethniques dans le Néo-Énéolithique de la Roumanie*, in vol.: *Actes du XI^e Congrès International des Sciences Préhistoriques et Protohistoriques*, vol. 2, Bratislava, p. 334-338.
- *Despre datarea sfârșitului lui Decebal și al războaielor daco-romane*, in vol.: *Antichitatea și moștenirea ei spirituală* (éditeurs: Traian Diaconescu, Marius Alexianu), Iași, p. 331-345.
- *Continuitate și restructurări cultural-etnice în neoliticul și eneoliticul României*, Suceava, XX, p. 14-21.
- *La typologie et l'organisation interne des établissements de premières civilisations néolithiques de la Moldavie*, ArhMold, XVI, p. 11-14.
- *Sur la datation de la mort de Décébale et de la fin des guerres daco-romaines*, TD, XIV/1-2, p. 143-148.
- *Tumuli et incinération dans le Bronze thrace sur le territoire de la Moldavie*, in vol.: *Burial Mounds in South-East Europe*, Kazanlyk, p. 33-34.
- *Compte-rendu: V. A. Dergacev, I. V. Manzura, Pogrebal'nye komplekсы pozdnego Tripol'ja. Svodistočnikov, Chișinău, 1991*, AȘUI-Istorie, 39, p. 169-170 (en collaboration avec Igor Corman).

1994

- *Des tumuli et des incinérations dans l'Âge du Bronze thrace sur le territoire de la Moldavie*, in vol.: *First International Symposium "Seuthopolis": Burial Tumuli in the South-East of Europe*, Kazanlyk, Bulgarie, 4-8 June 1993, Veliko Târnovo, p. 41-47 (etude publié et in vol.: *Relations Thraco-Illyro-Helléniques. Actes du XIV^e Symposium National de Thracologie, Băile Herculane, 14-19 Septembrie 1992*, Bucharest, p. 141-146).
- *Apariția înmormântărilor tumulare și a incinerăției la est de Carpați*, MemAnt, XIX, p. 193-199.

1995

- *Un nou tip de idol în cultura Cucuteni*, CC S.N., 1 (11), p. 191-194.
- *Personalitatea și opera lui Nicolae Iorga în viziunea lui Gheorghe Brătianu*, CC S.N., 1 (11), p. 259-264.

- *Aperçu comparatif sur le Néolithique de la Roumanie et du sud de l'Italie*, SAA, II, p. 41-57.
 - *Prémises du phénomène de l'urbanisation dans l'histoire ancienne de la Roumanie*, SAA, II, p. 75-86.
 - *Târgu Frumos - "Baza Pătule"*, Cronica. Campania 1994, p. 93-94 (en collaboration avec Dumitru Boghian).
 - *Compte-rendu: R. Striccoli, Le culture preistoriche di Grotta Pacelli (Castellana Grotte-Bari), Brindisi, 1988*, SAA, II, p. 210-212.
 - *Compte-rendu: V. Furmánek, L. Veliáčik, J. Vládar, Slovensko v dobe bronzovej, Bratislava, 1991*, SAA, II, p. 216-218.
 - *Compte-rendu: M. Gedl, Die Gräber aus der Jungbronzezeit in Kietrzu, Kraków, 1989*, SAA, II, p. 220-221.
 - *Compte-rendu: Die Anfänge der Urnenfelderkulturen in Europa, Warszawa, 1991*, SAA, II, p. 218-220.
 - *Compte-rendu: Pertransierunt beneficiendo. In memoria di Demetrio e Meluta Marin, Bari, 1995*, MemAnt, XX, p. 358-360.
 - *Compte-rendu: T. Težak-Gregl, Kultura linearnotrakaste keramik u središnjoj Hrvatskoj. Korenovska kultura, Zagreb, 1993*, ArhMold, XVIII, p. 334.
 - *Compte-rendu: H. Parzinger, Studien zur Chronologie und Kulturgeschichte der Jungstein-, Kupfer- und Frühbronzezeit zwischen Karpaten und Mittelereen Taurus, Mainz am Rhein, 1993*, ArhMold, XVIII, p. 335-337.
- 1996**
- *L'utilisation des sources salées dans le Néolithique de la Moldavie (Roumanie)*, in vol.: *Nature et Culture* (éditeur: Marcel Otte), I, ERAUL 68, Liège, p. 489-497.
 - *Une hypothèse concernant la localisation du pouvoir de Dromichaites et du son conflit avec le roi Lysimachos*, BullTh, III, p. 91-93.
 - *Aspecte ale spiritualității cucuteniene în lucrările cercetătoarei Meluța Marin*, Pontica, 27 (1994), p. 19-24.
 - *Principalele rezultate ale cercetărilor arheologice din așezarea precucuteniană de la Tg. Frumos (jud. Iași) - I*, CC S.N., 2 (12), p. 38-72 (en collaboration avec Dumitru Boghian).
 - *Commencements de l'incinération dans l'espace est-carpatique de la Roumanie*, in vol.: *XIII International Congress of Prehistoric Sciences. Forli-Italia, 8-14 September 1996*, Abstracts, 1, Ed. ABACO, Forli, p. 286.
 - *În legătură cu localizarea stăpânirii lui Dromichaites*, in vol.: *Lucrările Simpozionului de Arheologie, Târgoviște, 23-25 noiembrie 1995*, Târgoviște, p. 86-87.
 - *Târgu Frumos*, Cronica. Campania 1995, p. 127 (en collaboration avec Dumitru Boghian).
 - *Prăjeni*, in vol.: *Situri arheologice cercetate în perioada 1983-1992*, Brăila, p. 92-93 (en collaboration avec Paul Șadurschi et Maria Diaconescu).
 - *Vorona Mare*, in vol.: *Situri arheologice cercetate în perioada 1983-1992*, Brăila, p. 126-127 (en collaboration avec Napoleon Ungureanu).
 - *Compte-rendu: Le génie de l'homme. Des origines à l'écriture, Saint Gerard de Brogne, 1995*, CC S.N., 2 (12), p. 704-706 (la variante dans la langue français en: SAA, III-IV, 1997, 2007, p. 207-210).
- 1997**
- *Considérations historiques concernant les fortifications hallstattiennes anciennes à l'est des Carpates*, in vol.: *Premier Âge du Fer aux Bouches du Danube et dans les régions autour de la mer Noire. Actes du Colloque International, Tulcea, septembre 1993*, Tulcea, p. 51-65 (en collaboration avec Dragomir Popovici).
 - *Les commencements de l'utilisation du rite de l'incinération dans le monde proto-thrace du nord de la Moldavie*, in vol.: *The Thracian World at the crossroads of civilisations. Proceedings of the VII International Congress of Thracology, Constanța-Mangalia, May 1996*, I, Bucharest, (éditeurs: Petre Roman, Marius Alexianu), p. 447-464.
 - *Interferențe și sinteze în sud-estul României la cumpăna dintre neolitic și eneolitic*, CCDJ, XV, p. 138-143.
 - *Sur la signification fonctionnelle des pièces semi-lunaires en argile de la civilisation de Cucuteni*, SAA, III-IV (1996-1997), p. 75-82.
 - *Glosar arheologic român-italian*, SAA, III-IV (1996-1997), p. 181-192 (en collaboration avec Rodolfo Striccoli).
 - *Glossario archeologico italiano-romeno*, SAA, III-IV (1996-1997), p. 193-206 (en collaboration avec Rodolfo Striccoli).
 - *Târgu Frumos*, Cronica. Campania 1996, p. 66 (en collaboration avec Dumitru Boghian, Vasile Cotiugă, Ovidiu Cotoi).
 - *Isaia*, Cronica. Campania 1996, p. 32 et pl. XXIV (en collaboration avec Vicu Merlan).
 - *Session scientifique dédiée à l'anniversaire du centenaire de l'enseignement archéologique à l'Université de Iași (11-13 XI. 1994)*, SAA, III-IV (1996-1997), p. 263-264 (en collaboration avec Vasile Cotiugă).
 - *Voyage d'études à Bari (Italie) – le mars 1995*, SAA, III-IV (1996-1997), p. 271-272.
 - *First International Symposium Sevtopolis: "Burial Mounds in South-East Europe"*, Kazanlyk

(Bulgarie), 4-8 Juin 1993, SAA, III-IV (1996-1997), p. 273-274.

- Compte-rendu: *L'insediamento preistorico di Terragna, Manduria*, 1995, SAA, III-IV (1996-1997), p. 213-214.

- Compte-rendu: R. Striccoli, *Primi scavi nella necropoli a tumulo di Parco la Mena, Bari*, 1996, SAA, III-IV (1996-1997), p. 231-232.

1998

- *Courants culturels d'origine anatolienne dans le Néolithique Balkano-Carpatique*, in vol.: *Préhistoire d'Anatolie. Gènes de deux mondes. Actes du colloque international, Liège, 28 avril – 3 mai 1997* (sous la direction de Marcel Otte), ERAUL 85, Liège, p. 193-213.

- *Principalele rezultate ale cercetărilor arheologice din aşezarea precucuteniană de la Târgu Frumos (jud. Iaşi) - II*, CC S.N., 3-4 (13-14) (1997-1998), p. 13-42 (en collaboration avec Dumitru Boghian).

- *Il periodo di Iaşi nella formazione e nell'attività di Meluţa Marin*, SAA, V, p. 197-206.

- *Variante locales dans le cadre de la civilisation de Starčevo-Criş de l'espace Carpates-Dniestr*, AMM, XV-XX (1993-1998), p. 30-31.

- *Târgu Frumos - Baza Pătule*, Cronica. Campania 1997, p. 77-78 (en collaboration avec Dumitru Boghian et Vasile Cotiugă).

- *Premier Colloque romaino-italien "Parallèles historiques et culturels entre la romanité orientale et l'Italie méridionale dans l'Antiquité et le Haut Moyen-Âge"*, Iaşi-Suceava, 25-30 septembre 1996. *Chronique des travaux du Colloque*, SAA, V, p. 1-3.

- *Échange interuniversitaire Bari-Iaşi au domaine de l'archéologie*, SAA, V, p. 267-270 (en collaboration avec Neculai Bolohan).

- Compte-rendu: Kornelija Minichreiter, *Starčevačka kultura u Severnoj Hrvatskoj*, Zagreb, 1992, Dacia N.S., 40-42 (1996-1998), p. 501-502.

- Compte-rendu: Dan Monah, *Plastica antropomorfă a culturii Cucuteni-Tripolie*, Piatra-Neamţ, 1997, SAA, V, p. 225-230.

- Compte-rendu: O. Leviţchi, I. Manzura, T. Demcenko, *Necropola tumulară de la Sărăteni*, Bucureşti, 1996, SAA, V, p. 232-236.

- Compte-rendu: S.A. Luca, *Aşezări neolitice pe valea Mureşului (I). Habitatul turdăşean de la Orăştie-Dealul Pemilor*, SAA, V, p. 221-225 (en collaboration avec Vasile Cotiugă).

1999

- *O variantă de statueta antropomorfă cucutenian-tripoliană*, in vol.: *Studia in honorem Ion Niculiţă*, Editura Cartdidact, Chişinău, p. 46-53.

- *Nouvelles données concernant la représen-*

tation de la coiffure dans la plastique de la civilisation Cucuteni-Tripolie, SAA, VI, p. 1-10.

- *Decapajul mecanic în arheologie: utilizări şi limite*, CC S.N., 5 (15), p. 211-214.

- *Târgu Frumos - Baza Pătule*, jud. Iaşi, Cronica. Campania 1998, p. 120-121 (en collaboration avec Dumitru Boghian et Vasile Cotiugă).

- *Visite de documentation à Liège*, SAA, VI, p. 241-242.

- *Le deuxième Colloque romaino-italien, Bari, 19-24 octobre 1998*, SAA, VI, p. 245-249.

- Compte-rendu: P. Roman, Al. Păunescu, *Ostrovul Corbului, Bucureşti*, 1996, SAA, VI, p. 193-196.

2000

- *Une nouvelle voie de raccord chronologique entre l'Énéolithique de la Roumanie et le Néolithique tardif de l'Italie*, in vol.: *Romanità orientale e Italia meridionale dall'antichità al medioevo. Paralleli storici e culturali. Atti del II Convegno di Studi italo-romeno (Bari, 19-22 ottobre 1998)*, Quaderni di "Invigilata Lucernis", 9 (a cura di: Stefania Santelia), Edipuglia, Bari, p. 15-30.

- *Neolitizarea teritoriului României în context sud-est european şi anatolian*, CA, XI/1 (1998-2000), p. 283-298.

- *La Roumanie du Sud-Est - zone d'interférences et de fusions culturelles à la fin du Néolithique et à l'aube de l'Énéolithique*, CA, XI/1 (1998-2000), p. 317-320.

- *Cariera italiană a doi universitari ieşeni: Demetrio şi Meluţa Marin*, AŞUI-Istorie, XLII-XLIII (1996-1997), p. 203-213.

- *Les premières représentations masculines dans le Néo-Énéolithique de la Roumanie*, SAA, VII, p. 207-219.

- *Unele date privind ritul funerar la începutul Hallstattului în nordul Moldovei, în lumina descoperirilor de la Prăjeni (jud. Botoşani)*, in vol.: *Funeral Practices as forms of Cultural Identity (Bronze and Iron Ages). 4th International Colloquium of Funeral Archaeology, Tulcea, 22-28 May 2000*, Tulcea, p. 71-73.

- *Târgu Frumos*, Cronica. Campania 1999, p. 106-107 (en collaboration avec Dumitru Boghian et Vasile Cotiugă).

- *Le Professeur Marin Dinu à son 75^e anniversaire*, SAA, VII, p. 21-28.

2001

- *Necesitatea conservării, cercetării şi integrării tumulilor în patrimoniul cultural naţional*, in vol.: *Istoria - o meditaţie asupra trecutului. Profesorului Vasile Cristian la a 65-a aniversare*

(coordonateurs: Gabriel Bădărău, Gheorghe Cliveti, Mihai Cojocariu), Iași, p. 75-80.

- *Local variants of the Starčevo-Criș Culture in the Carpato-Nistorean area*, in vol.: *Festschrift für Gheorghe Lazarovici zum 60. Geburtstag*, Timișoara, p. 59-67.

- *Construcțiile-sanctuar în cadrul organizării interne a așezărilor din eneoliticul timpuriu al României*, in vol.: *Istorie și conștiință. Profesorului Ion Agrigoroaiei la a 65-a aniversare*, Iași, p. 1-7.

- *Archéologie et archéozoologie dans l'habitat de la culture Précucuteni (l'Énéolithique ancien) de Târgu Frumos (dép. de Iași - Roumanie)*, in vol.: *Archaeozoology and Palaeozoology Summer courses* (éditeur: Luminița Bejenaru), Socrates Intensive Programme, Academic Year 2000-2001, Editura Universității "Al. I. Cuza" Iași, p. 101-129 (en collaboration avec Dumitru Boghian, Sergiu Haimovici, Vasile Cotiugă, Anca Coroliuc).

- *Influences méridionales dans la phase finale de la civilisation Précucuteni*, CC S.N., 6-7 (2000-2001), p. 11-20 (en collaboration avec Dumitru Boghian).

- *O atestare epigrafică a regelui Syrmos*, TD, XXII/1-2, p. 21-32 (en collaboration avec Ștefan Tofan).

- *Dovezi ale unei simbolistici a numerelor în cultura Precucuteni*, MemAnt, XXII, p. 51-69.

- *Position des constructions-sanctuaires dans les habitats de l'Énéolithique ancien de la Roumanie*, CCDJ, XVI-XVII, p. 42-47.

- *La valeur sacrée des nombres dans l'Énéolithique de Roumanie*, in vol.: *XIV^e Congrès de l'Union Internationale des Sciences Préhistoriques et Protohistoriques. Liège, 2-8 septembre 2001. Pré-Actes*, Liège, p. 248.

- *Nouvelles données concernant les croyances magiques des communautés de la civilisation Précucuteni (Énéolithique ancien) de l'est de la Roumanie*, in vol.: *XIV^e Congrès de l'Union Internationale des Sciences Préhistoriques et Protohistoriques. Liège, 2-8 septembre 2001. Pré-Actes*, Liège, p. 253-254.

- *Isaiia, com. Răducăneni, jud. Iași*, Cronică. Campania 2000, p. 110-112 et pl. 28 (en collaboration avec Vicu Merlan et Felix Tencariu).

- *Târgu Frumos, jud. Iași*, Cronică. Campania 2000, p. 252-254 et pl. 68 (en collaboration avec Dumitru Boghian, Vasile Cotiugă et Lăcrămioara Istina).

2002

- *Noi date privind complexele de cult din cultura Precucuteni*, Sargetia, XXX (2001-2002), p. 61-78 (en collaboration avec Dumitru Boghian, Vasile Cotiugă et Vicu Merlan).

- *O posibilă atestare epigrafică a regelui Syrmos*, Sargetia, XXX (2001-2002), p. 99-106 (en collaboration avec Ștefan Tofan).

- *Un sanctuar de acum 6000 de ani*, MI, XXXVI, nr. 5 (422), mai, p. 73-76 (en collaboration avec Vicu Merlan).

- *Noi date privind sistemul de fixare a pereților în cultura Precucuteni*, Carpica, XXXI, p. 13-18 et fig. 1-2 (en collaboration avec Felix Adrian Tencariu et Vicu Merlan).

- *Venirea profesorului Radu Vulpe la Iași*, AȘUI-Istorie, XLIV-XLV (1998-1999), p. 207-214.

- *Les commencements de l'incinération dans le Néolithique de la Roumanie et de l'Italie*, SAA, VIII, p. 39-50.

- *Cercetări interdisciplinare în așezarea precucuteniană de la Târgu Frumos (jud. Iași). Aportul arheozoologiei*, ATS, I, p. 29-54 (en collaboration avec Dumitru Boghian, Sergiu Haimovici, Vasile Cotiugă et Anca Coroliuc).

- *Sanctuarul eneolitic de la Isaiia. Religie și magie acum 6000 de ani*, Academica S.N., XII, 2-3, p. 40-43.

- *Isaiia, com. Răducăneni, jud. Iași. Punct: Balta Popii*, Cronică. Campania 2001, p. 160-162 et pl. 66-67 (en collaboration avec Felix Adrian Tencariu).

- *Movileni, com. Heleșteni, jud. Iași. Punct: La Movile*, Cronică. Campania 2001, p. 209-210 et pl. 77 (en collaboration avec Vasile Cotiugă, Felix Tencariu, Mădălin Văleanu, Rodolfo Striccoli, Silviu Văcaru, Adriana Moglan, Iulia Moldovan et Carmen Ungureanu).

- *Târgu Frumos, jud. Iași. Punct: Baza Pătule*, Cronică. Campania 2001, p. 314-316 et pl. 110-111 (en collaboration avec Dumitru Boghian, Vasile Cotiugă, Felix Tencariu et Lăcrămioara Istina).

- *Troisième Colloque roumaino-italien "Parallèles historiques et culturelles entre la romanité orientale et l'Italie méridionale dans l'Antiquité et le Moyen-Âge"*, Iași-Tulcea, 11-17 septembre 2000. *Chronique des travaux du Colloque*, SAA, VIII, p. 1-6.

- *Rodolfo Striccoli, professeur d'honneur de l'Université "Al. I. Cuza" de Iași*, SAA, VIII, p. 332-338.

2003

- *Le rôle des recherches archéozoologiques dans l'approche pluri- et interdisciplinaire des sites archéologiques*, in vol.: *Archaeozoology and Paleozoology Summercourses* (éditeur: Luminița Bejenaru), Socrates Intensive Programme, Academic Year 2001-2002, Editura Universității "Al. I. Cuza" Iași, p. 21-34.

- *Complessi di culto nella civiltà Precucuteni dell'est di Romania*, AFLFB, XLV (2002), p. 5-25.

- *L'autel peint de l'habitat de Târgu Frumos (dép. de Iași) appartenant à la civilisation Précucuteni (Énéolithique Ancien)*, SAA, IX, p. 27-40 (en collaboration avec Dumitru Boghian et Vasile Cotiuğă).
- *Colaborazione italo-rumena tra le università di Bari e Iași*, in vol.: *Quaderni della Casa Romana di Venezia*, 2, (a cura di: I. Bulei, Ș. Marin, R. Dinu), Bucarest, p. 348-351.
- *Despre problema construirii locuințelor cucuteniene*, *Carpica*, XXXII, p. 5-18 (en collaboration avec Felix Adrian Tencariu et George Bodi).
- *Cercetarea arheologică interdisciplinară în centrul universitar Iași și unele probleme actuale și de perspectivă ale arheologiei*, in vol.: *Perspective ale interdisciplinarității în arheologia românească*, Universitatea "Valahia" Târgoviște, p. 3-5.
- *Isaia, com. Răducăneni, jud. Iași*, *Cronica. Campania* 2002, p. 158-160 et pl. 66 (en collaboration avec Vicu Merlan, Felix Adrian Tencariu et Mădălin Văleanu).
- *Târgu Frumos, jud. Iași*, *Cronica. Campania* 2002, p. 323-325 (en collaboration avec Dumitru Boghian, Vasile Cotiuğă, George Bodi et Lăcrămioara Istina).
- *Fondation du Centre Interdisciplinaire d'Etudes Archéohistoriques*, SAA, IX, p. 517-522.
- *Le quatrième Colloque d'études italo-roumaines "Italia e Romania. Storia, cultura e civiltà a confronto" (Bari, 21-23 Octobre 2002)*, SAA, IX, p. 523-524.
- *Collaboration entre les Départements d'archéologie et d'histoire antique des Universités de Iași et de Chișinău*, SAA, IX, p. 525-526.
- *Compte-rendu: E. Comșa, Gh. Cantacuzino, Necropola neolitică de la Cernica, București, 2001*, SAA, IX, p. 497-503 (en collaboration avec Letiția Chirilă).
- *Compte-rendu: I. Mareș, Metalurgia aramei în neo-eneoliticul României, Suceava, 2002*, SAA, IX, p. 507-509.
- 2004**
- *Abordarea multidisciplinară în reconstituirea unor aspecte ale vieții spirituale a comunităților eneolitice din Moldova*, in vol.: *Studia in honorem Gheorghe Postică*, Editura Pontos, Chișinău, p. 51-55.
- *Santuari e luoghi di culto nel Neolitico della Romania e dell'Italia Meridionale*, in vol.: *Italia e Romania. Storia, Cultura e Civiltà a confronto. Atti del IV Convegno di Studi italo-romeno (Bari, 21-23 ottobre 2002)*, Quaderni di "Invigilata lucernis" 21 (a cura di: Stefania Santelia), Edipuglia, Bari, p. 47-57.
- *Archéologie et archéozoologie dans l'habitat de Isaia (com. de Răducăneni, dép. de Iași)*, in vol.: *Archaeozoology and Paleozoology Summercourses* (éditeur: Luminița Bejenaru), Socrates Intensive Programme, Academic Year 2002-2003, Ed. Universității "Al. I. Cuza" Iași, p. 79-95.
- *Nouvelles données concernant les croyances magiques des communautés de la civilisation Précucuteni (Énéolithique ancien) de l'Est de la Roumanie*, in vol.: *Actes du XIV^{ème} Congrès UISPP, Université de Liège, Belgique, 2-8 septembre 2001*, Section 9 – Section 10, BAR-International Series 1303, Oxford, p. 343-348.
- *La valeur sacrée des nombres dans l'Énéolithique de Roumanie*, in vol.: *Actes du XIV^{ème} Congrès UISPP, Université de Liège, Belgique, 2-8 septembre 2001*, Section 9 – Section 10, BAR-International Series 1303, Oxford, p. 325-331.
- *Considérations sur les relations des Sarmates avec les Gèto-Daces entre Sireth et Pruth*, in vol.: *Thracians and Circum pontic World. Proceedings of the Ninth International Congress of Thracology*, Chișinău, p. 54-60.
- *Les aspects spirituel et matériel dans la vie préhistorique et dans les conceptions de l'archéologie préhistorique*, in vol.: *Aspects of Spiritual Life in South-East Europe from Prehistory to the Middle Ages* (éditeurs: Victor Cojocaru et Victor Spinei), Iași, p. 25-30.
- *Une tombe à inhumation trouvée à Prăjeni (dép. de Botoșani, Roumanie) et le début de la période hallstattienne dans la région des Carpates Septentrionales*, *PZ*, 79, 1, p. 45-56 (en collaboration avec Paul Șadurschi).
- *Aménagements de culte dans la zone des foyers et des fours de la culture Précucuteni*, *MemAnt*, XXIII, p. 129-144 (en collaboration avec Felix Adrian Tencariu).
- *Spiritual și material în viața preistorică și în concepțiile arheologiei preistorice*, *Carpica*, XXXIII, p. 5-9.
- *Un vas neobișnuit din așezarea precucuteniană de la Isaia (jud. Iași)*, *Carpica*, XXXIII, p. 41-52 (en collaboration avec Felix Adrian Tencariu).
- *Unele considerații privind identificarea și repertorierea resurselor utile din zona montană a județului Suceava utilizate în preistorie și istorie*, *CC S.N.*, 8-9 (18-19) (2002-2003), p. 135-159 (en collaboration avec Dumitru Boghian, C. Catană, Gheorghe Romanescu, Mircea Ignat, Ion Mareș, Vasile Cotiuğă, Bogdan Petru Niculică et Sorin Ighănescu).
- *Considérations sur les relations entre les Gèto-Daces et Sarmates entre Siret et Prut (I^{er} – III^e siècles av. J.-C.)*, in vol.: *Thracians and Circumpontic World. IX-th International Congress*

of *Thracology. Summaries. Chişinău-Vadul lui Vodă*, 6-11 Sept. 2004, p. 127 (résumé de la communication).

- *Spirituel et matériel dans la vie préhistorique et dans les conceptions de l'archéologie pré-historique*, á symposium international "Viaţa spirituală din preistorie până în Evul Mediu", Iaşi, 18-19 oct. 2004 (résumé de la communication).

- *Constantin V. Gheorghiu et les antiquités de Cucuteni: amateurisme et implication civique*, in vol.: *Rezumatele Colocviului internaţional Cucuteni - 120 de ani de cercetări. Timpul bilanţului*, Piatra-Neamţ, p. 70-71.

- *Isaia, com. Răducăneni, jud. Iaşi*, *Cronica*. Campania 2003, p. 149-151 et pl. 32 (en collaboration avec Felix Adrian Tencariu, Vicu Merlan, Raluca Kogălniceanu, Letiţia Chirilă et Mădălin Văleanu).

- *Hoiseşti, com. Dumeşti, jud. Iaşi*, *Cronica*. Campania 2003, p. 139-142 et pl. 28 (en collaboration avec Vasile Cotiugă, George Bodi, Letiţia Chirilă, Dumitru Boghian, Senica Ţurcanu, Mădălin Văleanu et Daniel Garvăn).

- *Alte date cu privire la istoricul descoperirilor de la Cucuteni*, in vol.: *Mircea Petrescu-Dîmboviţa, Mădălin-Cornel Văleanu, Cucuteni-Cetăţuie. Monografie arheologică*, BMA XIV, Piatra-Neamţ, p. 27-30 (en collaboration avec Mircea Petrescu-Dîmboviţa et Mădălin-Cornel Văleanu).

- *Amintirile unui student despre Cucuteni*, in vol.: *Mircea Petrescu-Dîmboviţa, Mădălin-Cornel Văleanu, Cucuteni-Cetăţuie. Monografie arheologică*, BMA XIV, Piatra-Neamţ, p. 359-361.

- *Cuvânt înainte*, in vol.: *Dumitru Boghian, Comunităţile cucuteniene din bazinul Bahluiului, Suceava*, p. 5-6.

2005

- *Problèmes de la culture Précucuteni à la lumière des recherches de Târgu Frumos (dép. de Iaşi)*, in vol.: *Scripta praehistorica. Miscellanea in honorem nonagenarii magistri Mircea Petrescu-Dîmboviţa oblata* (éditeurs: Victor Spinei, Cornelia-Magda Lazarovici et Dan Monah), Editura Trinitas, Iaşi, p. 217-260 (en collaboration avec Dumitru Boghian et Vasile Cotiugă).

- *Constantin V. Gheorghiu et les antiquités de Cucuteni*, in vol.: *Cucuteni - 120 ans de recherches. Le temps du bilan* (éditeurs: Gh. Dumitroaia et alii), BMA XVI, Piatra-Neamţ, p. 369-376.

- *Nouveaux types d'idoles dans la plastique anthropomorphe de la culture Précucuteni*, SAA, X-XI (2004-2005), p. 9-20 (en collaboration avec Dumitru Boghian et Vasile Cotiugă).

- *Isaia 2005. Noi date privind complexele de cult din cultura Precucuteni*, *Carpica*, XXXIV, p. 37-54 (en collaboration avec Felix Adrian Tencariu

et Letiţia Scarlat).

- *Un mormânt de înhumăţie descoperit la Prăjeni (jud. Botoşani) şi unele probleme privind începutul Hallstatt-ului în regiunea Carpaţilor Nordici*, *ArhMold*, XXVIII, p. 125-138 (en collaboration avec Paul Şadurschi).

- *Bălţata, com. Nicolae Bălcescu, jud. Bacău. Punct: La Moviliţă*, *Cronica*. Campania 2004, p. 62-63 (en collaboration avec Lăcrămioara Stratulat, Lăcrămioara-Elena Istina et Felix Adrian Tencariu).

- *Hoiseşti, com. Dumeşti, jud. Iaşi. Punct: La Pod*, *Cronica*. Campania 2004, p. 177-178 et pl. 19 (en collaboration avec Vasile Cotiugă, Felix Adrian Tencariu, George Bodi, Letiţia Chirilă, Raluca Kogălniceanu et Daniel Garvăn).

- *Isaia, com. Răducăneni, jud. Iaşi. Punct: Balta Popii*, *Cronica*. Campania 2004, p. 188-189 et pl. 20 (en collaboration avec Felix Adrian Tencariu, Vicu Merlan, Raluca Kogălniceanu, Letiţia Chirilă et George Bodi).

- *Hoiseşti-La Pod*, in: *L'activité scientifique de la Chaire d'Histoire ancienne et d'Archéologie (2002-2004)*, SAA, X-XI (2004-2005), p. 232.

- *Isaia-Balta Popii*, in chronique: *L'activité scientifique de la Chaire d'Histoire ancienne et d'Archéologie (2002-2004)*, SAA, X-XI (2004-2005), p. 232-233.

- *V^e Colloque roumaino-italien „La romanité orientale et l'Italie: parallèles historiques et culturels (Iasi - Tulcea, 19-25 septembre 2004)”, SAA, X-XI (2004-2005), p. 249-250 (en collaboration avec Lucreţiu Mihăilescu-Bîrliba).*

- *Sommaire général des nos. I-XI*, SAA, X-XI (2004-2005), p. 265-289 (en collaboration avec Mariana Petcu).

- *Profesorul Mircea Petrescu-Dîmboviţa – un neostenit deschizător de drumuri*, *ArhMold*, XXVIII, p. 13-16.

- *Profesorul Attila László în cel de al 65-lea an al vieţii*, *AŞUI-Istorie*, LI, 2005, p. 529-534.

- *Compte-rendu: V. Chirica, D. Boghian, Arheologia preistorică a lumii, vol. I-II, Iaşi, 2003*, *ArhMold*, XXVII (2004), p. 306-307.

2006

- *Ipostaze rare ale cultului fertilităţii în plastica antropomorfă a culturii Precucuteni*, in vol.: *Cucuteni 120 - Valori universale* (coord.: Nicolae Ursulescu, Cornelia-Magda Lazarovici), Editura Sedcom Libris, Iaşi, p. 115-130 (en collaboration avec Dumitru Boghian et Vasile Cotiugă).

- *Isaia - "Balta Popii" (com. Răducăneni, jud. Iaşi)*, in vol.: *Cucuteni, un univers mereu inedit* (coord.: Lăcrămioara Elena Istina), Editura Documentis, Bacău, p. 8-11 (en collaboration avec Felix Adrian Tencariu).

- *Hoisești - "La Pod" (com. Dumești, jud. Iași)*, in vol.: *Cucuteni, un univers mereu inedit* (coord.: Lăcrămioara Elena Istina), Editura Documentis, Bacău, p. 18-19 (en collaboration avec George Bodi).

- *Date recente despre credințele magico-religioase la începutul eneoliticului pe teritoriul Moldovei, Zargidava, V, p. 50-70.*

- *Données récentes concernant l'histoire des communautés énéolithiques de la civilisation Cucuteni, ATS, V, p. 79-113.*

- *Prelucrarea caninilor de mistreți în cultura Precucuteni în lumina descoperirilor de la Târgu Frumos (jud. Iași)*, AMT, I, p. 64-81 (en collaboration avec Luminița Bejenaru et Vasile Cotiugă).

- *Locuințe de suprafață cu platformă din așezarea precucuteniană de la Târgu Frumos - Baza Pătule*, CC S.N., 12 (22), p. 3-23 (en collaboration avec Dumitru Boghian et Vasile Cotiugă).

- *Apparition des nécropoles dans le néolithique de Roumanie et de l'Italie*, SAA, XII, p. 11-42 (en collaboration avec Raluca Kogălniceanu).

- *New data regarding the architecture of precucutenian buildings*, in vol.: *XV Congrès de l'Union Internationale des Sciences Préhistoriques et Protohistoriques, Livres de résumés, vol. 1* (éditeurs: L. Oosterbeek, J. Raposo), Lisabona, p. 233 (en collaboration avec Felix Adrian Tencariu).

- *Le début de la culture Cucuteni dans l'archéologie européenne*, in vol.: *XV Congrès de l'Union Internationale des Sciences Préhistoriques et Protohistoriques, Livres de résumés, vol. 2* (éditeurs: L. Oosterbeek, J. Raposo), Lisabona, p. 464-465 (en collaboration avec Mădălin-Cornel Văleanu).

- *Isaiia, com. Răducăneni, jud. Iași. Punct: Balta Popii*, Cronica. Campania 2005, p. 187-191 et pl. 20 (en collaboration avec Felix Adrian Tencariu, Letiția Scarlat, George Bodi, Ciprian Lazanu, Loredana Solcanu, Ioana Robu, Vicu Merlan et Marius Cozma).

- *Cuvânt înainte*, in vol.: *Cucuteni 120 - Valori universale* (coordonateurs: Nicolae Ursulescu et Cornelia-Magda Lazarovici), Iași, p. III-IV.

- *Indirizzo di saluto*, SAA, XII, p. 7-9.

- *Le XV^e Congrès International des Sciences Pré- et Protohistoriques (Lisbonne, 4-9 septembre 2006)*, SAA, XII, p. 223.

2007

- *Civilizația cucuteniană: argumente ale dimensiunii europene*, in vol.: *Dimensiunea europeană a civilizației neolitice est-carpatică* (coord.: Nicolae Ursulescu), Editura Universității "Al. I. Cuza" Iași, p. 5-20.

- *Debutul culturii Cucuteni în arheologia europeană*, in vol.: *Dimensiunea europeană a civilizației neolitice est-carpatică* (coord.: Nicolae Ursulescu), Editura Universității "Al. I. Cuza" Iași, p. 21-62 (en collaboration avec Mădălin-Cornel Văleanu).

- *Noi date privind arhitectura locuințelor din cultura Precucuteni*, in vol.: *Dimensiunea europeană a civilizației neolitice est-carpatică* (coord.: Nicolae Ursulescu), Editura Universității "Al. I. Cuza" Iași, p. 131-156 (en collaboration avec Felix Adrian Tencariu).

- *Necropola sarmatică de la Isaiia. Date preliminare*, CI, XXI-XXIII (2002-2004), p. 27-58 (en collaboration avec Raluca Kogălniceanu).

- *The Neolithic et Eneolithic/Chalcolithic in the Archaeology from Romania and Greece*, in vol.: *1st Colloquium Aegean-Balkans-Carpathians from Prehistory to Antiquity*, Iași, 2007, p. 6 (résumé de la communication).

- *Le "modèle Enkidu" et le concept de "révolution" néolithique*, in vol.: *The Carpathian Basin and its Role in the Neolithisation of the Balkan Peninsula, Sibiu, 18-19 mai 2007*, p. 16-17 (résumé de la communication).

- *La religione della civiltà di Cucuteni*, in vol.: *Cucuteni. Tesori di una civiltà preistorica dei Carpazi*, Accademia di Romania in Roma, 18 ottobre 2007, p. 17 (résumé de la communication).

QUELQUES DONNÉES CONCERNANT LES HABITATS DU COMPLEXE ÉNÉOLITHIQUE D'ARIUȘD-CUCUTENI-TRIPOLYE

MIRCEA PETRESCU-DÎMBOVIȚA*

Mots clefs: *Néolithique, complexe culturel Ariușd-Cucuteni-Tripolye, habitats.*

Cuvinte cheie: *neolitic, complexul cultural Ariușd-Cucuteni-Tripolie, așezări.*

Résumé. *Cette étude se propose de présenter quelques données sur les habitats du complexe culturel Ariușd-Cucuteni-Tripolye. On présente les données connues jusqu'à présent sur les types des habitats de cette civilisation. On essaie également d'identifier une possible hiérarchie des habitats et d'avancer une explication pour l'absence de très grands habitats dans l'aire occidentale du complexe culturel Cucuteni-Tripolye.*

Rezumat. *Acest studiu își propune să prezinte câteva date privitoare la așezările complexului cultural Ariușd-Cucuteni-Tripolie. Astfel, sunt trecute în revistă datele cunoscute până în prezent privitoare la modul de organizare internă a așezărilor. De asemenea, se încearcă identificarea unei posibile ierarhizări a așezărilor și avansarea unei posibile explicații asupra lipsei așezărilor de dimensiuni foarte mari în aria vestică a complexului cultural Cucuteni-Tripolie.*

Les mérites de Fr. László, qui a effectué les premières investigations scientifiques, avec ses fouilles de 1907-1913 et 1925 dans l'habitat d'Ariușd (dép. Covasna) (LÁSZLÓ 1987, 56; MONAH, CUCOȘ 1985, 57; PETRESCU-DÎMBOVIȚA 1999, 13 et suiv.) du Sud-Est de la Transylvanie, ont été soulignés plusieurs fois. Ces fouilles lui ont permis de faire des observations sur les suivants objectifs: 1) l'aménagement du terrain sur la place de la station; 2) la fortification de l'habitat; 3) le plan de l'habitat et les constructions des habitations; 4) les âtres et 5) les fours pour le chauffage et la poterie.

Outre la description et la représentation graphique des habitations découvertes méthodiquement, l'auteur a essayé pour la première fois dans cette partie de l'Europe la reconstitution d'une maison à l'échelle 1:10, conservée jusqu' à présent dans l'exposition du Musée de Sfântu Gheorghe (LÁSZLÓ 1987, 57).

Malgré les mérites de Fr. László, certaines circonstances ont contribué, selon I. Nestor, de s'imposer dans le pays et à l'étranger avec les fouilles de Cucuteni, faites en 1909 et 1910 par l'archéologue allemand Hubert Schmidt, secondé par Gerhardt Bersu (NESTOR 1973, 25). Il s'agit de la diffusion des résultats et du prestige de l'auteur. Cela en dépit du fait que l'auteur des fouilles de Cucuteni, avec des mérites incontestables concernant la stratigraphie et l'évolution, des styles céramiques, n'a pas accordé l'attention méritée aux habitations de Cucuteni-*Cetățuie* qui ont été sectionnées, en décrivant seulement un âtre.

A cet égard, il faut savoir que Hubert Schmidt a connu sur place en 1908 les fouilles de Fr. László à Ariușd et que lui-même a effectué un petit sondage à Malnaș (LÁSZLÓ 1987, 56; PETRESCU-DÎMBOVIȚA 1999, 13, note 5). La reprise des fouilles à Ariușd (ZAHARIA 1973, 25 et suiv.; ZAHARIA, SZÉKELY 1988, 101 et suiv.) et les nouvelles fouilles à Malnaș-Băi (dép. de Covasna) (LÁSZLÓ 1980, 124-126) et aussi dans d'autres stations

* Université "Alexandru Ioan Cuza" de Iași, e-mail: mpd@uaic.ro

d'aspect Ariușd ont permis d'obtenir de nouvelles données concernant les types d'habitat et la technique de construction des maisons. En ce qui concerne le dernier problème, deux habitations de Malnaș présentent un intérêt à part (LÁSZLÓ 1988, 23 et suiv.).

Les recherches ultérieures faites par les archéologues roumains entre les deux guerres mondiales et surtout après la deuxième guerre mondiale ont apportées des contributions essentielles à la connaissance des types d'habitats et d'habitations de l'aspect Ariușd-Cucuteni.

Par la recherche complète des habitats de Hăbășești, Trușești, Târpești et Mărgineni et, dans une certaine mesure, des sites d'Izvoare, Traian - *Dealul Fântânilor*, Ghelăiești, Corlăteni, Cucuteni, Poduri, Drăgușeni, Scânteia, Dumești et autres on a beaucoup enrichies les connaissances concernant les types d'habitats et les systèmes de construction des habitations dans le plan de l'habitat, ainsi que leur système de fortification.

Parmi les ouvrages parus après la deuxième guerre mondiale concernant les habitats et les habitations de la civilisation de Cucuteni une mention à part méritent, sans doute, les monographies des stations Hăbășești (DUMITRESCU *et alii* 1954) et Trușești (PETRESCU-DÎMBOVIȚA, FLORESCU, FLORESCU 1999), qui ont été fouillées entièrement.

A ceux-ci s'ajoute l'ouvrage concernant les habitats de la civilisation Cucuteni, élaboré par Dan Monah et Ștefan Cuciș (MONAH, CUCIȘ 1985), dans lequel les auteurs ont fait, pour la première fois, pour les stations de cette civilisation, une classification des stations, d'après la structure, la grandeur, la position géographique et la durée de l'habitat. De même, dans cet ouvrage ont été mises en discussion les fortifications des habitats, les types de stations et leurs constructions, le nombre d'habitations dans les stations (les chiffres seront vérifiées ultérieurement), ainsi que la dynamique et l'intensité de l'habitat des différentes phases et zones et de la croissance de la population en rapport avec la période précédente et de l'organisation territoriale des tribus de la civilisation de

Cucuteni, le phénomène "d'essaimage" (par lequel s'explique le grand nombre de stations dans un espace limité), la vie économique des habitats, tout comme d'autres aspects, qui attestent le grand niveau de développement des agglomérations respectives, ainsi que le passage vers les formes plus simples d'habitat de la période de transition de l'énéolithique à l'âge du bronze.

La reprise des fouilles dans la station d'Ariușd (ZAHARIA 1973, 26-35; ZAHARIA, SZÉKELY 1988, 101-114), comme des fouilles à Malnaș-Băi et dans d'autres stations appartenant à l'aspect Ariușd ont permis d'obtenir de nouvelles données concernant les types d'habitations et la technique de leur construction. En ce qui concerne le dernier problème, un intérêt à part présentent les observations obtenues à l'occasion de la découverte des deux habitations à Malnaș-Băi (LÁSZLÓ 1988, 23-31).

De même, les recherches effectuées entre le Prut et Dniestr, surtout par V. I. Markevici (MARKEVICI 1981, 70 et suiv.) et V. Ja. Sorokin (SOROKIN 1994, 62 et suiv.) ont apportées de nouvelles contributions non seulement du point de vue paléo-démographique, mais aussi relatives à la structure, l'étendue, le plan des habitats et le système de construction des habitations, dont quelques-unes à étage.

De plus, dans certains travaux des archéologues allemands, les habitats du complexe Cucuteni-Tripolye on été placés dans un contexte européen plus large (PETRESCU-DÎMBOVIȚA 1999, 14).

Dans ce but, sauf des déterminations des facteurs économiques complétées avec des données d'ordre ethno-démographique et des investigations expérimentales, ont été utilisées les méthodes modernes, comme par exemple la photographie aérienne combinée avec des recherches géomagnétiques (PETRESCU-DÎMBOVIȚA 1999, 14).

C'est ainsi que les connaissances se sont beaucoup enrichies relativement aux types d'habitat (compacte ou dispersé), de durée ou saisonnier et d'après quelques-uns en forme de *tell*, au système de construction des habitations (avec ou sans plate-forme en argile et bois) et à leur disposition dans le

plan de l'habitat aussi qu'en liaison avec le système de fortification des habitats avec une ou deux tranchées de défense et parfois avec vallum et palissade (MONAH, CUCOȘ 1985, 41 et suiv.). Par des déterminations d'ordre géographique, géologique, spectrographique, palynologique, paléobotanique et archéologique effectuées dans les stations de Cucuteni-*Cetățuie* (SCHMIDT 1932, 3 et suiv.), Bodești-*Frumușica* (MATASĂ 1946, 37 et suiv.), Târpești (MARINESCU-BÎLCU 1981), aussi bien que dans d'autres stations, ont été obtenues des données significatives relatives à l'environnement et à l'économie des communautés des stations respectives.

De même, pour la monographie de Trușești ont été obtenus des résultats par l'utilisation de l'ordinateur pour l'interprétation des données des complexes fermés (habitations, annexes et fosses). Par l'analyse mathématique et statistique de la céramique et de la plastique de la civilisation de Cucuteni de Trușești-*Țuguieța*, on a pu déterminer le début de la station et les directions de son développement (MAXIM, TARCEA 1999, 670-673), parce que, justement, toutes les maisons n'ont pas été construites en même temps (MÜLLER-KARPE 1968, 217 et suiv. et 237).

A partir des travaux concernant les fouilles de Trușești-*Țuguieța*, Cucuteni-*Cetățuie* et d'autres stations on a abouti à la conclusion que sur une surface de terrasse plus grande ont été plusieurs habitats, fait qui peut suggérer une hiérarchie des habitats dans certaines zones (NANDRIȘ 1987, 207 et suiv.).

De même, en liaison avec les habitats et les habitations de la civilisation de Cucuteni, les tentatives d'estimer le nombre de personnes présentent un intérêt, en général, sur phases, des habitations de cette civilisation, qui malgré leur caractère approximatif et subjectif ont pourtant une signification du point de vue paléo-démographique.

Par des déterminations d'ordre géologique, pétrographique, palynologique, paléobotanique et archéologique dans les stations de Cucuteni-*Cetățuie*, Bodești-*Frumușica*, Târpești et dans d'autres stations ont été obtenues des données significatives du point de vue paléo-démographique. Ainsi

pour le complexe Ariușd-Cucuteni-Tripolye, en supposant 10 personnes pour une habitation et une surface de 5 m² pour une personne, on est arrivé aux 440 personnes pour Hăbășești et 930 pour Trușești-*Țuguieța* (MONAH, CUCOȘ 1985, 43). D'avantage pour l'habitat de Hăbășești où on a essayé d'établir aussi le nombre de personnes utilisées pour la fortification (PETRESCU-DÎMBOVIȚA 1954, 220; MONAH, CUCOȘ 1985, 49). Les tranchées avaient la profondeur de 1,40 - 1,90 m, la longueur de 48 - 300 m et la largeur de 1,70 - 5 m (PETRESCU-DÎMBOVIȚA 1954, 203-223).

L'activité des habitants dans le domaine des constructions des habitats était connue pour les phases Cucuteni A et A-B, le processus culminant dans Cucuteni B (ELLIS 1984, 185).

La connaissance très exacte du climat de la période de la civilisation de Cucuteni est loin d'être résolue.

En ce qui concerne les types d'habitats, la civilisation de Cucuteni est la seule de Roumanie avec une base informationnelle plus complète par comparaison avec d'autres civilisations.

Dans la classifications d'habitats, selon le critère de la surface, ont été différenciés des habitats petits, avec une surface sous 1 hectare et jusqu'à 20 habitations, des habitats moyens jusqu'à 2 hectares et avec 20-50 habitations, et des habitats grands jusqu'à 5 hectares et avec maximum 100 habitations, et des habitats très grands de plus de 5 hectares et ayant plus de 100 habitations (MONAH, CUCOȘ 1985, 43).

Selon Vladimir Dumitrescu (PETRESCU-DÎMBOVIȚA 1954, 213 et suiv.), Silvia Marinescu-Bîlcu (MARINESCU-BÎLCU 1974, 19 et suiv.), Dan Monah et Ștefan Cucuș (MONAH, CUCOȘ 1985, 41 et suiv.) et Victor Sorokin (SOROKIN 1994, 41 et suiv.) il faut avoir en vue aussi les cours d'eau, le régime pluviométrique et les courants d'air, puis les sources de nourriture et de matières premières, etc. De même, pour la définition du type d'habitat il faut considérer les facteurs relatifs aux constructions, paléo-économiques et les types de pièces, tout comme les résultats des analyses archéologiques et palynologiques. En prenant en considération ces facteurs on peut différencier les habitats durables et

saisonniers (MARKEVICI 1981, 70 et suiv.).

A ceux-ci s'ajoutent les habitats sans plan structurel précis, des types répandus et "en nids", et aussi les habitats avec des habitations disposées en cercle comme à Hăbășești et Trușești.

De même, les recherches entre Prut et Dniestr, effectuées surtout par V. Markevici et Victor Sorokin, ont apportées des nouvelles contributions concernant la structure, la grandeur et le plan des habitats et le système de construction des habitations, dont une à étage, tout comme du point de vue démographique.

Deux des grands habitats, Varvarovka VIII et Petreni sont situés dans l'interfluve Prut-Dniestr, 5 sur 20 habitations de l'habitat Varvarovka VIII ont été fouillées, dont une était un atelier de poterie (SOROKIN 1994, 69 et suiv.). En ce qui concerne l'habitat de Petreni ont été fouillées 8 sur 418 habitations à la fin du XIX^{ème} siècle (ELLIS 1984, 185). Les recherches de K. Şişkin ont attestées la disposition des habitations de Petreni en 10 cercles concentriques (ELLIS 1984, 185). Cet habitat est situé sur une haute plate-forme de grandes proportions, avec des pentes vers Nord, Est et Ouest, en descendant d'une manière abrupte sur la coté Sud, manquant des tranchées et des digues (MARKEVICI 1981, 18, 74, fig. 14). Les plates-formes des habitations étaient de 8 x 5 m et à la périphérie il y avait une construction plus grande de 14/16 x 6/7 m (MARKEVICI 1981, 18, 74, fig. 14). Les habitations étaient disposées en cercle. Dans le centre de l'habitat il y avait une plate-forme libre, ovale, avec un diamètre de 50 cm (MARKEVICI 1981, 18, 74, fig. 14). Au total ont été investiguées 449 habitations petites, 9 grandes, 35 larges et 8 fouillées antérieurement par von Stern, donc, au total 498 habitations (MARKEVICI 1981, 18, 74, fig. 14).

Dans la quatrième décennie du XX^{ème} siècle les fouilles de T. S. Passek à Kolomiščina dans la région de Kiev et Vladimirovka dans la région de Kirovgrad ont permis à l'auteur de réaliser une étude de synthèse sur la civilisation de Tripolye (PASSEK 1949), très appréciée par les spécialistes dans le domaine de la civilisation de Tripolye. Personnellement, j'ai

eu l'occasion de connaître l'auteur de cette étude pendant la participation à certaines manifestations scientifiques de caractère international.

Enfin, dans l'aire de la civilisation de Tripolye, à la différence de l'aire de la civilisation de Cucuteni, ont été identifiés aussi des habitats très grands, par l'utilisation de la photographie aérienne et de la mesure de la résistivité du sol et moins par des fouilles archéologiques (PETRESCU-DÎMBOVIȚA 2000, 15).

Ces habitats ont été considérés, comme il est connu, par certains archéologues ukrainiens, comme appartenant aux types pré- ou proto-urbain, ayant en vue les dimensions gigantesques des habitats, le grand nombre des habitations, dont plusieurs à étage, les occupations économiques et les différences sociales (ŞMAGY 1979, 198-203; 1982, 118-125; ŞMAGLY, VIDEIKO 1987, 58-71). En ce qui concerne les habitations de ces habitats, dont plusieurs à étage, il a été soutenu justement par V. G. Childe (CHILDE 1961, 177), J. Mellaart (MELLAART 1978, 363 et suiv.), C. Renfrew (RENFREW 1972, 269 et suiv.), V. M. Masson (MASSON 1980, 204 ; 1985, 293), D. Monah, Şt. Cucuş (MONAH, CUCOŞ 1985, 50), et par moi-même (PETRESCU-DÎMBOVIȚA 1986, 130 et suiv.; 1993; 1998; PETRESCU-DÎMBOVIȚA, FLORESCU, FLORESCU 1999, 193 et suiv.), l'idée que pour admettre un caractère proto-urbain il faut avoir en vue des nouvelles fonctions spécifiques, qui se reflètent dans l'évolution de l'architecture, le développement des fortifications et dans d'autres transformations d'ordre social, économique et culturel (PETRESCU-DÎMBOVIȚA, FLORESCU, FLORESCU 1999, 193).

De ce point de vue il y avait une grande différence entre les habitats du complexe d'Ariuşd-Cucuteni-Tripolye et les centres des anciens agriculteurs, transformés graduellement en premières villes avec de nouvelles fonctions et aspects morphologiques de l'ancienne Chine, de Mésopotamie, de la Vallée de l'Indus et d'autres zones de l'Ancien Orient (MASSON 1980, 218 et suiv.).

A cet égard, en tenant compte de l'évolution ultérieure, le complexe Ariuşd-Cucuteni-Tripolye, en dépit des progrès réalisés dans l'agriculture et dans d'autres domaines, à cause des conditions

climatiques et d'autre nature, était en déclin, n'évoluant pas vers le type urbain, à la différence des habitats de la civilisation Jang-Shao de Chine, qui par les progrès réalisés ont évolué vers le type pré- ou proto-urbain (ELLIS 1984, 188).

D'ailleurs aussi certains archéologues ukrainiens n'admettent pas aujourd'hui l'existence des habitats proto-urbains dans le cadre de la civilisation de Tripolye (ELLIS 1984, 188).

En lien avec ces habitats gigantesques de l'Ukraine et leurs habitations les tentatives d'estimer le nombre de personnes les occupant présentent un intérêt. Il s'agit de deux groupes, dont l'un de 25-75 personnes, et l'autre de 250-400 personnes. Pour le deuxième groupe on note les trois habitats suivants: 1) Maidanetsk, de 270 ha, avec 1200-1700 personnes, avec des habitats disposés en ellipses concentriques; 2) Dobrovody, de 250 ha, avec 225 habitations rectangulaires, identifiées en 1981 et disposées en plusieurs cercles concentriques; 3) Talljanky, de 400 ha, le plus grand, pour lequel en 1981 ont été signalées 438 habitations sur plusieurs rangées.

En conclusion, dans l'espace occupé par les communautés du complexe Ariușd-Cucuteni-Tripolye les habitats sont en général semblables, quelques différences dans la zone tripolyenne sont dues probablement au souterrain de cette zone. On constate des changements importants à la fin de la civilisation de Tripolye, avec l'apparition des habitats plus grands et une agriculture plus intensive, correspondant, selon quelques spécialistes, aux habitats pré- et proto-urbains, établis par la photographie aérienne et par la mesure de la résistivité du sol et moins par des fouilles archéologique.

A cet égard, pour la reconstitution du milieu environnemental et de l'économie des communautés du complexe d'Ariușd-Cucuteni-Tripolye on a utilisé des méthodes modernes, respectivement la photographie aérienne et des déterminations d'ordre géographique, géologique, pétrographique, palynologiques, paléobotanique et archéozoologique. A ceux-ci s'ajoute aussi l'utilisation de l'ordinateur pour des complexes clos (habitations, annexes et

fosses) comme dans les cas de l'habitat de Cucuteni A de Trușești-*Țuguieța*, avec l'aide des analyses mathématiques et statistiques, appliquées à la céramique et à la plastique de cette station, pour établir le début et les directions de son extension. C'est ainsi qu'on a confirmée l'opinion selon laquelle toutes les habitations n'ont pas été construites en même temps.

De même, à partir des ouvrages relatifs aux fouilles de Trușești, Cucuteni-*Cetățuie* et d'autres lieux il a résulté que sur une surface de terrain plus grande ont été plusieurs habitats de différentes étapes de la civilisation Cucuteni, fait qui peut suggérer une hiérarchie des habitats dans certaines zones, comme l'a soutenu J. D. Nandriș.

Bibliographie

- CHILDE Vere Gordon
1961 *Făurirea civilizației*, București.
- DUMITRESCU Vladimir *et alii*
1954 *Hăbășești. Monografie arheologică*, București.
- ELLIS Linda
1984 *The Cucuteni-Tripolye culture. A Study in Technology and the Origins of Complex Society*, BAR-International Series 217, Oxford.
- LÁSZLÓ Attila
1980 *Șantierul arheologic Malnaș Peteni, jud. Covasna*, Materiale, XIV, p. 124-126.
1987 *Un chapitre de l'histoire de la recherche de la civilisation Ariușd-Cucuteni-Tripolie: les fouilles d'Ariușd dans le premier quart du notre siècle*, in vol: *La civilisation de Cucuteni en contexte européen* (éds.: Mircea Petrescu-Dîmbovița *et alii*), BAI I, Iași, p. 49-57.
1988 *Date noi privind la tehnica de construcție a locuințelor neolitice*, ArhMold, XII, p. 23-31.
- MARINESCU-BÎLCU Silvia
1974 *Cultura Precucuteni pe teritoriul României*, București.
1981 *Tîrpești, from Prehistory to History in Eastern Romania*, BAR-International Series 107, Oxford.
- MARKEVICI V.I.
1981 *Pozdnetripol'skie plemena Severnoj Moldavii*, Kișinev.
- MASSON V. M.
1980 *Dinamika razvitja tripol'iskogo obštstva v svete paleodemografičeskich ocenok*,

- in vol.: *Pervobytnaia Archeologija. Poiski i nahodki*, Kiiv, p. 204-212.
- 1985 *Phenomen of urbanism and origin of ancient civilisations*, in vol.: *Rapports. Grands Thèmes. Méthodologie. Sections chronologiques (I)*. XVI Congrès International des Sciences Historiques, Stuttgart, p. 291-295.
- MATASĂ Constantin
1946 *Frumușica. Village préhistorique à céramique peinte dans la Moldavie du Nord, Roumanie*, București.
- MAXIM Zoia, TARCEA Lucian
1999 *Analiza matematică și statistică a civilizației Cucuteni de la Trușești-Țuguieța*, in vol.: PETRESCU-DÎMBOVIȚA, FLORESCU, FLORESCU 1999, p. 647-673.
- MELLAART James
1978 *Il periodo preurbano*, in vol.: *Archeologia. Cultura et civilita del passato nel mondo europea et extraeuropea*, Milano, p. 363-370.
- MONAH Dan, CUCOȘ Ștefan
1985 *Așezările culturii Cucuteni din România*, Iași.
- MÜLLER-KARPE Heinrich
1968 *Handbuch der Vorgeschichte*, Bd. 1, München.
- NANDRIȘ John D.
1987 *Romanian ethnoarchaeology and the emergence and development in the European context*, in vol.: *La civilisation de Cucuteni en context européen* (éds.: Mircea Petrescu-Dîmbovița et alii), BAI I, Iași, p. 201-222.
- NESTOR Ion
1973 *Considerații asupra semnificației cercetărilor arheologice ale lui Fr. László*, StComSfGheorghe, p. 21-25.
- PASSEK Tatiana S.
1949 *Periodizacija tripol'skich poselenij*, MIA, 10.
- PETRESCU-DÎMBOVIȚA Mircea
1954 *Șanțurile de apărare*, in vol.: DUMITRESCU et alii 1954, p. 203-223.
1986 *Intervention au grand thème: Phénomène urbain dans la naissance de la civilisation antique*, in vol.: XVI Congrès International des Sciences Historiques (Stuttgart 1985), Stuttgart, p. 130-131.
- 1993 *Problema așezărilor „protourbane” ale complexului eneolitic Ariușd-Cucuteni-Tripolie*, Academica S.N., III, 6, p. 4.
1998 *Quelques considérations concernat les habitats du complexe d'Ariușd-Cucuteni-Tripolye*, RSP, XLIX, p. 523-536.
1999 *Quelques considérations concernant les habitats et les habitations de l'aspect Ariușd-Cucuteni du complex d'Ariușd-Cucuteni-Tripolye*, Interacademica, I, p. 14.
2000 *Realizări și perspective în cercetarea culturii Cucuteni*, București.
- PETRESCU-DÎMBOVIȚA Mircea, FLORESCU Mariana, FLORESCU Adrian C.
1999 *Trușești. Monografie arheologică*, București-Iași.
- RENFREW Collin
1972 *The Emergence of the Civilisations. The Cyclades and the Aegean in the Third Milenium B.C.*, London.
- SCHMIDT Hubert
1932 *Cucuteni in der oberen Moldau, Rumänien. Die befestigte Siedlung mit bemalte Keramik von der Steinkupferzeit bis in die vollentwickelte Bronzezeit*, Berlin-Leipzig.
- ȘMAGLY N.M.
1979 *Krupnye tripol'iskie poselenija v meždurečie Dnepra i Južnogo Buga*, in vol.: *Pervobytnaja Archeologija. Poiski i nahodki*, Kiiv, p. 198-203.
1982 *Grosse Tripoliesiedlungen zwischen Dnepr und Südlichen Bug*, Das Altertum, 28, 2, p. 118-125.
- ȘMAGLY N.M., VIDEIKO M. Ju.
1987 *Piznotripiliske poselennia poblizy s. Maidaneckogo na Čerkaštini*, Archeologija, 60, p. 58-71.
- SOROKIN Victor Ja.
1994 *Modalitățile de organizare a așezărilor complexului cultural Cucuteni-Tripolie*, ArhMold, XVI, p. 69-86.
- ZAHARIA Eugenia
1973 *Date preliminare asupra săpăturilor de la Ariușd*, StComSfGheorghe, p. 26-35.
- ZAHARIA Eugenia, SZEKELY Zoltan
1988 *Raport asupra săpăturilor de la Ariușd*, Aluta, 17-18 (1985-1986), p. 101-114.

**A LA RECHERCHE DU TEMPS PERDU.
THE FIRST DECADES OF SEARCH FOR CULTURAL
AND CHRONOLOGICAL CONNECTIONS OF
THE ARIUȘD-CUCUTENI-TRIPOLYE CIVILIZATION**

ATTILA LÁSZLÓ*

Keywords: Aegean, Ariușd, Chronology, Contacts, Cucuteni, Hubert Schmidt.

Cuvinte cheie: Egeea, Ariușd, cronologie, contacte, Cucuteni, Hubert Schmidt.

Abstract. *The first part of the paper shortly tackles the discovery, in the last decades of the 19th century, of the main Neolithic (Chalcolithic) sites with painted pottery of Galicia, Bukovina, Transylvania, Moldavia, Bessarabia and Ukraine, which have been progressively reunited into a greater culture, that has come to be called, in time, the Ariușd-Cucuteni-Tripolye civilization. We then analyzed the way in which these discoveries were interpreted from the standpoint of the European Prehistory and were set, successively, against the great civilizations and the great historical periods of the Aegean (Greek, Mycenaean, Pre-Mycenaean). The last part of the paper focuses on Hubert Schmidt's interest in painted pottery of Eastern and South-Eastern Europe, on his research carried out in Cucuteni (1909-1910) and on certain conclusions of the German archaeologist related to the place of the Cucuteni culture within the world of European and Aegean-Oriental Prehistory and Protohistory.*

Rezumat. *În prima parte a lucrării este prezentată pe scurt descoperirea, în ultimele decenii ale secolului al XIX-lea, a principalelor situri neolitice (eneolitice) cu ceramică pictată din Galiția, Bucovina, Transilvania, Moldova, Basarabia și Ucraina, care au fost reunite, treptat, într-o mare cultură, pentru care s-a adoptat, cu timpul, actuala denumire de Ariușd-Cucuteni-Tripolie. Se urmărește, apoi, felul în care aceste descoperiri au fost interpretate în contextul preistoriei europene și au fost raportate, succesiv, la marile perioade istorice (greacă, miceniană, pre-miceniană) din Egeea. Ultima parte a lucrării se referă la interesul lui Hubert Schmidt pentru ceramicile pictate est- și sud-est europene, la cercetările sale de la Cucuteni (1909-1910) și la unele concluzii ale arheologului german cu privire la locul culturii Cucuteni în contextul pre- și protoistoriei europene și egeeo-orientale.*

In the landscape of European civilization of the last decades of the 19th century a great civilization began to take shape, remarkable from the beginning especially because of its painted pottery. The vestiges of this civilization firstly appeared isolated, at great distance one from another, separated by the political borders as dispersed elements of an enormous mosaic that was awaiting his reconstruction.

As far as we know, the first discoveries were made in the 70's of the 19th century in the basin of the Upper Dnestr in Eastern Galicia, a province that at that time belonged to Austria, within the Austro-Hungarian Monarchy. In the research of sites that became famous, such as Bilcze Złote (called by that time the "Pompeii on the Dnestr"), Horodnica and Koszylowce (now Bil'ce Zolotoe, Horodnycja, Kosylyvci, in Ukraine), Polish archaeologists from Cracow distinguished themselves, such as Adam Kirkov and Anton Schneider (in the years 1874-1878). Izidor Kopernicki and Wladyslaw Przybyslawski distinguished themselves by

* "Alexandru Ioan Cuza" University of Iași,
e-mail: arch_atticus@yahoo.com

their researches carried at Horodnica between 1874 and 1882, while Leon Sapieha became notorious due to his excavations at Biczka Złota (1884), continued by Goldfried Ossowski and Władzimirz Demetrykiewicz (1889-1891, 1898-1907)¹.

In South-Eastern Transylvania, the Ariuşd (Erősd) site is mentioned since 1869 in a well documented description, with data collected on the terrain, of the Szekler Country, but the first samples of painted pottery get into different museum collections (Szekler National Museum at Sfântu Gheorghe/Sepsiszentgyörgy, Collection of Antiquities of the Bethlen College from Aiud/Nagyenyed) beginning with the years 90's of the 19th century (ORBÁN 1869, 27; F. LÁSZLÓ 1914, 283-284). Also by that time begin the first researches in Bârsa Region (Barcaság/Burzenland), at the sites of Bod (Botfalú/Brenndorf), Hărman (Szászhermány/Honigberg) and Feldioara (Földvár/Marienburg), continued in the beginning of the 20th century in connection with the name of Julius Teutsch. It is the indisputable merit of this amateur archaeologist from Braşov (Brassó/Kronstadt) that the international scientific community was informed for the first time about the existence of the settlements with painted pottery from South-Eastern Transylvania by means of his works, published in prestigious archaeological journals from Budapest, Vienna and Berlin (TEUTSCH 1900, 189-202; 1903, 365-399; 1904, 221-227; 1907, 108-120). He also informed about these discoveries the German archaeologist Paul Reinecke, who observed from early times the relation between the pottery from Bod settlement and the painted pots from the sites of Eastern Galicia, which he considered to be contemporaneous and representing the same cultural ensemble (TEUTSCH 1904, 227). The first methodical archaeological

researches in South-Eastern Transylvania, at Ariuşd, began in 1907 thought the excavations of Ferenc László (see below).

In the Old Romanian Kingdom, the Cucuteni site was discovered, as it is well known, in 1884 by the ethnographer Theodor Burada and was researched by the amateur archeologists Nicolae Beldiceanu, Dimitrie Butculescu, Grigore Buţureanu and George Diamandy. The last two made known the discoveries within the international scientific community (URSULESCU, VĂLEANU 2007, 21-62, with further literature).

Another group of discoveries got to the surface in the Upper Prut Region in Bukovina, which by that time was, as Galicia, a province of Austria. The famous site of Schipenitz (Şipeniţ, Sipincy) near Czernowitz (Cernăuţ, Cernovcy, now in Ukraine), called by that time also "the Troy of Bukovina", known from 1893, was researched by the archaeologists Josef Szombathy and Raimund Friedrich Kaindl. The discoveries that were found in Vienna, were later published by V. Gordon Childe (CHILDE 1923, 263-288).

At hundreds of kilometers to the East, on the Middle Dnepr, the Tripolye site becomes known due to the researches of the Ukrainian archaeologist of Czech origin, Vincenc V. Chvoiko (Hvoiko, Chvoika) from 1896-1897, who presented minutely discoveries during the 11th Congress of Archaeologist of Russia, which took place in Kiev in 1899 (CHVOJKO 1901, 730-812).

Finally, in Bessarabia, which by that time belonged, like Ukraine, to the Tsarist Empire, there were remarked in 1902 the vestiges of the Petreni settlement, researched by the archaeologist of German origin Ernst von Stern. For the first time, the archaeologist from Odessa presented his discoveries at the 13th Congress of Archaeologists of Russia, organized in 1905 in Ekaterinoslav (called from 1926 Dnepropetrovsk) (STERN 1907, 9-94).

Thus there was sketched by the beginnings of the 20th century an impressive civilization from the standpoint of both, its painted pottery of rare beauty and its immense territory (approximately 350,000 sq.km). At the West this space comprises both mountainsides of the Eastern Carpathians, while to East it extends, over

¹ Concerning archaeologists, archaeological sites, the history of research of the Ariuşd-Cucuteni-Tripolye culture, with further bibliography, cf. FILIP 1966/1969/1998, s.v.; NOVOHATKO *et alii*, 2004, I, 21-78; II, s.v. Cf. also PETRESCU-DÎMBOVIŢA 1987, 19-27; PETRESCU-DÎMBOVIŢA, VĂLEANU 2004, 11-38; A. LÁSZLÓ 1987, 49-57; 2007, 5-30; 2008, 11-28; URSULESCU, VĂLEANU 2007, 21-62, with further bibliography.

the Podolian and the Moldavian Plateaus, up to the Dnepr basin, that is up to the border of the immense Eastern European Plain.

As we can see, the habitat corresponds to a varied landscape that includes from West to East intermountain depressions, sub-Carpathian areas, hilly and plain zones, with certain particularities as for climatic conditions, vegetation and fauna. This fact shows that the population that created this culture had a great capacity of adaptation to the natural environment. The only ecologic zone that remained unattractive for this world of peasants was the steppe, a fact remarked by specialists for a long time (see below).

Regarded separately in the beginning and called by different particular (regional) names, the discoveries of the groups mentioned above were gradually gathered in a large cultural "circle" or "complex" for which the triple name Ariușd-Cucuteni-Tripolye (with variable order of the three components) was eventually adopted (in fact after the Second World War), based on the name of the three representative sites from the three large areas of this culture: Transylvania, Moldavia and today Ukraine. On the other hand, together with this "integration" process, the civilization we discuss about was gradually delimited from other Central and South-East European Neolithic cultures, marked by the discoveries such as those from Boskovštejn (Moravia), Lengyel (Transdanubia, Hungary), Butmir (Bosnia), Turdaș/Tordos (Transylvania), Vinča (Serbia), Dimini (Thessaly, Greece) etc., with which this culture was often associated, including during the whole period between the World Wars (see for example the quoted literature and the analogies cited for each pottery type of Ariușd settlement in the study of F. László (F. LÁSZLÓ 1927, 1-27).

At the same time, these discoveries were associated for decades with a large cultural circle of linear pottery (Germ. *Bandkeramik*), including several spatial-temporal groups, characterized by pots ornamented with spiral-meandrous motifs created by means of the technique of incision (*Linienbandkeramik*), of stitching (*Stitchband-keramik*) and of painting (*bemalte Keramik*). Some considered that

this culture, due especially to the groups with painted pottery, spread also outside Europe, to the Middle and the East of Asia, up to China and even Japan. We can find variants of the idea about a large circle of linear pottery at the works of many archaeologists, from Paul Reinecke (REINECKE 1896, 289-294; 1900, 10-19), Alfred Götze (GÖTZE 1900, 259-278), Georg Wilke (WILKE 1905, 249-269; 1910), Gustav Kossinna (KOSSINNA 1909, 17-52), Alfred Schliz (SCHLIZ 1910, 105-144), Jaroslav Palliardi (PALLIARDI 1914, 256-277), Moritz Hoernes (HOERNES 1892; 1915) up to the last works of Hubert Schmidt (SCHMIDT 1924a; 1932), just to remind some of them.

In this context, the Ariușd-Cucuteni-Tripolye type discoveries were interpreted as a culture with polychrome painted pottery, with spiral-meandrous decoration of Linear-Bandceramic origin. Thus, Gustaf Kossinna saw in this culture (which he called *osteuropäische bemalte Keramik* – East European painted pottery, related to *siebenbürgische bemalte Keramik* – Transylvanian painted pottery) a prolongation towards the East, across the Carpathians, from Galicia up to the Dnepr, of the Middle Danubian culture with spiral-meandrous decoration (*Donaukultur*) (KOSSINNA 1909, 225-245). Also Hubert Schmidt used for the East European Bandceramic the name *Donau-Dnjestr-Dnjepr-Balkan-Kreis* (Danube-Dnestr-Dnepr-Balkan circle); painted pottery represents the third group of this circle, having a much larger diffusion area towards the East and the South East and possible irradiations up to the Far East (SCHMIDT 1924a, 54-59).

Seen as a determining phenomenon of the European Neolithic, the painted ceramics discoveries, including those of Ariușd-Cucuteni-Tripolye type, acquired from the very beginning a specific place and role in discussions regarding some controversial problems of European prehistory, such as the origin, the primitive homeland and the spread of Indo-European tribes, or the cultural and chronological relations between Europe, the Aegean and the Near East. In this context Gustaf Kossinna expressed his interest for the bandceramic phenomenon in general and especially for the painted pottery. Unfairly forgotten, he was among the first who

achieved, in 1909, in an elite publication of the time, a well-documented overall presentation of the (Cucuteni-) Tripolye culture, in which he saw the East-European heritage of the South Indogermans. After presenting his study as a lecture at the assembly of the German Prehistoric Society in Hannover (July 1908), Kossinna made a study trip of a month and a half to Austro-Hungary and Romania. (We mention that during of his travel, at 13-14 September 1909, Kossinna visited also the Szekler National Museum in Sf. Gheorghe and studied the archaeological discoveries resulted from the recent excavations of Ferenc László in the Ariuşd settlement: CSUTAK, LÁSZLÓ 1910, 19). On the bases of the first hand information that he gathered, Kossinna felt obliged to review some of his initial conclusions (cf. his preliminary note, KOSSINNA 1909, 225-230: *Vorbemerkung*, dated 15.10.1909). It is worth mentioning that he resigned the idea about the existence of incineration urn graves in Bilcze Złote (supposed by Ossowski) and fought the opinions of V. V. Chvoiko and E. von Stern regarding the funerary character of the burned clay platforms with wooden substructures (*ploščadki*), which in reality are part of the vestiges of some settlements, erroneously interpreted by diggers. It is interesting as well the bio-geographical observation of Kossinna, according to which the south border of the spread area of the Tripolye culture, as an agricultural civilization, corresponds to the limit between the black soil zone (as a prolongation towards the East of the Central European loess zone) and the North-Pontic steppe region. As the steppe was populated later, it has no sense – Kossinna sustained (referring to Otto Schrader's theory) – to search there the primitive homeland of the Indogermans. The observation deserves attention as the steppe acquired also later an important role in the theories of V. Gordon Childe or Marija Gimbutas and her disciples, regarding the homeland and spread of the Indoeuropeans.

*

The discovery of cultures with painted pottery presented under a new light the so

controversial problem of the relations between Europe and the Aegean-Near Eastern world, dominated by two diametrically opposed currents. Some (Oscar Montelius, Sophus Müller) underlined the receptor role of the first in relation to the fecundating force of the latter, while others, such as M. Much and H. Schmidt tried to diminish the role of Southern-Eastern influences and even to underline the existence of ethno-cultural impulses in the opposite sense. The power of the invoked arguments depended in a great measure on the stage of knowledge about both, the European and the Aegean-Near Eastern prehistory. The history of that region before the existence of written sources began to be known just in the last decades of the 19th century. Thus, we may explain the fact that the European prehistoric (Neolithic) discoveries were successively related to the Classical Greek-Italic, Trojan and Mycenaean civilizations, and later to a pre-Mycenaean age in the large sense of the word. That is, if cultures with painted ceramics, based on the afferent polished stone tools, were correctly attributed from the beginning to the Neolithic (we should add: defined just in 1865 by John Lubbock), the problem of their age and the antiquity of the European Neolithic in general on the time scale remained uncertain. The first shy evaluations were naturally made according to the earliest information regarding the “barbaric” Europe, including the oldest populations mentioned in written texts, such as Gauls (Celts) in the West or Thracians, Getae, Cimmerians and Scythians in the East, with whom Greeks got in contact. Thus we may explain the search (by A. Kirkov and G. Ossowski, for example) of some links between the painted pottery from Galicia and the Etruscan and/or Greek ceramics. Thus we may also explain the prudence with which the absolute age of such sites was evaluated in the beginning. Carl Gooss dated the Turdaş (Tordos) settlement in the 4th century BC, while George Diamandy, in fact a well informed amateur archaeologist, appreciated that the prehistoric settlement of Cucuteni existed around 400 BC, “when metals were introduced in Dacia” (GOSS 1876, 257-259; DIAMANDY 1889, 599).

An important step for the better under-

standing of these problems will be accomplished due to the researches and the discoveries of Heinrich Schliemann, when there will be an attempt to underline the relations with the newly discovered world of the Trojan and Mycenaean civilizations (said otherwise, with the Aegean Bronze Age). We know well in this aspect the discussions regarding the Turdaș discoveries, begun in the years 70 of the 19th century, but we can also mention the opinions formulated regarding the pottery, that is the cultures represented by the sites of Lengyel, Butmir or from Moravia. As for the discoveries attributed now to the Ariușd-Cucuteni-Tripolye culture, W. Demetrykiewicz thought that the best analogies for the Neolithic painted pottery of Galicia may be found in the ceramics of the oldest graves at the Mycenae necropolis (DEMETRYKIEWICZ 1898, 119). We can remark also that both Grigore Buțureanu and Alexandru Odobescu, in their interventions at the Paris Congress of 1889, referred consequently to the parallelisms between the pottery and statuettes of Cucuteni, on the one hand, and those of Troy and the Mycenaean sites from the Peloponnesus on the other hand (BUTZUREANO 1891; COMPTE-RENDU 1891, 294-298: Discussions). Julius Teutsch considered that the painted pottery discovered in the sites of the Upper Olt, in South Eastern Transylvania, represented a barbarian imitation of the Mycenaean ceramics painting, the anthropomorphic statuettes presenting as well analogies, among others, with the Mycenaean statuettes (TEUTSCH 1904, 224). We should add that Teutsch considered that these sites may be attributed to the Thracians. The idea is not new: by projecting into the far past the oldest historical data regarding the inhabitants of Transylvania, Zsófia Torma, three decades before Teutsch, declared to accept the Thracian character of the Turdaș population, as well as of the inhabitants of Troy, who were considered to be related to. Such an idea was known by Schliemann and Schmidt too (A. LÁSZLÓ 1990, 313-323; 1991, 37-51)

It is easy to observe that at this stage of researches and archaeological thought, the European Neolithic, more precisely the cultures with painted pottery from the central

and eastern regions of the continent, were synchronized (in terms of nowadays chronology) with the Aegean late bronze age. It is evident as well that such a gap would be difficult to admit even by the adepts of the “*ex Oriente lux*” approach, but resigning to it was conditioned, first of all, by the knowledge of the oldest periods of the Aegean prehistory. An impediment in this respect was represented by the wrong interpretation of the stratigraphy of Troy: H. Schliemann was convinced up to the end of his life that the city of Priam, celebrated by Homer, corresponds to the “burned city” of the Troy II layer. Practically only the excavations of Wilhelm Dörpfeld from 1893-1894, extended as well on the margins of the settlement, could prove that the Mycenaean pottery, of the same type of discoveries from Southern and Central Greece, appear just from the layer Troy VI, uncovered by him, and that only this settlement (or Troy VIIa, as W. Blegen estimated it later) could be identified with the “Homeric Troy”, contemporaneous with Mycenae and Tiryns. It was clear thus that the layers I-V of Troy belong to an older period of the Bronze Age, which preceded the existence of the Mycenaean civilization. The knowledge concerning a pre-Mycenaean period were later consolidated, at the beginning of the 20th century, by the excavations of Arthur Evans at Knossos, as well as of Christos Tsountas at Sesklo and Dimini, which lead to the discovery of the Minoan civilization, as a direct predecessor of the Mycenaean civilization, as well as to highlighting the Cretan and Thessalian Neolithic, as local antecedents for the Bronze Age in Greece.

*

Hubert Schmidt, who just began to study the painted pottery of Eastern Europe, was among the first archaeologists who realized that the Danube and Balkan Neolithic was earlier not only than the Mycenaean civilization, but even than the older period of the Aegean Bronze Age, represented by layers III-V and partially by stratum II of Troy. Thus he exposed his opinions regarding the chronological and cultural relations between the world of painted pottery of Ariușd-Cucuteni type and the Aegean civilization.

After getting informed about the discoveries in South-Eastern Transylvania, in 1904 he visited the archaeological collection of Julius Teutsch in Braşov. (He also studied personally, two years before the Turdaş-collection of Zsófia Torma.) In use of knowledge H. Schmidt rejected J. Teutsch's opinion, according to which the neolithic painted pottery from the Upper-Olt region would be imitations of Mycenaean ceramics painting. They have nothing in common – said Schmidt – as Mycenaean painted pottery are much more recent and the two painting styles are totally different from the technical point of view (SCHMIDT 1904, 608-656; 1904a, 145-146).

It seems that the terms pre- (and proto-) Mycenaean were introduced in European archeology by Sophus Müller (MÜLLER 1905), and were used later for several decades in order to define chronologically and culturally some finding groups, including discoveries with painted pottery. Thus Ernst von Stern, in the German text of his work regarding the discoveries at Petreni, Bessarabia, speaks about a *Pre-Mycenaean culture* in the south of Russia (STERN, 1907), which clearly shows how much the vision about the relation between the painted pottery culture of Eastern Europe and the Aegean world had changed.

A little later, Ferenc László, who in 1907 made the first methodical excavations in the Ariuşd settlement (and therefore in a settlement of the Ariuşd-Cucuteni-Tripolye culture in general), even in the title of his first more important publication about the painted pottery discoveries in South-Eastern Transylvania, referred to settlements from the *Pre-Mycenaean period*, and in the first sentence of the work he says that “At the end of the Neolithic, when the man began to know metals, the territory of the Háromszék [Treiscaune, Three Sees] county was inhabited by a population whose relatively high civilization belonged to the circle of the Pre-Mycenaean culture”. The vestiges discovered in the last (latest) layer of the Ariuşd prehistoric settlement was attributed to a more recent culture, from the transition period into the Bronze Age, which was reported at the *Proto-Mycenaean period* of the Aegean. As for the absolute chronology,

F. László initially appreciated, that the discoveries of painted pottery of Ariuşd type are around 4000 years old, but later he “raised” this dating to around 2500 BC, which entirely corresponded to the chronological evaluations for the late Neolithic of that time (F. LÁSZLÓ 1911, 175; 1911a; 1927, 2).

*

Hubert Schmidt approached the problems of the painted pottery culture of Ariuşd-Cucuteni-Tripolye type from the more general perspective of European and Aegean-Near Eastern prehistory (SEGER 1932, 375-377). After ending his studies, as stipended of the German Institute of Athens, he participated in 1893-1894, together with Alfred Götze, in the Troy excavations, conducted after H. Schliemann's death (1890) by Wilhelm Dörpfeld. Then he processed and published the collection of Trojan antiquities of Schliemann (SCHMIDT 1902). In 1902 he participated in the works of the German archaeological mission in Sendschirli (North Syria), conducted by Felix von Luschan, and in 1904 in the expedition of the American R. Pumpelly in the Russian Turkmenistan. During this expedition he excavated two tell-settlements near Anau Tepe (“Nordkurgan”, “Südkurgan”), at the North side of Kopet Dag mountains, which became eponymous sites of the Neolithic Anau culture with painted pottery. In the first years of the twentieth century he gave more and more attention to the Central and Eastern European Neolithic and to its links with the South and the East. He studied the Turdaş discoveries of Zsófia Torma, especially the signs and symbols on the pottery, which were so controversial in the archeology of that time. In 1902 he succeeded to visit the Zsófia Torma collection, bought by the Transylvanian Museum Society (Erdélyi Múzeum Egyesület) and transferred from Orăştie (Szászváros/Broos) to Cluj (Kolozsvár/Klausenburg) in 1901 after the death, in 1899, of the Turdaş site researcher. To Schmidt we owe a special study about Turdaş and the first scientific classification of the group of signs that are characteristic for this culture and provoke still today fiery discussions (SCHMIDT 1903, 438-469). Through J. Teutsch's publications, Schmidt found

about the painted pottery discoveries from South-Eastern Transylvania and in 1904 he even visited the collection of the amateur archaeologist from Brașov, with whom he had a dispute about the relations between the painted pottery from the Upper Olt Valley and the Mycenaean ceramics painting (SCHMIDT 1904a, 145-146). He had interest, in the same measure, for the Cucuteni type discoveries, which became known in the scientific community through the publications mentioned before of Buțureanu and Diamandy and introduced in German specialized literature by Bosshard as early as 1890 (SCHMIDT 1932, 1-2 and passim).

With all this knowledge and terrain experience and in order to understand the connections between the European and West-Asian painted pottery, Schmidt formulated the hypothesis that the European linear pottery circle, due especially to the spread to the south of the spiral-meandrous polychrome painted pottery (particularly which would be called Cucuteni A style), could get into contact in the North Aegean region with cultures of "textile style" painted pottery from Thessaly (Sesklo) and the East (Susa, Anau), contributing to the formation of the Dimini style (culture), of the second period of the Thessalian Neolithic (Steinkupferzeit, Chalcolithic, Aeneolithic) (SCHMIDT 1904, 608-656; 1905, 890-891; 1907, 121-136; 1924a, 54-63; 1932, 97-101 and passim). In order to study up to the end these relations based on first hand sources, he decided, after his researches in Asia Minor, Syria and Central Asia, to carry out personally archaeological excavations in a settlement of painted pottery cultures from Eastern Europe too. He chose the Cucuteni site, which was already well known in the scientific world and, thanks to his insistence, he obtained the permission from the Romanian authorities to excavate to Cucuteni. As it is known, there were two campaigns (1909-1910) in Cucuteni at the hill of *Cetățuie*, and more summary researches at the valley settlement ("Talsiedlung") of *Dâmbul Morii*, and finally the excavations made in Sărata Monteoru (North-Eastern Wallachia), in 1917-1918 (SCHMIDT 1911, 582-601; 1924, 348-355; 1932).

*

Thus the first systematic excavations in the two eponymous settlements of the culture began in the first decade of the 20th century, first in Ariușd in 1907 and then in Cucuteni in 1909. We do not intend now to analyze comparatively the excavations made in the two sites that represent without any doubt different approaches about the methods and objectives of the archaeological research. In a simplified way we could call such conceptions "paleoethnological" (or cultural-anthropological) in the case of F. László and cultural-historical (or even historicizing) in the case of H. Schmidt (A. LÁSZLÓ 2007, 5-30). We would like to analyze just an aspect, that remained somehow in the shadow, of Hubert Schmidt's research: in what measure he attained his initial purpose sketched above and in what measure his final conclusions, partially wrong, could have been influenced by the premises he started from and by his historicizing approach? In what measure or how right can be assertions like the following: "His excavations in the eponymous site of Cucuteni (1909-1910), followed by the interpretation and presentation of the material in a large monograph (SCHMIDT 1932) *decisively explained the problem of the place of Cucuteni culture in the European Neolithic and established its internal evolution*" (URSULESCU, VĂLEANU 2007, 26; our underlining, A. L.). We could start our discussion from the very title of the study, which (because of reasons we may just suspect) is cited very rarely in its full form: *Cucuteni in der oberen Moldau, Rumänien. Die befestigte Siedlung mit bemalter Keramik von der Steinkupferzeit bis in die vollentwickelte Bronzezeit* (i.e.: Cucuteni in Upper Moldavia, Romania. The Fortified Settlement with Painted Pottery from the Chalcolithic up to the Fully Developed Bronze Age). How is it possible that Hubert Schmidt, who initially established in a correct way the priority of the European Neolithic, including the Ariușd type painted pottery from South-Eastern Transylvania, in comparison with the Mycenaean period and with most of the Aegean Bronze Age, represented by the Trojan stratigraphy, could eventually sustain, after the Cucuteni and Sărata Monteoru

excavations, that the existence of the painted pottery culture lasted up to the full Bronze Age, turning back in a certain measure to certain ideas that were in "fashion" by the end of the 19th century?

It is now a common place in Romanian archaeological literature to talk about Hubert Schmidt's merit to establish the internal evolution of the Cucuteni culture, or said in a more nuanced way, to set the bases for the division into periods of this culture. He has indeed the irrefutable merit of establishing and describing in detail the two main painting styles, Cucuteni A and Cucuteni B, establishing as well on stratigraphic bases their relative chronology relation. A finer division of Cucuteni culture evolution remained the task of later researches, as Hubert Schmidt showed little interest for the internal structure of this two large archaeological strata at the *Cetățuie* and their relation with the vestiges of the "valley settlement" ("Talsiedlung") from *Dâmbul Morii*. The stylistic groups α , β , γ , δ , ϵ and ζ , defined by Schmidt, were attributed to Cucuteni B culture and their chronological differentiation was proposed only on the bases of their association with pottery of C, D and E type, without any attempt to resort to the (vertical, horizontal and compared) stratigraphic data, used especially after the resumption of excavations in Cucuteni in 1960 (cf. PETRESCU-DÎMBOVIȚA, VĂLEANU 2004). H. Schmidt considered that the Cucuteni height settlement (*Cetățuie*) was inhabited without interruption and that between the two cultures (phases), i.e. the painting styles A and B, there was a perfect continuity (SCHMIDT 1924a, 57; 1932, 105). This idea was not so evident for other researchers of the time (such as H. Frankfort and I. Nestor), who considered the possibility of an independent evolution of Cucuteni B style (NESTOR 1933, 40). Even Hubert Schmidt took into consideration at a certain moment the existence of one or more intermediary stylistic phases ("Stilzwischenstufen"), with various spiral band motives, in which the white color partially holds the main importance (as white painting/Weissmalerei), partially plays a secondary (accompanying) role only and gradually disappears (SCHMIDT 1924a, 57). In the quoted place, he discusses

only about the older, newer and intermediary stylistic phases, but in the chronological table 2 these phases are presented with the names Cucuteni A, A-B and B (even B1-B2) and are situated in the context of Neolithic and Bronze Ages cultures of Europe, compared to Mediterranean and Oriental civilizations, as well as with the Egyptian dynasties (cf. SCHMIDT 1924a, 42-43: *Zeittabelle 2. Jüngere Stein- und Bronzezeit. Versuch einer Parallelisierung von Europa und Orient*). In the settlement monograph, the pottery of A and B cultures are thoroughly described, including the stylistic groups α - ζ (SCHMIDT 1932, 14-42); as concerns an A-B phase (or style) only vague can be found (p. 107), as well as indirect references (p. 108, where he speaks, referring to the discoveries in Ariușd, about a Cucuteni A style polychrome painting on pottery forms of the transition phase A-B).

According to Schmidt's ideas, style A appears in Cucuteni as a fully developed style and therefore its formation precedes the beginning of the eponymous settlement. Thus the German archaeologist considers that the evolution of the culture (at long term of course) can be followed up in the West, through the Tisza and Bükk cultures (where the pottery painting has its origin), up to the Early Neolithic linear pottery and that, thus, the founders of the Cucuteni settlement can be considered as representatives of an Eastern branch of the Bandceramic (SCHMIDT 1932, 82-87, 97, 104-105). The Cucuteni A type culture with its polychrome pottery with spiral-meandrous ornamentation, attributed to the Aeneolithic/Chalcolithic (Steinkupferzeit), exerted its influence up to the Northern Aegean (where, together with the Anau culture, contributed to the formation of the Dimini style/culture on the ground of the Sesklo culture). Besides that, through Thessaly, its influence spread up to Crete, determining, among other things, the apparition of the spiral decoration in the Middle Minoan period (SCHMIDT 1932, 97-104, 117-119, 123). Taking into consideration these connections with the Near East and Crete (and indirectly, through the latter, with Egypt), Schmidt proposed as the *terminus ante quem* for the beginning of existence of Ariușd and of the Cucuteni A style the year 2500 BC (i.e. a dating within the first half of the 3rd

millennium BC), and for the beginning of the Cucuteni settlement he proposed approximately 2500 BC (SCHMIDT 1932, 104-105). In his book published in 1924 the author operates with higher data, considering that the Danubian – Balkan Bandceramic with polychrome painting arrives to the Northern Greece by the end of the 4th millennium – beginning of the 3rd millennium, which rounded means by 3000 BC. The flourishing period of the pottery painting within the circle of the Danubian-Balkan Bandceramic can be situated even in the 4th millennium or in the limit between the 4th and 3rd millennium, while the Aeneolithic/Chalcolithic (Steinkupferzeit) of Central Europe can be dated mainly in the first half of the 3rd millennium BC (SCHMIDT 1924a, 68; cf. as well the chronological table 2, p. 42-43).

We can just suspect that the lowering of the dating, presented in the settlement monograph, can be linked to the attempt to reduce the time distance between the Cucuteni A and Cucuteni B periods, proposing for the last a very late date. We find interesting (and very difficult to explain) that while discussing the Cucuteni A culture (style) he resorted to a connection system that was credible for the stage of the research by that time, the “statute” of Cucuteni B culture, which dates in the Bronze Age, was judged according to criteria without consistency. The fact is even more surprising as the Cucuteni A pottery (and its corresponding period) was relatively poorly known by that time, especially in the extra-Carpathian areas, while for the Cucuteni B period/style more information existed, due to publications such as those about Petreni and Schipenitz.

In his preliminary report, Schmidt speaks about Cucuteni as a fortified settlement, characterized by painted pottery of *Neolithic* nature, in which he distinguished two styles, Cucuteni A and B (SCHMIDT 1911, 582-601). This optic will be changed after the Sărata Monteoru excavations, as Schmidt did not understand the stratigraphy of the site and therefore interpreted the results in a wrong way. From now on, he will begin to sustain that the evolution of the cultural groups with painted pottery from South

Eastern Europe lasts up to the *full Bronze Age* and to treat the discoveries of Cucuteni B type from the eponymous site and from Sărata Monteoru “under the light of the prehistory of the Aegean circle” (SCHMIDT 1924, 348-355). The first proof of such a dating were for Hubert Schmidt the discoveries from Sărata Monteoru, where “the more recent stylistic phase of Cucuteni painted pottery appears as importation in the circle of knobbed pottery [Buckelkeramik] from the Bronze Age in the Lower Danubian and Balkan countries”. These discoveries would demonstrate thus that the latest painted Cucuteni pottery is contemporaneous to the Monteoru culture, which in his turn belonged to the circle of knobbed pottery/Buckelkeramik (SCHMIDT 1924a, 57-58, 89). Then, from the first page of the Cucuteni monograph, we may read that “the most important piece discovered so far, decisive for the problem of the settlement duration, is an insignificant fragment of a bowl with foot of monochrome gray color worked on the wheel [graumonochrome Fusschale in Scheibentechnik]”. The real value of this pottery fragment was understood – Schmidt continues – only after the Sărata Monteoru excavations from 1917 – 1918, “which lead to a surprising result: the totally different culture of Sărata Monteoru from the Bronze Age was overlapped at the Citadell Hill [Burgberge] (Akropolis) by pit-houses [Wohngruben] with painted pottery identical to a certain group of pots of the Cucuteni B phase” (SCHMIDT 1932, 1-2; the bowl fragment: plate 36/1a-b). If he initially talked about Cucuteni B importations in the Monteoru culture (see above), he now sustains that the Bronze Age inhabitants of Sărata Monteoru were expelled by the Cucuteni culture people (not necessarily by those from the eponymous site), who settled in their place (SCHMIDT 1932, 96).

In the monograph, the bowl with foot is presented as part of the foreign pottery of type E and is considered an object of importation from the Aegean circle, belonging to the category of the so called Mynyan pottery. The author was convinced that the stratigraphic position of the piece is certain and that this fragment could be linked with the earlier period of Cucuteni B culture, not affected yet by the apparition of C type

pottery. Discussing the analogies of Troy (VI) and the Mycenaean world, Schmidt appreciates that the utilization period of this type of pot corresponds to the period of the Mycenaean shaft graves and chamber tombs from the 16-14th centuries BC. For the presence of this pot in Cucuteni, the author has in mind an average date, 15th century BC, which would match best the existence of style groups γ and δ of Cucuteni B pottery. Pottery painting of ϵ and ζ styles, continues also after the end of the 15th century (1500), together with the Cucuteni C type pottery, attributed to some "barbarian immigrants" from the "Far North". This is the decline period of the Cucuteni B painted pottery, which will end its existence in the conditions of the great cultural and ethnic changes of the South-Eastern Europe and Asia Minor at the confines of the 13th and 12th centuries BC, when the powerful Mycenaean civilization too was victim of the penetration of a new Greek population. As a conclusion, the author appreciates that the existence period of the Cucuteni settlement with painted pottery could be situated between 2500 and 1200 BC (SCHMIDT 1932, 45, 87-88, 96)

The different way in which both periods A and B of the Cucuteni painted pottery are considered was determined undoubtedly by the Hubert Schmidt's approach to the relation between Europe and the Aegean, relations that changed during prehistory. He sustained until the end of his life that in the "Subneolithic" period and in the early metal age, during the 3rd millennium BC the Danubian-Balkan population, creator of the spiral-meandrous decoration and of the polychrome painted pottery, exerted its influence on the Aegean world, including through migrations. These influences could be felt beyond Thessaly, up to Crete. That is: by that time (which corresponds also to Cucuteni A period), in the relations between the two regions, the South was the receiving party. In the following period, under the influence of Eastern civilizations and of Egypt, the Aegean circle made important progresses, through which it surpassed the Danubian-Balkan circle and determined the inversion of nature of the relationship between the two circles during the fully

developed Bronze Age, i.e. in the 2nd millennium BC. By this time, not only the related Monteoru and Vattina cultures, but also the Cucuteni B culture, considered to be contemporary, were submitted to Mycenaean influences. In this sense, as proof of the influences of the Cretan-Mycenaean influences, besides the Mynyan bowl with foot that we already mentioned, there are taken into consideration also the pieces of miniature clay furniture (chairs and tables, associated to seating statuettes), discovered in Cucuteni, which prove an advanced life style (cf. above, and SCHMIDT 1932, 63-71, 123-124: *Schlusswort*). Schmidt rejected, however, the attempts to explain also through Mycenaean influences the spread in Danubian regions of the spiral-meandrous ornament in the Bronze Age. This style is here directly inherited – Schmidt sustains – from the Neolithic cultures, as can be proved by the survival of the Cucuteni B painted pottery until the full Bronze Age (SCHMIDT 1924a, 88-89).

*

Some of Hubert Schmidt's conclusions were corrected still in that time. At Sărata Monteoru excavations were resumed in 1926-1927 by Ioan Andrieşescu, assisted by Ion Nestor. There were discovered houses deepened in the natural soil, which contained only Cucuteni B type materials. Some of them were superposed and even "cut through" by pits of the Monteoru culture. It became clear that Cucuteni B habitation precedes the apparition of Monteoru culture, without excluding at that stage of researches the possibility of contact between the two cultures. Anyway, unlike Hubert Schmidt's opinion that the existence of the Cucuteni B type culture lasted until the fully developed Bronze Age, now it is admitted as possible that a belated facies of the Cucuteni B culture evolved to the brink of the early Bronze Age (NESTOR 1933, 49, 94-95).

As for the absolute chronology, the Mynyan pottery is still used for a time as a reference point, but there are taken into consideration higher dating proposed by Arthur Evans, according to which the Mynyan pottery is best represented in Greece during the Middle Minoan period II (approximately 1900 – 1700 BC. We note fugitively that now

the Gray Minyan Ware is principally dated in the Aegean MBA, ca 2050/2000-1680 BC; cf. CULLEN 2001, 33, 60, 106, 137, 270, 306). Ion Nestor appreciated thus that the Cucuteni A phase existed before the 19th century BC, in which the limit between phases A and B of Cucuteni culture can be placed (NESTOR 1933, 50-51). In the case of the Monteoru culture there are discussed possible connections with the Mycenaean world beginning with the 16-15th centuries (NESTOR 1933, 98), from which it results indirectly that the evolution of Cucuteni B culture cannot surpass the 17th century BC. That means a shortening of the existence of Cucuteni culture by half a millennium compared to the date proposed by Hubert Schmidt (around 1200 BC). This chronological setting of the end of the Cucuteni culture, imagined by Ion Nestor in the same time of the publication of Schmidt's monograph, is much nearer to the reality and was never essentially modified until there were introduced and accepted the (conventional, then calibrated) radiocarbon age determinations from the years 70 of the last century.

*

We shall finish here our incursion (with the words of Marcel Proust) "in the searching for lost time" of the Cucuteni culture. We will just remark that the idea of synchronizing the European (Ae)neolithic, including the Cucuteni culture, with the Aegean-Anatolian (Early) Bronze Age can be observed until the 60's and 70's of the 20th century. It is enough to remind as an eloquent example the attempts to correlate *en violon* idols (also called "of Trojan type") of Cucuteni A culture with those discovered in the second settlement at Hissarlik hill (i.e. Troy II. The problem was presented with afferent bibliography by Dan Monah (MONAH 1997, 135-144). As concerns the absolute chronology, see DAICOVICIU *et alii* 1960, where the late Neolithic, in which also Cucuteni culture is included, is dated between 2800 and 1900 by D. Berciu (p. 53-60) and VI. Dumitrescu (p. 60-70), the transition period to the Bronze age between 1900 and 1700 by D. Berciu (p. 71-82), and the Bronze Age beginning with 1700 BC by I. Nestor (p. 93-98). As for the "Minyan" pottery fragment, it is evident that

this bowl with foot, made on the wheel, has no link with Cucuteni culture vestiges but is much more recent. We expressed our opinion four decades ago that it could be a pottery fragment from the Late Iron Age (A. LÁSZLÓ 1969, 91-92, fig. 2) which also is represented at the *Cetățuie* of Cucuteni, including through typical La Tène fibulas (SCHMIDT 1932, 45, 63, Plate 30/17-23).

Bibliography

- BUTZUREANO Grigore C.
1891 *Notes sur Coucuteni et plusieurs autres stations de la Moldavie du Nord*, in vol.: *Congrès International d'Anthropologie et d'Archéologie Préhistoriques. Comptendu de la dixième session à Paris 1889*, Paris, p. 299-307.
- CHILDE V. Gordon
1923 *Schipenitz: a Late Neolithic Station with Painted Pottery in Bukovina*, JRAI, LIII, p. 263-288.
- CHVOJKO Vikentij V.
1901 *Kamennyj vek srednego Pridneprov'ja*, in vol.: *Trudy XI. Archeologičeskogo s'ezda v Kieve 1899*, 1, Moskva, p. 730-812.
- COMPTE-RENDU
1891 *Congrès International d'Anthropologie et d'Archéologie Préhistoriques. Comptendu de la dixième session à Paris 1889*, Paris.
- CSUTAK Vilmos, LÁSZLÓ Ferenc
1910 *Jelentés a Székely Nemzeti Múzeum 1908-1909. évi állapotáról*, Sepsiszentgyörgy.
- CULLEN Tracy (ed.)
2001 *Aegean Prehistory. A Review*, Boston.
- DAICOVICIU Constantin *et alii* (coord.)
1960 *Istoria României*, vol. I, București.
- DEMETRYKIEWICZ Włodzimierz
1898 *Galiczia őstörténete*, in vol.: *Az Osztrák-Magyar Monarchia írásban és képen*, XVI (*Galiczia*), Budapest, p. 11-136.
- DIAMANDY George
1889 *Station préhistorique de Coucuteni (Roumanie)*, BSAP, 3, t. 12, fasc. 4, p. 582-599 (also in: URSULESCU, VĂLEANU 2007, p. 42-57).
- FILIP Jan (ed.)
1966/1969/1998 *Enzyklopädisches Handbuch zur Ur- und Frühgeschichte Europas*, vol. I, II, III (Addenda, ed.: J. Hrala), Prag.

- GOOSS Carl
1876 *Chronik der archäologischen Funde Siebenbürgens*, AVSL, 13, 2, p. 203-338.
- GÖTZE Alfred
1900 *Die Gliederung und Chronologie der jüngeren Steinzeit*, ZfE, 32, p. 259-278.
- HOERNES Moritz
1892 *Die Urgeschichte des Menschen nach dem heutigen Stande der Wissenschaft*, Wien-Pest-Leipzig.
1915 *Urgeschichte der bildenden Kunst in Europa von den Anfängen bis zum 500 v. Christ²*, Wien.
- KOSSINNA Gustav
1909 *Der Ursprung der Urfinnen und der Urindogermanen und ihre Ausbreitung nach dem Osten*, Mannus, 1, p. 17-52, 225-245, Pl. XXII-XXXIV.
- LÁSZLÓ Attila
1969 *Elemente keltischen Ursprungs in der dakisch-getischen Siedlung von Băiceni. Einige Bemerkungen bezüglich der „keltischen“ Entdeckungen in der Moldau*, AȘUI-Istorie, XV, 1, p. 89-97.
1987 *Un chapitre de l'histoire de la recherche de la civilisation Ariușd-Cucuteni-Tripolie: les fouilles d'Ariușd dans le premier quart du notre siècle*, in vol.: *La civilisation de Cucuteni en contexte européen* (éds.: Mircea Petrescu-Dîmbovița et alii), BAI I, Iași, p. 49-57.
1990 *Troia și arheologia preistorică europeană la sfârșitul sec. XIX și începutul sec. XX. O evocare. In memoriam Henrici Schliemann et Sophiae Torma*, SympTh, 8, p. 313-323.
1991 *Un pionnier de la recherche de la civilisation Turdaș-Vinča: Zsófia Torma*, Banatica, 11, p. 37-51.
2007 *A XX. század eleji erődí ásátások és a Cucuteni-Tripolje kultúra kutatásának kezdetei. Bevezető sorok László Ferenc, Az erődí edények típusai című tanulmányához – Ariușd archaeological excavations from the beginning of the XXth century and the debut of the Cucuteni-Tripolie culture research. An introduction to Ferenc László's study, The types of pottery from Ariușd (Erődí), Dolgozatok Ú.S., II (XII), p. 5-30.*
- 2008 *Il mondo di Cucuteni. Lo spazio e il tempo di una civiltà preistorica*, in vol.: *Cucuteni. Tesori di una civiltà preistorica dei Carpazi. Atti del Convegno talo-Romeno, Roma, 18 ottobre 2007* (a cura di: Nicolae Ursulescu, Raluca Kogălniceanu, Cristina Crețu), Iași-Roma, p. 11-28.
- LÁSZLÓ Ferenc
1911 *Háromszék vármegyei praemykenaei jellegű telepek – Stations de l'époque pré-mycénienne dans le comitat de Háromszék*, Dolgozatok, II, p. 175-259.
1911a *Négyezer éves kultúra emlékei Háromszék vármegyében*, Sepsiszentgyörgy.
1914 *Ásatások az erődí őstelepen (1907-1912). I. Közlemény – Fouilles à la station primitive de Erődí (1907-1912). I.*, Dolgozatok, V, p. 279-417.
1927 *Les types de vases peints d'Ariușd (Erődí), Dacia, I (1924), p. 1-27.*
- MONAH Dan
1997 *Plastica antropomorfă a culturii Cucuteni-Tripolie*, BMA III, Piatra-Neamț.
- MÜLLER Sophus
1905 *Urgeschichte Europas. Grundzüge einer prähistorischen Archäologie*, Strassbourg.
- NESTOR Ion
1933 *Der Stand der Vorgeschichtsforschung in Rumänien*, BRGK 22, p. 11-181.
- NOVOHATKO L.M. et alii (ed.)
2004 *Enciklopedija Tripil'skoj Civilizacii*, vol. I (eds.: M.Ju.Videjko, N.B.Burdo); vol. II (eds.: S.M. Ljasko, N.B. Burdo, M.Ju. Videjko), Kiiv.
- ORBÁN Balázs
1869 *A Székelyföld leírása történelmi, régészeti, természetrajzi s népismeri szempontból*, vol. III, Pest.
- PALLIARDI Jaroslav
1914 *Die relative Chronologie der jüngeren Steinzeit in Mähren*, PZ, p. 256-277.
- PETRESCU-DÎMBOVIȚA Mircea
1987 *L'importance des fouilles archéologiques de Cucuteni*, in vol.: *La civilisation de Cucuteni en contexte européen* (éds.: Mircea Petrescu-Dîmbovița et alii), BAI I, Iași, p. 19-27.
- PETRESCU-DÎMBOVIȚA Mircea, VĂLEANU Mădălin-Cornel
2004 *Cucuteni-Cețățuie. Monografie arheologică*, BMA XIV, Piatra-Neamț.
- REINECKE Paul
1896 *A neolithkori szalagdísű kerámika magyarországi csoportja – Die ungarländische Gruppe der neolithischen bandverzierten Keramik*, AÉ, XVI, p. 289-294.
1900 *Die südöstlichen Grenzgebiete der neolithischen bandverzierten Keramik*,

- CorrespondenzblattDGAEU, p. 10-16.
- SCHLIZ Alfred
1910 *Die Systeme der Stichverzierung und des Linienornaments innerhalb der Bandkeramik*, PZ, II, p. 105-144.
- SCHMIDT Hubert
1902 *Heinrich Schliemanns Sammlung Trojanischer Alterthümer*, Berlin.
1903 *(Über) Tordos*, ZfE, 35, p. 438-469.
1904 *Troja-Mykene-Ungarn. Archäologische Parallelen*, ZfE, 36, p.608-656.
1904a *(Über) die spätneolithischen Ansiedlungen mit bemalter Keramik am oberen Laufe des Altflusses*, ZfE, 36, p. 145-146.
1905 *Nachtrag zu „Troja-Mykene-Ungarn“*, ZfE, 37, p. 890-891.
1907 *Beiträge zur Kenntnis und zum Verständnis der jungneolithischen Gefäßmalerei Südost-Europas*, ZfE, 39, p. 121-136.
1911 *Vorläufiger Bericht über die Ausgrabungen 1909-1910 in Cucuteni bei Jassy (Rumänien)*, ZfE, 43, p. 582-601.
1924 *Die Ausgrabungen von Cucuteni und Sărata Monteoru im Lichte der ägäischen Vorgeschichte*, AA, I-II (1923-1924), p. 348-355.
1924a *Vorgeschichte Europas. Grundzüge der alteuropäischen Kulturentwicklung*, vol.I, *Stein- und Bronzezeit*, Leipzig und Berlin.
1932 *Cucuteni in der oberen Moldau, Rumänien. Die befestigte Siedlung mit bemalter Keramik von der Stein-kupferzeit bis in die vollentwickelte Bronzezeit*, Berlin-Leipzig.
- SEGER Hans
1932 *Hubert Schmidt (Nachruf)*, PZ, 23, p. 375-377.
- STERN Ernst von
1907 *Doistoričeskaja Grečskaja kul'tura na Juge Rossii – Die prämykenische Kultur im Südrussland*, in vol.: *Trudy des XIII. Russ. Arch. Kongresses zu Jekaterino-slav 1905*, Moskau, p. 9-94.
- TEUTSCH Julius
1900 *Prähistorische Funde aus dem Burzenlande*, MAGW, XXX, p. 189-202.
1903 *Die spätneolithischen Ansiedlungen mit bemalter Keramik am oberen Laufe des Altflusses*, MPKKAW, p. 365-399.
1904 *Festett kerámika az oltmelléki őstelepekről*, AÉ, 24, p. 221-227.
1907 *Zur Charakteristik der bemalten neolithischen Keramik des Burzenlandes*, ZfE, 39, p. 108-120.
- URSULESCU Nicolae, VĂLEANU Mădălin-Cornel
2007 *Debutul culturii Cucuteni în arheologia europeană*, in vol.: *Dimensiunea europeană a civilizației eneolitice est-carpatică* (ed.: N. Ursulescu), Iași, p. 21-62.
- WILKE Georg
1905 *Beziehungen der west- und mittel-deutschen zur donauländischen Spiral-Mäander-Keramik*, MAGW, XXXV, p. 249-269.
1910 *Spiral-Mäander Keramik und Gefäßmalerei. Hellenen und Thraker*, Mannus-Bibliothek 1, Würzburg.

CARL SCHUCHHARDT: NOTES SUR LES DÉBUTS DE LA RECHERCHE ARCHÉOLOGIQUE À CUCUTENI

OCTAVIAN BOUNEGRU*

Mots clefs: *Carl Schuchhardt, Hubert Schmidt, recherches archéologiques, Cucuteni.*

Cuvinte cheie: *Carl Schuchhardt, Hubert Schmidt, cercetări arheologice, Cucuteni.*

Résumé. *Carl Schuchhardt a été toujours intéressé par les recherches archéologiques de Roumanie, en contribuant au renforcement des liens entre les écoles archéologiques allemande et roumaine. Grâce à la sollicitation de celui-ci Hubert Schmidt, à l'époque conservateur-chef des Musées Impériales de Berlin, a commencé en 1909 les fouilles de Cucuteni.*

Rezumat. *Dintr-un volum de memorii, publicat de Carl Schuchhardt, rezultă o contribuție esențială a acestui mare arheolog german la începerea primelor cercetări arheologice în așezarea eponimă de la Cucuteni. Este vorba despre sprijinul pe care Schuchhardt l-a acordat lui Hubert Schmidt, în anul 1909, pentru ca acesta să poată începe săpăturile de la Cucuteni.*

C'est l'année 1878 qui a représenté un moment déterminant pour la grande ouverture vers les recherches du domaine de l'archéologie classique, par une conjoncture qui n'a pas été encore suffisamment mise en évidence dans l'histoire de l'archéologie. La Paix de Berlin (1878), au-delà de son importance politique, a eu des conséquences favorables en ce qui concerne l'exploration des monuments archéologiques de l'Empire Ottoman et surtout ceux du littoral occidental d'Anatolie. En ce sens, on remarque le début, même de l'automne de 1878, des fouilles de Pergame (sous la direction de C. Humann et A. Conze), qui ont mené à la découverte des vestiges du célèbre *autel de Zeus*. Avant 1878 l'autorisation de fouiller à Pergame avait été plusieurs fois ajournée. L'intérêt provoqué par ces découvertes reflète les dimensions de la politique culturelle d'Allemagne des temps wilhelmiens. D'ailleurs, dans ces circonstances on constate une réorientation d'intérêts du

monde scientifique européen, d'Italie et de Gaule vers les antiquités gréco-romaines d'Égée et d'Anatolie; c'est l'époque de grandes découvertes archéologiques de Samothrace, d'Olympie, de Samos, de Milet, de Didyme et d'Ephèse.

Indirectement, la Paix de Berlin a également déterminé des changements substantiels, du point de vue quantitatif et qualitatif, dans la recherche archéologique de Roumanie. Longtemps, l'archéologie roumaine a été orientée surtout vers les époques pré- et protohistoriques, parce que la plupart de l'ancienne province romaine de Dacie, ainsi que la Mésie Inférieure, étaient sous l'occupation étrangère (l'Empire des Habsbourgs, respectivement Ottoman). Après l'union de la Dobroudja avec le Royaume de la Roumanie (1878), cette riche région archéologique, surtout en ce qui concerne les vestiges greco-romains, est devenue un important terrain d'exploration (VULPE 1928, 117-144). Les vastes champs de ruines existant sur la rive droite du Danube et sur le littoral pontique de la Dobroudja ont retenu l'attention du professeur Grigore Tocilescu, à juste raison considéré comme le fondateur de

* Université "Alexandru Ioan Cuza" de Iași,
e-mail: octavian_bounegru@hotmail.com

l'archéologie de terrain en Roumanie (AVRAM 1992, 139-144). Gr. Tocilescu a saisi au premier moment le bénéfice d'une collaboration, pour l'étude des antiquités classiques de Dobroudja, avec les représentants de l'école archéologique allemande, déjà familiarisés aux monuments antiques d'Anatolie. Le grand archéologue a voulu introduire ainsi dans le circuit scientifique les monuments antiques et les inscriptions grecques et latines de Dobroudja, publiées par lui systématiquement dans *Archäologisch-epigraphische Mitteilungen* de Vienne; de même il a fourni des inscriptions à Theodor Mommsen pour son *Corpus*. Avec deux grands archéologues allemands, O. Bendorf et G. Niemann, Tocilescu a mis en valeur, dans une monographie parue à Vienne (1895), le fameux monument triomphal d'Adamclissi. En fait, par les efforts de Tocilescu, dans les dernières décennies du siècle passé a eu lieu l'intégration de l'archéologie roumaine dans le système scientifique européen.

L'âge initial des recherches archéologiques en Roumanie, au-delà de son importance pour la cristallisation de l'archéologie comme science autonome, reste une période pleine de charme, spécifique à tout début de chemin. Dans ce contexte, l'évocation de l'activité archéologique de Carl Schuchhardt en Roumanie offre toujours l'occasion de rappeler quelques moments de cette époque essentielle pour le destin de l'archéologie roumaine.

Depuis longtemps les contributions de Carol Schuchhardt à l'éclaircissement de certains problèmes controversés ou même inédits se sont imposées, comme le problème des vallums de Dobroudja, la découverte de la culture de Coțofeni, etc., publiés par lui avec une remarquable précision scientifique (SCHUCHHARDT 1918, 78; 1924, 9-27). Mais, les circonstances des séjours de Carl Schuchhardt en Roumanie (entre 1884 et 1917) sont peu connues, bien que assez importantes. L'auteur lui-même a reflété vers la fin de sa vie (1944) cet aspect de son activité, dans une manière prouvée auparavant dans deux ouvrages biographiques, dédiés, à Carl

Humann (SCHUCHHARDT, WIEGAND 1931) et Robert Koldewey (SCHUCHHARDT 1930, 184-188).

Dans son ouvrage autobiographique (1944) deux chapitres retiennent d'abord l'attention: le V^e (*Rumänien 1884-1885*) et le VI^e (*Pergamon 1886*), parce qu'ils reflètent les commencements de l'activité archéologique de Schuchhardt en Roumanie et en Anatolie. Comme le lui-même reconnaît plusieurs fois, le grand archéologue allemand a été profondément touché par son premier séjour en Roumanie (du janvier 1884 jusqu'à l'été 1885). D'autre part, le V^e chapitre évoque également l'atmosphère de cette période, où on retrouve des moments inédits sur ses relations avec les personnalités scientifiques et politiques roumaines (comme Grigore Tocilescu, D. A. Sturdza, le roi Charles I^{er}), ainsi que sur quelques épisodes significatifs pour les débuts de l'archéologie de terrain en Roumanie.

Carl Schuchhardt est arrivé en Roumanie grâce à quelques circonstances assez fortuites. Il a passé les dernières trois années d'études universitaires à Heidelberg, dans la maison d'un professeur de philologie classique, Wilhelm Behaghel, où il a appris que le prince roumain Alexandre Bibesco (qui pendant ses études à Heidelberg était logé aussi par le professeur Behaghel) a besoin d'un professeur pour l'éducation de son fils, Anton (SCHUCHHARDT 1944, 64). Schuchhardt, en acceptant l'invitation du prince, a commencé avant le Noël 1883 les préparatifs de voyage. En janvier 1884 il est passé par Vienne, où l'archéologue Otto Bendorf lui a donné quelques conseils concernant le séjour en Roumanie; puis, par Budapest, il est arrivé à Bucarest. Pendant les quelques jours de son séjour à Bucarest il a rencontré pour la première fois Grigore Tocilescu, mais la capitale de la Roumanie lui a laissé une impression déplorable.

Puis, il a voyagé vers le domaine du prince Bibesco, à Epureni (dép. de Vaslui), en Moldavie. Ici, il a enseigné au jeune Anton Bibesco l'allemand, le français et le latin, en faisant toujours la connaissance avec les membres de la puissante famille Bibesco. Avec une recommandation de la part du beau-père d'Alexandre Bibesco, l'influent homme politique Ioan Costachi Epureanu,

Schuchhardt est parti à Bucarest le printemps de 1885, afin d'élaborer avec Gr. Tocilescu un plan de recherche des vallums de Dobroudja; le thème lui a été suggéré par son ancien professeur de Heidelberg, H. Zangemeister. Il décrit en détail cette rencontre: sa réception a été "froide et correcte". Devant le refus de Tocilescu de copier quelques inscriptions du Musée National d'Antiquités, Schuchhardt a fait appel au grand savant et homme politique Titu Maiorescu, qui a servi délicatement de médiateur pour trouver une solution au problème. Dans la même période, Schuchhardt a réussi d'effectuer une courte visite à Sinaia, à la famille royale (SCHUCHHARDT 1944, 80).

Peu après, Schuchhardt a commencé l'exploration des vallums entre Cernavoda et Constantza (finalisée à peine trois décennies plus tard), en identifiant le tracé du grand vallum de terre et celui de pierre, ainsi que la série de fortifications adjointes. A cette occasion, il a pu visiter aussi la ville de Constantza, qui se trouvait à ce moment-là en plein processus d'*européanisation*. Il y a remarqué l'abondance des pièces architecturales greco-romaines, présentes partout, ainsi que la collection d'inscriptions et de sculptures antiques de la maison des vacances de l'historien Michel Kogălniceanu (SCHUCHHARDT 1944, 91).

Schuchhardt a élargi l'exploration des vallums à tous les monuments de ce type dans les régions extra-carpatiques, afin d'obtenir une image cohérente, du point de vue topographique et historique, sur le système défensif ainsi formé. Dans cette direction, il a entrepris des voyages de documentation au sud de la Moldavie et de la Bessarabie, en Valachie et en Olténie, où il a pris des informations, a vérifié le terrain, a enregistré les tracés des vallums et a signalé des vestiges de diverses époques.

Il a transmis ces informations aux personnes intéressées des zones périphériques du monde romain et surtout à Theodor Mommsen, à qui il envoie plusieurs rapports préliminaires. Par conséquent, l'été 1885, quand le grand historien allemand a envoyé Alfred von Domaschewski dans un voyage d'études en Valachie, pour une

vérification concernant la publication d'un supplément à *CIL*, son compagnon a été Schuchhardt, déjà initié dans le milieu archéologique roumain. Schuchhardt a organisé une visite sur la vallée de l'Olt, où ils visitent les camps fortifiés du *limes alutanus*. À la cité de Romula (aujourd'hui le village Reșca, près de la ville Slatina, dép. d'Olt) ils ont eu la chance de trouver une importante inscription inaugurale¹, qui atteste la reconstruction de la ville à l'époque de Philippe l'Arabe (SCHUCHHARDT 1944, 101-102).

Vers la fin de la même année, il a accepté l'invitation d'Alexander Conze de participer aux fouilles archéologiques de Pergame, où il restera jusqu'à la fin de la campagne, en décembre 1886. En Roumanie il reviendra à peine en 1898, lorsqu'il a programmé un nouveau voyage oriental. Cette fois, il a été affectueusement accueilli par Grigore Tocilescu, qui avait remarqué son

¹ Le passage où on raconte l'épisode de la découverte de cette inscription est si captivant qu'il vaut la peine de le reproduire intégralement: "In dem Dorfe Recica, unmittelbar an der alten Straße, wo schon mehrere Inschriften gefunden waren, suchten wir nach römischen Baumaterial. Vor dem Hause des Priesters bestand die Treppe aus drei großen Steinplatten, die verdächtig aussahen. Domaschewski tastete die Unterseiten der Steine ab und rief bei dem einen: "Ein Randprofil, - und auch Buchstaben!" Der Priester war über Land gefahren und wurde erst gegen Abend zurückerwartet. Ich ging also zum Primar, um ihm unsere ministerielle Empfehlung zu zeigen und zu sagen, daß wir den Stein aus der Treppe lösen müßten. Domaschewski machte sich derweil mit Hilfe unseres Kutschers bereits an diese Arbeit. Der Stein war umgekehrt, abgespült, und begann die Entzifferung, die Zeile für Zeile von temperamentvollen Ausrufen Domaschewskis begleitet war: "Eine Kaiserinschrift! – Philippus Arabs und Gattin Ottacilia Severa – und Sohn, dem *princeps iuventutis* -; Hurrah, ein *castellum* gründen sie: ob *tutellam coloniae suae Romulensium*, also Romula hat hier gelegen, das lange gesuchte! – und eine militärische Anlage ist es gewesen: *manu militari a socio fecerunt!* - Also militärisch besetzt gewesen ist diese Grenze und datiert ist sie durch die Regierungszeit des Philippus 244-249 n. Chr. Wir waren gerade fertig, als der Priester mit seinem Einspänner, total betrunken, aus der Stadt zurückkam. Er tobte, daß wir ihm die Treppe auseinandergerissen hatte; aber das half nun nichts mehr. Der Primar nahm den Stein in seine Obhut, und wir verabschiedeten uns unter Hinterlassung einiger Franken zur Herstellung des Aufganges und telegraphierten noch am selbigen Abend an Sturdza über unsern Fund und die Notwendigkeit, ihm dem Museum einzuverleiben".

intérêt pour les antiquités danubiennes; Schuchhardt était déjà apprécié dans les plus hauts milieux académiques et politiques. Preuve de cette appréciation, il a entrepris une visite avec D. A. Sturza, le président du Conseil des Ministres, à Adamclissi, où Tocilescu avait terminé les explorations à *Tropaeum Traiani*. La description de ce voyage lui a donné l'occasion de quelques réflexions intéressantes et pertinentes concernant la vie politique de Roumanie (SCHUCHHARDT 1944, 207-210).

Lié à la Roumanie par ces connexions scientifiques et affectives, au début de son activité, Schuchhardt a été toujours intéressé par les recherches archéologiques de ce pays, en contribuant de cette manière au renforcement des liens entre les écoles archéologiques allemande et roumaine. Dans ce contexte, il faut souligner un moment important de l'histoire de l'archéologie roumaine, où l'archéologue allemand a eu une contribution décisive. En 1909 Hubert Schmidt, à l'époque conservateur-chef des Musées Impériaux de Berlin, a sollicité aux autorités roumaines l'approbation de commencer les fouilles archéologiques à Cucuteni, mais il n'a pas reçu de réponse. A la sollicitation de Schmidt, Carl Schuchhardt, déjà directeur des Musées de Berlin, a écrit à son ancien ami, le prince Emanuel Bibesco, qui est intervenu, à son tour, auprès d'I.I.C. Brătianu, le Président du Conseil des Ministres. A bref délai, Schuchhardt a reçu un télégramme: "Monsieur Schmidt peut venir faire fouilles" (SCHUCHHARDT 1944, 104). Voilà comment, grâce à la sympathie dont il s'est réjoui dans les cercles politiques de la Roumanie, en dehors de son prestige dans les milieux scientifiques roumaines, Schuchhardt a contribué, même indirectement, à l'exploration d'une de plus brillantes civilisations néolithiques de l'Europe orientale.

Son geste ne doit être compris seulement comme une intervention motivée par ses relations spéciales avec les personnalités politiques roumaines, ni comme une preuve d'une certaine politique allemande à l'Est, mais il doit être plutôt regardé dans une double perspective: 1) les

rapports scientifiques entre l'école roumaine d'archéologie et celle allemande, déjà consistants à ce moment-là; 2) la nécessité d'introduire dans le circuit scientifique européen les grandes découvertes des régions extra-carpatiques.

Quelques années après, Schuchhardt est revenu en Roumanie afin d'achever l'exploration des vallums de Dobroudja. Mais le contexte géo-politique d'alors était totalement différent: la Roumanie était, dans les années de la première guerre mondiale, dans le camp opposé à l'Allemagne.

Avec d'autres archéologues allemands, comme C. Träger ou H. Schmidt, qui connaissaient la zone, Schuchhardt a reçu de la part du Haut Commandement Allemand la mission d'effectuer des recherches archéologiques dans la région occupée. Est-il revenu comme un représentant d'un pays vainqueur? Pas du tout! En tant que bon connaisseur des réalités archéologiques de Dobroudja et sous l'impression favorable de ses séjours antérieurs en Roumanie, plusieurs fois soulignée par lui-même, C. Schuchhardt était, comme tout savant authentique, détaché des circonstances politiques et militaires où il déroulait ses recherches. Evidemment, l'objectif principal était constitué par les vallums entre Cernavoda et Constantza. Installé au Commandement de l'armée allemande de Dobroudja (*Villa Șuțu* de Constantza), Schuchhardt a systématiquement exploré, quelques mois, l'automne de 1917, les trois vallums de Dobroudja, d'abord, par la localisation de leurs vestiges, marqués puis sur la carte (SCHUCHHARDT 1944, 342-353). En bénéficiant de la logistique militaire, il a utilisé pour la première fois en Roumanie la photographie aérienne pour l'identification précise des vallums et de tout le système de fortifications afférentes. Avec C. Träger, il a entrepris aussi des recherches dans l'habitat de Cernavoda, avec d'importants résultats stratigraphiques pour le Néolithique et l'Énéolithique sud-carpatique.

La deuxième étape de ses recherches en Roumanie pendant la première guerre mondiale s'est déroulée dans la deuxième moitié de l'année 1918 en Olténie. Schuchhardt a fixé sa résidence à Craiova, afin de ramasser des informations

supplémentaires concernant la provenance et les conditions de découverte du soi-disant "trésor de Craiova", de facture thraco-scythique, trouvé dans des circonstances confuses; ce trésor a été récupéré par l'administration d'occupation et transporté au Musée de Berlin (SCHMIDT 1927, 1-90). Il est intéressant de rappeler les conditions dans lesquelles le trésor est arrivé à Berlin. Tandis que Dumitru Berciu a écrit que le "trésor" d'argent a été acheté par H. Schmidt à un commerçant d'antiquités de Craiova (BERCIU 1969, 12), Schuchhardt, qui connaissait mieux la situation, a relaté que les pièces ont été récupérées et expédiées à Berlin par le capitaine Barnim Puchstein (l'oncle d'un grand archéologue allemand, Otto Puchstein) en tant que représentant de l'administration militaire allemande en Olténie (SCHUCHHARDT 1944, 345). Même si ce détail ne modifie pas le problème de la découverte des pièces qui forment ce trésor, il a plutôt une certaine signification pour l'histoire de l'archéologie roumaine.

Pendant son séjour à Craiova, Schuchhardt a pu connaître les sites archéologiques d'Olténie et établir des liaisons avec les différents collectionneurs de cette ville ou avec des personnes qui connaissaient des renseignements sur les découvertes archéologiques fortuites. Mais ce qui est digne de souligner c'est qu'il a effectué des fouilles systématiques importantes dans la citadelle de Coțofeni (septembre 1918) et dans le site néolithique de Sălcuța (octobre 1918). Toutes ces recherches, qui complétaient les fouilles de Cernavoda, ont imposé Schuchhardt comme un bon spécialiste de la préhistoire de l'espace extracarpatique.

Bibliographie

- AVRAM Alexandru
1992 *Grigore G. Tocilescu (1850-1909) – arheolog și epigrafist*, SCIVA, 43, 2, p. 139-144.
- BERCIU Dumitru
1969 *Arta traco-getică*, București.
- SCHMIDT Hubert
1927 *Skythischer Pferdegeschirrschmuck aus einem Silberdepot unbekannter Herkunft*, PZ, XVIII, p. 1-90.
- SCHUCHHARDT Carl
1918 *Ausgrabungen in der Dobrudscha (Vortrag)*, ZfE, 50, p. 78-83.
1924 *Cernavoda eine Steinzeitsiedlung in Thrakien*, PZ, XV, p. 9-27.
1930 *Die Schulenburg bei Cotzofeni und andere dakische Burgen*, in vol.: *Schumacher Festschrift*, Mainz, p. 184-188.
1944 *Aus Leben und Arbeit*, Berlin.
- SCHUCHHARDT Carl, WIEGAND Theodor
1931 *Die Entdecker von Pergamon Carl Humann. Ein Lebensbild*, Berlin.
- VULPE Radu
1928 *Activitatea arheologică în Dobrogea în cei 50 de ani de stăpînire românească*, in vol.: *1878-1928 Dobrogea, cincizeci de ani de viață românească*, București, p. 117-144.

INTERDISCIPLINARY ARCHAEOLOGICAL RESEARCH IN SOUTH-EAST TRANSYLVANIA DURING THE FIRST HALF OF THE 20TH CENTURY

SÁNDOR-JÓZSEF SZTÁNCSUJ *

Keywords: *Ariuşd-Cucuteni-Tripolye, Transylvania, interdisciplinary research, Ferenc László.*

Cuvinte cheie: *Ariuşd-Cucuteni-Tripolie, Transylvania, cercetări interdisciplinare, Ferenc László.*

Abstract. *This paper presents the interdisciplinary research promoted by Ferenc László, the curator of Székely National Museum, at the beginning of the 20th century. The analysis on metal objects, on the traces of colour, on some pottery sherds discovered at the Neolithic settlement from Ariuşd, were effectuated in 1915, at The National Museum from Budapest, by Géza Elemér Gaspartz. The botanic determinations of the vegetal remains were made in 1924 at the Seeds Control Resort from Cluj. The publishing of the results contributes firstly to the acquaintance of the history of researches, but also can bring information for the research of material culture, of the way of living for the Ariuşd communities.*

Rezumat. *Lucrarea de faţă prezintă cercetările interdisciplinare promovate de custodele Muzeului Național Secuiesc, Ferenc László, în primele decenii ale secolului al XX-lea. Analiza obiectelor de metal, a urmelor de vopsea, respectiv a unor fragmente ceramice descoperite în așezarea eneolitică de la Ariuşd, au fost efectuate în anul 1915, la Muzeul Național de la Budapesta, de către Géza Elemér Gaspartz. Determinările botanice ale unor macroresturi vegetale au fost făcute în 1924 la Stațiunea pentru Controlul Semințelor de la Cluj. Publicarea acestor rezultate contribuie, în primul rând, la cunoașterea istoricului cercetărilor, dar poate aduce informații valorificabile pentru cercetarea culturii materiale, a modului de viață a comunităților ariuşdene.*

The discovery of Neolithic and Copper Age settlements with painted pottery constituted an important and fascinating period of the history of archaeological research from Central and Eastern Europe, at the end of the 19th century and the beginning of the 20th century. Scattered over a vast territory, from Western Hungary (Lengyel), through Transylvania (Ariuşd/Erősd, Bod/Botfalú, Turdaş/Tordos), to Moldavia (Cucuteni), Galicia (Horodnica), Bukovina (Schipenitz/Şipeniţ) and Ukraine (Tripolye), these settlements were attributed to a great civilization characterized by painted pottery and having a strong relationship with cultures of South-East Europe and the Aegean world. The nature of these relations constituted an

ample problem discussed by specialists. Some of them, especially Oscar Montelius', as followers of the diffusionist vision, considered that the root of European civilization was born in the Middle-East and thus the main cultural inventions spread onto our continent as well, through peoples' migrations. Others, among which the German Hubert Schmidt, who is well-known in Romanian archaeology for his research at Cucuteni, propagated the chronological priority of European Neolithic cultures and their decisive role in the birth of civilizations in the Aegean world.

The beginnings of the archaeological investigations of Transylvania, such as those by Zsófia Torma (Turdaş), Endre Orosz (Gherla/Szamosújvár), Julius Teutsch (Ariuşd, Bod) or Zsigmond Csulak (Ariuşd), were also marked by this historical point of view. Famous settlements in the valley of the

* Székely National Museum of Sfântu Gheorghe,
e-mail: sztancsuj_sandor@yahoo.com

Mureş/Maros and the Olt rivers gained European reputation thanks to their supposed relation to Troy, Mycenae and the Etruscan civilization¹. The archaeological cultures of the Carpathian region, their chronological relations and contents were all less known in those times. This is partially due to the restricted excavations, which were limited usually to the collection of the important vestiges, according to their physical aspects, disregarding the context of the findings. However, a great part of these materials arrived – through donations or exchanges – to different museums and collections in Europe, and contributed to the access of these settlements to the contemporary scientific circulation. For example valuable lots of archaeological vestiges from Zsófia Torma's excavations at Turdaş and Valea Nandrului/Nándorválya enriched the collections of museums in Berlin, Munich, Vienna, Budapest, Cluj/Kolozsvár, Aiud/Nagyenyed or Sfântu Gheorghe/Sepsiszentgyörgy (ROSKA 1941, 3-6; ANDERS 1999, 41-45; SZTÁNCSUJ 2003, 34). The first objects attributed to the painted pottery-culture in the South-East of Transylvania, still belonging to the Hungarian National Museum (Magyar Nemzeti Múzeum), from the settlement of Bod (Priesterhügel), were donated by Julius Teutsch in 1902 (HAMPEL 1902, 419). Objects originating from Ariuşd, from Zsigmond Csulak's diggings (1905-1906), also belong to the collection of antiquities of the "Bethlen" College of Aiud (F. LÁSZLÓ 1914, 284).

The archaeological research in Transylvania entered a new phase in the first decades of the 20th century, together with the activity of some archaeologists, such as: Márton Roska or István Kovács, members of the Transylvanian School of Archaeology of Cluj, founded by Béla Pósta (CSORBA 1971, 124). A series of systematic excavations in Transylvania (Cioclovina/Csoklovina, Pecica/Pécska, Târgu-Mureş/Marosvásárhely), as well as the first decrees on the preservation of archaeological monuments and sites date back to this period (SZTÁNCSUJ 2004, 17). This period is marked in the South-East of

Transylvania by the beginning of Ferenc László's (Fig. 1) scientific activity. The



Fig. 1. Ferenc László (1873-1925).

excavations carried out by László in the settlements of the Olt Valley (Malnaş-Băi/Málnásfürdő, Olteni/Oltszem, Reci/Réty), especially those at Ariuşd in 1907-1913, as well as in 1925, threw new light on the western branch of the civilization known today as Ariuşd-Cucuteni-Tripolye. Starting with the very first years of his campaign his activity stirred the interest of some well-known specialists in the research of prehistoric cultures of Central and Eastern Europe, such as Vere Gordon Childe, Gustaff Kossinna, Jaroslav Palliardi, Hubert Schmidt or Ernst von Stern. He corresponded and had a rich scientific collaboration with some of them (A. LÁSZLÓ 1973, 171-205; 1974, 473-482; 1979, 639-644).

The studies published in the last decades spare us a detailed review of László's scientific activity (A. LÁSZLÓ 1973, 171-205; 1974, 473-482; 1978, 75-102; 1980, 11-21; 2007; NESTOR 1973, 21-25). We will mention here just the main lines that are relevant for the topic of this study. Due to his naturalistic approach, László was a follower of a modern method of archaeological research. The excavations were preceded by the topographical survey of the site, carrying out a detailed plan at the scale of 1:100 (F. LÁSZLÓ 1914, fig. 3). The settlement was

¹ For the history of this problem see: A. LÁSZLÓ 1990, 313-323; 2007; MAKKAY 1999, 81-90; URSULESCU, VĂLEANU 2007, 23-25.

also divided by longitudinal (marked by roman numbers, I–L) and latitudinal lines (marked by digits, +50–20). These permitted the topographical recording of the complexes and findings. László paid great attention to the observation of stratigraphic conditions. During the excavations he noted the existence of seven successive layers (I–VII), corresponding to five occupation levels (four of Copper Age; the superior one contained vestiges from the Early Bronze Age). In order to establish the horizontal extension of the settlement he opened a trench of 41 m in length, thus he obtained a complete section of the site (F. LÁSZLÓ 1914, fig. 7, 78/C). In order to obtain a more detailed image of the studied object, all the found archaeological features were documented in detail, by carrying out tens of ground plans (Fig. 2/4) and section drawings, by using the methods of photography as well. Special attention was paid to the study of dwelling complexes and of their annexes. During his excavations he brought to light 6 Copper Age houses, obtaining precious data on architecture, construction technique and the materials used. The findings were also registered on a vertical plan, according to their stratigraphic order, this fact permitting the comparative study of the material.

Being a follower of the paleoethnological vision, studying the reconstruction of the way of life of prehistoric communities (habitat, system of subsistence, etc.), László was the first to promote the interdisciplinary researches in the whole of Central and East-European region. He also carried out a scale-model of a studied Copper Age house with the help of ground plans drawn out during excavations, as well as the scale-model of some fireplaces and ovens, all on the scale of 1:10 (Fig. 2/1-3, 5)². He introduced new methods in the study of material culture, especially of pottery. In his last article (written just before his untimely death, in 1924) which was posthumously published in 1927, he presented a typological-statistical analysis of the pottery of Ariuşd (grouped in 12 categories, marked with A–M), compared – on the same criteria – to the one from Olteni (F. LÁSZLÓ 1927, 24-25, pl. XIV). During his

excavations at Ariuşd (and other settlements, too) he collected a series of samples constituted of organic (seeds of cereals, berries, shells, pieces of coal) and inorganic substances (marks of paint, imprints of leaves preserved in pieces of burnt clay, wattle and daub, fragments of pottery, metal objects, etc.), specially preserved for carrying out certain chemical analyses. “Through the results of these analysis we will find out the raw material and understand the method of manufacturing objects, and, at the same time, they will provide us with important pieces of information, with a view to accomplishing comparative studies of general history” – he wrote, in reasoning on the necessity of these interdisciplinary researches (LÁSZLÓ, CSUTAK 1916, 131).

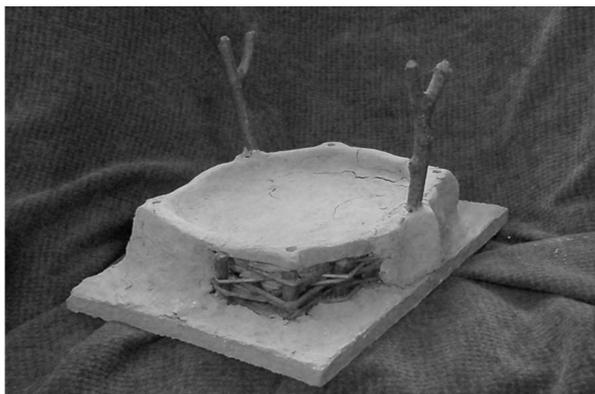
*

One of the first steps in this preoccupation was the accomplishing of some chemical and microscopic analyses of different categories of objects and materials, found during the excavations of Ariuşd. This occasion appeared due to the collaboration of the Székely National Museum (Székely Nemzeti Múzeum) with the most famous museum of the Hungary, National Museum of Budapest. By the intercession of József Mihalik, an art historian, museologist, inspector of National Inspectorate of Museums and Libraries (Múzeumok és Könyvtárak Országos Főfelügyelősége), the objects chosen by László were transported to Budapest in 1914. The analyses were carried out by the chemist Géza Elemér Gasparez.

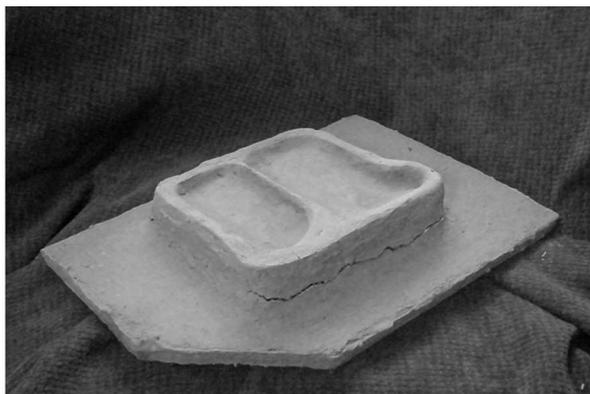
Gasparez was born in Budapest in 1876, he graduated from the “Pázmány Péter” University and got his master’s degree in 1911. In the same year he was appointed director of the chemistry and restoration laboratory of the Hungarian National Museum from Budapest. For eight years, until his premature death, he carried out a fruitful activity of research, preservation and restoration³. His main activity was

² The models were restored by József Szeles.

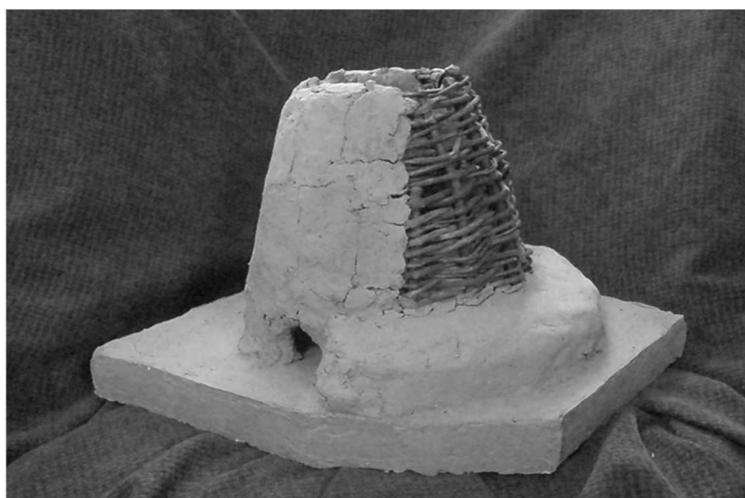
³ About the life and activity of Gasparez see: MORGÓS 2002, 303; MORGÓS, DOMOKOS 2003, 8-27.



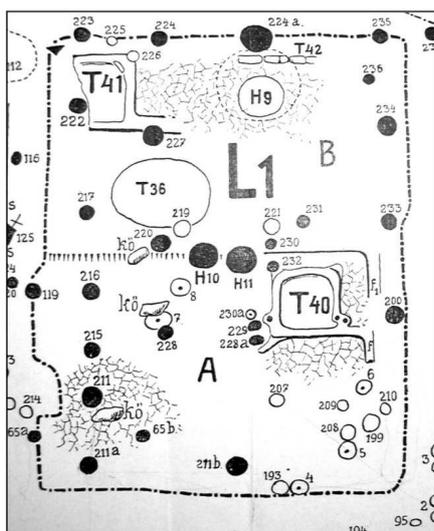
1



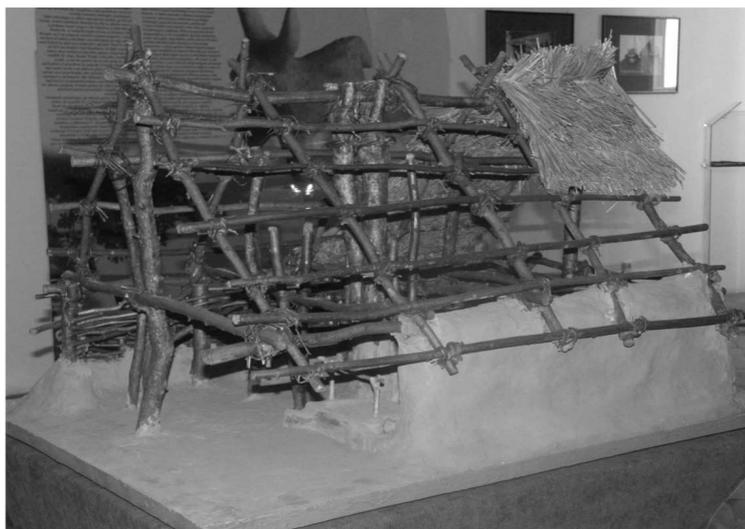
2



3



4



5

Fig. 2. 1-3: Models of fire places and ovens, made by F. László (Székely National Museum of Sfântu Gheorghe). 4: Ground plan of House 1 from Ariuşd (*apud* F. LÁSZLÓ 1914, fig. 79). 5: Scale model of House 1 made by F. László (Székely National Museum of Sfântu Gheorghe).

microscopic and micro chemical research of paintings and techniques of wall paintings from antiquity, publishing, in this domain, a set of articles in well-known contemporary periodicals (GASPARETZ 1911, 294-297; 1911a, 425-432). His name is also attached to the preservation, restoration of numerous objects in the National Museum and other museums of Hungary, as the metal objects from Gáva-Katóhalom, the famous bronze helmet from Nagykálló, or writing and drawing instruments from the Roman age belonging to the collection of the Aquincum Museum, as well as to the introduction and application of some new methods of restoration (for example cleaning the metal objects by electrolysis). Being appreciated at international level as well, he was elected in Rome, the secretary of the International Society of Art Historians in 1912.

The objects and materials chosen by László for analysis (approximately 15 samples) represented the most important categories of archaeological discoveries from Ariuşd: copper objects (a blade, a copper axe-adze, a spiral bracelet and some copper beads) jewellery of deer canine, fragments of decorated pottery with different painting techniques (bichrome painting on black and brown base, trichrome painting on brown, red and white base) as well as sherds belonging to household pottery which were not decorated, pieces of paint, gathered from different levels of the settlement. The analyses – pointed out concisely in the annual report of the museum as well (LÁSZLÓ, CSUTAK 1916, 135) – were most probably carried out in the summer of 1915, and Gasparetz's report arrived at Sfântu Gheorghe in the autumn of the same year. The document of 17 pages was signed on 19th October 1925 and contained the list of the studied objects, detailed presentation of the results, as well as the description of methods of chemical and microscopic analysis applied during research⁴ (the archive of the SzNM, inv. no. 418-1915). The results

⁴ The complete text of Gasparetz's report with an accompanying study: SZTÁNCSUJ 2006, 11-26. We would like to express our gratitude to our colleague, Hunor Boér, who brought our attention and provided us these documents.

of this study were to be published, according to László's intention in the monograph of the settlement of Ariuşd.

The first to be mentioned in the line of the results of the analyses are the metal objects. These were just summarized by László in his publications (F. LÁSZLÓ 1911, 187, 250-252, fig. 6, 92-94), their exact number being known from a letter addressed to Vere Gordon Childe in 1924 (A. LÁSZLÓ 1973, 180-181, 191-192). A part of this material was lost in World War II (PATAKY 1996, 317-322; HERPEY 2003, 37-132). The blade of trapezoid shape of 6,50 cm length and 1,50 cm width (inv. no. 488) was found by László in 1907 in the IVth level and constituted the first metal find of the settlement (F. LÁSZLÓ 1911, 225, fig. 9/2)⁵. Due to the reduced dimension of the sample sent for analysis, Gasparetz could not establish its exact specific gravity. However, the data obtained through the analysis of the copper-axe (of Ariuşd type; inv. no. 2689; Fig 3/2) are extremely valuable. The object discovered at the last level of the settlement (I. – "upper humus") got lost during World War II; even its form is only known according to a schematic drawing (ROSKA 1929, 275, fig. 17; VULPE 1975). The results of the analysis show us that the axe was made by smelting and moulding, containing marks of tin and antimony (specific gravity: 8.824). The spiral bracelet (inv. no. 2379), the copper beads (inv. no. 2372, 2374) and the deer canines (inv. no. 2385) belonged to the hoard of prestige objects discovered in 1910. The bracelet with specific gravity of 8.787 was made by hammering at a material containing

⁵ The cultural attribution of this object brought some "interesting" results during the past century. The blade was published by László on the same figure with the copper beads found in the hoard of prestige objects discovered in 1910. Because of this picture, M. Roska in 1929 included the blade incorrectly in the hoard, together with an awl, found also in the IVth level (ROSKA 1929, 273, fig. 15/2.) Later, this object was defined by Zs. Székely as a "copper axe" (sic!), assigned to the early Bronze Age Schneckenberg culture. (Zs. SZÉKELY 1997, 64, 212, pl. XCI/9-10.) According to László's diary and the inventory book of SzNM, but also to his letter addressed to V. G. Childe (A. LÁSZLÓ 1973, 191, nr. 4-5), the blade can be attributed surely to the IVth level, to the Ariuşd-Cucuteni culture. See: MAREŞ 2002, 183, no. 4; SZTÁNCSUJ 2005, 86.

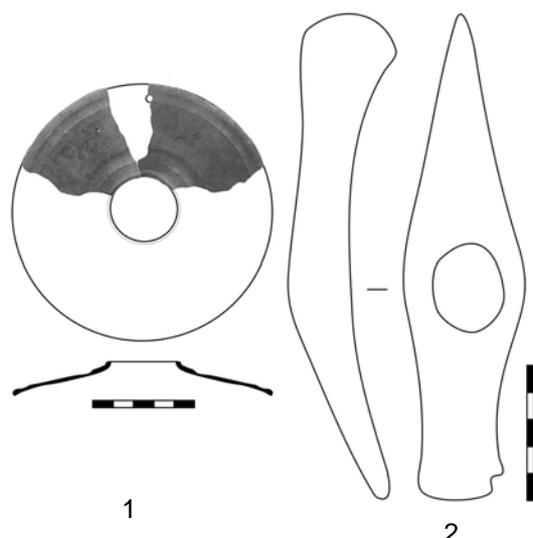


Fig. 3. 1: Bronze disc from Ariuşd (Hungarian National Museum of Budapest). 2: Copper axe-adze from Ariuşd (*apud* ROSKA 1929, 275, fig. 17).

tin, arsenic, lead, iron and silver⁶. The copper beads, manufactured of thick copper wire by hammering, had as raw material native copper containing just insignificant marks of iron (specific gravity of 8.93 and 9.00). The microscopic analysis of the beads proved the existence of some fibres of vegetable origin, originating from a woollen string on which these were threaded. The pendants made of deer canine were prestigious objects typical of the Neolithic and Copper Age. Their value is well-illustrated by the imitations manufactured of bone, copper and burnt clay (DERGACEV 1998, 44, fig. 23/452-462; DUMITRESCU *et alii* 1954, 449, 459, fig. 44/11, pl. CXXV/10; RACZKY *et alii* 1997, 39-40; URSACHI 1991, 352; MAREŞ 2002, 129, 319). Knowing this fact (due to the samples from the Bronze Age tell-settlement at Tószeg-Laposhalom) Gasparez specifies that, according to the microscopic analyses, the pieces of Ariuşd are not imitations.

As far as chemical analysis of the sample paints go, this proved their inorganic, mineral origin. According to the report, the red paint was manufactured of oxide of mineral iron, mixed with fine clay and the white one of ground limestone. Important data were obtained by Gasparez about the methods of manufacturing pottery. Modelled

by hand of well-washed clay, degreased with sand, the pots were sunk into fine clay-water suspension mixed with substances of paint (limestone, oxide of iron). After the drying up of this cover that constituted the primary colour of the pot, it followed the polishing of the surface of the pot carried out with an instrument of bone or a polished stone, as well as the painting of the decorative motives. The pots were burnt in kilns of oxide burning. The result of the chemical analysis of a fragment of a painted pot is interesting, as it proved that the surface was greased after burning – probably in order to get a shinier colour – with birch (*Betula* sp.) wax.

Gasparez's remarks were confirmed by ulterior researches in the second half of the 20th century. The spectral analysis of some copper objects belonging to the hoard of Ariuşd, carried out at the Museum of Stuttgart proved that the objects were manufactured by hammering of native copper with accompanying elements in solid metal as silver, iron or lead (JUNGHANS, SANGMEISTER, SCHRÖDER 1968, 248-249; MAREŞ 2002, 184-185, nr. 60-63). As regards the pottery, more than seven decades after Gasparez's work, Vladimir Dumitrescu, one of the best experts of the Ariuşd-Cucuteni-Tripolye complex, reconstructed almost in the same way the technique of pottery manufacturing (DUMITRESCU 1979, 15-16).

*

The outbreak of the World War I in 1914 stopped the excavations at Ariuşd for quite a long time. Their restart was possible only in 1925, with the substantial help of the Romanian Academy of Sciences and of Vasile Pârvan. Meanwhile, due to a generous offer by the University of Tübingen, the monograph publishing of the Ariuşd settlement became reality as well (A. LÁSZLÓ 1973, 200). Advancing in preparing this study, László initiated new interdisciplinary studies, considering the determination of vegetal remains, as well as the chemical analysis of certain metal objects discovered during excavations. The metal objects (two fragments of a bronze plate, dating back probably to the Roman Period) (Fig. 3/1), originating from the material of the excavations of 1913, financed by the

⁶ For the Ariuşd-hoard see: DUMITRESCU *et alii* 1954, 435-476; MAREŞ 2002, 184-186, pl. 56/1-2, 6; 60/6; 61/4, 9; SZTÁNCSUJ 2005, 85-105.

Hungarian National Museum, were to be analysed in the institution from Budapest. The archaeologist Ferenc Tompa expressed his agreement, on behalf of the directors' board of the National Museum, to the carrying out of these analyses, sending the photos of the objects to László (A. LÁSZLÓ 1973, 200, n. 73; 1978, 96). However, probably due to László's decease in the same year, these analyses were not carried out.

As for the botanical determinations, these were carried out at the Seeds Control Resort (Stațiunea pentru Controlul Semințelor) from Cluj. The "fruit kernels" sent by László for analyses in 1925, were from the above mentioned depot of prestige objects (SzNM, inv. no. 2391). Their existence was not recognized until the recent discovery of the report that contained the results of the analysis (A. LÁSZLÓ 2007)⁷. The report was accompanied by a letter, signed by T. Gy. (T. György?), chief of the Station of Seed Control, on 11th August 1925, just a month before László's death. The samples were determined as millet (*Lithospermum* sp. and *Myristica palata* sp.) As T. Gy. pointed out, these plants were not native species in the Carpathian Basin; they were very likely of Mediterranean origin – included in the Ariuşd hoard probably as prestige items.

From the documents kept in the archives of the Székely National Museum it results, that László was involved in other activities of interdisciplinary character, as the ones already presented. In one of the letters addressed to László on 7th October 1924, a professor from Cluj, Jenő Mátyás, expresses his request to get a sample of "the anthropological material discovered in the pre-Mycenaean settlement" in order to carry out certain osteological determinations. As it turns out from this letter, he extended his studies on some graves discovered by István Kovács in the Copper Age cemetery at Decea Mureşului (KOVÁCS 1933, 3-15). Unfortunately we do not have any information about the methods of research and results. In his answer László, with regret that he has

not found any anthropological material or graves in settlements with painted pottery (the archives of SzNM, inv. no. 182-1924).

His collaboration with Nicolae Teodoreanu, the researcher and director of the Institute of Zoological Researches of Bucharest was more fruitful. We can find out from an exchange of letters, dated November-December 1924, that Teodoreanu dedicated himself to the research of prehistoric fauna (the archive of SzNM, inv. no. 237-1924). "I collected the entire literature on animals living in prehistoric times and I am going to give two lectures at the Academy of Sciences in January and February, 1924, but my study is still not complete" – he wrote and asked László to send him two dog crania, one discovered at the "Steinbronzezeit" settlement at Sfântu Gheorghe-Bedeháza (SzNM, inv. no. 5070), and the other one at Ariuşd. Furthermore, he also asked for a drawing of some horse-grinders, discovered at Bedeháza (SzNM, inv. no. 5071)⁸. We can find out from László's answer that he fulfilled Teodoreanu's wishes by sending him the samples to the Institution in Bucharest and asking him to send him a report on the results of the analyses. No other data about this collaboration and its results have been discovered so far.

Unfortunately, the results of László's preoccupations, fruitful and extremely important at that age, were not all completed. However, they are still useful today, contributing not only to the enrichment of the history of researches but to the knowledge of details about the research of the Ariuşd culture.

Translated by Réka Szaló

⁷ The seeds were inventoried together with some bone-beads. Neither the inventory book of the SzNM, nor László's report (GÖDRI, CSUTAK, LÁSZLÓ 1911, 55) mentions the existence of these objects.

⁸ Between 1912 and 1914, the archaeological site at Sfântu Gheorghe-Bedeháza was excavated by Fr. László, who brought to light, on that occasion, some settlement remains dated to the Early Neolithic (Starčevo-Criş culture), Bronze Age (Wietenberg culture) and to the Dacian Period. Later excavations were carried out by Kurt Horedt (1949-1950). See: Z. SZÉKELY 1948, 32-35; A. LÁSZLÓ 1978, 88-89; RAJC, 84-85.

Bibliography

- ANDERS Alexandra
1999 *A tordosi lelőhely és az ásatások története*, in vol.: *Holt lóra patkó. Tanulmányok Torma Zsófia (1840-1899) emlékezetére* (ed.: János Makkay), Budapest, p. 41-80.
- BOÉR H. (ed.)
2002 *Emlékkönyv a Székely Nemzeti Múzeum százhuszonöt éves jubileumára*, I-III, Sepsiszentgyörgy.
- CSORBA Csaba
1971 *Pósta Béla kolozsvári régészeti iskolája és a „Dolgozatok”*, DMÉ, p. 117-146.
- DERGACEV Valentin
1998 *Karbunskij klad. Carbuna deposit*, Kišinev.
- DUMITRESCU Vladimir
1979 *Arta culturii Cucuteni*, București.
- DUMITRESCU Vladimir et alii
1954 *Hăbășești. Monografie arheologică*. București.
- GASPARETZ Géza Elemér
1911 *A michrochemia a művészettörténet szolgálatában*, Művészet, X, p. 294-297.
1911a *Az antik falfestészet technikájáról*, AÉ, XXXI, p. 425-432.
- HAMPEL József
1902 *A nemzeti múzeumi régiséggyarapodása 1902-ben*, AÉ, XXVI, p. 419-448.
- HEREPEY János
2003 *A Székely Nemzeti Múzeum igazgatói jelentései, 1939-1944*, in vol.: *Emlékkönyv a Székely Nemzeti Múzeum százhuszonöt éves jubileumára*, vol. III (ed.: H. Boér), Sepsiszentgyörgy, p. 37-132.
- GÖDRI F., CSUTAK V., LÁSZLÓ F. (eds.)
1911 *Jelentés a Székely Nemzeti Múzeum 1910. és 1911. évi állapotáról*, Sepsiszentgyörgy.
- JUNGHANS Siegfried, SANGMEISTER Edward, SCHRÖDER Manfred
1968 *Kupfer und Bronze in der frühen Metallzeit Europas. Studien zu den Anfängen der Metallurgie*, Berlin.
- KOVÁCS Ștefan
1933 *Cimitirul eneolitic dela Decia Mureșului*, AISC, I (1928-1932), p. 3-15.
- LÁSZLÓ Attila
1973 *Date privind activitatea științifică a lui László Ferenc în anii 1923-1925. Corespondența cu V. Gordon Childe. Colaborarea cu Vasile Pârvan*, StComSfGheorghe, p. 171-205.
- 1974 *V. Gordon Childe és László Ferenc levelezése*, Korunk, 3, p. 473-481.
- 1978 *A régész*, in vol.: László Ferenc, *Táj és Tudomány. Válogatott írások* (ed.: A. László), Bukarest, p. 75-102.
- 1979 *Un schimb de scrisori între Vasile Pârvan și Francisc László*, CI, IX-X (1978-1979), p. 639-644.
- 1980 *Un raport inedit asupra săpăturilor arheologice de la Ariușd din anul 1925. (Întocmit de László Árpád)*, Aluta, X-XI, p. 11-21.
- 1990 *Troia și arheologia preistorică europeană la sfârșitul sec. XIX și începutul sec. XX. O evocare. In memoriam Henrici Schliemann et Sophiae Torma*, SympTh, 8, p. 313-323.
- 2007 *A XX. század eleji erődí ásatások és a Cucuteni-Tripolje kultúra kutatásának kezdetei. Bevezető sorok László Ferenc, Az erődí edények típusai című tanulmányához*, Dolgozatok Ú.S., II, p. 3-30.
- LÁSZLÓ Ferenc
1911 *Háromszék vármegyei praemykenaei jellegű telepek – Stations de l'époque pré-mycénienne dans le comitat de Háromszék*, Dolgozatok, II, p. 175-259.
1914 *Ásatások az erődí őstelepen. (1907-1912.) I. Közlemény – Fouilles à la station primitive de Erőd (1907-1912). I*, Dolgozatok, V, p. 279-417.
1927 *Les types de vases peints d'Ariușd (Erőd)*, Dacia, I (1924), p. 1-27.
- LÁSZLÓ Ferenc, CSUTAK Vilmos
1916 *A Múzeumok és Könyvtárak Országos Főfelügyelősége hatáskörébe tartozó közgyűjtemények működése és fejlődése az 1915. évben*. Sepsiszentgyörgy, MKÉ, X, 2-3. p. 131-139 (aslo in: BOÉR 2002, I, p. 99-110).
- MAKKAY János
1999 *Néhány őstörténeti kérdés Torma Zsófia és H. Schliemann levélváltása kapcsán. A módosított Dimini-vándorlás elmélete*, in vol.: *Holt lóra patkó. Tanulmányok Torma Zsófia (1840-1899) emlékezetére* (ed.: János Makkay), Budapest, p. 81-132.
- MAREȘ Ion
2002 *Metalurgia aramei în neo-eneoliticul României*, Suceava.
- MORGÓS András
2002 *Gasparez Géza Elemér Antal*, in vol.: *Magyar Múzeumi Arcképcsarnok* (eds.: S. Bodó, Gy. Viga), Budapest, p. 303.

- MORGÓS András, DOMOKOS Levente
2003 *A magyar múzeumi restaurálás kialakulása Erdélyben. Neves erdélyi magyar restaurátorok*, ISIS, 3. p. 8-27.
- NESTOR Ion
1973 *Considerații asupra semnificației cercetărilor arheologice ale lui László Ferenc*, StComSfGheorghe, p. 21-25.
- PATAKY Iván
1996 *Zalai légihelyzet, 1944-45 (Adalékok a Székely Nemzeti Múzeum második világháborús történetéhez)*, Acta Siculica, I, p. 317-322.
- RACZKY Pál et alii
1997 *Polgár–Csőszhalom-dűlő*, in vol.: *Utak a múltba. Az M3-as autópálya régészeti leletmentései* (eds.: P. Raczky, T. Kovács), Budapest, p. 34-41.
- ROSKA Márton
1929 *A Székelyföld őskora*, in vol.: *Emlékkönyv a Székely Nemzeti Múzeum ötvenéves jubileumára* (ed.: V. Csutak), Sepsiszentgyörgy, p. 258-326.
1941 *A Torma Zsófia-gyűjtemény az Erdélyi Nemzeti Múzeum Érem- és Régisegtárában*, Kolozsvár.
- SZÉKELY Zoltán
1948 *Sepsiszentgyörgy története a középkor végéig*, Sepsiszentgyörgy.
- SZÉKELY Zsolt
1997 *Perioada timpurie și începutul celei mijlocii a epocii bronzului în sud-estul Transilvaniei*, BTh XXI, București.
- SZTÁNC SUJ Sándor-József
2003 *A Cucuteni–Erősd-kultúra leletei a Magyar Nemzeti Múzeumban*, ComArchHung, p. 31-66.
2004 *A Székely Nemzeti Múzeum régészeti gyűjteménye és régészeti kutatásának múltja*, MM, 1, p. 17-19.
2005 *The Early Copper Age Hoard at Ariușd (Erősd)*, in vol.: *Cucuteni - 120 ans des recherches. Le temps du bilan* (éds.: Gh. Dumitroaia et alii), BMA XVI, Piatra-Neamț, p. 85-105.
2006 *A Gasparetz-jelentés. Adatok az erősd-i lelőhely kutatástörténetéhez*, Acta Siculica, II, p. 11-26.
- URSACHI Vasile
1991 *Le dépôt d'objets de parure énéolithique de Brad, com. Negri, dép. de Bacău*, in vol.: *Le Paléolithique et le Néolithique de la Roumanie en contexte européen* (éds.: V. Chirica, D. Monah), BAI IV, Iași, p. 335-386.
- URSULESCU Nicolae, VĂLEANU Mădălin-Cornel
2007 *Debutul culturii Cucuteni în arheologia europeană*, in vol.: *Dimensiunea europeană a civilizației eneolitice est-carpătice* (ed.: N. Ursulescu), Iași, p. 21-62.
- VULPE Alexandru
1975 *Die Äxte und Beile in Rumänien*, I, PBF IX, 2.

GESTUALITÉ ET SÉMANTIQUE DANS LA PLASTIQUE ANTHROPOMORPHE DE LA CULTURE PRÉCUCUTENI. ENTRE TRADITION ET INNOVATION

DUMITRU BOGHIAN^{*}

Mots clefs: *gestualité, archétype, plastique anthropomorphe, Précucuteni.*
Cuvinte cheie: *gestică, arhetip, plastică antropomorfă, Precucuteni.*

Résumé. *Dans cet article, l'auteur a effectué une incursion théorique dans la thématique si généreuse de la gestualité (postures et gestes) et des archétypes qui se reflètent dans la plastique anthropomorphe du Néolithique et de l'Énéolithique, en particulier dans les statuettes de la culture Précucuteni.*

Rezumat. *În acest articol, autorul a efectuat o incursiune teoretică în problematica atât de generoasă a gesticii (posturile și gesturile) și a arhetipurilor care sunt reflectate în plastica antropomorfă a neoliticului și eneoliticului, în mod particular în cadrul statuetei culturii Precucuteni.*

On connaît assez bien le fait qu'une grande partie des éléments d'art préhistorique, protohistorique et historique communiquent par l'image, chacun contenant des messages culturels différents et complexes. Dans ce contexte, la plastique anthropomorphe du Paléolithique, Épipaléolithique/Mésolithique, Néolithique et Énéolithique, ainsi que celle des époques historiques représente un exemple édifiant; tout est communication en et par l'image.

Les gestes, en général, et ceux compris dans toutes les formes artistiques, provenant de toutes les époques historiques, en particulier, doivent être liés aux représentations sociales, historiques, ethnographiques, ethnologiques, culturelles, philosophiques, religieuses etc. sur le corps humain. M. Mauss plaide, dès 1935, pour l'étude des gestes humains à l'intérieur des sociétés traditionnelles, tout en montrant que: "les techniques corporelles... moyens par lesquels les gens, société après société,

savent se servir de leur propre corps dans une manière traditionnelle" (MAUSS 1936, 365-386).

Les gestes rendus dans la plastique anthropomorphe néolithique et énéolithique ont été abordés d'une manière assez réduite dans la littérature de facture archéologique, comme, d'ailleurs, les gestes des sociétés traditionnelles dans la littérature ethnologique; le plus souvent, ceux-ci ont été considérés insignifiants.

Malgré cela, la posture et le geste (encadrés dans l'activité posturale – motrice de l'être humain et pas seulement), déterminés par une multitude de facteurs anatomiques, physiologiques et psychologiques, sont cultivés dans la société et, deviennent des automatismes; ils reflètent une grande diversité de modèles culturels et, de cette manière, ils peuvent être abordés dans la perspective de la socio psychologie et de l'ethnopsychologie.

Dans tous les contextes, les gestes représentent différents codes culturels (objet d'étude de la sémiologie), compris en tant que véritables stocks d'informations, constituées du point de vue historique,

^{*} Université "Ștefan cel Mare" de Suceava,
e-mail: dimitrub@atlas.usv.ro

auxquelles les membres d'un groupe social font appel pour formuler des messages (verbaux, non verbaux, para verbaux), leur compréhension représentant une condition indispensable pour le fonctionnement de la société. Cela permet l'adaptation au contexte des comportements personnels et interpersonnels et c'est justement à cause de cette chose que les codes reçoivent de la signification (le codage social, et pas seulement, représente une forme de comportement apprise et faite part par tous les membres d'un groupe qui communique).

Les postures et les gestes, définis comme les codes non verbaux (méta-verbaux, para-verbaux) doivent être vus comme **des moyens de transmettre l'information codée**, tout en se substituant ou tout en étant complémentaires au message verbal (dans la vision de la cinétique comme discipline scientifique de la gestualité), mais aussi en tant **qu'actes portant de la signification culturelle** (rituels, comportement social, comportement religieux, etc.).

C'est à cause de cela que nous pensons que les gestes rendus dans la plastique néolithique et énéolithique, en général, et dans celle Précucuteni-Cucuteni, en particulier, pourraient être interprétés du point de vue de l'imagologie (CHICIUDEAN, HALIC 2003, 13-90), dans une clef complexe qui suppose l'association de tous les éléments contextuels et non contextuels (les gestes technologiques du confectionnement et de l'ornementation, destination/fonctionnalité, abandon); les conditions de découverte et d'interprétation doivent unir la perspective archéologique et ethnologique/anthropologique culturelle et religieuse. Les gestes, appris dans le cadre de certains rituels, qui contribuent à l'inculturation sociale et religieuse des membres de la communauté, assurent la continuité du culte religieux, maintiennent et potentialisent l'équilibre psychophysique des fidèles (KERNBACH 1989, 512-513). Dans de telles conditions, le rite et le rituel peuvent être compris en tant qu'aspect pratique du mythe, aussi (BUHOCIU 1979, 10).

Les postures et les gestes peuvent être analysés, aussi, dans la perspective de la psychologie analytique de C. G. Jung

(1875-1961). La structure du psychique est vue par C. Jung sous la forme de trois degrés:

- *la conscience* – visible à la surface;
- *l'inconscient personnel* – pensées et sentiments réprimés de la vie individuelle et des automatismes;
- *l'inconscient collectif* – des stratifications impersonnelles, des connexions mythiques; celui-ci représente l'accumulation de l'expérience millénaire de l'humanité, contient les angoisses de l'enfance, les instincts, son propre-moi et les archétypes.

Les archétypes représentent des images et des symboles indépendants du temps et de l'espace, des expressions énergétiques des images primordiales de la mythologie humaine. C'est à cause de cela qu'ils représentent des thèmes privilégiés qui se retrouvent inchangés dans les rêves, mais aussi dans les mythes, les contes, l'art, la religion ou dans les cosmogonies.

Les archétypes représentent des structures de l'inconscient collectif. Elles sont formées du fonctionnement psychique le long d'une entière ligne ancestrale et constituent, toutes ensemble, une image du monde, née à la confluence et de la condensation des expériences millénaires. Les archétypes sont les images primordiales, formées le long de milliers d'années, lorsque le cerveau et la raison humaine sont sortis d'un état animal et ont suivi les différentes étapes du devenir socioculturel.

Les Formes – Symboles par lesquels ces archétypes font leur apparition sont différents d'une culture à l'autre; chaque peuple a ses propres symboles, spécifiques au même archétype qui réfléchissent la liaison entre l'inconscient individuel et collectif et le mental culturel.

Les gens n'accèdent pas consciemment à ces archétypes, mais seulement aux manifestations de ceux-ci, aux symboles archétypaux, qui se manifestent dans notre vie de tous les jours. Les images archétypales sont mythiques et symboliques parce qu'elles expriment la consonance du sujet qui vit une expérience avec l'objet qui lui procure l'expérience.

Toute mythologie et toute révélation provient de cette matrice des expériences et

pour cela, toute idée future sur l'être humain ou sur le monde y aura toujours ses racines.

Quelques archétypes de Jung (voir les ouvrages de Carl Gustav Jung) (JUNG 1997; 1996/2001/2004; 2003; STEVENS 1996):

- *persona* (le masque derrière lequel les gens se cachent, une sorte de compromis entre soi-même et la société);
- *l'ombre* (image onirique ténébreuse qui exprime l'inconscient individuel, la partie de nous-même que nous repoussons, qui ne nous convient pas);
- *animus* (la partie masculine inconsciente qui existe à chaque femme);
- *anima* (la partie inconsciente féminine du psychique de l'homme);
- *la grande mère*; certains archétypes ont été développés par Erich Neumann, un élève de Jung et représentant de la psychologie analytique et de la psychologie du développement, dans l'ouvrage *The Great Mother. An Analysis of the Archetype* (NEUMANN 1972);
- *le vieux sage*;
- *le sien* (l'archétype de l'unité, de l'unification).

À ceux qu'on vient de mentionner, on peut ajouter le modèle historique des premières religions connues par l'intermédiaire des sources écrites et iconographiques (sumérienne, égyptienne, anatolienne, helladique, minoïque ou mycénienne, etc.), par lesquelles on est plus proche des archétypes mythologico-religieux préhistoriques qu'aujourd'hui, malgré tous les efforts des spécialistes pour les déchiffrer.

*

Tout en revenant aux gestes, on observe que ceux-ci représentent une importante forme de communication. La communication interpersonnelle entre les gens fait appel plusieurs fois, au-delà du langage verbal, à des formes et à des modalités provenant des prédispositions biologiques et psychologiques de leurs interlocuteurs.

La posture – en tant que moment d'une personne exprimé par la position du

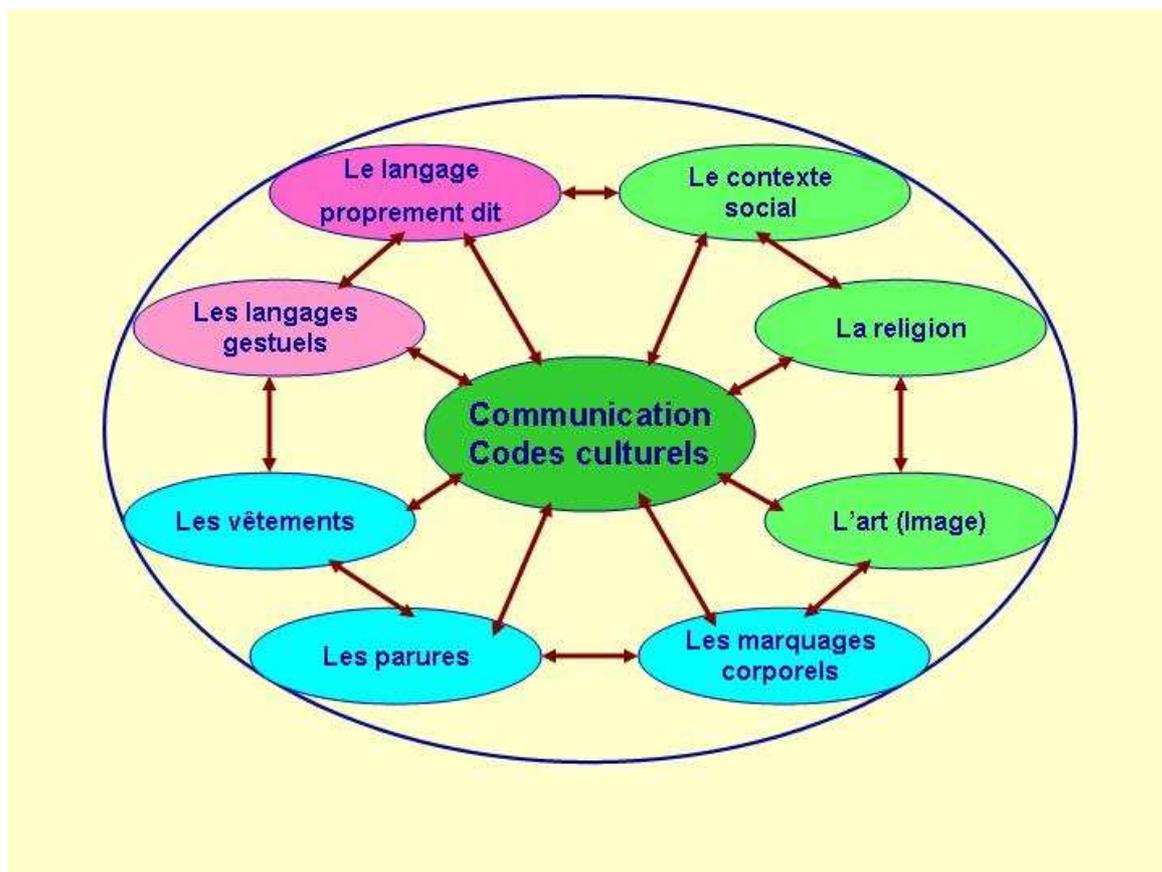
corps, la manière de tenir son corps, la tenue, l'attitude et les gestes – l'ensemble (la totalité) des gestes qu'une personne fait pendant la communication verbale, para-verbale și non verbale, représente des éléments importants de communication. **Les mouvements du corps** sont classifiés en quelques types, chacun ayant une fonction différente (EKMAN, FRIESEN 1969, 49-98 *apud* DAFINOIU, LÁSZLÓ VARGHA 2005, 95-99):

- **Les Emblèmes** – substitués par les mots (Ex. Les doigts en V – l'emblème de la victoire dans certaines sociétés, etc.);
- **Les Illustrateurs** – accompagnent la parole (les pêcheurs illustrent les dimensions des poissons qu'ils ont attrapé avec les mains/les doigts);
- **Les Réglementeurs** – ex. les mouvements de la tête monitorisent le flux de la conversation;
- **Les Adapteurs** – les gestes qui, tout comme la majorité des autres catégories, échappent au contrôle conscient et n'ont pas, en général, un but communicatif (ex. la morsure des lèvres, le mouvement automatique du crayon qui se trouve dans la main ou le dessin automatique des lignes irrégulières, des figures, etc.).

Si les emblèmes, les illustrateurs et les réglementeurs accompagnent et complètent le message verbal, les adapteurs peuvent nous informer surtout sur le contexte émotionnel dans lequel se réalise la communication.

Le geste, comme mouvement extérieur du corps (surtout de la tête et des mains), accompagne ou remplace la parole, exprimant un état psychologique ou une intention, une idée, un sentiment, une action etc. ou peut donner plus d'expressivité aux paroles, ayant d'évidentes significations communicationnelles et culturelles, complétant le langage verbal. Dans les conditions complexes de la communication, la posture du corps et les gestes sont liés des signes parce qu'ils expriment des pensées, des intentions, des états d'âme ou suggèrent à l'autre une action avec des significations particulières, qui constituent l'objet d'étude de la sémantique et de la sémiologie.

La congruence et l'incongruence entre le message verbal et celui du corps peuvent



Pl. I. Éléments de communication dans les sociétés / les cultures traditionnelles en fonction des statuts et des rôles sociaux.

constituer d'importantes sources d'informations (ex. la bouche dit oui, mais le corps tout entier dit non). Les mouvements du corps fournissent des informations qui, le plus souvent, ne peuvent pas être obtenues de l'analyse du contenu verbal ou de l'expression faciale (ex. les mains, les jambes et le visage comme sources d'indicateurs non verbaux de l'état psychique).

La posture, l'équilibre du corps et de la colonne vertébrale expriment des attitudes humaines fondamentales. Dès premiers contacts, nous sentons une attitude ouverte, accueillante ou, au contraire, de répulsion, de mépris ou soumission. À ces moyens de communication non verbaux s'ajoutent: le regard, la mimique, le contact corporel, le rapport envers l'espace intime (acceptation, refus), etc. (DAFINOIU, LÁSZLÓ VARGHA 2005, 95-99).

Il est important de comprendre que les gestes représentent dans toutes les

sociétés, y inclus celles anciennes ou traditionnelles, d'importantes formes de langage.

On peut encadrer **les gestes biophysiques** (boire, manger, aller, dormir, naître etc.) avec ou sans leurs implications psychologiques (vécus) implicites, qui sont instinctifs, mais qui peuvent être modifiés et transmis du point de vue culturel (ex. **la marche** – style, résistance, vitesse, charges portées, différences de genre etc.; **les postures** – de repos, de travail, assis sur une chaise, sur la terre, les jambes allongées, les jambes croisées etc. transmettent des informations sur l'état de l'individu) et **les gestes technologiques**, exprimés par le couple personne – geste – outil – produit (à leur tour, ils peuvent être productifs, fonctionnels et implicitement, culturels).

Dans certaines conditions, les gestes/ les postures bio – psychologiques peuvent avoir une certaine influence sur l'organisation

des gestes technologiques et culturels. Dans le cas des gestes technologiques, le corps est utilisé comme instrument par l'intermédiaire des techniques directes et indirectes; de celles-ci dépendent les options techniques proprement dites, ainsi que les options culturelles générales (LEROI-GOURHAN 1943; 1964; ARCHAMBAULT DE BEAUNE 2000; PROCOPIOU, TREUIL 2002; RATHJE, NIELSON, RASMUSSEN 2002).

De cette manière, **les gestes comme message (ayant la fonction de communication)** sont liés ou non à la parole ou peuvent se substituer à la parole. Ceux-ci peuvent être encadrés dans le langage "emblématique" (des ensembles d'actions symboliques dans lesquels le mouvement possède une signification verbale connue par la majorité des membres du groupe) en tant que langage culturel. **La codification gestuelle de l'emblème** peut être **iconique** (le mouvement ressemble dans une certaine mesure avec ce qu'il veut transmettre) ou **arbitraire** (voir les gestes et la mimique qui accompagnent le langage). **Les gestes (les mouvements) institutionnalisés** sont pratiqués dans différents domaines (rituels, danse, jeux, sport, etc.) et ont une signification sociale et culturelle accentuée (CAILLET 1999, 152-155; COQUET 1999, 402-403; BRIL, 1999, 173-175; S. PRICE 1999, 529-530).

Tout en synthétisant les considérations d'ordre théorique, les gens utilisent et rendent les gestes et les autres techniques corporelles en fonction de la société et de la culture à laquelle ils appartiennent. Sans doute, il y en a une étroite relation entre les gestes et les techniques corporelles et les autres facteurs socioculturels (le langage verbal, les contextes économiques, sociaux, politiques, culturels, les vêtements, les parures, les marquages corporels, le genre, l'âge, le statut et le rôle social, l'art, la religion, etc.).

L'apprentissage des gestes culturels se réalise dans un milieu non institutionnalisé (observation, imitation, spontanément) ou institutionnalisé (l'inculturation dans le cadre des sociétés traditionnelles, par la pression de la psychologie sociale/du mental collectif sur la psychologie individuelle/mentale

individuelle), dans le cadre de certaines étapes et rites d'initiation, des rituels, des cérémonies, au milieu desquels ceux de nature religieuse, à notre avis, avaient une importance accablante.

En ce qui concerne l'inculturation et l'évocation gestuelle, le théâtre antique même à ses origines dans certains rituels et cérémoniaux protohistoriques, utilisant de nombreuses indications gestuelles, qui mettaient en évidence les qualités visuelles du discours, grâce à l'énergie et au pouvoir évocateur de l'acte dramatique; ceux-ci, à leur tour, mettaient en évidence le méta théâtre, c'est à dire les gestes codifiés symboliquement et rituellement (ȘTEFĂNESCU 2003; GERNET 1999).

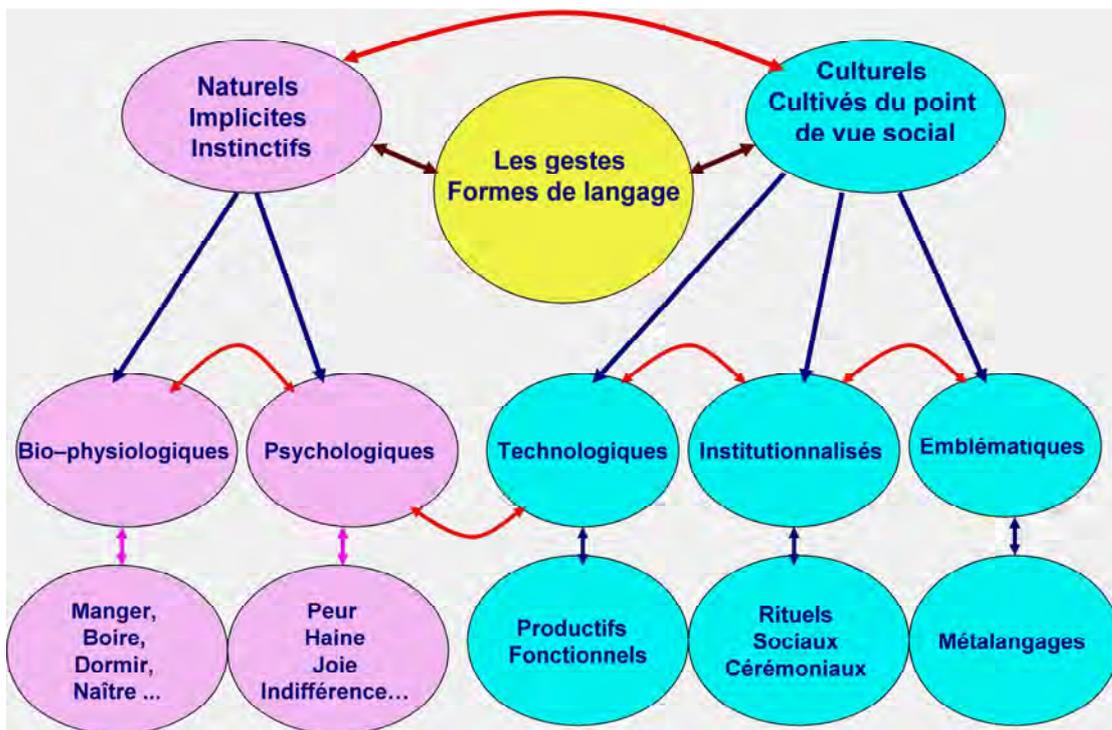
D'ailleurs, cela découle du fait que tous les rites et les rituels de culte, de toutes les époques, ont été étroitement liés à l'acte dramatique, dans lequel se réalisait la communion entre le sacré et le profane, le laïque et le religieux, par lequel étaient inculturés les adorateurs ou par lequel on faisait du prosélytisme.

De la perspective de la communication, on considère que les postures corporelles et les gestes doivent être étudiés du point de vue de la vision sémiologique du **signifié** (idée, concept, contenu, sens d'un mot ou d'un signe) et du **signifiant** (réalisation matérielle du signe qui constitue le support d'un sens, élément formel du signe), des concepts empruntés de la linguistique (CAILLET 1999, 152-155).

*

Des perspectives théoriques que l'on vient de discuter résulte que la gestualité de culte néolithique et énéolithique peut représenter une direction importante de recherche, parce qu'on croit qu'il s'agit d'une importante forme de métalangage (voir les représentations plastiques, représentées dans des positions explicites – "le penseur", la déesse avec les serpents, "les danseuses", la déesse qui offre ses seins, la déesse qui donne naissance, etc. encadrés par les spécialistes, dans différents thèmes religieux) (fig. 1-4).

En même temps, la remise en discussion du rôle des statuettes anthropomorphes (laïques ou religieuses/de



Pl. II. L'image des liaisons entre les gestes naturels et ceux culturels.

culte) (TALALAY 1993; GOODISON, MORRIS 1998) devrait tenir compte des attributs de la plastique et des représentations humaines, en particulier celles féminines, durant le paléolithique, mais aussi l'épipaléolithique, ainsi que les âges du bronze et du fer. D'ailleurs, la plastique de l'âge du bronze de la Méditerranée orientale (Crète, Chypre) (J. KARAGEORGHIS 1977; V. KARAGEORGHIS 1998, 120-131, 198-218; KARAGEORGHIS, KARAGEORGHIS 2002, 263-282; H.T. PRICE 1978; OLSEN 1998, 380-392; BERGMANN, KÄSTNER, MERTENS 2004) est extrêmement expressive et prolonge certains archétypes néolithiques.

En même temps, si l'on tient compte des contextes dans lesquels les statuettes anthropomorphes ont été découvertes (dans des fosses de culte et domestiques, dans la couche de culture des habitats, dans les habitations, auprès des foyers et des fours, dans des contextes de culte explicites, etc.), on doit souligner la plurifonctionnalité de la plastique, malgré les différences qui ont existé d'une région à l'autre, d'une culture à l'autre. En ce contexte, on remarque l'existence des différences dues soit au

conservatisme de certaines sociétés, cultures ou religions, qui ont conservé d'une manière plus puissante et plus fidèlement les archétypes (la Méditerranée orientale – l'Anatolie et le monde égéen), soit à l'institutionnalisation de l'État et de la religion, aux superpositions, au dynamisme, aux acculturations et aux transformations culturelles très puissantes (voir l'Orient), qui ont été suivis par des phénomènes d'*interpretatio* et de *synchrétisme*, qui ont conduit à la multiplication et à la diversification de l'archétype.

Dans ce cadre, les statuettes anthropomorphes, représentant différentes postures et gestes, entretenaient, probablement, les émotions religieuses, déterminées et potencées par les gestes des divinités, répétés rituellement par les prêtres et les fidèles. D'ailleurs, dans le cadre des rituels religieux se manifeste une pérennité des gestes et du langage corporel, qui se transforment dans des signes sans mot.

En même temps, les gestes figés dans la terre glaise des statuettes anthropomorphes néolithiques et énéolithiques doivent être liés à la représentation et à la

signification toute entière des pièces; voir en ce sens la complexité du geste/des gestes: psychologique (vécus, états d'esprit envers diverses préoccupations: joie, chagrin, adoration, invocation, peur, soumission, etc.), psychologico-religieuse (états d'âme vis-à-vis la divinité), sociale (attitudes et comportements de type social, gestes de représentation de l'autorité, des sujets, du rôle et du statut social, âge, sexe, rang social, exprimés par la mimique, la position des mains, du corps, du visage, etc.).

Dans la perspective de la recherche, les activités d'inventorier et de classer les différentes catégories et systèmes de signes représentés sur le décor peint, incisé, excisé et plastique de la céramique et de la création sculpturale néolithique et énéolithique, le lancement des hypothèses liées de différents thèmes religieux (et forcément artistiques) sont extrêmement importantes. Mais le déchiffrement des significations des différents signes et symboles, associés d'une manière directe ou indirecte, avec plusieurs éléments de rituel et de cérémonie de culte, ainsi que les gestes des statuettes sont aussi importants. Ces archétypes et éléments de gestes rituels se sont constitués dès les débuts de l'énéolithique oriental, lorsque J. Cauvin parlait d'une *révolution des symboles* (CAUVIN 1994, 41-53).

Tout en essayant de comprendre et de déchiffrer les gestes – signes rendus dans la plastique néolithique et énéolithique, y compris celle des cultures Précucuteni et Cucuteni, on pourra probablement dépasser l'étape des considérations générales sur les cultes de ces temps-là (comme par exemple, le culte de la fécondité et de la fertilité), pénétrer dans le mécanisme intime des pratiques de culte et même postuler l'existence d'un panthéon avec des paléo-divinités, lorsque ces pièces sont associées avec des complexes de culte domestiques ou communautaires, avec une organisation très précise (rites, rituels), des constructions spéciales, avec du "personnel de culte", des adorateurs etc.

*

Les gestes représentés dans la plastique anthropomorphe Précucuteni-

Cucuteni (fig. 6-9) sont aussi importants pour le langage religieux que les éléments contextuels, les décors, les associations dans des complexes de culte (fig. 10) (UCKO 1962, 38-54; POGOŽEVA 1983; 1985, 95-242; BAILEY 2005; 2005a, 123-136; COMȘA 1996; GHEORGHIU 2005, 137-144; GIMBUTAS 1977; 1989; MANTU 1993, 129-141; MONAH 1997; URSULESCU, BOGHIAN, COTIUGĂ 2005, 9-20; 2006, 115-130; URSULESCU, TENCARIU 2006), malheureusement pas aussi nuancés et explicites que ceux connus pour la plastique de la culture Gumelnița (MARINESCU-BÎLCU 1967, 47-58; ALEXANDRESCU, ȘIMON 1989, 12-14; COMȘA 1995, 441-444; 1996a, 191-208; VOINEA 2002, 112-121; ANDREESCU 2006, 159-171); indifféremment de la reconstitution de la scène de culte du complexe de Ovčarovo, il est évident que les statuettes respectives rendent des gestes d'invocation et d'adoration, comme orantes (TODOROVA-SIMEONOVA 1974, 39-46; TODOROVA *et alii* 1983; GIMBUTAS 1980, 41-50), avec des liaisons évidentes avec la période antérieure ou le monde anatolien-balkanique (NEAGU 1999):

- les postures et les gestes sont "canonisés", pétrifiés dans leur moule, fait qui suggère une certaine impénétrabilité, mais qui peut être liée de la solennité et de l'importance de l'icône dans le cadre des rituels;
- cette solennité est présente justement dès le début de la civilisation (voir les statuettes de Traian-Dealul Viei) et elle n'a pas été affectée par les influences réceptées de la part de la culture Hamangia (fig. 5) (MARINESCU-BÎLCU 1974, 399-436; 1977, 13-17);
- en même temps, apparaissent certaines statuettes qui présentent des éléments de gestualité sociale et de culte (on se trouve, évidemment, dans une certaine étape de recherche);
- plusieurs de celles-ci s'inscrivent dans une tradition néolithique antérieure qui parle d'une configuration des cultes et des comportements religieux de cette époque-là, d'une certaine uniformité de ceux-ci, avec des liaisons évidentes avec le monde oriental et balkanique;
- elles parlent du contournement de certains archétypes religieux proto-historiques relativement stables;
- les postures et les gestes "singuliers",

- particuliers, qui ne font pas partie du répertoire habituel, suggèrent des statuts et des rôles différents dans le cadre des rituels (des processions) et pas seulement; d'ailleurs, les rituels supposent ce qu'Aristote décrivait en *Ars Retorica* et *Ars Poetica* comme le spectacle (*opsis*) et le jeu de l'acteur/ des acteurs, des orateurs (*hypokrisis*), par lequel le mot, le symbole, le mythe est introduit dans l'œuvre;
- les postures et les gestes mis en évidence de et par la plastique des cultures Précucuteni et Cucuteni dénotent certains codes culturels, fondés sur des gestes institutionnalisés, emblématiques et iconiques;
 - les gestes et les comportements technologiques qui ont eu lieu pendant la création de la plastique Précucuteni et Cucuteni, ainsi que ceux fonctionnels, dans le cadre des rituels religieux, sont aussi importants;
 - la plastique Précucuteni-Cucuteni est beaucoup moins expressive (dans la perspective de la gestualité) que celle Boian-Gumelnița qui présente des marquages corporels (la perforation des oreilles et de la lèvre inférieure, qui peut s'observer seulement sur les statuettes féminines, qui rendaient une image de certains comportements de la réalité et étaient, probablement, des signes de distinction ethno-tribale et peut-être sociale), des gestes sociaux et des positions religieuses d'adorateurs/orantes; d'ailleurs, les vases présentant des caractéristiques anthropomorphes ne sont pas, au niveau du complexe culturel Précucuteni-Cucuteni, aussi expressifs dans la perspective des gestes sociaux et rituels (de culte), que dans le cas de la culture Gumelnița;
 - à la suite des liaisons très fortes entre les communautés des deux cultures, dans le milieu Cucuteni ont été empruntés plusieurs gestes de la plastique Gumelnița, même si, parfois, des personnages du quotidien énéolithique étaient représentés avec le statut de "héros";

- un rituel ancien extrêmement important est la danse magique, initiée par les chamans et les prêtres; il s'agit des danses cosmogoniques, anthropogoniques, d'union des éléments primordiaux, d'initiation et de passage, de celles jointes à des rituels liés à des étapes calendaires etc. (voir ici les vases de type ronde paysanne), parce que des représentations de scènes de danse sont connues encore dès le début de l'Énéolithique oriental (GARFINKEL 2003; COLLON 2003, 96-102).

En conclusion, la plastique du Précucuteni et du Cucuteni poursuit des thèmes, des postures et des gestes du Néolithique et de l'Énéolithique oriental et balkanique. Jusqu'à présent, on a découvert peu de statuettes qui illustrent des éléments évidents de gestualité; cela semble parler de la standardisation accentuée des postures et des gestes dans une société très clairement structurée du point de vue social et religieux, qui ne permet que dans une petite mesure, la déviation de la règle. Plusieurs statuettes en argile cuite, schématisées (Cucuteni A-B et B), semblent influencées par celles Gumelnița en os.

Il est difficile de définir pour le moment, dans le complexe culturel Précucuteni-Cucuteni, des archétypes d'orant/orante, de sorciers dans des danses rituelles ou des différentes hypostases des déesses de la fécondité, comme a essayé E. Comșa pour la civilisation Gumelnița (COMȘA 1996a, 191-208; 1995, 441-444).

Tout en partant de l'analyse des gestes représentés dans la plastique anthropomorphe, on pourrait affirmer que dans l'énéolithique carpato balkanique existait une certaine quasi-unité religieuse, avec différents types de manifestation et des influences réciproques, réfléchissant d'une manière dynamique les archétypes de la *Grande Mère*.

Bibliographie

- ALEXANDRESCU Emilian, ȘIMON Mihai
1989 *Unicat al artei neolitice: "Îndrăgostiți" de la Sultana*, MI, 4 (265), p. 12-14.
- ANDREESCU Radian-Romus
2006 *Considerații asupra decorului statuetelor antropomorfe gumelnițene*, CA, XIII, p. 159-171.
- ARCHAMBAULT DE BEAUNE Sophie
2000 *Pour une archéologie du geste: broyer, moudre, piler des premiers chasseurs aux premiers agriculteurs*, Paris.
- ARISTOTEL
1965 *Poetica*, București.
2003 *Retorica*, București.
- BAILEY W. Douglass
2005 *Prehistoric Figurines. Representation and Corporeality in the Neolithic*, London-New York.
2005a *Towards New Dimensions of Meaning for Cucuteni-Tripolye Figurines*, in vol.: *Cucuteni - 120 ans des recherches. Le temps du bilan* (éds.: Gh. Dumitroaia et alii), BMA XVI, Piatra-Neamț, p. 123-136.
- BERCIU Dumitru
1961 *Contribuții la problememe neoliticului în România în lumina noilor cercetări*, București.
1966 *Cultura Hamangia. Noi contribuții*, București.
- BERGMANN Sylvie, KÄSTNER Sibylle, MERTENS Eva-Maria (éds.)
2004 *Göttinnen, Gräberinnen und gelehrte Frauen*, Waxmann Verlag, Münster, *Frauen-Forschung-Archäologie*, Bd. 5.
- BRIL Blandine
1999 *Tehnici corporale*, in vol.: *Dicționar de etnologie și antropologie* (coord.: Pierre Bonte, Michel Izard), Iași, p. 173-175.
- BUHOCIU Octavian
1979 *Folclorul de iarnă, ziorile și poezia păstorească*, București.
- CAILET Laurence
1999 *Coduri culturale*, in vol.: *Dicționar de etnologie și antropologie* (coord.: Pierre Bonte, Michel Izard), Iași, p. 152-155.
- CAUVIN Jacques
1994 *Naissance de divinités. Naissance de l'agriculture. La révolution des symboles au néolithique*, Paris.
- CHICIUDEAN Ion, HALIC Bogdan-Alexandru
2003 *Imagologie. Imagologie istorică*, București.
- COLLON Dominique
2003 *Dance in Ancient Mesopotamia*, NEA, 66, 3, *Dance in the Ancient World* (Sept.), p. 96-102.
- COMȘA Eugen
1995 *Le tatouage chez les communautés de la culture Gumelnița*, Dacia N.S., XXXVIII-XXXIX (1994-1995), p. 441-444.
1996 *Figurinele antropomorfe din epoca neolitică de pe teritoriul României*, București.
1996a *Gesturi redade de figurinele neolitice din sudul României*, AMN, 33/1, p. 191-208.
- COQUET Michèle
1999 *Marcaj corporal*, in vol.: *Dicționar de etnologie și antropologie* (coord.: Pierre Bonte, Michel Izard), Iași, p. 402-403.
- DAFINOIU Ion, LÁSZLÓ VARGHA Jenő
2005 *Psihoterapii scurte. Strategii, metode, tehnici*, Iași.
- DUMITRESCU Vladimir
1974 *Arta preistorică în România*, București.
- EKMAN Paul, FRIESEN V. Wallace
1969 *The repertoire of nonverbal behavior. Categories, origins, usage, and coding*, *Semiotica*, 1, 1969, 49-98.
- GARFINKEL Yosef
2003 *Dancing at the Dawn of Agriculture*, Austin.
- GERNET Louis
1999 *Dionysos et la religion dionysiaque: éléments hérités et traits originaux*, *Anthropologie de la Grèce antique*, Flammarion, coll. "Champ", Paris.
- GHEOGHIU Dragoș
2005 *The Controlled Fragmentation of Anthropomorphic Figurines*, in vol.: *Cucuteni - 120 ans des recherches. Le temps du bilan* (éds.: Gh. Dumitroaia et alii), BMA XVI, Piatra-Neamț, p. 137-144.
- GIMBUTAS Marija
1977 *The Gods and Goddesses of Old Europe, 7000-3500 B.C. Myths, Legend and Cult*, London.
1980 *The Temples of Old Europe*, *Archaeology*, 33, 6, p. 41-50.
1989 *The Language of the Goddess Place*, San Francisco.
- GOODISON Lucy, MORRIS Christine (éds.)
1998 *Ancient Goddesses. The Myths and the Evidence*, London.
- JUNG Carl Gustav
1997 *Tipuri psihologice*, traduit par Viorica Nișcov, București.
1996/2001/2004 *Amintiri, vise, reflecții*, traduit par Daniela Ștefănescu, București.
2003 *Opere complete*, vol. 1, *Arhetipurile și inconștientul colectiv*, traduit par Dana Verescu et Vasile Dem. Zamfirescu, București.

- KARAGEORGHIS Jacqueline
1977 *La Grande Déesse de Chypre et son culte à travers l'Iconographie, de l'Époque Néolithique au VIe s. av. J.-C.*, Paris.
- KARAGEORGHIS Vassos
1998 *Greek Gods and Heroes in Ancient Cyprus*, Athena.
- KARAGEORGHIS Vassos, KARAGEORGHIS Jacqueline
2002 *The Great Goddess of Cyprus or the Genesis of Aphrodite in Cyprus*, in vol.: *Sex and Gender in the Ancient Near East* (eds.: S. Parpala et alii), Helsinki, p. 263-282.
- KERNBACH Victor
1989 *Dicționar de mitologie generală*, București.
- LEROI-GOURHAN André
1943 *Evolution et technique*, Paris.
1964 *Le geste et la parole*, Paris.
- MANTU Magda-Cornelia
1993 *Anthropomorphic representations from the Precucuteni and Cucuteni cultures*, *Anatolica*, 19, p. 129-141.
- MARINESCU-BÎLCU Silvia
1967 *Die Bedeutung einiger Gestein und Haltungen in der Jungsteinzeitlichen Skulptur der Ausser-karpatischen Gebiete Rumäniens*, *Dacia N.S.*, XI, p. 47-58.
1974 *La plastica in terracotta della cultura precucuteniana*, *RSP*, XXIX, 2, p. 399-436.
1977 *Câteva observații asupra sculpturii în lut a culturii Hamangia și influența ei asupra plasticii culturii Precucuteni*, *Peuce*, VI, p. 13-17.
- MAUSS Marcel
1936 *Les techniques du corps*, in vol.: *Sociologie et anthropologie*, Paris, p. 365-386.
- MONAH Dan
1997 *Plastica antropomorfă a culturii Cucuteni-Tripolie*, *BMA* III, Piatra-Neamț.
- MONAH Dan et alii
2003 *Poduri-Dealul Ghindaru. O Troie în Subcarpații Moldovei*, *BMA* XIII, Piatra-Neamț.
- NEAGU Marian
1999 *La plastique anthropomorphe néolithique au Bas Danube et certaines pratiques magico-rituelles*, *Living Past*, 1, <http://www.cimec.ro/livingpast/nr1/neagu/plastique.htm>
- NEUMANN Erich
1972 *The Great Mother. An Analysis of the Archetype*, Princeton.
- OLSEN Barbara A.
1998 *Women, Children and the Family in the Late Aegean Bronze Age: Differences in Minoan and Mycenaean Constructions of Gender*, *WA*, 29, 3, p. 380-392.
- PRICE Hadzisteliou Theodora
1978 *Kourotrophos: Cults and Representations of the Greek Nursing Deities*, Leiden.
- PRICE Sally
1999 *Podoaba*, in vol.: *Dicționar de etnologie și antropologie* (coord.: Pierre Bonte, Michel Izard), Iași, p. 529-530.
- POGOŽEVA P. Ajna
1983 *Antropomorfnaja plastika Tripol'ja*, Akademija Nauk, Novosibirsk.
1985 *Die Statuetten der Tripolje-Kultur*, *BAVA*, 7, p. 95-242.
- PROCOPIOU Hara, TREUIL Rene (éds.)
2002 *Moudre et broyer: l'interprétation fonctionnelle de l'outillage de mouture et de broyage dans la Préhistoire et l'Antiquité*, Paris.
- RATHJE Annette, NIELSON Marjatta,
RASMUSSEN Bodil Bundgaard,
2002 *Pots for the Living, Pots for the Dead*, *Danish Studies in Classical Archaeology ACTA*, Hyperborea 9, Copenhagen.
- STEVENS Anthony
1996 *Jung*, București.
- ȘTEFĂNESCU Eusebiu
2003 *Retorica limbajului scenic – Magul captiv*, București.
- TALALAY E. Lauren
1993 *Dolls and Device. Neolithic Figurines (From Franchti Cave, Greece)*, Bloomington.
- TODOROVA-SIMEONOVA Henrieta
1974 *Kultszene und Hausmodell aus Ovčarovo*, *Thracia*, III, p. 39-46.
- TODOROVA Henrieta et alii
1983 *Ovčarovo. Fouilles et recherches*, Sofia.
- UCKO Peter John
1962 *The Interpretation of Prehistoric Anthropomorphic Figurines*, *JRAI*, 92, p. 38-54.
- URSULESCU Nicolae, BOGHIAN Dumitru,
COTIUGĂ Vasile
2005 *Nouveaux types d'idoles dans la plastique anthropomorphe de la culture Précucuteni*, *SAA*, X-XI (2004-2005), p. 9-20.
2006 *Ipostaze rare ale cultului fertilității în plastica antropomorfă a culturii Precucuteni*, in vol.: *Cucuteni 120. Valori universale* (éd.: N. Ursulescu), Iași, p. 115-130.

URSULESCU Nicolae, TENCARIU Felix Adrian
2006 *Religie și magie la est de Carpați acum
7000 de ani. Tezaurul cu obiecte de
cult de la Isaiia, Iași.*

VOINEA Valentina
2002 *Adoratio et invocatio. Gesturi religioase*

*ancestrale reprezentate pe vase de cult
gumelnițene, CCDJ, 19, p. 112-121.*

ZBENOVICI V.G.

1989 *Rannij etap tripol'skoj kul'tury na territorii
Ukrainy, Kiiv.*



Fig. 1. Gestes archétypaux de l'Orient. 1-2: La culture Halaf (1: Chagar Bazar; 2: site iraquien inconnu); 3-7: La culture Hassuna; 8-12: La culture Ubaid. *Apud* www.louvre.fr/media/repository/ressources (2); <http://ecai.org/iraq/IraqCulturalArtifacts.asp> (3-7); <http://exchanges.state.gov/culprop/iraq> (8-12).

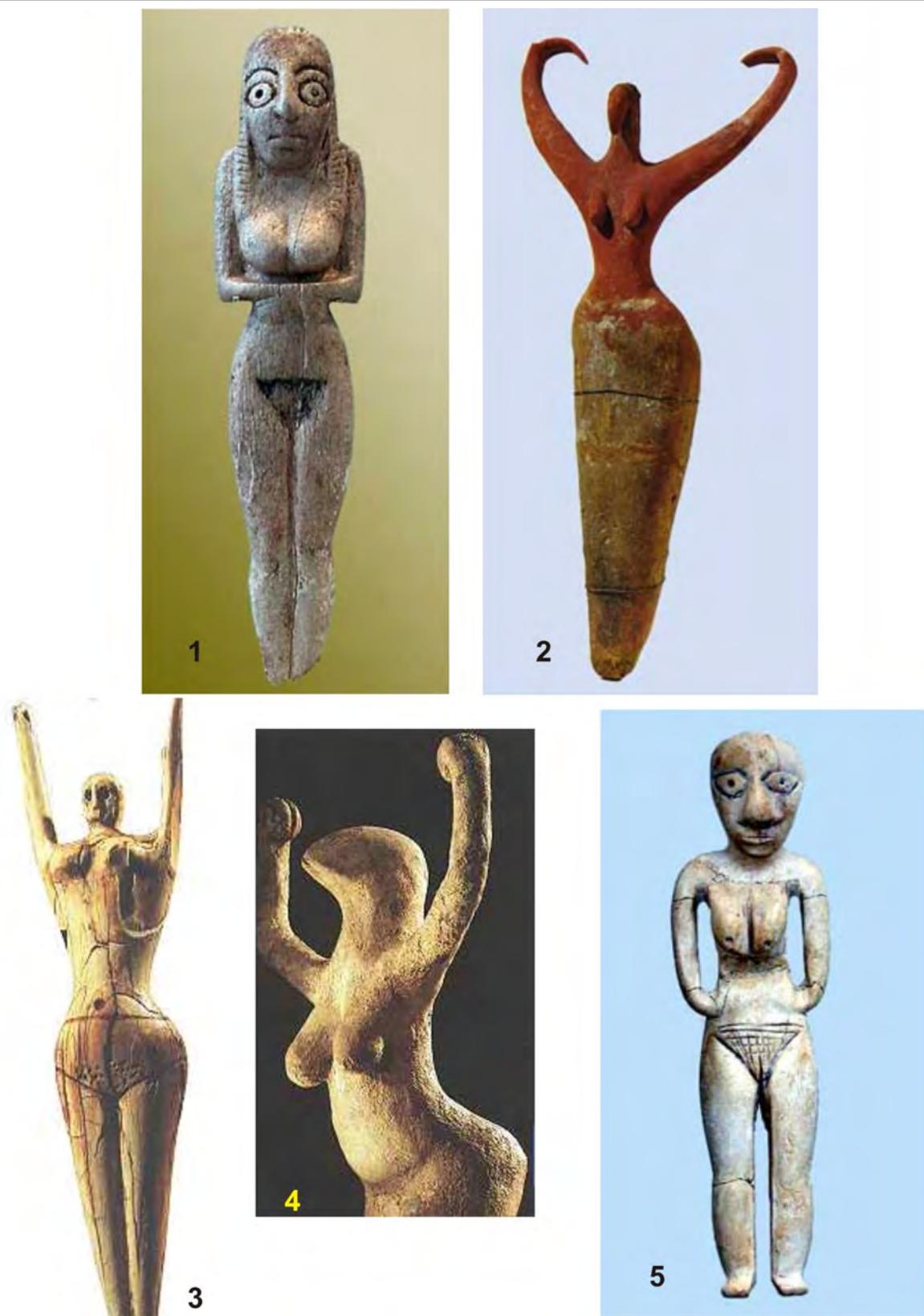


Fig. 2. Gestes archétypaux de l'Égypte prédynastique. 1-4: La culture Nagada I; 5: La culture Badari. *Apud* www.encyclopedie.bseditions.fr/image/article (1-5).



Fig. 3. Postures et gestualità anatoliano-balkanique. 1: Çatal Hoyük; 2: Hierapetra; 3: Pazardzik; 4: Achelion; 5: Sesklo; 6: Pharsala; 7: Nea Nikomedia; 8: Oreria; 9: Plateia Mogula Zarkou – modèle habitation. *Apud* www.Shelales.com/images/Turkey (1); <http://ccwf.cc.utexas.edu/~bruceh/cc307/minoan/images/1d.jpg> (2); www.mythinglinks.org/euro-west-old-europe.html (3); BAILEY 2005 (4, 8-9); <http://hellas.Teipir.gr/prefectures/greek/Magnisias/sesklo> (5); <http://web.Onetel.net.uk/~victorbryant/frame1tu5.html#HC05-Pic.004> (6-7).

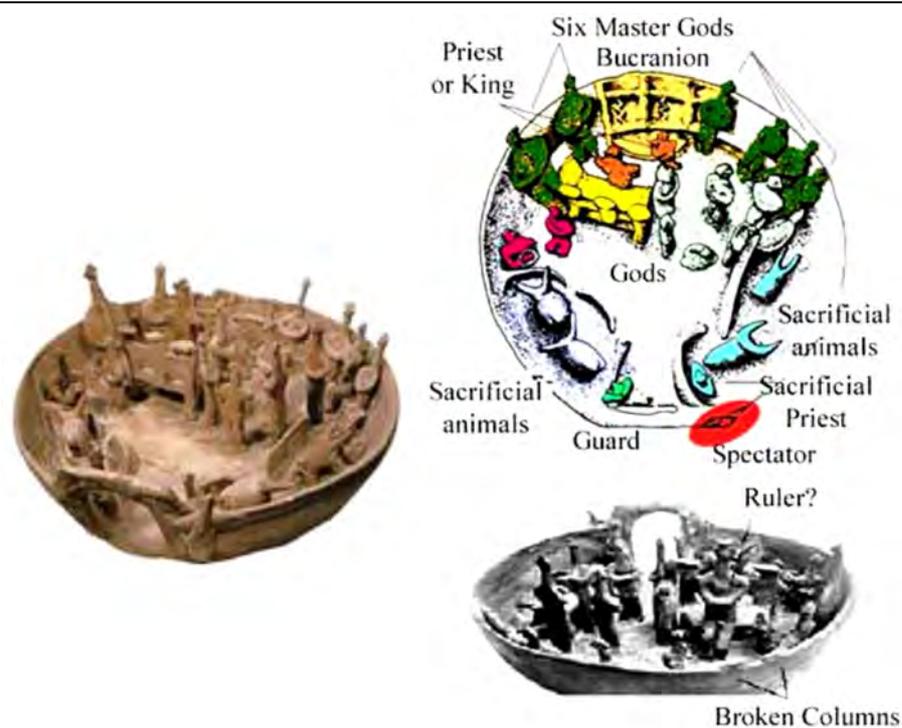


Fig. 4. Postures et gestualité dans le modèle de sanctuaire de Vounos (Cipru). www.mlahanas.de/Cyprus/LX/VounousBowl.jpg

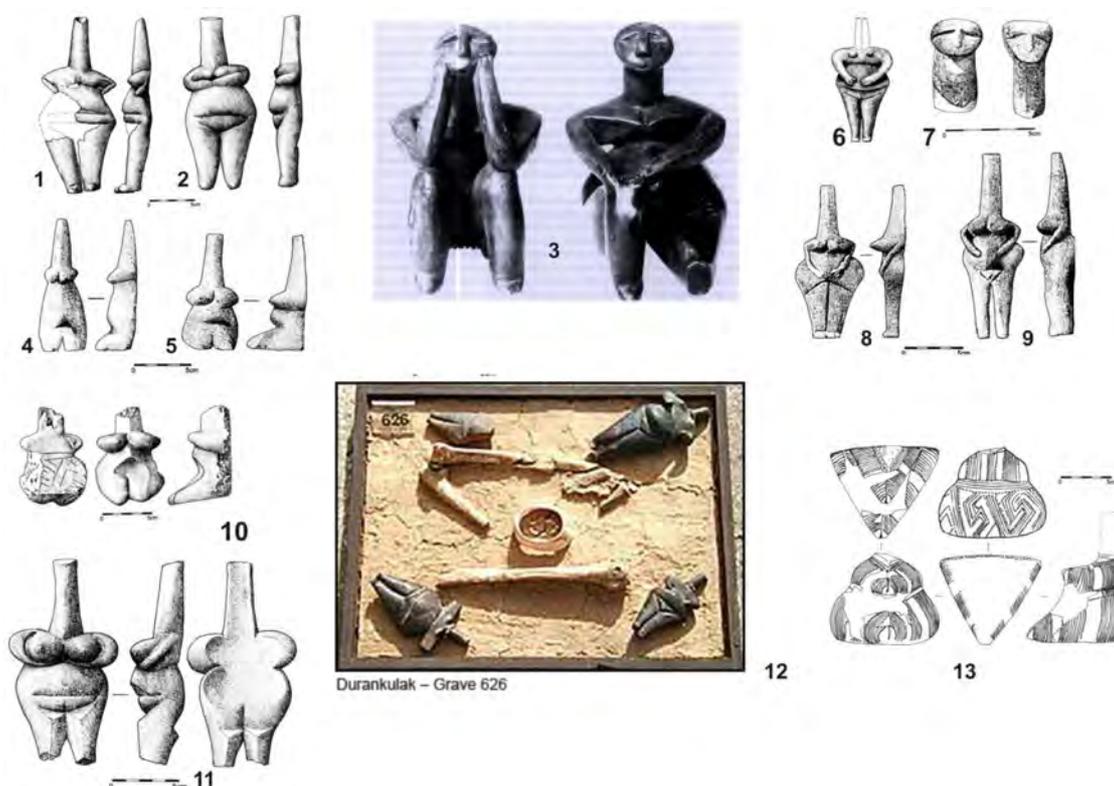


Fig. 5. Postures et gestualité de la culture Hamangia. 1-3, 6-7, 9-11: Cernavoda; 4-5, 8-9: Baia-Golovița; 12: Durankulak; 13: Bulgaria. *Apud* BERCIU 1961, fig. 276-277 (3); 1966, fig. 52/1/2 (1-2); (8); 53 (11); BAILEY 2005 (2, 4-10, 13); www.dur.ac.uk/images/archaeology/researchprojects (12).

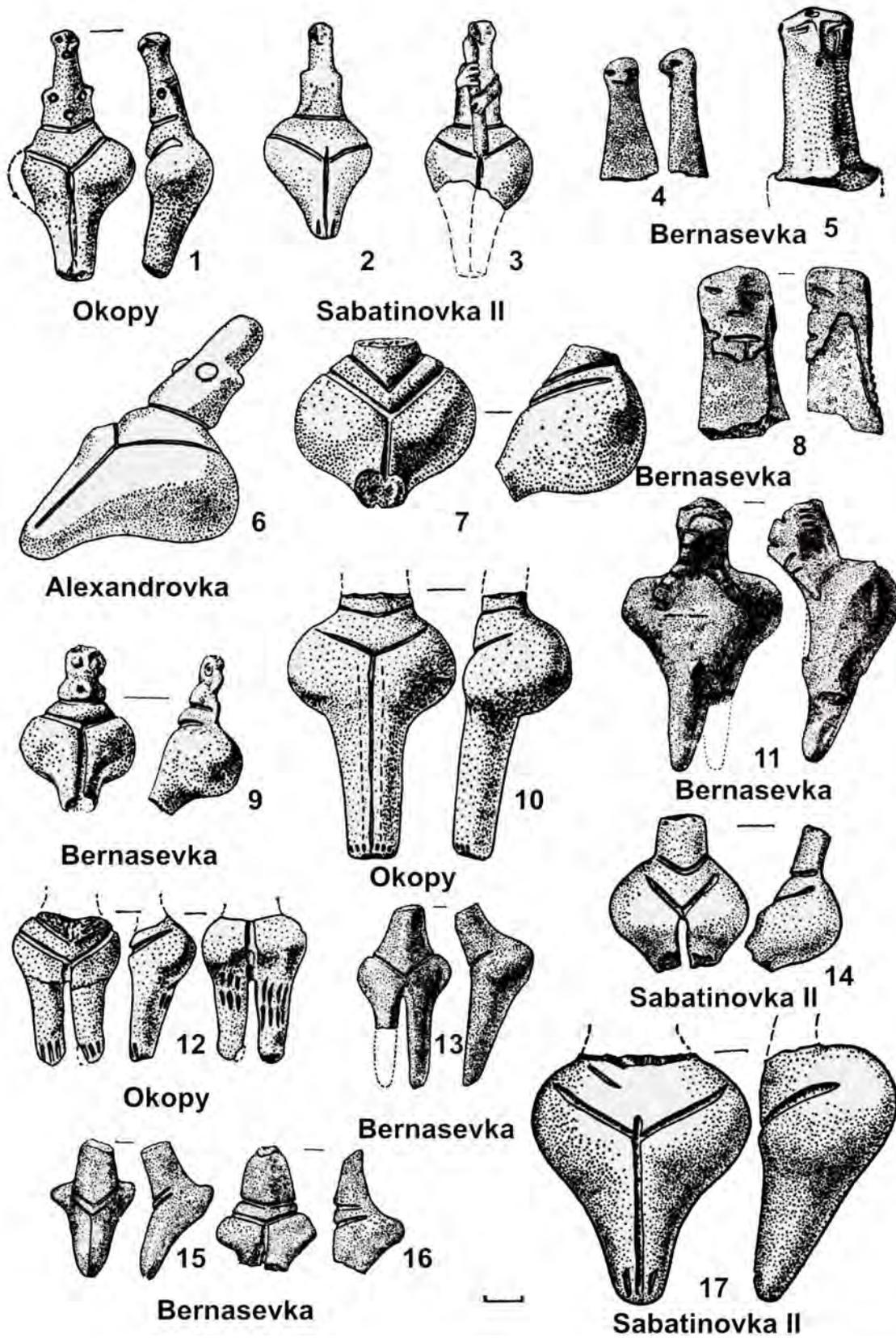


Fig. 6. Postures et gestualité de la culture Précucuteni II-III/Tripolye A. *Apud* ZBENOVICI 1989, fig. 72.

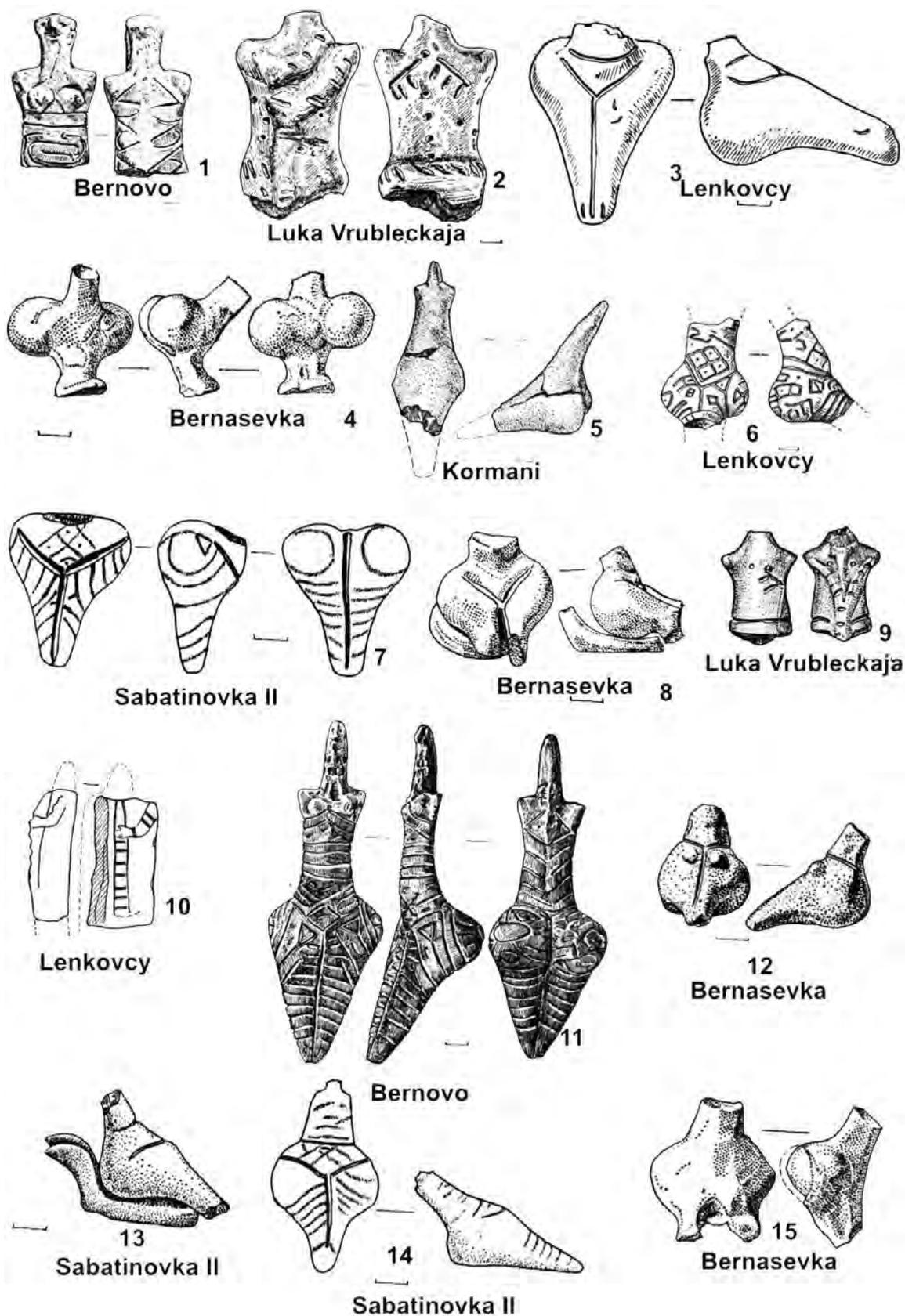


Fig. 7. Postures et gestualité de la culture Précucuteni II-III/Tripolye A. *Apud* ZBENOVICI 1989, fig. 73-74.

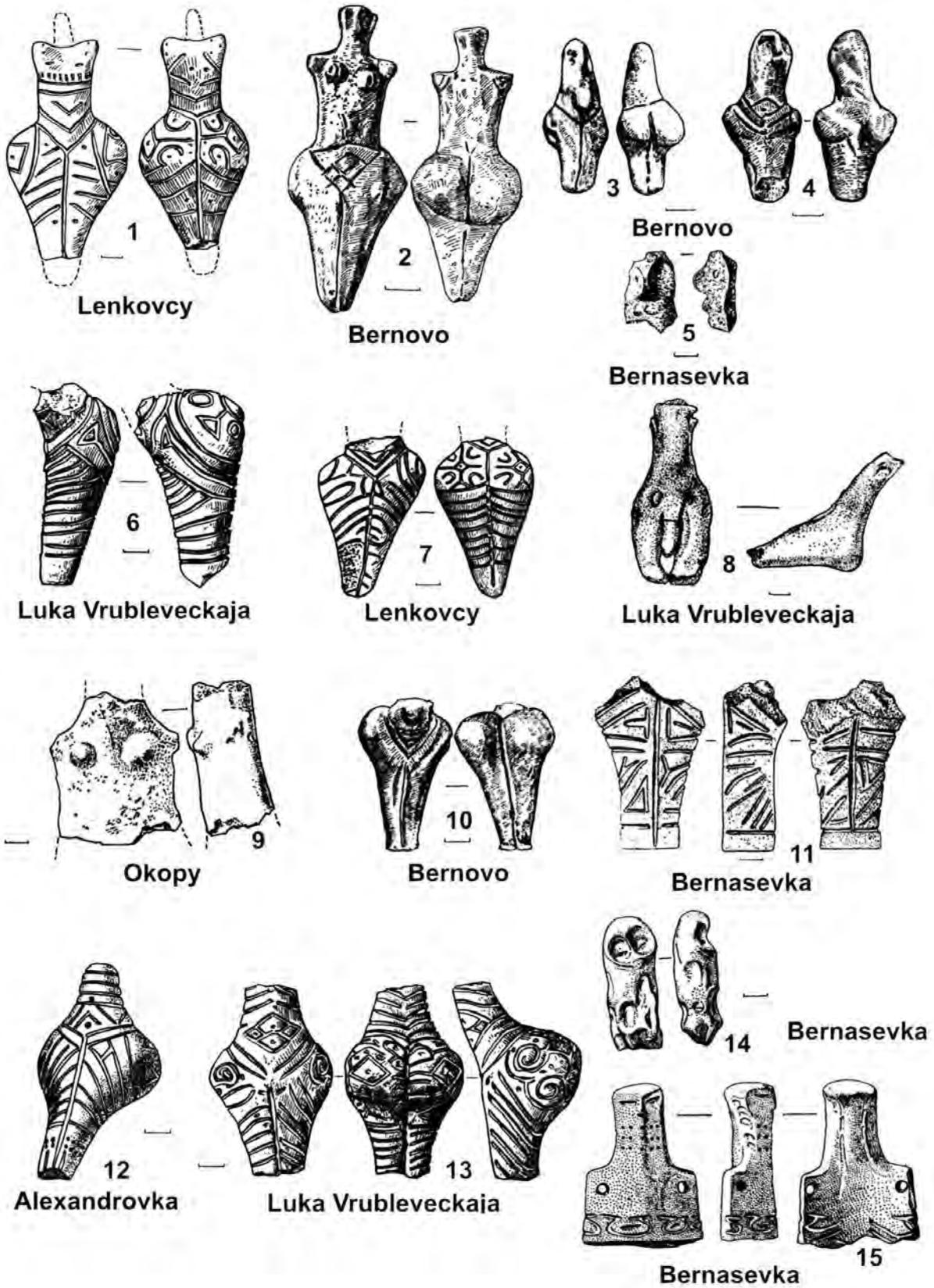


Fig. 8. Postures et gestualité de la culture Précucuteni II-III/Tripolye A. *Apud* ZBENOVICI 1989, fig. 75-76.

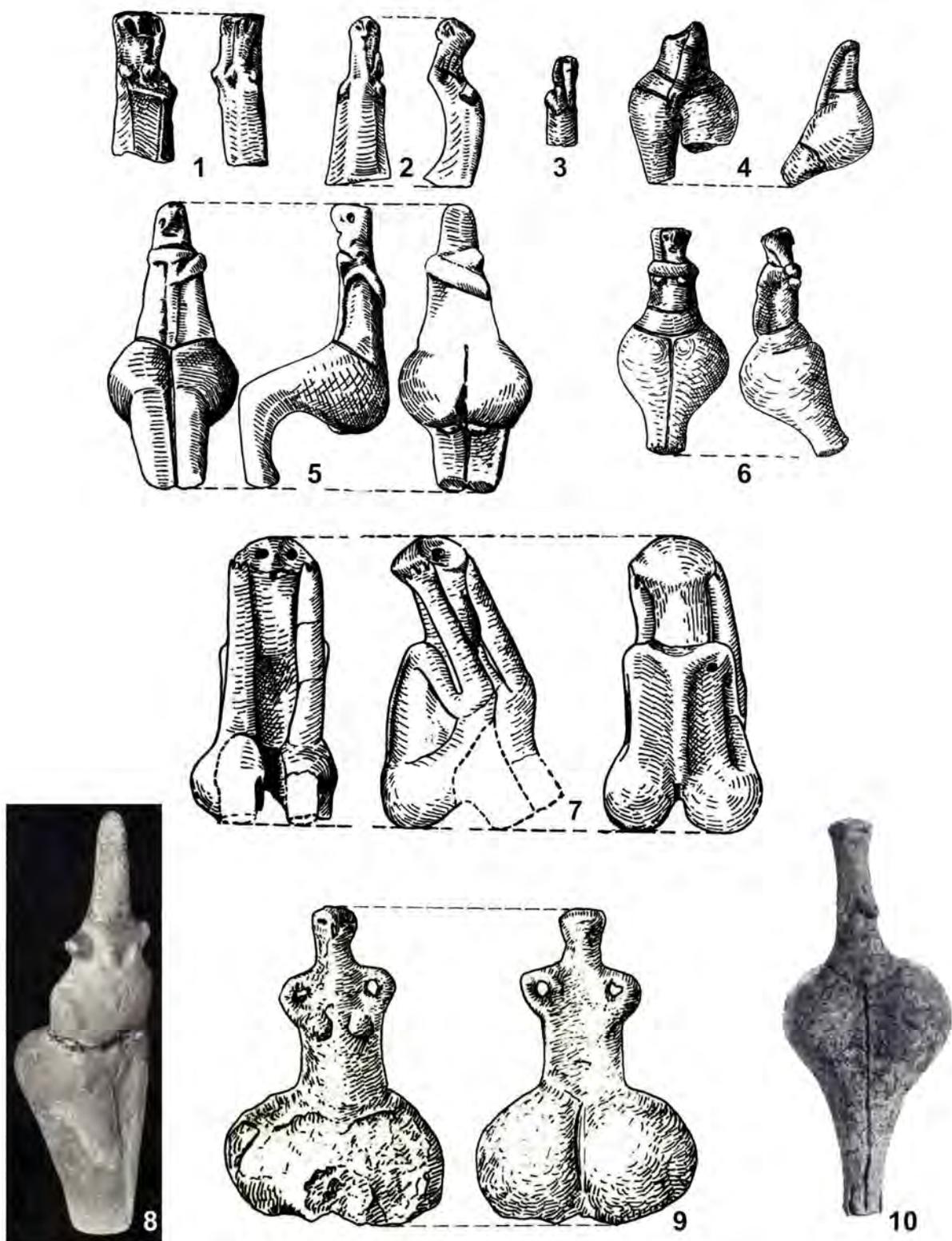


Fig. 9. Postures et gestualité de la culture Précucuteni II-III/Tripolye A. 1 : Larga Jijia ; 2-4, 6-7, 10 : Târpești ; 5: Traian-Dealul Fântânilor ; 8 : Traian-Dealul Viei ; 9 : Mândrișca. Apud MARINESCU-BÎLCU 1974, fig. 73/1-7 (1-7); 72/6 (9); DUMITRESCU 1974, fig. 210 (8); 214 (10).



Fig. 10. Postures et gestualité de la culture précucutenienne dans les complexes de culte. 1: Poduri; 2: Isaiia. *Apud* MONAH *et alii* 2003 (1); URSULESCU, TENCARIU 2006, pl. V (2).

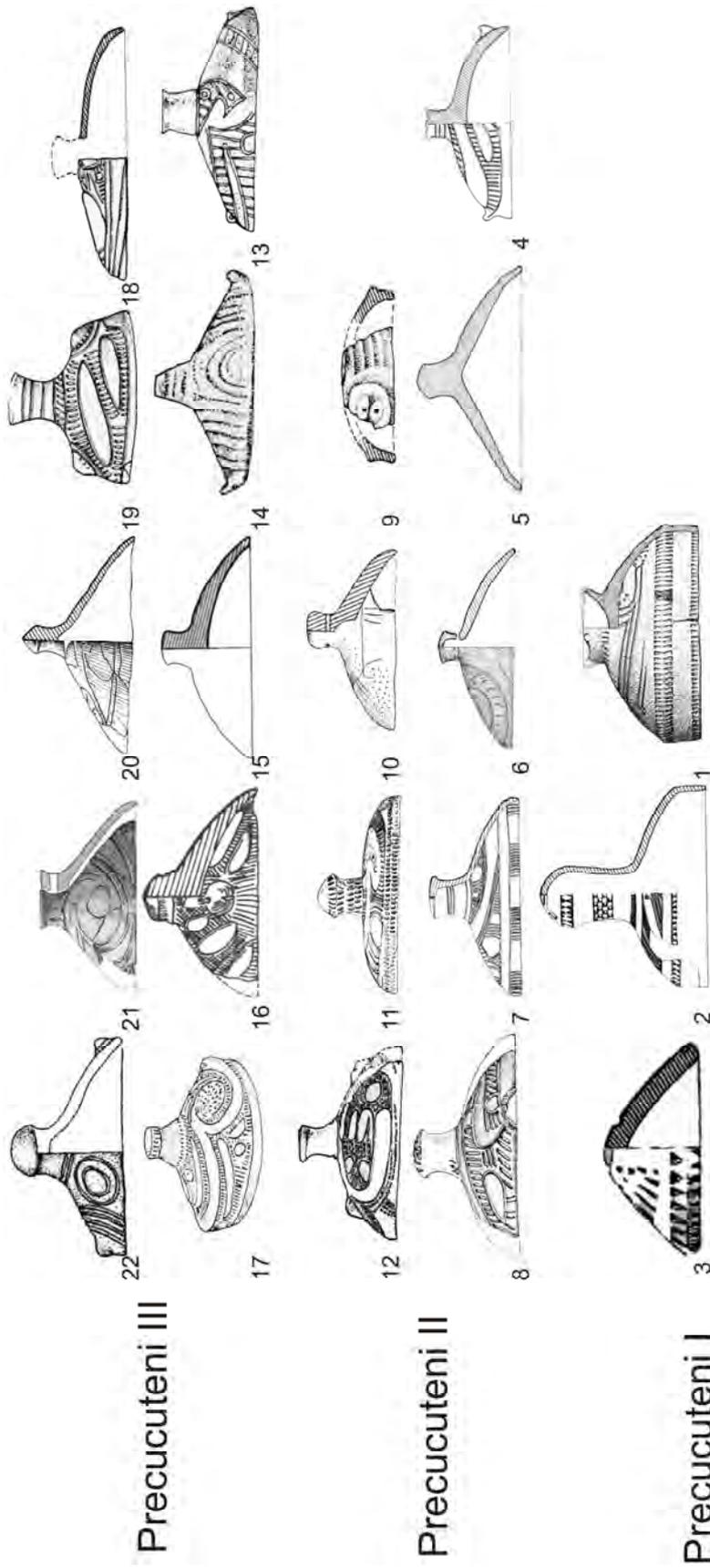


Fig. 1. Pre-Cucuteni types of lids. 1-3: Traian-Dealul Viei; 4-6: Isalia (unpublished); 7: Ghigoești-Trudești; 8: Okopi; 9-12: Bernașevka; 13-14: Alexandrovca; 15: Târpești; 16: Izvoare; 17: Grenovka; 18: Voronovița; 19: Lencăuți; 20-21: Traian-Dealul Fântânilor; 22: Cărbuna. Different scales. *Apud* DUMITRESCU, DUMITRESCU 1970 (1); H. DUMITRESCU 1959 (2, 20); H. DUMITRESCU 1954 (3); MARINESCU-BÎLCU 1974 (7, 16); 1981 (15); ZBENOVICI 1989 (8-14, 17-19, 22).

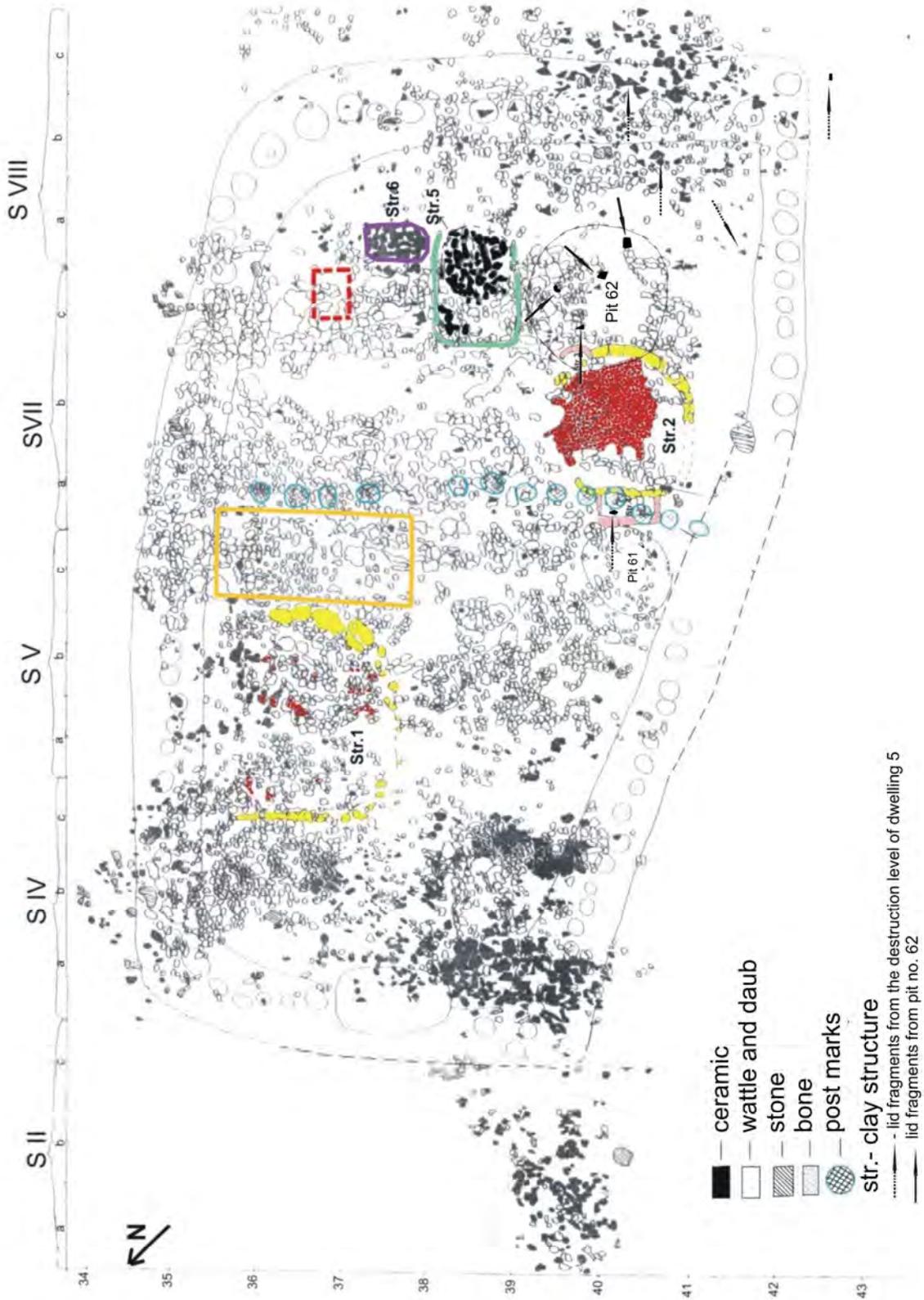


Fig. 2. Isăia-Balta Popii . The plan of dwelling No. 5 with the location of the lid's fragments indicated on plan.

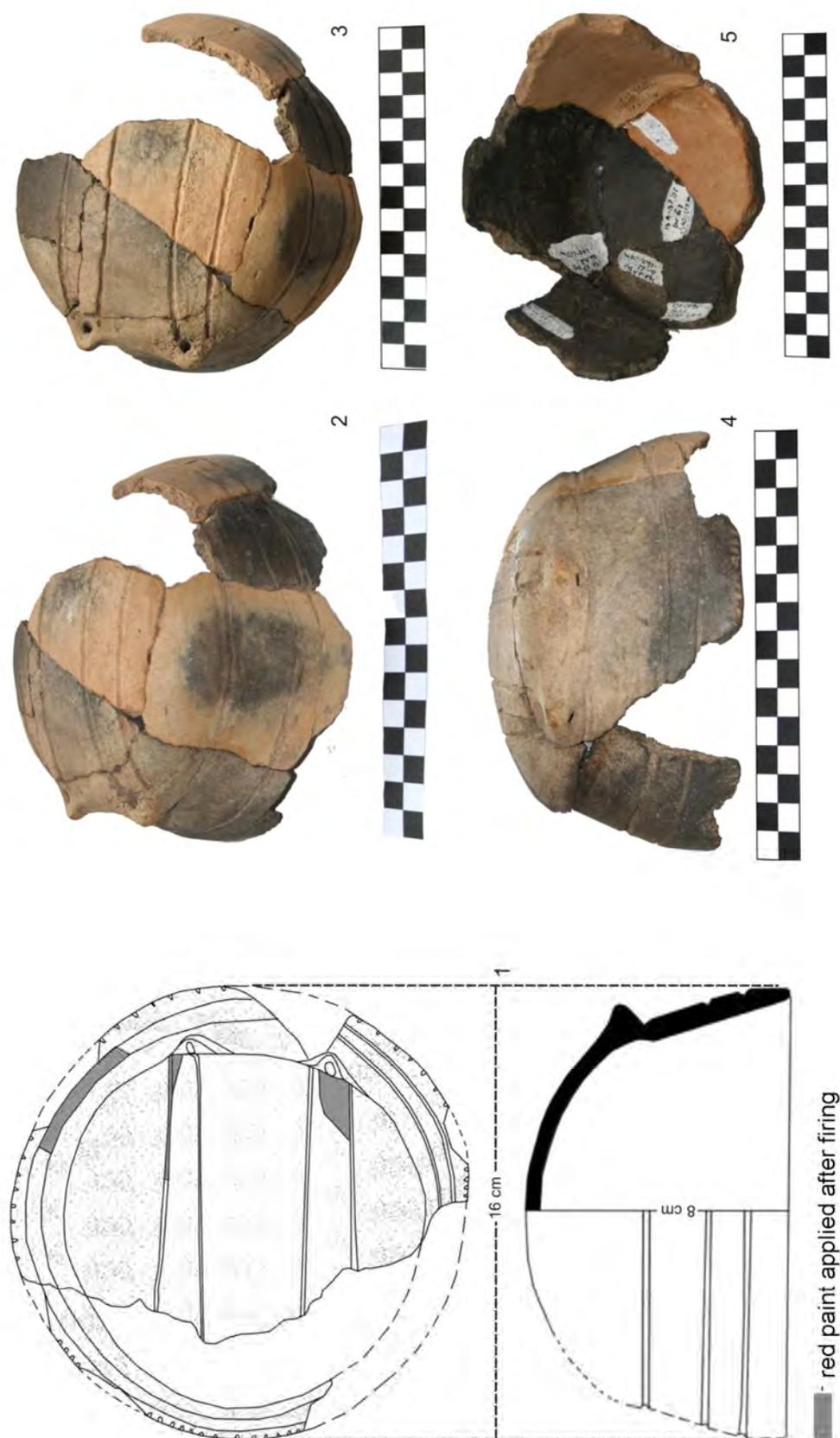


Fig. 3. Isaiia-Balta Popii. Lid from Pre-Cucuteni II level.

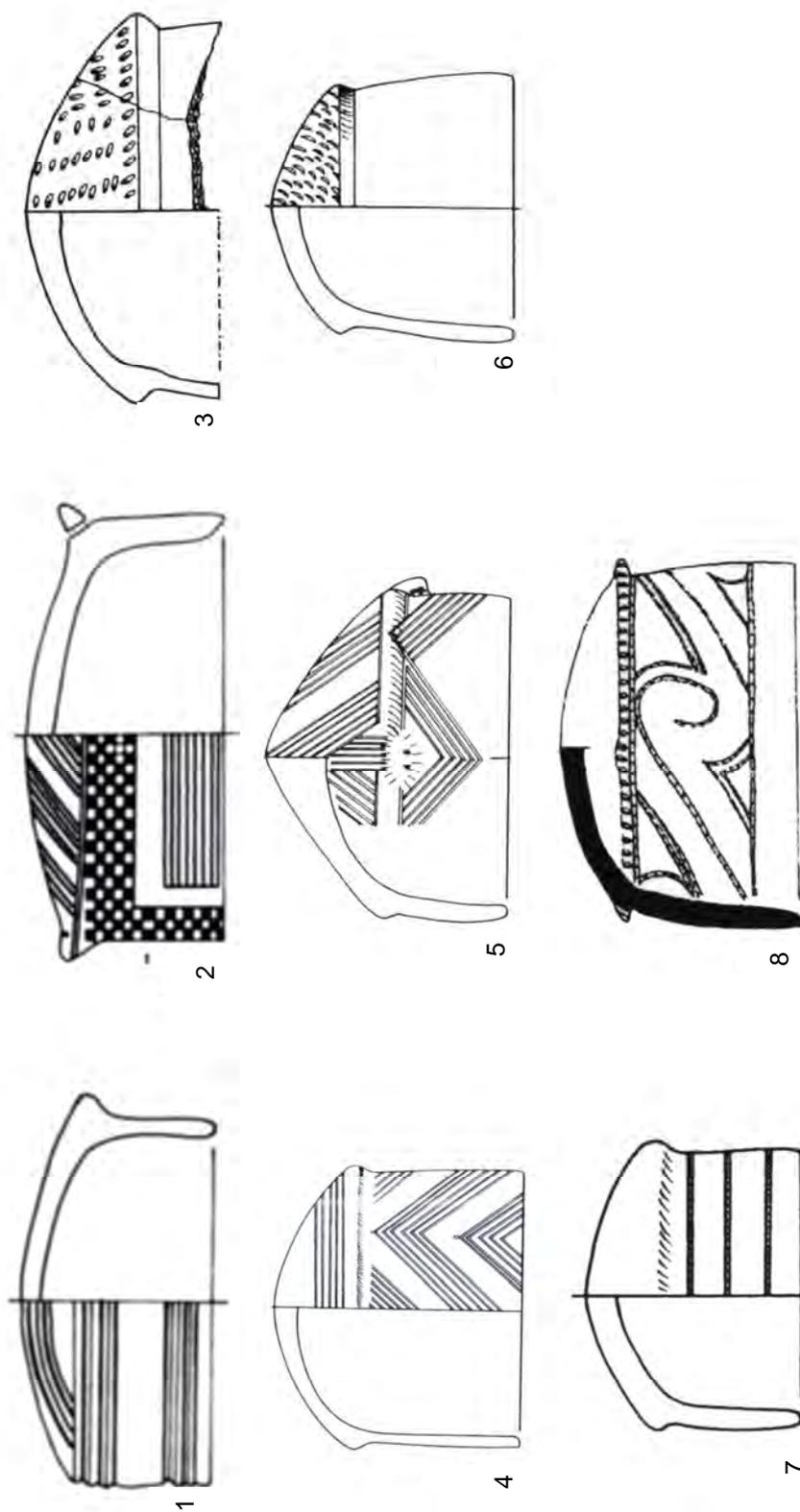


Fig. 3. Similarities from Sava and Hamangia cultures. 1-2: Goljamo Delcevo; 3-7: Durankulak; 8: Suvorovo. *Apud* TODOROVA 1982 (1-2); TODOROVA *et alii* 2002 (2-7).

NEW DATA ON THE PRE-CUCUTENI CULTURE'S RELATIONS WITH THE CULTURES SOUTH OF ITS TERRITORY

DIANA-MĂRIUCA VORNICU*

Keywords: lid, Pre-Cucuteni II, Hamangia, Sava.

Cuvinte cheie: capac, Precucuteni II, Hamangia, Sava.

Abstract. *This paper focuses on the relations of Pre-Cucuteni culture with the Hamangia and Sava cultures, using as a hint an alien lid from the Pre-Cucuteni settlement from Isaiia. The author tries to make a relative chronological synchronization of the Pre-Cucuteni settlement from Isaiia with the cultural phenomena from the south.*

Rezumat. *Autoarea vorbește, prin prisma descoperii unui capac străin mediului precucutenian de la Isaiia, despre relațiile dintre culturile Precucuteni, Hamangia și Sava. În funcție de aceste relații încearcă o sincronizare cronologică relativă a acestei așezări cu fenomenele culturale ce se petrec la sud de spațiul precucutenian.*

The archaeological site *Isaiia-Balta Popii* (Răducăneni commune, Iași county) is situated on a fragment of the first unfordable terrace of Jijia River, close to its confluence with Prut River. The stratigraphy of the site is very rich; archaeological complexes belonging to different periods were investigated here: Neolithic (the *Notenkompf Linearbandkeramik* culture), Chalcolithic (Pre-Cucuteni culture), Bronze Age, Iron Age (Corlăteni culture), 2nd and 3rd centuries A.D. (a Sarmatic necropolis), and early medieval times (Răducăneni culture from the 12th century) and archaeological complexes from the modern period. The most important archaeological layer is the one belonging to the Pre-Cucuteni culture, summing twelve dwellings and almost 50 pits. The Pre-Cucuteni archaeological findings from Isaiia are already well known in the Romanian archaeological literature and that is why we will not insist upon them (URSULESCU, TENCARIU 2006).

We will focus our attention on a ceramic lid, from the Pre-Cucuteni layer, a lid that has an alien form. The lid was

discovered in the excavation campaign from 2005, when a dwelling No. 5 (Pre-Cucuteni II), and its adjacent ceramic complex, five Pre-Cucuteni pits and a Bronze Age tomb were investigated (URSULESCU *et alii* 2005, 37-54; 2006, 187-190).

Context of deposition: the lid was not entirely restored; we managed to find only nine fragments, which sum up about 70% of the initial lid. Five of them (meaning half of the lid) were deposited in the pit No. 62, three fragments were found inside the dwelling No. 5, while another fragment was found somewhere in the Pre-Cucuteni layer, at a distance of least two meters from the dwelling (Fig. 2). The fragments discovered in pit No. 62 and the one found outside the dwelling have a grey color at their exterior and are dark colored in the interior, while the shards that were kept in the dwelling gained, because of the secondary burning, a brown color (10Y8/R¹) with grey spots. We must say that pit No. 62 was filled up with discarded material from the dwelling's first stage of habitation (URSULESCU *et alii* 2006, 187-190).

* "Alexandru Ioan Cuza" University of Iași,
e-mail: mariucav@gmail.com

¹ The value represents the colour as it is established in the MUNSSELL SOIL COLOUR CHARTS 1975.

Description of the lid. (Diam. of mouth = 16 cm, Diam. of cap = 13 cm, H = 8 cm). The lid was manufactured from a fine paste, well battered, having mixed in its dough sand, little rocks, and grog. The fact that this artifact was burnt in a reducing atmosphere is reflected in its grey colour that is still intact on the fragments discovered in the pit (Fig. 3/5). Its surface was well smoothen, polished in some parts. The lid has a frustum of cone shape, with pretty high and flaring walls, and to the edge of its cap are affixed two horizontal protuberances vertically perforated and close one to another (Fig. 3). We cannot pronounce ourselves on the possible existence of another couple of protuberances, symmetrical disposed.

The lid was decorated with incised lines. On the cap, two couples of incised parallel lines cross longitudinally over the lid (Fig. 3). At their bottom, the walls are decorated with fine vertical incisions; at their middle part, they are surrounded by two incisions. Under the cap, another incision surrounds the lid. We can notice red paste inlaid in the incisions from the cap, and the same red paste, applied after firing, in the spaces described by the incisions (Fig. 3).

We considered this lid important because it raises two problems: the first one concerns the origin of its shape and its analogies and the second problem is related to the fragmentation issue in archaeology.

The shape of the lid is not one characteristic to the Pre-Cucuteni material culture. As we can see in Fig. 1, the characteristic shape of the Pre-Cucuteni lid develops from the Boian-Giulești lid. In arranging the Pre-Cucuteni lids from Romania, Moldavia and Ukraine we used the classical three phase chronology for Pre-Cucuteni because we do not find relevant the six phase chronology proposed by Ukrainian scholars (BURDO 2005, 78).

In the first phase of evolution, the Pre-Cucuteni lids conserve the Boian attributes (Fig. 1/1-3) as the ones discovered at Traian-Dealul Viei: they are frustum of cone shape, with the cylindrical high base and a cylindrical button ending in a frustum of cone or pushed inside way (MARINESCU-BÎLCU 1974, 62). Their decoration is typical for Pre-Cucuteni I –

Boian-Giulești pottery: excisions that describe triangles, apex, and the chess table motive. The specific Pre-Cucuteni lid from the second and third phase of evolution evolves from these forms. The common shape is the hemispheric calotte, with a shorter or higher lip, more or less profiled; almost all lids have a button for holding, which ends in shape of a hemispherical cap, or in a pushed inside way (MARINESCU-BÎLCU 1974, 72, 82) and are frequently artistically decorated. The decoration of the lids is very rich, especially when they are made from a fine paste. It is as diversified as the decoration of the vessels: a combination of friezes composed from incised triangles, degenerated *chess table* motive, incised spirals, hachured spaces and lettered decoration (MARINESCU-BÎLCU 1974, 72, 82) (Fig. 1/4-22). Some lids have perforated overhangs for holding, affixed on different parts of the calotte.

We consider that the shape of the lid from Isaiia is an imitation of an alien prototype². We could not find perfect similarities for this shape, but the flaring walls and the convex calotte remind us of the *cap* shaped lids from Hamangia culture, with small differences like the fact that the lid from Isaiia is not as high-pitched as the ones from Hamangia culture, more like the *cap* shaped lids from Sava culture.

The *cap* shaped lids from Hamangia culture are typical for all its phases (HAȘOTTI 1997, 37) and they do not disappear even after the establishment of Gumelnița communities in Dobrudja. The *cap* shaped lids along with other Hamangia elements will constitute the outlines of the local aspect from Dobrudja of the Gumelnița culture (HAȘOTTI 1997, 97) (which is slightly different from the one from Walachia, maintaining cultural elements of the native Hamangia background). The diffusion of *cap* shaped lids in Hamangia culture is a consequence of the relations and influences from Sava culture (HAȘOTTI 1997, 37, VOINEA, NEAGU 2006, 15). Maybe that is why we found the best analogies for the lid from Isaiia in the territory that constitutes the south region of Hamangia culture, in close vicinity to Sava culture: in the necropolis from

² The drawings and graphical reconstitution of the lid were made by Corciovă Aneta.

Durankulak: tombs 139 - (Hamangia I-II) (TODOROVA *et alii* 2002, 2, tab. 11/7); 727A (TODOROVA *et alii* 2002, 2, tab. 122/13), 1146 (TODOROVA *et alii* 2002, 2, tab. 196/2) - (Hamangia III); 363 (TODOROVA *et alii* 2002, tab. 46/14), 431 (TODOROVA *et alii* 2002, tabl. 63/13) - (Hamangia IV) (Fig. 4/3-7); at Suvorovo (SLAVCHEV 2005a, 19) (Hamangia IV) (Fig. 4/8), and also in the earlier phases of the Sava culture (Sava II-III), in the second level from Goljamo Delčevo (TODOROVA *et alii* 1975, 127-128, TODOROVA 1982, 90) (Fig. 4/1-2). All these analogies prove that the Pre-Cucuteni community from Isaiia was very acquisitive regarding the relations with Hamangia communities from today's Dobrudja and Bulgaria territory, and through them, indirectly maybe with the Sava culture.

The problem of the relations between Pre-Cucuteni and Hamangia cultures was a point of interest since 1955, when D. Berciu explained the similarities between Hamangia culture and the *Zănești-Giulești* aspect from Walachia and Moldavia (BERCIU 1955, 42) through the common elements in their genesis and the ones coming from south, through the Hamangia culture (BERCIU 1955, 42). In 1957, H. Dumitrescu discussing on the origins of Pre-Cucuteni culture, explains the similarities of some elements from *Hamangia C and Giulești-Zănești* as being caused by the contemporarily of these two phases (DUMITRESCU 1957, 66). The relationships between these cultures were the subject of some studies by Silvia Marinescu-Bîlcu. She studied different aspects of these relationships, as the influences of Hamangia upon the Pre-Cucuteni clay figurines (MARINESCU-BÎLCU 1964, 307-312) and ceramics (MARINESCU-BÎLCU 1968, 390-422), as well as the imports in the Hamangia area. She even proposed an actual presence of Pre-Cucuteni population in Hamangia environment, and even further, to Varna (MARINESCU-BÎLCU 1972, 34). In the same time she is skeptical about the essential contribution of Hamangia culture to the genesis of Pre-Cucuteni culture, the tight relationships between the two being established through their evolution (MARINESCU-BÎLCU 1972, 36), agreeing that the third phase of Pre-Cucuteni culture is contemporary with the end of Boian and Hamangia culture (MARINESCU-BÎLCU 1972, 36).

She considers that the permanent and close relationships between Pre-Cucuteni and Hamangia cultures were maintained by the need of cattle, by exchanges and exogamy, or all of these combined or by some factors that we can not see yet (MARINESCU-BÎLCU 1972, 36). Puiu Hașotti admits that the relationships between the two cultures develop in the first phase of Pre-Cucuteni and the third of Hamangia, the last phases of the two cultures being contemporary, except the fact that Pre-Cucuteni culture lasts a little longer than the last phase of Hamangia culture (HAȘOTTI 1997, 22-23).

In a series of recent studies, VI. Slavchev continues referring to this problem (SLAVCHEV 1997, 1-14; 2002, 297-308; 2004, 25-34; 2005, 39-54) doubting (on the basis of ceramics' statistics) on the actual presence of Pre-Cucuteni population in Hamangia and Sava environment (SLAVCHEV 2005, 42-43). In addition, he synchronizes the final period of Sava and Hamangia with the beginning of the phase Pre-Cucuteni III - Tripolye A2 (SLAVCHEV 2005, 48).

Until now, no lids characteristic for Hamangia or Sava culture were discovered in the Pre-Cucuteni area (except the one from Isaiia), and neither Pre-Cucuteni lids in the area of Hamangia or Sava (except a fragment from a lid decorated with lettered lines, in Pre-Cucuteni II style, from the seventh layer from Golemya Ostrov (SLAVCHEV 1997, 8, fig. 2/8).

Neither the decoration of the lid from Isaiia is specific to Pre-Cucuteni lids.

The red paint, applied after the firing of the lid, in the binders created by incisions and inlaid in the incisions is another innovation adopted by the Pre-Cucuteni culture, from south of its territory. We do not believe that the red painting was taken from the Hamangia communities, because this phenomenon is a sporadic one in this area, and not a generalized one. The red painting appears in Hamangia only on some vessel fragments and clay figurines from Ceamurlia de Jos (BERCIU 1966, 213). However, the red painting is common enough for the phase Boian-Spanțov (COMȘA 1991, 234) and for the first phase of Gumelnița culture (A1 and A2) (VOINEA 2005, 52). For a synchronism of Pre-

Cucuteni II with Gumelnița A1 (PANDREA, VERNESCU 2005, 265) plead some archaeological materials, already published (URSULESCU *et alii* 2003, 158-160, PANDREA, VERNESCU 2005, 276), and other unpublished vessels decorated with red and white paint, applied after firing. That is why we believe that the Pre-Cucuteni II settlement from Isaiia is contemporary with the so called *transition phase* Boian-Spanțov (URSULESCU *et alii* 2003, fig. 6/4; 2004, fig. 6/9). In the same time, it is contemporary with the first Gumelnița penetrations at the north of the Danube, meaning the moments of eruptive expansion of Karanovo VI-Gumelnița communities in the northeast of Walachia and south of Moldavia (PANDREA 2002, 129). We must not forget that the Sava communities used the red painting, before the Pre-Cucuteni ones (SLAVCHEV 2005, 48). VI. Slavchev considers the occurrence in Pre-Cucuteni-Tripolye repertoire of painting before firing to be an „especially important indicator of mutual connections” - „a new way of drawing the ornament, which has appeared in Sava and Hamangia cultural environments (SLAVCHEV 2005, 48).

The chronological positioning of the Pre-Cucuteni settlement at Isaiia before and at the beginning of Gumelnița expansion is contemporary with the period of the genesis of the seacoast aspect Varna, on a Hamangia and Sava background, with the actual participation of Boian and Polyanitsa cultures (HAȘOTTI 1997, 74). This seacoast aspect was related to the Bolgrad-Aldeni aspect from south of Republic of Moldavia, but not even until today the Romanian and Bulgaria archaeologists could not agree on these issues. Therefore, we prefer not to make any assertion in this sense, but only to suppose that these two aspects were a traffic hall for the circulation of material culture and cultural ideas. We do not know yet if the two cultural *aspects* facilitated the transmission of Sava, Hamangia and Gumelnița elements in the Pre-Cucuteni settlement from Isaiia, but we hope that the next campaign researches will clarify these aspects.

As we already mentioned, some fragments of the lid were discovered in pit No. 62 and others in the ruins of dwelling No.

5. Once the lid was broken (deliberate or by accident) parts of it were discarded in the pit, and other parts were kept in the house built over the pit.

This kind of behavior is often met in European Neolithic and Chalcolithic and it is connected with different practices; this kind of treatment is applied and to other type of objects (stone tools, clay figurines, copper objects), in different contexts (domestic, funerary, hoards) (CHAPMAN 2000).

Analyzing the situation from Isaiia we can say that the pit No. 62 is the foundation pit of dwelling 5. The pit lied down at south of the hearth's oven from dwelling No. 5, and was partially overlap by a small clay structure No. 3 (Fig. 2). Relatively big (2.25 x1.40 m), the pit was filled up with massive wattle and daub fragments, ceramic fragments made from a fine paste, animal bones, *Unio* shells, bone and flint tools, two vessels that could be restored, and a cultic pot, with four anthropomorphic feet (URSULESCU *et alii*, 2006, p. 187-190).

*

The lid from Isaiia indicates the fact that the relationships between the Pre-Cucuteni culture and Hamangia culture did not stop during the second phase of Pre-Cucuteni culture. We are sure that the lack of others elements that could suggest the relationships between the two at this chronological interval is just the consequence of the insufficient research on the second phase of Pre-Cucuteni culture.

Moreover, the use of the red paint before firing, on the same lid, also represents an element originated in the south, probably from Gumelnița culture. These characteristics corroborated with other materials of south origin from Isaiia, suggest us a local synthesis, that can be explained firstly by the location of the site in the fen of Prut River (the Prut River has always been an important trade route) and secondly by the dynamism and receptivity to new of the Pre-Cucuteni communities. On the basis of what we affirmed, we subscribe to the opinion that the final part of Pre-Cucuteni II is synchronous with Boian-Spanțov in the north-east of Walachia and the early debut of Gumelnița

culture in the same area (URSULESCU 2008, 211).

The deposition context of the lid has the same importance, suggesting that a certain ritualistic behavior, probably an intentional fragmentation followed by the entrenchment of some parts in the foundation pit of the house, while the other part was kept in the dwelling until the final firing of the house. With all our steams, we could not decipher the true meaning of this kind of behavior, but we tend to believe that the fragmentation and dealing in different ways with the parts of the lid, has a relation with the alien form for Pre-Cucuteni culture.

Bibliography

- BURDO Natalija
2005 *Tripolye A and Pre-Cucuteni: Problems of periodization and the absolute chronology*, in vol.: *Cucuteni - 120 ans de recherche. Le temps du bilan* (éds.: Gh. Dumitroaia et alii), Piatra-Neamț, p. 75-84.
- BERCIU Dumitru
1955 *Une civilisation néolithique récemment découverte en Roumanie: la civilisation de Hamangia*, in vol.: *Nouvelles études d'histoire présentées au X^e Congrès des sciences historiques. Rome*, București, p. 29-46.
1961 *Contribuții la problema neoliticului în România în lumina noilor cercetări*, București.
1966 *Cultura Hamangia. Noi contribuții. I*, București.
- CHAPMAN John
2000 *Fragmentation in Archaeology. People, places and broken Objects in the Prehistory of South Eastern Europe*, London.
- COMȘA Eugen
1991 *La culture de Boian*, in vol.: *Le paléolithique et le néolithique de la Roumanie en context européen* (éds.: V. Chirica, D. Monah), BAI IV, Iași, p. 225-249.
- DUMITRESCU Hortensia
1954 *Șantierul arheologic Traian*, SCIV, V, 1-2, p. 35-67.
1957 *Contribuții la problema originii culturii Precucuteni*, SCIV, VIII, 1-4, p. 53-71.
1959 *Șantierul arheologic Traian*, Materiale, V, p. 198-202.
- DUMITRESCU Hortensia, DUMITRESCU Vladimir
1970 *Șantierul arheologic Traian*, Materiale, IX, p. 39-58.
- HAȘOTTI Puiu
1997 *Epoca neolitică în Dobrogea*, Constanța.
- MARINESCU-BÎLCU Silvia
1964 *Reflets des rapports entre les civilisations de Hamangia et de Précucuteni dans la plastique précucuténienne de Tîrpești*, Dacia N.S., VIII, p. 307-312.
1968 *Unele probleme ale neoliticului moldovenesc în lumina săpăturilor de la Tîrpești*, SCIV, XIX, 3, p. 395-422.
1972 *Asupra unor aspecte ale raporturilor dintre culturile Precucuteni și Hamangia*, Pontica, V, p. 29-38.
1974 *Cultura Precucuteni pe teritoriul României*, București.
1981 *Tîrpești. From Prehistory to History in Eastern Romania*, BAR-International Series 107, Oxford.
- PANDREA Stănică
2002 *Débuts de la culture Goumelnitsa au nord-est de la Plaine Roumaine*, CCDJ, XIX, p. 122-146.
- PANDREA Stănică, VERNESCU Mirela
2005 *Câteva observații referitoare la raporturile dintre cultura Gumelnița și cultura Precucuteni*, in vol.: *In honorem Silvia Marinescu-Bîlcu 70 ani* (coord.: Marian Neagu), p. 263-278.
- SLAVCHEV Vladimir
1997 *The Links between Dobrudja and the Forest-Steppe Zone of Eastern Europe during Middle Eneolithic*, AB, I, 3, p. 1-14.
2002 *Die Beziehungen zwischen Durankulak, dem Bereich der Präcucuteni-Tripol'e-Kultur und der Gruppe Bolgrad-Aldeni*, in vol.: *Durankulak*, Band II, *Die prähistorischen Gräberfelder von Durankulak, teil 1* (coord.: H. Todorova), Sofia, p. 297-308.
2004 *The features of cultural development of modern southern Dobrudja during the first half of the 5000 BC (According to the pottery of the tell Golemiya Ostrov near the village Durankulak)*, in vol.: *Prinos lui Petru Diaconu la 80 de ani* (eds.: I. Căndea et alii), Brăila, p. 25-34.
2005 *Precucuteni influences on pottery of the final phase of Hamangia Culture*, in vol.: *Cucuteni - 120 ans de recherche. Le temps du bilan* (éds.: Gh. Dumitroaia et alii), Piatra-Neamț, p. 39-54.
2005a *Monuments of the final phase of culture Hamangia and Sava*, Pontica, 37, 9-20.

- TODOROVA Henrietta
1982 *Kupferzeitliche Siedlungen in Nordost-bulgarien*, Munchen.
- TODOROVA Henrietta et alii
1975 *Selișnata mogila pri Goliamo Delcevo*, Sofia.
2002 *Durankulak, Band II. Die Prähistorischen Gräberfelder von Durankulak, Teil 2 - Katalogteil*, Sofia.
- URSULESCU Nicolae
2008 *Modèles d'organisation de l'espace aux habitations de la culture Précucuteni entre Siret et Prut*, in vol.: *Etablissements et habitations préhistoriques. Structure, organisation, symbole. Actes du colloque de Iași 10-12 décembre 2007* (éds.: V. Chirica, M.-C. Văleanu), Iași, p. 207-238.
- URSULESCU Nicolae et alii
2003 *Isaiia, com. Răducăneni, jud. Iași. Punct: Balta Popii*, <http://www.cimec.ro/Arheologie/cronicaCA2003/cd/index.htm>
2004 *Isaiia, com. Răducăneni, jud. Iași. Punct: Balta Popii*, <http://www.cimec.ro/Arheologie/cronicaCA2004/cd/index.htm>
2005 *Isaiia, com. Răducăneni, jud. Iași. Punct: Balta Popii*, *Cronica. Campania* 2005, p. 187-190.
- ZBENOVICI V. G.
1989 *Rannij etap tripol'skoj kul'tury na territorii Ukrainy*, Kiiv.

UN COMPLEXE ARCHÉOLOGIQUE DE L'HABITAT DE LA CULTURE PRÉCUCUTENI III DE IȚCANI-FERMA 2 (SUCEAVA, DÉP. DE SUCEAVA)

ION MAREȘ^{*}, CONSTANTIN-EMIL URȘU^{**}, BOGDAN-PETRU NICULICĂ^{***}

Mots clefs: *Précucuteni III, Ițcani-Ferma 2, matériaux archéologiques, pendentifs/amulettes.*

Cuvinte cheie: *Precucuteni III, Ițcani-Ferma 2, materiale arheologice, pandantive/amulete.*

Résumé. *L'article présente les résultats des investigations sur le site Précucuteni III de Ițcani-Ferma 2 (Suceava, dép. de Suceava) en décrivant les complexes archéologiques et les différentes catégories d'artefacts découverts. On présente aussi l'importance des recherches effectuées ici pour compléter la succession stratigraphique de la micro-zone.*

Rezumat. *Articolul prezintă rezultatele investigațiilor din situl Precucuteni III de la Ițcani-Ferma 2 (Suceava, jud. Suceava), fiind descrise atât complexele descoperite, cât și diferitele categorii de artefacte identificate. De asemenea, se constată importanța cercetărilor din acest punct, pentru completarea succesiunii stratigrafice specifice microzonei.*

L'emplacement géographique du site archéologique

Le site archéologique se trouve dans le quartier Ițcani de la ville de Suceava, sur la première terrasse de la rive gauche de la rivière Suceava, dans le point *Ferma 2*. La terrasse a une forme demi-circulaire, avec les extrémités escarpées sur trois parties (S-E, S, S-O) et une hauteur de 5-10 m. La terrasse est une composante de la sous-unité Le Plateau de Dragomirna, qui appartient au Plateau de Suceava.

A approximativement 800 m, sur la partie sud de la terrasse, coule la rivière Suceava, qui semble avoir eu son cours au pied des pentes de la terrasse, comme l'indiquent les traces de quelques anneaux et méandres qui y existent encore.

Points de repère: le dépôt CFR, situé à approximativement 50 m vers le sud du

bord de la terrasse, derrière les bâtiments de la Ferme 2 et de la tour d'eau, situés au N-E du quartier Ițcani (Carte 1).

L'objectif des recherches historiques

Le site archéologique du point *Ferma 2* est connu pour des recherches de surface effectuées par Mircea Ignat, Dumitru Boghian, Ion Mareș, Bogdan Niculică et Constantin-Emil Ursu en 1996 et 1997. Le bord de la terrasse de S et S-O est soumis aux éboulements permanents causés par les facteurs d'érosion et par l'extraction de l'argile par les habitants de cette zone-là. Dans les ruptures de la rive, on pouvait apercevoir des dépôts provenant des briques brûlées des habitations et des pierres provenant d'une installation de chauffage (four en pierre).

On a décidé d'effectuer des recherches archéologiques pour sauver la zone affectée des facteurs naturels et anthropiques et pour une meilleure connaissance de la stratigraphie du site et de la succession des civilisations.

* Le Complexe Muséal Bucovina, Suceava, e-mail: bucovina_museum@yahoo.com

** Le Complexe Muséal Bucovina, Suceava, e-mail: ursuce@yahoo.com

*** Le Complexe Muséal Bucovina, Suceava, e-mail: niculicab@yahoo.com

Les fouilles archéologiques ont été entreprises à l'aide des étudiants de première année de la Faculté d'Histoire et Géographie de l'Université "Ștefan cel Mare" de Suceava, dans le cadre de la pratique de spécialité, dans les campagnes de 1998 et 1999 (MAREȘ *et alii* 2007, 7-22).

Les résultats des fouilles archéologiques

En 1999 on a fouillé S.IV/1999 (ayant la longueur de 15 m et la largeur de 2 m, placée parallèlement à S.III/1999, à 10 m de distance de S.III/1999, et ayant la même orientation) (fig. 1) (MAREȘ *et alii* 2007, 7-8).

Le Complexe 1/1999. En S.IV/1999, à 0,85 m profondeur, au niveau du sol brun-jaunâtre, a été délimitée une fosse (Gr. 1/1999) avec le diamètre (sur la surface observée) de 4 m, fouillée au niveau d'habitat Précucuteni III. Dans la fosse, à 0,98 m profondeur a été découvert et fouillé partiellement un foyer (V1/1999), aux alentours duquel on a trouvé des fragments de vases de la culture Précucuteni III, des lames, des racloirs, des grattoirs, des éclats en silex (débitage) et des os d'animaux (fig. 1/5; 3). A 0,85 m distance du foyer et à 1,26 m en profondeur, a été découvert un pendentif/amulette du type *en violon* en terre cuite (fig. 3; 8/1), auprès de fragments céramiques Précucuteni III. Le foyer, couleur rouge-violacée à la surface, a été construit par l'application d'un collage, sans impureté, épais de 2-3 cm. Sur le foyer se trouvait une lame en silex et des morceaux de charbon; sous celui-ci on a trouvé quelques fragments céramiques Précucuteni III, des os d'animaux et des petits morceaux de charbon. A un mètre de distance du foyer, à 1,18/1,25 m en profondeur, se trouvait un groupe de matériaux archéologiques constitué de fragments céramiques Précucuteni III (ornés avec un décor incisé et imprimé, quelques-uns peints après la combustion avec la couleur rouge), des lames, des racloirs, des grattoirs, une pointe de flèche et des éclats en silex, des pierres (certaines avec des traces de combustion) et des os d'animaux. On a trouvé parmi ces matériaux un crâne de cerf enterré les bois

en bas. A l'extrémité nord de Gr. 1/1999, à la profondeur de 1,18 m, quatre pierres de grandes dimensions étaient disposées en position demi-circulaire; deux d'entre celles-ci présentaient des traces de combustion. Deux lames de silex, des fragments céramiques et des os d'animaux étaient groupés auprès d'une pierre massive, placée à un mètre au nord du foyer et à 1,18 m en profondeur. Le fond de la fosse a été délimité à 1,55 m de profondeur. Dans la fosse 1/1999, qui appartient au niveau Précucuteni III, on n'a pas découvert de collages brûlés qui pourraient indiquer l'existence d'une construction. Gr. 1/1999 avec le foyer et les matériaux archéologiques qu'on vient de présenter peuvent être mis en relation avec un complexe de culte (MAREȘ *et alii* 2007, 8), qui sera investigué intégralement lors des futures recherches.

Les matériaux archéologiques

La céramique. On a des fragments de vases de la culture Précucuteni III qui appartiennent à la catégorie de la céramique fine, ornée avec un décor incisé, imprimé, cannelé et alvéolé. Certains fragments céramiques sont peints en rouge après la combustion. Les fragments céramiques proviennent des types suivants de vases: gobelets/coupes (fig. 6/1-2), écuelles (fig. 7/2), bols (fig. 7/6), vases globulaires (amphores) (fig. 6/3-4 ; 7/1, 3-5).

On rencontre des analogies pour la céramique de la phase Précucuteni III de Ițcani-Ferma 2, dans les stations de Târpești-Râpa lui Bodai, Izvoare, Traian-Dealul Fântânilor, Târgu Negrești, Andrieșeni (MARINESCU-BÎLCU 1974, fig. 53-70), Poduri-Dealul Ghindaru (MONAH *et alii* 2003, 147-149, 152-154, 156, 158, no. 55-61, 71-73, 77-78, 84, 87-88, 90-92), Mihoveni-Cahla Morii (des matériaux céramiques qui se trouvent dans les collections de CMB).

Des outils en pierre. Une hache trapézoïdale (fig. 4/2) avec des traces d'utilisation sur le tranchant et l'arête provient du milieu de la culture Précucuteni III. Sur une partie, dans la région proximale, l'exemplaire présente un creux effectué pour une meilleure fixation de la pièce dans le

manche. On a découvert toujours dans le même niveau un petit ciseau - *embauchoir* en pierre, marqué de traces d'utilisation (fig. 4/1).

Outils et armes en silex. En Gr. 1/1998, mais aussi dans la couche de culture Précucuteni III, on a découvert des pièces travaillées en silex: des lames entières et fragmentées (fig. 5/4-5, 8-9, 11-13), une faucille (fig. 5/2), des grattoirs (raclours) simples (fig. 5/6) et doubles (fig. 5/10) travaillés sur des bouts de lames et sur des éclats, une pointe de flèche (fig. 5/2), un noyau épuisé et des éclats de débitage (en grès, aussi) (fig. 5/3).

La plastique anthropomorphe

Pendentifs/amulettes en violon. Un pendentif/amulette *en violon* (fig. 8/1) (ou idole *en violon*, ou idole plat de type troyen, ou statuette plate *en violon*) a été découvert en Gr. 1/1999, du niveau Précucuteni III (MAREȘ *et alii* 2007, 10-11, fig. 8/1). Il est confectionné dans une pâte fine, sans impureté, à la couleur brique-jaunâtre, la combustion est oxydante. Le corps de la pièce a la forme rhomboïdale, avec les coins arrondis; la tête est rectangulaire, avec les bords recourbés et garde les bases des deux proéminences rompues; initialement, celles-ci ont été probablement sous forme de cornes; quatre perforations sont placées symétriquement, une à chaque coin du corps de la pièce et au milieu de la tête.

La catégorie typologique fait partie de la plastique anthropomorphe de l'énéolithique, les pièces sont des représentations féminines fortement schématisées et en relation avec des pratiques rituelles liées au culte de la fertilité et de la fécondité¹.

Les pendentifs/amulettes en forme de violon sont connus, aussi, sous le nom d'idoles *en violon*, ou d'idoles plats de type troyen (NESTOR *et alii* 1952, 70; PETRESCU-DÎMBOVIȚA 1963, 182; COMȘA 1995, 49; MONAH 1997, 135), ou statuettes plates *en violon*; la

dernière dénomination est considérée par le professeur Mircea Petrescu-Dîmbovița „...plus adéquate aux particularités de forme de cette catégorie de statuettes” (PETRESCU-DÎMBOVIȚA, FLORESCU, FLORESCU 1999, 521). Plus rarement, on a utilisé d'autres dénominations: des idoles en forme de planche (*Brettidoleon*) et des figurines en forme de bouclier (*Schildfiguren*) (PETRESCU-DÎMBOVIȚA, FLORESCU, FLORESCU 1999, 521).

Les pendentifs/amulettes *en violon*, qui proviennent de la zone de la civilisation Cucuteni-Tripolye, sont confectionnés dans leur majorité en terre glaise ou en autres matériaux (cuivre, argent, or, pierre, os) et ont connu une grande diversité de formes (MONAH 1979, 163-175; 1997, 135-144; PETRESCU-DÎMBOVIȚA, FLORESCU, FLORESCU 1999, 521 et les suivantes; MAREȘ 2007, 7-22).

Les plus anciens pendentifs/ amulettes anthropomorphes *en violon* en cuivre proviennent de l'habitat d'Alexandrovka, d'Ukraine (un exemplaire inédit dont l'endroit de conservation est resté inconnu, daté de la culture Tripolye ancienne / Précucuteni III) (DERGACEV 1998, 23) et du trésor de Cărbuna²

² Le dépôt de Cărbuna comprends 852 objets, dont 444 en cuivre (une hache marteau de type Pločnik, une hache plate, la variante Coteana, huit plaques avec les bouts recourbés - d'un bracelet montable - quatre bracelets spiraliforme, deux disques avec le décor *au repoussé*, 14 plaques/pendentifs, 11 perles tubulaires, 337 perles, 23 plaques pendentifs anthropomorphes, 1 plaque sous forme de *phallus*, deux lames), 26 pièces en marbre blanc ou coloré et en pierre (deux haches, plaques, lames, 23 perles), 127 objets en os (124 parures faites de canins de cerf, un dent / amulette d'homme, une statuette miniature féminine en os), 254 parures en coquilles marines (143 perles et 111 plaques/lames) et deux vaisseaux (SERGEEV 1963, 153-151). Le dépôt a été republié par Valentin Dergacev, résultant la structure suivante: deux vaisseaux en terre glaise, 444 objets en cuivre (une hache-marteau de type Pločnik, une hache plate de type Coteana, deux plaques; objets de culte et de parure: 35 plaques/pendentifs, trois plaques/pendentifs discoïdaux, deux plaques/ appliques, quatre bracelets spiraliques, un bracelet formé de huit plaques séparées, 11 perles tubulaires, 377 perles), 407 pièces non métalliques (outils: deux haches-marteau en pierre; parures: 405 objets dont 127 en os, 270 en coquilles *Spondylus* et huit en minéraux; les parures en os incluent: une perle tubulaire, une perle faite d'une dent humaine, une perle en forme *phallique*, 12 perles en os – imitations des dents de cerf et 112 perles en dents de cerf; les parures en coquilles *Spondylus* incluent: 158 perles cylindriques et

¹ Pour les différentes opinions exprimées, pour l'interprétation et la bibliographie, voir MONAH 1997, 141 et les suivantes; DERGACEV 1998, 30; MAREȘ 2007, 29-38.

(La République de la Moldavie); dépôt qui inclut 35 *perles - plaques* entières ou fragmentées, groupées par V. Dergacev (qui a publié tout le matériel archéologique de Cărbuna), de la manière suivante: 13 plaques avec des évidentes caractéristiques anthropomorphes, 14 plaques avec des signes fortement schématisés ou conventionnellement anthropomorphes et 8 plaques avec des formes simples, sans signe anthropomorphes déterminés (DERGACEV 1998, 30-39, no. 5-39, fig. 4/5-6; 5/7-8; 6/ 9, 12; 7/13-17; 8/7, 18-23; 9/7, 24-30, 10/31-35; 11/36-39). Selon G. P. Sergeev (le premier qui a publié le dépôt de Cărbuna) du dépôt font partie 23 pendentifs/amulettes en cuivre (SERGEEV 1963, 135, 142-143, fig. 8-10). Un autre chercheur, L. S. Klejn, inclut les plaques anthropomorphes allongées, ainsi que celles avec les bords en zigzag de ce dépôt dans la série typologique développée et stylisée des figurines anthropomorphes, ayant des analogies avec certaines figurines plates en os de la zone de la culture Gumelnița-Karanovo VI, celles-ci étant de simples objets de parure, des figurines avec une destination ornementale, possiblement des amulettes (KLEJN 1968, 44-45, 49-51). Le chercheur Dan Monah a reparti les 23 pendentifs/amulettes de Cărbuna en deux séries typologiques; dans la première, étaient incluses les plaques qui ont la partie inférieure en forme rhomboïdale, et dans la seconde, les plaques avec la partie inférieure ovale (MONAH 1997, 138, fig. 17/8, 11-13, 16; 17/2, 5, 13). Les conditions de découverte moins claires du dépôt de Cărbuna, ont conduit à l'apparition de plusieurs opinions en ce qui concerne sa datation: Tripolye A ancien (SERGEEV 1963, 135), Tripolye BI – Protocucuteni (Izvoare II, Ariușd, possiblement Cucuteni A) (KLEJN 1968, 8, 72), l'étape Cucuteni A1-A2 (VULPE 1973, 219, note 18; 1976, 135), la fin de la phase Tripolye A, contemporaine avec l'étape Cucuteni A1-A2 et avec la phase II de la culture Kodjadermen-Gumelnița-Karanovo VI (TODOROVA 1981, 36), Tripolye la phase

ancienne (MASSON, MERPERT 1982, 179, 188, carte 3), Tripolye A final (Précucuteni III) ou la période de transition de cette étape Tripolye BI (Cucuteni A) (DERGACEV 1998, 10, 19-20).

De Ruseștii Noi (République de la Moldavie) provient un pendentif/amulette anthropomorphe *en violon*, daté du Tripolye BI/Cucuteni A (RYNDINA 1971, 120, fig. 25/7; 27/4; GREEVES 1975, fig. 3/29; MONAH 1997, 138; DERGACEV 1998, 23), semblable du point de vue de la forme avec certaines pièces du trésor de Cărbuna.

Un pendentif anthropomorphisé en cuivre, similaire aux pièces du trésor de Cărbuna, a été découvert dans le niveau Cucuteni A1 du *tell* cucutenien de Poduri-Dealul Ghindaru (MONAH *et alii* 2003, 132, 172, no. 154; MAREȘ 2007, 31, fig. 1/2). Dans la station Cucuteni A3 de Trușești-Țuguieța (dép. de Botoșani), a été découvert en 1951 une idole plat *en violon*, en métal, dans une fosse près du coin nord-est de l'habitation VI (NESTOR *et alii* 1952, 70, fig. 80; PETRESCU-DÎMBOVIȚA, FLORESCU, FLORESCU 1999, 521, fig. 370/5; MAREȘ 2007, 31, fig. 1/1).

Du point de vue typologique, la pièce de Trușești s'encadre dans le premier groupe des pendentifs/amulettes du dépôt de Cărbuna, avec des évidentes caractéristiques anthropomorphes (DERGACEV 1998, 30-34, no. 5-17), ayant certaines similitudes avec des exemplaires d'ici (DERGACEV 1998, fig. 7/16, 17).

Un pendentif/amulette *en violon* a été découvert dans l'habitation de Traian-Dealul Fântânilor (com. Zărnești, dép. Neamț), dans le niveau Cucuteni A-B (DUMITRESCU 1959, 197; COMȘA 1980, 214, no. 29; MAREȘ 2007, 31, fig. 1/3). Le marquage de l'objet indique qu'il a été découvert dans la section II/1952, la fosse V, le carreau 14, à 0,85 m de profondeur (MAREȘ 2002, 319, no. 1607). En ce qui concerne sa datation, on a exprimé l'opinion qu'il pourrait provenir de la couche Précucuteni III de l'habitation (DERGACEV 1998, 23). Cette idole présente des ressemblances avec le deuxième groupe de pendentifs/amulettes, conventionnellement anthropomorphes, du dépôt de Cărbuna, en particulier avec certains exemplaires (DERGACEV 1998, 30, 34-37, no. 18-31, fig. 8/18-31), présentant des similitudes avec certains exemplaires d'ici (DERGACEV 1998, no. 18-25,

tubulaires allongées, un fragment de coquille destinée à la fabrication des perles, 102 plaques/appliques; huit pièces sont en minéraux: deux en marbre et six de trois minéraux différents (DERGACEV 1998, 28-48).

fig. 8/18-25). Le fait que la pièce soit unique est important pour la phase Cucuteni A-B, car on ne connaît pas d'autres exemplaires de ce type. La pièce représente un *terminus post quem* pour la chronologie des pendentifs/amulettes anthropomorphes *en violon* de l'énéolithique carpato-danubien (MAREȘ 2002, 133; 2007, 32).

Les pendentifs/amulettes anthropomorphes *en violon* de Poduri-Dealul Ghindaru, Trușești-Țuguieța et Traian-Dealul Fântânilor s'encadrent dans le second groupe des amulettes, déterminés du point de vue conventionnel par le chercheur Dan Monah pour les idoles plates; celui-ci a établi trois séries typologiques: **a.** Idoles *en violon*; **b.** amulettes; **c.** pendentifs sous forme d'anneau (MONAH 1979, 163; 1997, 136,138).

Tout en faisant référence aux pendentifs/amulettes anthropomorphes *en violon* en métal (cuivre et argent), on constate, tout comme a remarqué le professeur Vl. Dergacev, que ceux-ci n'ont pas d'analogies identiques dans d'autres cultures, les pièces ont été trouvées dans l'aire des cultures Précucuteni III – Cucuteni – Tripolye (DERGACEV 1998, 22, 24). En ce qui concerne ces exemplaires, nous avons exprimé notre point de vue, tout en les considérant comme des productions locales et des types ou variantes de pièces spécifiques aux cultures qu'on vient de mentionner (MAREȘ 2002, 133; 2007, 29-38). Semblables à ceux-ci sont les pendentifs/amulettes anthropomorphes avec le disque plein, en cuivre et en or (MAREȘ 2002, 130-132).

Les pendentifs/amulettes anthropomorphes *en violon* élaborés en terre cuite, pierre, os, coquilles ont été découverts dans des habitations de la phase Précucuteni II – Tripolye A, à Florești, Rogojeni (République de la Moldavie), Bornašovca (Ukraine) (DERGACEV 1998, 24), de la phase Précucuteni III à Costișa-Dealul Cetății (MONAH 1997, 143-144), de Poduri-Dealul Ghindaru (MONAH *et alii* 2003, 163-164, no. 105, 125). Des étapes Cucuteni A2-A4 on a des exemplaires de Cucuteni, Hăbășești, Trușești, Drăgușeni-Botoșani, Făcuți, Igești, Tăcuta-Dealul Miclea, Bârlălești, Mălușteni (MONAH 1997, 136

et les suivantes), Scânteia (MANTU, ȚURCANU 1999, 142, no. 355), Ruginoasa (inédit).

La liaison entre les idoles *en violon* de la culture Cucuteni avec ceux d'Anatolie est, dans l'opinion du chercheur Dan Monah, évidente; on a formulé même l'hypothèse que les idoles *en violon* ont pénétré en Europe probablement à l'intermédiaire des porteurs du complexe culturel Sesklo-Starčevo-Körös-Criș ou, plus sûrement, par la culture Vinča, leur présence dans la culture Cucuteni-Tripolye peut être expliquée par les influences et les traditions vinčiennes (MONAH 1997, 143).

Un pendentif/amulette au disque plein (disque convexe) (fig. 8/2) a été découvert dans le niveau Précucuteni III de Țăncani-Ferma 2, à approximativement 3 m du bord ouest de Gr. 1/1999 (MAREȘ *et alii* 2007, 11, fig. 8/2). Il est confectionné en terre glaise mêlée avec des fragments céramiques pillés; il a la couleur brique-jaunâtre, la combustion est oxydante, pas uniforme; le disque circulaire a la convexité accentuée par un bord presque droit, "tiré" verticalement de la partie intérieure de la pièce; deux perforations sont placées symétriquement dans la zone supérieure du disque, une autre se trouve dans le centre de l'exemplaire.

Les pendentifs/amulettes au disque plein représentent une déviation abstraite du type de disques avec représentation anthropomorphe et ont une signification symbolique; la catégorie typologique a été interprétée comme étant la forme schématisée d'une représentation anthropomorphe féminine de type cycladique et troyen; ils peuvent être mis en relation avec des pratiques de culte de la fertilité et de la fécondité (DUMITRESCU 1961, 87 et les suivantes; URSACHI 1990, 350; MAREȘ 2002, 131). Selon le chercheur Dan Monah, les disques circulaires en métal ou en terre glaise sont une variante extrêmement stylisée des idoles *en violon* (MONAH 1997, 140-141).

Des pendentifs/amulettes avec le disque plein confectionnés en terre glaise apparaissent dans la culture Précucuteni III dans l'habitat de Târpești-Râpa lui Bodai (MARINESCU-BÎLCU 1974, fig. 25/10; 88/9),

Rusești Noi et Putinești (Bassarabie), Luka-Vrubleveckaja et Bernašovka (Ukraine) (DERGACEV 1998, 26), de nombreux exemplaires de la phase Cucuteni A (Târpești, Hăbășești, Ruginoasa, Brad, Drăgușeni) (URSACHI 1990, 349), Poduri-Dealul Ghindaru (MONAH *et alii* 2003, 198, no. 225, 226), Scânteia (MANTU, ȚURCANU 1999, 142, no. 354, 356). D'autres exemplaires en cuivre proviennent des dépôts de Cărbuna, Hăbășești, Brad (à cet endroit-ci, avec deux disques en or), ou de l'habitat de Târpești (MAREȘ 2002, 130-131).

Utilisés en tant que pendentifs/amulettes avec des fonctions apotropaiques, les disques en terre glaise ou en métal (or, cuivre) étaient soit cousus sur des vêtements, soit portés au cou, parfois en combinaison avec d'autres pièces de colliers combinés; les exemplaires en or découverts dans les tombeaux, comme inventaire funéraire, sont en relation avec des pratiques de culte funéraire (MAREȘ 2002, 131). Cette catégorie typologique se termine à l'étape Cucuteni A4.

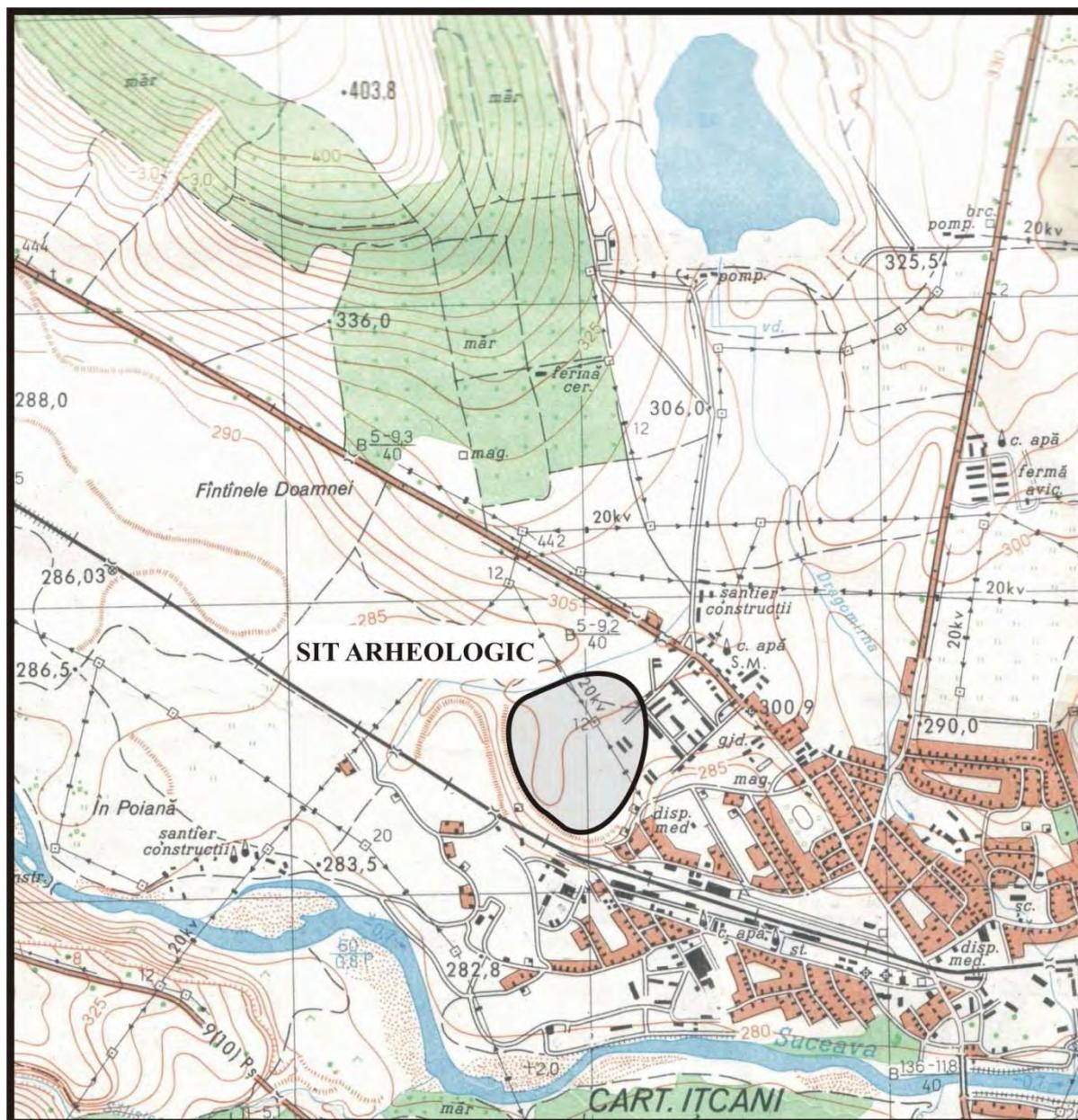
Les fouilles archéologiques de Ițcani-Ferma 2 ont mis en évidence sur la surface investiguée l'existence de certaines habitations du néolithique (les cultures Précucuteni III, Cucuteni A3 - l'aspect Hăbășești -, Cucuteni B1), du bronze tardif (la culture Noua) et de la période préféodale (le VI^{ème} siècle).

Les résultats des investigations archéologiques (modeste car d'ampleur, effectuées seulement sur une petite surface du site) sont positifs en ce qui concerne la stratigraphie et la succession de certaines civilisations situées dans une zone favorable à l'habitation humaine. Sur la rive gauche de la rivière de Suceava, approximativement dans la même direction que le site de Ițcani-Ferma 2, se trouve la bien connue station de Mihoveni-Cahla Morii. Il est nécessaire de continuer les fouilles archéologiques dans le site de Ițcani-Ferma 2 pour compléter les données concernant cette station.

Bibliographie

- COMȘA Eugen
1980 *Die Kupferverwendung bei den Gemeinschaften der Cucuteni-Kultur in Rumänien*, PZ, 55, 2, p. 197-219.
1995 *Figurinele antropomorfe din epoca neolitică pe teritoriul României*, București.
- DERGACEV A. Valentin
1998 *Karbunskij klad. Carbuna deposit*, Kișinev.
- DUMITRESCU Hortensia
1959 *Șantierul arheologic Traian*, Materiale, V, p. 189-201.
1961 *Connections between the Cucuteni-Tripolie Cultural Complex and the Neighbouring Eneolithic Cultures in the Light of the Utilisation of Golden Pendants*, Dacia N.S., V, p. 69-93.
- GREEVES T.A.P.
1975 *The Use of Copper in the Cucuteni-Tripolye Culture of South-East Europe*, PPS, 41, p. 153-166.
- KLEJN S. Leon
1968 *O date karbunskogo klada (k probleme absolutnoj datirovki rannetripol'skoj kul'tury*, PARh, I, p. 5-74.
- MAREȘ Ion
2002 *Metalurgia aramei în neo-eneoliticul României*, Suceava.
2007 *Tipuri și variante locale de podoabe de metal din cultura Cucuteni-Tripolie. Pandantive/amulete antropomorfe „en violon”*, Suceava, XXXI-XXXII-XXXIII (2004-2005-2006), p. 29-38.
- MAREȘ Ion *et alii*
2007 *Săpăturile arheologice de la Ițcani-„Ferma 2” (1998, 1999)*, Suceava, XXXI-XXXII-XXXIII (2004-2005-2006), p. 7-22.
- MARINESCU-BÎLCU Silvia
1974 *Cultura Precucuteni pe teritoriul României*, București.
- MASSON V. M., MERPERT N. Ja. (éds.)
1982 *Eneolit SSSR*, Moskva.
- MONAH Dan
1979 *Idoli „en violon” din cultura Cucuteni*, CI, IX-X, p.163-175.
1997 *Plastica antropomorfă a culturii Cucuteni-Tripolie*, BMA III, Piatra-Neamț.
- MONAH Dan *et alii*
2003 *Poduri-Dealul Ghindaru. O Troie în Subcarpații Moldovei*, Piatra-Neamț.
- NESTOR Ion *et alii*
1952 *Șantierul Valea Jijiei*, SCIV, III, p. 19-119.

- PETRESCU-DÎMBOVIȚA Mircea
1963 *Die wichtigsten Ergebnisse der archäologischen Ausgrabungen in der neolithischen Siedlung von Trușești (Moldau)*, PZ, XLI, p. 172-186.
- PETRESCU-DÎMBOVIȚA Mircea, FLORESCU Marilena, FLORESCU Adrian C.
1999 *Trușești. Monografie arheologică*, București-Iași.
- RYNDINA V. Natalja
1971 *Drevnejšee metalloobrabatyvajuščee proizvodstvo Vostočnoj Evropy*, Moskva.
- MANTU Cornelia-Magda, ȚURCANU Senica
1999 *Catalog*, in vol.: *Scânteia. Cercetare arheologică și restaurare* (éds.: V. Chirica, C.-M. Mantu, S. Țurcanu), Iași, p. 37-157.
- SERGEEV G. P.
1963 *Rannetripol'skij klad u s. Karbuna, SA*, 1, p. 135-151.
- TODOROVA Henrieta
1981 *Die Kupferzeitlichen Äxte und Beile in Bulgarien*, PBF, IX, 14.
- URSACHI Vasile
1990 *Le dépôt d'objets de parure énéolithique de Brad, com. Negri, dép. de Bacău*, in vol.: *Le paléolithique et le néolithique de la Roumanie en contexte européen* (éds.: V. Chirica, D. Monah), BAI IV, Iași, p. 335-359.
- VULPE Alexandru
1973 *Începuturile metalurgiei aramei în spațiul carpato-dunărean*, SCIV, 24, 2, p. 217-237.
1976 *Zu den Anfängen der Kupfer und Bronzemetallurgie in Rumänien*, in vol.: *Les débuts de la métallurgie. IX^e Congrès UISPP, Colloque XXIII, Nice*, p. 134-175.



Carte 1. L'emplacement topographique du site archéologique de Ițcani-Ferma 2.



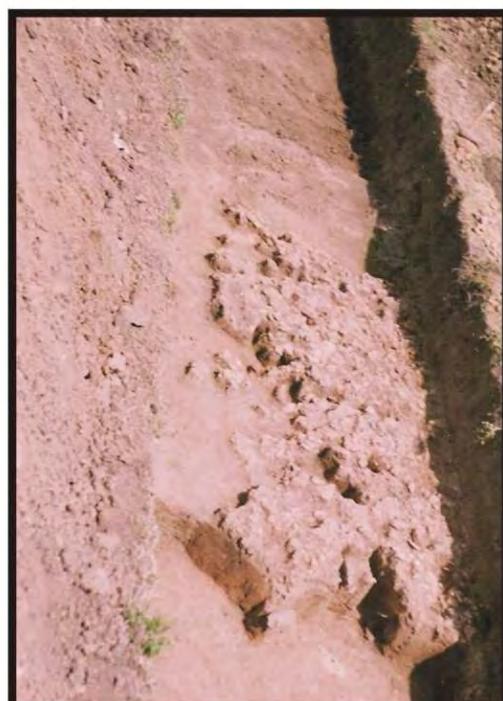
1



2



3

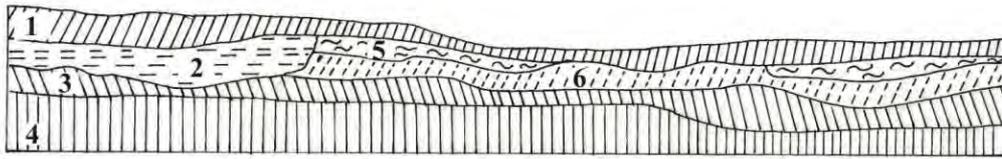


4



5

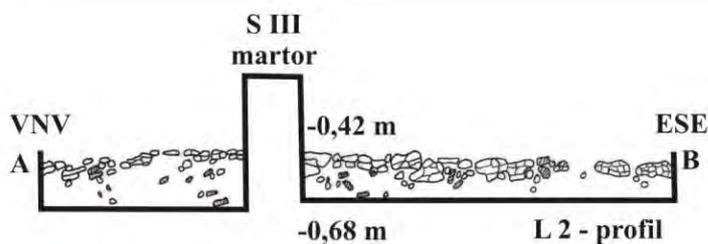
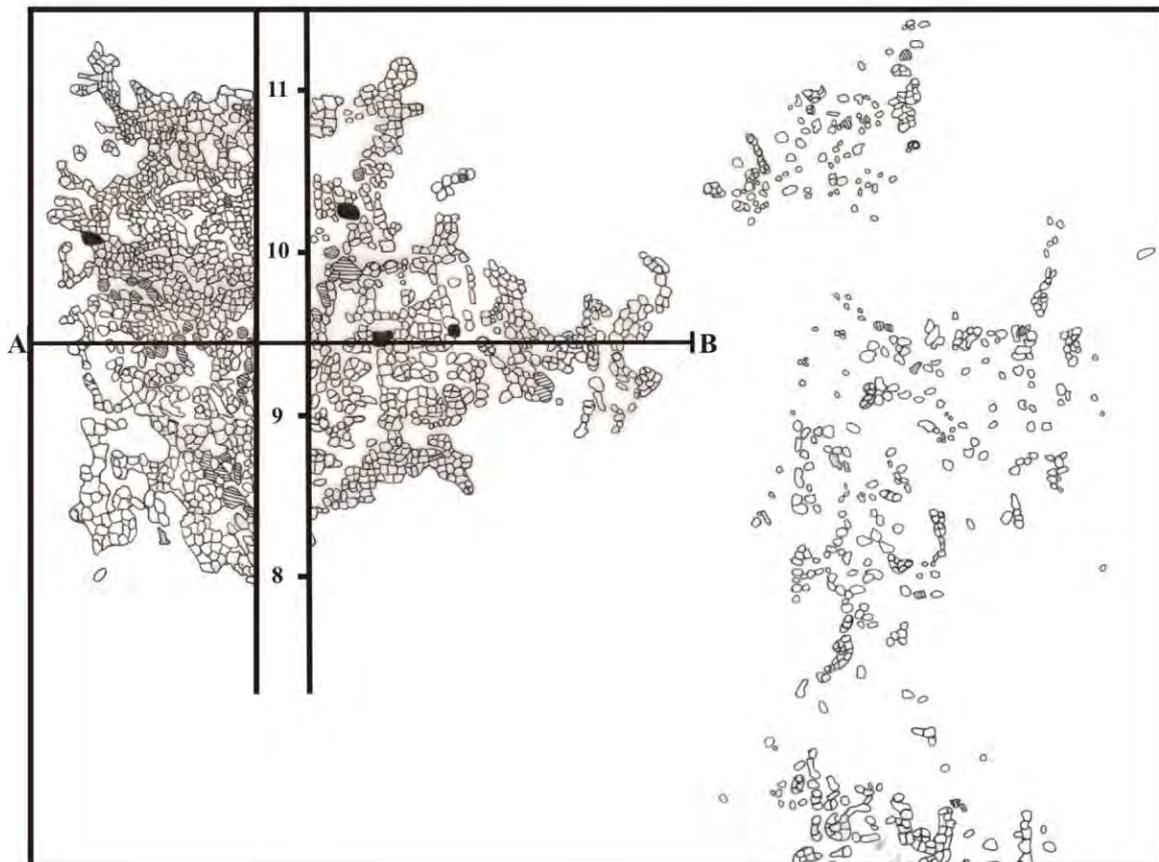
Fig. 1. Ițcani-Ferma 2. 1-4: aspects de fouille archéologique; 5: le complexe Précucuteni III.



Ițcani - Ferma 2, S I/1998, profil N

LEGENDA:

- | | |
|--|---------------------------------------|
| 1 strat cenușiu-negru (arabil) | 4 sol galben (steril arheologic) |
| 2 sol negru măzăros (sec. VI-VII, Gr. 1) | 5 sol cenușiu (nivel Cucuteni B) |
| 3 sol brun-gălbui (steril arheologic) | 6 sol cenușiu-brun (nivel Cucuteni A) |

**LEGENDA:**

- | | |
|---------------|----------------------|
| ● pietre | ☞ fragmente de oase |
| ⊗ chirpic ars | ⊗ fragmente ceramice |

Fig. 2. Ițcani-Ferma 2. L'habitation L 2 - plan et profil.

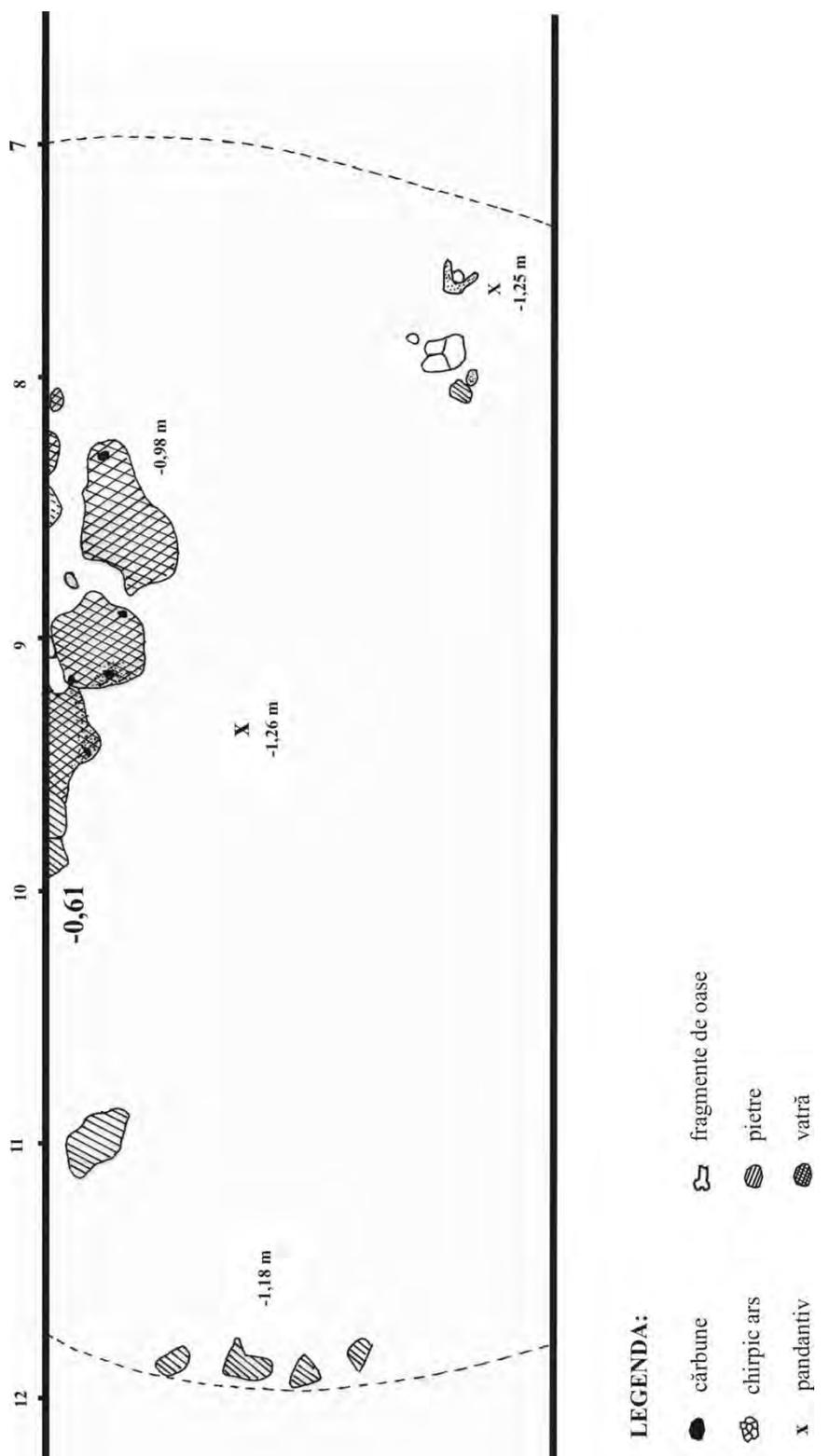


Fig. 3. Ițcani-Ferma 2. La section IV/1999. Le complexe Précucuteni III.

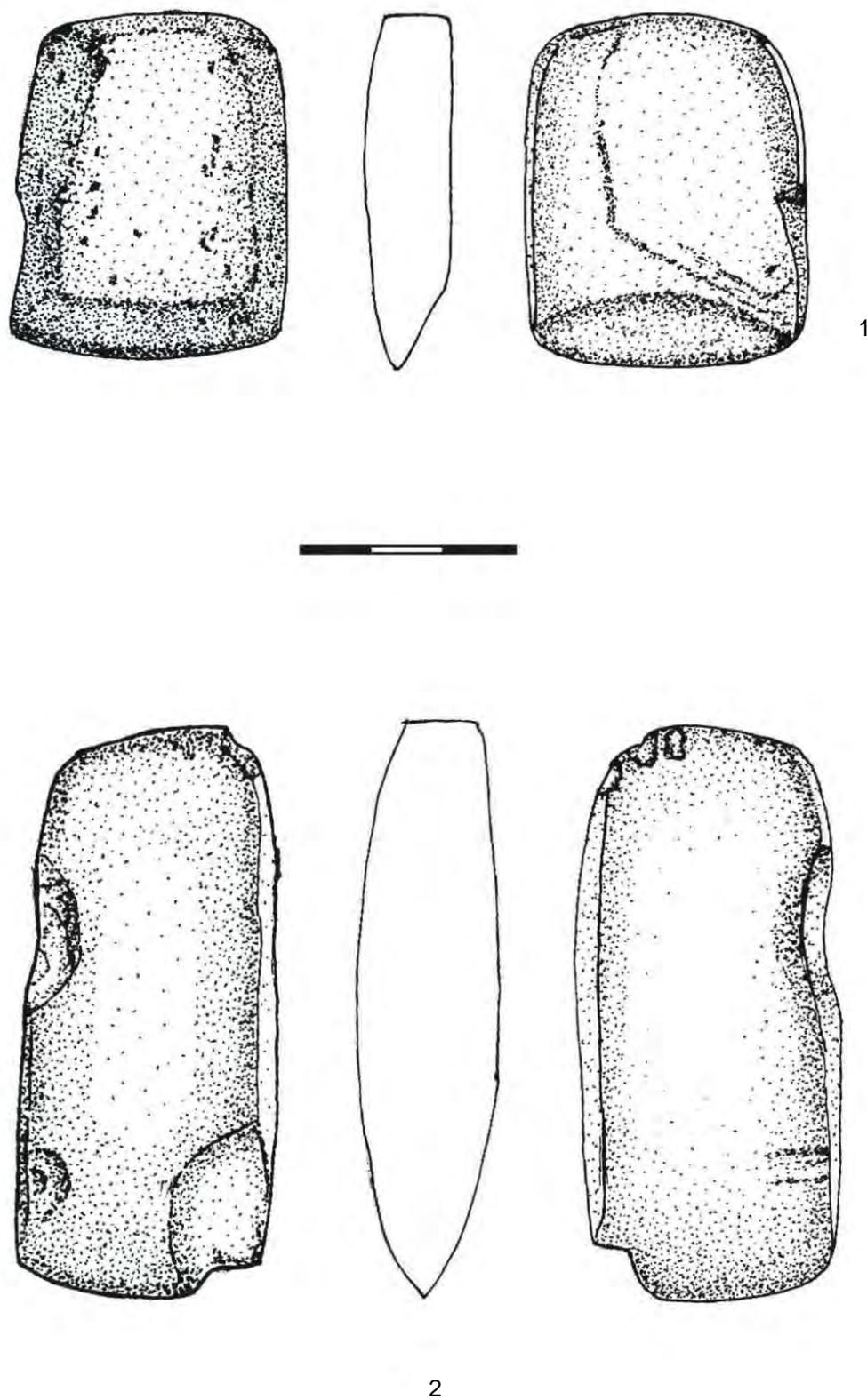


Fig. 4. Ițcani-*Ferma* 2. 1-2: haches en pierre du complexe Prăcucuteni III.

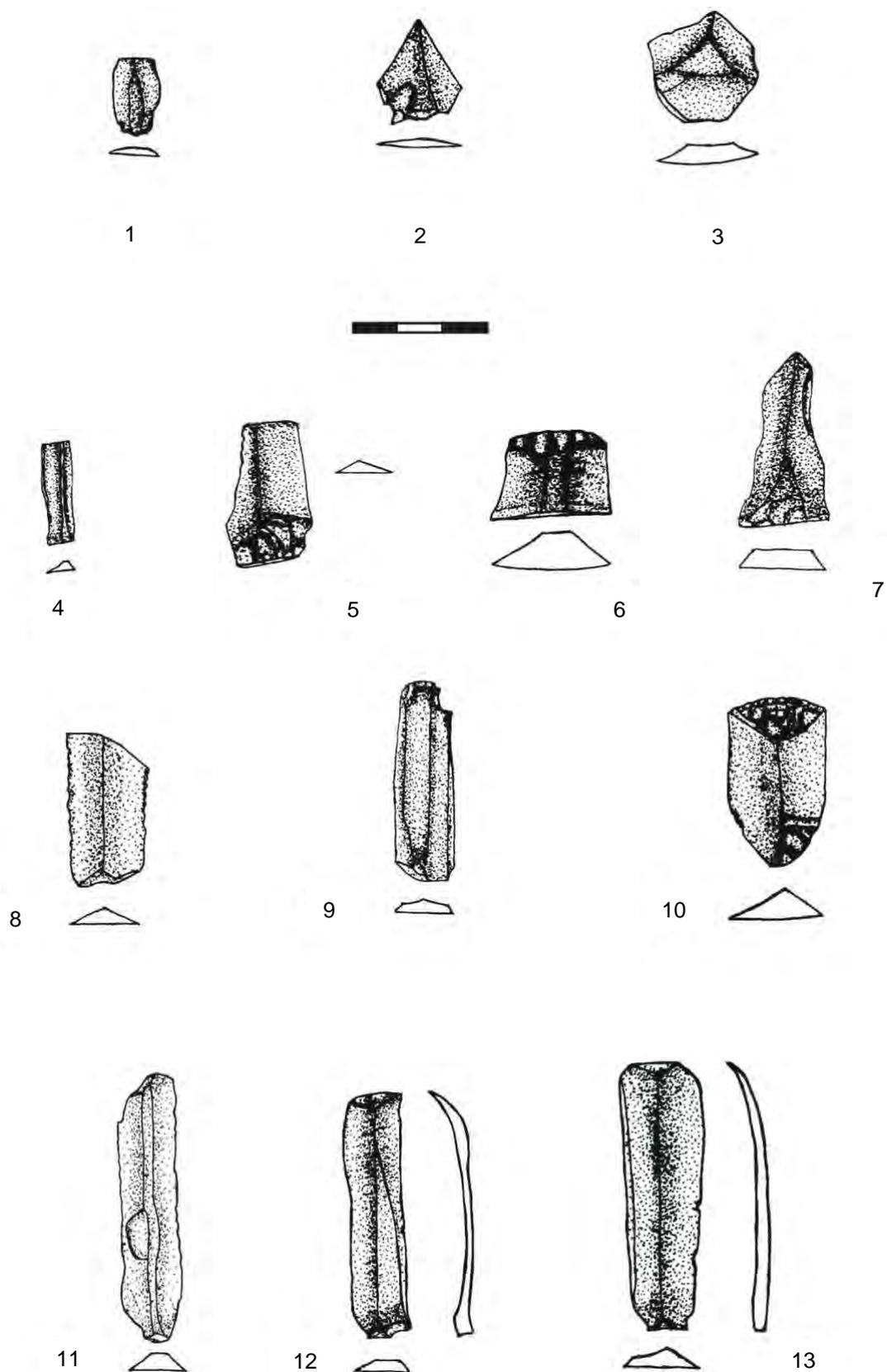


Fig. 5. Ițcani-Ferma 2. 1-13: pièces en silex du complexe Précucuteni III.

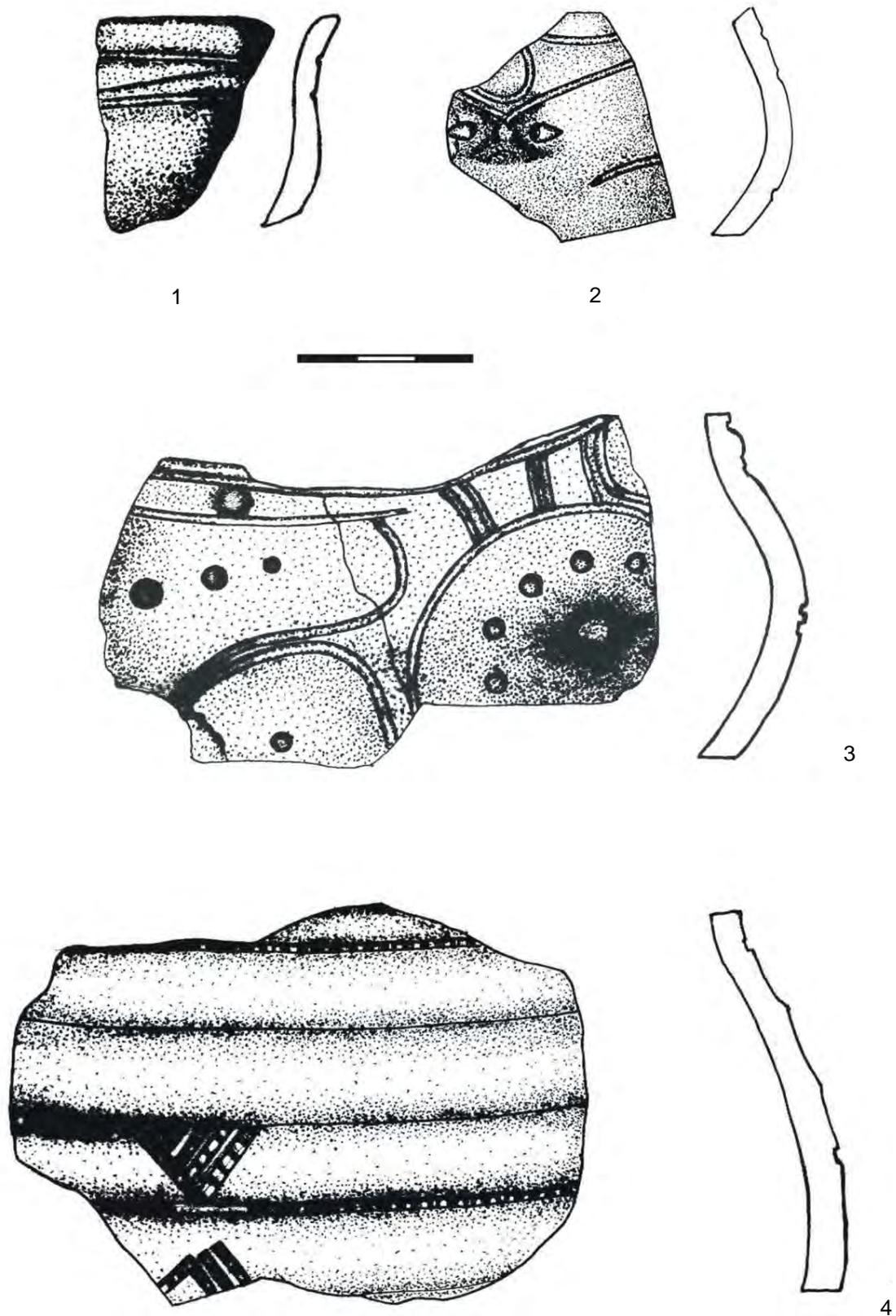


Fig. 6. Ițcani-Ferma 2. Fragments céramiques du complexe Précucuteni III.

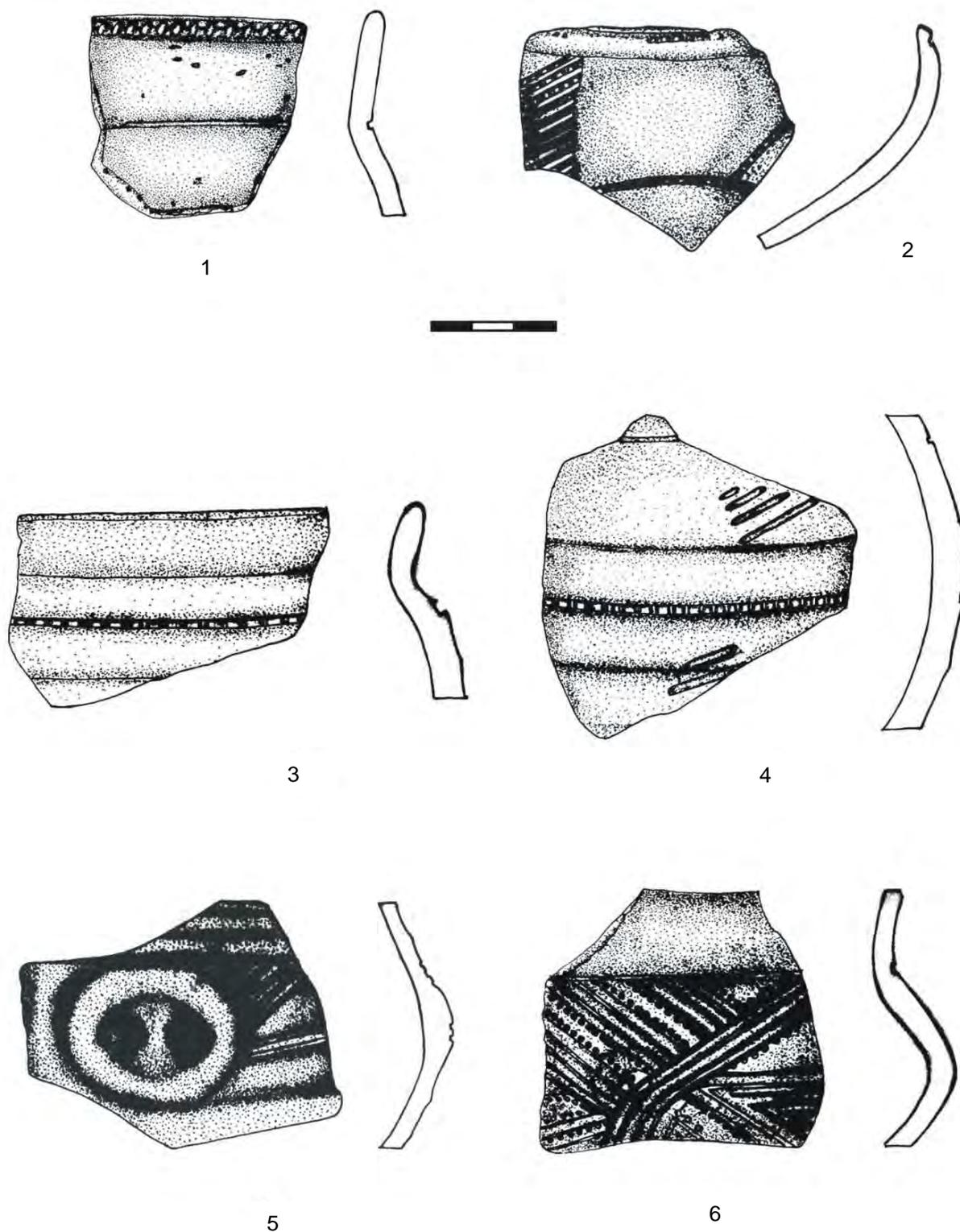


Fig. 7. Ițcani-Ferma 2. Fragments céramiques du complexe Précucuteni III.

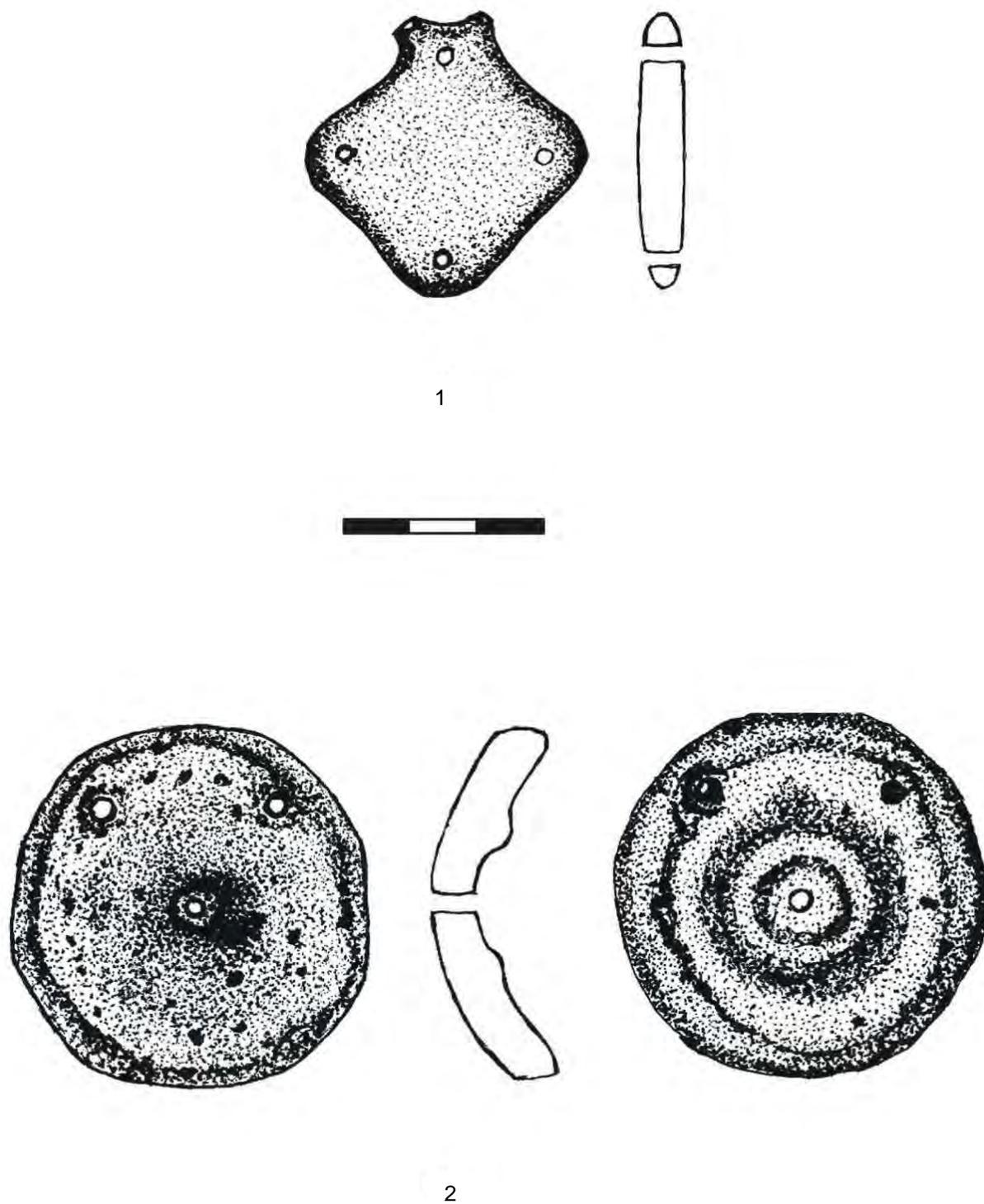


Fig. 8. Ițcani-Ferma 2. Pièces du complexe Précucuteni III. 1: pendentif *en violon*; 2: disque en terre glaise cuite.

SMALL FINDS DATING FROM THE PRE-CUCUTENI CULTURE, FROM MIHOVENI-CAHLA MORII

PARASCHIVA-VICTORIA BATARIUC^{*}, CONSTANTIN-EMIL URSU^{**}

Keywords: *Pre-Cucuteni, Mihoveni-Cahla Morii, small finds.*

Cuvinte cheie: *Precucuteni, Mihoveni-Cahla Morii, descoperiri mărunte.*

Abstract. *This paper presents some small archeological finds from the Pre-Cucuteni settlement Mihoveni-Cahla Morii: ladle handles, lid fragments, fragments from vessels decorated with zoomorphic protomae, fragments from hora (the round dance) type pots, and fragments from crown-shaped pots.*

Rezumat. *În articol sunt prezentate mai multe descoperiri mărunte făcute în așezarea precucuteniană de la Mihoveni-Cahla Morii: cozi de polonic, fragmente de capace, fragmente de vase cu protome zoomorfe, fragmente de vase-altar, un fragment de tron de lut, fragmente de vase de tip horă, fragmente de vase de cult în formă de coroană.*

The settlement of Mihoveni-Cahla Morii (Șcheia commune, Suceava county) was discovered almost four decades ago, in the summer of 1971, by Mircea Ignat and Nicolae Ursulescu, after being identified by two schoolboys: Adrian Murariu and Dan Lacatuș. Since its discovery, the site underwent five systematic excavation campaigns: 1973, 1975, 1981, 1990 and 2001, as well as several archaeological surveys, with remarkable results.

At mid-distance between the villages of Șcheia and Mihoveni, on the County Road 178A, the settlement is located on the right bank of Suceava River, on the high terrace. The site was intensely inhabited since the prehistoric times, up to the end of the 14th century. The sequence of culture layers is outstanding, comprising Gravettian layers, LBK, Pre-Cucuteni II and III, Cucuteni A3, B1 and B2, Horodișteea-Erbiceni-Gordinești, Costișa-Komariv, Noua, Gava-Holihrad (Granicesti group), Poienești-Lukaševka, as

well as medieval layers, of 13th and 14th century.

The partial results of the archaeological research, including the culture layers and the categories of prehistoric finds from Mihoveni-Cahla Morii were published in the excavation reports (URSULESCU, BATARIUC 1978, 89-106; BATARIUC 1996, 71; BATARIUC, GOGU, AMARANDEI 2002, 205-206) or they were included in a number of studies and papers issued in the four decades since the site is known to the scholars (URSULESCU, BATARIUC 1979, 271-284; 1987, 309-312; NICULICĂ 1999, 215-219; BATARIUC, IGNĂTESCU, NICULICĂ 2001, 109-143; HAIMOVICI 2001, 145-157; 2003, 349-362; 2004, 317-325; IGNĂTESCU 2001, 45-87; BATARIUC, HAIMOVICI, NICULICĂ 2003, 259-271; CREANGĂ, MELNICIUC 2003, 431-435; BATARIUC, BOTEZATU 2005, 21-30).

Along with the systematic excavations, the surveys uncovered a large number of finds pertaining to the phases Pre-Cucuteni I and II. The aim of this paper is to present several types of ceramic forms that belong chronologically to the three phases of the Pre-Cucuteni culture, which are documented within the Mihoveni-Cahla Morii settlement, i.e. ladle handles fragments, lid buttons,

^{*} Bukovina Museum Complex of Suceava,
e-mail: bucovina_museum@yahoo.com

^{**} Bukovina Museum Complex of Suceava,
e-mail: ursuce@yahoo.com

vessels with *protomae* or with uncommon shapes and small-size altars.

The ladle handles were made from a good-quality paste, of rough texture, with varied granulated grog mixed in. In several cases, the pieces were slipped and then polished. The firing is both low-oxidizing and anoxidizing. The shapes of the seven handles uncovered here are varied. Two fragments of ladle handle are massive, in the shape of the letter A (Fig. 1/5, 7), sharing the shape with another two smaller, pieces (Fig. 1/2-3). This type of handles were also found on the site of Târpești settlement (MARINESCU-BÎLCU 1981, fig. 79/4, 6, 10; 115/6). Another type is represented by a fragment made of sandy paste, fired in reducing atmosphere, shaped as a stylized human torso, with a sketchy modeled head and a straight connecting part (Fig. 1/4). Another fragment is a massive piece, trapeze shaped, its convex surface being decorated with parallel, widely spaced, incised diagonal lines (Fig. 1/6).

A large number of lid fragments were uncovered within the Pre-Cucuteni settlement of Mihoveni-*Cahla Morii*, from the phases II and III of the culture. The lids were provided with simple buttons, decorated with incised or excised geometrical motifs or shaped as stylized bird-heads. One of the buttons is decorated with two centered, circumscribed, excised rhombs, with a small elliptic pit in the center of the smaller one, while the circumference of its surrounding circle is decorated with inward oriented excised triangles (wolf's teeth), the field described by them containing four deeply incised circles (Fig. 2/4). The surface of the second button is divided in quarters, the two main ones are blank and the other two are hatched with acute-angled grilles (Fig. 2/6). The decoration of the two buttons can be interpreted as a cosmic representation, of the four-direction space. Another button is oval, modeled in the shape of a bird's head, with massive beak, decorated with deeply incised lines (Fig. 2/3). A similar piece was found on the site of Traian-*Dealul Viei* settlement (MARINESCU-BÎLCU 1974, fig. 83/1).

The settlement of Mihoveni revealed several fragments of vessels decorated with

animal *protomae* or with horn-shaped ears/handles. A *protoma* made of fine grey paste, with grog mixed, in decorated a medium-to-large size vessel. The representation is of an animal head, with long snout, its mouth marked by an excision, with eyes shaped by two bumps and back-leaning ears made in relief. One of the ears is decorated with two circular hollows. The left ear and eye were broken away in antiquity (Fig. 2/5). Another fragment seems to be part of a small cylindrical vessel, made of red, sandy paste, decorated with a horn and grooves on the upper area and some combed lines on the lower one (Fig. 2/1). A third fragment shows a kind of ear/handle in the shape of a massive bovid horn, broken in antiquity (Fig. 2/2).

Another group of fragments from Mihoveni-*Cahla Morii* consists in several pieces of possibly small-size altar-vessels, one made of rough paste and two other ones made of finer, sandy paste. The rough-paste piece preserves an edge with its corner, with a protuberance on its upper side; the lower end is straight while the upper one is lobed (Fig. 1/8). A second altar fragment comes from a vessel with curved base, which was supported by a highly stylized human foot, with strongly outlined *malleola* (Fig. 3/2). In the same group of altar-vessels falls a third fragment, of a hemispherical bowl, that preserves one cylindrical stem at an angle, which was part of a probably multiple-stem altar (Fig. 3/5). Another fragment is a part of an altar-vessel supported by a cylindrical stem, raised on a base with three strongly outlined lobes (Fig. 3/1).

This settlement revealed a fragment of miniature throne, made of very fine paste, fired in reducing atmosphere. The upper part of the concave backrest is preserved, along with a piece of the seat (Fig. 1/1). Similar clay thrones were found at Târpești (MARINESCU-BÎLCU 1974, fig. 90/1-2), Mândrișca (MARINESCU-BÎLCU 1974, fig. 90/6), Poduri (MONAH *et alii* 2003, 109, 144, fig. 36), Isaiia (URSULESCU, TENCARIU 2006, 113, 116, 117, fig. 29, 32-33).

There were also discovered two ceramic fragments that were probably part of

two *hora* type pots (round-dance). Both of them have a grey-yellowish color, and were manufactured from a fine paste, having smashed potsherds mixed in its dough. One of the fragments comes from the shoulders of a body dancing; its decoration consists in deep incisions describing a row of curvy lines, at the upper side, but also on the lateral side. (Fig. 3/3) (BATARIUC, IGNĂTESCU, NICULICĂ 2001, 116, fig. 5/5). The second one is a fragment from a *torso*, decorated with incised lines describing a triangle, hachured by short horizontal lines (Fig. 3/4) (BATARIUC, IGNĂTESCU, NICULICĂ 2001, 116, fig. 5/4).

The same site revealed also two fragments from crown-shaped ritual vessels. One of these fragments, made of rough, sandy paste, of grey color, has lobe-shaped asymmetrical edges, its body being decorated with groups of incised curves, arranged back to back (Fig. 3/7). The second fragment is also made of coarse, sandy paste, covered in slip (which is flaked away in several places), fired in reducing atmosphere, from a globular vessel that had at least one asymmetric lobe on the rim. Its body was decorated with incised curves (Fig. 3/6). Crown-shaped vessels were also found at Izvoare (GARVĂN 2007, 227, fig. 5/2), Ciorani-*Fântâna din Câmp* (GARVĂN 2007, fig. 5/1), Târpești (GARVĂN 2007, 231, fig. 5/4-6a), Poduri (GARVĂN 2007, 221-237, fig. 1/2; 6/1-2; 8/1-8; 9/1-10; 10/1-2).

Coming back to the lid-button with excised decoration (Fig. 2/4), we believe that, together with the bird's head-shaped one (Fig. 2/2), they are imports into the Mihoveni-*Cahla Morii* settlement, due to their unique features amid the common Pre-Cucuteni II and III finds, i.e. the fine paste, the incised and/or combed decoration, the grooves.

In the 60's, at the beginnings of the studies into the Pre-Cucuteni culture, several hypotheses regarding the emergence of the culture and the chronology of certain of its settlements were issued, which, more often than not, were contradictory. Eugen Comșa issued the theory that the settlement of Traian-*Dealul Viei* (Zănești) belong to the phase Giulești of the Boian culture (COMȘA 1957, 27-28, 44-45).

The old Treatise of Romanian History of the Academy, Ion Nestor inserts a note within the chapter dedicated to Cucuteni culture (by Vladimir Dumitrescu) saying that not all the scholars agree that the Traian-*Dealul Viei* settlement belongs to the Pre-Cucuteni I, the opinion being that it belongs to Boian-Leț (Boian II) culture (VI. DUMITRESCU 1960, 60, note 2). At the same stage into the research, the settlement of Traian-*Dealul Viei* was regarded as pertaining to an individual culture, named after the village of its discovery, Zănești (DUMITRESCU, MATASĂ 1954, 51; H. DUMITRESCU 1957, 53-69), a hypothesis that was later rejected, the settlement being established by Hortensia and Vladimir Dumitrescu as belonging to the phase I of Pre-Cucuteni culture, which was just defined at that time (H. DUMITRESCU 1957, 63; VI. DUMITRESCU 1960, 60-61; 1963, 53-55). Dumitru Berciu was arguing that, in the Pre-Cucuteni case, there are only two phases, illustrated by the finds of Larga Jijia and Izvoare I₂, the first "phase" being only an aspect of Boian culture (BERCIU 1966, 104, 126). At the current level of knowledge, one can raise the issue of separating the finds into the first phase of Pre-Cucuteni: Traian-*Dealul Viei* (H. DUMITRESCU 1954, 48-55; 1955, 474-478, fig. 16-17; 1959, 197-199, fig. 9-10; DUMITRESCU, DUMITRESCU 1962, 246-248; 1970 46-58, fig. 6-12; MARINESCU-BÎLCU 1974), Bancu (SZÉKELY 1959, 243, nr. 9, pl. XI/1-6), Borlești (MARINESCU-BÎLCU 1974, 155-156), Ereteghin (SZÉKELY 1967, 76-83, fig. 1/8) and Sfântu Gheorghe (MARINESCU-BÎLCU, 1974, 167) and the second phase of Pre-Cucuteni: Ghigoiești-*Trudești* (MATASĂ 1941, 69, fig.1/3; MARINESCU-BÎLCU 1974, 174-176), Larga Jijia (ALEXANDRESCU 1961, 21-37, pl. I-VIII), Târpești (MARINESCU-BÎLCU 1962, 236-242, fig. 5/1-3: 6/1a-b; 7/1-7; 1968, 395-422, fig. 1; 5; 6/1-4; 7; 8; 9/1-5, 10) etc. By analyzing the ceramic forms and the decorative repertoire a certain resemblance is observed, while the difference is made by the quality of the paste, the presence of specific shapes and the decoration technique.

Judging both by the very small number of settlements belonging to the phase I of the Pre-Cucuteni culture and the scarce artifacts attributable to this phase found in

the general area of the Pre-Cucuteni culture, there is possible to conclude that these items are, in fact, of foreign origin and the hypothesis issued half a century ago by Eugen Comșa may reflect the historical reality and should be taken into consideration in establishing a new chronology of the Pre-Cucuteni culture. In favor of a new Pre-Cucuteni chronology argues more recently Nicoale Ursulescu, who supports the existence of only two phases of this culture (URSULESCU 2008, 209-212). It is for the future research to also clarify this issue of the chronology of the Pre-Cucuteni culture.

Bibliography

- ALEXANDRESCU Alexandrina
1961 *O vtoroj faze Dokukutenskoj kul'tury*, Dacia N.S., V, p. 21-37.
- BATARIUC Paraschiva-Victoria
1996 *Mihoveni, com.Șcheia, jud. Suceava*, in vol.: *Situri arheologice cercetate în perioada 1983-1992*, Brăila, p. 71.
- BATARIUC Paraschiva-Victoria, IGNĂTESCU Sorin, NICULICĂ Bogdan
2001 *Plastica antropomorfă de la Mihoveni-Cahla Mori*, Suceava, XXVI-XXVIII (1999-2001), p. 109-143.
- BATARIUC Paraschiva-Victoria, HAIMOVICI Sergiu, NICULICĂ Bogdan
2003 *Plastica zoomorfă cucuteniană de la Mihoveni-Cahla Morii*, ArhMold, XXIII-XXIV (2000-2001), p. 259-271.
- BATARIUC Paraschiva-Victoria, GOGU Monica, AMARANDEI Brândușa
2002 *Mihoveni, com. Șcheia, jud. Suceava. Punct: Cahla Mori*, Cronică. Campania 2001, p. 205-206.
- BATARIUC Paraschiva-Victoria, BOTEZATU Dan
2005 *Un possible inhumation cucutenienne trouvée à Mihoveni-Cahla Morii (départ. de Suceava)*, SAA, X-XI (2004-2005), p. 21-30.
- BERCIU Dumitru
1966 *Zorile istoriei în Carpați și la Dunăre*, București.
- COMȘA Eugen
1957 *Stadiul cercetărilor cu privire la faza Giulești a culturii Boian*, SCIV, VIII, 1-4, p. 27-47.
- CREANGĂ Doina Maria, MELNICIUC Nicoleta
2003 *Investigarea unor fragmente de piele provenite din săpătura arheologică de la Mihoveni 2001*, Suceava, XXIX-XXX (2002-2003), p. 431-435.
- DUMITRESCU Hortensia
1954 *Șantierul arheologic Traian*, SCIV, V, 1-2, p. 35-64.
1955 *Șantierul arheologic Traian (1954)*, SCIV, VI, 3-4, p. 459-478.
1957 *Contribuții la problema originii culturii Precucuteni*, SCIV, VIII, 1-4, p. 53-73.
1959 *Șantierul arheologic Traian*, Materiale, V, p. 189-201.
- DUMITRESCU Hortensia, DUMITRESCU Vladimir
1962 *Activitatea șantierului arheologic Traian*, Materiale, VIII, p. 245-260.
1970 *Șantierul arheologic Traian*, Materiale, IX, p. 39-58.
- DUMITRESCU Hortensia, MATASĂ Constantin
1954 *Șantierul arheologic Traian*, SCIV, IV, 1-2, p. 45-68.
- DUMITRESCU Vladimir
1960 *Complexul cultural Cucuteni*, in vol.: *Istoria României* (coord.: C. Daicoviciu et alii), București, p. 60-70.
1963 *Originea și evoluția culturii Cucuteni-Tripolie. I*, SCIV, XIV, 1, p. 51-78.
- GARVĂN Daniel
2007 *Un nou tip de vas precucutenian de cult*, MemAnt, XXIV, p. 221-237.
- HAIMOVICI Sergiu
2001 *Studiul arheozoologic al resturilor găsite în situl cucutenian de la Mihoveni, corelat cu figurine zoomorfe descoperite în aceeași stațiune*, Suceava, XXVI-XXVIII (1999-2001), p. 145-157.
2003 *Studiul unui material faunistic găsit prin săpături arheologice în așezarea medievală de la Mihoveni-Cahla Morii, județul Suceava*, Suceava, XXIX-XXX (2002-2003), p. 349-362.
2004 *Studiul unor resturi animaliere provenite din situl cucutenian - faza B - de la Mihoveni*, Carpica, XXXIII, p. 317-325.
- IGNĂTESCU Sorin
2001 *Ceramica liniară de la Mihoveni-Cahla Morii*, Suceava, XXVI-XXVIII (1999-2001), p. 45-87.
- MARINESCU-BÎLCU Silvia
1962 *Sondajul de la Tîrpești*, Materiale, VIII, p. 235-243.
1968 *Unele probleme ale neoliticului moldovenesc în lumina săpăturilor de la Tîrpești*, SCIV, XIX, 3, p. 395-422.
1974 *Cultura Precucuteni pe teritoriul României*, București.
1981 *Tîrpești. From Prehistory to History*

- in Eastern Romania*, BAR-International Series 107, Oxford.
- MATASĂ Constantin
1941 *Deux station à céramique peinte de Moldavie, Dacia, VII-VIII (1937-1940)*, p. 69-84.
- MOHAH Dan *et alii*
2003 *Poduri-Dealul Ghindaru. O Troie în Subcarpații Moldovei*, BMA XIII, Piatra-Neamț.
- NICULICĂ Bogdan
1999 *O seceră de bronz descoperită la Mihoveni (comuna Șcheia), județul Suceava*, CC S.N., 5 (15), p. 215-220.
- SZÉKELY Zoltán
1959 *Raport preliminar asupra sondajelor executate de Muzeul Regional Sf. Gheorghe în anul 1956*, Materiale, V, p. 231-245.
1967 *Contribuție la studiul culturii Precucuteni în valea Oltului*, CSC, I, p. 74-84.
- URSULESCU Nicolae
2008 *Modèles d'organisation de l'espace aux habitations de la culture Précucuteni entre Siret et Prut*, in vol.: *Etablissements et habitations préhistoriques. Structure, organisation, symbole. Actes du colloque de Iași 10-12 decembre 2007*, (éds.: V. Chirica, M. Văleanu), Iași, p. 207-238.
- URSULESCU Nicolae, BATARIUC Paraschiva-Victoria
1978 *Cercetările arheologice de la Mihoveni (Suceava) - 1973*, Suceava, V, p. 89-106.
1979 *Așezarea culturii ceramicii liniare de la Mihoveni (jud.Suceava)*, SCIVA, 30, 2, p. 271-284.
1987 *L'idole androgyne de Mihoveni (dép. de Suceava)*, in vol.: *La civilisation de Cucuteni en contexte européen* (éds.: M. Petrescu-Dîmbovița *et alii*), Iași, p. 309-312.
- URSULESCU Nicolae, TENCARIU Felix Adrian
2006 *Religie și magie la est de Carpați acum 7000 de ani. Tezaurul cu obiecte de cult de la Isaiia*, Iași.

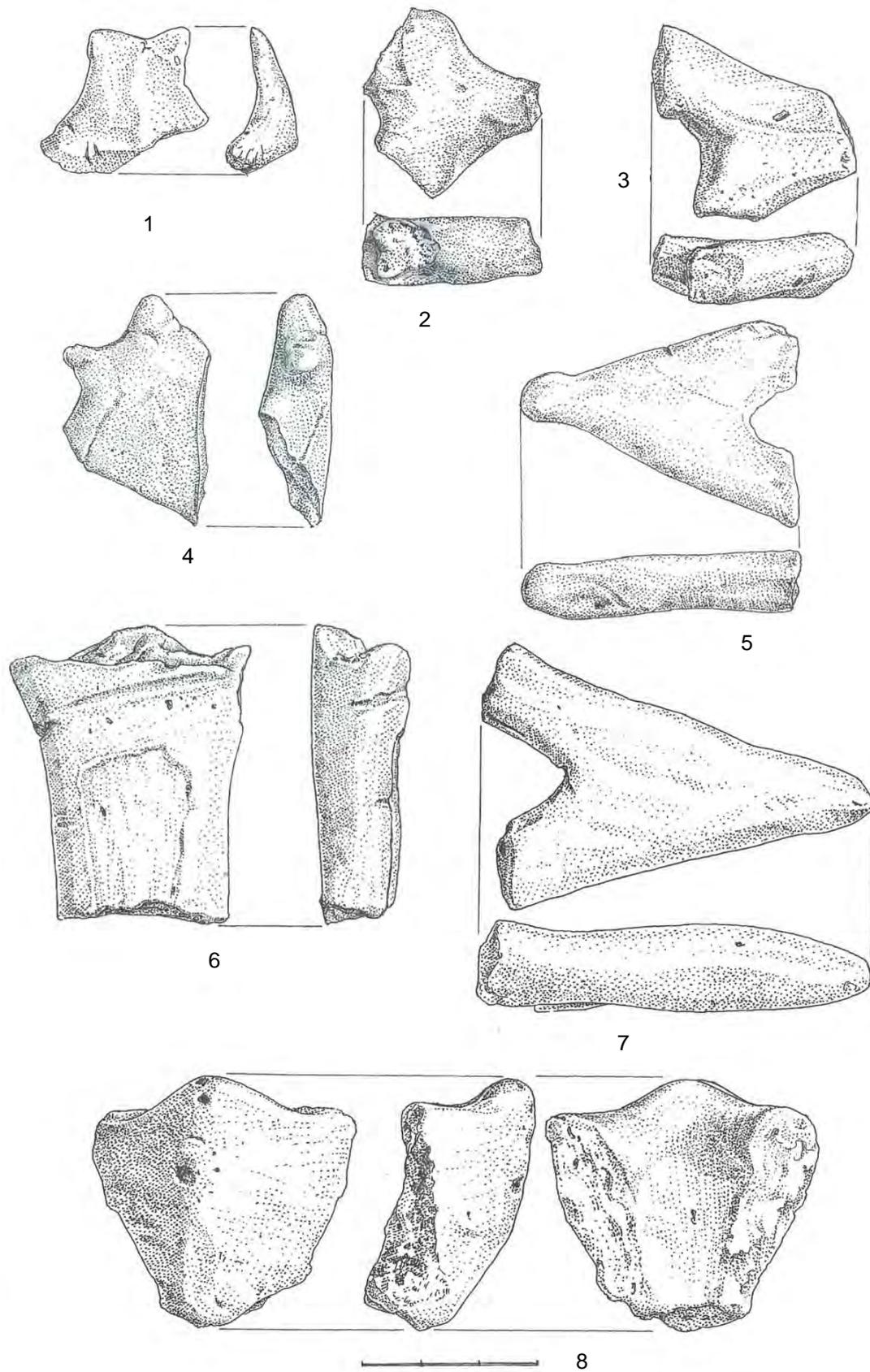


Fig. 1. Mihoveni-Cahla Morii. 1. fragment from a miniature throne; 2-7: ladle handles; 8. altar-vessel fragment.

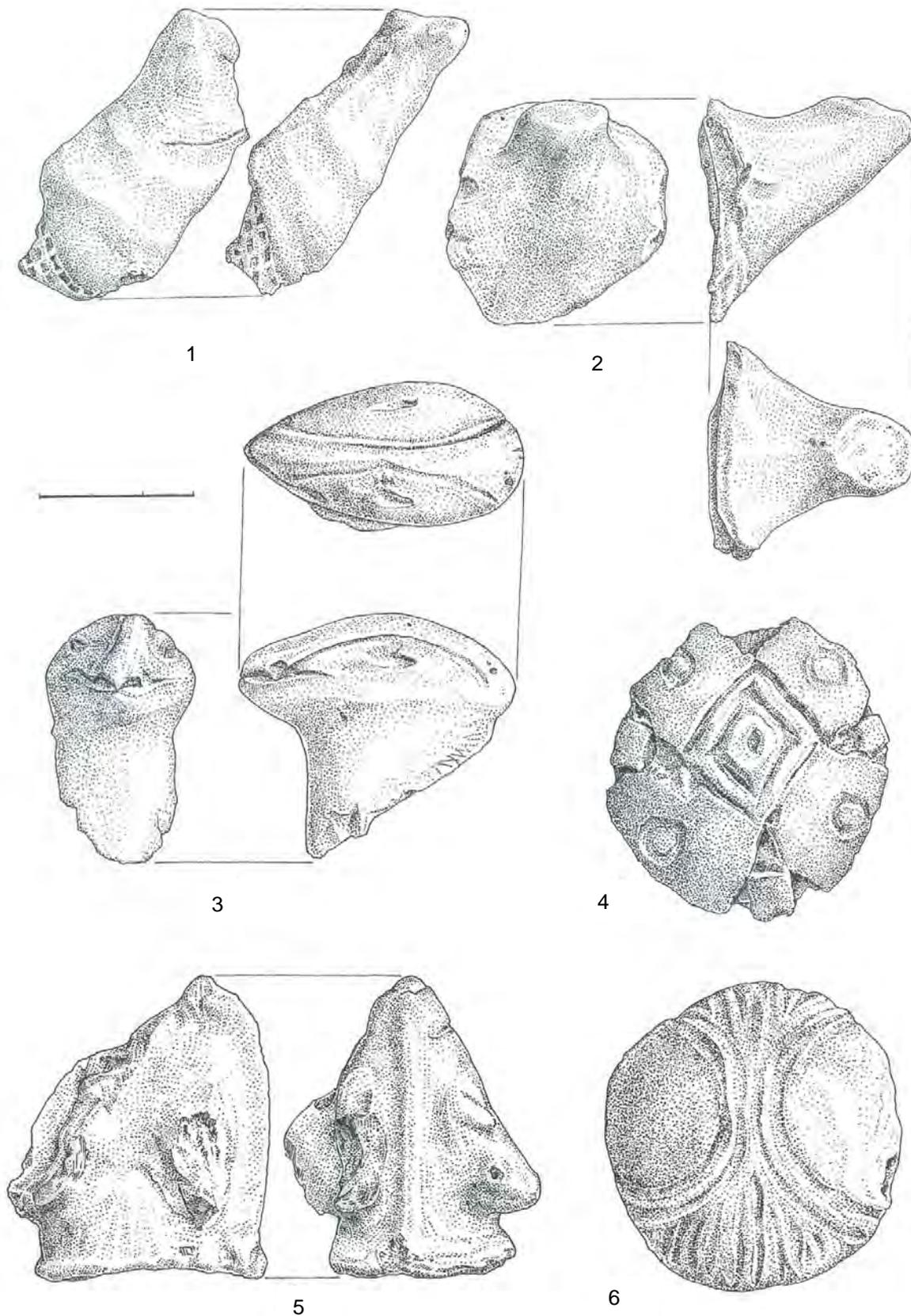


Fig. 2. Mihoveni-Cahla Morii. 1-2, 5 : fragments from vessels with *protomae*; 3-4: lid fragments.

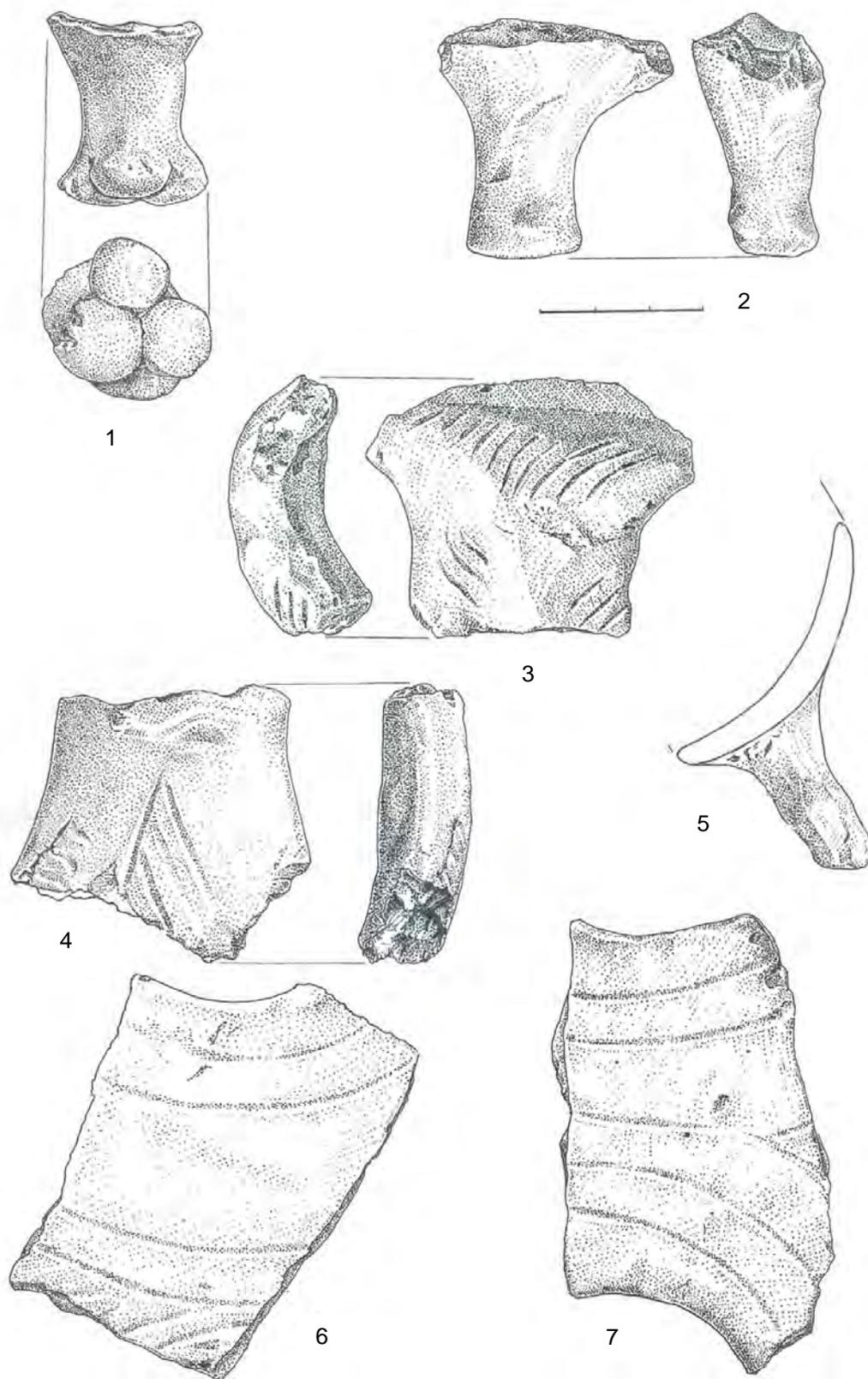


Fig. 3. Mihoveni-Cahla Morii. 1-2, 5: altar vessel fragments; 3-4: fragments from round-dance pots; 6-7: fragments from crown-shaped pots.

TOWARDS A NEW SYSTEMATIZATION OF THE CUCUTENI CULTURE

MARIN DINU*

Keywords: *chronology, Cucuteni, Horodișteea-Erbiceni.*

Cuvinte cheie: *periodizare, Cucuteni, Horodișteea-Erbiceni.*

Abstract. *By this newly presented chronology, the Cucuteni culture is shown as a whole, which emerges and evolves throughout many phases: I. the formative phase corresponding to the Pre-Cucuteni culture; II. the classic phase, with polychrome painted pottery, corresponding to the Cucuteni culture, phases A, A-B and B, according to the classification of H. Schmidt; III. the final phase, marking the transition towards the Bronze Age, corresponding to the Horodișteea-Erbiceni (=Brânzeni-Gordinești in the Prut-Dniester area) cultural group and Traianovo-Gorodsk from the Tripolyan space.*

Rezumat. *Prin noua periodizare propusă, civilizația Cucuteni este prezentată ca un tot unitar, care apare și evoluează pe trei mari perioade: I. perioada de formare, corespunzătoare culturii Precucuteni; II. Perioada clasică, cu ceramică pictată tricrom corespunzătoare fazelor Cucuteni A, A-B și B din clasificarea lui H. Schmidt; III. Perioada finală și de tranziție la epoca bronzului, corespunzătoare aspectului Horodișteea-Erbiceni (=Brânzeni-Gordinești din spațiul pruto-nistriean) și Traianovo-Gorodsk din arealul tripolian.*

Chronology and systematization are among the problems that have intensely concerned the researchers of the important Chalcolithic complex containing painted pottery of the Ariușd-Cucuteni-Tripolye type. On the Romanian territory, due to the methodical research initiated in 1909 and 1910 by the German scientist Hubert Schmidt in the eponymous station at Cucuteni-, the first systematization of that important cultural complex was set off. Two main phases - Cucuteni A and B (SCHMIDT 1911, 583-603) – were originally identified in that multiple successive - sedimentation settlement; they were based on stratigraphic observation combined with typological analysis. Subsequently, the German scientist envisaged an intermediary phase, Cucuteni A-B (SCHMIDT 1924, 137; 1932, 75), later defined by Vladimir Dumitrescu following the research in 1936, 1938 and 1940 in the settlement at Traian-Dealul Fântânilor (VI. DUMITRESCU 1945, 11-114).

Owing to the ample research in the second half of the 20th century in several Pre-Cucuteni and Cucuteni settlements, a number of phases and sub-phases, stages and sub-stages were delimited inside the three main phases with painted pottery established by H. Schmidt. Yet the number of settlements remains insufficient if compared with the impressive number of sites (over 2000) identified on the Romanian territory only (MONAH, CUCOȘ 1985; URSULESCU 2002, 142). Thus, as early as 1960, based on the data gathered up to that moment, Vladimir Dumitrescu establishes three sub-phases for the Cucuteni A classical phase: Cucuteni A1 (Protocucuteni), Cucuteni A2 and Cucuteni A3 (VI. DUMITRESCU 1960, 61). Subsequently, the same author extends his new systematization to include Cucuteni B, as follows: four sub-phases for Cucuteni A (A1, A2, A3 and A4), two sub-phases for Cucuteni A-B (A-B1 and A-B2) and three for Cucuteni B (B1, B2 and B3) (VI. DUMITRESCU 1963, 51-74; 1963a, 285-308). Returning to the same issue, Anton Nițu and other researchers, based on stratigraphic data combined with a stylistic

* "Alexandru Ioan Cuza" University of Iași.

analysis of the painted pottery, delimited several stages and sub-stages inside the above sub-phases, to a great extent supported by the line of absolute chronology (MANTU 1998; BOGHIAN 2004, 167-174; PETRESCU-DÎMBOVIȚA, VĂLEANU 2004, 178-266).

In this respect, important data were obtained from the previous cultural perspective, named Pre-Cucuteni by Radu Vulpe starting from the archaeological research and stratigraphic observations made at Izvoare, Neamț County on the position of the two older horizons, Izvoare I₁ and Izvoare I₂, with pottery decorated with incised spiral motifs (VULPE 1937, 134-146; 1957). The latter was directly superposed on the incipient strata of the Cucuteni culture proper, Izvoare II₁ (Protocucuteni), followed in turn by the Izvoare II₂ horizon with dichromatic and polychromatic pottery, painted before burning (VULPE 1957). Thus, here, at Izvoare-Neamț, the organic link between the materials in the older Pre-Cucuteni horizons, and the Cucuteni ones proper, was stated for the first time. In this way, the origin and the older age of the Cucuteni culture here became obvious¹.

Further research conducted after 1949 in Moldavia led to new discoveries contributing to a better placement and, at the same time, to a delimitation into phases of the area covered by the Pre-Cucuteni communities (MARINESCU-BÎLCU 1974). Thus, based on the research done in the Traian-Dealul Viei settlement, important data were proposed concerning the identification of the first phase, the phase of the genesis of the Pre-Cucuteni culture, Pre-Cucuteni I (DUMITRESCU, MATASĂ 1954, 51-63; H. DUMITRESCU 1955, 474-478; 1959, 197-199; DUMITRESCU, DUMITRESCU 1962, 246-249; 1970,

46-57). Thus far, the Traian-Dealul Viei settlement is the only one of that time which was methodically researched. Other four sites attributed to the Pre-Cucuteni phase were identified: one at Borlești, Neamț County (FLORESCU 1970, 53) and other three in the southeast part of Transylvania, one at Bancu, Harghita County, another one at Eresteghin, Covasna County (MARINESCU-BÎLCU 1974, 17) and a third one at Turia-Biserica Reformată, Brașov county (MAXIM 1999, 98-99). These data allow us to argue that the Pre-Cucuteni culture appears on a restricted area, on both sides of the eastern Carpathians, from the southeast part of Transylvania to the sub-Carpathian area of Moldavia, possibly to the Siret (VI. DUMITRESCU 1963, 54-56; ȚURCANU 2006, 131, fig. 1).

Over the next phase, Pre-Cucuteni II, the Pre-Cucuteni communities become more numerous and extend towards the northern half of Moldavia, from the eastern Carpathians to the Dniester, as shown by the discoveries at Florești, on the Răut River, approximately 20 km east of Bălți (PASSEK 1958, 29-52; 1961), and other settlements in the Republic of Moldova (BODEAN 2001).

In the third phase, the culture extended over the forest-steppe area north of the Dniester towards Kiev, where it is known as Tripolye A, according to Tatiana S. Passek's systematization (PASSEK 1949). As a result, according to more recent results of the Russian and Ukrainian researchers (URSULESCU, BOGHIAN, COTIUGĂ 2005, 242, note 85; BOGHIAN 2004, fig. 14), in the third phase Pre-Cucuteni III - Tripolye A1-A2, the Pre-Cucuteni-Tripolye A2 communities cover almost the entire area on which the bearers of the classical complex with painted pottery Ariușd-Cucuteni-Tripolye are to develop.

Lately, an important contribution to the systematization of the Pre-Cucuteni culture was made by the research conducted at Târgu Frumos-Baza Pătule (URSULESCU, BOGHIAN 1996, 38-72; 1998, 13-42; URSULESCU, BOGHIAN, COTIUGĂ 2005, 217-260) and Isaiia-Balta Popii (Răducăneni village), both in Iași County. Here, among other things, two sub-phases were specified for Pre-Cucuteni II (IIA and IIB) (URSULESCU, MERLAN, TENCARIU 2001, 110-112; 2002, 160-162, URSULESCU *et alii* 2003, 158-160; 2004, 149-153; 2005, 188-189; 2006, 187-

¹ In 1944, V. N. Danilenko, an archaeologist at the Institute of Archaeology in Kiev, then an officer in the Soviet army advancing to the west, stopped in Piatra-Neamț for a few days and requested permission to perform an archaeological sounding at Izvoare. He then became fully convinced of the legitimacy of Radu Vulpe's stratigraphic observations at Izvoare, afterwards convincing of its truth the researchers in the Tripolyan culture, who contested it. V. N. Danilenko, the author of the sounding at Izvoare, confirmed the information to me in Kiev, in 1976.

190; URSULESCU, TENCARIU 2006, 25-26), followed stratigraphically by three more sub-phases of the Pre-Cucuteni III phase (IIIA, IIIB and IIIC). The last (IIIC) presents typical elements showing the gradual transition to the classical Cucuteni culture, with pottery painted before burning (URSULESCU, BOGHIAN, COTIUGĂ 2005, 244).

Even if the data above are well known to specialists, I insisted on them in order to underline once again the unitary ethno-cultural character of both Pre-Cucuteni-Tripolye A and Ariuşd-Cucuteni-Tripolye, with painted pottery. As for the territory, the Pre-Cucuteni-Tripolye A "culture", except the first phase, Pre-Cucuteni I, covers the same forest-steppe area, from the Eastern Carpathians to Kiev.

Another element supporting the above-mentioned cultural unity is the way the dwellings are built. Medium-sized and rectangular, they are surface huts, mostly with unelaborated clay platforms, but also with better planned ones, on branches and other light materials, and later – in Pre-Cucuteni III – also on split tree trunks, which system was specific to classical Cucuteni (NIŢU 1955, 1-20; MARINESCU-BÎLCU 1974; URSULESCU, BOGHIAN, COTIUGĂ 2005, 222-225). This is one of the elements demonstrating the above-mentioned cultural unity. Other material elements, especially anthropomorphic pottery and plastic representations, support this unity. All these are doubtless proofs of cultural unity and continuity. Also, by their forms and by their incised or fluted spiral-meandrous ornamentation, which, in a typically Cucutenian manner, gradually shifted to painting before burning, they often reflect relations with bearers with contemporaneous cultures. Radu Vulpe made that suggestion in 1936 (at Izvoare), on a stratigraphical and typological basis (VULPE 1937, 134-146; 1957), whereas, in 1960, Vladimir Dumitrescu considered that "both Pre-Cucuteni and Protocucuteni are **precursory phases** (also called "cultures") of the great cultural complex" (VI. DUMITRESCU 1960, 60). The similar discoveries in Ukraine were also perceived as a whole, as we can see in the five-leveled systematization proposed by Tatiana Passek. It is still used today in an

improved version by the Ukrainian and Russian archaeologists (PASSEK 1949): Tripolye A = Pre-Cucuteni II-III; Tripolye B2 = Cucuteni A-B; Tripolye C/I-Y/I = Cucuteni B and Tripolye C/II-Y/II (Gorodsk-Usatovo) = Horodiştea Erbiceni - Folteşti, the last regarded as a final phase of the Tripolye culture.

More recently, Professor N. Ursulescu has rightly argued that "**from a historical point of view, the world of the Pre-Cucuteni culture is identical to the Cucuteni culture** which succeeds it on the same area, the differences being rather the result of a natural evolution, essentially ethnographic, due both to internal and external stimuli, mainly such as technical and artistic ideas first assimilated, then creatively developed." (URSULESCU, BOGHIAN, COTIUGĂ 2006, 115). Then it can be rightly argued that **there is an organic bond between Pre-Cucuteni and Cucuteni** since the same population experiences an ascending evolution over several successive stages, while the zonal particularities do not affect the unitary substance of this great civilization (URSULESCU 2007, 8).

In the light of these incontestable data, we consider that there are sufficient documents for the evolution of this important cultural complex to allow us to approach another systematization, in closer keeping with the historical reality. Therefore, it was proved that what we call the Pre-Cucuteni culture with its phases and sub-phases is in fact the first period (I), the period of the formation of the great cultural complex with painted pottery of the Ariuşd-Cucuteni-Tripolye type. This initial period is followed, without a caesura, by the classical (II) with painted pottery, corresponding to the Cucuteni A, A-B and B phases in Hubert Schmidt's systematization, with all the sub-phases and stages previously mentioned (Fig. 1). If the first period (I) stands for the genesis and "adolescence" (if we may call it like that) of the evolution of this important cultural complex, the second, **the classical period**, is the longest and can be considered **the maturity period**, manifest in all the following aspects: social-administrative, technical-economic, demographic, cultural and artistic.

The indication of the evolution and continuity for the two periods of the great important cultural complex Ariușd-Cucuteni-Tripolye is incontestable, but its final period, known as Tripolye C/II-Y/II (Gorodsk-Usatovo) according to T. S. Passek's systematization, and Horodișteea-Foltești in our country respectively, has determined a lot of discussions beginning with 1954. That year, VI. Dumitrescu opened that series, synthesized by us and other authors in a number of studies (DINU 1977; 1987, 133-140; 1998, 32-43; 2005, 67-90; DUMITROAIA 2000, 23-26; URSULESCU 2007, 11-12). At that moment, VI. Dumitrescu contested the fact that the aspects Horodișteea-Gorodsk and Usatovo-Foltești appertained to the great complex Cucuteni-Tripolye (DUMITRESCU *et alii* 1954, 537; VI. DUMITRESCU 1963a, 294-297; 1965, 51-59). That was partially understandable, as by then the discoveries of the Horodișteea-Foltești type were regarded as a unitary culture (BERCIU 1960, 76), and the funeral tumuli with ochre, of a Yamna type, were considered as specific of those communities (PETRESCU-DÎMBOVIȚA 1950, 119; 1953, 111; 1953a, 162). Eugen Comșa, who shares Vladimir Dumitrescu's view, both placing the end of the evolution of the Cucuteni culture in the Cucuteni B phase, denied the cultural unity of Horodișteea-Foltești, which he considered "two different aspects: one, Horodișteea-Gorodsk, in the north, and the other, Foltești-Usatovo, in the south" (COMȘA 1972, 72; 1975, 135). That is why I consider Dumitrescu's opinions partially justified.

Because I took special interest in the issues of that period, especially for the eastern Carpathian area, I wondered what internal and external factors caused the sudden termination of this important cultural complex at the end of Cucuteni B2 (Tripolye C/I-YI) phase, **exactly in its heyday**. Those who contest the continuity of the great Cucuteni complex after this moment and deny its final period, bring no convincing arguments. They talk, as described above, of a new culture on the ground of the classical Cucuteni.

Further research, especially that conducted in the 70'ies at Erbiceni (1966-1969) on *Dealul Sărațurilor* and *Mănăstirea*

(DINU 1968, 129-139; 1977, 63-133; 186-193) and in the eponymous settlement at Horodișteea on the Pruth River (1969-1970) (DINU 1977, 5-62) – the latter previously investigated by Hortensia Dumitrescu (H. DUMITRESCU 1934, 112-120; 1945, 127-133) –, and also in Stoicani and Foltești (Galați county) southern Moldavia (PETRESCU-DÎMBOVIȚA, DINU 1974, 71-97; 1974a, 19-72) managed to shed light on the problems concerning this final period of the Chalcolithic and transition to bronze, which was especially complex for the Romanian extra-Carpathian area. The integral publication of the research conducted in Cernavodă II settlement at Cernavodă, as well as other settlements with remains of habitation of a Cernavoda II type in Muntenia contributed to that (MORINTZ, ROMAN 1968, 45-128).

Thus, in 1972 it was acknowledged for the first time that the representatives of funeral tumuli with ochre, of a Yamna type penetrated into the central and northern Moldavia at a moment ulterior to the Horodișteea-Erbiceni type communities. **From the point of view of the funerary rite the two are not related**, as the latter practiced inhumation in flat graves (DINU 1974, 261-275). Both older and more recent discoveries have confirmed our observations of that time (MARINESCU-BÎLCU 1981, 205-213, MANTU, BOTEZATU, ENACHE 1994, 123-128; BATARIUC 1983, 835-840; DUMITROAIA 2000, 46-47). Moreover, that was the first time when the similitude between the Cernavoda II and Foltești discoveries – especially the pottery – from southern Moldavia was clearly asserted (MORINTZ, ROMAN 1968, 45-128; PETRESCU-DÎMBOVIȚA, DINU 1974, 71-97; 1974a, 19-72; DINU 1977, 157-163; 1998, 32-43). Some authors consider there is "an almost identical resemblance" between the Cernavoda II, Foltești and Stoicani pottery, with the exception of the painted pottery of the Usatovo type (sic) found in the Horodișteea-Erbiceni-Foltești complex (PETRESCU-DÎMBOVIȚA *et alii* 1995, 69). We must mention here that the very few painted pots found in Foltești și Stoicani, as well as the "thurible"-shaped vessel, with high cone-frustum lid, found in a Cernavoda II - Foltești grave at Brăilița (PETRESCU-DÎMBOVIȚA *et alii* 1995, 55, fig. 13/3) are typical of the late Cucuteni settlements of the time, and are a version of

this type of pot in the settlements of the time at Horodișteea-Erbiceni west and east of the Pruth River. The Foltești - Cernavoda II communities in southern Moldavia represent a counter-current from the Lower Danube, having strong connections and influences from the south of the Danube, eastern Balkans and Aegean-Anatolian areas, with extensions towards the area between the Pruth River and the basin of the Dniester (MANZURA 1994, 111; MANZURA, SAVA 1994, 163, 167). The Cernavoda II - Foltești² communities could have co-habited, in certain areas, with Brânzeni-Gordinești or Vykhatinci communities, as proved by the archaeological research in Erbiceni, Cârniceni and other localities in Moldavia, east of the Pruth River (DINU 1968, 129-139). That is the only explanation for the fact that this type of painted pottery is quite rare in Foltești and Stoicani. The Usatovo inhabitants, as well as the Foltești ones **never created** Cucuteni-Tripolye painted pottery. They obtained that type of pottery due to the exchange relations they had with the late Cucuteni-Tripolye communities. These exchanges occurred among contemporary communities living in proximity to each other: the Usatovo population of the North Pontic steppes with the Vykhatinci one of the Middle Dniester (DERGACEV 1980, 205, fig. 42-43); the pastoralists of the cultural aspect Foltești-Cernavoda II with their contemporaries of Horodișteea-Erbiceni aspect in central and northern Moldavia.

The Horodișteea-Erbiceni type communities, with over 120 sites identified in the forest-steppe area between the Carpathians and the Pruth River (DINU 1977; 1987, 137) are culturally and chronologically analogous with the Brânzeni and Gordinești in the Republic of Moldova, with over 220 settlements in the Pruth River and the basin of the Upper and Middle Dniester (DERGACEV 1980, fig. 3, 27; DARGACEV, MANZURA 1991, pl. I). They occupy the same area as the classical Cucuteni, which they continue as its last (third) stage, a period of

decrepitude and "decadence" of the classical cucutenian art (Fig. 1). According to some authors, it is confined to what is called the Cucuteni B3 stage (NIȚU 1977, 145-175), or Horodișteea I, where the painted pottery of the group ζ style is still preserved (PETRESCU-DÎMBOVIȚA, VĂLEANU 2004, 198), when a gradual transition occurs towards a new culture, Horodișteea-Erbiceni-Foltești (URSULESCU 2002, 153-154; 2007, 11). We could talk, then, about the Horodișteea II - Erbiceni I and Erbiceni II phases where the painted pottery and the painted anthropomorphic representations continue to be significantly present in both settlements and at both their levels of habitation. It is an almost identical situation with the related settlements of the Brânzeni-Gordinești-type in the Pruth River and the basin of the Upper and Middle Dniester, belonging to the same aspect and cultural group.

In some of my previous studies, I underlined the main arguments that led me to the idea that Horodișteea-Erbiceni and Brânzeni-Gordinești in the Republic of Moldova, respectively, are **a final period with several phases** of the Cucuteni culture (DINU 1977, 185-188; 1987, 137-139; DUMITROAIA 2000, 27-28). The integral publication of the archaeological diggings in 1961-1966 on the *Cetățuie* at Cucuteni-Băiceni, where there were discovered several dwellings with platforms made of lime-stone slabs, similar to two dwellings out of the four unearthed in the Horodișteea II settlement at Horodișteea, strengthens our conviction. At Cucuteni-*Cetățuie* they appear in the Cucuteni B1 phase and continue to B2 phase, when they become more numerous (PETRESCU-DÎMBOVIȚA, VĂLEANU 2004, 122). As for the evident geometric style of the painted pottery of the period, invoked by some of the opponents of the Cucuteni ethno-cultural continuity over this period, this is, in our opinion, the natural evolution of their art. That geometric style appears sporadically as early as the Cucuteni A4 sub-phase (CRĂȘMARU 1977, fig. 35/1-2; 48-49; URSULESCU 2002, 152, fig. 49/5) and grows more and more significant in Cucuteni B1 and B2 (DINU 1955, 704, fig. 14/2a-b; 2005, 85, pl. IV 1-4; CUCOȘ 1999, 259-274, fig. 33/2; 35/7; 36/3; 39/4; 40/1-3; 4/2; 44/6; 45/2-3; 48/4,10; 52/1), to say the least. In the same Cucuteni B

² The authors also sustain the presence of the elements of the (late) Cernavoda I C and Cernavoda III type in this area.

(B2) phase, the fine or semi-fine gray pottery also appears (SCHMIDT 1932, 45, pl. 24/5) and becomes more frequent in the following period, Horodișteea-Erbiceni. In Horodișteea II, that pottery category is sometimes adorned with incised motifs, of the same artistic conception, with the same ornamental motifs as the ones of the painted pottery of the same stratum of habitation (DINU 1987, 141-143, fig. 1-3). We may also add that pot fragments made of fine gray paste, with traces of painting on the exterior, were found in the same settlement, in the habitation level Horodișteea II (DINU 1977, pl. XVII/14; XVIII/15). We may also mention a (fragmented) little cult table, made of usual friable paste, such a piece being specific to Cucuteni, but unknown to Foltești-Cernavoda II and Globular-Amphorae communities, with which the Horodișteea population partly cohabited. Regrettably, in the 2001 edition of the *Istoria românilor* treatise, that important final period of the Chalcolithic and transition to the Bronze Age in Moldavia was eluded. For instance, the Culture of the Globular Amphorae is totally absent in the 2001 edition, even if the above-mentioned period with its corresponding cultures was well argued in *Istoria românilor*, vol I, in 1960 (BERCIU 1960, 71-82).

I have the strong conviction that, in its evolution, the Cucuteni ethnic identity continued over that last period, by creatively assimilating some elements of material culture from the contemporary neighboring communities, as it had happened in the previous stages.

To conclude, I assume that the great Chalcolithic complex with painted pottery of the Cucuteni-Ariușd-Tripolye type, born on both sides of the Eastern Carpathians and of the Carpathian Bend, "with all its local particularities, absolutely inherent for such a vast region, went through the same major periods all over that area, and is remarkable for the unity of expression of the main aspects of material and cultural life" (URSULESCU 2007, 12). The creators of this great cultural complex were probably the only representatives of the European Chalcolithic civilizations to go through, with no interruption, all the evolution stages of

their civilization, since the dawn of the Pre-Cucuteni period to the end of the Horodișteea-Erbiceni period or even after that (DINU 1977, 140). **They can be regarded as the most natural representatives of the European Chalcolithic, like the Greeks in the classical antiquity of the same continent.**

For the time being, it is difficult to explain when or how this great civilization became extinct. The foreign element that seems to have actually "suffocated" this autochthonous substance can be, in our opinion, no other than the Yamna pastoralists (with ochre funeral mounds), who penetrated, as I have shown, into the central and northern Moldavia, in successive waves, after the cessation of the Horodișteea-Erbiceni (=Brânzeni-Gordinești) type of habitation, and they continued their penetration in the early Bronze Age as well.

Bibliography

- BATARIUC Paraschiva-Victoria
1983 *Un mormânt din perioada de tranziție la epoca bronzului descoperit la Suceava*, Suceava, X, p. 835-840.
- BERCIU Dumitru
1960 *Perioada de tranziție către epoca bronzului*, in vol.: *Istoria României*, vol. I, (coord.: C. Daicoviciu et alii), București, p. 71-82.
- BODEAN Sergiu
2001 *Așezările culturii Precucuteni-Tripolie A din Republica Moldova*, Chișinău.
- BOGHIAN Dumitru
2004 *Comunitățile cucuteniene din bazinul Bahluiului*, Suceava.
- COMȘA Eugen
1972 *Quelques problèmes concernant le néolithique final et la période de transition à l'âge du bronze dans les régions nord et ouest pontiques*, Balcanica, III, p. 59-92.
1975 *Quelques problèmes concernant le néolithique final et la période de transition à l'âge du bronze dans l'est de la Roumanie et le sud-ouest de l'URSS*. AAC, XV, p. 133-143.
- CRÎȘMARU Aristotel
1977 *Drăgușeni. Contribuții la o monografie arheologică*, Botoșani.
- CUCOȘ Ștefan
1999 *Faza Cucuteni B în zona subcarptică a Moldovei*, Piatra-Neamț.

- DERGACEV Valentin A.
1980 *Pamiatniki pozdnego Tripol'ja*, Kișinev.
- DERGACEV V. A., MANZURA J. V.
1991 *Pogrebal'nye kompleksy pozdnego Tripol'ja*, Kișinev.
- DINU Marin
1955 *Cercetările arheologice de la Valea Lupului, Iași*, SCIV, VI, 3-4, p. 701-707.
1968 *Quelques considérations sur la période de transition du Néolithique à l'âge du bronze sur le territoire de la Moldavie*, Dacia N.S., XII, p. 129-139.
1974 *Le problème des tombes á ocre dans les régions orientales de la Roumanie*, PA, 10, p. 261-275.
1977 *Complexul cultural Horodiștea-Foltești. Contribuția noilor cercetări arheologice la problema perioadei de tranziție de la eneolitic la epoca bronzului din zona est-carpatică a României*, PhD thesis, Iași.
1987 *Quelques remarques sur la continuité de la céramique peinte de type Cucuteni durant la civilisation Horodiștea-Erbiceni-Gorodsk*, in vol.: *La civilisation de Cucuteni en contexte européen* (éds.: Mircea Petrescu-Dîmbovița et alii), BAI I, Iași, p. 133-143.
1998 *Foltești-Cernavoda II. O cultură de origine răsăriteană?*, Carpica, XXVII, p. 32-43.
2005 *Perioada finală a eneoliticului și de trecere la epoca bronzului în spațiul est-carpatic al României în viziunea profesorului Ion Nestor și în lumina noilor cercetări*, in vol.: *In memoriam Ion Nestor* (coord.: Petre Roman, Doina Ciobanu), Buzău, p. 67-90.
- DUMITRESCU Hortensia
1934 *La céramique de la station préhistorique de Horodiștea*, in vol.: *În memoria lui Vasile Pârvan*, București, p. 112-120.
1945 *La station préhistorique de Horodiștea sur le Pruth*, Dacia, IX-X (1940-1944), p. 127-133
1955 *Șantierul arheologic Traian (1954)*, SCIV, VI, 3-4, p. 459-478.
1956 *Contribuții la problema originii culturii Precucuteni*, SCIV, 8, 1-4, p. 53-73.
1959 *Șantierul arheologic Traian*, Materiale, V, p. 189-202.
- DUMITRESCU Hortensia, DUMITRESCU Vladimir
1962 *Activitatea șantierului arheologic Traian*, Materiale, VIII, p. 245-260.
1970 *Șantierul arheologic Traian*, Materiale, IX, p. 39-58.
- DUMITRESCU Hortensia, MATASĂ Constantin
1954 *Șantierul arheologic Traian*, SCIV, V, 1-2, p. 35-63.
- DUMITRESCU Vladimir
1945 *La station préhistorique de Traian (dép. de Neamț, Moldavie). Fouilles des années 1936, 1938 et 1940*, Dacia, IX-X (1941-1944), p. 11-114.
1960 *Complexul cultural Cucuteni*, in vol.: *Istoria României*, vol. I (coord.: C. Daicoviciu et alii), București, p. 60-70.
1963 *Originea și evoluția culturii Cucuteni-Tripolie (I)*, SCIV, 14, 1, p. 51-74.
1963a *Originea și evoluția culturii Cucuteni-Tripolie (II)*, SCIV, 14, 2, p. 285-305.
1965 *Considerații asupra problemei fazei finale a culturii Cucuteni-Tripolie*, in vol.: *Omagiu lui P. Constatinescu-Iași*, București, p. 51-59.
- DUMITRESCU Vladimir et alii
1954 *Hăbășești. Monografie arheologică*, București.
- DUMITROAIA Gheorghe
2000 *Comunitățile preistorice din nord-estul României de la cultura Cucuteni până la bronzul mijlociu*, Piatra-Neamț.
- FLORESCU Marilena
1970 *Problèmes de la civilisation de Costișa à la lumière du sondage de Borlești*, Dacia N.S., XIV, p. 51-81.
- MANTU Cornelia-Magda
1998 *Cultura Cucuteni. Evoluție, cronologie, legături*, Piatra-Neamț.
- MANTU Cornelia-Magda, BOTEZATU Dan, ENACHE M.
1994 *Un mormânt de înhumatie din perioada de tranziție la epoca bronzului de la Grumezoaia (jud. Vaslui)*, AMN, 31/1, p. 123-130.
- MANZURA Igor
1994 *Manifestări culturale în perioada de tranziție*, TD, XV, 1-2, p. 103-119
- MANZURA Igor, SAVA Eugen
1994 *Interacțiuni "est-vest" reflectate în culturile eneolitice și ale epocii bronzului din zona de nord vest a Mării Negre (schită cultural-istorică)*, MemAnt, XIX, p. 143-192.
- MARINESCU-BÎLCU Silvia
1974 *Cultura Precucuteni pe teritoriul României*, București.
1981 *Țirpești. From Prehistory to History in Eastern Romania*, BAR-International Series 107, Oxford.
- MAXIM Zoia
1999 *Neo-eneoliticul din Transilvania. Date arheologice și matematico - statistice*,

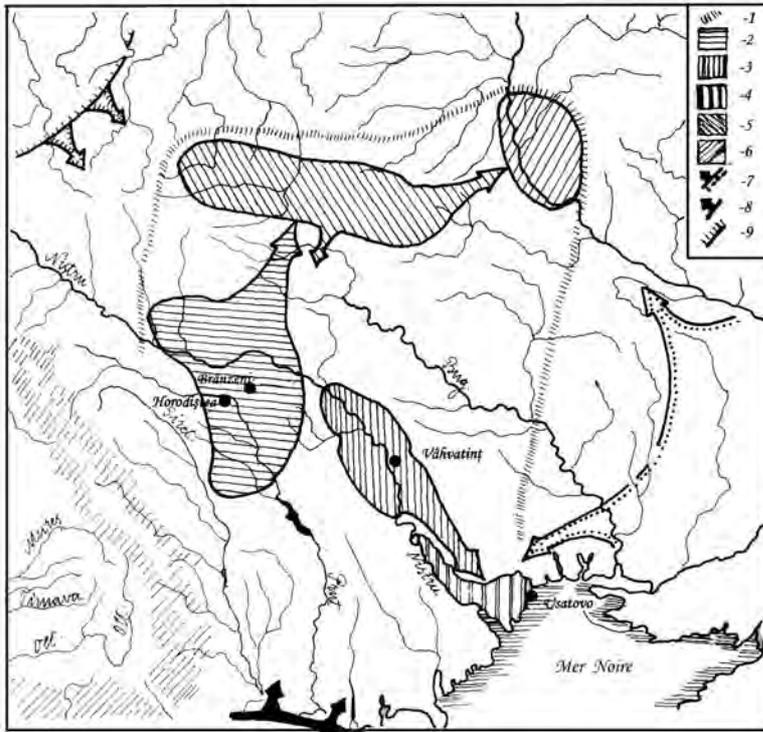
- Cluj-Napoca.
 MONAH Dan, CUCOȘ Ștefan
 1985 *Așezările culturii Cucuteni din România*, Iași.
- MORINTZ Sebastian, ROMAN Petre
 1968 *Aspekte des Ausgangs des Äneolithikums und der Übergangsstufe zur Bronzezeit im Raum der Niederdonau*, Dacia N.S., XII, p. 45-128.
- NESTOR Ion, ZAHARIA Eugenia
 1968 *Sur la periode de transition du neolitique à l' âge du bronz dans l'aire des civilisations de Cucuteni et de Gumelnița*, Dacia N.S., XII, p. 17-44.
- NIȚU Anton
 1955 *Așezarea cu ceramică de factură precucuteniană de la Târgu Negrești, SCȘ-Iași*, VI, 1-2, p. 1-28.
 1977 *Continuitatea ceramicii pictate între culturile Cucuteni-Tripolie și Gorodonsk-Usatovo (Horodiștea-Foltești)*, CI, VII, p. 147-175.
- PASSEK Tatiana
 1949 *Periodizacija tripol'skisch poseleniy*, MIA, 10.
 1958 *Noi descoperiri pe teritoriul URSS și problemele culturilor neolitice târzii în regiunea dintre Dunăre și Nistru*, ARS, XII, 3 (23), 1958, p. 29-52.
 1961 *Rannezemledek'ceskie (tripol'skie plemena Podnestrovija)*, MIA, 84.
- PETRESCU-DÎMBOVIȚA Mircea
 1950 *Date noi asupra înmormântărilor cu ocru în Moldova*, SCIV, I, p. 110-125.
 1953 *Cetățuia de la Stoicani*, Materiale, 1, p. 13-155.
 1953a *Cimitirul hallstattian dela Stoicani*, Materiale, 1, p. 157-211.
- PETRESCU-DÎMBOVIȚA Mircea, DINU Marin
 1974 *Noi săpături arheologice la Stoicani*, SCIVA, 25, p. 71-97.
 1974a *Nouvelles fouilles archéologique à Foltești*, Dacia N.S., XVIII, p. 19-72.
- PETRESCU-DÎMBOVIȚA Mircea et alii
 1995 *Istoria României de la începuturi până în secolul al VIII-lea*, București.
- PETRESCU-DÎMBOVIȚA Mircea, VĂLEANU Mădălin-Cornel
 2004 *Cucuteni-Cetățuie. Monografie arheologică*, Piatra-Neamț.
- SCHMIDT Hubert
 1911 *Vorläufiger Bericht über die Ausgraben 1909-1910 in Cucuteni bei Iassy Rumänien*, ZfE, XLIII, p. 582-601.
 1924 *Prähistorisches aus Ostasien. Ein Beitrag zur vorzeitlichen kunst Europa-Asiens*, ZfE, LVI, p. 153-157.
- 1932 *Cucuteni in der oberen Moldau, Rumänien*, Berlin-Leipzig.
- ȚURCANU Senica
 2005 *Trăsăturile industriei litice cioplite din prima fază a culturii Precucuteni. Așezarea de la Traian-Dealul Viei (jud. Neamț)*, in vol.: *Cucuteni 120 - Valori universale* (coord.: Nicolae Ursulescu, Cornelia-Magda Mantu), Iași, p. 131-154.
- URSULESCU Nicolae
 2002 *Începuturile istoriei pe teritoriul României*, Iași.
 2007 *Civilizația cucuteniană: argumentare dimensiunii europene*, in vol.: *Dimensiunea europeană a civilizației neolitice est-carpătice* (coord.: Nicolae Ursulescu), Iași, p. 5-20.
- URSULESCU Nicolae, BOGHIAN Dumitru
 1996 *Principalele rezultate ale cercetărilor arheologice din așezarea precucuteniană de la Târgu Frumos (jud. Iași) I*, CC S.N. 2 (12), p. 38-72.
 1998 *Principalele rezultate ale cercetărilor arheologice din așezarea precucuteniană de la Târgu Frumos (jud. Iași) II*, CC S.N. 3-4 (13-14), p. 13-42.
- URSULESCU Nicolae, MERLAN Vicu, TENCARIU Felix Adrian
 2001 *Isaiia, com. Răducăneni, jud. Iași*, Cronica. Campania 2000, p. 110-112.
 2002 *Isaiia, com. Răducăneni, jud. Iași. Punct: Balta Popii*, Cronica. Campania 2001, p. 160-162.
- URSULESCU Nicolae et alii
 2003 *Isaiia, com. Răducăneni, jud. Iași*, Cronica. Campania 2002, p. 158-160.
 2004 *Isaiia, com. Răducăneni, jud. Iași*, Cronica. Campania 2003, p. 149-153.
 2005 *Isaiia, com. Răducăneni, jud. Iași. Punct: Balta Popii*, Cronica. Campania 2004, p. 188-189.
 2006 *Isaiia, com. Răducăneni, jud. Iași. Punct: Balta Popii*, Cronica. Campania 2005, p. 187-190.
- URSULESCU Nicolae, BOGHIAN Dumitru, COTIUGĂ Vasile
 2005 *Problèmes de la culture Précucuteni à la lumière des recherches de Târgu Frumos (dép. de Iași)*, in vol.: *Scripta praehistorica. Miscellanea in honorem nonagenarii magistri Mircea Petrescu-Dîmbovița oblata* (éds.: Victor Spinei, Cornelia-Magda Lazarovici, Dan Monah), Iași, 2005, p. 217-260.
 2006 *Ipostaze rare ale cultului fertilității în plastica antropomorfă a culturii Precucuteni*, in vol.: *Cucuteni 120 -*

-
- Valori universale* (coord.: Nicolae Ursulescu, Cornelia-Magda Lazarovici), Iași, p. 115-130.
- URSULESCU Nicolae, TENCARIU Felix Adrian
2006 *Religie și magie la est de Carpați acum 7000 de ani. Tezaurul cu obiecte de cult de la Isaiia*, Iași.
- VULPE Radu
1937 *Civilisation précucutenienne récemment découvert à Izvoare, en Moldavie*, ESA, XI, p. 134-146.
1957 *Săpăturile de la Izvoare din 1936-1948*, București.

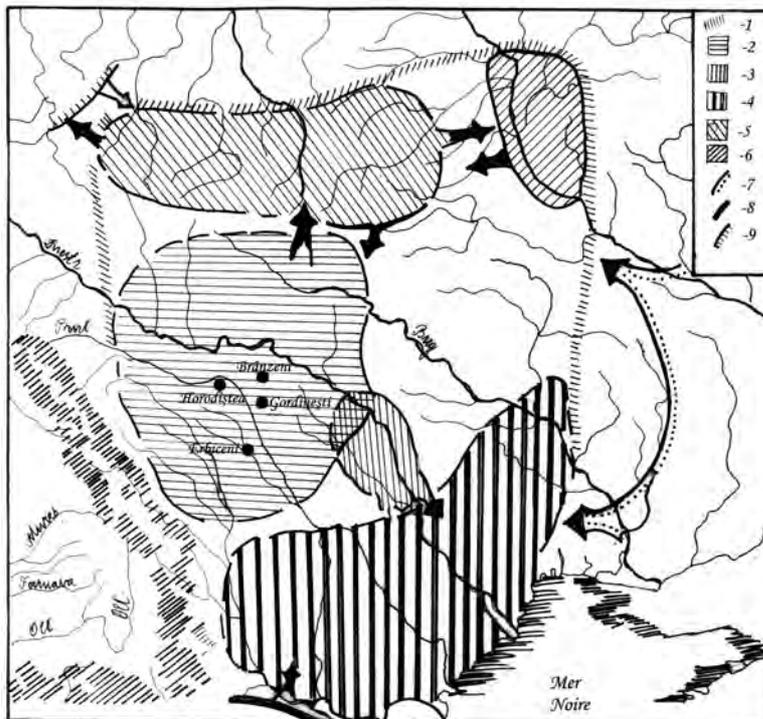
BC	UKRAINE	REP. OF MOLDOVA	MOLDAVIA	THE NEW DIVISION INTO PERIODS	bc
↑	Vîhvatinț -Troianovo -Gorodsk				1800 2000
3400			Gordinești { Erbiceni II Hor. II-Erb I	↑	↑
↑				↑	2700
3500	C/II-Y/II β	Horodiștea I-Brânzeni	? - b/a - ? B3	THE FINAL PERIOD and the transition to Bronze Age	2800
↑	C/I-Y/I a		b/a B2	IIIa	2900
3600			b/a B1		3000
3700	2 $\frac{b}{a}$		b/a A-B2		3100
3800					3200
3900	1 $\frac{b}{a}$ B II		b/a A-B1		3300
4000					3400
4100	4	A3 $\frac{b}{a}$ - (A4) - $\frac{b}{a}$ A3			3500
4200	2-3				3600
4300	B I	A2 $\frac{c}{b/a}$	$\frac{c}{b/a}$ A2		3700
4400	1	A1 $\frac{b}{a}$	$\frac{b}{a}$ A1		3800
4500	A2				3900
4600					4000
4700	A1 ?	III $\frac{c}{B/A}$	III $\frac{c}{B/A}$		
4800	? ?	II $\frac{B}{A}$	II $\frac{B}{A}$		
		? ?	I		

TURIPOLY E
 CUCUTENI CULTURE
 STOICANI-ALDENI-BOLGRAD
 PRE-CUCUTENI
 THE CLASICAL PERIOD (with painted pottery)
 CUCUTENI CULTURE
 CHALCOLITHIC

Table 1. Chalcolithic cultures in Ukraine, Republic of Moldova and Moldavia (Romania).



A. Legend: 1. The boundary of the final period of Cucuteni-Tripolye complex, the early phase; 2: Horodiștea-Brânzeni; 3: Vykhatinc; 4: Usatovo; 5: Traianovo; 6: Lukașevki; 7: The south-west boundary of Yamna culture; 8: The north boundary of Cernavoda culture; 9: The south-east boundary of Trichterbecker (TRB) culture.



B. Legend: 1: The boundary of the final period of Cucuteni-Tripolye complex, the late phase; 2: Horodiștea-Erbiceni, Gordinești-Brânzeni; 3: Vykhatinc; 4: Usatovo; 5: Gorodsk; 6: Sofievka; 7: The south-west boundary of Yamna culture; 8: The north boundary of Cernavoda culture; 9: The south-east boundary of Trichterbecker (TRB) and spherical amphorae's culture.

Map 1. The maps of local aspects from the final period of Cucuteni-Tripolye cultural complex (= Horodiștea-Erbiceni, Brânzeni-Gordinești, Vykhatinc; Troianovo-Gorodsk and Lukașevki-Sofievka). A = early phase; B = late phase (DERGACEV 1980).

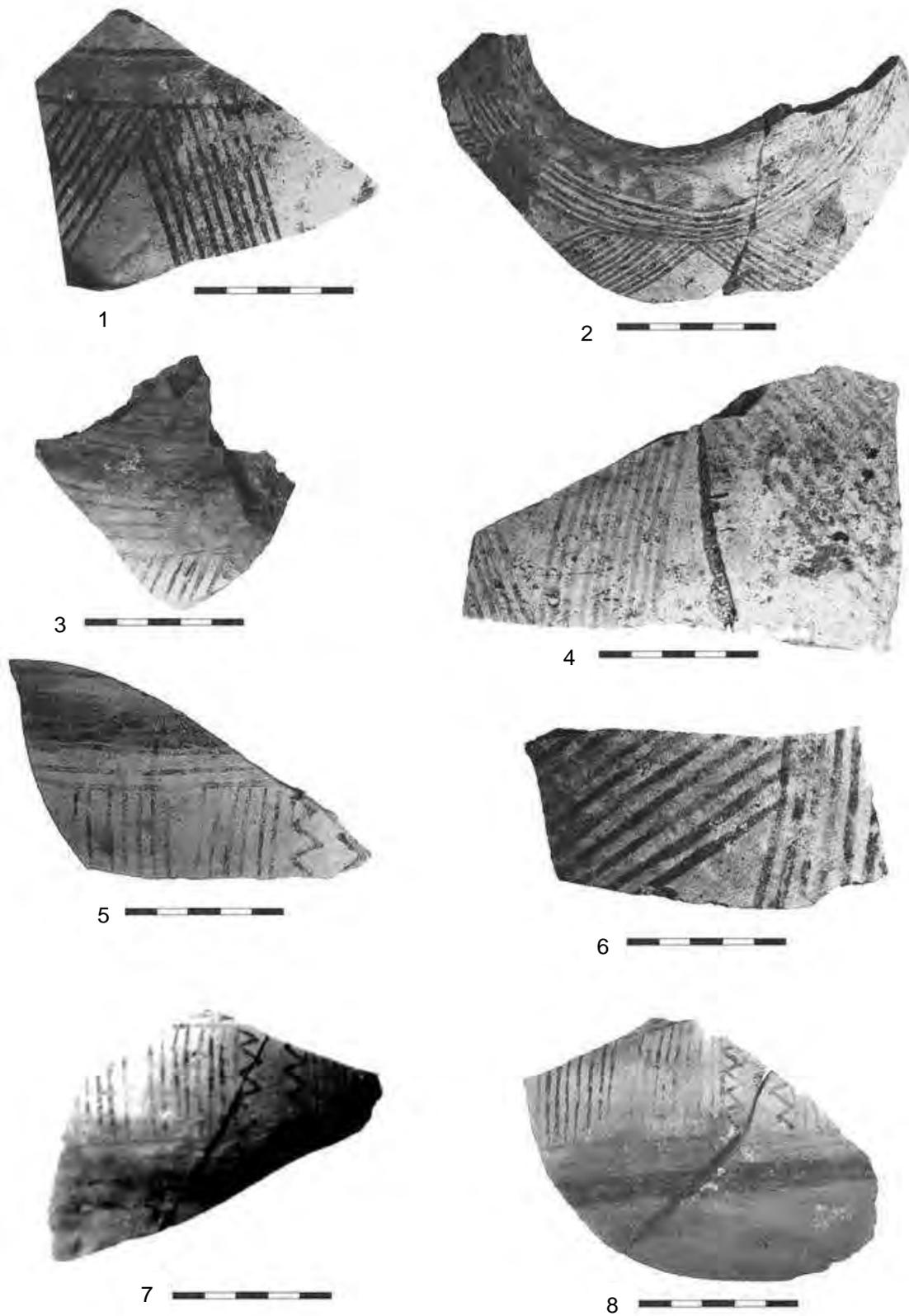


Fig. 1. Painted pottery from the final phase of Cucuteni culture, Horodiștea I - Brânzeni phase from Horodiștea. 1, 5, 7-8: with red band in ζ style.

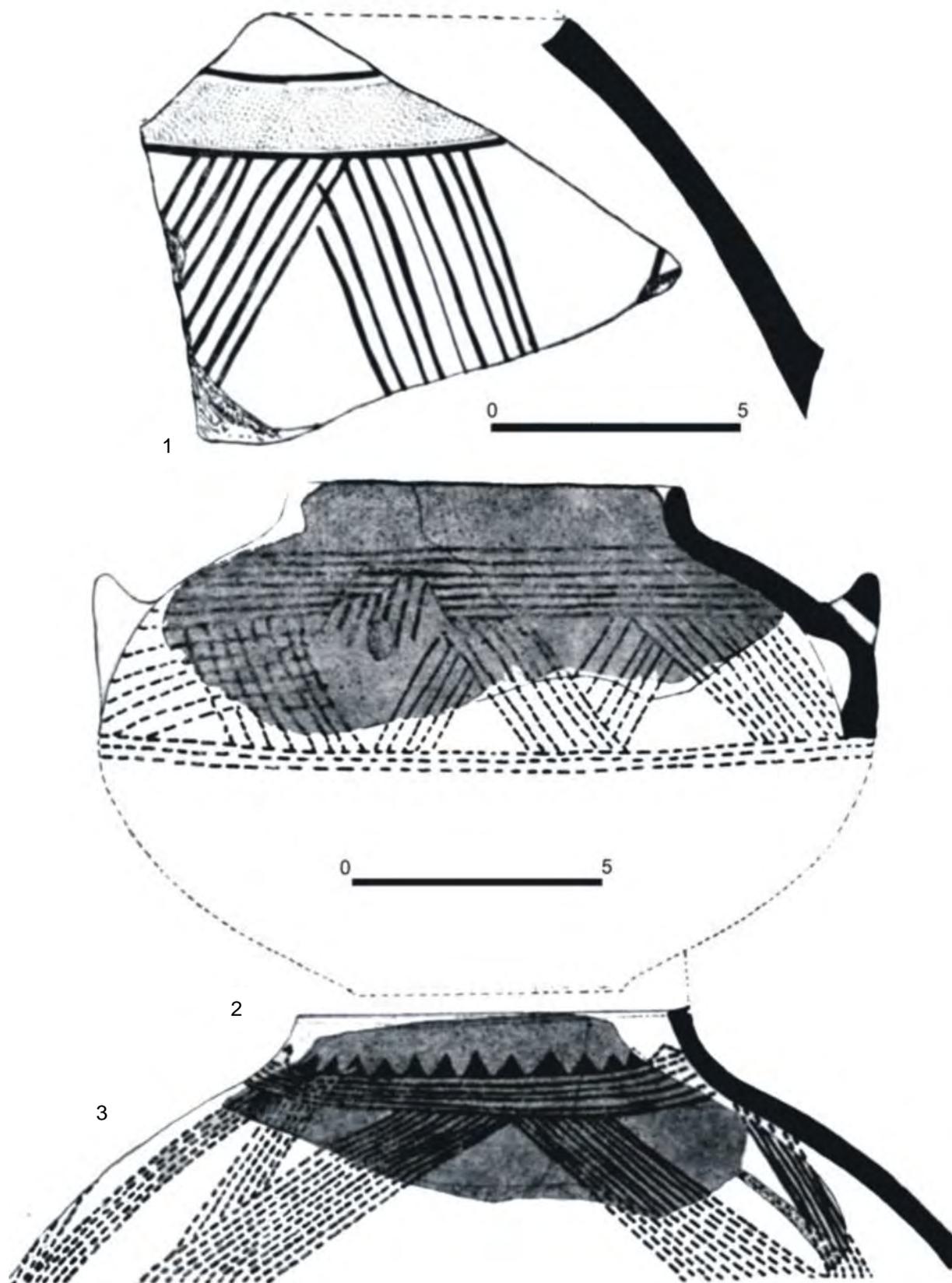


Fig. 2. Painted pottery from Horodiștea, from the early phase of Horodiștea I, the final period of Cucuteni culture.

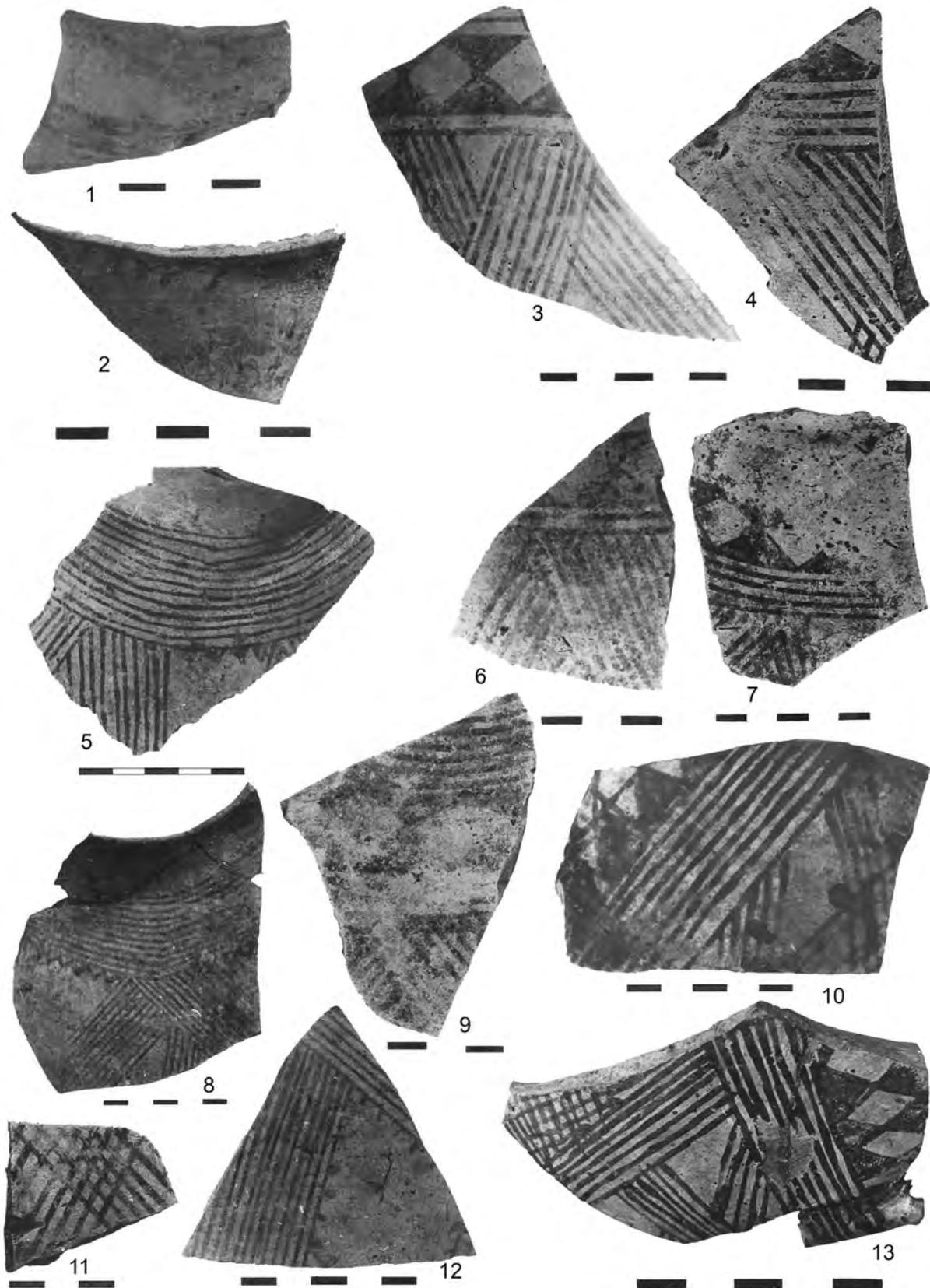


Fig. 3. Horodiștea: painted pottery from Horodiștea II - Gordinești archaeological features.

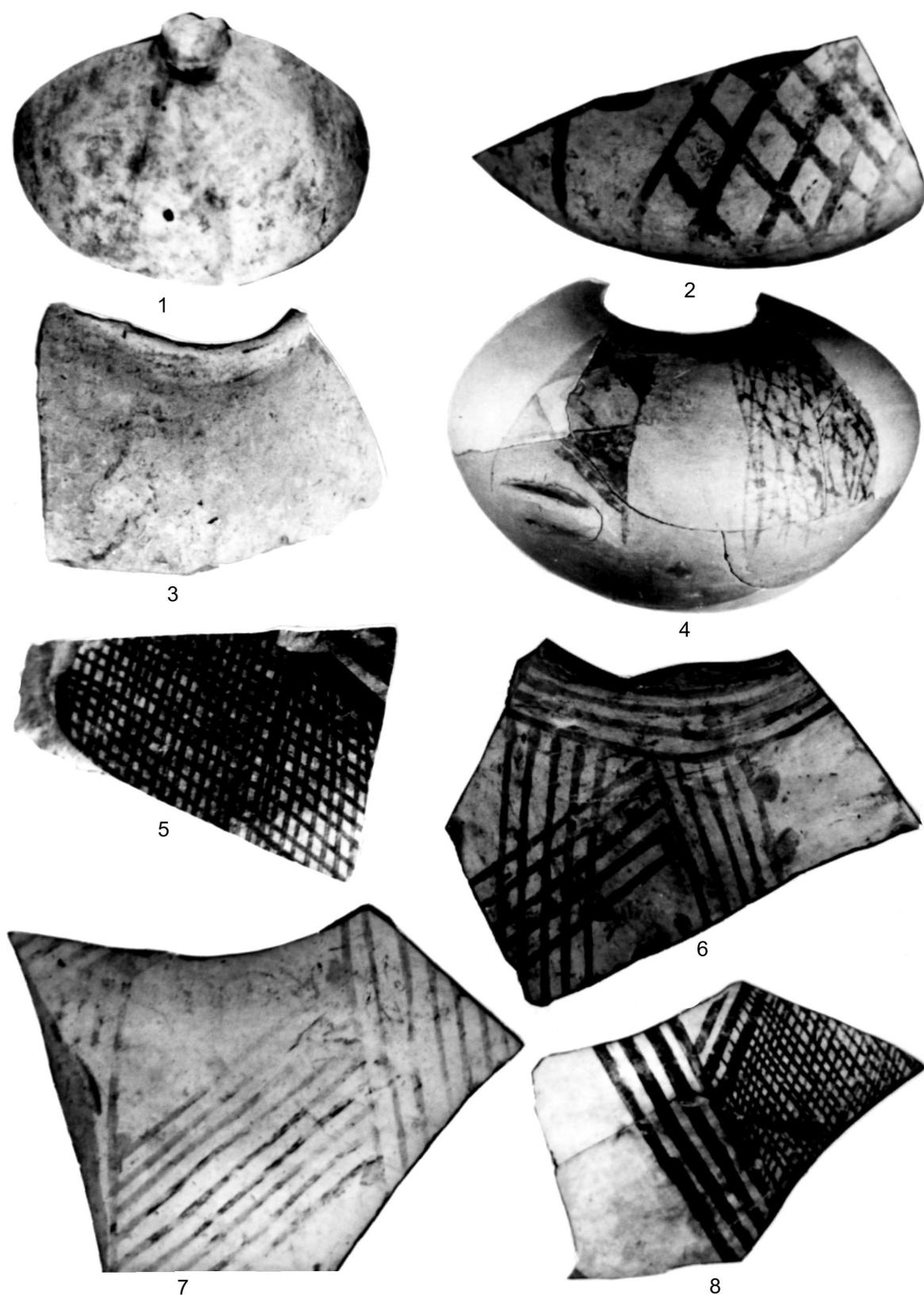


Fig. 4. Erbiceni-Dealul Săraților. Painted pottery from the final period of Cucuteni culture, from Erbiceni I (2, 4-5, 7-8) and Erbiceni II (1, 3, 6) archaeological features.

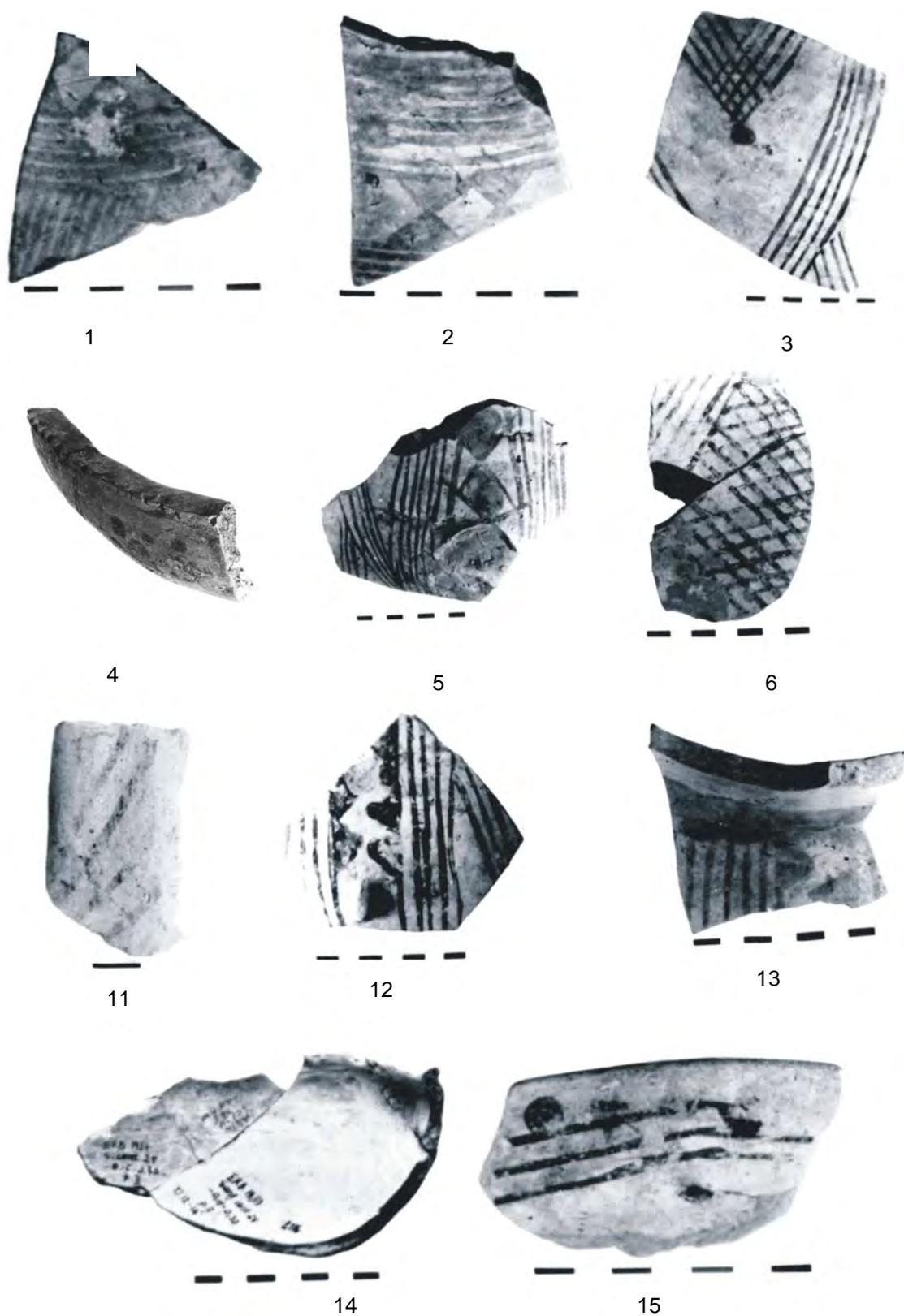


Fig. 5. Erbiceni-Dealul Sărăturilor. Painted pottery from Erbiceni II (1-3, 5- 11) and Horodiștea (4), a bowl fragment with traces of grey paste.

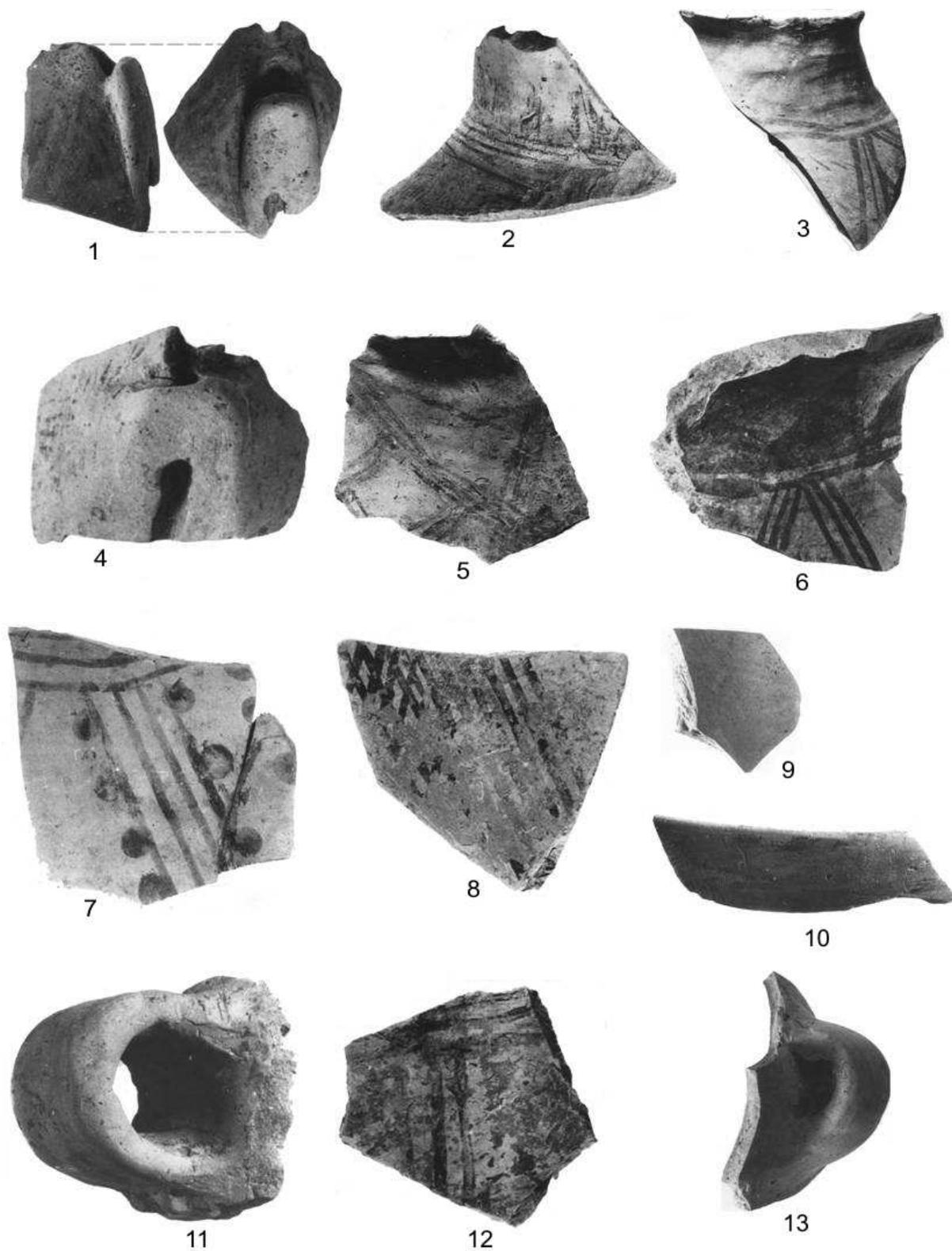


Fig. 6. Erbiceni-Dealul Mânăstirea. Painted pottery; 1-8, 12: pottery with preserved paint; 9-11, 13: pottery that once was painted.

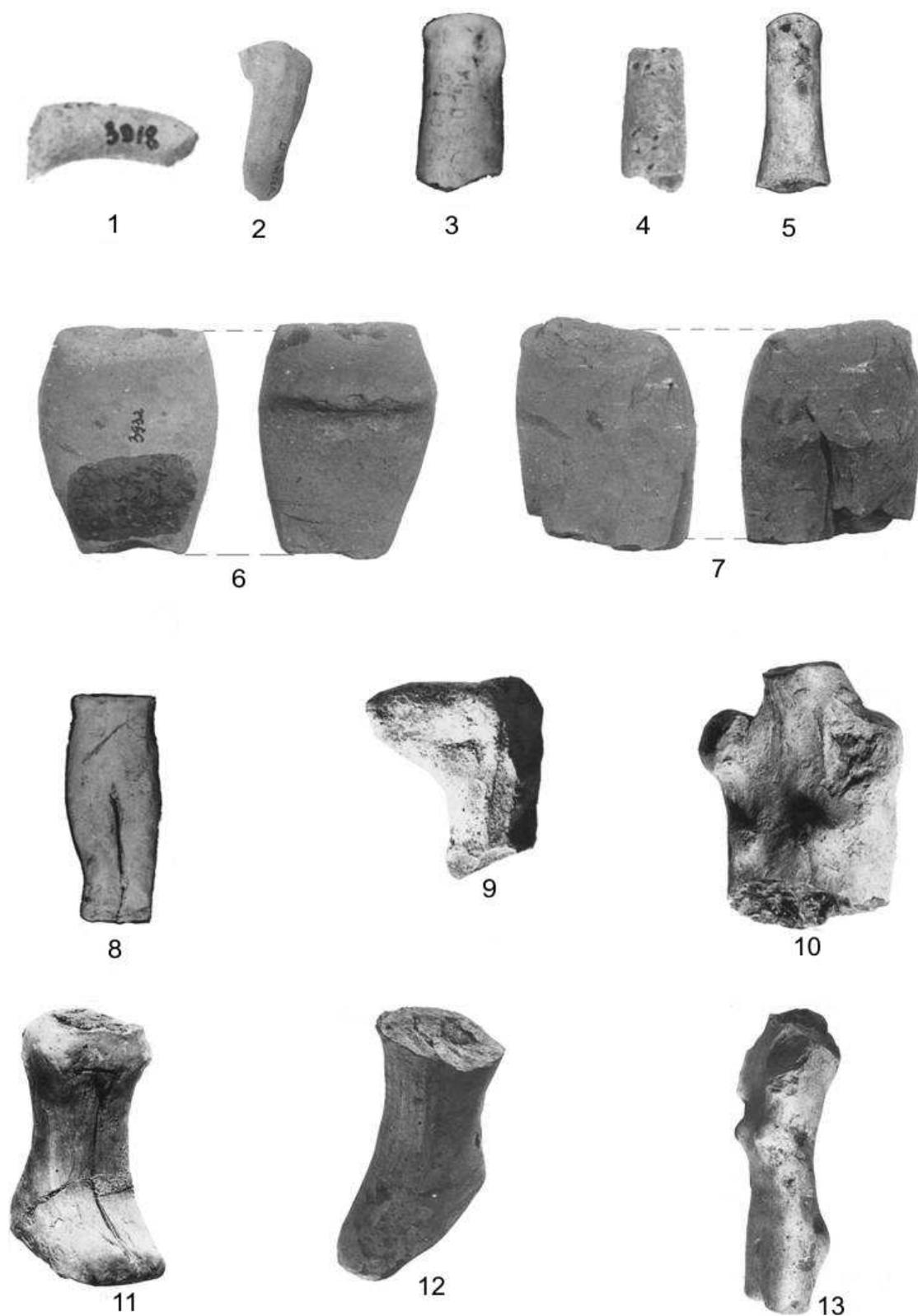


Fig. 7. Anthropomorphic figurines from the final period of Cucuteni culture: 1-8: Erbiceni-Dealul Sărăturilor; 9-13: Horodiștea; 1, 5-6: Erbiceni I archaeological features; 2-4, 8: Erbiceni II features; 11: Horodiștea I archaeological features; 9-10, 12-13: Horodiștea II archaeological features.

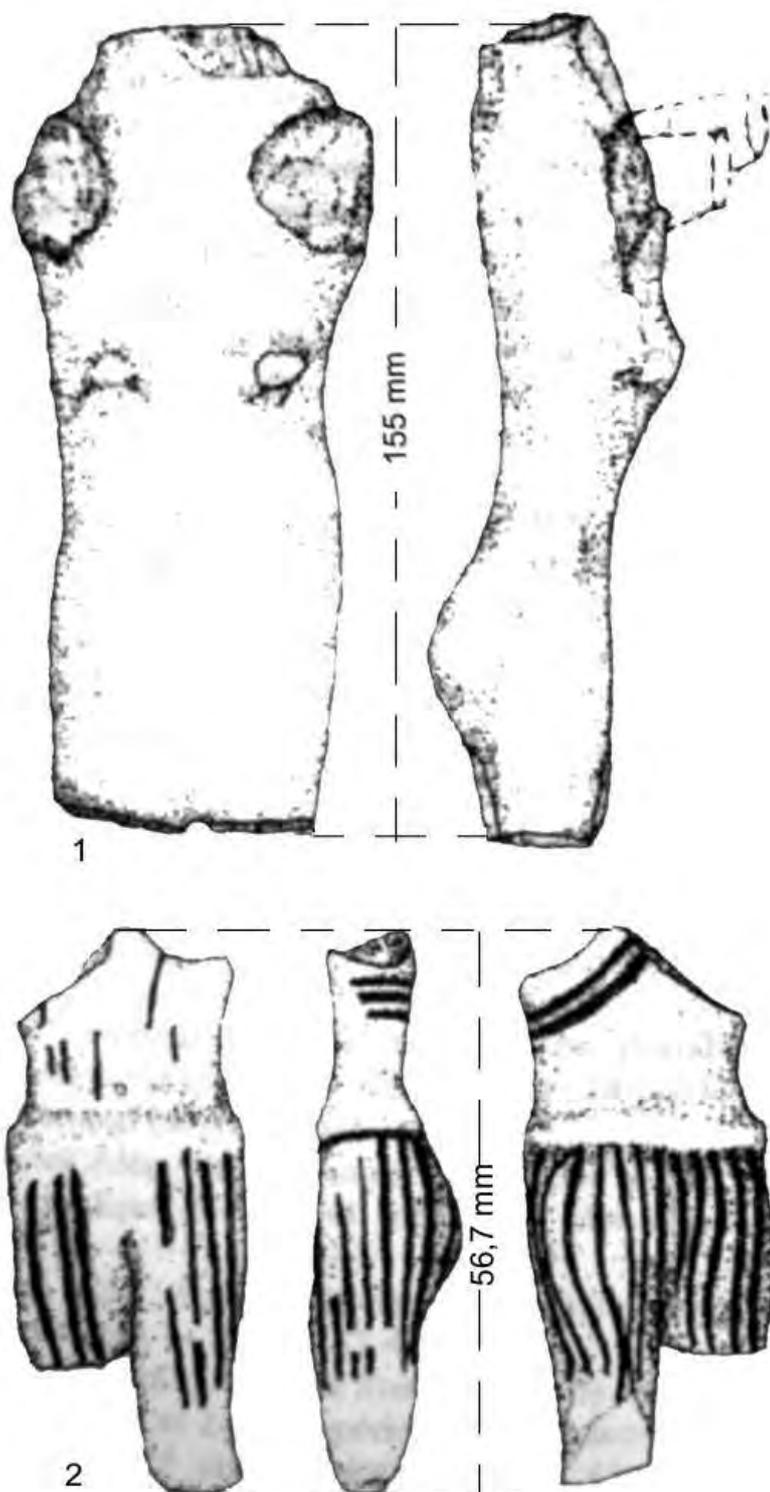


Fig. 8. Anthropomorphic figurines from the final period of Cucuteni culture; 1: Horodiștea; 2: Stornești (Iași county).

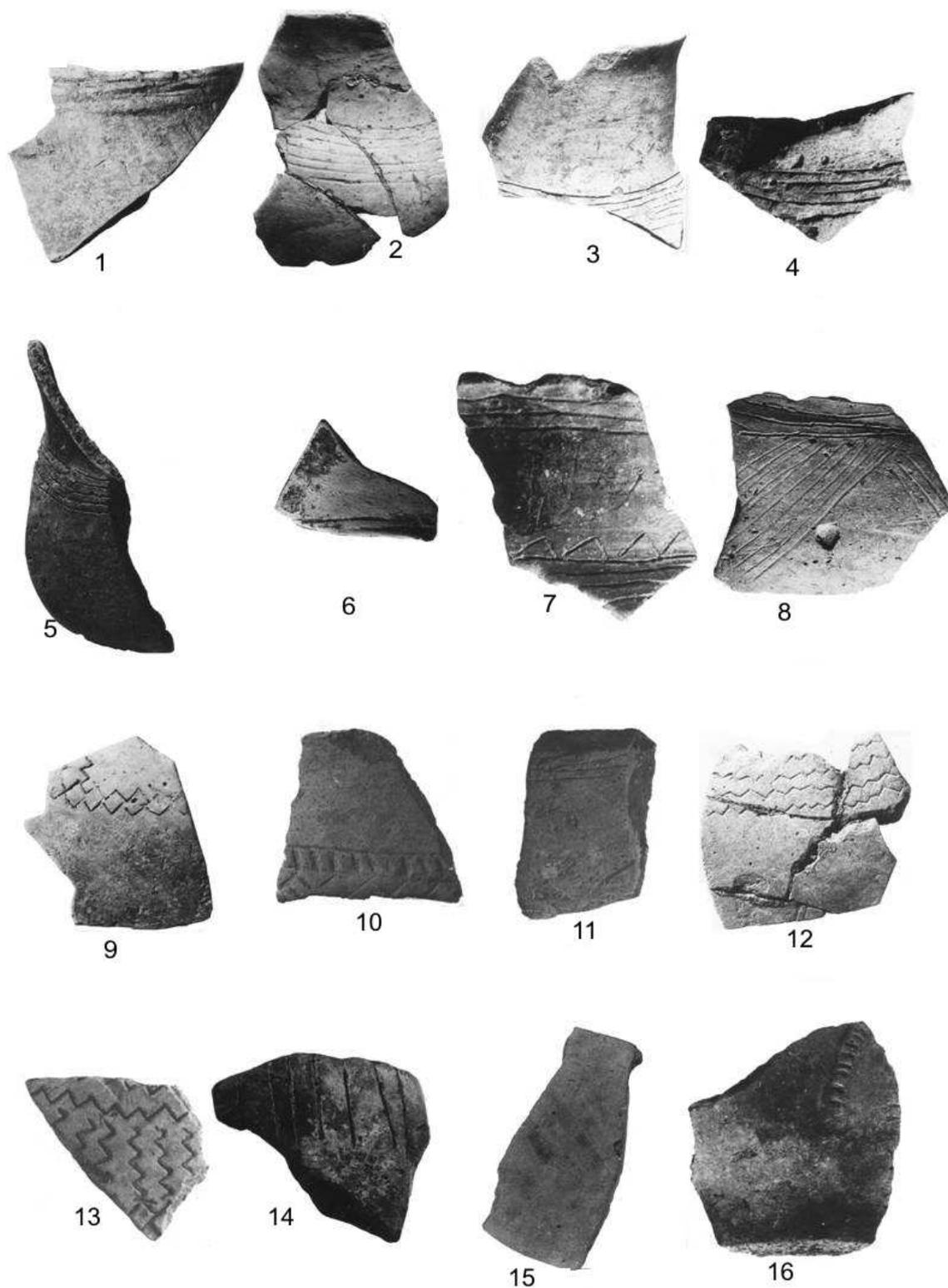


Fig. 9. Horodiștea. Fine grey pottery from the final period of Cucuteni culture, decorated with incised motives, similar to the ones from the painted pottery. 6, 14: Horodiștea I; 1-5, 7-13, 15-16: Horodiștea II.

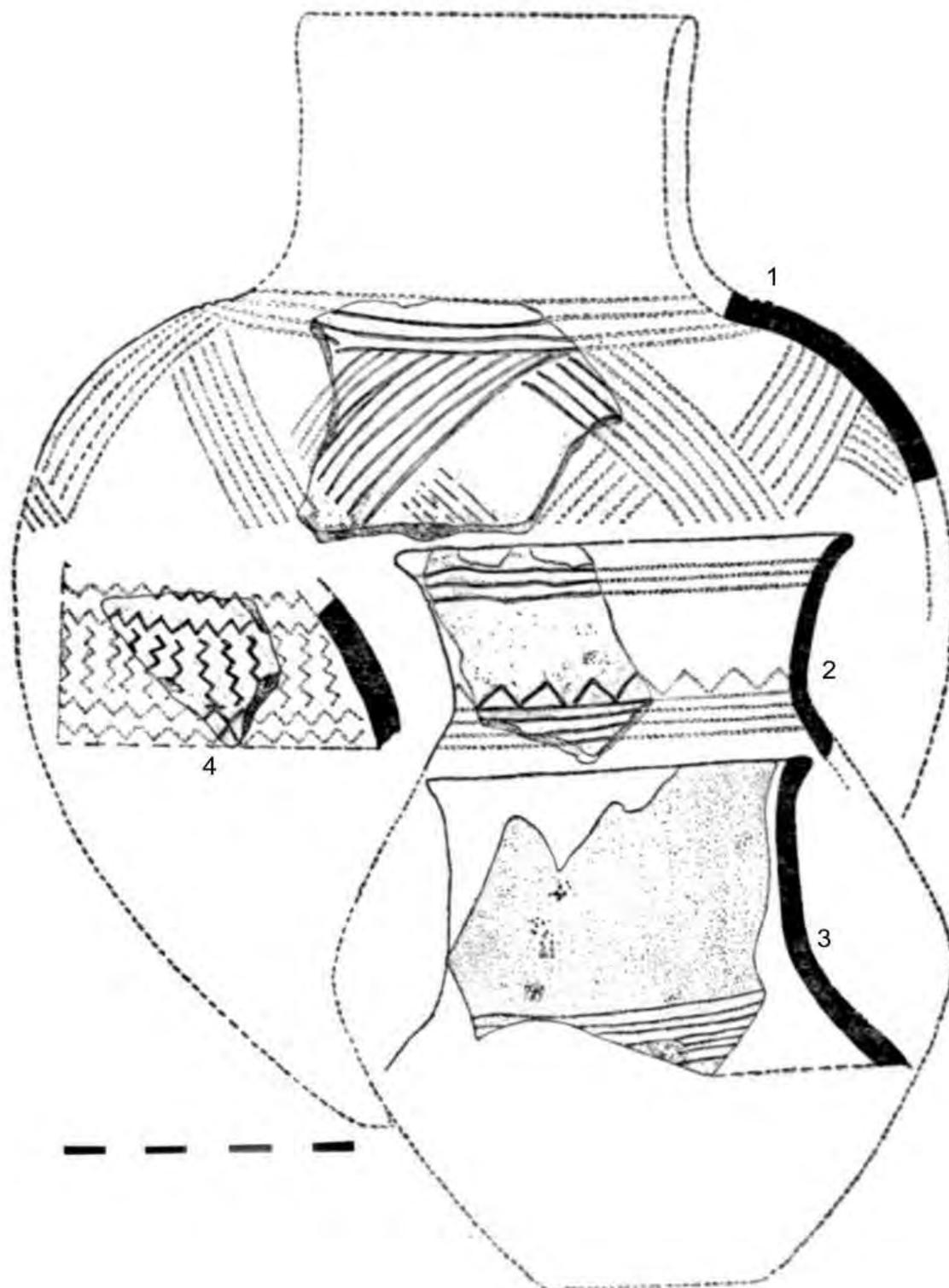


Fig. 10. Horodișteea. Fine grey potsherds, from restored vessels with forms and incised ornaments, similar, in form and ornament (incised) to the painted ones from Horodișteea II.

MATIÈRE, ARTEFACT, SYMBOLE. DENTS PERCÉES ET IMITATIONS DANS LES DÉPÔTS D'OBJETS DE PRESTIGE DE LA CULTURE CUCUTENI

CORNELIU BELDIMAN^{*}, DIANA-MARIA SZTANCS^{**}

Mots clefs: *Cucuteni, dépôt, dents percées, imitations en os, objets de prestige, paléo-technologie, parure.*

Cuvinte cheie: *Cucuteni, depozit, dinți perforați, imitații în os, obiecte de prestigiu, paleotehnologie, podoabe.*

Résumé. *L'ouvrage propose une analyse des objets en matières dures animales – canines de cerf percées, molaires (un humain et 50 de petits mammifères indéterminés), imitations en os de canines de cerf – des 6 dépôts découverts sur le territoire de la Roumanie (Ariuşd, Brad, Hăbăşeşti, Izvoare) et de la République de Moldavie (Cărbuna, Chetroşica). On analyse tous les aspects paléo-technologiques quantifiables: matière première, fabrication et hypothèses concernant le mode d'utilisation.*

Rezumat. *Lucrarea propune o analiză a artefactelor din materii dure animale (canini reziduali de cerb, molari (unul uman și 50 provenind de la mamifere mici nedeterminate), imitații de os ale caninilor de cerb, toate provenind din inventarul a șase depozite cu obiecte de prestigiu aparținând culturii Cucuteni, patru descoperite în România (Ariuşd, Brad, Hăbăşeşti, Izvoare) și două în Republica Moldova (Cărbuna, Chetroşica). Se analizează într-un cadru unitar toate aspectele cuantificabile paleotehnologice: materie primă, fabricare, ipotezele modului de utilizare.*

Introduction

Dans les dernières deux décennies on constate en Roumanie l'augmentation de l'intérêt pour l'étude systématique des artefacts préhistoriques en matières dures animales (BELDIMAN 1993, 46; 1999; 2004, 69-102; 2004a, 75-79; 2005, 39-71; 2007; BELDIMAN, SZTANCS 2005, 155-254; 2005a, 107-115; 2005b, 99-101; 2007, 33-74; SZTANCS, BELDIMAN 2005, 285-292).

Dans ce contexte, l'intérêt récemment manifesté pour l'étude poussée des dépôts d'objets de prestige signalés dans l'aire du complexe culturel Ariuşd-Cucuteni-Tripolye (MONAH 2003, 129-140; BELDIMAN, SZTANCS 2005a, 107-115; 2007, 33-74) stimule et privilégie (MONAH 2003, 129-140; BELDIMAN, SZTANCS 2005a, 107-115; 2007, 33-74) stimule et privilégie

particulièrement la démarche détaillée exhaustive des artefacts en matières dures animales présents dans la structure de ce type spectaculaire de découvertes préhistoriques.

Il s'agit généralement de composantes majeurs de ces accumulations comme les objets de parure (dizaines de perles et de dents percées – canines résiduelles de cerf – et leur imitations en os, des bracelets) et rarement d'armes (poignard en os). Tous ces objets sont particulièrement chargés de significations symboliques, sociales mais pas moins de nature paléo-technologique – en sens large – qui attendent encore à être explorées intégralement et mises en valeur (BELDIMAN, SZTANCS 2007, 33-74).

Les 7 dépôts contenant des objets de prestige connus jusqu'à maintenant sur le territoire de la Roumanie (Ariuşd, Brad, Hăbăşeşti, Izvoare) et de la République de Moldavie (Cărbuna, Chetroşica, Horodnița)

^{*} Université Chrétienne "Dimitrie Cantemir" de Bucureşti, e-mail: corneliubeldiman@hotmail.com

^{**} Université "Lucian Blaga" de Sibiu.

ont été découverts pendant le XIX^{ème} et le XX^{ème} siècles. L'effectif total des artefacts composant ces dépôts compte plus de 11.880 pièces, confectionnées en métal (cuivre, or), en matériaux lithiques, en matières dures végétales (semences de *Lithospermum purpureo coeruleum*) et en matières dures animales (os longs de mammifères, spondyles, dents – croches, molaire humaine, molaires de petites mammifères indéterminées). Selon les effectifs d'artefacts on a: petits dépôts (conventionnellement, moins de 100 pièces – dépôts de Hăbășești et Horodnița); dépôts ayant des effectifs moyens (100 – 500 pièces – dépôts de Brad et Chetroșica); grand dépôts (plus de 500 pièces – dépôts d'Ariușd, Cărbuna et Izvoare).

Accompagnant des artefacts métalliques divers (haches, bracelets, perles, pendeloques, bagues etc. en cuivre et en or), les objets en matières dures animales constituent généralement une composante majeure de ces accumulations. Elles appartiennent aux deux catégories typologiques: armes (poignard en os) et pièces de parure divers: croches; imitations en os des croches; molaire humaine; molaires de petits mammifères indéterminés; perles en spondyle et en os; plaquettes en os, en spondyle et sur fragment de défense de sanglier; pendeloques en spondyle; bracelets en spondyle.

Tous ces objets sont particulièrement chargés de significations symboliques, sociales mais pas moins de nature paléotechnologique – en acception large – qui attendent encore à être explorées intégralement et mises en valeur.

On a affaire avec des objets de prestige composites (colliers, bracelets) ou éléments cousus sur supports textiles ou en cuir (équipement cérémoniel?) (MONAH 2003, 129-140; BELDIMAN, SZTANCS 2005b, 99-101; 2007, 33-74).

L'ouvrage propose une analyse de l'inventaire des dents percées et leur imitations des 6 dépôts: Ariușd, Brad, Cărbuna, Chetroșica, Hăbășești et Izvoare.

La trame méthodologique prend en considération les approches internationales récentes; les modèles sont généralement

fournies par les publications françaises et particulièrement par le Cahier IV des *Fiches typologiques de l'industrie osseuse préhistorique* (CAMPS-FABRER 1998; BARGE-MAHIEU *et alii* 1991; BELDIMAN 1993, 46; 1999; 2004, 69-102; 2004a, 75-79; 2005, 39-71; BELDIMAN, SZTANCS 2005b, 99-101; 2007, 33-74; CHOYKE 2001, 251-266; D'ERRICO, VANHAEREN 2002, 211-232).

Les objectifs majeurs de la démarche sont définis par:

- la description morphologiques des artefacts par recours au vocabulaire/lexique contrôlé;

- l'identification exacte de la nature de la matière première des pièces – origine spécifique et anatomique; en ce sens, les dents percées et spécialement celui des croches (canines résiduelles de cerf) présente un intérêt tout à fait particulier; on cherche à préciser s'il s'agit de dents qui proviennent du même individu par l'identification du sexe et des éléments de symétrie/bilatéralité anatomique; ces éléments ont une importance majeure pour les conclusions qui visent la modalité de l'accumulation des artefacts dans les dépôts, la circulation des objets, fonctionnement des coutumes liées à l'échange des objets de prestige etc.;

- l'étude technologique – données sur la «chaîne opératoire» de la fabrication (débitage, façonnage, y compris l'aménagement des dispositifs de suspension etc.) et de l'utilisation des artefacts. Le plus expressif de ce point de vue s'avèrent les perforations des dents et leurs imitations en os. Très importante est la précision, suite à l'observation à l'oeil nue et à la loupe binoculaire des procédés et des étapes de réalisation des perforations: préparation bilatérale des surfaces; percement par rotation sur une (unilatérale) ou sur les deux faces (bilatérale) de l'objet; s'il s'agit de la perforation par rotation alternative (rotations en sens opposés ayant une amplitude de 180° environ chaque) ou rotation complète (rotations rapides ayant une amplitude de 360° en utilisant le foret. Importante est aussi la constatation liée au nombre de perforations. Dans le cas des dents on constate que la majorité des pièces analysées ont une seule perforation; mais on

a aussi des objets avec deux perforations ou des pièces „réparées” après fracturation au niveau de la perforation initiale, accident produit soit pendant l'opération de percement primaire, soit durant l'usage. Significative est la constatation du recours au même procédé technique de percement pour la réalisation de la perforation secondaire ou à une autre solution technique, ce qui constitue un indice pour les interventions probables avec un décalage chronologique, opérées par des individus différents;

- le problème de la technologie (fabrication) lié aux imitations en os des canines résiduelles de cerf: on connaît depuis longtemps que les dents en provenance des espèces chassées et particulièrement les croches ont été imitées en matériaux divers (à partir du Paléolithique supérieur en os, calcaire, ivoire, puis pendant le Néolithique en terre cuite, cuivre, etc.). Ce fait souligne une fois de plus leur valeur symbolique majeure, mais aussi la difficulté de se les procurer pour couvrir les nécessités de l'utilisation selon les contraintes de la tradition et pour souligner le statut social etc. Tous ces problèmes sont illustrés, sur le plan quantitatif, on pourrait dire, à l'échelle gigantesque par rapport à d'autres époques antérieures par la structure des dépôts de prestige appartenant à la culture Cucuteni. Dans ce sens notre étude peut constituer une contribution à la connaissance des aspects symboliques du comportement social dans la Préhistoire de nos régions;

- les observations sur les traces d'utilisation et leur signification pour l'établissement hypothétique du rôle fonctionnel des artefacts comme éléments d'enfilage: parure unique ou éléments des ensembles plus ou moins complexes colliers combinant plusieurs types (perles en matériaux divers; dents percées et imitation en os; pendeloques; plaquettes, etc.). Les plus importantes traces d'utilisation sont observables au niveau des perforations: fractures partielles/totales, émoussement et lustre des parois et des marges, stries etc.

Lorsque les artefacts en discussion font partie des dépôts, il est très difficile de

préciser la modalité dans laquelle ils ont été combinés avec d'autres types; en ce sens les contextes funéraires *in situ* peuvent fournir des suggestions ou analogies valables et des repères pour une étude comparative de la fonction (BELDIMAN, SZTANCS 2005a, 107-115; 2007. 33-74).

Les dépôts. Dents percées et imitations

Le répertoire inclut six dépôts découverts par hasard ou lors de fouilles archéologiques dans les sites appartenant au complexe culturel Ariuşd-Cucuteni-Tripolye. Il s'agit de quatre dépôts apparus sur le territoire actuel de la Roumanie (Ariuşd, Brad, Hăbăşeşti, Izvoare) et de deux dépôts identifiés dans la République de Moldavie (Cărbuna et Chetroşica).

Les dépôts¹ ont offert un nombre total de 563 dents percées et imitations en os (tableau no. 1). On a 330 canines résiduelles de cerf, une molaire humaine, 50 molaires en provenance de petits mammifères indéterminés et 182 imitations en os des canines de cerf. La plupart des pièces a été livrée par le dépôt de Brad (183 exemplaires), suivi par celui d'Ariuşd (130 exemplaires) et celui de Cărbuna (125 exemplaires).

Ariuşd, dép. de Covasna, Roumanie

Découvert au début du XX^{ème} siècle (1910) pendant les fouilles menées par Fr. László, cet important dépôt a été sommairement publié à l'époque. Seulement récemment ont été publiés les données disponibles et les objets conservés dans la collection du Musée National des Szeklers de Sfântu Gheorghe (LÁSZLÓ 1911, 12-85; MARINESCU-BÎLCU, CÂRCIUMARU 1992, 355-370; 1992a, 70-88; MONAH 2003, 129-140; SZTÁNCSUJ 2005, 85-106). On exprime à cette occasion nos vifs remerciements au collègue Sztáncsu Sándor qui nous a fourni les images des objets d'Ariuşd.

Presque 200 pièces ont disparu pendant la deuxième guerre mondiale,

¹ Pour le contexte général des découvertes et la structure de chaque dépôt voir: MONAH 2003, 129-140; BELDIMAN, SZTANCS 2005b, 99-101; 2007, 33-74.

Tableau no. 1. Distribution des dents percées et des imitations dans les dépôts d'objets de prestige de la culture Cucuteni.

No.	Site	Canines de cerf	Molaires		Imitations en os des canines	Total
			Mammifère	Homme		
1.	ARIUȘD	80	50	–	–	130
2.	BRAD	118	–	–	65	183
3.	CĂRBUNA	112	–	1	12	125
4.	CHETROȘICA	–	–	–	90	90
5.	HĂBĂȘEȘTI	20	–	–	2	22
6.	IZVOARE	–	–	–	13	13
Total		330	50	1	182	563

situation qui rend difficile une analyse extensive. Les publications de Fr. László mentionnent le fait que le dépôt a été composé de plus de 2214 objets, parures nombreuses et variées comme matières premières et comme types (pendeloques, perles, boucles d'oreille) confectionnées en matériaux lithiques, cuivre, or et en matières dures animales: os, bois de cerf, croches, molaires de mammifères indéterminés de petite taille, fragments de défenses de sanglier. Actuellement on conserve un effectif de 2032 pièces de parure dans la collection du Musée National des Szeklers de Sfântu Gheorghe.

L'auteur de la découverte mentionne l'existence de 80 croches (dont 11 encore présentes dans la collection) et 50 molaires de mammifères de petite taille (dont 19 conservés dans la collection). Dans une planche couleur datant de l'époque et publiée récemment (SZTANCSUJ 2005, 88, fig. 4/1, 5-11, 13-24) on figure 8 molaires, dont une perforée au niveau de la racine et 12 croches (10 en provenance de cerfs et 2 de biches; 10 munies de perforation unique et 2 fracturées au niveau de la perforation et ayant la perforation réaménagée; une pièce présente une incision transversale sur toute la circonférence de la racine, réalisée probablement par sciage ou par entaillage. En ce sens voir aussi les planches avec les dessins et les photos des pièces conservées dans la collection du Musée National des Szeklers de Sfântu Gheorghe (SZTANCSUJ 2005, 92, 101, fig. 7/6-15, 12).

Le dépôt a été attribué par Vladimir Dumitrescu à la phase A-B de la culture Cucuteni.

Les données disponibles et recueillies des publications ne permet pas d'autres considérations et conclusions d'ordre technologique.

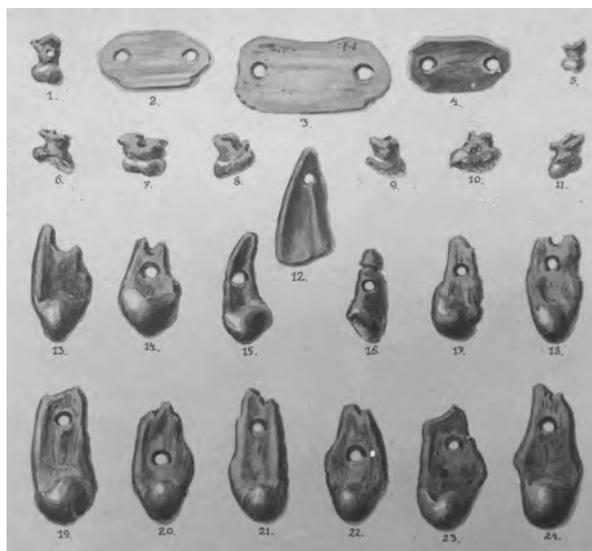


Fig. 1. Ariușd. Canines résiduelles de cerf et molaires de mammifères. *Apud* SZTANCSUJ 2005, fig. 4/1-24.

Brad, dép. de Bacău, Roumanie

Dans la structure de ce dépôt, récupéré durant les recherches systématiques menées en 1982 par Vasile Ursachi on mentionne l'existence de nombreuses canines résiduelles de cerf et des imitations

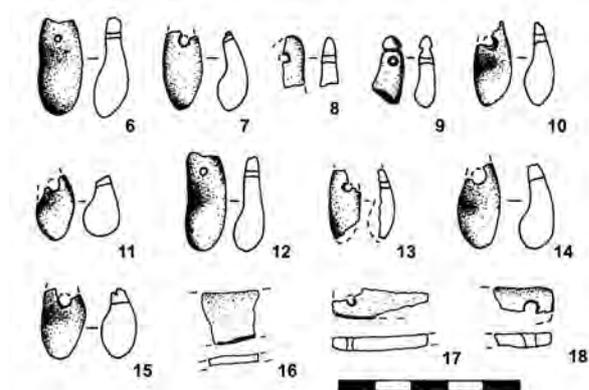


Fig. 2. Ariuşd. Canines résiduelles de cerf. Apud SZTANCSUJ 2005, fig. 6/6-18.

en os (URSACHI 1991, 335-386; 1992, 51-104).

Le dépôt est datée par l'auteur de la découverte dans la sous phases A3-A4 de la culture Cucuteni.

Il faut préciser que les artefacts de Brad ont été étudiés directement par nous à l'occasion d'un stage de documentation dans le Musée d'Histoire de Roman (avril 1993) grâce à la grande amabilité du Vasile Ursachi; qu'il soit remercié à cette occasion. On a appliqué ainsi pour la première fois les orientations méthodologiques proposées par le *Cahier IV des Fiches typologiques de l'industrie osseuse préhistorique*, réservé à la parure (BARGE-MAHIEU *et alii* 1991).

L'effectif des objets est de 480 environ, déposés dans un récipient en céramique du type *askos* Gumelnița A2.

La parure en matières dures animales compte 183 pièces appartenant aux types: dents percées – croches (118); imitations en os des croches (65).

Certaines pièces ont été découvertes en état de conservation précaire: fragmentées et ayant les surfaces corrodées par l'action des acides du sol. Malheureusement les procédées de conservation appliquées ont modifié l'aspect originel des surfaces rendant parfois difficile l'analyse des traces de fabrication et d'utilisation.

D'après les données issues des observations faites *in situ* sur l'ensemble des artefacts on peut conclure que les canines et les imitations ont constitué un seul collier, étant probablement combinées avec les perles en cuivre et en marbre (URSACHI 1991, 342); en ce sens on a quelques analogies

dans les découvertes funéraires de Hongrie (CHOYKE 2001, 251-266).

Vasile Ursachi mentionne la présence de 190 canines résiduelles ayant des dimensions variables selon l'âge et la taille de l'animal (URSACHI 1991, 340-341). On peut ajouter le critère du sexe. Notre étude a été faite sur 183 exemplaires disponibles dans la collection du Musée d'Histoire de Roman. Le nombre total estimé est de 220 pièces (dents et imitations). Selon les données offertes par Vasile Ursachi le plus petit exemplaire mesure 17 mm de longueur et le plus grand 30 mm. Les dents et les imitations sont prévues, en majorité avec une seule perforation proximale; quelques pièces ont été „réparées” après la fracturation au niveau de la perforation initiale. L'auteur de la découverte mentionne aussi l'existence des imitations en os des canines mais sans autre précision (URSACHI 1991, 340).

Suite à l'examen direct de l'effectif (BRD 1 – 183) y compris avec la loupe binoculaire nous avons décelé quatre groupes: 1. pièces anatomiques entières munies d'une seule perforation, N = 25 (BRD 1 – 25, 121); 2. pièces anatomiques fragmentaires munies d'une seule perforation, fracturées au niveau de la partie proximale, N = 25 + 62 (BRD 26 – 50, 122 – 183); 3. pièces anatomiques munies de deux perforations, N = 6 (BRD 51 – 56, 122 – 183); 4. imitation en os des croches, N = 65 (BRD 57 – 120).

On a ainsi 118 canines résiduelles de cerf et 65 imitations en os.

96 pièces ont permis de faire les observations détaillées des traces diverses: BRD 1 – 25, 51 – 121. Une attention spéciale a été réservée au dispositif de suspension (aménagement et traces d'usage).

Les perforations ont été réalisées sans exception par rotation rapide à l'aide du foret. Elles ont la forme circulaire en plan et biconique ou conique en profil, à l'intérieur avec des stries hélicoïdales spécifiques. Les perforations sont placées dans l'axe des pièces ou vers un des bords de la partie proximale.

Dans le cas des pièces anatomiques (BRD 1 – 25, 51 – 56, 121) on constate statistiquement la distribution des procédées de perforation suivante: • perforation

unilatérale, qui a généré la morphologie conique du trou, 10 pièces; • perforation bilatérale, qui a généré la morphologie biconique du trou, 22 pièces; • perforation bilatérale, qui a généré la morphologie cylindrique du trou, 2 pièces. Il faut préciser que parfois il est difficile de déceler d'une manière claire s'il s'agit de la perforation bilatérale ou unilatérale suivie par alésage bilatéral. Les perforations ayant les parois parallèles (cylindriques) sont le résultat possible du même alésage. On constate aussi que l'aménagement des surfaces apicales par abrasion est une solution courante destinée à faciliter l'amorce de la perforation.

Un problème spécial posent les pièces "réparées", ayant deux perforations, dont une conservée sur sa moitié inférieure de la circonférence; il s'agit de pièces fracturées durant la tentative de perforation ou durant l'usage. Cette situation caractérise uniquement les canines, ce qui souligne, un fois de plus, leur valeur matérielle et symbolique.

La perforation secondaire a été réalisée par: • le même procédé comme dans le cas de la perforation initiale (perforation unilatérale ou bilatérale): les cas des pièces BRD 55 (deux perforations unilatérales) et BRD 56 (deux perforations bilatérales); • l'application d'un procédé différent: pièces BRD 53 – 54, 121 ont les perforations initiales réalisées bilatéralement et les perforations secondaires réalisées unilatéralement.

On peut ainsi tirer quelques conclusions sur la chronologie de l'aménagement du dispositif de suspension: • immédiatement après la fracturation – qui s'est produit probablement par accident (pièces BRD 55 – 56); • avec un décalage chronologique variable entre les deux interventions techniques – fracturation intervenue probablement durant l'utilisation (pièces BRD 53 – 54, 121).

Le diamètre des perforations varie entre 3 et 6 mm (externe) et 2,5 et 5 mm (interne); la distance extrémité proximale – perforation est comprise entre 2,5 et 9 mm.

Les traces d'usure sont localisées sur trois secteurs des perforations: • secteur

supérieur de la circonférence, ce qui correspond au mode d'attache axial sur lien, une pièce; • secteur supérieur/latéral de la circonférence, ce qui correspond au mode d'attache axial/oblique sur lien, une pièce; • secteurs latéraux de la circonférence, ce qui correspond au mode d'attache latéral, probablement en utilisant deux liens (éléments de parure cousus?), 5 pièces.

En ce qui concerne les imitations en os des canines (artefacts BRD 57 – 120) on constate, premièrement, la grande variabilité morphologique, enregistrant des formes très proches de celles anatomiques (rendant parfois difficile, dans la première approche, l'identification des pièces comme copies) mais aussi des formes grossières, géométrisées (trapézoïdales) ayant les deux faces parallèles.

La matière première a été fournie par les fragments diaphysaires d'os longs de grands mammifères, très probablement des bovins domestiques; les métapodes, le tibia, le radius, le fémur, l'humérus sont des os qui ont des gros ses parois (5 – 20 mm) permettant l'extraction des ébauches pour les copies des croches.

Le "schéma opératoire" de la fabrication des imitations suit, en grandes lignes, celui de la réalisation des perles. Malheureusement on ne dispose pas des pièces techniques signalées dans l'aire de la culture Cucuteni illustrant diverses étapes de la fabrication, très probablement locale.

Les deux étapes principales de la "chaîne opératoire" ont été décelées par analogie et sur la base des observations des traces conservées sur les objets. Il s'agit d'un débitage standardisé, impliquant: le détachement des épiphyses par sciage transversal; extraction des baguettes par sciage axial; fragmentation des baguettes par sciage transversal pour l'obtention des ébauches rectangulaires. Le façonnage affecte intégralement ou partiellement les surfaces anatomiques et implique l'abrasion intense sur meule dormante et à l'aide des polissoirs mobiles (galets de grès). Comme nous l'avons précisé déjà, on obtient ainsi des objets très proches de la morphologie des pièces anatomiques et des objets ayant des formes grossières, géométrisées



Fig. 3. Brad. Canines résiduelles de cerf et imitations en os.

(trapézoïdales) avec les faces parallèles et seulement les bords façonnés.

Les perforations ont été réalisées, sans exception, par rotation rapide à l'aide du foret. Elles ont la forme circulaire en plan et biconique ou conique en profil, à l'intérieur avec des stries hélicoïdales spécifiques. Les perforations sont placées dans l'axe des pièces ou vers un des bords de la partie proximale. 18 pièces ont la perforation unilatérale (conique) et 47 pièces la perforation bilatérale (biconique).

Sur la pièce BRD 120, au dessous de la perforation, on observe l'entame antérieure d'une autre perforation.

Les imitations réparées manquent; probablement que les pièces détériorées ont

été remplacées par d'autres entières.

Les traces d'usure sont localisées sur deux secteurs des perforations: • secteur

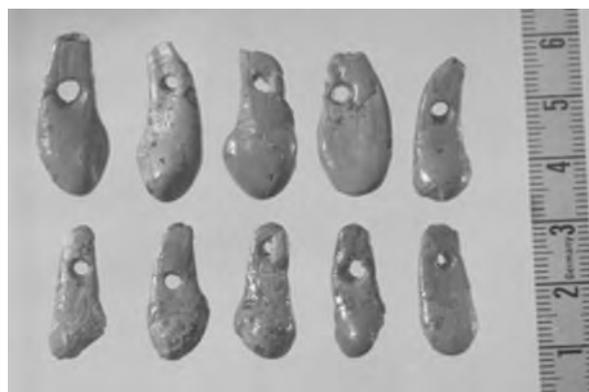


Fig. 4. Brad. Canines résiduelles de cerf.



Fig. 5 Brad. Canines résiduelles de cerf.



Fig. 6. Brad. Imitations en os des canines résiduelles de cerf.

supérieur/latéral de la circonférence, ce qui correspond au montage axiale/oblique sur lien, 7 pièces; • secteurs latéraux de la circonférence, ce qui correspond au montage latéral, probablement en utilisant deux liens (éléments de parure cousus?), 13 pièces.

Cărbuna, dép. de Cainari, République de Moldavie

Grand dépôt découvert par hasard dans le site en 1961, daté dans les sous phases A1-A2 de la culture Cucuteni (MONAH 2003, 130).

La première publication de la découverte a été faite par G. P. Sergheev (SERGHEEV 1963, 135-151) et la monographie par Valentin Dergacev (DERGACEV 1998).

L'ensemble a été déposé dans un récipient en terre cuite couvert avec un autre récipient de la même facture.

Parmi les 851 artefacts mentionnés dans l'inventaire et partiellement illustrés on a 436 pièces en matières dures animales. Il s'agit de: pièces en spondyle (perles, plaquettes, pendeloques, bracelets, bouton); dents percées (canines résiduelles de cerf, une molaire humaine); imitations en os de canines résiduelles de cerf; molaire humaine

perforée; perles en os.

Les données disponibles sont issues des publications. Les perforations des dents ont été probablement réalisées exclusivement par rotation rapide à l'aide du foret, étant placées sur la partie proximale dans l'axe ou vers un des bords.

Les aspects concernant les imitations sont similaires à celles discutées dans le cas du dépôt de Brad (voir *supra*).

Le problème des pièces réparées munies de deux perforations dont une détériorée ne se pose apparemment pas pour les canines et les imitations du dépôt de Cărbuna. On relève le cas de la pièce CRB 450, un *unicum* dans la structure de ce dépôt. Il s'agit d'une molaire humaine munie d'une perforation proximale; au dessous on observe l'entame antérieure d'une autre perforation.

Chetroșica, République de Moldavie

Les données sommaires disponibles mentionnent la découverte du dépôt dans le site à l'intérieur d'une structure (logement) détruite.

Le dépôt, composé par 196 pièces, déposées dans un récipient en terre cuite (MONAH 2003, 129-131) est daté „dans une étape post-Cucuteni, durant laquelle les traditions Cucuteni étaient encore très fortes” (MONAH 2003, 131).

Les artefacts en matières dures animales sont en nombre de 90, probablement des imitations en os des canines résiduelles de cerf (MONAH 2003, 133-135, 140, fig. 5).

Hăbășești, dép. de Iași, Roumanie

Le dépôt d'objets de prestige de Hăbășești (com. Strunga, dép. de Iași) a été découvert dans le site placé sur l'hauteur nommé *Holm* pendant les fouilles menées par Vladimir Dumitrescu en 1950, parmi les restes d'une construction annexe du logement de surface no. 21. Le dépôt est attribué à la sous phase Cucuteni A2 (DUMITRESCU 1957, 73-85; 1963, 70-73; MONAH 2003, 130). Les objets ont été probablement déposés dans un sac en matériel textile ou en cuir. L'inventaire du dépôt est constitué

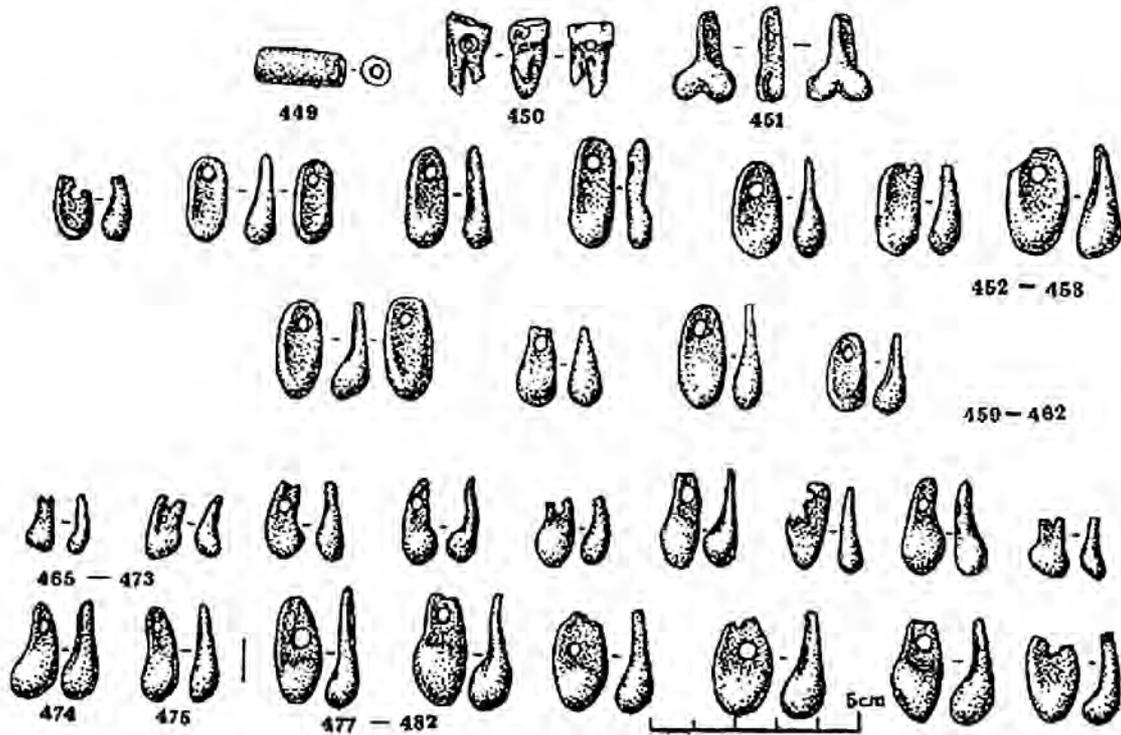


Fig. 7. Cărbuna. Canines résiduelles de cerf, imitations en os et molaire humaine perforée. Apud DERGACEV 1998.



Fig. 8. Chetroșica. Imitations en os des canines résiduelles de cerf. Apud MONAH 2003, fig. 5.

par des artefacts divers, objets de parure et armes, confectionnés en métal (cuivre), en matériaux lithiques (marbre) et en matières dures animales (canines résiduelles de cerf et imitations en os).

Dans la monographie du site et dans une étude spéciale publiée en 1957, Vladimir Dumitrescu mentionne la présence des 22 "incisives" de cerf, illustrées en dessin (DUMITRESCU *et alii* 1954, 449, fig. 41/4 ; pl. CXXIV/6; DUMITRESCU 1957, 74, fig. 1/4); un ouvrage de vulgarisation de 1967 insère dans une figure (photo) seulement 17 pièces (DUMITRESCU 1967, fig. 51). Le dépôt a été conservé dans les collections de l'Institut d'Archéologie de Bucarest, puis, dans les années '70, il a été transféré au Musée National d'Histoire de la Roumanie, où il se trouve aujourd'hui.

En 1993 nous avons eu l'occasion d'étudier un effectif disponible de 18 pièces; on ne dispose pas d'informations sur le reste des 4 objets qui faisaient partie du même dépôt. La plupart des artefacts se conservent en bon état, ce qui permet de déceler sans problème les stigmates d'aménagement et les traces d'utilisation. Le lot est hétérogène comme provenance par sexes et par bilatéralité. On a constaté que les pièces anatomiques ont une morphologie très variable; il n'y a pas de cas de provenance du même individu ce qui est l'indice supplémentaire d'une accumulation en temps (probablement à travers plusieurs générations) ou plus probablement comme résultat des échanges. À cette occasion, il faut souligner une fois de plus qu'il s'agit d'un des plus beaux objets de cette sorte connus jusqu'à maintenant sur le territoire de la Roumanie.

Suite à un examen exhaustif, à l'œil nu et à la loupe binoculaire on a pu constater la présence de 16 pièces anatomiques (canines résiduelles de cerf, indicatifs HBS 1 – 16) et de 2 imitations en os (indicatifs HBS 17 – 18); cette dernière constatation est faite en première dans le contexte de l'analyse du dépôt au fil des années. Les objets ont une belle patine uniforme bénigne verte due au contact avec les artefacts en cuivre. Quelques canines sont remarquables par leurs dimensions qui dépassent 25 mm.

En ce qui concerne les imitations en os

des canines, on retient la forme approximative, grossière, géométrisée ayant des faces parallèles de la pièce HBS 17, munie d'une perforation double. L'autre imitation (HBS 18) montre l'intention de reproduire au plus proche l'original présente dans l'ensemble de dents percées. La matière première choisie est constituée par les fragments diaphysaires d'os longs de grands herbivores, probablement les bovinés; les métapodes, tibia, radius, fémur et humérus ont une épaisseur de la diaphyse (5-20 mm) qui se prête à l'extraction de fragments de cette sorte. Si sur le débitage on ne dispose pas d'indices préservés (soit aléatoire diffus – percussion directe lancée; soit contrôlé – rainurage, sciage à la ficelle, sciage transversal, etc.), le façonnage a été réalisé par abrasion intense et intégrale probablement sur meule dormante, sans préservation d'aucune trace du support anatomique. Les deux imitations sont, du point de vue morphologique et dimensionnel, très proches des pièces anatomiques.

La longueur des artefacts est comprise entre 16 et 27,7 mm.

La grande majorité des pièces (15 exemplaires) est prévue par un seul dispositif d'attache (perforation placée au niveau du apex ou la partie proximale, pièces HBS 14, HBS 18). Une seule pièce a deux perforations fonctionnelles (HBS 17, imitation en os de la canine), tandis que trois autres ont les dispositifs de suspension réaménagés suite à la fracturation produite au niveau de la perforation initiale (pièces HBS 11, HBS 15 – 16).

Le diamètre des perforations varie entre 3 et 6 mm (externe) et 2,5 et 5 mm (interne); la distance extrémité proximale – perforation est comprise entre 2,5 et 9 mm.

Sur les aspects de la paléotechnologie, les plus expressives sont les dispositifs de suspension constitués par perforations unilatérales ou bilatérales circulaires réalisées après une préparation superficielle des surfaces par abrasion. La solution technique choisie a été la rotation continue rapide (très probablement à l'aide du foret à main ou du foret à archer). Deux objets (HBS 15 et HBS 16) ont été réaménagés après leur fracturation au niveau de la perforation (probablement à la

suite d'un accident technique pendant l'aménagement du trou). La pièce HBS 17 (imitation en os) présente une perforation double élargie contiguë, faite probablement en but de permettre la fixation d'un double lien.

A l'intérieur des trous on observe des stries hélicoïdales spécifiques. Les perforations se placent dans l'axe des pièces ou excentrique (à gauche ou à droite).

Le diamètre des perforations varie entre 3 et 6 mm (externe) et 2,5 et 5 mm (interne); la distance extrémité proximale – perforation est comprise entre 2,5 et 9 mm.

Tenant compte de leur morphologie, les perforations des canines résiduelles et des imitations ont été obtenues par trois procédés: perforation unilatérale, ce qui a déterminé la morphologie tronconique de la perforation (10 cas); perforation bilatérale, ce qui a déterminé la morphologie biconique de la perforation (7 cas); perforation bilatérale, ce qui a déterminé la morphologie cylindrique de la perforation (un cas).

En même temps, il faut préciser qu'il parfois est difficile de déceler d'une manière claire si on a affaire à une perforation bilatérale ou à une perforation unilatérale et l'alésage bilatéral.

Un cas spécial est celui des réparations des artefacts fracturés au niveau du dispositif de suspension (HBS 11, HBS 15 – 16). On constate que cette solution est utilisée uniquement dans le cas des éléments anatomiques, ce qui suggère, une fois de plus, leur grande valeur matérielle et symbolique. Avant que les pièces soient percées de nouveau, leurs extrémités cassées ont été régularisées par abrasion transversale. Il s'agit très probablement de pièces fracturées durant l'opération de perforation ou durant l'utilisation. En ce sens les indices peuvent être constitués par la solution technique choisie pour le réaménagement du trou. On a deux situations distinctes, considérées par nous suggestives au plan paléo-technologique et fonctionnel: perforation secondaire par le même procédé technique (perforation unilatérale ou bilatérale); perforation par un procédé technique différent de celui initial. Ainsi les perforations initiales des pièces

HBS 11 et HBS 15 sont de type unilatéral, tandis que la perforation secondaire est de type bilatéral; on peut conclure hypothétiquement que la réalisation du réaménagement a été effectuée après une période d'utilisation quelconque en choisissant une solution technique différente. Les deux perforations de la pièce HBS 16 sont de type unilatéral, ce qui peut suggérer que la fracturation est intervenu comme accident technique durant la première étape de réalisation de la perforation.

Les traces d'usure sont représentées par: le lustre et l'émoussement de la couronne sur les deux faces ainsi que la présence sur les mêmes surfaces des stries rares de distribution aléatoire; plages d'usure localisées sur les secteurs latéraux des perforations; l'émoussement superficiel des bords des perforations. Au niveau des surfaces autour des perforations on n'a pas constaté de traces susceptibles à être associées avec un éventuel contact fonctionnel avec des perles métalliques ou lithiques. Sur cette base on peut envisager l'hypothèse de la fixation rigide de ces éléments d'enfilage avec ou sans combinaison d'autres objets perforés sur le même lien (perles). En même temps on ne peut pas exclure l'hypothèse de la solution de fixation par lien horizontal des dents et leurs imitations en collier ou sur support textile/en cuir comme éléments cousus.

Comme nous l'avons déjà précisé plus haut, les traces d'usure sont visible au niveau de la perforation de quelques exemplaires: il s'agit de l'émoussement des bords, plus ou moins marqué. Dans le cas des pièces HBS 2, HBS 3, HBS 6, HBS 8 et HBS 18 sur les bords latéraux de la perforation et placées symétriquement on peut observer sur deux faces des petites portions abrasées très probablement par le frottement du lien; ce fait suggère la fixation horizontale par lien simple (éléments cousus sur support textile ou en cuir?) ou double (éléments de collier?).

Izvoare, dép. de Neamț, Roumanie

Dépôt découvert dans le site pendant les fouilles de 1988 menées sous la direction de Silvia Marinescu-Bîlcu, dans l'inventaire du

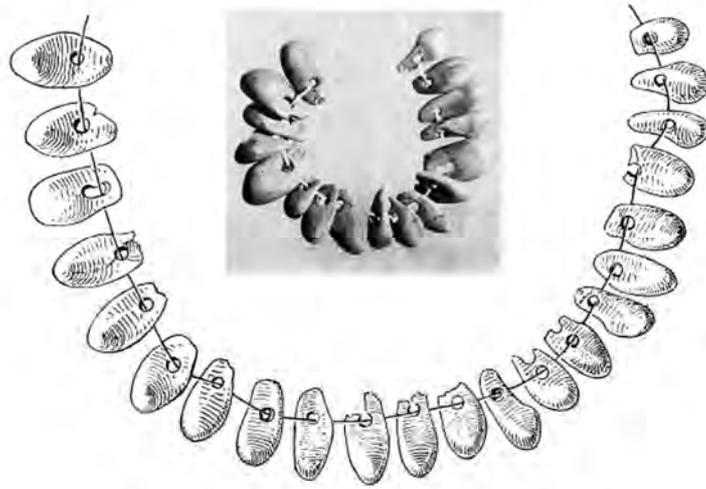


Fig. 9. Hăbășești. Canines résiduelles de cerf et imitations en os. Apud DUMITRESCU 1957, fig. 1/4.

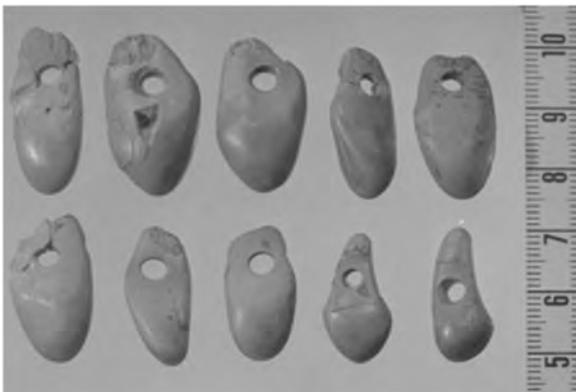


Fig. 10. Hăbășești. Canines résiduelles de cerf.



Fig. 11. Hăbășești. Canines résiduelles de cerf.



Fig. 12. Hăbășești. Imitations en os des canines résiduelles de cerf.

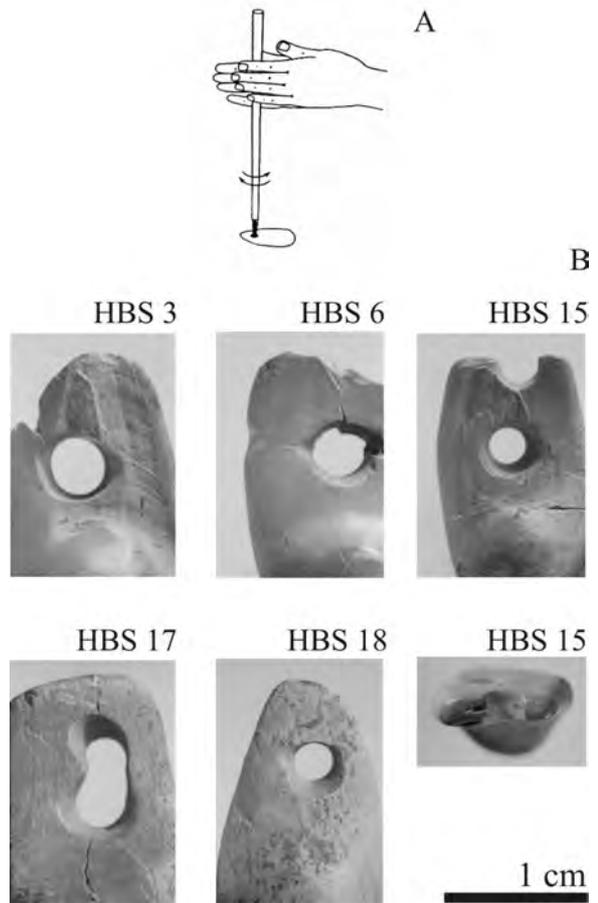


Fig. 13. A. Reconstitution du mode de perforation par rotation à l'aide du foret à main (apud PIEL-DESRUISSEAU 1986); B. Hăbășești. Canines résiduelles de cerf – détails des perforations.

logement de surface no. 9, détruit par incendie, proche du foyer. Les pièces étaient déposées dans un récipient en terre cuite, cassé *in situ* et fortement affecté par l'action du feu, comme la majorité des objets déposés à l'intérieur.

Le dépôt est conservé aujourd'hui dans la collection du Musée National d'Histoire de la Roumanie à Bucarest. Il appartient à la sous phase A2 de la culture Cucuteni (MARINESCU-BÎLCU, CÂRCIUMARU 1992, 355; 1992a, 70).

L'inventaire se compose de: artefacts en matière végétale (environ 8000 semences de *Lithospermum purpureo coeruleum*); artefacts en terre cuite (40 perles); artefacts lithiques (pendeloque rhombique fragmentaire en grès); artefacts en matière dure animale (13 imitations en os des canines résiduelles de cerf munies de perforations à la partie proximale).

Grâce à la grande amabilité de Mme Silvia Marinescu-Bîlcu en mars 1993 on a pu examiner un effectif de 12 imitations en os des canines de cerf. La 13^{ème} pièce a servi à Marin Cârciumaru pour la préparation d'une lame mince en vue d'établir la nature exacte de la matière première en vue de publier la découverte. Marin Cârciumaru nous a fourni la photo de la reconstitution hypothétique du collier; on leur exprime nos très vifs remerciements.

Notre examen a conduit à la conclusion selon laquelle il s'agit des imitations en os des canines résiduelles de cerf (IZV 1 – 12).

Leur état de conservation est acceptable; l'incendie a déformé le récipient en terre cuite et a déterminé la couleur grise intense des pièces en os. Mais les altérations n'empêchent en rien l'étude des traces conservées sur les surfaces des artefacts.

Les imitations des canines ont la longueur comprise entre 23,5 et 28 mm. Elles sont munies exclusivement d'une seule perforation au niveau de la partie proximale. La fabrication a suivi très probablement la "chaîne opératoire" déjà discutée dans le cas des pièces de Brad. Les deux étapes principales de la "chaîne opératoire" ont été décelées cette fois-ci sur la base des observations des traces conservées sur les objets. Il s'agit d'un débitage impliquant: le

détachement des épiphyses par sciage transversal; extraction des baguettes par sciage axial; fragmentation des baguettes par sciage transversal pour l'obtention des ébauches rectangulaires. Le façonnage affecte intégralement ou partiellement les surfaces anatomiques et implique l'abrasion intense sur meule dormante et à l'aide de polissoirs mobiles (galets en grès). Comme nous l'avons déjà précisé, on obtient ainsi des objets très proches de la morphologie



Fig. 14. Izvoare. Reconstitution hypothétique du collier composé par semences de LPC et imitations en os des canines résiduelles de cerf (photographie de Marin Cârciumaru).



Fig. 15. Izvoare. Imitations en os des canines résiduelles de cerf.



Fig. 16. Izvoare. Imitations en os des canines résiduelles de cerf.

des pièces anatomiques (exemple: la pièce IZV 1) et des objets ayant des formes grossières, géométrisées (trapézoïdales) avec les faces parallèles et seulement les bords façonnés.

Les perforations ont été réalisées, sans exception, par rotation rapide à l'aide du foret. Elles ont la forme circulaire en plan et biconique ou conique en profil, à l'intérieur avec des stries hélicoïdales spécifiques. Les perforations sont placées dans l'axe des pièces ou vers un des bords de la partie proximale. On a des pièces avec la perforation unilatérale (conique) (IZV 2, IZV 4) et pièces avec la perforation bilatérale (biconique) (IZV 1, IZV 3, IZV 5 – 12).

Le diamètre des perforations varie entre 3 et 6 mm (externe) et 2,5 et 5 mm (interne); la distance extrémité proximale – perforation est comprise entre 2,5 et 9 mm.

Les traces d'usure sont localisées sur les secteurs latéraux de la circonférence, ce qui correspond à une attache latérale, probablement en utilisant deux liens (éléments de parure cousus?), 8 pièces.

Conclusion

L'intérêt pour l'étude poussée des dépôts d'objets de prestige signalés dans l'aire du complexe culturel Ariuşd-Cucuteni-Tripolye stimule et privilégie en première lieu la démarche détaillée exhaustive des artefacts en matières dures animales présents dans la structure de ce type spectaculaire de découvertes préhistoriques.

Il s'agit généralement de composantes majeurs de ces accumulations comme les objets de parure. Tous ces objets sont particulièrement chargés de significations symboliques, sociales, mais pas moins de nature paléo-technologique – en acception large – qui attendent encore à être explorées intégralement et mises en valeur. L'ouvrage propose en première pour la recherche préhistorique en Roumanie une analyse de l'inventaire en matières dures animales des 6 dépôts découverts sur le territoire de la Roumanie (Ariuşd, Brad, Hăbăşeşti, Izvoare) et de la République de Moldavie (Cărbuna, Chetroşica) et contenant de la parure confectionnée sur dents (canines de cerf, molaires) aussi bien que les imitations en os des canines de cerf. La trame méthodologique prend en considération les approches internationales récentes d'extraction française. La plupart des artefacts se trouvent en bon état de conservation, ce qui permet de déceler sans problème les stigmates d'aménagement et les traces d'utilisation. Les lots sont hétérogènes comme provenance par sexes et par bilatéralité. On a constaté que les pièces anatomiques ont une morphologie très variable; il n'y a pas de cas de provenance du même individu ce qui est un indice supplémentaire d'une accumulation en temps (probablement à travers plusieurs générations) ou plus probablement comme résultat des échanges. À cette occasion il faut souligner une fois de plus que les pièces de Hăbăşeşti sont unes des plus belles objets de cette sorte connus jusqu'à maintenant sur le territoire de la Roumanie. Suite à un examen exhaustif, à l'œil nu, à la loupe et à la binoculaire on a pu déceler d'une manière définitive les pièces anatomiques et les imitations en os des dépôts examinés (Brad, Hăbăşeşti, Izvoare). Quelques canines sont remarquables par leurs dimensions qui dépassent parfois 25 mm. En ce qui concerne les imitations en os des canines on retient la forme approximative, grossière, géométrisée ayant des faces parallèles des pièces, munie d'une perforation simple ou rarement double. Autres imitations montrent l'intention de reproduire au plus proche les modèles anatomiques présents dans l'ensemble de

dents percées. La matière première choisie est constituée par les fragments diaphysaires d'os longs de grands herbivores, probablement les bovinés; les métapodes, tibia, radius, fémur et humérus ont une épaisseur de la diaphyse (5-20 mm) qui se prête à l'extraction de fragments de cette sorte. Si sur le débitage on ne dispose pas d'indices préservés (soit aléatoire diffus – percussion directe lancée; soit contrôlé – rainurage, sciage à la ficelle, sciage transversal etc.), le façonnage a été réalisé par abrasion intense et intégrale probablement sur meule dormante, sans préservation d'aucune trace du support anatomique. La longueur des artefacts est comprise entre 16 et 27,7 mm. La grande majorité des pièces a un seul dispositif d'attache (perforation placée au niveau du apex ou de la partie proximale). Les pièces ne manquent pas dont les dispositifs de suspension ont été réaménagés suite à la fracturation produite au niveau de la perforation initiale. Sur l'aspect de la paléotechnologie, les plus expressives sont donc les dispositifs de suspension constitués par perforations unilatérales ou bilatérales circulaires réalisées après une préparation superficielle des surfaces par abrasion. Les perforations ont une section de morphologie conique, biconique ou cylindrique. La solution technique de réalisation choisie a été la rotation continue rapide (très probablement à l'aide du foret à main ou du foret à archer). A l'intérieur des trous on observe souvent des stries hélicoïdales spécifiques. Les perforations se placent dans l'axe des pièces ou excentrique (à gauche ou à droite). Le diamètre des perforations varie entre 3 et 6 mm (externe) et 2,5 et 5 mm (interne); la distance extrémité proximale – perforation est comprise entre 2,5 et 9 mm. En même temps il faut préciser qu'il est parfois difficile de déceler d'une manière claire si on a affaire avec une perforation bilatérale ou avec une perforation unilatérale et l'alésage bilatéral. Les traces d'usure sont représentées par: le lustre et l'émoussement de la couronne sur les deux faces ainsi que la présence sur les mêmes surfaces des stries rares de distribution aléatoire; plages d'usure localisées sur les secteurs latéraux

des perforations; l'émoussement superficiel des bords des perforations. Au niveau des surfaces autour des perforations on n'a pas constaté des traces susceptibles à être associées avec un éventuel contact fonctionnel avec des perles métalliques ou lithiques. Sur cette base on peut envisager l'hypothèse de la fixation rigide de ces éléments d'enfilage avec ou sans combinaison d'autres objets perforés sur le même lien (perles). En même temps on ne peut pas exclure l'hypothèse de la solution de fixation par lien horizontal des dents et leurs imitations en collier ou sur support textile/en cuir comme éléments cousus.

La démarche présente peut constituer un nécessaire repère pour l'étude comparative des éléments de parure en matières dures animales des dépôts attribués au complexe culturel Ariuşd-Cucuteni-Tripolye.

Bibliographie

- BARGE-MAHIEU Hélène *et alii*
 1991 *Fiches typologiques de l'industrie osseuse préhistorique. Cahier IV. Objets de parure*, UISPP, Commission de nomenclature sur l'industrie de l'os préhistorique (responsable H. Camps-Fabrer), Aix-en-Provence.
- BELDIMAN Corneliu
 1993 *Les dents percées dans le Paléolithique et le Néolithique de la Roumanie. Approche technologique*, in vol.: *Industries sur matières dures animales. Evolution technologique et culturelle durant les temps préhistoriques, Colloque international (Pré-Actes)* (éds.: H. Camps-Fabrer *et alii*), Treignes/Oignies-en-Thiérache, p. 46.
- 1999 *Industria materiilor dure animale în paleoliticul superior, epipaleolitic, mezolitic și neoliticul timpuriu pe teritoriul României*, these de doctorat, București.
- 2004 *Parures préhistoriques de Roumanie: dents percées paléolithiques et épipaléolithiques*, MemAnt, XXIII, p. 69-102.
- 2004a *Industria preistorică a materiilor dure animale din Peștera Cauce*, in vol.: S. A. Luca, Cr. Roman, Dr. Diaconescu, *Cercetări arheologice în Peștera Cauce*

- (I) (sat Cerișor, com. Lelese, jud. Hunedoara), BS IV, Sibiu, p. 75-79.
- 2005 *Parures paléolithiques et épipaléolithiques de Roumanie (25 000-10 000 BP): typologie et technologie*, in vol.: *Table Ronde sur le Paléolithique supérieur récent. Industrie osseuse et parures du Solutréen au Magdalénien en Europe, Angoulême (Charente, France), 28-30 mars 2003* (éd.: V. Dujardin), Paris, p. 39-71.
- 2007 *Industria materiilor dure animale în preistoria României. Resurse naturale, comunități umane și tehnologie din paleoliticul superior până în neoliticul timpuriu*, București.
- BELDIMAN Corneliu, SZTANCS Diana-Maria
- 2005 *Industria preistorică a materiilor dure animale din Peștera Cauce*, in vol.: S. A. Luca et alii, *Cercetări arheologice în Peștera Cauce (II) (sat Cerișor, com. Lelese, jud. Hunedoara)*, BS V, Sibiu, p. 155-254.
- 2005a *Les objets de parure en matières dures animales de la culture Cucuteni: le dépôt de Hăbășești, dép. de Iași*, in vol.: *Cucuteni - 120 ans de recherches. Le temps du bilan* (éds.: Gh. Dumitroaia et alii), Piatra-Neamț, p. 107-115.
- 2005b *Technology of perforation in the Prehistory of Romania: animal teeth ornaments and their imitations*, in vol.: *International Congress "Prehistoric Technology" 40 years later: Functional studies and the Russian legacy*, Museo Civico di Storia Naturale di Verona, Università degli Studi di Verona, Verona, 20-23 April 2005, Abstracts, p. 99-101.
- 2007 *Depozitele de obiecte de prestigiu aparținând culturii Cucuteni. Studiul artefactelor din materii dure animale*, Materiale S.N., 2 (2000-2006), p. 33-74.
- CAMPS-FABRER Henriette (éd.)
- 1998 *Fiches typologiques de l'industrie osseuse préhistorique. Cahiers I-VIII, 1988-1998*, Aix-en-Provence, Treignes.
- CHOYKE Alice M.
- 2001 *Late Neolithic red canine beads and their imitations*, in vol.: *Crafting Bone: Skeletal Technologies through Time and Space. Proceedings of the 2nd meeting of the (ICAZ) Worked Bone Research Group, Budapest, 31 August-5 September 1999* (eds.: A. M. Choyke, L. Bartosiewicz), BAR-International Series 937, Oxford, p. 251-266.
- D'ERRICO Francesco, VANHAEREN Marian
- 2002 *Criteria for identifying red deer (Cervus elaphus) age and sex from their canines. Application to the study of Upper Paleolithic and Mesolithic ornaments*, JAS, 29, p. 211-232.
- DERGACEV Valentin A.
- 1998 *Karbunskij klad. Carbuna Deposit*, Kișinev.
- DUMITRESCU Vladimir
- 1957 *Le dépôt d'objets de parure de Hăbășești et le problème des rapports entre les tribus de la civilisation de Cucuteni et les tribus des steppes pontiques*, Dacia N.S., I, p. 73-85.
- 1963 *Originea și evoluția culturii Cucuteni-Tripolie (I)*, SCIV, XIV, 1, p. 51-74.
- 1967 *Hăbășești. Satul neolitic de pe Holm*, București.
- DUMITRESCU Vladimir et alii
- 1954 *Hăbășești. Monografie arheologică*, București.
- LÁSZLÓ Ferencz
- 1911 *Háromszék vármegyei praemykenaei jellegű telepek*, Dolgozatok, II, p. 12-85.
- MARINESCU-BÎLCU Silvia, CÂRCIUMARU Marin
- 1992 *Coliere de Lithospermum purpureo-coeruleum și „perle” de cerb în eneoliticul din România în contextul centrului și sud-estului Europei*, SCIVA, 43, 4, p. 355-370.
- 1992a *Colliers de Lithospermum purpureo-coeruleum et de „perles” de cerf dans l'Énéolithique de Roumanie dans le contexte Central- et Sud-Est européen*, PE, 2, p. 70-88.
- MONAH Dan
- 2003 *Quelques réflexions sur les trésors de la culture Cucuteni*, SAA, IX, p. 129-140.
- PIEL-DESRUISSEAU Jean-Louis
- 1986 *Outils préhistoriques. Forme, fabrication, utilisation*, Paris.
- SERGHEEV G. P.
- 1963 *Rannetripol'skij klad u s. Karbuna*, SA, 1, p. 135-151.
- SZTANCS Diana-Maria, BELDIMAN Corneliu
- 2005 *L'industrie des matières dures animales dans le site appartenant à la culture Cucuteni de Mărgineni, dép. de Bacău, Roumanie*, in vol.: *Cucuteni - 120 ans de recherches. Le temps du bilan* (éds.: Gh. Dumitroaia et alii), Piatra-Neamț, p. 285-292.

SZTÁNCSUJ Sándor J.

2005 *The Early Copper Age Hoard from Ariuşd (Erősd)*, in vol.: *Cucuteni - 120 ans de recherches. Le temps du bilan*, (éds.: Gh. Dumitroaia et alii), Piatra-Neamţ, p. 85-106.

URSACHI Vasile

1991 *Le dépôt d'objets de parure énéolithique de Brad, comm. Negri, dép. de Bacău,*

in vol.: *Le Paléolithique et le Néolithique de la Roumanie en contexte européen* (éds.: Vasile Chirica, Dan Monah), BAI IV, Iaşi, p. 335-386.

1992 *Depozitul de obiecte de podoabă eneolitice de la Brad, com. Negri, jud. Bacău*, Carpica, 23/2, p. 51-104.

ANIMAL HUSBANDRY IN THE CUCUTENI A SETTLEMENTS

LUMINIȚA BEJENARU^{*}, ROMEO CAVALERIU^{**}

Keywords: *Cucuteni A, Animal Husbandry, Archaeozoology.*

Cuvinte cheie: *Cucuteni A, creșterea animalelor, arheozoologie.*

Abstract. *Domestic mammal remains discovered in the Cucuteni A sites in Romania are described in terms of their frequency, based on the number of identified specimens, in terms of morphology and size of the animals they resulted from. The studied species are cattle, sheep, goat, pig and dog. The study will mainly focus on subsistence featured as reflected by archaeozoological analyses.*

Rezumat. *Resturile de animale domestice descoperite în așezările fazei A a culturii Cucuteni din România sunt descrise prin frecvența lor, prin morfologia și mărimea animalelor de la care provin. Speciile studiate sunt bovina domestică, oaia, capra, porcul și câinele. Studiul se axează pe caracteristici de subsistență rezultate din analizele arheozoologice.*

1. Introduction

Archaeozoological studies concerning the Cucuteni A settlements addressed questions mainly related to subsistence practices such as animals consumed in each site, the proportion of wild and domestic fauna, and animal use. Through morphological and statistical studies, they also emphasised some aspects of the animal microevolution.

The studied bone samples of Cucuteni A settlements are the remains resulted mainly from butchered and eaten animals. Many archaeological sites yielded suitable fauna, and the assemblages that have been studied are as follows: Cucuteni (HAIMOVICI 1969, 317-319), Trușești (HAIMOVICI 1999, 679-682), Dumești (HAIMOVICI 1989, 83-89), Târpești (NECRASOV, ȘTIRBU 1981, 174-181), Drăgușeni (BOLOMEY, EL SUSI 2000, 159-177), Bălțați (HAIMOVICI 1997, 31-37), Preutești-Haltă (HAIMOVICI 2003, 95-105), Hoisești (CAVALERIU, BEJENARU, BODI 2006, 269-272),

Fetești (CAVALERIU, BEJENARU 2007, 303-306), Poduri - Dealul Ghindaru (CAVALERIU, BEJENARU, HUISMAN 2008).

We have to mention some limitations to this study that concern certain variables. Some of the samples do not display significantly comparable frequencies, due to their small size, like Cucuteni, Dumești, Bălțați, Preutești-Haltă, Fetești. The Cucuteni A settlements usually yield fragmented bones that are analysed with difficulty. The animal remains were recovered only "by hand", without sieving of the sediment, which may have caused a loss of certain small pieces.

Chronologically, the settlements are dated to a long time span: 4665-4690 CAL B.C. for Cucuteni A1 level on Poduri-Dealul Ghindaru site (MONAH *et alii* 2003, 36), and 4250-3785 CAL B.C. for Cucuteni A4 level on Drăgușeni-Ostrov site (BEM 2001, 25-121). The settlements are located in different geographic subunits, on the Moldavian Plateau: most of them are in the Moldavian Plain; Fetești site is in Suceava Plateau and Poduri-Dealul Ghindaru in the Moldavian sub-Carpathians (Fig. 1).

* "Alexandru Ioan Cuza" University of Iași, e-mail: lumib@uaic.ro

** "Alexandru Ioan Cuza" University of Iași, e-mail: cavaleriur@yahoo.com

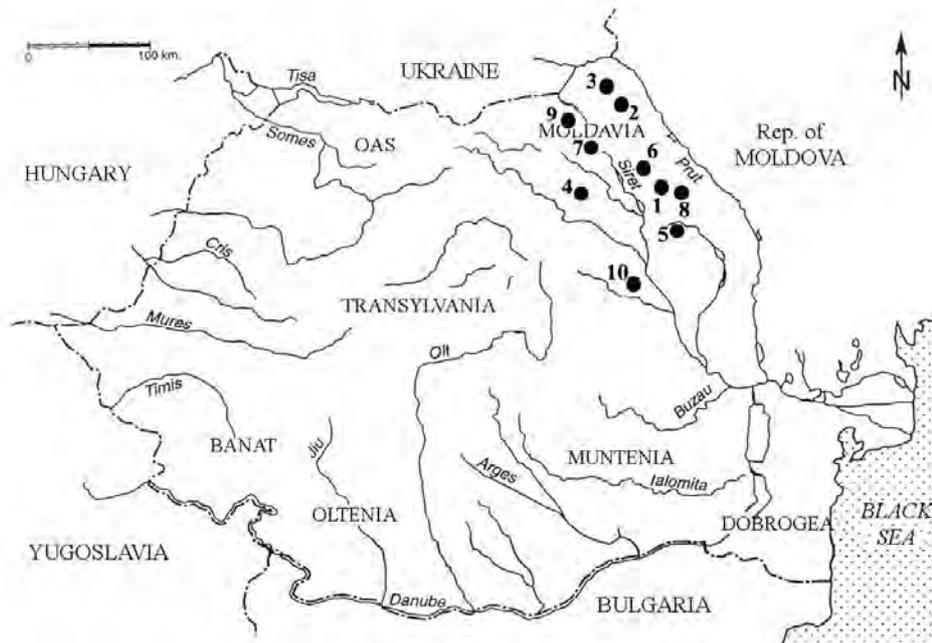


Fig. 1. Map showing the Cucuteni A sites that have been archaeozoologically analysed. 1: Hoisești; 2: Trușești; 3: Drăgușeni; 4: Târpești; 5: Dumești; 6: Cucuteni; 7: Preutești-Haltă; 8: Bălțați; 9: Fetești; 10: Poduri-Dealul Ghindaru.

2. Assemblage variability

Among the animal resources, domestic mammals show a relatively high frequency.

Animal husbandry was an important subsistence activity in the Cucuteni A settlements, but wild mammal remains are also present, even in big amounts on certain sites. As Table 1 shows, the percentages of domestic mammals and wild mammals vary from one site to another. The percentages of domestic mammals range between 44.74% at Trușești and 90.75% at Dumești. The differences from one site to another, as shown by the data, may be related to different adaptations to the local environment. It is possible that the open plains were more favourable to animal husbandry due to its lower (lands) vegetation and drier climate, in comparison to more forested regions.

The domestic mammals identified in the Cucuteni A settlements, as well as their frequency based on NISP (number of identified specimens), are shown in Table 1. They consist of cattle (*Bos taurus*), pig (*Sus domesticus*), sheep (*Ovis aries*), goat

(*Capra hircus*), and dog (*Canis familiaris*). Cattle dominate in eight assemblages with an average of about 45%. In Hoisești and Fetești samples, the average value of pig increases, reaching about 27%, while cattle and sheep/goat are on the second place with close percentages. The more humid environment, mainly determined by large forested areas, was probably not favourable to cattle and sheep/goat, but was propitious for pig. In five assemblages pig comes on the second place (17.7%), while sheep/goat on the third (10.9%). In other three samples the relationship between pig and sheep/goat is inverted, having average of 9.5%, respectively 15.8%.

The remains of dog are generally less frequent (Table 1), and its relative frequencies also differ between sites. The percentages have a minimal value of 0.64% at Cucuteni and a maximal value of 3.88% at Fetești (but, both assemblages are too small). The average value for dog frequency is 1.7%. As for the use of this species for food, the presence of burnt and butchered cranial bones in Drăgușeni assemblage indicate this possibility, especially as ritual practice (BOLOMEY, EL SUSI 2000, 159-177). The brain

seems to have been a “favourite delicacy” for prehistoric people, in Neolithic, according to Bökönyi (BÖKÖNYI 1974, 320), that mentions “..., for Neolithic and Bronze Age dog skulls have often been found whose brain case was opened with a cut along the medial plane or, by cutting off the *os occipitale*; sometimes holes were made on the side of the skull so that the brain could be removed”. However, the low percentage of dog remains in the Cucuteni A assemblages shows that, even if the species was eaten, this happened only occasionally, the dog being primarily used for hunting, companionship, to tend flocks and to guard dwellings.

3. Morphometrical characteristics

Cattle (*Bos taurus*). The morphological characteristics of the few cranium fragments available show the presence in the Drăgușeni site of a relatively high degree of robustness, considering the dimensions of the horn cores. The three specimens identified as adult males have the maximal length in average of about 209 mm. That typology is marked by the sexual dimorphism and even castration.

The values of the withers height estimated on the basis of the metapodials are isolated. In the Drăgușeni assemblage only two female sizes were estimated: 118 cm (using metacarpus, Matolcsi index) and 120.9 cm (using metatarsus, Matolcsi index). A metacarpus, identified as aurochs (BOLOMEY, EL SUSI 2000, 159-177), represents in our opinion a male, probably castrated; the withers height estimated is about 135 cm (Matolcsi index). We have to consider the quite significant difference between the sizes of female and male cattle, suggested by different authors (BĂLĂȘESCU, RADU 2004, 156).

Pig (*Sus domesticus*). A high fragmentation of the pig remains make morphological analyse difficult. The measurements taken on dentition and post-cephalic bones show a great dimensional variability (CAVALERIU, BEJENARU, HUISMAN 2008) as consequence of the precarious conditions of husbandry but also of the interbreeding between the domestic and

wild populations. For example, three coxal bones have the antero-posterior diameter with values of 29-32 mm and an average of 31 mm, which are similar to the values found at Drăgușeni, of 28-35 mm and an average of 31.6 mm (BOLOMEY, EL SUSI 2000, 159-177), and to those from Dumești, of 30-34 mm and an average of 32.75 mm (HAIMOVICI 1989, 83-89).

Sheep/Goat (*Ovis aries/Capra hircus*).

The two species are similar in many aspects of the skeleton. For this reason and because of the high fragmentation, many remains have been included within the sheep/goat group. We have to mention that both sheep and goat were separately identified in only three Cucuteni A settlements (Table 1). In two assemblages (Hoisești and Poduri-Dealul Ghindaru), sheep are more numerous than goat, but in Drăgușeni sample goats are dominant in group. The cranium remains were fragmentary, but in the Drăgușeni assemblage have there been described twelve horn cores: two of male sheep, and thirteen of goat. Certain horn cores (one of sheep and minimum two of goat) are described to be very robust, representing certainly males. There are not hornless sheep females identified in the Cucuteni A settlements. The earliest hornless seem to have emerged around 7500 B.C. in South West Asia and spread into South East and Central Europe in the middle Neolithic. The analyses in Hungary show that the earliest hornless sheep was found in Southern Hungary around 5000 B.C. (BÖKÖNYI 1974, 160).

The sheep wither height has been estimated using certain whole bones and the Teichert indexes. In the Hoisești and Fetești assemblages, the following values have been estimated: 59 cm and 51 cm (astragal), 76.3 cm and 78.6 cm (calcaneus) and 53 cm (radius). The values of the averages obtained for Drăgușeni are of 58.5 cm (radius), and 57.5 cm (metatarsus) (BOLOMEY, EL SUSI 2000, 159-177). The dimensional variability of sheep is wide, with limits of 51.5 and 62.2 cm; the general average is 56.6 cm. We consider that the two sizes estimated on calcaneus are over-evaluated and for this reason they were excluded from the statistical calculation. This problem was also identified by other authors (BĂLĂȘESCU, RADU 2004, 137).

Concerning the goat size, three wither heights have been estimated (Schramm index) only in the Drăgușeni sample, the values being 61.7-61.5 cm (radius), and 62.1cm (metacarpus).

Dog (*Canis familiaris*). The number of complete bones is extremely low. The basal length of the cranium calculated with the Dahr coefficient shows the presence in the Hoisești sample of two submedium sizes of dog corresponding to a basal length of 130 mm, respectively 144.5 mm.

4. Conclusions

Animal husbandry was an important way of subsistence in the Cucuteni A communities. The domestic animals raised by the Cucutenian people were cattle, pigs, sheep, goat and dogs. The frequencies obtained for each species vary from one site to another, mainly due to local environmental factors. Cattle were generally the most frequent species, and dog remains have low representation among the domestic fauna. Cattle and pigs were probably better adapted to the environment and more likely to be found because of the presence of their wild ancestors in the area. Generally, the main domestic animals were of small or medium size, primitive, probably of low productivity rates.

Bibliography

- BĂLĂȘESCU Adrian, RADU Valentin
2004 *Omul și animalele. Strategii și resurse la comunitățile Hamangia și Boian, Târgoviște.*
- BEM Cătălin
2001 *Noi propuneri pentru schița cronologică a eneoliticului românesc, Pontica*, 33-34, p. 25-121.
- BÖKÖNYI Sándor
1974 *History of domestic mammals in Central and Eastern Europe*, Budapest.
- BOLOMEY Alexandra, EL SUSI Georgeta
2000 *The Animals*, in vol.: Silvia Marinescu-Bîlcu, Alexandra Bolomey, *Drăgușeni. A Cucutenian Community*, București-Tübingen, p. 159-177.
- CAVALERIU Romeo, BEJENARU Luminița
2007 *Archaeozoological Note Concerning the Archaeological Complex from Fetești, Suceava County*, AȘUI-Biologie animală, LIII, p. 303-306.
- CAVALERIU Romeo, BEJENARU Luminița, BODI George
2006 *Archaeozoological Inventory of the Faunal Remains Discovered in the Calcolithic Cucuteni A Culture Site from Hoisești (Iași County, Romania)*, AȘUI-Biologie animală, LII, p. 269-272.
- CAVALERIU Romeo, BEJENARU Luminița, HUISMAN Naomi
2008 *Archaeozoological Note Concerning the Cucuteni A Cultural Level on the Poduri-Dealul Ghindaru Site (Bacău County)*, AȘUI-Biologie animală, LIV, in press.
- HAIMOVICI Sergiu
1969 *Studiul preliminar al resturilor de faună descoperite în săpăturile din 1961 în stațiunea neolitică de la Cucuteni-Băiceni*, ArhMold, VI, p. 317-319.
- 1989 *Studiul materialului paleofaunistic găsit în groapa nr. 7 din așezarea cucuteniană de la Dumești, județul Vaslui*, AMM, IX–XI (1987-1989), p. 83-89.
- 1997 *Observațiuni cu privire la resturile animaliere descoperite în stațiunea cucuteniană din faza A₄ de la Bălțați (județul Iași)*, CI, 16, p. 31-37.
- 1999 *Studiul arheozoologic al materialului din așezarea Cucuteni A de la Trușești-Țuguieța*, in vol.: Mircea Petrescu-Dîmbovița, Marilena Florescu, Adrian C. Florescu, *Trușești. Monografie arheologică*, București-Iași, p. 679-682.
- 2003 *Analiza materialului arheozoologic*, in vol.: Nicolae Ursulescu, Sorin Ignătescu, *Preutești-Haltă. O așezare cucuteniană pe Valea Șomuzului Mare*, Iași, p. 95-105.
- MONAH Dan et alii
2003 *Poduri-Dealul Ghindaru. O Troie în Subcarpații Moldovei*, BMA XIII, Piatra-Neamț.
- NECRASOV Olga, ȘTIRBU Maria
1981 *The chalcolithic paleofauna from the settlement of Tîrpești*, in vol.: Silvia Marinescu-Bîlcu, *Tîrpești. From Prehistory to History in Eastern Romania*, BAR-International Series 107, Oxford, p. 174-181.

Table 1. Relative importance of domestic mammal species.

Site	Cucuteni		Trușești		Dumești		Tîrpești		Drăgușeni		Bălțați		Preutești Hală		Hoisești		Fetești		Poduri	
	NISP	%	NISP	%	NISP	%	NISP	%	NISP	%	NISP	%	NISP	%	NISP	%	NISP	%	NISP	%
Total identified mammals	155		389		119		1505		2572		99		86		1557		103		898	
Wild mammals	36	23.22	215	55.20	11	9.25	158	10.50	823	32	19	19.20	25	29.07	636	40.85	24	23.30	104	11.58
Domestic mammals	119	76.78	144	44.74	108	90.75	1347	89.50	1749	68	80	80.80	61	70.93	921	59.15	79	76.70	794	88.42
<i>Bos taurus</i>	92	58.59	69	17.17	47	39.49	1034	68.70	1225	47.63	42	42.42	25	29.06	222	14.25	24	23.30	515	57.34
<i>Sus domesticus</i>	6	3.82	53	13.18	220	14.61	220	14.61	288	11.2	24	24.24	22	25.58	451	28.96	26	25.24	91	10.13
<i>Ovis aries</i>	-	-	-	-	-	-	-	-	38	1.47	-	-	-	-	12	0.77	-	-	16	1.78
<i>Capra hircus</i>	-	-	-	-	-	-	-	-	42	1.63	-	-	-	-	6	0.38	-	-	8	0.89
<i>Ovis aries/ Capra hircus</i>	20	12.73	49	12.18	19	15.96	74	4.91	133	5.17	13	13.13	14	16.28	204	13.10	25	24.27	144	16.03
<i>Canis familiaris</i>	1	0.64	3	0.75	4	3.36	19	1.26	23	0.89	1	1.01	-	-	26	1.67	4	3.88	20	2.22

THE ARIUȘD AND THE CUCUTENI CULTURES. A COMPARATIVE EVALUATION OF THE ARCHAEOZOOLOGY CHARACTERISTICS

SERGIU HAIMOVICI*

Keywords: *Cucuteni, Ariușd, Archaeozoology, comparison.*

Cuvinte cheie: *Cucuteni, Ariușd, arheozoologie, comparație.*

Abstract. *Within the present paper, the author analytically compares the archaeozoological finds from Ariușd and Cucuteni cultural environments, concluding that identified mammal species have the same morphological characteristics.*

Rezumat. *În prezentul articol, autorul realizează o analiză comparativă între descoperirile arheozoologice din mediile culturale Cucuteni și Ariușd, ajungând la concluzia că speciile de mamifere descoperite au avut aceleași caracteristici morfologice.*

The current opinion on the so-called Ariușd cultural group is that it is a component of the Cucuteni-Ariușd-Tripolye cultural complex (URSULESCU 2002, 141), also known as the Carpathian-Dnieprovia complex. From the geographical point of view, the Ariușd cultural group inhabits the westernmost territory of the great Cultural complex, in the South-East Transylvania, i.e. beyond the southern arm of the Eastern Carpathians, in the highlands between these mountains and the volcanic chain. The whole area is drained by the Upper Olt, with its tributaries and, to a lesser extent, by the Upper Mureș, having a most special climate. If the Cucuteni civilization descends from the Pre-Cucuteni culture, which was also spread westward, into Transylvania (MARINESCU-BÎLCU 1974, 213) the Ariușd cultural group inherits, among others, one of the Transylvanian cultures with painted pottery, called Petrești.

During the 20th century, ample archaeological excavations in the Ariușd settlement started as early as the first

decade, even before Hubert Schimdt started his own systematic excavation of the Cucuteni site (A. LÁSZLÓ 1987, 49-57). The scholar responsible for these first excavations on the Ariușd settlement was the archaeologist Francisc László, who then reported his finds (Fr. LÁSZLÓ 1914, 279-417). The research continued under his supervision also after the First World War, when the site was visited by the famous British archaeologist Sir Vere Gordon Childe. Unfortunately, László died before reaching his scientific maturity (1925) and the excavations stopped. It is worth mentioning that he also carried out interdisciplinary studies, with noteworthy results. In this regard, it was now demonstrated that the gold artefacts found in the settlement of Ariușd were made of imported metal and not from one of local origin. It is then fully justifiable that this particular Transylvanian cultural group was named after the Ariușd settlement, and that was then attached to the Cucuteni civilization proper.

If one can admit that the Romanian archaeology was somehow well regarded at the beginning of the 20th century, for the archaeozoology the case is quite the opposite. The discussed area, i.e. the south-

* "Alexandru Ioan Cuza" University of Iași,
e-mail: sergiuhaimovici@yahoo.com

eastern Transylvania, reveals only scarce archeozoological data for the beginning of the 20th century, o specially considerations on the importance of the hunt for the Neolithic populations and on the domestication of the dog. In the same period, the Moldavian regions benefits from a small table with the animal species found on the site of Bodești-*Frumușica* (BOTEZ, NECRASOV 1946, 42-43), as an Annex to the well-known monograph of this particular settlement of the Cucuteni civilization.

The scientific and complex archaeozoology papers and reports begin to appear in Romania as late as 1950, mostly issued by the specialists of the Animal Morphology Laboratory within the "Al. I. Cuza" University of Iași. In the course of the second half of the 20th century, the specialists of the Iasi and Bucharest laboratories issued over 300 scientific titles in the field of archaeozoology, filling in the "white spot" on this field of the Prehistory of Romania. As a consequence, one of these scientists was able to publish a synthetic work regarding the archaeozoology of the Ariușd-Cucuteni civilization, in its most comprehensive form (HAIMOVICI 2007).

If the Moldavian sites of the Cucuteni civilization issued several tens of scientific papers regarding the archaeofauna, the finds pertaining to the Ariușd cultural group were given due attention only during the last three decades, through the study of the faunal remains of two sites, Malnaș-Băi and Turia, located both north of the eponymous settlement, still within the confines of the Upper Olt Valley.

The present paper will treat in a more general manner the archaeozoology of the faunal remains found within the two abovementioned Ariușd sites and compare them with similar finds from several settlements of the phase A of the Cucuteni civilization from Moldavia, corresponding culturally to the ones of the S-E Transylvania

The settlement of Malnaș-Băi is located in the north of Covasna County, at an altitude of 556 m, on a hilltop overlooking the confluence of the Olt River with its tributary the Samoș Rivulet, 20-25 m uphill from the latter's riverbed, and outlined by the Baraolt Mountains (to the west) and the

Bodoc Mountains (to the east). From the geological point of the view, the region consists in a thin layer of Pleistocene strata over the Cretaceous foundation, covered all by a group of brown, sub-fossil soils. The current vegetal population consists in mixed beech and hornbeam forests with softwoods insertions (a different type of forest than the prehistoric ecosystem, due to the cooling of the climate), accompanied on places by river-meadow vegetation.

16 years ago, the archaeologist Attila László offered for our study the faunal finds from the archaeological excavations of Malnaș-Băi. The results of the excavation were reported on the international Congress of Prehistory in Liège, in 1993, and published in the Congress' papers (LÁSZLÓ, HAIMOVICI 1995, 499-528). This work was the first published study on the archaeozoology of the sites of the Ariușd cultural group.

The bone finds pertain to both levels of the settlement (Ariușd I and II), the finds from the first level being more numerous than the ones of the second level. In the course of the research as it become evident that there are no apparent differences as species present between the two levels, the material was unified, for the purpose of the research, in a single lot (lot one).

The number of skeletal fragments studied is roughly 1200, out of which 1102 were determined as species (the remaining, in the form of minute bone fragments, could be posited as mammal remains).

The fragments that were determined could be classified as mollusc (219 pieces, both gastropods and clams, with an overwhelming dominance of the latter) and mammalian remains (883 pieces, from 13 species: five domesticated and eight wild).

At the first sight, one can conclude that the remains (as fragments and individuals) of the wild mammals are more numerous than the ones of the domesticated animals. *Bos taurus*, usually the most represented species in other settlements, it ranks here after the pig and the sheep/goat, with very few specimens, while the deer is the most represented species overall, with 50.28% of the fragments and 37% of the individuals. This uppermost rank of the *Cervus elaphus*, together with the also unusual high ranking

Table 1. Malnaș-Băi. The frequency of the mammalian skeletal remains in the Lot one.

Species	Fragments		Individuals	
	No.	%	No.	%
<i>Sus scrofa domesticus</i>	101	11,45	17	17,00
<i>Ovicaprinae (Capra and Ovis)</i>	108	12,12	15	15,00
<i>Bos taurus</i>	35	3,96	5	5,00
<i>Canis familiaris</i>	5	0,56	3	3,00
<i>Lepus europaeus</i>	1	0,12	1	1,00
<i>Martes martes</i>	3	0,34	1	1,00
<i>Lynx lynx</i>	1	0,12	1	1,00
<i>Canis lupus</i>	1	0,12	1	1,00
<i>Sus scrofa ferus</i>	19	2,16	4	4,00
<i>Cervus elaphus</i>	444	50,28	37	37,00
<i>Capreolus capreolus</i>	164	18,57	14	14,00
<i>Bos primigenius</i>	1	0,12	1	1,00
Domesticated mammals	249	28,17	40	40,00
Wild mammals	634	71,83	60	60,00
Total	883	100	100	100

of the roebuck (*Capreolus capreolus*) in the context of the statistical dominance of the wild animals' skeletal remains indicates that the hunting activities were much more important than the raising of domesticated animals within the economy of the Ariușd settlements. After publishing several studies on the archaeozoology of the Cucuteni A sites we can emphasize the fact that none of the studied settlements shows such a high rate of wild animals remains (mostly deer but roebuck as well). In only two Cucuteni A settlements, Trușești and Traian, the wild animals and the domesticated ones are present in equal proportion. A similar situation occurs also in the settlement of Vrublevezkaya on the Dniestr (Tripolye B, corresponding with Cucuteni A) (BIBICOVA 1953, 411-458).

We believe that the environment of the Malnaș-Băi settlement determined somehow the evolution towards a different kind of animal-utilization economy compared to the Cucuteni A settlements, where the husbandry is dominant. In another paper on this subject, we demonstrated the important role of the natural environment in shaping the animal-utilization economy of the Malnaș settlement (HAIMOVICI 2005, 261-266). We reached already the conclusion that the natural environment influenced decisively the way of life within this settlement, leading

to the emergence and dominance of a hunting-centred economy, without rejecting the husbandry, which was still well developed although secondary as importance.

Recently we were trusted with the study of a lot of faunal remains found during the last archaeological campaigns on the site of Malnaș-Băi (Lot two), offered by Z. Székely (HAIMOVICI 2005a, 89-96), who carried out the excavations. The mollusc category is represented only by gastropod remains (mostly shells of *Helix pomatia*) with no clam shells. It is worth mentioning that this large edible species of wet grassland is represented by 15 of the 19 pieces, found together in a mound, inside a dwelling. The mammalian group is the most numerous, with 159 identified fragments and 22 pieces that were not determined due to their minuteness. The determined fragments pertain to eight species, four domesticated and four wild (see Table 2).

It is immediately obvious that, among the mammals, the deer and the roebuck are represented by more than half of the material. The boar is represented also within this Lot Two by a small number of pieces, while the domesticated animals have a similar frequency as within the Lot One. One can conclude that these results repeat the statistics of Lot One, thus validating our prior affirmation.

Table 2. Malnaş-Băi. The frequency of the mammalian species.

Species	Fragments		Individuals	
	Nr.	%	Nr.	%
<i>Bos Taurus</i>	21	13,21	2	10,53
<i>Ovicaprinae (Ovis and Capra)</i>	18	11,33	2	10,53
<i>Sus scrofa domesticus</i>	12	7,54	2	10,53
<i>Small Carnivore (Martes martes?)</i>	7	4,41	1	5,26
<i>Sus scrofa ferus</i>	2	1,25	1	5,26
<i>Cervus elaphus</i>	76	47,79	8	42,11
<i>Capreolus capreolus</i>	23	14,47	3	15,79
Domesticated mammals	51	32,08	6	31,58
Wild mammals	108	67,92	13	68,42
Total	159	100	19	100

Table 3. Turia. The frequency of the mammalian species.

Species	Fragments		Individuals	
	Nr.	%	Nr.	%
<i>Bos taurus</i>	278	65,42	18	38,30
<i>Ovicaprinae</i>	26	6,12	5	10,64
<i>Sus scrofa domesticus</i>	39	9,17	6	12,76
<i>Canis familiaris</i>	3	0,70	1	2,12
<i>Equus caballus</i>	8	1,89	1	2,12
<i>Castor fiber</i>	1	0,24	1	2,12
<i>Lepus europaeus</i>	1	0,24	1	2,12
<i>Vulpes vulpes</i>	2	0,47	1	2,12
<i>Canis lupus</i>	1	0,24	1	2,12
<i>Sus scrofa ferus</i>	20	4,70	3	6,38
<i>Cervus elaphus</i>	32	7,52	5	10,64
<i>Capreolus capreolus</i>	6	1,41	2	4,25
<i>Bos primigenius</i>	8	1,88	2	4,25
Total	425	100	47	100

Domesticated mammals	376	81,49	30	63,83
<i>Equus caballus</i>	8	1,89	1	2,12
Wild mammals	71	16,71	16	34,05
Total	425	100	47	100

Around the same period we undertook the study of a set of faunal remains, originating in the Ariuşd settlement of Turia (HAIMOVICI 2005b, 97-106), following the excavations carried out Z. Székely.

The village of Turia is located in the eastern part of Covasna County, on the lower reaches of the Bodoc Mountains, which border from the west the *Râul Negru*

Depression (better known as the Depression of Târgu Secuiesc). The village is close to the banks of Turia creek (a tributary of the Black River – *Râul Negru*) – at roughly the same latitude as the Malnaş-Băi settlement. The site is situated at an altitude of slightly below 500 m. The geology of the area consists in Cretaceous limestone covered in the lower parts by newer Quaternary strata. The soils

are mostly brown sub-fossil podzol, which is already transformed in chernozem in several areas. The vegetal population consists mainly in mixed hardwood forests, with secondary meadows and tilled lands.

The faunal remains originate mainly within the cultural layer with several finds from within a well-preserved dwelling, and it presents some special characteristics. The total quantity of faunal remains was 463 bones and bone fragments, all from mammals. A number of 425 pieces were identified as species, with the remaining ones being very small unspecific fragments, showing that the archaeologists were thorough in recovering the finds.

A number of 14 species were identified, out of which five are domesticated and eight are wild animals, while the ninth, *Equus caballus* could not be definitely placed in one of the categories (eight fragments from a single animal, found together inside a dwelling).

It is visible that the frequency of the domesticated species is notably higher than that of the wild ones, with the cattle as the highest represented group. Another interesting feature is the presence of the horse, while the most represented wild mammal is still the deer. The boar and the aurochs are present in slightly higher numbers than on the site of Malnaș-Băi. The possible explanation for this statistical inversion in regard to the figures of Malnaș-Băi could be the less heavily forested environment, result of the slash-and-burn agriculture, and consequently the prime importance of the cultivation in the overall economy of the Turia settlement.

It is worth mentioning that the archaeozoology of the Cucuteni settlements in Moldavia reveal a structure similar to the Turia settlement, with the few exceptions indicated above. East of Carpathians there is no dominant presence of the wild mammals (especially the deer) such as the situation at Malnaș-Băi. We have to remark upon the fact that all the age-groups of both sexes of the deer population were targeted, without any strategy of game preservation (the young as well as the bearing-age females). This is clearly an unusual predatory economic behaviour, which

resulted, probably, in the depletion of game resources and the subsequent famine.

To conclude, the settlement of Malnaș-Băi could be regarded as an exception to the general pattern as outlined by the rest of the Cucuteni and, to a certain extent, Ariușd settlements.

In the following, we shall outline certain characteristics of the osteologic morphology of the mammals found in the archaeozoologic population within the two cultural areas.

We already explained the great importance of the cattle (*Bos taurus*), a common and shared cultural and economical feature throughout the Chalcolithic. It must be said that the cattle are polyvalent.

In what regards the height and the body-size, we must remark upon the fact that the cattle raised by the villagers of the Cucuteni-Ariușd-Tripolye cultural complex are large, close (as shown by certain individual specimens) in size to the now-extinct European wild cattle (the aurochs, *Bos primigenius*), their genetic ancestor. Besides, among the bulls and the cows, the castrated individuals (oxen) are already present as identifiable remains.

The goat/sheep, also polyvalent, are less frequent than the cattle. Both goats and sheep are small breeds, with the former present in slightly larger numbers than the latter. The possibility that this sheep breed could also yield a rough sort of wool is to be considered.

The pig is represented by a small-size breed, much smaller than the modern European wild species, which could be the result of a different wild ancestor.

The horse remains appear sparsely within the settlements, and there is no clear evidence of its degree of domestication. One interesting fact is the highly variable size of the individual animals.

The domestic dog shows low variability in height and body-size, with individuals both small and slightly larger, as well as low frequency within the sets of finds.

The boar specimens are large-bodied, larger and stronger than their modern counterpart, the East-European wild pig (*Sus scrofa Attila*).

The deer has, among the wild mammalian species, the largest represen-

tation. The specimens are taller and larger than the ones collected in western Europe and we believe it to be a different subspecies, which we denominate as *Cervus elaphus romanicus*.

The roebuck specimens are also robust, but of smaller frame than *Capreolus capreolus sibiricus*, which subspecies seems to have restrained its spread east of the Dniester.

The elk (*Alces alces*) is a very rare occurrence within the Cucuteni sites, this region being its south-eastern limit of its European living-zone.

The aurochs specimens show large body-mass, but lighter build than its ancestor of the Pleistocene.

As with regard to the wild carnivores' specimens, the occurrence is rare and the number of identified individuals is small. The most represented species is the bear (*Ursus arctos*), the size of the prehistoric specimens being larger than the modern ones. The fact that its meat could be used for consumption could account for the relatively high number of bear remains. Certain species within the predatory group are completely confined within specific forest biotopes, thus being indicators of the type of natural environment.

Taking into consideration all the data above, we can ascertain that the osteologic morphology characteristics of the mammalian species represented, both wild and domesticated, are undifferentiated between the two cultural areas. Thus, the archaeozoology confirms the consistency of the Cucuteni-Ariușd cultural complex, with the detail of the shorter time-span of the Ariușd aspect.

Bibliography

BIBIKOVA V.I.

- 1953 *Fauna rannetripol'skogo poselenija Luka Vrublevezkaia*, in vol.: *Poselenie Luka Vrublevezkaia*, MIA 38.

BOTEZ I. G., NECRASOV Olga

- 1946 *La faune*, in vol.: *Constantin Matasă, Frumușica, village préhistorique à céramique peinte dans la Moldavie du Nord, Roumanie*, București, p. 42-43.

HAIMOVICI Sergiu

- 2005 *The relation between the Ariușd Culture from Transylvania and Cucuteni Culture from Moldova and Bassarabia printed out the Study of the Archaeozoological Material Discovered in Malnaș-Băi Site*, AȘUI-Biologie animală, LI, p. 262-266.
- 2005a *Caracterizarea arheozoologică a unor resturi faunistice din așezarea de la Malnaș-Băi (cultura Ariușd)*, *Angustia*, 9, p. 89-96.
- 2005b *Studiul resturilor animaliere din așezarea de cultură Ariușd de la Turia, situl Piciorul Bisericii*, *Angustia*, 9, p. 97-106.
- 2007 *Caracterizarea arheozoologică a unor resturi animaliere găsite în așezări din Precucuteni, Ariușd, Cucuteni, din aspectul cultural Stoicani-Aldeni și așezări din eneoliticul final de pe teritoriul estic al României actuale*, *ArhMold*, in press.

LÁSZLÓ Attila, HAIMOVICI Sergiu

- 1995 *Nature et culture en Transylvanie orientale dans l'énéolithique. Contributions archéologiques et archéozoologiques à la connaissance du développement de la civilisation Ariușd-Cucuteni-Tripolie*, in vol.: *Nature et Culture. Actes du Colloque International de Liège 1993*, vol. I, ERAUL 68, Liège, p. 499-528.
- 1987 *Un chapitre de l'histoire de la recherche de la civilisation Ariușd-Cucuteni-Tripolie: les fouilles d'Ariușd dans le premier quart du notre siècle*, in vol.: *La civilisation de Cucuteni en contexte européen* (éds.: Mircea Petrescu-Dîmbovița et alii), BAI I, Iași, p. 49-57.

LÁSZLÓ Ferenc

- 1914 *Ásatások az erősdí őstelepen (1907-1912). I. Közlemény – Fouilles à la station primitive de Erősd (1907-1912). I.*, *Dolgozatok*, V, p. 279-417.

MARINESCU-BÎLCU Silvia

- 1974 *Cultura Precucuteni pe teritoriul României*, București.

URSULESCU Nicolae

- 2002 *Începuturile istoriei pe teritoriul României*, Iași.

OBSERVATIONS ON THE SOURCE AREAS OF RAW MATERIALS USED FOR STONE TOOLS WITHIN THE CONTEXT OF EXCHANGES AMONG THE CUCUTENI COMMUNITIES

OVIDIU COTOI*

Keywords: *Cucuteni communities, stone tools, raw materials, economical exchanges.*

Cuvinte cheie: *comunități Cucuteni, unelte de piatră, materii prime, schimburi comerciale.*

Abstract. *The stone tools and different petrographical varieties used as raw materials circulated within economical exchanges in order to meet the individual or group needs, thus becoming the main indicators of this type of relations between the prehistoric communities. Establishing the source area of the raw materials used to make stone tools plays an important part in the analysis of trades among the prehistoric communities. The author of the present study aims at establishing the source areas of the main rocks used by the Cucuteni communities to make stone tools, but at the same time emphasizes the importance of the secondary source areas that were more accessible and used more frequently. Depending on the geographical position of these primary or secondary sources, the author establishes the general routes of trades among the Cucuteni communities or among them and the neighbouring cultures.*

Rezumat. *Uneltele de piatră și diferitele varietăți petrografice folosite ca materii prime, circulă în cadrul unor schimburi cu un pregnant caracter economic, cu scopul asigurării necesităților individuale sau colective, astfel că acestea devin indicatori de primă mână a acestui tip de relații, ce se stabilesc între comunitățile preistorice. Un aspect important al problematicii schimburilor dintre comunitățile preistorice, în care au fost vehiculate unelte de piatră, îl reprezintă identificarea ariilor-sursă de proveniență a materiilor prime, utilizate la producerea lor. Autorul își propune în studiul de față, să identifice sursele primare ale principalelor roci utilizate de comunitățile cucuteniene pentru producerea uneltelor de piatră, dar în același timp subliniază importanța surselor secundare, mai accesibile și mai frecvent utilizate pentru aprovizionarea cu materiile prime necesare. În funcție de poziția geografică a acestor surse, primare și secundare, autorul stabilește direcțiile generale ale schimburilor ce se desfășoară între comunitățile culturii Cucuteni sau între acestea și cele ale culturilor vecine.*

The tools are goods intended for clear economic purposes. The process of making, getting them and the raw materials are part of the basic activities in the life of the prehistoric communities.

The raw materials and the tools circulate through exchanges in order to meet the individual and group needs but it is difficult, almost impossible sometimes, to state clearly for each particular case if the exchanged goods were end products, prefabs or raw materials. This is why, within

the context of the prehistoric exchanges, tools should be regarded more as indicators than as goods intended for exchange relationships.

On the other hand, stone tools can be considered an indicator of exchanges, mostly based on the raw materials used in correlation with the source areas and only in some cases with the typological criteria. Therefore, this study is meant to present the primary and the secondary source areas of the stone varieties used by the Cucuteni communities to make stone tools and to offer an image of their circulation through exchanges.

* "Dunărea de Jos" University of Galați,
e-mail: ovidiucotoi@gmail.com

I. The Source Areas for the Raw Materials Used for Chipped Stone Tools

The hard stones with high silica content were generally preferred for this type of tools. These can be described as nodular siliceous accidents in limestone due to the diagenesis process (RĂDULESCU, ANASTASIU 1979, 147-149; COTOI, GRASU 2000, 46), with very high content of SiO₂, about 95-96 % of their mass (RĂDULESCU, ANASTASIU 1979, 147-149; COTOI, GRASU 2000, 46) giving them high hardness. As regards their chipping behaviour, silexes present a conchoidal, lamellar or chipped fracture (BOGHIAN 2004, 83; PĂUNESCU 1970, 83) being proper for making chipped tools or weapons.

The Pre-Cucuteni - Cucuteni - Tripolye communities used more varieties of silex to produce stone tools.

The Pruth silex is widely spread within the entire Cucuteni area and comes from the Cenomanian deposits from the north-east of Romania, in the Middle Pruth area, cropping-out at Liveni, Rădăuți-Prut, Ștefănești, Ripiceni, Mitoc (ALBU, GHEORGHIU, POPESCU 1960, 9-23; PĂUNESCU 1970, 83; MUTIHAÇ, IONESI 1974, 34-35; BĂCĂUANU *et alii* 1980, 22; MARINESCU-BÎLCU, CÂRCIUMARU, MURARU 1985, 647-656; MURARU 1987, 193-194; CUCOȘ, MURARU 1985, 605-607; COMȘA 1987, 111; MANTU, ȘTIRBU, BUZGAR 1995, 120; BOGHIAN 1996, 279; FLORESCU 1999, 232; COTOI, GRASU 2000, 46; MURARU 2000, 60; BOGHIAN 2004, 84). The siliceous accidents are oval, round or irregular and their sizes are up to 30 cm (BĂGU, MOCANU 1984, 75; COTOI, GRASU 2000, 46) and even larger¹ allowing the making of medium and more rarely large tools.

This is the primary source for the Pruth silex. However the silex cobbles arrived on the Pruth downstream near Galați town. Not long ago, the inhabitants used this silex to make harrows (BRUDIU, SANDU 1969, 261). Hence when referring to the sources for the Pruth silex we should also take into account the terrace and major river bed gravel of the Pruth river.

The Dniester silex has almost the same Cretacic age as the Pruth silex but the difference is given by the mineralization

¹ We thank for this information to PhD Vasile Chirica.

process that renders it light-grey or milky-white (PĂUNESCU 1970, 84; BOGHIAN 1996, 281; 2004, 84). The deposits are located on the Middle and the Upper Dniester stream (BOGHIAN 1996, 281; FLORESCU 1999, 232). The Cucuteni-Tripolye communities developed a real silex industry around these areas, as shown by the silex processing shops in Komarovo, Cormani, Ojevo, Nezvisko, Polivanov Jar III and II and by the mines with wells and galleries from Studenița (BOGHIAN 2004, 84).

The Bug and the volhâno-podolian silex. The known sources for the Bug silex are the deposits on the lower stream of the Bug while the volhâno-podolian silex comes from the north-west of the Podolic Tableland with deposits at Jitomir and Korobčîn (BOGHIAN 1996, 281; 2004, 84). A smokey variety of this silex with grey or brown stripes circulated on the territories of the Cucuteni communities under the form of prefabs or end products and could be found at Giurgești (Republic of Moldova) (SOROKIN 1991, 134; BOGHIAN 2004, 84) and even at Ariușd (SZTÁNCSUJ 2005, 91, fig. 2). The circulation of the tools made of this silex as shown by the blade from Ariușd in the south-east of Transylvania indicates the silex was highly valued by the members of the Cucutenian communities.

The Balkan silex is a special quality, opaque, yellow-brownish stone. It can be found in more areas in Muntenia, especially in Frățești gravel, on the Danube bank (PĂUNESCU 1970, 84), at the south of Danube, in the pre-Balkan cliff (COMȘA 1987, 111; BOGHIAN 1996, 281; 2004, 84) and in Dobrogea, in the deposits from Medgidia (PĂUNESCU 1970, 85; COMȘA 1987, 111). Besides these varieties of silex with well-known source areas, some authors also mention the so-called central Moldavian silex or Vrancea silex with petrographical characteristics and sources not very well defined. We tend to believe that this term is used for more varieties of jasper-radiolarite from the crystalline-mesozoic formations and the external flysch of the Eastern Carpathians (COTOI, GRASU 2000, 41-45, tab. 4) and even menillite, though the latter one is not adequate for chipping due to its cubic, irregular fracture.

Chipped tools were also made of other types of stones besides silex, the siliceous petrographical varieties such as chaille, spongolite, jasper, radiolarite, glauconitic quartz sandstone (improperly named schists or black Audia schists). Chert, a stratiform siliceous accident (COTOI, GRASU 2000, 36), was found at Drăgușeni (MURARU 2000, 60-61). Blades and grinders made of jasper and basalt were found at Hăbășești (DUMITRESCU *et alii* 1954, 242, 245). It is also possible to have an error of petrographical analysis in the case of basalt.

All mentioned stones have their primary source in the Orogen of the Eastern Carpathians but when we refer to the supplying sources with raw materials used by the Cucuteni communities we should also take into account the secondary sources, namely the gravel carried by the Carpathian rivers crossing these formations. The Pruth silex is by far the most widely spread in the entire Cucuteni area. However the percentage varies highly depending on the position of the settlements in relation to the primary or secondary sources. At Drăgușeni it represents over 87.6% of the tools (MURARU 1987, 195, 197, fig. 1; 2000, 60, 61). At Scânteia, only one of the 289 analysed pieces is made of black Audia schist (in our opinion glauconitic quartz sandstone) the rest being made of silex (MANTU, ȘTIRBU, BUZGAR 1995, 118, tab. 1). The explanation can be found in the positioning of the Scânteia settlement near the source of raw material, the Pruth Valley.

The quantity of silex decreases progressively in the western settlements, therefore at Târpești it represents under 40 % of the lithic tools (MURARU 1987, 194-195, fig. 1; BOGHIAN 1996, 282, fig. 2). In the Cucuteni B settlements, the silex represents 63.55 % at Ghelăiești (CUCOȘ, MURARU 1985, 623, tab. 1), 53.84 % at Hlăpești (CUCOȘ, MURARU 1985, 624, tab. 4; MURARU 1987, 195, fig. 1) and decreases at only 36.91 % at Văleni-Piatra Neamț (CUCOȘ, MURARU 1985, 623, tab. 2; MURARU 1987, 195, fig. 1) and 49 % at Preutești-Haltă (Suceava county) (URSULESCU, IGNĂTESCU 2003, 38). A peculiar situation is at the Cucuteni B2 settlement from Târgu Ocna-Podei where the silex percentage was 93.22 % (MURARU 1987, 194)

but this could be explained by taking into account all varieties of silex in the lithic inventory.

The needs of raw materials for the chipped tools in the settlements from the sub-Carpathian area of Moldavia were met by other petrographic varieties such as the glauconitic quartz sandstone (black Audia schist in older studies), chaille. At Târpești these substitutes of silex represent more than 60% of the total inventory. The glauconitic sandstone is present in large amounts in the settlements from Traian-Dealul Fântânilor, Poduri, Văleni-Piatra Neamț and decreases in number in the eastern settlements such as Scânteia with only one piece. At Drăgușeni there are small amounts of chert (MURARU 2000, 60-61) that come from the Orogen of the Eastern Carpathians and at Preutești-Haltă there are almost 42 % pieces made of brown bituminous marl (URSULESCU, IGNĂTESCU 2003, 38).

At Hlăpești (Neamț county) there are mentioned six tools made of opal, the nearest source being in the Harghita area (MURARU, 1987, 195-196) and at Văleni-Piatra Neamț there are some jasper tools (MURARU 1987, 196). It is clear that these objects were brought into these Cucuteni settlements through exchanges.

Also, there can be noticed that the spreading of the Pruth silex generally corresponds to the Cucuteni culture area but it can be frequently met in the neighbouring southern cultures. It is constantly present in the Stoicani-Aldeni-Bolgrad settlements in the south of Moldavia, the south of the Republic of Moldova and Ukraine (DRAGOMIR 1983, 40) where it is associated with the Balkan and the Dniester silex. Undoubtedly this is due to the direct access of the Stoicani-Aldeni communities to the sources of raw materials represented by the Pruth gravels. The Suceveni case is suggestive in this respect (DRAGOMIR 1983, 40) but it is also true that at least part of these types of materials from the settlements located far from the Pruth stream came through exchanges either with other Stoicani-Aldeni communities or with northern Cucuteni communities.

The Pruth silex is also present in the Cernavoda Ic settlement from Râmnicelu (HARȚUCHE 1980, 40) and it was probably

brought here by means of exchanges as indicated by the settlement position towards the Pruth.

The Balkan silex is present in large amounts in Cucuteni A settlements in the south of Moldavia at Mănăstioara-Fitionești (Vrancea county) (FLORESCU 1999, 244) and its quantity decreases gradually towards the north being present only accidentally at Trușești (FLORESCU 1999, 244) and at Preutești there is only one blade fragment (URSULESCU, IGNĂTESCU 2003, 38). A large quantity of Balkan silex (unfortunately we cannot give the percentage) is found in the inventory from Traian-Dealul Fântânilor settlement but it is difficult to differentiate the material in the Pre-Cucuteni level from the one in the Cucuteni levels. Even so we can think of the existence of very powerful traditional exchange relationships between the inhabitants of this settlement and the southern areas. Probably the Siret, Moldavia and Bistrița Valleys encouraged the circulation of this variety of silex up to here.

The Dniester and the Bug silex decrease in quantity toward the west, hence they appear only sporadically to the west of the Pruth and exceptionally in the sub-Carpathian area.

The obsidian is a very important petrographic variety in the analysis of exchange relationships. Rarely used in the Cucuteni culture area, the obsidian discovered in these settlements seems to come from a source in the north-eastern part of Romania (CÂRCIUMARU, POPOVICI, COSAC 2001, 117-118, tab.1) as indicated by the spectrographical analysis. Other possible sources of obsidian were the areas in Transylvania such as Harghita, Perșani, Scarâmb, Tecărau, Almaș, Ciceu, Valea Bradului, Glod and Cerbel (PĂUNESCU 1970, 86) and also the source from Tokaj-Prešov in the north-east of Hungaria and the east of Slovakia (PĂUNESCU 1970, 86; COMȘA 1987, 111; CÂRCIUMARU, POPOVICI, COSAC 2001, 117-118) or the sources from the Melos island and Armenia (CÂRCIUMARU *et alii* 1985, 575; MURARU 1987, 194-195; CÂRCIUMARU, POPOVICI, COSAC 2001, 117-118) etc.

It is also present only in a few Cucuteni B settlements. At Tg. Ocna-Podei the percentage of obsidian is 6% (MATASĂ

1964, 20; PĂUNESCU 1970, 190; CUCUȘ, MURARU, 1985, 615; FLORESCU 1999, 245). At Dodești and Unguri (Bacău county) in Cucuteni A settlements the percentage is of 0.9% and at Trușești it is used accidentally. An obsidian blade and chip appear in the inventory of the Cucuteni A3 settlement from Tg. Berești-Dealul Bulgarului (DRAGOMIR 1985, 97). Obsidian tools also appear at Poduri (CÂRCIUMARU, POPOVICI, COSAC 2001, 117) and at Dobreni-Dealul Mătăhuia (Neamț county) (two small pieces) (COTOI 2000, 256, 261, tab. III-IV, 263, pl. 1/17). The large amounts of obsidian in the Cucuteni B settlements and especially in the sub-Carpathian areas indicate active exchanges with the bearers of the Bodrogkeresztúr culture.

II. The source areas of raw materials used for polished stone tools

The polished stone tools are typical for the Neo-Eneolithic agricultural communities. They are the most important economical category of tools for these communities due to their use in forestry operations for obtaining the wood necessary in building and domestic activities, for furniture and also for preparing new surfaces meant for agricultural purposes. Depending on their use, they were made of different petrographical varieties and the source areas of these will be treated for each category individually.

The stones with medium hardness such as the brown bituminous marl, limestone, lydite and very rarely sandstone, tuff and hard magmatic or metamorphic stones were the varieties preferred by the Cucuteni communities for adzes, chisels and unperforated axes (COTOI, GRASU 2000, 63-64). These types of tools made of chert are mentioned at Drăgușeni (MURARU 2000, 84). During the Cucuteni B phase, silex axes can be found in the western area of the Pruth as indicated by the pieces discovered at Cucuteni-Cetățuie (SCHMIDT 1932, 48-49, fig.11/4; SPINEI 1971, 86).

The most important petrographical varieties used as raw materials and their source areas are as follows (Table 1, Map 1).

The brown bituminous marls are the most used stones for unperforated axes, adzes and chisels. In the sub-Carpathian

area of Moldavia they are present in large amounts in the majority of the settlements. Smaller percentages appear at Poduri (36.80%) (COTOI, GRASU 2000, 58-59, 62, fig.12) and at Ghelăiești (59.50%) (COTOI, GRASU 2000, 58-59) due to the presence in the area of other types of rocks (especially limestone and some varieties of sandstone) more adequate for this kind of tools. Some of the tools from Hăbășești (DUMITRESCU *et alii* 1954, 243, pl. LX, 245) and from Trușești (FLORESCU 1999, 248) must also have been made of brown bituminous marl although they were said to be made of fine siliceous sandstone. At Scânteia, 49 of the 55 pieces in the inventory analysed by N. Buzgar are made of brown bituminous marl, one is made of limestone, two of sandstone and one of sandstone marl (MANTU, ȘTIRBU, BUZGAR 1995, 119, table 2). Victor Sorokin mentions the presence of grey or black grey sillicolite tools in the Cucuteni A - Tripolye B1 settlements in the Republic of Moldova and Ukraine (SOROKIN 1997, 20). He specified that these types of stones can be found in the Dniester basin. It is difficult to specify exactly the type of stone because the term of sillicolite is too general, but we suppose that at least a part of the tools in these settlements are made of brown marls. Therefore we can state that the brown marls are spread within the whole area of the Cucuteni culture.

As a primary source, the brown bituminous marl appears in the last two stages of the Carpathian Oligocene, in the Tarcău Nappe and Vrancea Nappe (COTOI, GRASU 2000, 47). We also have to take into account the secondary sources, the gravel carried by the Carpathian rivers. In this case the stones coming from these sources should have the minimum sizes to allow the making of a useful tool. Thus, at Ghelăiești, in the main river bed of Moldavia, about 5% of the Carpathian gravel has a bigger diameter than 8-10 cm (COCHIOR-MICLĂUȘ *et alii* 1997, 65) being a possible source of raw materials for polished stone tools. The Cucuteni communities in the area used these sources for sure at least for a part of the raw materials, the rest of it being brought by means of exchanges.

Limestone is the next petrographic

variety preferred by the Cucutenians for axes, chisels and adzes. The primary source is also the Carpathian flysch as follows: in the internal flysch there appear limestone and sideritic marl in the Teleajen Nappe (COTOI, GRASU 2000, 47), in the external flysch, the sideritic limestone, but also other varieties (Doamna limestone, Jaslo limestones, etc) appear in the Tarcău and Vrancea Nappes but mostly in the Audia Nappe (COTOI, GRASU 2000, 47). Limestone with silex also appears in the Mesozoic sedimentary layer in the Crystallino-Mesozoic area of the Carpathian Orogen, but the limestone had a limited use and circulation being found only at Poduri (COTOI, GRASU 2000, table 6, fig. 12). As in the case of the brown marl, we should take into account the secondary sources also.

Sandstone from flysch was also used for stone tools. All flysch formations contain this variety of stone. In the internal flysch it appears in the Ceahlău and Teleajen Nappes while in the external flysch the sandstone formations are Audia, Straja, Piatra Uscată, also Tarcău and Fusaru sandstones, Tazlău, Podu Secu and Plopu, Lucăcești and Kliva (COTOI, GRASU 2000, 49). Sandstone also appears in the Măghirești formations, Tescani in the grey formation, Răchitașu, Moisa and Almașu all belonging to the peri-Carpathian molasse (COTOI, GRASU, 2000, 49). The most intense circulated variety was the quartz glauconitic sandstone also known as black Audia schist. Tools were made of this stone, especially in the sub-Carpathian area, but in small number as shown by the inventories from Ghelăiești, Târpești, Văleni-Piatra Neamț. In most of the cases it was used to make chipped products due to the physical-chemical properties similar to silex. These types of products can be found in the settlements at the east of the Siret, such as Scânteia (MANTU, ȘTIRBU, BUZGAR 1995, 118, tab.1).

Lyddite (Phtanite) can rarely be found in the sub-Carpathian area at Ghelăiești (COTOI, GRASU 2000, pl. 36/3, 39/1, 3), Poduri (COTOI, GRASU 2000, pl. 38/2), Hlăpești (COTOI, GRASU 2000, pl. 38/4) but there is no information regarding its presence in eastern settlements. These types of stones appear in the Audia and Tarcău Nappes, also in the Vrancea Nappe from the Carpathian flysch (COTOI,

GRASU 2000, 45).

Tuffs are occasionally used to make polished stone cutting tools. They are present both in the Carpathian area, especially in the Călimani Harghita area (BOGHIAN 1996, 283-284), and also in the Moldavian Platform (Hudești tuff from Rădăuți-Prut and Dorohoi area and Nutasca-Ruseni tuff at the south of Iași) (COTOI, GRASU 2000, 48, tab. 4). The neogene volcanic stones can be found within the Carpathian area, more frequently in the Tarcău Nappe flysch and in the peri-Carpathian molasse (COTOI, GRASU 2000, 48).

Adzes, unperforated axes and chisels were very seldom made of volcanic or metamorphic stones. These categories of stones were used for other types of tools, especially perforated tools, grinders, etc.

Jasper is occasionally used for axes and adzes and could be found only at Târpești and a jasper striker appears at Scânteia (MANTU, ȘTIBU, BUZGAR 1995, tab.2). Jasper can be found in the internal flysch, in the Azuga formation of the Ceahlău Nappe and in some formations of the external flysch, but it also appears in the Mesozoic cover of the Crystalline-Mesozoic (COTOI, GRASU 2000, 48).

The perforated axes are usually made of hard magmatic stones such as andesite, basalt andesite, serpentinite, gabbros, sienite, granite, diorite etc., or metamorphic stones such as chlorite schist, crystalline limestone, amphibolite, gneiss etc. This category of tools includes very thoroughly processed pieces with a special care paid to their shape and finish. Also, there could be noticed that their active surface is not sharpened and in many cases it does not presents evident traces of use, leading to the conclusion that they might have not been used in daily activities. This hypothesis is also sustained by the pieces discovered in the worship complexes. The presence of a ship-shaped axe in a worship complex from Ghelăiești, near the sanctuary house (CUCOȘ 1999, 66), is extremely suggestive in this respect. There can be noticed its thorough execution and the fact that the active end is not sharpened indicating its use as a prestige object. The perforated marl axe from Cărbuna should also be

mentioned here (Republic of Moldova) (DERGACEV 1998, 94, fig. 22/477).

The majority of the pieces is fragmentary, a ritual breaking might also be taken into account, because it could explain the use of these tools in rituals and their quality of prestige objects.

The raw materials mentioned above come from primary sources as follows: the magmatic stones come from the neogene volcanite area in the Eastern Carpathians with the three distinct zones: Călimani-Gurghiu-Harghita in the south, Bârgău-Țibleș in the middle and Oaș-Gutâi in the north (BOGHIAN 1996, 283; COTOI, GRASU 2000, 50).

The metamorphic stones come from the the Crystalline-Mesozoic area of the Eastern Carpathians, located in the area of the neogene volcanite in the internal part and in the flysch area at the east (COTOI, GRASU 2000, tab. 4) and also in the Ukraine Mountain (BOGHIAN 1996, 283).

However it can be hardly believed that the Cucutenians used these sourced directly. The use of the secondary sources is more probable. We also believe that at least a part of the tools made of volcanic stones present in the Cucuteni sites from the sub-Carpathian area could come through exchanges with the contemporary populations on the western side of the Eastern Carpathians. This observation is also based on the fact that in the analysed inventories we could not find processing debris, with the exception of perforation plugs. Probably, the pieces circulated as prefabs and they were polished and perforated at the destination place.

The circulation of the perforated axes is more evident in the case of pieces with a more pronounced cultural features, such as the ship-shaped axe from Ghelăiești. Based on its form and raw material (gabbro) this axe has a foreign origin in the north or the north-east of the continent (CUCOȘ 1999, 66; COTOI, GRASU 2000, 77-78). The axe could have analogies at Valea Lupului (DINU 1957, 168, fig. 5/4; CUCOȘ 1999, 66). An axe fragment (the proximal end) with a rhombus groove around the hole, resembling the one on the Ghelăiești axe, was found in the inventory from Traian-Dealul Fântânilor. Dergacev mentions such pieces in the Usatoviene settlements (DERGACEV 1980, fig. 29/31). On the

one hand, this demonstrates the circulation of this type of axes over a long period of time and on the other hand, it certifies the existence of exchange relationships with distant cultural spaces.

The strikers and the grinders are made of sedimentary hard stones, such as glauconitic quartz sandstone, quartzitic sandstone, menilite, magmatic stones such as basalt, andesite, diorite, microdiorite and metamorphic stones such as gnaiss, amphibolite, green schist, quartz schist, quartzite. The petrographical analysis made at Scânteia revealed strikers and grinders made of lime sandstone, glauconitic quartz sandstone, sphaerulite, cinerite, quartzite and quartz sandstone (MANTU, ȘTIRBU, BUZGAR 1995, 119, tab. 2). The primary source areas for these petrographical varieties are the same with the ones presented above.

Similar to the other categories of tools, the raw materials could come from secondary sources too. In this respect, we should mention that all categories of crystalline-schists originating in the Crystalline-Mesozoic area of the Carpathians can also be found in the eastern area, in the Hacıgosu and Ceahlău conglomerates, also in the gravel of the large Carpathian rivers that spring in the Crystalline-Mesozoic area of the Eastern Carpathians (COTOI, GRASU 2000, 51): Moldova, Trotuș and Bistrița Rivers. We should take into account the same secondary sources for the crystalline limestones and the jasper-radiolarite that have their primary sources also in the Crystalline-Mesozoic area. The volcanic stones can be found in the Bistrița gravel that springs in the neogene volcanic area. Also, the jasper-radiolarite, quartz sandstone, quartzite, lydite, menilite and the brown bituminous marl were found in the Sarmatian of the Moldavian Platform (COTOI, GRASU 2000, 52).

However not all the Cucuteni communities were in the vicinity of these sources, hence the raw material came through exchanges. These were made through the local network under the form of successive exchanges so that the tools made of these petrographical varieties can be found in the entire Cucuteni area.

At the end of our presentation, we would also like to refer to the circulation of these raw materials and tools made of these. Firstly, the main circulation directions are determined by the geographical location of the primary and secondary sources of the raw materials. We can notice a simultaneous circulation of the Pruth and Dniester silex from the east to the west and of the siliceous stones in the flysch from the west to the east. The Balkanic silex comes from the south and it is present in very small quantities also in Bucovina as indicated by the blade discovered at Preutești.

Another important aspect is the way the exchanges are made. The decreasing of the percentage in the mentioned varieties of silex and the Carpathian stones with the increasing of the distance to the source indicates their circulation through successive exchanges (down the line trade), named intermediate exchanges by Virgil Mihailescu-Bîrliba (MIHAILESCU-BÎRLIBA 2005). The confirmation of this exchange pattern involves the statistical analysis of more inventories of tools coming from settlements located homogeneously in the entire Cucuteni area. Our future researches will have this aim in view.

Bibliography

- ALBU C. N., GHEORGHIU I. POPESCU I.
1960 *Depozitele sedimentare de la Rădăuți-Prut*, in vol.: *Comunicări de geologie-geografie, 1957-1959*, București, p. 9-23.
- BĂCĂUANU V. *et alii*
1980 *Podișul Moldovei. Natură, om, economie*, București.
- BĂGU Gheorghe, MOCANU A.
1984 *Geologia Moldovei*, București.
- BOGHIAN Dumitru
1996 *Unele considerații asupra utilizării litice al comunităților Precucuteni - Cucuteni - Tripolie*, in vol.: *Cucuteni aujourd'hui* (éds.: Gh. Dumitroaia, Dan Monah), BMA II, Piatra-Neamț, 1996, p. 277-342.
- 2004 *Comunitățile cucuteniene din bazinul Bahluiului*, Suceava, 2004.
- BRUDIU Mihalache, SANDU M.
1969 *Contribuții la cunoașterea schimbului în neoliticul târziu din sudul Moldovei*, RM, 3, 1969, p. 261-264.

- CÂRCIUMARU Marin, POPOVICI Dragomir, COSAC Marian
2001 *Spectrographic analysis of neo-eneolithic obsidian samples and several considerations about the obsidian supply sources*, AUVT, II-III (2000-2001), p. 116-126.
- CÂRCIUMARU Marin *et alii*
1985 *Contribuții la cunoașterea surselor de obsidian ca materie primă pentru confecționarea uneltelor paleolitice de pe teritoriul României*, MemAnt, IX-XI (1977-1979), p. 561-603.
- COCHIOR-MICLĂUȘ Crina *et alii*
1997 *Geostatistical Analysis of Gravel Shape and Roundness Indices in Moldova River*, AȘUI-Geologie, XLII-XLIII (1996-1997), p. 215-230.
- COMȘA Eugen
1987 *Neoliticul pe teritoriul României. Considerații*, București.
- COTOI Ovidiu
2000 *Lithic Tools in the Cucuteni Settlement of Dobreni-Mătăhuia Hill*, SAA, VII, p. 253-266.
- COTOI Ovidiu, GRASU Constantin
2000 *Uneltele din piatră șlefuită din eneoliticul Subcarpaților Moldovei*, Iași.
- CUCOȘ Ștefan
1999 *Faza Cucuteni B în zona subcarpatică a Moldovei*, BMA VI, Piatra-Neamț.
- CUCOȘ Ștefan, MURARU Adrian
1985 *Studiu tipologic și petrografic al uneltelor litice din câteva așezări Cucuteni B*, MemAnt, IX-XI (1977-1979), p. 605-642.
- DERGACEV Valentin A.
1980 *Pamiatniki pozdnego Tripol'ja*, Kișinev.
1998 *Karbunskij klad. Carbuna Deposit*, Kișinev.
- DINU Marin
1957 *Șantierul arheologic Valea Lupului*, Materiale, III, p. 161-178.
- DRAGOMIR Ion T.
1983 *Eneoliticul din sud-estul României. Aspectul cultural Stoicani-Aldeni*, București.
1985 *Principalele rezultate ale săpăturilor arheologice de la Berești „Dealul Bulgarului” (1981), județul Galați*, MemAnt, IX-XI (1977-1979), p. 93-140.
- DUMITRESCU Vladimir *et alii*
1954 *Hăbășești. Monografie arheologică*, București.
- FLORESCU Marilena
1999 *Materiale descoperite*, in vol.: M. Petrescu-Dîmbovița, M. Florescu, A. C. Florescu, *Trușești. Monografie arheologică*, București-Iași, p. 231-265.
- HARTUCHE Nicolae
1980 *Complexul cultural Cernavoda I de la Râmnicelu-județul Brăila*, Istros S.N., I, p. 33-91.
- MANTU Cornelia-Magda, ȘTIRBU Maria, BUZGAR Nicolae
1995 *Considerații privind uneltele din piatră, os și corn, din așezarea cucuteniană de la Scânteia (campaniile 1985-1990)*, ArhMold, XVIII, p. 115-130.
- MARINESCU-BÎLCU Silvia, CÂRCIUMARU Marin, MURARU Adrian
1985 *Contribuții la ecologia locuirilor pre- și protoistorice de la Târpești*, MemAnt, IX-XI (1977-1979), p. 643-684.
- MATASĂ Constantin
1964 *Așezarea eneolitică Cucuteni B de la Târgu Ocna-Podei*, ArhMold, II-III, p. 11-66.
- MIHAILESCU-BÎRLIBA Virgil
2005 *Numismatica*, vol. I, Iași.
- MURARU Adian
1987 *Consideration sur le matériel litique utilisé par les tribus de Cucuteni*, in vol.: *La civilisation de Cucuteni en contexte européen* (éds.: Mircea Petrescu-Dîmbovița *et alii*), BAI I, Iași, p. 193-200.
2000 *A Petrographic Survey of the Lithic Material*, in vol.: Silvia Marinescu-Bîlcu, Alexandra Bolomey, *Drăgușeni. A Cucutenian Community*, București-Tübingen, p. 59-62.
- MUTIHAC V., IONESI L.
1974 *Geologia României*, București.
- PĂUNESCU Alexandru
1970 *Evoluția uneltelor și armelor de piatră cioplită descoperite pe teritoriul României*, București.
- RĂDULESCU D., ANASTASIU N.
1979 *Petrografia rocilor sedimentare*, București.
- SCHMIDT Hubert
1932 *Cucuteni in der oberen Moldau, Rumänien. Die befestigte Siedlung mit bemalte Keramik von der Steinkupferzeit bis in die vollentwickelte Bronzezeit*, Berlin-Leipzig.
- SOROKIN Victor
1991 *Orudija truda i chozjaistvo plemen srednego Tripol'ja Dnestrovsko-Prutskogo mezhdureč'ja*, Kișinev.
1997 *Considerații referitoare la așezările fazei Cucuteni A - Tripolie B, din Ucraina și Republica Moldova*, MemAnt, XXI, p. 7-81.

SPINEI Victor

1971 *Descoperiri de topoare de silex în Moldova*, MemAnt, III, p. 79-141.

SZTANCSUJ Sándor József

2005 *The Early Copper Age Hoard from Ariuşd (Erősd)*, in vol.: *Cucuteni - 120 ans des recherches. Le temps du bilan*

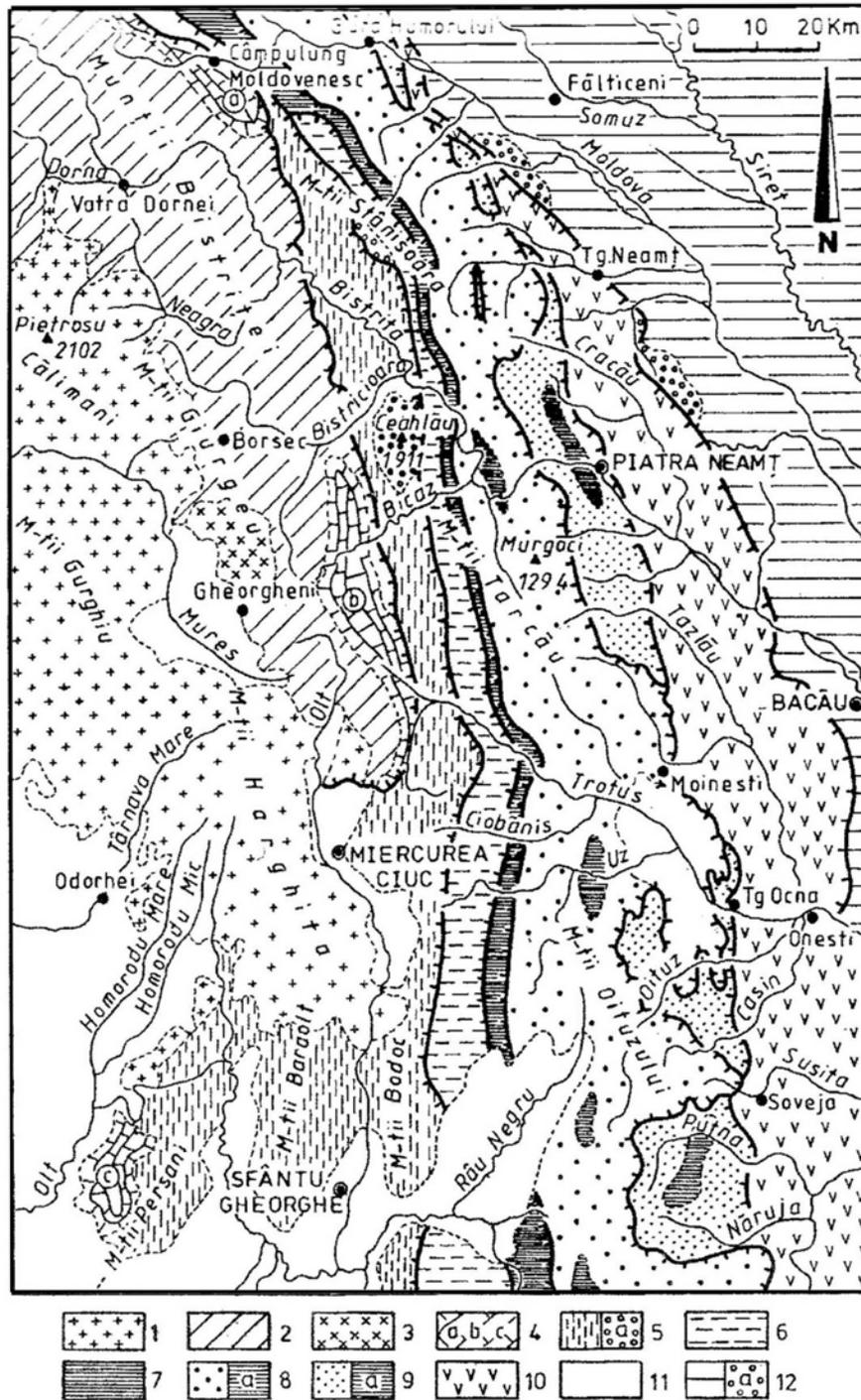
(éds.: Gh. Dumitroaia *et alii*), BMA XVI, Piatra-Neamţ, p. 85-106.

URSULESCU Nicolae, IGNĂTESCU Sorin

2003 *Preuteşti-Haltă. O aşezare cucuteniană pe valea Şomuzului Mare*, Iaşi.

Table 1. The geological units from the eastern part of Romania with the formations in which can be found some of the rocks used in the Cucutenian stone tools industry.

AREA	GEOLOGICAL FORMATIONS, ROCKS	AGE
NEOGENE VOLCANIC ROCKS	1. The Oaş-Gutâi sector: rhyolite, dacite, andesite, basalt, microdiorite, glass stones (perlite); 2. The Țibleș-Bârgău sector: rhyolite, dacite, diorite, andesite; 3. The Călimani-Gurghiu-Harghita sector: dacite, andesite, tuff	MIO-PLIOCENE
THE CRYSTALLINE – MESOZOIC	I The Crystalline base: - The Bretila-Rarău group: gneiss, amphibolite, granite, granodiorite and gneiss quartz diorite; - The Bistrița-Barnan group: gneiss, amphibolite, quartz schist, limestone and crystalline dolomite. - The Tulgheș group: graphitic quartzite, black quartzite with Mn, white quartzite, Pietrosu porfiroid; The Repedea, Rusaia, Țibău and Dămuc series: black quartzite, green schist, limestone and crystalline dolomite;	PROTEROZOIC
	II The Mesozoic sedimentary cover: - Quartz sandstone, jasper, dolomite - Radiolarite and jasper - Stramberg limestone with silex Urgonien limestone with silex	TRIASSIC JURASSIC CRETACIC
	III Basic and alkaline magmatite: - basalt, serpentinite, lamprofire, sienite, quartzolite	MESOZOIC
INTERNAL FLYSCH	1. The Ceahlău Nappe: - The Azuga formation: basalt, jasper - Bistra and Poiana Maicilor sandstone: lithic wacke and microconglomerates; - The Ceahlău conglomerates: all types of rocks from the Crystalline-Mesozoic: limestone with silex. 2. The teleajen Nappe: - The Cotumba sandstone: arenite and lithic wacke	CRETACIC
EXTERNAL FLYSCH	The Audia formation: gaise-spongolite, lydite, glauconitic quartz sandstone; The Bota-Zagon formation: jasper, tuff	CRETACIC EOCENE
	The Prisaca-Tomnatec sandstone and the Șiriu sandstone: arenite and muscovite lithic wacke, microconglomerate	CRETACIC
	The Audia formation: gaise-spongolite, lydite, glauconitic quartz sandstone; The Cârnu-Siclău formation: jasper, tuff	EOCENE
	The Tarcău sandstone: arenite and muscovite lithic wacke, microconglomerate: The Straja formation: gaise-spongolite, glauconitic quartz sandstone; The Tazlău and Sucevița formation: limestone with chaille, muscovitic lithic sandstone; Doamna limestone with chaille; The Podu Secu and Plopu Formation: lithic sandstone; Lucăcești sandstone: quartz glauconitic arenite	OLIGOCENE
	The inferior menilite formation; brown bituminous marl; Jaslo limestone; Fusaru sandstone: arenite and lithic muscovite wacke ; Kliwa sandstone: quartz sandstone	CRETACIC
	The Streiu-Sarata formation : quartz glauconitic sandstone, lydite, limestone with chaille; The Tisaru formation: jasper, tuff.	EOCENE
	The Piatra Uscată and Jgheabul Mare formations: gaise-spongolite, quartz sandstone; Doamna limestone with chaille; Lucăcești sandstone: quartz sandstone.	OLIGOCENE
	The Inferior menilite: brown bituminous marl; Jaslo limestone, Kliwa sandstone: quartz sandstone, superior menilite.	
THE PERICARPATHIAN MOLASSE	- The Pleșu-Pietricica and Almașu conglomerates: green schists, white quartzite; - The Măgurești, Tescani and Cenușie Formation: lithic sandstone - The Răchitașu Formation: sandy limestone and tuff	INFERIOR AND MEDIUM MIOCENE
THE MOLDAVIAN PLATFORM	- Gaise-spongolite and flint (silex) - Oolitic limestone and sandstone, Hudești tuff - Nutasca-Ruseni tuff	BADENIAN-MEOTIAN CRETACIC



Map 1. The structural-geological units from the eastern part of Romania. 1. THE NEOGENE VOLCANIC ROCKS AREA; 2. THE CRYSTALLINE-MESOZOIC AREA: 2. Crystalline schist; 3. Ditrău Sienite; 4. The sedimentary Mesozoic in the Moldavian Division (a. The Rarău Synclinal; b. The Hăghimaș Synclinal; c. The Perșani Division); FLYSCH AREA: 5. The Ceahlău Nappe (a. Conglomerates); 6. The Teleajen Nappe; 7. The Audia Nappe; 8. The Tarcău Nappe (a. The crop-out areas of the Audia and Cărnău-Siclău formations); 9. The Vrancea nappe (a. The crop-out areas of the Streiu-Sărata and Tisaru formations); 10. MOLASSE AREA: 11. Posttectonic and molasse depressions and basins; 12. THE MOLDAVIAN PLATFORM (a. Sarmatian deltas). *Apud MUTIHAC, IONESI 1974.*

SCEPTRES CRUCIFORMES EN PIERRE DE L'ÉNÉOLITHIQUE DÉCOUVERTS SUR LE TERRITOIRE DE LA MOLDAVIE

BOGDAN-PETRU NICULICĂ*

Mots clefs: *sceptres cruciformes, énéolithique développé, Moldavie, Bădeuți, Dumeni, Bârlălești.*
Cuvinte cheie: *sceptre cruciforme, eneolitic dezvoltat, Moldova, Bădeuți, Dumeni, Bârlălești.*

Résumé. Dans l'étude ci-jointe, l'auteur analyse les sceptres cruciformes appartenant à l'énéolithique développé, découverts sur le territoire de la Moldavie, clarifie la date et l'endroit de la découverte de la pièce de Bădeuți et réalise la première analyse complexe minéralogique et pétrographique effectuée dans notre pays sur un objet semblable – c'est le cas du sceptre découvert récemment à Dumeni, dép. de Botoșani. Les découvertes en Moldavie sont corrélées avec celles de Transylvanie, de type Decea Mureșului, Șard, Cetea et autres, mais aussi avec des objets similaires des steppes nord-pontiques. On y discute, aussi, l'utilité / la fonction de ce type d'objet, qui, tout en tenant compte des conditions historiques dans lesquelles il apparaît dans la région de notre pays, est mis en relation avec la pénétration des populations orientales. En Moldavie, l'auteur considère que la présence des sceptres cruciformes est liée à la céramique Cucuteni "C", qui apparaît dans l'espace est-carpatique à la fin de la phase Cucuteni A.

Rezumat. În acest studiu, autorul analizează sceptrele cruciforme aparținând eneoliticului dezvoltat, descoperite pe teritoriul Moldovei, clarificând locul și data descoperirii piesei de la Bădeuți și realizând prima analiză complexă mineralogică și petrografică efectuată în țara noastră pe un astfel de obiect – cazul sceptrului recent descoperit la Dumeni, jud. Botoșani. Descoperirile din Moldova sunt corelate cu cele din Transilvania, de tip Decea Mureșului, Șard, Cetea și altele, dar și cu obiecte similare din stepelile nord-pontice. Este discutată și utilitatea/funcționalitatea acestui tip de obiect, care, având în vedere condițiile istorice în care apare în zona țării noastre, este pus pe seama pătrunderii populațiilor răsăritene. În Moldova, autorul consideră că prezența sceptrelor cruciforme este legată de ceramica Cucuteni „C”, care își face simțită prezența în spațiul est-carpatic la sfârșitul fazei Cucuteni A.

Parmi les vestiges archéologiques appartenant à l'énéolithique de Roumanie, qui ont suscité d'une manière constante l'intérêt des spécialistes, on peut mentionner soit les disant *massues cruciformes/sceptres en pierre*¹. De celles-ci, jusqu'à présent, on a surtout analysé et publié les pièces provenant de Transylvanie; celles-ci sont mieux connues et elles ont constitué plusieurs fois l'objet de diverses études. Une découverte assez

récente faite sur le territoire de la Moldavie, qui se rallie à deux autres plus anciennes, ainsi que les recherches interdisciplinaires modernes, nous ont déterminé à reprendre dans une certaine mesure les discussions sur le thème de la provenance et de la signification de ce type d'objet.

On connaît bien le fait que sur le territoire de la dépression intracarpatique de la Transylvanie, dès la fin du XIX^{ème} siècle, ont été découverts plusieurs sceptres cruciformes (TÉGLÁS 1888, 419-421; KOVÁCS 1932, 101; 1944, 19)². Considérés comme des armes/massues/têtes de masses d'armes ou

* Le Complexe Muséal Bucovina de Suceava,
e-mail: niculicab@yahoo.com

¹ Le long de l'étude ci-jointe, nous avons utilisé le terme de *sceptres*; ce terme nous a paru plus proche de la réalité que celui-ci de *masse d'armes* ou de *massue*.

² Téglás Gábor fait référence aux sceptres cruciformes de: Cetea/Ciaclia (deux sceptres), Golești et Feldioara.

sceptres, respectivement des signes de pouvoir, ceux-ci ont été attribués par les chercheurs roumains et étrangers qui se sont dédiés à leur étude, à l'énéolithique transylvain; le type d'objet proprement-dit présente un intérêt tout à fait particulier, généré aussi par la rareté des découvertes. A la suite des fouilles archéologiques et des explorations de terrain, auxquelles s'est ajoutée l'étude comparative des pièces similaires, découvertes en dehors des frontières de notre pays, on a réussi à préciser l'appartenance culturelle et la position chronologique de ces objets. De cette manière, les découvertes de la Transylvanie ont été attribuées à une population d'origine orientale, connue dans cette zone sous le nom du groupe culturel Decea Mureşului (KOVÁCS 1932, 89-101; 1944, 3-21; NESTOR 1932, 74, note 284; DODD-OPRIŢESCU 1978, 87-97; PETRESCU-DÎMBOVIŢA 2001, 169).

En ce qui concerne l'étude ci-jointe, il est intéressant que jusqu'à assez peu de temps, dans l'espace extra-carpatique était connu seulement un sceptre cruciforme, découvert dans des conditions restées inconnues. La pièce se trouve dès l'année 1947 dans les collections du Musée d'histoire de Suceava; elle a été reprise au moment respectif avec plusieurs autres objets archéologiques du musée de Cernăuţi et cataloguée par conséquent comme une découverte fortuite faite sur le territoire de la Bucovine historique. La seconde pièce, dans l'ordre chronologique de

la découverte, est représentée par le sceptre de Bârlăleşti (dép. de Vaslui); celle-ci a été publiée par Ghenuşă Coman en 1980. Le dernier sceptre a été découvert fortuitement en 2004 à Dumeni (dép. de Botoşani); la pièce est restée jusqu'à cet instant inédite.

I. Le sceptre de Bădeuţi (la ville de Milişăuţi, dép. de Suceava)

Après la Seconde Guerre Mondiale, dans le cadre de la réorganisation du Musée Provincial de la Bucovine de Cernăuţi (*Muzeul Ţării Bucovinei/Die Bukowiner Landes-Museums*), le long de l'année 1947, une partie des collections préhistoriques est entrée par transfert au Musée Régional de la Bucovine de Suceava; ultérieurement, les objets ont été enregistrés dans les registres inventaires du musée de Suceava.

De cette manière, le 17 mai 1952, dans le premier registre d'inventaire du musée de Suceava réalisé après la guerre, on retrouve à la position 842 la pièce suivante: "tête de masse d'armes, granit brun, aspergée avec des points noirs; forme de feuille de trèfle avec quatre feuilles, perforée; le diamètre du trou 15 mm. La longueur des deux bras, assis en croix, 90 mm, respectivement 92 mm; bon état". On mentionne le fait que la pièce provient des collections du Musée Provincial de la Bucovine de Cernăuţi, sans fournir pourtant des informations sur le lieu de la découverte. Actuellement, la pièce est exposée dans le

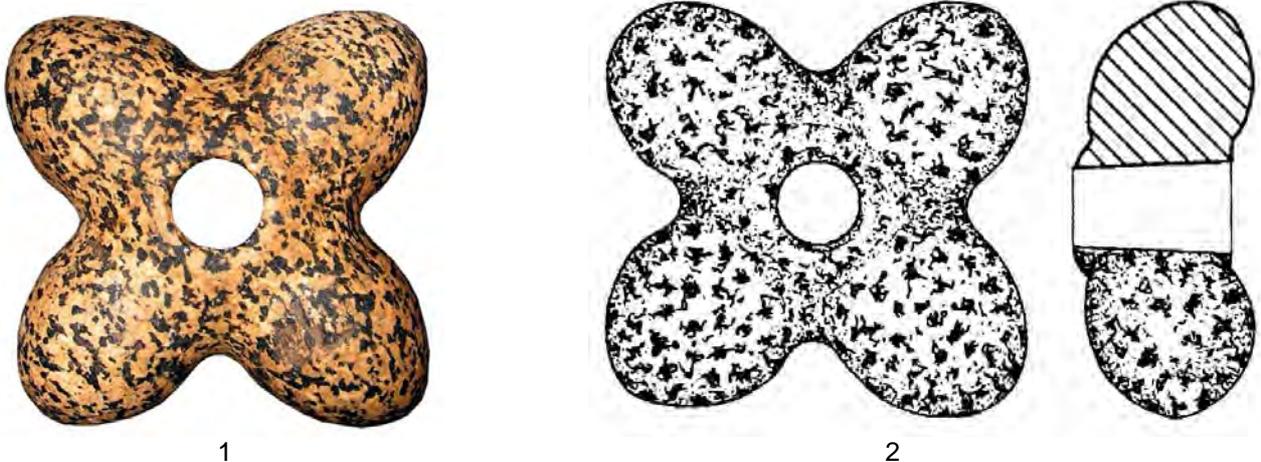


Fig. 1. Le sceptre de Bădeuţi (dép. de Suceava). 1: photo; 2: dessin. Apud DUMITROAIA 2000, fig. 83/4 (2).

cadre de l'exposition permanente du Complexe Muséal Bucovina; elle est enregistrée sous le no. inv. C/125.

Le sceptre, attentivement lustré, ayant des nuances marron-noirâtres et blanches-jaunâtres, ne présente pas du point de vue macroscopique, des signes d'utilisation; le profil longitudinal est aisément recourbé, celui transversal étroit et l'orifice de fixation de la manche a une forme tronconique. Ses dimensions sont les suivantes: la longueur des bras = 92 x 90 mm; hauteur = 72 mm; largeur = 28 mm; le diamètre de l'orifice = 16 x 14 mm; le diamètre des protubérances = 30 mm (fig. 1).

L'objet est discuté relativement récemment dans la littérature de spécialité (EMANDI 1985, 80, fig. 7/2; DUMITROAIA 2000, 124-125, fig. 83/4; IGNAT 2000, 36; GOVEDARICA 2006, 423, no. 13), il est cité comme une découverte fortuite de la Bucovine; E. Emandi l'a attribué à l'Âge du Bronze, Gh. Dumitroaia à une période plus longue, comprise entre l'énéolithique et l'Âge du Bronze, alors que Mircea Ignat l'a daté avec probabilité de la période ancienne de l'Âge du Bronze. Mais, le mérite revient B. Govedarica, qui a encadré correctement le sceptre dans l'horizon des découvertes de type Decea Mureşului.

En ce qui concerne la roche avec laquelle a été confectionné le sceptre, M. Ignat a affirmé qu'il s'agit de granodiorite (IGNAT 2000, 36); Gh. Dumitroaia est d'accord avec cette opinion (DUMITROAIA 2000, 124). Mais l'analyse géologique effectuée récemment dans le cadre de la Département de Géologie de l'Université „Al. I. Cuza” de Iaşi, par Monsieur le maître de conférences dr. Nicolae Buzgar³, a démontré le fait qu'il ne s'agit pas de granodiorite, mais d'un autre type de roche magmatique, respectivement granit ou hornblende.

En ce qui concerne l'endroit de découverte de la pièce, supposé être en Bucovine, nous pouvons apporter une nouvelle information importante. En effet, nous soulignons le fait que Petru Rezuş⁴ signalait en 1975 dans l'ouvrage *Contribuţii la*

istoria oraşului Rădăuţi, les découvertes archéologiques plus anciennes, de la fin du XIX^{ème} siècle et du début de celui suivant, de la zone du village Bădeuţi, effectuées par le prêtre Vasile Tomiuc⁵, un passionné d'archéologie, qui a trouvé, dans ses excursions, de nombreuses traces d'habitation préhistorique sur le territoire de la Bucovine. Une partie de ces découvertes a été présentée sommairement par celui-ci dans une note publiée dans *Mitteilungen der K.K. Zentralkommission* (Vienne); il y consignait la découverte d'une hache perforée dans le lit de la rivière Suceviţa (TOMIUC 1907, 200); d'autres haches, plus exactement quatre, ont été trouvées par les locaux dans le lit ou sur la terrasse de Suceviţa (REZUŞ 1975, 24).

Le même Vasile Tomiuc mentionnait – dans un numéro de *Gazeta Bucovinei* de l'année 1893, cité ultérieurement dans *Monografia satului Bădeuţi* (D. LUCESCU 1979, 55) – qu'en 1885, à l'occasion des fouilles effectuées pour la réalisation des tombeaux du nouveau cimetière, situé sur le promontoire de la colline haute, à droite de la rivière de Suceviţa, ont été découverts “des os et des fragments d'os humains” (TOMIUC 1893); il s'agit donc d'une nécropole à inhumation et, si on en croit, l'auteur, probablement d'une nécropole antérieure à l'époque médiévale.

⁵ Prêtre dans les paroisses de Milişăuţi et Bădeuţi. Il a terminé la Faculté de Théologie de Cernăuţi, et peu de temps après, le 28 septembre 1872, il a été nommé *catihet* au Lycée Réel de Rădăuţi, qui a été fondé le 19 août 1871. Il apparaît dans les documents sous le nom de Basil Tomiuc, pratique habituelle de transformation du nom à cette époque-là (nom réel Vasile Toma). En 1878 il était déjà prêtre à Bădeuţi et Milişăuţi. Dans sa visite de 1904 à Bădeuţi, Nicolae Iorga ne rappelle pas le nom de celui-ci, Tomiuc était déjà transféré avec la paroisse à Milişăuţi. Il a publié en *Gazeta Bucovinei* (bihebdomadaire de Cernăuţi avec apparition entre 2/14 mai 1891 – 6/18 avril 1897), quelques articles concernant les églises médiévales du territoire de la Bucovine (voir *Gazeta Bucovinei*, 1893, III-ème année, no. 37 et 38 et D. LUCESCU 1979, 73). Membre correspondant de la célèbre *Commission centrale de Vienne pour art et monuments historiques*. Archéologue passionné, il a effectué des fouilles dans certains *tumuli* (avant et pendant l'année 1899), avec Heinrich Klausser (professeur au Lycée de Rădăuţi), à Volovăţ; Vasile Tomiuc a été un des proches du Musée de Cernăuţi.

³ Auquel on remercie de nouveau à cette occasion pour les analyses effectuées.

⁴ Professeur universitaire, théologien, né à Rădăuţi (SATCO 2004, 309).

Dans sa monographie, Petru Rezuș, après avoir passé en revue les découvertes de Vasile Tomiuc, mentionnait qu'auprès des haches en pierre qu'on vient de mentionner, on a découvert encore "... une massue en pierre admirablement réalisée, circulaire, avec quatre protubérances en forme de seins" (REZUȘ 1975, 24). D'ailleurs, ces informations précieuses se retrouvent dans la monographie en manuscrit du village de Bădeuți (D. LUCESCU 1979), ainsi que dans la récente étude de Corina Lucescu (concernant les vestiges médiévaux de localité cette), qui mentionnait, tout en citant Vasile Tomiuc et Petru Rezuș, qu'à Bădeuți a été découverte la massue cruciforme qu'on vient de rappeler (C. LUCESCU 1996, 92). Par conséquent, tout en tenant compte de ces données, nous sommes d'avis que la découverte de Bădeuți, est justement celle considérée antérieurement comme provenant du territoire de la Bucovine historique, d'une localité inconnue.

Dans le monumental ouvrage monographique, publié à Vienne en 1899, intitulé *Die österreichisch-ungarische Monarchie in Wort und Bild. Bukowina*, Joseph Szombathy a publié un chapitre dédié aux découvertes préhistoriques, nommé suggestivement *Vorgeschichte*, dans lequel on retrouve des informations intéressantes sur les "antiquités" de Bucovine⁶. Le dessin suivant nous a attiré l'attention; il se trouvait justement sur la page de titre (fig. 2).

Tout en analysant l'image de plus près, on observe: six haches en pierre qui typologiquement, s'encadrent dans l'Âge du Bronze; un poids en terre cuite; probablement Joseph Szombathy et ses travailleurs; la saison froide – on sait que Szombathy a fouillé à Horodnicul de Jos pendant l'automne; la méthode de fouiller, le gravier qui constituait le manteau et le

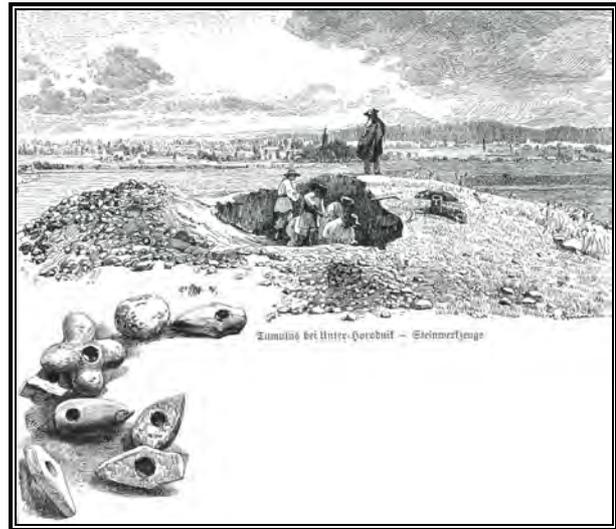


Fig. 2. Le sceptre de Bădeuți. *Apud SZOMBATHY 1899, 49.*

sceptre de Bădeuți qui, bien sûr, a été vu et dessiné soit dans la collection personnelle de Vasile Tomiuc, soit au *Muzeul Țării Bucovinei*. Donc, celle-ci est la pièce découverte par Vasile Tomiuc, qui est arrivée ultérieurement dans les collections du musée de Cernăuți et qui était considérée par Szombathy si importante qu'il a choisi la reproduire dans le cadre du volume *Bukowina*.

II. Le sceptre de Bârlălești (com. Epureni, dép. de Vaslui)

Dans l'ouvrage *Statornicie, continuitate. Repertoriul arheologic al județului Vaslui*, Ghenuța Coman mentionnait un sceptre cruciforme, découvert d'une manière fortuite sur *Dealul Ciomaga*, dans le point nommé par les indigènes *Sturza*. Le site archéologique, situé à approximativement 1 km sud du village Bârlălești, a été sondé; on y a mis en évidence la présence du paléolithique supérieur (*gravettian orientat*), des vestiges énéolithiques et des époques historiques plus récentes⁷. Mais, l'habitat Cucuteni, fortifié avec *vallum* et fossé de défense, a attiré d'une manière tout à fait particulière l'attention des spécialistes, qui

⁶ Ion Andrieșescu, dans son étude de la revue *Cronica numismatică și arheologică* (ANDRIEȘESCU 1936, 161-173), dans laquelle il a résumé les voyages de documentation, les recherches et les ouvrages de Joseph Szombathy en et sur la Bucovine, tout en faisant référence inclusivement au chapitre *Vorgeschichte*, de la monographie qu'on vient de mentionner, ne rappelle pas le sceptre cruciforme de Bădeuți.

⁷ Les autres matériaux archéologiques découverts dans l'habitat appartiennent à la culture Noua, à La Tène, aux VI^{ème}-VII^{ème} siècles p.Chr. et aux XII^{ème}-XIII^{ème} siècles.

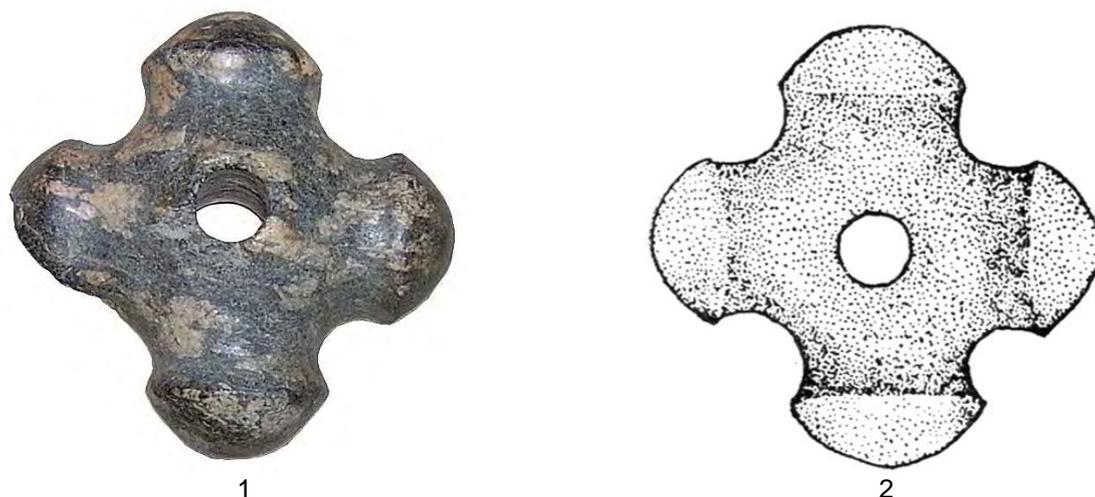


Fig. 3. Le sceptre de Bârlălești (dép. de Vaslui). 1: photo; 2: dessin. *Apud* COMAN 1980, fig. 118/11 (2).

ont confirmé la présence des phases Cucuteni A2, A3 et B (COMAN 1980, 127-129). Après des matériaux céramiques Cucuteni, on a découvert encore deux sceptres, dont l'un réalisé en granit, appartenant au type des sceptres "zoomorphes", fortement stylisé (COMAN 1980, 128-129, fig. 94/1), attribué à la phase Cucuteni A3, et l'autre cruciforme, en roche volcanique⁸ (COMAN 1980, 129, fig. 118/11; GOVEDARICA 2006, 423, fig. 2/4; 5/8).

Le sceptre de Bârlălești s'est conservé en général dans de bonnes conditions, quoiqu'il soit ébréché dans la zone de l'un des deux lobes; il a une couleur bruno-noirâtre, avec des intercalations blanchâtres, il est très attentivement poli et lustré. L'orifice pour la fixation du manche est tronconique. Ses lobes ont un aspect de champignon; de ce point de vue, la pièce ressemble aux deux sceptres de la nécropole de Decea Mureșului (dép. d'Alba) et au sceptre de Dumeni (dép. de Botoșani). Les dimensions de la pièce sont les suivantes: longueur = 8,71 cm; largeur = 3,35 cm; le diamètre de l'orifice = 1,25 cm; le diamètre des proéminences = 34,50 cm⁹ (fig. 3).

⁸ Malheureusement, la pièce ne bénéficie pas d'une analyse géologique.

⁹ Nous voulons remercier, aussi, au Monsieur le dr. Laurențiu Chiriac, le directeur de Musée Départemental „Ștefan cel Mare” de Vaslui et au Monsieur le muséographe Ciprian Lazanu, de la même institution, pour la possibilité qu'ils nous ont offert d'étudier la pièce.

III. Le sceptre de Dumeni (com. George Enescu, dép. de Botoșani)

La dernière pièce que nous avons l'intention de présenter a été découverte récemment, pendant l'été de l'année 2004, dans la localité Dumeni (com. George Enescu, dép. de Botoșani), sur le sommet de *Dealul Coropcaru* (à environ situé 400 m ouest du village Dumeni), par les professeurs Ioan Ignat et Constantin Aparaschivei¹⁰, pendant une exploration de surface dans une vaste station cucutenienne. Au moment de la découverte, mais aussi pendant les vérifications de terrain ultérieures (2005-2007), on a récupéré surtout du matériel céramique appartenant aux cultures Précucuteni (III^{ème} phase) et Cucuteni, la phase B, inclusivement la catégorie "C"; à ceux-ci s'ajoute de la céramique datant du Hallstatt Ancien et des IV^{ème}-V^{ème} siècles – la culture Sântana de Mureș-Cernajchov.

Le sceptre, fragmentaire, a été travaillé d'une roche de couleur blanchâtre-brune avec des intercalations noirâtres; de celui-ci s'est conservée seulement une moitié; il a été poli, lustré; il ne présente pas de traces d'utilisation, son état fragmentaire est

¹⁰ Nous leur remercions pour l'amabilité avec laquelle ils ont mis à notre disposition le sceptre et aussi pour nous avoir permis d'effectuer les analyses respectives.



Fig. 4. Le sceptre de Dumeni (dép. de Botoșani).

probablement de date récente; la pièce a pu être rompue pendant les travaux agricoles. Par endroits, sur sa surface, on peut observer des concrétions calcaires. L'orifice de fixation du manche est de forme tronconique. Les protubérances ont une forme de champignon; par cela, la pièce se différencie clairement de celle découverte plus au nord, à Bădeuți (dép. de Suceava); en revanche, elle est similaire aux sceptres de Bârlălești (dép. de Vaslui) et Decea Mureșului (dép. d'Alba). Ses dimensions sont les suivantes: longueur = 67 cm; largeur = 29 cm; les diamètres de l'orifice = 17 x 13 cm; le diamètre des proéminences = 35 cm (fig 4).

Conformément au bulletin d'analyse minéralogique et pétrographique (voir Annexe), le sceptre a été confectionné en gneiss amphibolique (roche métamorphique), originaire des montagnes Oural ou de la zone de la Péninsule de Crimée.

*

En ce qui concerne l'appartenance de ces trois découvertes de la Moldavie à l'énéolithique tardif, nous pensons que cette chose est bien évidente. Nos considérations sont parties, premièrement, des paramètres morphologiques, nos pièces étant comparées avec celles trouvées dans les steppes nord-pontiques et avec celles de Transylvanie.

De cette manière, le sceptre de Bădeuți (roche magmatique - granit avec hornblende), présente quatre protubérances, un peu plus allongées et plus évoluées que celles des pièces de Mariupol (le milieu culturel Srednyi Stog), réalisées en jade (roche métamorphique) et à laquelle elle ressemble (KLOCHKO 2001, 31, fig. 7/2-3; 2002, 22, fig. 1/2-3). Mais la meilleure analogie pour le sceptre de

Bădeuți est le sceptre de Verem'je (Ukraine), daté du Tripolye BI-BII (CHVOIKO 1899; VIDEJKO 2004, 484).

En revanche, les sceptres de Dumeni (dép. de Botoșani) et Bârlălești (dép. de Vaslui), avec les protubérances bien mises en évidence, en forme de champignon, ont les meilleures analogies en Transylvanie, avec la nécropole de Decea Mureșului (KOVÁCS 1932, fig. 11; 1944, fig. 12), mais, en même temps, ils ressemblent au sceptre de Berezovka (Ukraine), daté du niveau Cucuteni A3-A4/Tripolye BI, découvert dans un habitat avec du matériel céramique de type Cucuteni "C" (TSVEK, RASSAMAKIN 2005, 175, 183, fig. 3/9; 7/1).

Pendant l'Âge du Bronze, la typologie des sceptres cruciformes se modifie: les lobes/les protubérances sont plus petits en comparaison avec le corps de la pièce, qui est plus allongé; de plus, apparaissent les pièces coulées en bronze. Ainsi, le sceptre de Borodino (la culture Mnogovalikovaja), travaillé en schiste de talc (une roche métamorphique molle, facile à travailler, mais insuffisamment dure pour satisfaire les requêtes d'une arme), a le corps plus allongé, en forme de poire, les protubérances acquièrent seulement l'aspect de petites proéminences (KLOCHKO 2001, 170, fig. 68/6). La pièce du tombeau de Semenivka (découverte dans un tombeau Mnogovalikovaja), a une forme et des dimensions semblables; pour la réalisation de celle-ci a été utilisée cette fois-ci une roche magmatique – la diorite (KLOCHKO 2001, 170, fig. 68/7), pendant qu'à Vasilyvka (Ukraine, tombeau en *tumulus*, la culture du Dniepr Moyen), le sceptre a été fait en marbre (KLOCHKO 2001, 138, fig. 58/8). A Natalivka

(Ukraine, la culture Srubnaja-Pokrovsk), se retrouve une pièce semblable; cette fois-ci, elle est coulée en bronze (KLOCHKO 2001, 186, fig. 74/1). Une autre pièce faite en roche dure, qui date du Bronze Moyen, respectivement de la culture Tei, a été découverte à Băneasa (LEAHU 1968, 78, fig. 11/1).

Sans avoir la prétention d'offrir un répertoire exhaustif, nous précisons que nous connaissons actuellement, les sceptres cruciformes suivantes, découvertes sur le territoire de la Roumanie et dans le nord-ouest de l'Ukraine:

1. Bădăuți (dép. de Suceava)

Découvert de manière fortuite, dans le lit de la rivière Sucevița. Fait en granit avec hornblende (roche magmatique). Il se retrouve dans les collections du Complexe Muséal Bucovina Suceava.

SZOMBATHY 1899, 49; REZUȘ 1975, 24; D. LUCESCU 1979; EMANDI 1985, 80, fig. 7/2; C. LUCESCU 1996, 92, voir les notes infrapaginales, aussi; DUMITROAIA 2000, 124-125, fig. 83/4; IGNAT 2000, 36; GOVEDARICA 2006, 423, no. 13.

2. Bârlălești-Dealul Ciomaga/Sturza (dép. de Vaslui)

Découvert dans un habitat cucutenien fortifié, avec des matériaux céramiques des phases A et B. Roche volcanique. Les collections du Musée Départemental "Ștefan cel Mare" Vaslui.

COMAN 1980, 129, fig. 118/11; GOVEDARICA 2006, 423, no. 8.

3. Cetea/Ciaclia (dép. d'Alba)

Deux sceptres cruciformes, découverts fortuitement. L'un a été travaillé en calcaire, ayant la longueur de 55 mm; l'autre a été fait en syénite et à la longueur de 60 mm. De Cetea provient encore un sceptre en quartzite, de forme lenticulaire, perforé.

TÉGLÁS 1888, p. 419; NESTOR 1932, 74, note 284; ROSKA 1942, 55, no. 9; DODD-OPRIȚESCU 1978, 95, note 84; GOVEDARICA 2006, 423, no. 6.

4. Decea Mureșului (dép. d'Alba)

Dans le cadre de la nécropole plane à inhumation attribuée au groupe culturel Decea Mureșului, on a découvert en 1912 deux sceptres cruciformes, en granit. Le premier se trouve maintenant dans les collections du Musée National d'Histoire de la Transylvanie et provient du tombeau 12; le

deuxième, qui se trouve maintenant au Musée d'Histoire d'Aiud, a été découvert dans le cadre de la nécropole, sans savoir quel est le tombeau d'où celui-ci provient. Une troisième pièce est mentionnée par Blagoje Govedarica.

KOVÁCS 1932, 95, fig. 11/3, 3a; 1944, 10, fig. 12/3, 3a; NESTOR 1932, 74, fig. 14/2; ROSKA 1942, 159-160, no. 89, fig. 190/9; LUCA 1999, 31; GOVEDARICA 2006, 422, no. 1-3.

5. Dumeni-Dealul Coropcaru (dép. de Botoșani)

Découverte fortuite. Fait en gneiss amphibolique (roche métamorphique), avec ses origines dans la zone des montagnes Oural ou dans la Péninsule de Crimée (voir Annexe).

6. Feldioara-Piscul Lung (dép. de Cluj)

G. Téglás mentionne deux pièces (granite?), découvertes ensemble à trois lames de silex; pourtant, tout en analysant l'illustration de son article, nous sommes d'avis que, du point de vue typologique, seul un sceptre s'encadre dans l'énéolithique; du point de vue typologique, l'autre appartient, à notre avis, à l'Âge du Bronze; il rassemble au sceptre de Băneasa (la culture Tei) (LEAHU 1968, 78, fig. 11/1). I. Nestor mentionne, en échange, seulement un sceptre et les trois couteaux en silex (NESTOR 1933, 74, note 284). L'information du répertoire archéologique du département de Cluj est amusante; on parle de deux sceptres, découverts à des endroits différents (tombeaux à inhumation, un en terre!) et vers la fin de la description, au numéro 3, on affirme qu'en réalité il s'agissait de la même pièce; les deux points auxquels on fait référence sont pourtant situés sur la carte de la commune à grande distance l'un de l'autre. La pièce (où les pièces?) est travaillée en granit (RAJCj, 196, no. 2-3, fig. 100). Tout en faisant référence à la découverte de Feldioara, H. Ciugudean mentionne une seule massue/sceptre, découverte ensemble avec trois couteaux en silex (CIUGUDEAN 1998, 32).

TÉGLÁS 1888, 421; NESTOR 1932, 74, note 284; ROSKA 1942, 172, no. 162; DODD-OPRIȚESCU 1978, 95, note 84; RAJCj, 196, no. 2-3; GOVEDARICA 2006, 422, no. 4.

7. Găleşti (dép. de Mureş)

Découverte fortuite.

TÉGLÁS 1888, 419; NESTOR 1932, 74, note 284; ROSKA 1942, 205, no. 4; DODD-OPRIŢESCU 1978, 95, note 84; GOVEDARICA 2006, 422-423, no. 5.

8. Konovka (dép. Kel'menec, Ukraine)

Un sceptre cruciforme a été découvert dans l'établissement tripolyen de Konovka, près de Hotin, où sont connues des vestiges céramiques de type Tripolye B II et C I (BURDO 2004, p. 244-245).

DOBRŽANS'KJI, MAKAR, MASAN 2002, p. 28.

9. Ocna Sibiului (dép. de Sibiu)

Découverte fortuite dans le lit du ruisseau Viza. Travaillée en granit (NESTOR 1933, 74, note 284) ou trachyte (roche magmatique) (ROSKA 1942, 305).

TÉGLÁS 1888, 421; NESTOR 1932, 74, note 284; ROSKA 1942, 305, no. 85, fig. 368; DODD-OPRIŢESCU 1978, 95, note 84; RAJS, 156, no. 155.11.

10. Şard (dép. d'Alba)

Découvert fortuitement, en 1984, à l'occasion du bêchage d'un puits; les fragments céramiques n'ont été pas récupérés. H. Ciugudean considère qu'il a été fait en granite ou diorite.

CIUGUDEAN 1998, 32 fig. 2; LUCA 1999, 31, fig. 35/5; GOVEDARICA 2006, 423, no. 12.

Pour l'espace transylvain, comme on vient de montrer, en ce qui concerne le contexte culturel et chronologique de cette catégorie d'objets, les recherches ont établi qu'ils ont été véhiculés dans cette région géographique par les porteurs du *groupe culturel Decea Mureşului*. En échange, les trois sceptres découverts dans le Plateau de la Moldavie impliquent des discussions. Tout en tenant compte du niveau chronologique auquel on date le *groupe culturel Decea Mureşului* – énéolithique développé – (PETRESCU-DÎMBOVIŢA 2001, p. 169), nous sommes d'avis que les pièces de Bădeuţi, Bârlăleşti et Dumeni, s'encadrent dans l'horizon des pénétrations steppiques de la fin du IV^{ème} millénaire B.C.; elles ont été véhiculées dans cette zone par les communautés connues sous le nom de *Cucuteni "C"*.

Notre affirmation est soutenue par les nombreuses traces des porteurs de la céramique de type "C" de l'aire tout entière de la culture Cucuteni (MONAH, POPOVICI 1985, 52-167); cette population, par exemple, est attestée dans le département de Suceava dans la zone montagneuse, aux alentours des sources d'eau salée de Cacica (ANDRONIC 1989, p. 174), Solca – *Slatina Mare* (URSULESCU 1977; DUMITROAIA *et alii* 2004, 314-315), Drăgoieşti¹¹, sur les vallées de Suceava, à Mihoveni-*Cahla Morii* (URSULESCU, BATARIUC 1978, 90) et de Siret, à Grigoreşti – *Selişte*¹² ou au centre du Plateau de Suceava, dans l'habitat d'Adâncata – *Dealul Lipovanului*¹³ (ANDRONIC *et alii* 2004, 155, no. 179). De la même manière, on peut mentionner pour le département de Botoşani, un nombre significatif d'habitations avec céramique de facture Cucuteni "C", dans la zone de contact avec le Plateau de Suceava, mais aussi avec la Plaine de Jijia (RAJB). Dans le département de Vaslui, on connaît de nombreux habitats Cucuteni avec céramique de type "C" (COMAN 1980).

En ce qui concerne la présence de la céramique "Cucuteni C" dans l'aire de la culture Cucuteni, nous mentionnons l'opinion unanime des spécialistes, conformément à laquelle les porteurs de cette catégorie céramique se sont remarqués dès la phase Cucuteni A; nous sommes d'avis qu'à cet endroit-ci, nous devons souligner le synchronisme Cucuteni A2 partiellement, A3-A4, Cucuteni A-B partiellement, avec Srednyi Stog II – la culture Nipru-Donet II (MANTU 1998, 149-150); ce synchronisme nous intéresse parce que, dans la nécropole de Mariupol, appartenant à la dernière culture citée, on a découvert des sceptres

¹¹ Explorations de surface inédites exécutées de Bogdan Petru Niculică. Un *briquetage* trouvé dans ce site est mentionné dans l'ouvrage de diplôme de E. I. Emandi (EMANDI 1974, 9).

¹² Explorations de surface inédites: Bogdan Petru Niculică (1999, 2000) et Sorin Ignătescu (2003).

¹³ C'est le seul habitat avec du matériel peint typique pour la phase Cucuteni A-B, découvert jusqu'à présent dans le département de Suceava. La céramique respective a été découverte par nous en 2000, pendant les explorations de surface. De cet habitat provient, aussi, un fragment de hache de type Jászladány, probablement la variante Brad (NICULICĂ 2001, 89-107).

semblables à ceux discutés dans cette étude.

En ce qui concerne les découvertes de type Decea Mureşului, nous devons signaler que, dans la littérature de spécialité de notre pays, celles-ci ont été discutées du point de vue des influences orientales, avec lesquelles elles ont été rapprochées (DODD-OPRIŢESCU 1978, 87-97). Nous devons souligner dans ce contexte le synchronisme soutenu par Sabin Adrian Luca, concernant le groupe culturel Decea Mureşului, avec la phase de transition de Tiszapolgár à Bodrogkeresztúr/Cucuteni A3-A4/Gumelniţa A2 (tardive) / Petreşti B (final?) / Lengyel IV / Sălcuţa III / Balaton I / Ludanice (LUCA 1999, 48). Nous ne pouvons pas omettre le parallèle fait entre les découvertes de type Decea Mureşului et celles de type Csongrád, du territoire de la Hongrie (DODD-OPRIŢESCU 1978, 88, 91, 95).

Si nous tenons compte des données radiocarbone calibrées, pour les phases Cucuteni A et A-B, qui indiquent un palier temporel situé entre 4250/4200 et 3850/3800 B.C. (MANTU 1998, fig. 51), intervalle dans lequel apparaissent les porteurs de la céramique de type "C", nous supposons que les sceptres de Moldavie bénéficient de la même datation. D'ailleurs, pour T 12 de Decea Mureşului (exposé au Musée National d'Histoire de la Transylvanie), duquel provient un sceptre cruciforme, l'analyse ¹⁴C: KIA-368: 5380±40 BP est équivalente à la date de 4237 CAL B.C. (LUCA 1999, 48) ou 4330-4220 / 4200-4170 B.C. (TSVEK, RASSAMAKIN 2005, 187); de cette manière, il correspond aux synchronismes de la chronologie relative.

Nous n'avons pas l'intention de discuter ici la signification ou l'utilité de ces objets; d'ailleurs, on connaît le fait que des objets semblables ont été utilisés comme armes, signes du pouvoir, symboles (signes distinctifs, pièces de parade, sceptres) (DODD-OPRIŢESCU 1978, 95; LICHARDUS, LICHARDUS-ITTEN 1985, 499, fig. 48/2; 48/4; LUCA 1999, 31).

Il est possible que la présence, dans la partie centrale du Plateau de Suceava, du sceptre de Bădeuţi, corrélée avec les deux autres pièces des départements Botoşani et Vaslui, présente l'indice d'un possible trajet suivi par certaines communautés de type

Srednyi Stog II, du nord de la mer Noire, qui ont traversés les Carpates par les points bas de l'Ukraine, dans leur chemin vers la Plaine de Tisa et l'ouest de la Transylvanie; on peut expliquer de cette manière, par exemple, les découvertes de type Csongrád et Decea Mureşului.

En ce qui concerne la chronologie des pièces découvertes en Moldavie, si l'on tient compte du critère morphologique, il est possible que les pièces de Dumeni et Vaslui (semblables entre elles, mais aussi avec les sceptres de Decea Mureşului), soient un peu plus tardif que le sceptre de Bădeuţi. D'autre part, cette chose est difficile à démontrer, car des types différents d'objets peuvent être contemporains. En revanche, nous pensons que nous ne commettons pas d'erreur en avançant l'hypothèse que les trois sceptres de la Moldavie sont plus récents que les pièces transylvaines, si nous tenons compte du possible chemin des objets en cause, de la steppe nord-pontique, le long des Carpates, jusque dans les vallées de Tisza et de Mureş.

En conclusion, tout en connaissant le fait que les sceptres cruciformes ont été produits et véhiculés dans la steppe nord-pontique, par la population de type Srednyi Stog II, en Transylvanie par les porteurs du *groupe culturel Decea Mureşului*, nous sommes d'avis que leur présence dans l'espace est-carpatique, en Moldavie, est liée au milieu *Cucuteni "C"*; de cette manière, d'un certain point de vue, les sceptres cruciformes pourraient être considérés comme de véritables *marqueurs ethniques*.

Nous pensons que la nécessité de réaliser des analyses détaillées, sur la base des technologies modernes, des roches desquelles ont été confectionnés les sceptres cruciformes ne doit plus être démontrée; par l'intermédiaire de celles-ci on peut indiquer, comme dans le cas de la pièce découverte à Dumeni (départ. de Botoşani), l'origine/l'aire source de la roche dans laquelle ont été faits de tels objets.

Il est évident que les populations orientales aient porté très soigneusement les sceptres – objets de prestige, sur de grandes distances et c'est justement la qualité de signe du pouvoir, de signe distinctif, d'attribut d'une position sociale importante dans le

cadre de la communauté respective qui a rendu cette chose possible. En ce sens, les données offertes par l'analyse complexe, minéralogique et pétrographique du sceptre de Dumeni – présentées en Annexe, qui indique comme source de matière première les zones de l'Oural et de la Crimée – sont en parfaite concordance avec l'origine des populations qui ont transporté le type de pièce mis en discussion et, en même temps, avec nos conclusions.

ANNEXE

ÉTUDE MINÉRALOGIQUE ET PÉTROGRAPHIQUE

L'Objet de l'étude: fragment de sceptre cruciforme, découvert dans le cadre de l'établissement cucutenien de Dumeni-Dealul Coropcaru (com. George Enescu, dép. de Botoșani). On a pratiqué dans la pièce une section pour obtenir une lame mince nécessaire à l'étude.

Du point de vue macroscopique, la pièce étudiée est confectionnée d'une roche phanéroblastique, avec des cristaux de grandes dimensions, visibles à l'examen macroscopique (feldspaths, amphiboles, quartz).

La roche a la couleur blanchâtre-brune, avec des tâches noires données par les phénoblastes d'amphibole et une texture orientée.

L'étude microscopique montre que dans la composition de la roche entrent des feldspaths calco-sodiques (plagioclases), mais aussi ceux potassiques, le quartz, les amphiboles, les micas et les minéraux secondaires.

Les feldspaths plagioclases (25-35%) ont des contours anhédrales (irréguliers), sont fréquemment maclés selon la loi du blanchissement, présentent des macles polysynthétiques et sont, d'habitude, sericisés et kaolinisés (fig. 10).

Les feldspaths potassiques sont représentés par le microclin (3-6%) qui peut être reconnu très facilement par le macle en gril (fig. 6-7), qui lui est caractéristique et par l'orthose (5-8%; fig. 2; 2a). Les cristaux de microclin ont des contours anhédrales et présentent des sericisations.

Le quartz (25-35%) apparaît sous forme de cristaux avec contour anhedral; selon les dimensions, on distingue deux générations (fig. 8). Le quartz de petites dimensions (la II-ème génération) apparaît, sous forme de plages, mais

aussi sous forme de diaclases qui ont pénétré la masse de la roche (fig. 9).

Les amphiboles sont représentées par la hornblende verte (8-12%). Les cristaux de hornblende sont longs, prismatiques, ont un contour dentelé, présentent un clivage parfait (fig. 10-11) et d'habitude sont intensément cloritisés (fig. 12-13).

Du groupe des micas on a identifié le muscovite (1%), qui apparaît sous la forme de feuilles extrêmement petites, aisément ondulées, avec clivage parfait (fig. 14-15).

Des minéraux secondaires on remarque, en principal le magnétite (3%) qui apparaît finement dispersé dans toute la masse de la roche (fig. 16).

L'étude minéralogique et pétrographique réalisée nous permet de tirer la conclusion que le gneiss amphibolique utilisée au confectionnement de l'objet provient des régions de l'Oural ou de la Crimée.

Le Centre de Géochimie et Géothermométrie Iași

Analysé: Directeur du Centre: prof. dr. Titus Murariu et lect. dr. Maricel Răileanu.



Fig. 5. Feldspath plagioclase maclé polysynthétique. X 40; N+.



Fig. 6. Microclin et orthose. X 40; N||.



Fig. 7. Microclin et orthose. X 40; N+.

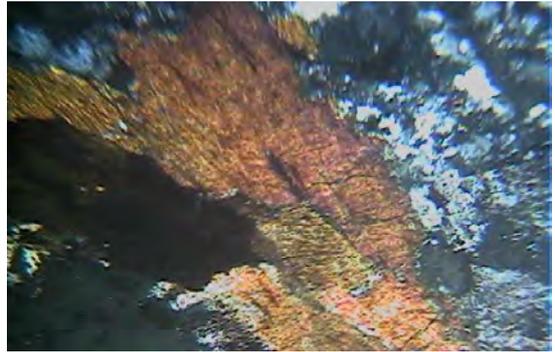


Fig. 11. Hornblende verte. X 40; N+.

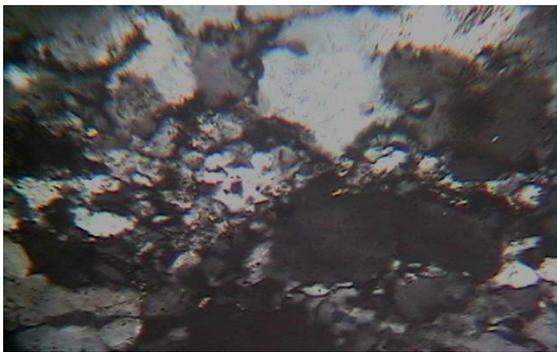


Fig. 8. Deux générations de quartz. X 40; N+.



Fig. 12. Hornblende verte intensément chloritisée.
X 40; N||.



Fig. 9. Diaclases de quartz. X 40; N+.

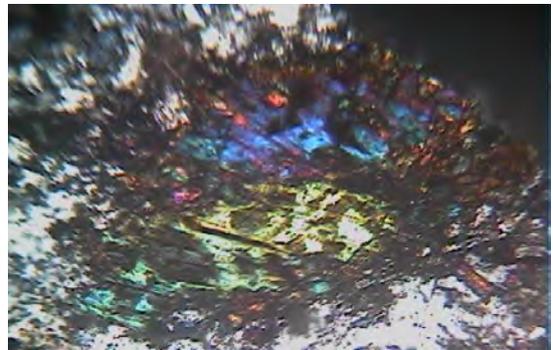


Fig. 13. Hornblende verte intensément chloritisée.
X 40; N +.



Fig. 10. Hornblende verte. X 40; N||.



Fig. 14. Muscovite. X 40; N||.



Fig. 15. Muscovite. X 40; N+.



Fig. 16. Magnetite. X 40; N||.

Bibliographie

- ANDRIEȘESCU Ion
1936 *Cercetări și descoperiri arheologice în Bucovina*, CNA, XII, 105, janvier-mars, p. 161-173.
- ANDRONIC Mugur
1989 *Cacica – un nou punct neolitic de exploatare a sării*, SCIVA, 40, 2, p. 171-177.
- ANDRONIC Mugur et alii
2004 *Noi cercetări arheologice de teren în județul Suceava*, Suceava, XXIX-XXXI/1 (2002-2003), p. 117-226
- BURDO Natalia B.
2004 *Konovka*, in vol.: *Enciklopedija tripil'skoj civilizacii*, tom II, Kijv, p. 244-245.
- CIUGUDEAN Horia
1998 *Noi descoperiri cu caracter „stepic” în eneoliticul transilvănean*, Apulum, XXXV, p. 31-36.
- CHVOJKO Vikentij V.
1899 *Kamennyi vek Srednego Prodneprov'ja*, in vol.: *Trudy XI. Archeologičeskogo s'ezda v Kieve 1899*, 1, Moskva, p. 730-812.
- COMAN Ghenuță
1980 *Statornicie, continuitate. Repertoriul arheologic al județului Vaslui*, București.
- DOBRŽANS'KJI Oleksandr, MAKAR Jurji, MASAN Oleksandr
2002 *Hotinščina. Istoričinji naris*, Cernivci.
- DODD-OPRIȚESCU Ann
1978 *Les éléments steppiques dans l'énéolithique de Transylvanie*, Dacia N.S., XXII, p. 87-97.
- DUMITROAIA Gheorghe
2000 *Comunități preistorice din nord-estul României. De la cultura Cucuteni până în bronzul mijlociu*, BMA VII, Piatra-Neamț.
- DUMITROAIA Gheorghe et alii
2004 *Solca, com. Solca, jud. Suceava. Punct Slatina Mare*, Cronica. Campania 2003, p. 314-315.
- EMANDI Emil Ioan
1974 *Cercetări arheologice în bazinul superior al Șomuzului Mare*, ouvrage de diplôme, Universitatea „Al. I. Cuza” Iași.
1985 *Muzeul de Istorie Suceava*, București.
- GOVEDARICA Blagoje
2006 *Die kreuzförmigen Steinkeulen in der frühen Kupferzeit Südost- und Osteuropas*, in vol.: *Homage to Milutin Garasanin* (éds.: N. Tasić, C. Grozdanov), Belgrad, p. 415-431.
- IGNAT Mircea
2000 *Metalurgia în epoca bronzului și prima epocă a fierului din Podișul Sucevei*, Suceava.
- KLOCHKO Viktor I.
2001 *Weaponry of societies of the northern pontic culture circle: 5000-700 BC*, BPS, 10.
2002 *Maces of the neolithic-bronze age of the northern pontic region*, BPS, 11, p. 22-30.
- KOVÁCS István
1932 *Cimitirul eneolitic dela Decia Mureșului*, AISC, I (1928-1932), p. 89-101.
1944 *A marosdécsei rézkori temető*, KözlK, IV, 1-2, p. 3-20.
- LEAHU Valeriu
1968 *Cultura Tei*, București.
- LICHARDUS Jan, LICHARDUS-ITTEN Marion
1985 *La protohistoire de l'Europe. Le Néolithique et le Chalcolithique entre la Méditerranée et la mer Baltique*, Paris.
- LUCA Sabin Adrian
1999 *Sfârșitul eneoliticului pe teritoriul intracarpatic al României. Cultura*

- Bodrogkeresztúr*, BMAp, XI, Alba Iulia.
- LUCESCU Dimitrie
1979 *Satul Bădeuți – județul Suceava – în vremuri de demult. Monografie istorică*, București, mss.
- LUCESCU Corina
1996 *Ocolul, biserica și curtea domnească de la Bădeuți, în hrisoave și alte documente*, RMI, LXV, 1-2, p. 92-96.
- MANTU Cornelia-Magda
1998 *Cultura Cucuteni. Evoluție, cronologie, legături*, BMA V, Piatra-Neamț.
- MONAH Dan, POPOVICI Dragomir Nicolae
1985 *Corpus-ul descoperirilor*, in vol.: Dan Monah, Ștefan Cucoș, *Așezările culturii Cucuteni din România*, Iași, p. 52-167.
- NESTOR Ion
1932 *Der Stand der Vorgeschichtsforschung in Rumänien*, BRGK 22, Frankfurt am Main.
- NICULICĂ Bogdan-Petru
2001 *O așezare cucuteniană pe teritoriul satului Adâncata (comuna Adâncata, județul Suceava)*, Suceava, XXVI-XXVII-XXVIII (1999-2000-2001), p. 89-107.
- PETRESCU-DÎMBOVIȚA Mircea
2001 *Eneoliticul dezvoltat*, in vol.: *Istoria Românilor*, I, *Moștenirea timpurilor îndepărtate* (coord.: M. Petrescu-Dîmbovița, Al. Vulpe), București, p. 154-169.
- REZUȘ Petru
1975 *Contribuții la istoria orașului Rădăuți*, București.
- ROSKA Márton
1942 *Erdély Régészeti Repertórium*, 1, Kolozsvár.
- SATCO Emil
2004 *Enciclopedia Bucovinei*, Iași.
- SZOMBATHY Joseph
1899 *Vorgeschichte*, in vol.: *Die österreichisch-ungarische Monarchie in Wort und Bild. Bukowina*, Wien, p. 49-56.
- TÉGLÁS Gábor
1888 *Kőbuzogányokról az erdélyi medencze területén*, AÉ, VIII, p. 417-421.
- TOMIUC Vasile
1893 *Istoria satului Milișăuți și ruinele descoperite ale locuinței ispravnicului*, Gazeta Bucovinei, III, 14, juedi, 18 février/2 mars.
- 1907 *Ein Hochbeile aus dem Suczawitza Bach*, MKHD, 3F, 6, p. 200.
- TSVEK Elena, RASSAMAKIN Iurii Ia.
2005 *The interactions between the eastern Tripolye culture and the pontic steppe area: some aspects of the problem*, in vol.: *Cucuteni - 120 years of research. Time to sum up* (eds.: Gh. Dumitroaia et alii), BMA XVI, Piatra-Neamț, p. 173-192.
- URSULESCU Nicolae
1977 *Exploatarea sării din saramură în neoliticul timpuriu, în lumina descoperirilor de la Solca (județul Suceava)*, SCIVA, 28, 3, p. 307-317.
- URSULESCU Nicolae, BATARIUC Victoria-Paraschiva
1978 *Cercetările arheologice de la Mihoveni (Suceava) – 1973*, Suceava, V, p. 89-107.
- VIDEJKO M. Ju.
2004 *Ozbroennja i vijs'kova sprava u plemen tripil'skoj kulturi*, in vol.: *Enciklopedija tripil'skoj civilizacii* (eds.: M. Ju. Videjko, Natalia B. Burdo), 1, Kiiiv, p. 479-506.

QUELQUES REMARQUES SUR LA CÉRAMIQUE PEINTE DE GROUPE CULTUREL HORODIȘTEA/ERBICENI - GORDINEȘTI

RUXANDRA ALAIBA *

Mots clefs: *céramique, Horodiștea/Erbiceni - Gordinești, Trinca-Izvorul lui Luca.*

Cuvinte cheie: *ceramică, Horodiștea/Erbiceni - Gordinești, Trinca-Izvorul lui Luca.*

Résumé. *L'article analyse la céramique découverte dans le site de Trinca-Izvorul lui Luca, appartenant au groupe culturel Horodiștea/Erbiceni - Gordinești. En situant ces découvertes dans un contexte plus large, on essaye d'expliquer le phénomène de la transition des manifestations matérielles de la civilisation Cucuteni-Tripolye avec celles spécifiques de l'Âge du Bronze.*

Rezumat. *Articolul analizează ceramica descoperită în așezarea de la Trinca-Izvorul lui Luca, aparținând grupului cultural Horodiștea/Erbiceni - Gordinești. Prin plasarea acestor descoperiri într-un context mai larg, se încearcă explicarea fenomenului tranziției manifestărilor materiale ale civilizației Cucuteni-Tripolie spre cele specifice epocii bronzului.*

Différents mécanismes herméneutiques ont été mis en place pour l'éclaircissement des étapes parcourues par la magnifique céramique peinte propre à la civilisation Cucuteni-Ariușd-Tripolye, le long des trois étapes. Son extinction pendant la première partie de l'existence du groupe culturel Horodiștea/Erbiceni-Gordinești¹, du grand complexe Gorodosk-Usatovo, formé du fond local énéolithique et transformé à cause de quelques fluctuations des populations est moins spectaculaire et, par la suite, moins connue. La plupart des archéologues qui ont réalisé des fouilles dans l'espace du groupe, datent les habitats principalement par l'analyse de la céramique, d'une part de celle cuite par oxydation, avec des dégraissants de structure fine, d'autre part de celle cuite par semi-réduction et en réduction, avec des dégraissants de granulation forte, principalement de la chamotte, en croissance.

Pour l'éclaircissement du phénomène du passage de la civilisation Cucuteni-Tripolye à l'époque du Bronze, on doit souligner l'importance des fouilles dans les habitats spécifiques au groupe culturel Horodiștea/Erbiceni - Gordinești, comme Trinca, le point *Izvorul lui Luca*. Géographiquement, le village de Trinca appartient au plateau de la Moldavie du Nord, la sous-division des Collines de Trinca, quant à l'aspect administratif il tient du District Edineț, situé au nord-ouest de la République de Moldavie. Le point *Izvorul lui Luca*, où s'étend aussi l'habitat spécifique au groupe culturel Horodiștea/Erbiceni - Gordinești, occupe le promontoire de l'est du village, entouré d'un méandre de la rivière Draghiștea (LEVIȚKI, ALAIBA, BUBULICI 1999, 20 et les suivantes, fig. 15-16/1; 18-19; 25; ALAIBA 1997, 29-30, fig. 1-2). De cet habitat, on a fouillé systématiquement, jusqu'à présent, quatre demeures et deux ateliers pour la cuisson de la céramique. Le premier, contenait un four à deux pièces superposées et a été étudié par le coordonnateur du chantier, le docteur Oleg Levițki, de l'Institut d'Archéologie et d'Histoire Ancienne de Chișinău.

* L'Institut d'Archéologie "Vasile Pârvan" de Bucharest, e-mail: alaiba@yahoo.com

¹ L'avant-dernière et la dernière station éponyme représentent les découvertes archéologiques de l'espace d'entre le Prout et le Dnister, respectivement celui tripolyen.

Après l'inventaire de l'atelier, on va présenter quelques récipients fragmentaires qui sont représentatifs pour la céramique peinte cuite par oxydation, par des photographies (fig. 1) et des dessins (fig. 2).

Les deux premiers tessons, où l'on signale l'influence de la culture Cucuteni (NIȚU 1984, 67, fig. 27/5-6; 28/2-3), ont été peints dans le style propre au sous-groupe ϵ_{1a} , bichrome avec du noir-chocolaté au fond rougeâtre et l'interstice avec du noir tendu ou linéaire (fig. 1/1-2; 2/1-2). Leur présence impose comme probable la datation de l'habitat dans une phase initiale du groupe culturel Horodișteea/Erbiceni - Gordinești.

Les deux fragments suivants, peints dans la tradition de la culture Cucuteni, moins fine, modelés dans une pâte avec des dégraissants de structure fine, rose-jaunette à l'extérieur, ont été peints dans le style ζ . On donne comme exemples, pour illustrer, quelques fragments appartenant à un récipient avec un profil en „S“ large et on ajoute encore un autre, peut-être appartenant au même récipient (fig. 1/7-8; 2/7-8), décorés en style ζ , à peinture trichrome avec des bandes linéaires chocolatées et des bandes rouges libres, au fond blanc.

D'autres fragments ont été ornés avec des bandes linéaires brun-chocolatées, dans des nuances différentes (fig. 1/4, 6; 2/4, 6). L'un d'eux garde sur l'épaule une anse, couverte aussi de bandes linéaires, terminée par des cornes de bovidé, un symbole souvent utilisé dans l'art plastique des communautés de la culture Cucuteni ou Tripolye. Les cornes adoptent – comme soulignait René Guénon, „dans leur utilisation symbolique, deux formes: celle des cornes de bélier, qui est proprement „solaire“, et celle des cornes de taureau, qui est, au contraire, „lunaire“, rappelant même la forme du croissant de la lune (GUÉNON 1997, 194). La couleur brun-chocolaté linéaire trace aussi des motifs annexes, soit des petites boucles à la limite des bandes linéaires (fig. 1/5, 7-8; 2/5, 7-8), présents aussi sur la céramique de type Cucuteni de Darabani II, mais aussi sur la céramique de la période suivante, découverte à Gorodosk (NIȚU 1977, fig. 15/1-2), soit un zigzag disposé le long des mêmes

motifs principaux (fig. 1/7-8; 2/7-8) ou dans des groupes, dans l'espace qui les sépare (fig. 1/3; 2/3). En ce qui concerne la céramique découverte à *Trinca-Izvorul lui Luca*, les zigzags du rebord, peints de façon noir-chocolaté, ont réservé à l'intérieur du récipient des rhombes (fig. 1/3; 2/3). Dans le même endroit, sur l'âtre du four numéro 2 ou dans la fosse numéro 1, ont apparu des fragments de récipients ornés avec les mêmes motifs (LEVIȚKI, ALAIBA, BUBULICI 1999, fig. 25/9). Les rhombes, selon une explication émise par A. Nițu, dans la peinture propre à la culture Cucuteni de Darabani II (Hotin), proviennent de l'union de deux zigzags (NIȚU 1984, 79, fig. 32/7). En revanche, sur un tesson trouvé à *Horodișteea-Pe Prut*, les rhombes et les triangles ont été sauvés négligemment du fond blanc, procédé indiqué par l'extension de la couleur brun jusqu'au bord de la limite zonale (NIȚU 1984, fig. 15/5; DUMITRESCU 1945, 136, fig. 4/6), signe qu'ils ont perdu leur signification mais aussi du déclin de la tradition de peindre les récipients. On découvre des éléments des motifs principaux et de la composition décorative du style expressionniste propre à la culture Cucuteni-Tripolye, dans une première étape, dans le style du groupe Horodișteea/Erbiceni - Gordinești, dans les formes dérivées d'aspect libre du décor avec des bandes linéaires, par la disparition graduelle de la tangente (fig. 1/4; 2/4, 6). Sur d'autres fragments plus couverts de poussière, de couleur rougeâtre clair, la peinture est très décolorée ou n'est plus conservée. La cuisson secondaire a donné aux récipients, parfois, une nuance blanc-verdâtre.

Pour les découvertes de *Trinca-Izvorul lui Luca* on peut établir des analogies avec la céramique peinte de type Cucuteni B de style ϵ ou ζ , de Tg. Ocna-Podei (MATASĂ 1964, fig. 21-21; 23/2), Gura Văii-Siliște (NIȚU, BUZDUGAN, EMINOVICI 1971, 36), Brânzeni III ou Costești (MARCHEVICI 1981, 41, 130-131, fig. 57, 59, 61, 71) ou avec celle propre pour la période de transition trouvée à Gordinești (DERGACEV 1973, 90; MARCHEVICI 1981, 46-50, fig. 80-83, 89), *Erbiceni-Dealul Sărăturilor* (DINU 1987, 139, fig. 1-3), *Horodișteea-Pe Prut* (DUMITRESCU 1945, 130-142, fig. 4/1-4, 6; 5; 8.), mais aussi avec la céramique des habitats plus récemment

recherchés de Tătărauca Nouă-*Piscul gol* ou Cârniceni-*Pe coastă* (SAVA *et alii* 1985, 292 et les suivantes, fig. 12/1-2; 16/3, 5; ALAIBA 1997, fig. 4-10) ș. a.

L'éclaircissement du phénomène de transition de la civilisation Cucuteni-Tripolye avec ses communautés d'agriculteurs, au groupe culturel Horodiștea/Erbiceni - Gordinești avec des communautés mixtes, est renforcé aussi par le changement de style pictural de la céramique conservée dans les complexes des habitats datés dans ces séquences culturelles, parmi lesquelles trouve aussi sa place Trinca-Izvorul lui Luca.

Bibliographie

- ALAIBA Ruxandra
1997 *Cercetări arheologice la Trinca-Izvorul lui Luca, R. Moldova (1994-1995). Cultura Horodiștea -Gordinești*, CAANT, II, p. 20-40.
- DERGACEV Valentin
1973 *Pozdnetripol'skie posselenia u s. Gordinești*, AIM, I, p. 90-100.
- DINU Marin
1987 *Quelques remarques sur la continuité de la céramique peinte du type Cucuteni durant la civilisation Horodiștea-Erbiceni et Gordsk*, in vol.: *La civilisation de Cucuteni en contexte européen* (éds.: M. Petrescu-Dîmbovița *et alii*), BAI I, Iași, p. 133-143.
- DUMITRESCU Hortensia
1945 *La station préhistorique de Horodiștea sur le Pruth, Dacia, IX-X (1940-1944)*, p. 127-153.
- GUÉNON René
1997 *Simboluri ale științei sacre*, traduit du français par Marcel Tolcea et Sorin Șerbănescu, București.
- LEVIȚKI Oleg, ALAIBA Ruxandra, BUBULICI V.
1999 *Raport asupra investigațiilor arheologice efectuate în anii 1997-1998 la Trinca-Izvorul lui Luca, r. Edineț, R. Moldova*, CAANT, III, p. 17-116.
- MARCHEVICI V. I.
1981 *Pozdnetripol'skie plemena Severnoj Moldavii*, Kișinev.
- MATASĂ Constantin
1964 *Așezarea neolitică Cucuteni B de la Tîrgu Ocna-Podei*, ArhMold, II-III, p. 11-66.
- NIȚU Anton
1977 *Continuitatea ceramicii pictate între culturile Cucuteni-Tripolie și Gorodosk - Usatovo*, CI, VII, p. 145-175.
- 1984 *Formarea și clasificarea grupelor de stil A-B și B ale ceramicii pictate Cucuteni-Tripolie*, Iași.
- NIȚU Anton, BUZDUGAN Constantin, EMINOVICI Constantin
1971 *Descoperirile arheologice de la Gura Văii (municipiul Gh. Gheorghiu-Dej)*, Carpica, IV, p. 31-80.
- SAVA Eugen *et alii*
1985 *Investigațiile istorico-arheologice efectuate în microzona istorico-naturală Rudi-Tătărauca Nouă-Arionești - raionul Dondușeni, Republica Moldova*, CAANT, I, p. 281-357.



Fig. 1. Trinca-Izvorul lui Luca. Fragments céramiques peints. 1-2: style ϵ_{1a} , la civilisation Cucuteni; 3, 5, 7-8: style ζ ; 4, 6: style Gordinești, le groupe culturel Horodiștea/Erbiceni - Gordinești.

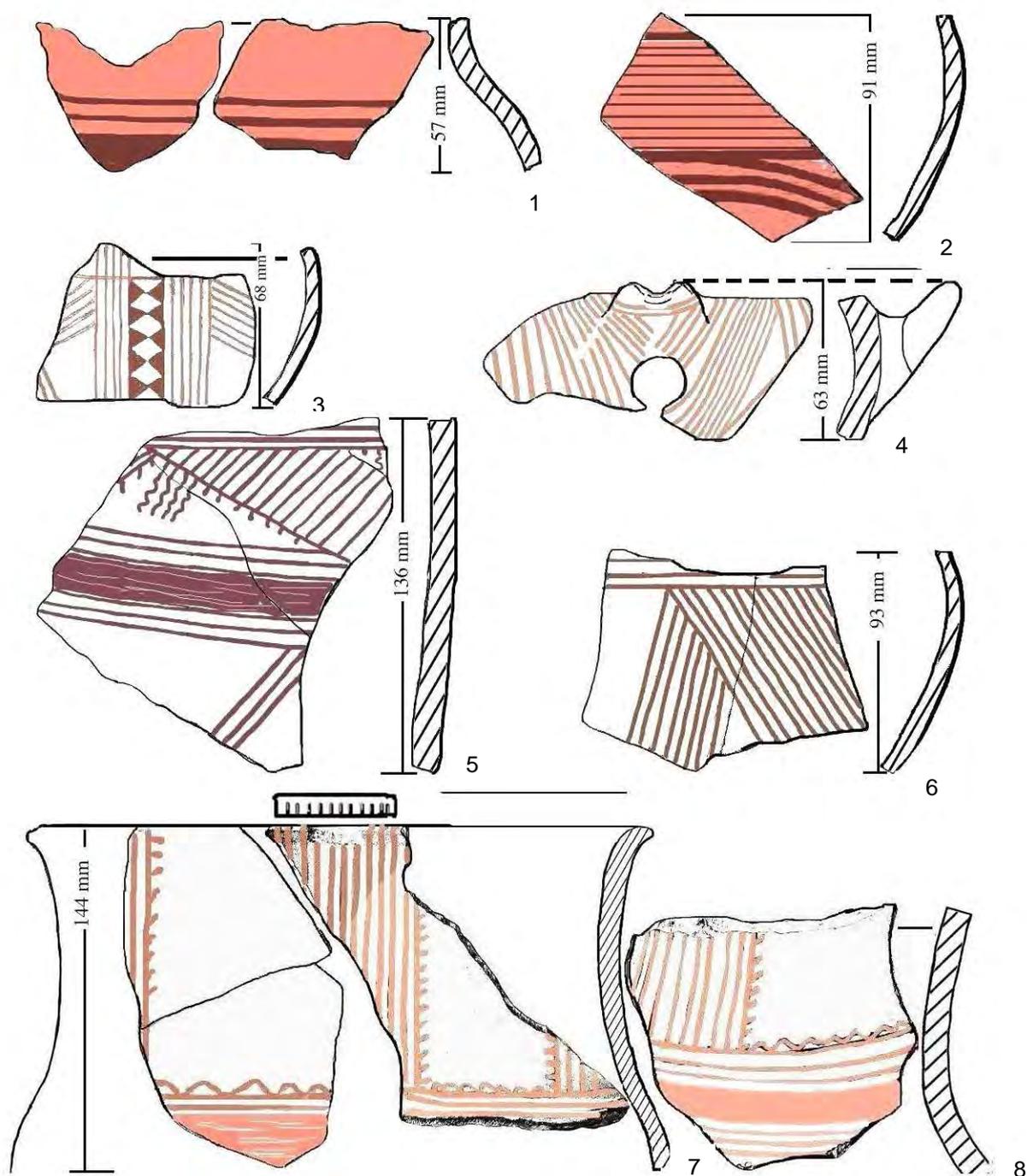


Fig. 2. Trinca-Izvorul lui Luca. Fragments céramiques peints. 1-2: style ϵ_{1a} , la civilisation Cucuteni; 3, 5, 7-8: style ζ ; 4, 6: style Gordinești, le groupe culturel Horodiștea/Erbiceni - Gordinești.

ISSUES IN DEFINING THE FOENI-MINTIA CULTURAL GROUP IN TRANSYLVANIA

SABIN ADRIAN LUCA*

Keywords: *Chalcolithic, Transylvania, Foeni-Mintia cultural group, chronology, cultural relations.*

Cuvinte cheie: *eneolitic, Transylvania, grupul cultural Foeni-Mintia, cronologie, legături culturale.*

Abstract. *Old and new archaeological finds from North of Banat region and south-west Transylvania allowed the author to discuss upon several issues in defining the Foeni-Mintia cultural group. There are presented data on relative and absolute chronology of the sites pertaining to this cultural group. Also the author speaks about the relationships between the bearers of this cultural group and the bearers of neighboring cultures.*

Rezumat. *Descoperiri arheologice mai vechi și mai noi din nordul Banatului și zona sud-vestică a Transilvaniei au permis autorului să discute mai multe probleme ale definirii grupului cultural Foeni-Mintia. Sunt prezentate date despre cronologia relativă și absolută a siturilor aparținând acestui grup cultural, discutându-se legăturile dintre purtătorii acestui grup cultural și cei ai culturilor vecine.*

Several years ago, Cosmin Urian from Sighișoara (surveys done between 2001 and 2004) brought us archaeological finds for publication; the items date from the Early Chalcolithic and are part of the Foeni-Mintia cultural group, characteristic of the end of the chronological and cultural horizon Vinča C₁ (DRAȘOVEAN 2004, 33). These lots appertain to several settlements, in the range of the villages *Diniaș-Gomila Spartă* (LUCA 2005, 123-124; 2006, 90-91), *Sânmihaiu Român-Deal/La Deal* (LUCA 2005, 332-333; 2006, 236) and *Timișoara-Termocentrală* (LUCA 2005, 371-376; 2006, 250-253).

The most characteristic items, dating from the Chalcolithic period, part of the Foeni-Mintia cultural group (as shown in fig. 1-3) were discovered in the settlement of *Sânmihaiu Român-Deal/La Deal*. As the plates show, a large quantity of ceramics was discovered as a result of several archaeological surveys. It should be mentioned though, that, as in the case of other archaeological discoveries in Banat regarding the same chronological and

cultural horizon, the material specific to the Foeni-Mintia cultural group is found in large quantities at the surface of the soil, meaning that the Early Chalcolithic inhabitation has been subjected to destruction due to farming activities in the area.

1. Description of the illustrated archaeological material

1.1. Texture (fig. 1-3). The paste of the pottery is fine, without impurities, well kneaded and strongly baked. The prevalent chromatics comprises yellowish-orange, red-orange, sometimes dark-red, brown and black colours. The species of fine ceramics are strongly baked and polished.

1.2. Painting. The painted decoration is done in red, brownish-red, dark-red, black and white colours. Some times a white slip is applied to the entirety of the vessel's surface. Vessels are painted on their exterior surfaces as well as on the interior ones. The decorative elements consist of clusters of lines in a roof-rafters disposition or triangles with painted interiors, as well as rhombi.

* Brunkental National Museum of Sibiu, e-mail: sabin.luca@brukenthalmuseum.ro

From the technological point of view (as the typological and stylistic point of view is not very relevant), the bitumen painting of the Tăualaş type could indicate a Suplac group as well as Salca-Herpály culture provenience (DRAŞOVEAN 2002, 77), where Foeni-Mintia imports were also discovered (DRAŞOVEAN 2005, 13). However, there were never discovered fragments of pottery painted in the above-mentioned manner as part of painted material lots of a Tăualaş-Mintia type. A selection of images illustrating this particular manner of painting is presented in: LUCA 1997, 74; 1998, 253, pl. I/1-2; 2001, 133-139; LUCA *et alii* 2004, 106-108.

Anthropomorphic and zoomorphic figures, as shown in the published researches, provide a closer connection with the chronological and cultural horizon Vinča C.

The illustrated archaeological materials enable us to reconsider several issues concerning the Foeni-Mintia cultural group in Transylvania.

2. Defining the Foeni-Mintia cultural group

2.1. The stratigraphy of settlements belonging to the Foeni-Mintia group or containing Foeni-Mintia elements

Foeni (Banat). The stratigraphy of the archaeological site in Foeni-*Cimitirul ortodox* presents both horizontal and a vertical data. Although this aspect seems to be obvious, there has never been published an archaeological material systematised according to the levels of the habitation of the Chalcolithic settlement. There has never been taken into consideration an attempt of tracing the internal evolution of the archaeological site on typological and stylistic basis, or considering the stratigraphic position of the objects (MĂRGHITAN 1980, 76; GUDEA, MOȚIU 1983, 192; LAZAROVICI 1979, 210 (catholic cemetery?); 1987, 33-56; 2000, 115-128; LAZAROVICI, LAZAROVICI 2006, 117, 121, 130, 184, 478; MEDELEȚ, BUGILAN 1987, 132; DRAŞOVEAN 1991, 210; 1994, 141-142, 144-145, 147, 149; 1996, 110; 1996a, 273, 275; 1996b, 44; 2003, 42-58; 2004, 27-36; 2006, 129-134; DRAŞOVEAN *et alii* 1997, 17-18; 2000, 37; DRĂGOESCU 1995, 328; MUNTEAN 1996, 287-294; GUMĂ 1997, 15, 22, 26, 28, 29, 30, 32, 36;

GOGĂLTAN 1993b 51-64; 1994, 24; 1995, 57-58; 1999, 200, 204, 205; 2004, 67; EL SUSI 1988, 153-160; 2003, 135-151; SZENTMIKLOSI 2000, 580; SZENTMIKLOSI, DRAŞOVEAN 2004, 40; CHIU 2003, 13-20; AGHIȚOAIE, DRAŞOVEAN 2004, 47-49; MARE 2000, 819; 2000a, 820; 2004, 174; BOCHIȘ 2004, 56; GLIGOR 2006, 15-34).

Mintia (Transylvania). Between 1987 and 1988 (DRAŞOVEAN, LUCA 1990, 7-18), archaeological digs were carried out at *Gerhat* point - known to archaeologists since 1968 (MĂRGHITAN 1968, 7-10). The stratigraphy of the site comprises two levels:

Level I has two sublevels: I.a - presenting surface dwellings, partially preserved due to the acid soil and farming activities; I.b - presenting sunken dwellings, cottage type, which partially upset Level II.

Level II has two sublevels detected as a result of the horizontal stratigraphy analysis (cross hollows). Sublevel II.a presents surface dwellings, while II.b presents sunken dwellings, cottage type. The archaeological material, *Foeni-Mintia* type, came out of the deepened features of the site.

Turdaş. Starting with the year 1875, the archaeological digs at *Luncă* Point were carried out by Szófia von Torma (GOOS 1878, 593; LUCA 2001, 19-32). Researches were carried forward in 1910 by Márton Roska (PÓSTA 1910, 435-436; ROSKA 1928, 3-27; 1928a, 510; 1936; 1938a, 42-51; 1941, 8, 14-15). He is the one who envisaged the first scientific stratigraphy of the site (LUCA 2001, 27-28). Afterwards, many researchers undertook minor soundings and applied pattern recognitions (LUCA 2001, 29).

The latest researches, undertaken between 1992 and 1998 by Sabin Adrian Luca, are partially published (LUCA 2001).

The stratigraphy of the site is as follows (LUCA 2001, 36-48):

Level I – the oldest – belongs to the Turdaş culture. It presents sunken dwellings, cottage type.

Level II – intermediary – also belongs to the Turdaş culture and comprises two sublevels. The first sublevel, II.a, presents sunken dwellings, cottage type. The bitumen painting of Tăualaş type is present here, as well as the painting in red colour or yellow, done in *crusted* technique, of a Tisza I influence (LUCA 2001, 70). There is an import

Tab. 1. The stratigraphy of the Transylvanian settlements and the correlation of their relative chronology with the settlement in Foeni.

The chronology of Turdaş culture	Turdaş-Luncă	Orăştie-Dealul Pemilor, punct X ₂	Călan-Între Sălcii	Cerşor-Peştera Cauce	Deva-Tăualaş	Nandru-Către Vale	Mintia-Gerhat	Foeni-Cimitirul Ortodox	Miercurea Sibiului-Petriş	Alba Iulia-Lumea Nouă
Vinča A ₃ /B ₁	-	-	-	-	-	X ?	-	-	X	X ?
Vinča B ₁ /B ₂	-	-	-	-	-	-	-	-	-	X
Turdaş I Vinča B ₂ /C ₁	X	-	-	-	- ?	X	-	- ?	-	X
Turdaş II Vinča C ₁	X	X	X	-	X	X	X	X	-	X
Turdaş III Vinča C ₁	X	X	X	X	X	- ?	X	X	-	X
Turdaş IV	-	- ?	-	-	- ?	-	-	X	-	X
Petreşti Vinča C ₂	X	-	-	X	-	-	-	X ?	X	X

from the Hamangia culture as part of this sublevel. The second sublevel, II.b presents surface dwellings. Painting in white colour is present here. The discovery of ceramic material of a *Foeni-Mintia pattern* and Pre-Cucuteni fragments is associated to this sublevel (LUCA 2001, 70).

Level III belongs to the Petreşti culture and presents surface dwellings.

Alba Iulia - Lumea Nouă. In the previous archaeological digs in *Lumea Nouă*, three levels of inhabitation were observed (BERCIU, BERCIU 1946, 1-77; 1949, 1-43; BERCIU 1968, 53-58).

In sector I of the settlement – section VII/ 1976 – the following stratigraphic succession was found (PAUL 1992, 26-30):

- Level I comprising two sublevels: I.a and I.b, to be integrated with Vinča B₁/B₂ phase;

- Level II comprising three successive sublevels of inhabitation: I.a, I.b, I.c, to be integrated in *Lumea Nouă* group;

- Level III belongs to the Petreşti culture.

Even if the artefacts from the settlement in *Lumea Nouă* were published in one of the latest researches (GLIGOR 2006, 9-34), there are still no stratigraphic data mentioned in these studies.

2.2. Relative chronology

In *Parța-tell II*, the Foeni-Mintia inhabitation covers the Vinča C₁ horizon. In Chişoda Veche, the Foeni-Mintia discoveries are part of level II, Vinča C₁ and the older level is dated to the beginning of the phase.

In conclusion, the horizon of the discoveries is partially contemporary with Vinča C₁ (DRAŞOVEAN 2005, 12).

Notable is that the above mentioned author asserts the existence in Transylvania of a horizon Turdaş II, Tăualaş II, Orăştie-Dealul Pemilor, contemporary with the Foeni-Mintia migration. There have also been found “clean” settlements in Transylvania, belonging to Mintia-Foeni such as: Mintia, Zau de Câmpie, Baci, Archiud (DRAŞOVEAN 2004, 33).

As regards the relation with Vinča C₁ phase, the migration process of the Foeni communities is to be found at the completion of this particular phase (DRAŞOVEAN 2003, 45; 2004, 33; 2005, 12). In Banat, the process is a violent one, leading to the destruction of the communities of Chişoda Veche, Parța or Uivar (DRAŞOVEAN 2005, 12).

The genesis of the Petreşti culture is at the Vinča C₁ horizon, dating from its completion (DRAŞOVEAN 2002, 77), while the Foeni-Mintia moment is contemporary with classical Tisza (DRAŞOVEAN 2005, 12) and Salca-Herpály (DRAŞOVEAN 2005, 12). The migration process leads – in Draşovean’s opinion – to the dislocation of Turdaş communities in the Mureş River valley and to their dissemination towards central Transylvania (DRAŞOVEAN 2005, 13).

2.3. Absolute chronology

The absolute data concerning Foeni-Cimitirul ortodox, published until present, are: 5835±40 BP (Deb-5725), 5855±85 BP, contemporary – in Draşovean’s opinion –

Tab. 2. The relative and absolute chronology of Transylvanian settlements correlated with the settlement of Foeni.

Chronology of the Turdaş culture	Turdaş-Luncă	Orăştie-Dealul Pemilor, Punctul X ₂	Călan-Între Sălcii	Cerişor-Cauce Cave	Deva-Tăualaş	Nandru-Către Vale	Mintia-Gerhat	Foeni-Cimitirul ortodox	Miercurea Sibiului-Petriş	Alba Iulia-Lumea Nouă
Vinča A ₃ /B ₁	-	-	-	-	-	X ? - level I ?	-	-	X - level II.b 6350±130BP GrN-29053	X ? - level I.a
Vinča B ₁ /B ₂	- ?	-	-	-	-	-	-	-	-	X - level I.b
Turdaş I	X - level I	-	-	-	-	X - level II ?	-	- ? - level ?	-	X ? - level II.a
Turdaş II	X - level II.a	X - level I 6070±70BP? 5825±60 BP 5790±55 BP	X - level I	-	X	X - level II ?	X - level I	X - level ? 5835±40 BP 5855±85 BP	-	X - level II.b
Turdaş III	X - level IIb	X - level II	X - level II	X - level II 760±40 BP	X	-	X - level II	X - level ? 5782±27 BP 5699±37 BP	-	X - level II.c
Petreşti	X - level III	-	-	-	-	-	X ? - level II.a?	- ?	X - level III	X - level III

with Petreşti A (DRAŞOVEAN 2003, 45; 2004, 33) and 5782±27 BP (Hd-33658), 5699±37 BP (Hd-22653) (DRAŞOVEAN 2003, 45), the latest data being published only in the Romanian version of his study.

Concerning *Orăştie-Dealul Pemilor, Punctul X₂*, the following data were published: 6070±70 BP (Deb-5765), 5825±60 BP (Deb-5762) and 5790±55 BP (Deb-5775).

Turdaş Level in *Cerişor-Cauce Cave* is dated: 5760±40 BP (GrN-28994).

The correlations of these data indicate that the discoveries of the Turdaş culture are older than that of the Foeni-Mintia cultural group, as it may be noticed in Tab. 4.

Regarding the Turdaş culture, in one of his previous studies, this author suggested the period BP 5950-5750; the latest data and stratigraphic correlations force him to suggest a prolongation of 100 years BP for the absolute time of the culture (6150 ?) 6100-5800 (5700 ?) BP.

3. Conclusions

At the end of this short presentation there are several affirmations to be made:

1. The Turdaş culture is older than the Foeni-Mintia cultural group.

2. The Petreşti culture can't possibly be contemporary with the beginnings of the Turdaş culture – according to the stratigraphic observations done in Transylvania – but, perhaps, it could be contemporary with its IIIrd phase.

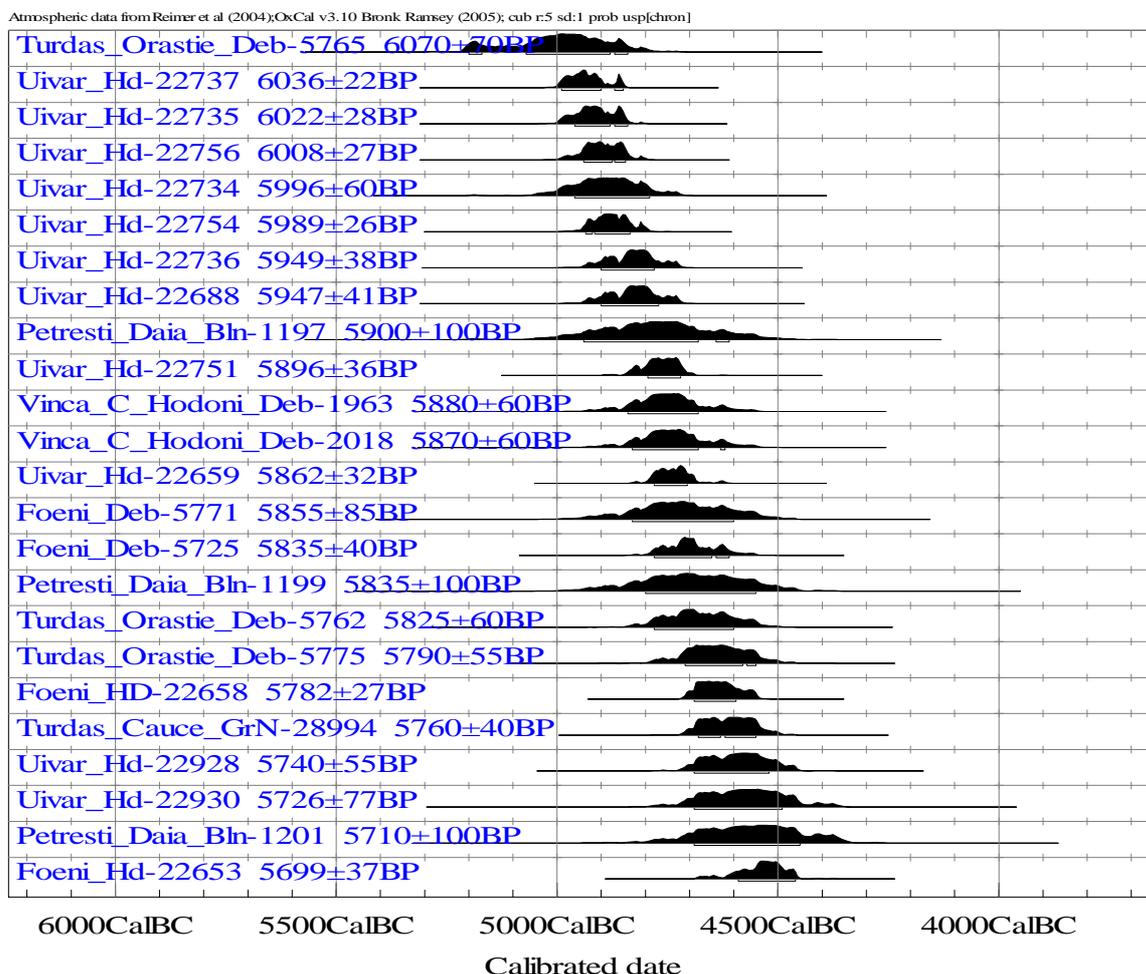
3. The Foeni-Mintia cultural group has a decisive contribution to the genesis of the Petreşti culture. The relative chronological horizon of its dissemination in Transylvania is Turdaş II, while the absolute one is around the year 5850 BP. At the arrival of this group in Transylvania, the Petreşti culture wasn't born yet.

4. The genesis of the Petreşti culture was done on the foundation laid by the Turdaş culture, stimulated by the newcomers, at the same time as phase III of this culture.

Tab. 3. The absolut dates from chalcolithic cultures in Transylvania.

CULTURE	PHASE	SETTLEMENT	LABNR	BP	STD	LOCALIZATION	OBSERVATIONS
Turdaş		Orăştie-Dealul Pemilor, Punctul X ₂	Deb-5765	6070	70	B ₂ the second walking level, 120 cm, human brain-case, level I	
NI		Uivar	Hd-22737	6036	22	Ui-112, Befund 205, Hausbefund, unter Wandversturz,	Befund 205, Hausbefund, unter Wandversturz, Schnitt I
NI		Uivar	Hd-22735	6022	28	Ui-106, Befund 205, Hausbefund, aus Brandversturz	Befund 205, Hausbefund, aus Brandversturz, Schnitt I
NI		Uivar	Hd-22756	6008	27	Ui-037, Befund 1046, Rechteckgrube	Befund 1046, Rechteckgrube; Schnitt IV
NI		Uivar	Hd-22734	5996	60	Ui-019, Befund 370, Verfüllung Grubenhaus (schneidet 351/373)	Befund 370, Verfüllung Grubenhaus (schneidet 351/373), Schnitt I
NI		Uivar	Hd-22754	5989	26	Ui-036, Befund 1021, Verziegelte Rechteckgrube liegendes Holz	Befund 1021, Verziegelte Rechteckgrube liegendes Holz, Schnitt IV
NI		Uivar	Hd-22736	5949	38	Ui-010, befund 351/373, hausbefund, aus Brandversturz	Befund 351/373, hausbefund, aus Brandversturz, Schnitt I
NI		Uivar	Hd-22688	5947	41	Ui-115, Befund 54, Hausbefund, Rotlehmversturz / Ascheschicht	Befund 54, Hausbefund, Rotlehmversturz/Ascheschicht, Schnitt II
Petreşti	A	Daia Română	BIn-1197	5900	100	S V / 1971	
NI		Uivar	Hd-22751	5896	36	Ui-051, Befund 1043, Verfüllung innerer Innengraben, Δ77,12 m	Befund 1043, Verfüllung innerer Innengraben, Δ77,12 m, Schnitt IV
Vinča	C1	Hodoni	Deb-1963	5880	60	Hallow 4, bone	C1 after Mantu 2000, 98
Vinča	C1	Hodoni	Deb-2018	5870	60	Not indicated	C1 after Mantu 2000, 98
NI		Uivar	Hd-22659	5862	32	Ui-052, Befund 1043, Verfüllung innerer Innengraben, Δ77,86 m	Befund 1043, Verfüllung innerer Innengraben, Δ77,86 m, Schnitt IV
Foeni		Foeni	Deb-5771	5855	85	Not indicated	
Foeni		Foeni	Deb-5725	5835	40	Not indicated	
Petreşti	A	Daia Română	BIn-1199	5835	100	Not indicated	
Turdaş		Orăştie-Dealul Pemilor, punct X ₂	Deb-5762	5825	60	B ₁ , Bos thighbone, first walking level of the cottage, level I	
Turdaş		Orăştie-Dealul Pemilor, punct X ₂	Deb-5775	5790	55	B ₂ , second walking level, 120 cm, human brain-case, level I	
Foeni		Foeni	HD-22658	5782	27	Not indicated	
Turdaş		Cauce Cave	GrN-28994	5760	40	Bone, Bos tibia sx, gr. 104, depth 50 cm from surface	
NI		Uivar	Hd-22928	5740	55	Ui-056, Befund - ,Verfüllung2, Ausengraben Süd	Befund - , Verfüllung 2, Ausengraben Süd, Schnitt IX
NI		Uivar	Hd-22930	5726	77	Ui-050, Befund 1029, Verfüllung äusserer Innengraben, 1.4 m unter OK	Befund 1029, Verfüllung äusserer Innengraben, 1.4 m unter OK, Schnitt IV
Petreşti	A	Daia Română	BIn-1201	5710	100	Not indicated	
Foeni		Foeni	Hd-22653	5699	37	Not indicated	

Tab. 4. Calibrated date from chalcolithic settlements in Transylvania.



INFORM : References - Atmospheric data from Reimer et al (2004); OxCal v3.10 Bronk Ramsey (2005); cub r:5 sd:1 prob usp[chron]	Vinca_C_Hodoni_Deb-1963 : 5880±60BP 4840BC (68.2%) 4680BC
	Vinca_C_Hodoni_Deb-2018 : 5870±60BP 4830BC (67.1%) 4680BC 4630BC (1.1%) 4620BC
Turdas_Orastie_Deb-5765 : 6070±70BP 5200BC (3.6%) 5170BC 5070BC (59.2%) 4880BC 4870BC (5.4%) 4840BC	Uivar_Hd-22659 : 5862±32BP 4780BC (68.2%) 4705BC
Uivar_Hd-22737 : 6036±22BP 4990BC (64.0%) 4900BC 4870BC (4.2%) 4850BC	Foeni_Deb-5771 : 5855±85BP 4830BC (68.2%) 4600BC
Uivar_Hd-22735 : 6022±28BP 4960BC (53.1%) 4880BC 4870BC (15.1%) 4840BC	Foeni_Deb-5725 : 5835±40BP 4780BC (58.9%) 4650BC 4640BC (9.3%) 4610BC
Uivar_Hd-22756 : 6008±27BP 4940BC (49.7%) 4875BC 4870BC (18.5%) 4845BC	Petresti_Daia_Bln-1199 : 5835±100BP 4800BC (68.2%) 4550BC
Uivar_Hd-22734 : 5996±60BP 4960BC (68.2%) 4790BC	Turdas_Orastie_Deb-5762 : 5825±60BP 4780BC (68.2%) 4600BC
Uivar_Hd-22754 : 5989±26BP 4935BC (7.0%) 4920BC 4915BC (61.2%) 4835BC	Turdas_Orastie_Deb-5775 : 5790±55BP 4710BC (63.2%) 4580BC 4570BC (5.0%) 4550BC
Uivar_Hd-22736 : 5949±38BP 4900BC (68.2%) 4780BC	Foeni_HD-22658 : 5782±27BP 4690BC (68.2%) 4595BC
Uivar_Hd-22688 : 5947±41BP 4900BC (68.2%) 4770BC	Turdas_Cauce_GrN-28994 : 5760±40BP 4680BC (26.3%) 4630BC 4620BC (41.9%) 4550BC
Petresti_Daia_Bln-1197 : 5900±100BP 4940BC (65.4%) 4680BC 4640BC (2.8%) 4610BC	Uivar_Hd-22928 : 5740±55BP 4690BC (68.2%) 4520BC
Uivar_Hd-22751 : 5896±36BP 4795BC (68.2%) 4720BC	Uivar_Hd-22930 : 5726±77BP 4690BC (68.2%) 4490BC
	Petresti_Daia_Bln-1201 : 5710±100BP 4690BC (68.2%) 4450BC
	Foeni_Hd-22653 : 5699±37BP 4590BC (68.2%) 4460BC

Tab. 5. Cultural and architectural connections between Banat region and the region of Transylvania during Turdaş culture.

The chronology of Turdaş culture	Turdaş-Luncă	Orăştie-Dealul Pemilor, Punctul X ₂	Călan-Între Sălcii	Mintia-Gerhat	Foeni-Cimitirul ortodox	Alba Iulia-Lumea Nouă	Cerişor-Cauce Cave
Turdaş I	X - cottage type dwellings	-	-	-	- ?	X ? - surface dwellings - ceramics <i>Lumea Nouă</i> type	-
Turdaş II	X - dwellings, cottage type - Tisza imports	X - dwellings, cottage type - Tisza imports	X - dwellings, cottage type - Tisza imports?	X - dwellings, cottage type - painting Foeni-Mintia type	X - dwellings, cottage type? - Tisa imports - painting Foeni-Mintia type	X ? - surface dwellings - ceramics <i>Lumea Nouă</i> type - painting Foeni-Mintia type	-
Turdaş III	X - surfaced dwellings presenting a specific architecture - Tisza imports - bitumen painting Tăualaş type - Pre-Cucuteni I imports - Hamangia imports - Herpály imports	X - surface dwellings presenting a river rock floor - Tisza imports - bitumen painting Tăualaş type - Pre-Cucuteni I imports - the genesis of the Iclod group	X - surface dwellings - bitumen painting Tăualaş type	X - surface dwellings presenting a specific architecture - Tisza imports - painting, Foeni-Mintia type - Pre-Cucuteni I imports	X - surface dwellings presenting a specific architecture - Tisza imports - painting Foeni-Mintia type	X - surface dwellings - ceramics <i>Lumea Nouă</i> type ? - painting Foeni-Mintia type	X - painting Foeni-Mintia type -Pre-Cucuteni I imports - bitumen painting Tăualaş type

5. There is also a „phase IV” of the Turdaş culture, contemporary with the Petreşti oldest settlements, one proof being the settlements in the area of Hunedoara and those in the area of the Someşul Mare and Someşul Mic Rivers. The dislocation of the Turdaş settlements – if it ever existed – doesn't necessarily imply the departure of the communities, in their totality, from the middle area of the Mureş River, but – more likely and/or – a technological and civilisation export.

6. The Petreşti culture, as it was defined by Iuliu Paul, existed neither in Banat, nor in the structures and circumstances known in Transylvania.

7. Radiocarbon dating shows that the settlement and – implicitly – the Foeni-Mintia cultural group existed, toward the end of their evolution, during the Petreşti culture, a fact that confirms, one more time, the existence of Foeni-Mintia cultural imports in

the first phase of the Petreşti culture, and it doesn't confirm the existence of Foeni-Mintia settlements (Baciu, Archiud, Zau de Câmpie etc.) as it was thought. As a matter of fact, none of these settlements has been completely published in what concerns the stratigraphy, artefacts analysis etc, but only selectively (especially few elements of painted ornaments).

8. In the present stage of research, the appropriate terminology is *Foeni-Mintia cultural group* due to the fact that the cultural phenomenon has, in Transylvania, “clean” settlements as well (see *Mintia-Gerhat* and – possibly – one of the levels in *Alba Iulia-Lumea Nouă*). There are some differences between Banat and Transylvania; the stratigraphy in Mintia is – for the moment – the only one known through the means of scientific publication, the publishing of Mintia discoveries being previous to the published material concerning the settlement in Foeni.

9. The existence of "clean" Foeni-Mintia settlements farther than Mintia, toward Transylvania can't be demonstrated – in the present stage of research. All settlements in Transylvania present painted materials of Foeni-Mintia type, which are cultural imports in Turdaş or Petreşti (?) environment.

Bibliography

- AGHIŢOAIIE Viorica, DRAŞOVEAN Florin
2004 *Date despre impresiunea unei țeșături descoperită în așezarea neolitică târzie de la Foeni-„Cimitirul Ortodox” (jud. Timiș, PB, 3, p. 47-49.*
- BERCIU Dumitru, BERCIU Ion
1946 *Cercetări și săpături arheologice în județele Turda și Alba, Apulum, II (1943-1945), p. 1-77.*
1949 *Săpături și cercetări arheologice în anii 1944-1947, Apulum, III (1946-1948), p. 1-43.*
- BERCIU Ion
1968 *Importanța complexului neolitic „Lumea Nouă” în lumina noilor cercetări (1961-1963), Apulum, VII/1, p. 53-58.*
- BOCHIȘ Bogdan
2004 *Contribuții la repertoriul așezărilor Tiszapolgár din Banatul românesc, PB, 3, p. 51-62.*
- CHIU Florentina
2003 *Cercetări arheozoologice în situl neolitic de la Foeni-Cimitirul Ortodox (jud. Timiș). Campania 2002, AnB S.N., 10-11 (2002-2003), p. 13-20.*
- DRAŞOVEAN Florin
1991 *Connections between Vinča C and Tisa, Herpály, Petrești and Bucovăț cultures in norther Banat, Banatica, 11, p. 209-211.*
1994 *The Petrești Culture in Banat, AnB S.N., III, p. 139-170.*
1996 *Cultura Vinča târzie (faza C) în Banat, BHAB I, Timișoara.*
1996a *Relation of Vinča culture phase C with the Transylvanien region, in vol.: The Vinča culture, its role and cultural connections, Timișoara, p. 269-278.*
1996b *Foeni, jud. Timiș, Cronica. Campania 1995, p. 44.*
2002 *Locuirile neolitice de la Hunedoara - Cimitirul Reformat și Grădina Castelului și o luare de poziție față de câteva opinii privind realitățile neo-eneoliticului din sud-vestul Transilvaniei, Apulum XXXIX, p. 57-94.*
- 2003 *Transilvania și Banatul în neoliticul târziu. O contribuție la originile culturii Petrești, Apulum, XL, p. 39-58.*
- 2004 *Transylvania and the Banat in the Late Neolithic: the origins of the Petrești culture, Antaeus, 27, p. 27-36.*
- 2005 *Zona thesalo-macedoneană și Dunărea mijlocie la sfârșitul mileniului al VI-lea și la începutul mileniului al V-lea a.Chr., Apulum, XLII, p. 11-26.*
- 2006 *Burials in the Area of the Foeni Culture Group, AnB S.N., 14/1, p. 129-134.*
- DRAŞOVEAN Florin, LUCA Sabin Adrian
1990 *Considerații preliminare asupra materialelor neo-eneolitice din așezarea de la Mintia (com. Vețel, jud. Hunedoara), SCIVA, 41, 1, p. 7-18.*
- DRAŞOVEAN Florin et alii
1997 *Foeni, jud. Timiș, Cronica. Campania 1996, p. 17-18.*
2000 *Foeni, jud. Timiș. Punct: Cimitirul Ortodox, Cronica. Campania 1999, p. 37.*
- DRĂGOESCU Maria
1995 *Descoperiri arheologice și numismatice pe teritoriul Banatului între anii 1872-1918, AnB S.N., 4, p. 315-375.*
- EL SUSI Georgeta
1988 *Considerații privind fauna din așezarea hallstattiană timpurie de la Remetea Mare-Gomila lui Pituț, TD, IX, 1-2, p. 153-160.*
2003 *Analogii și diferențe între economiile animaliere ale comunităților Vinča C și grupul Foeni în așezări din Banat, Banatica, 16/1, p. 135-151.*
- GLIGOR MIHAI
2006 *Considerații privitoare la neoliticul târziu/ eneoliticul timpuriu din sud-vestul Transilvaniei. Materiale ceramice de la Alba Iulia-Lumea Nouă, Apulum, XLIII/1, p. 9-34.*
- GOGĂLTAN Florin
1993 *Foeni, eine frühbronzezeitliche Siedlung aus dem Südwesten Rumäniens, TD, 14, 1-2, p. 51-64.*
1994 *Foeni, jud. Timiș, Cronica. Campania 1993, p. 24.*
1995 *Die Frühe Bronzezeit im Südwesten Rumäniens. Stand der Forschung, TD, 16, 1-2, p. 55-80.*
1999 *Bronzul timpuriu și mijlociu în Banatul românesc și pe cursul inferior al Mureșului, BHAB, 23, Timisoara.*
2004 *Tell-uri în Orientul Apropiat și Bazinul Carpat. O scurtă privire comparativă*

- asupra habitatului preistoric (I), ATS, III, p. 43-118.
- GOOS Carol
1878 *Bericht über die von Fräulein Sofie von Torma in der Sitzung der historischen Sektion der Vereins für Siebenbürgische Landeskunde im August 1877 ausgestellte Sammlung prähistorischen Funde*, AVSL, 14, 3, p. 592-626.
- GUDEA Nicolae, MOȚIU Ion
1983 *Observații în legătură cu istoria Banatului în epoca romană*, Banatica, 7, p. 151-202.
- GUMĂ Marian
1997 *Epoca bronzului în Banat. Orizonturi cronologice și manifestări culturale*, BHAB, 5 Timișoara.
- LAZAROVICI Gheorghe
1979 *Neoliticul Banatului*, Cluj-Napoca.
1987 „Șocul” Vinča C în Transilvania. *Contribuții la geneza eneoliticului timpuriu*, AMP, 11, p. 33-56.
2000 *The eye – symbol, gesture, expression*, Tibiscum, 10, p. 115-128.
- LAZAROVICI Cornelia-Magda, LAZAROVICI Gheorghe
2006 *Arhitectura neoliticului și epocii cuprului din România. I. Neoliticul, Iași*.
- LUCA Sabin Adrian
1997 *Așezări neolitice pe valea Mureșului (I). Habitatul turdășean de la Orăștie-Dealul Pemilor (punct X₂)*, Alba Iulia.
1998 *Relațiile culturale de la sfârșitul neoliticului dezvoltat dintre Transilvania și ținuturile înconjurătoare*, CCDJ, XVI, p. 252-262.
2001 *Așezări neolitice pe valea Mureșului (II). Noi cercetări arheologice la Turdaș-Luncă. I. Campaniile anilor 1992-1995*, BMAp 17, București.
2005 *Arheologie și istorie (II). Descoperiri din Banat*, BS 10, București.
2006 *Descoperiri arheologice din Banatul românesc*, BS 18, Alba-Iulia.
- LUCA Sabin Adrian et alii
2004 *Cercetări arheologice în Peștera Cauce*, București.
- MARE Mircea
2000 *Activitatea de cercetare arheologică a Muzeului Banatului în anul 1998*, AnB S.N., VII-VIII (1999-2000), p. 819.
- 2000a *Activitatea de cercetare arheologică a Muzeului Banatului în anul 1999*, AnB S. N., VII-VIII (1999-2000), p. 820.
- 2004 *Banatul între secolele IV-IX*, Timișoara.
- MĂRGHITAN Liviu
1968 *O nouă așeyare neolitică pe Valea Mureșului*, Sargetia, V, p. 7-10.
1980 *Considerații referitoare la geneza și evoluția societății dace pe meleagurile bănățene*, Ziridava, XII, p. 71-84.
- MEDELEȚ Florin, BUGILAN Ion
1987 *Contribuții la problema și la repertoriul movilelor de pământ din Banat*, Banatica, IX, p. 87-198.
- MUNTEAN Marius
1996 *Die antropologische Bestimmung eines der neolitischen Petrești-Kultur / Foeni Group angehörenden Skelettes aus Foeni (Kreis Timiș, Rumänien)*, in vol.: *The Vinča culture, its role and cultural connections*, Timișoara, p. 287-294.
- PAUL Iuliu
1992 *Cultura Petrești*, București.
- PÓSTA Bella
1910 *Tordosi ásatásoiról*, AÉ, XXX, p. 435-436.
- ROSKA Márton
1928 *Stațiunea neolitică de la Turdaș*, PMJH, 3-4, p. 3-27.
1928a *Casa neolitică dela Turdaș*, AO, VII, 39-40, p. 510.
1936 *Erdély neolithikumának stratigráfiája (La stratigraphie du néolithique en Transylvanie)*, DolgSz, 1-2, p. 42-51.
1936a *Érdély öskora*, in vol.: *Astalos Miklós, A Történeti Érdély*, Budapest, p. 71-125.
1941 *Sammlung Zsófia von Torma in der Numismatische Archaeologischen Abteilung des Siebenbürgischen Nationalmuseum*, Kolossvár.
- SZENTMIKLOSI Alexandru
2000 *Un inel de tâmplă din aur de la Foeni*, AnB S.N., VII-VIII (1999-2000), p. 577-588.
- SZENTMIKLOSI Alexandru, DRAȘOVEAN Florin
2004 *Arta prelucrării bronzului în Banat*, Timișoara.



Fig. 1. Sânmihaiu Român-Deal. The Foeni-Mintia cultural group. Ceramic fragments and clay objects.

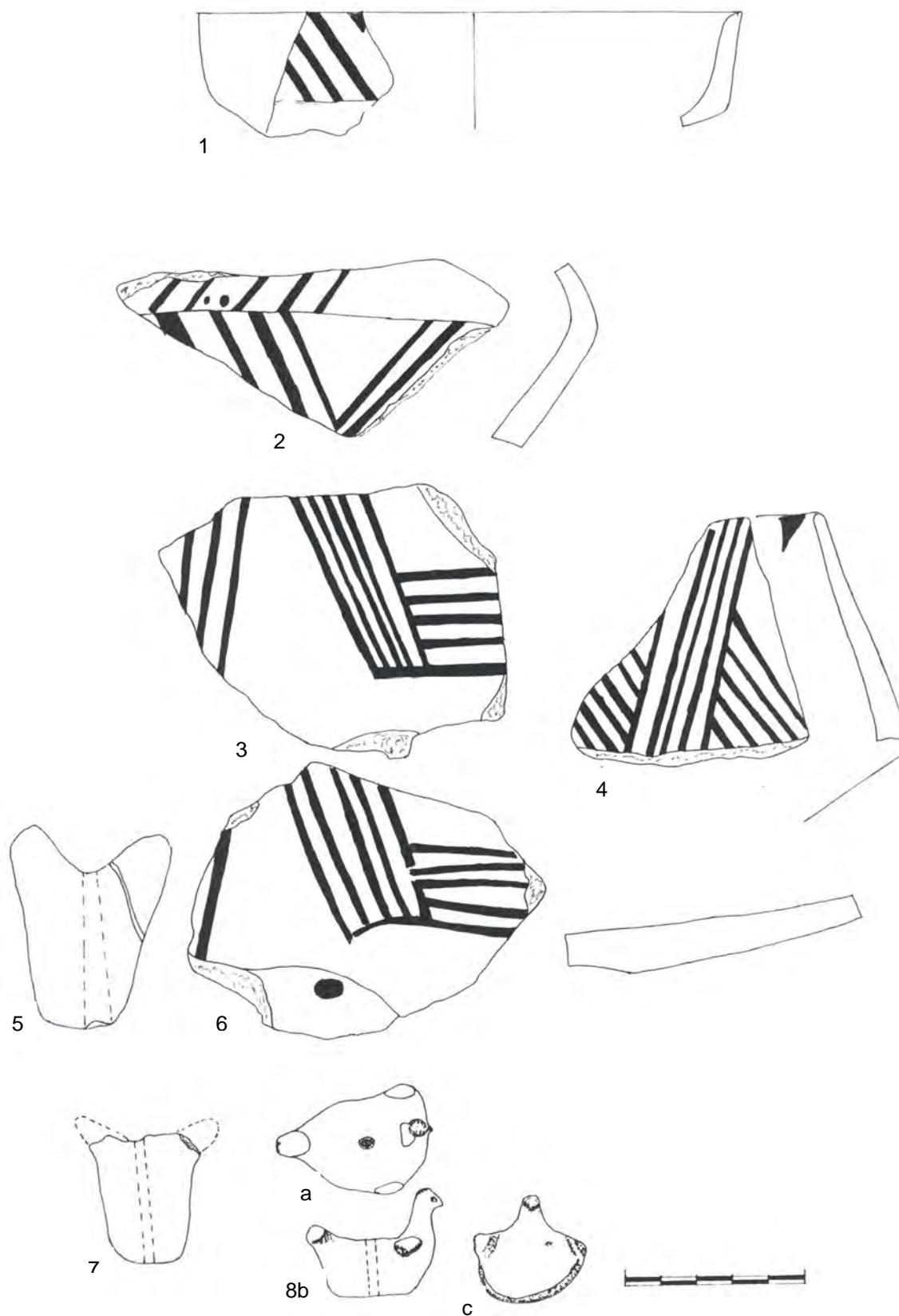


Fig. 2. Sânmihaiu Român-Deal. The Foeni-Mintia cultural group. Ceramic fragments and clay objects.

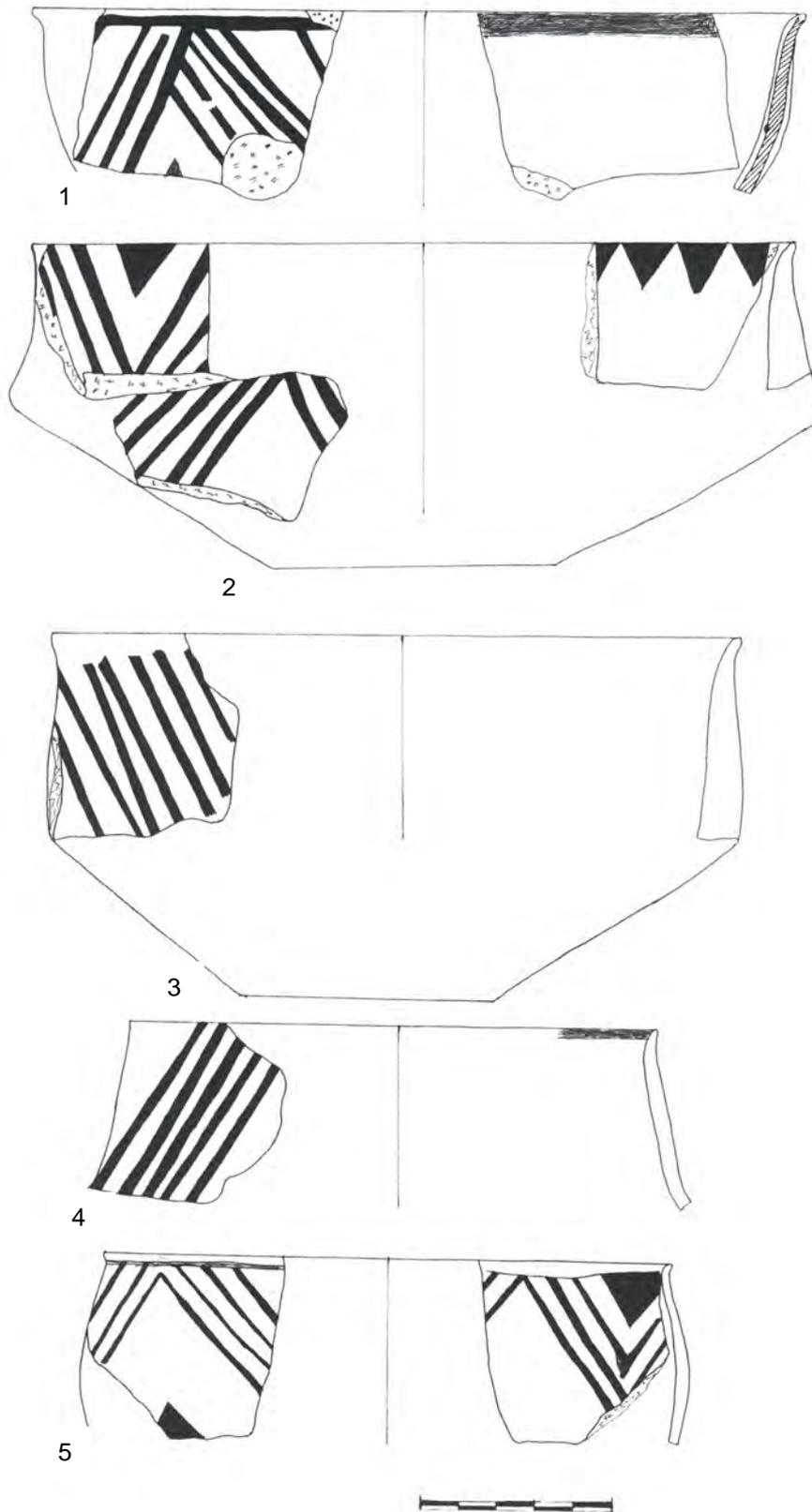


Fig. 3. Sânmihaiu Român-Deal. The Foeni-Mintia cultural group. Ceramic fragments.

CHEILE TURZII - PEȘTERA UNGUREASCĂ / PEȘTERA CAPRELOR: SCHEIBENHENCKEL - BODROGKERESZTÚR HORIZON. ARCHAEOLOGICAL EXCAVATIONS 2003-2004

GHEORGHE LAZAROVICI^{*}, CORNELIA-MAGDA LAZAROVICI^{**}

Keywords: *Cheile Turzii, Scheibehenckel - Bodrogkeresztúr horizon, gold, workshop.*

Cuvinte cheie: *Cheile Turzii, orizontul torților pastilate - Bodrogkeresztúr, aur, atelier.*

Abstract. *Our contribution presents the results of the research carried during 2003 and 2004 in Peștera Ungurească / Peștera Caprelor, located in Cheile Turzii. It offers a special regard on the inhabitation levels belonging to Scheibehenckel - late Bodrogkeresztúr horizon. Thus, we will describe in detail the most important archaeological feature discovered – a goldsmith workshop – and its inventory, consisting of pottery shards, flint tools and several gold jewels: seven leafs, a small plate with nine perforations and several beads.*

Rezumat. *Articolul prezintă rezultatele cercetărilor din anii 2003 și 2004 desfășurate în Peștera Ungurească / Peștera Caprelor din Cheile Turzii, anume cele cu privire la nivelurile de locuire aparținând orizontului cu toate pastilate - Bodrogkeresztúr târziu. Este descris cel mai important complex arheologic descoperit – un atelier de prelucrare a aurului – în care au fost descoperite, alături de fragmente ceramice și unelte de silex, mai multe bijuterii de aur: șapte foițe, o plăcuță cu nouă orificii și mai multe mărgele.*

Location. Located in the Petrind Mountains, part of the Trascău Mountains, the Turda canyon is one of the most picturesque natural and archaeological reservations in Transylvania (Fig. 1). The canyon is about 2.4 km long and cut by the Hășdate Rivulet, with a generally small debit, which grows aggressive in sprig after the snows melt or after heavy rains. The area is rich and offers various raw materials, some of them also used by the prehistoric communities that lived here.

Downstream from the canyon, on both sides of the Hășdate Rivulet as well as in the riverbed, a series of raw materials are present, including onyx, jasper, chalcedonies (white, red, smoky), quartz etc. (GIURCĂ 1997, 831-832, 835).

During our 2004 excavations, on the in an area situated on the way to the cave, we have discovered several fragments of chalcedony that could belong to older structures of the mountain chain, to which the Canyon belongs. At the extremities of the Canyon we have found good quality clay for ceramics, especially upstream, where the main Neolithic settlement to which the cave habitation seems to be related, is situated.

The Arieș River is located 2-3 km upstream from the canyon. In this area (for example, in the village Moldovenești, located 4 km from the spring of the Hășdate Rivulet, information from M. Rusu (RUSU 1977, 195-201), washing the sand to obtain gold is an ancient occupation, still common in the last century. Moreover, there are about 120 gold sources in the entire country (COMȘA 1974, 13-22; RUSU 1977, 195-201), 12 of them located in the neighbourhood of the Turda Canyon,

^{*} "Lucian Blaga" University of Sibiu, e-mail: ghlazarovici@yahoo.com

^{**} Institute of Archaeology of Iași, e-mail: magdamantu@yahoo.com



Fig. 1. Cheile Turzii - geographical location.

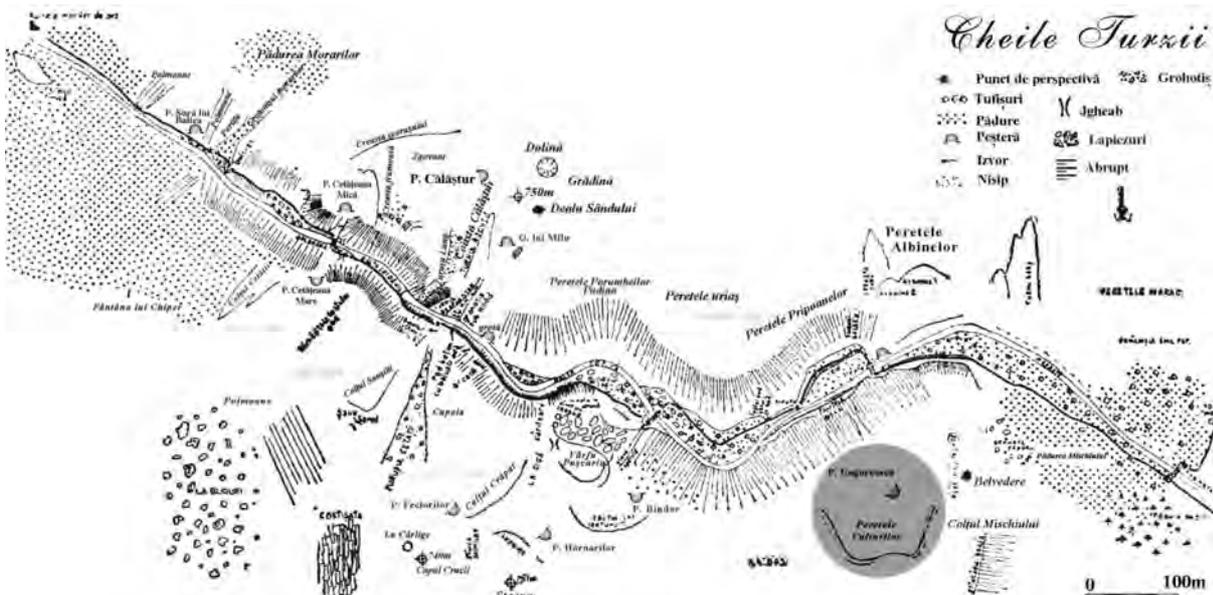


Fig. 2. Cheile Turzii - location of the caves.

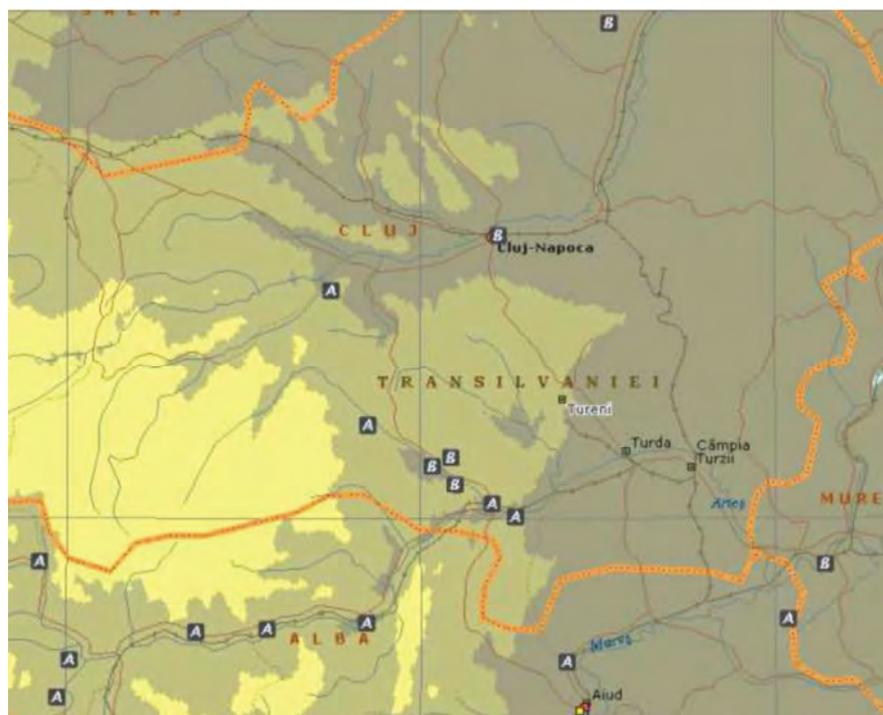


Fig. 3. Map with the gold dispersion (A) and sites belonging to the pots with handles with discoid attachment/Bodrogresztúr III (B).

towards the mountains, east and south (Fig. 3).

Peștera ungurească / Peștera caprelor is located approximately in the centre of the canyon (Fig. 2), on the right bank, at the basis of an impressive rock wall, named the "Hawks' Wall" (Fig. 5/b-c), about 100 m above the Hășdate Rivulet. The cave is approx. 20 m wide and 12-15 m high (Fig. 5/d). The cave goes into the mountain approx. 76 m deep and it has a slightly ascendant slope; some sort of lateral niches can be seen in the interior of the cave.

The living conditions in the caves during the year must have been very harsh. Therefore, we believe that the caves were usually inhabited only during the warm season, from spring until autumn. It is very well possible that most of them served as only temporary and specialized habitations (such as special places for pottery making, goldsmith workshops, or cult places for initiations; LUCA, ROMAN, DIACONESCU 2004, 24-43; LUCA *et alii* 2005; UCELLI GNESUTTA 1999, 141-154).

Short history. Along the years, the area of the Turda Canyon has been rather well investigated, as shown by the large

number of archaeological points identified in this area, localized or not: N. Vlassa has localized over 42 caves, grottoes and rock shelters M. Bărbulescu has localized 28 points and identified other 15 (RAJC); to this we add other 75-80 identified points such as new archaeological and ethno-archaeological discoveries, flint sources, clay sources, megalithic graves, tumuli (LAZAROVICI, KALMAR-MAXIM 1992, 949-996; 1992a, 997-1009).



Fig. 4. Flint sources in Transylvania.

Although the cave is known since the end of the 19th century (A. Orosz), the more intensive research is due to N. Vlassa

(1966-1971) and to Gh. Lazarovici (1991-1994). In 2003 and 2004 the cave has been researched in collaboration with the University of Venice (P. Biagi, M. Spataro) and starting with 2006 we intend to collaborate with the Brukenthal Museum in Sibiu and the State University of San Francisco. The 2003-2004 researches aimed at realizing a clear stratigraphic profile that would allow us to decide upon the future investigation methods of the cave. We have dug a small surface (approx. 2 sq.m), all the resulting soil has been washed and filtered/sifted thorough very fine screens (1 mm), offering impressive results.

Stratigraphy. The cave has several inhabitation levels, partially disturbed by later inhabitations, improvements in the area done in 1900 and the treasure hunters in 1996-2000. The stratum with deposits has been disturbed by several archaeological investigations made by Z. Milea and V. Feneşan from the Museum of Turda in 1976, N. Vlăsa in 1977, while in the centre of the cave, traces of A. Orosz' and D. Berciu's investigations can still be noticed (Fig. 6).

In the recently investigated area (approx. 2 sq.m), the first 35-40 cm are disturbed as follows (Fig. 7; 14):

- mixed deposits from the Middle and Early Medieval period and Roman period;
- sporadic remains from the Bronze Age and Coţofeni culture;

- two levels from the *Scheibhenckel* – Late Bodrogkeresztúr horizon, approx. 45-65 cm thick, suggesting over 12 sublevels in the investigated area, indicated by layers of ashes and charcoal. The layers differ in colour and structure but they can be detected due to the horizontal preservation in the area of the floor of a large number of pottery (Fig. 15/c) and bone fragments, with a high inclination at the edge of the construction. The pottery discovered in these horizons represents about 82% of the entire pottery;

- in the level corresponding to the Petreşti culture, the pottery of this culture represents approx. 11.7% of the total pottery (Fig. 15/a-b). In the recently researched area, part of this horizon has been disturbed by the already mentioned *Scheibhenckel*–Bodrogkeresztúr horizon;

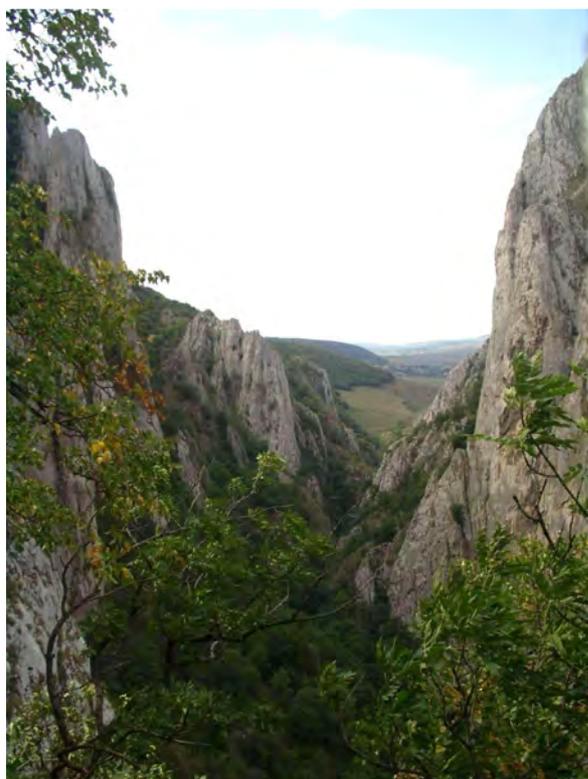
- the Middle Neolithic level is approx. 30-35 cm thick, a bit thinner in the proximity of the cave's walls. It belongs to the Cheile Turzii – Lumea Nouă – Iclod – Zau cultural group (Fig. 15/d) (it has been partially destroyed by the gold workshop from the *Scheibhenckel*–Bodrogkeresztúr horizon). A rather extended surface settlement belonging to this cultural group has been discovered at the edge of the canyon, towards the Petreşti village;

- the Palaeolithic level has not been investigated yet.

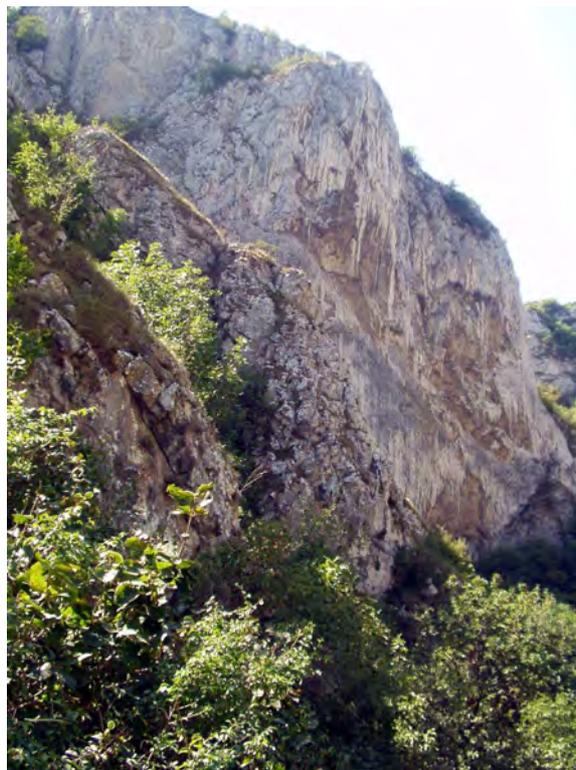
The *Scheibhenckel* – Late Bodrogkeresztúr horizon. Only the materials from this horizon have been thoroughly investigated. We are using this name because the names *Sălcuța IV* (it does not represent the fourth level of development of the civilization) or *Herculane* – *Cheile Turzii* do not seem appropriate to us. It is true that the closest name to it would be *Herculane* – *Cheile Turzii* but its use would create confusions with the Cheile Turzii Neolithic aspect of the CCTLNI/CCTLNZIS (LAZAROVICI 1991, 109-110; 2000, 35-52; LAZAROVICI, LAZAROVICI 2006, 404-440). Secondly, the current stratigraphy from the Turda Canyon is not accurate and it does not reflect the complete evolution of this horizon, although we have found the earliest levels that indicate a southern migration, which has not been yet connected to the Sălcuța phenomenon.

As can be noticed from the short presentation of the stratigraphy in the control area investigated in 2003-2004 (approx. 2 sq.m), the *Scheibhenckel* horizon was the most consistent one. It had two features, a construction (part of the gold workshop) and a hearth towards the western wall with extremely rich and various archaeological material (LAZAROVICI, MEȘTER, DASCĂLU 1995, 537-374).

The construction (Fig. 8/a, 9/d-e). In the eastern part of our excavation we have discovered remains from a construction with wooden pillars. The eastern wall was made of woven rods. Since our investigation is not yet complete, we cannot approximate the size and shape of this construction. In the researched area, the eastern edge of the construction is straight. Its floor was built on a



a



b



c



d

Fig. 5. Cheile Turzii. a: the canyon; b-c: the „Hawks' Wall”; d: *Peștera Ungurească* - the entrance.

pillar structure that may have also included rods. Its eastern part, where the oven was located, consisted of a small wall made of rods, only 30-40 cm high. The wall extended to the height of the oven's mouth. The wall's structure was made of thick pillars, 10-13 cm thick, arranged at about 80 cm one from the other. It is possible that the pillars sustained a roof, since from the cave's walls there is water pouring down during the entire year. In

the area between the thick pillars, the wall was made of poles stuck vertically in the floor, about 2-3 cm thick; from place to place, there were thicker poles about 5-6 cm thick, placed at about 2-4 cm one from the other (Fig.8), which allowed even the use of a weaving of rods or tree bark.

The oven (Fig. 9b, 12a-b) was located on the eastern side of the construction, with the mouth towards it. It was

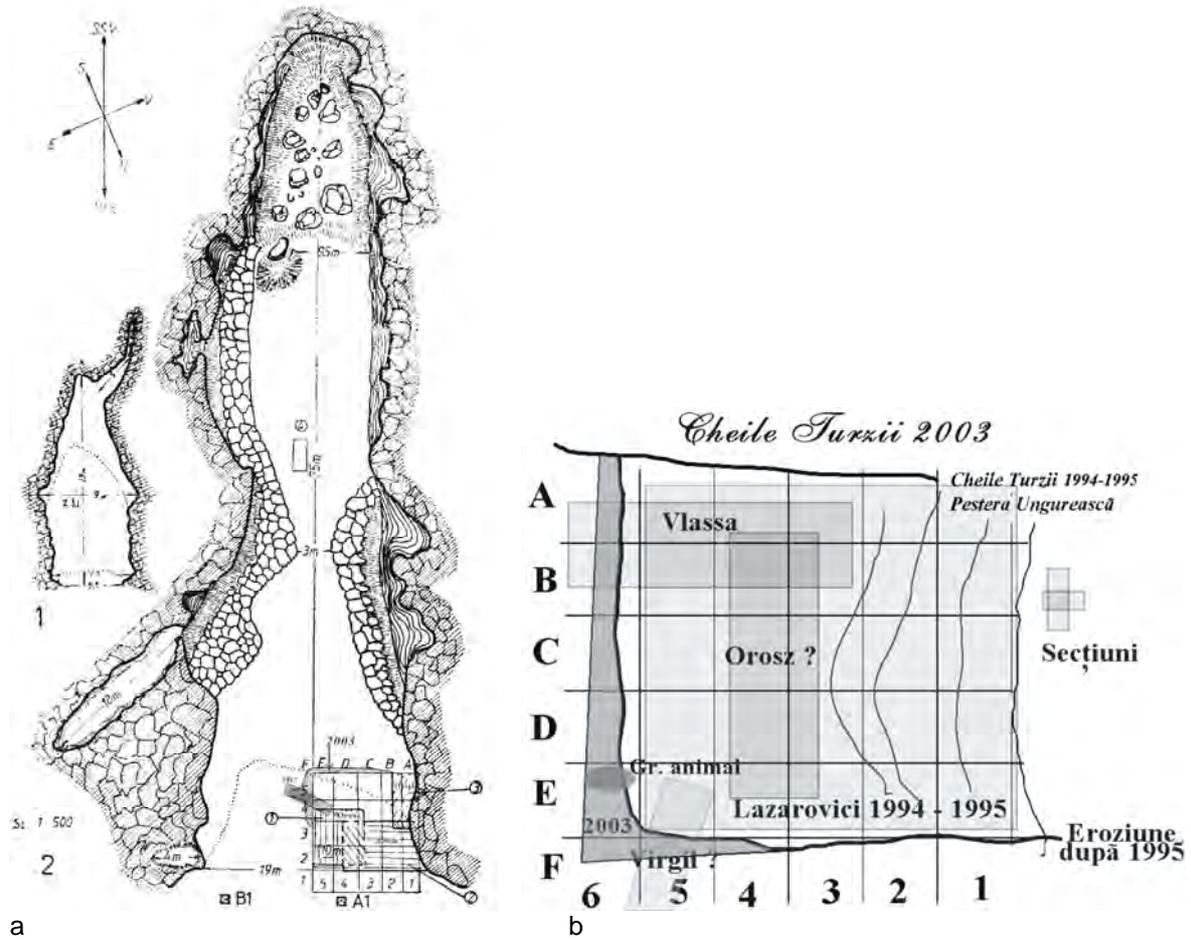


Fig. 6. Cheile Turzii - Peștera Ungurească. a: area investigated in 2003; b: plan of the excavations.

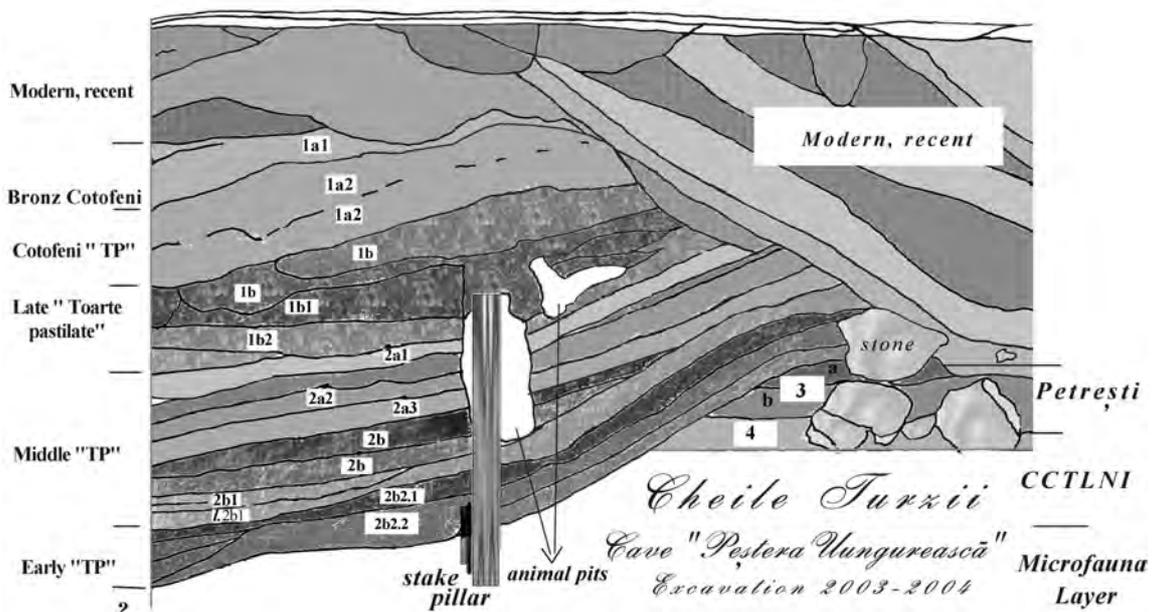


Fig. 7. Cheile Turzii - Peștera Ungurească. Stratigraphy.



a



b

Fig. 8. Cheile Turzii - Peștera Ungurească. a: the workshop at the level 2a1; b: the oven.

used only during 3-4 stages of the construction, from the level 4c till 2b0, some of the levels of the constructions being on top of the oven's hearth. The wall of the construction was not higher than the mouth of the oven, because the rich remains were thrown behind the oven and the wall.

When the oven was build, a ditch was dug in which yellow clay mixed with gravel from the area has been deposited, as well as a basis for the hearth. At the basis of the

hearth there are traces of rods. The hearth was well kneaded and consisted of two layers of clay plastering. The oven had a hemisphere like shape. At the mouth it had a hearth inclined towards the construction (V); on the edge from the cave's interior (N) there was a hole at the level of the hearth, oriented from the construction towards the centre of the oven. The air bellows, necessary to keep the fire alive were probably located in this area. The oven had a central pillar with the profile as an "8" (Fig. 10/c). The central pillar separates the oven into two rooms, one used for filling it with wood, while the other was most likely used for gathering the metal melted in crucibles (Fig. 10/d). The second room had a small edge that limited the leakage of the metal, also offering the possibility to place the crucibles. Especially in the second phase, the oven's hearth was carefully arranged. The blowing mouth (Fig. 10/e-f), functioned during both phases and had thin clay plastering in which fragments of charcoal have been also discovered. The oven's vault was destroyed and fell into the oven. The poor firing of the external part of the oven did not allow us to draw conclusions upon the way the vault was finished. The oven was partially dug in the Petrești stratum, and some Petrești fragments have been found behind the oven.

In order to draw final conclusions regarding both complexes we need to finalize the research in the area of the profile and even extend it.

The archaeological material. A pot made of black mix was found on the bottom of the complex, at the oldest level 4c. It has a four corners shape, the edges of the rim facing up. On its edges it has alveoli and *handles with discoid attachment*. It is similar to another vase earlier discovered in the Canyon area and attributed to the level Bodrogkeresztúr B, but not to its final level. The largest majority of the discoveries from the Turda Canyon area belong to the early phases of the *Scheibhenckel* pottery. In all the phases/levels there are numerous pottery fragments with *handles with discoid attachment*, with or without decoration, rarely with white incisions, and a large number of bones, especially belonging to big

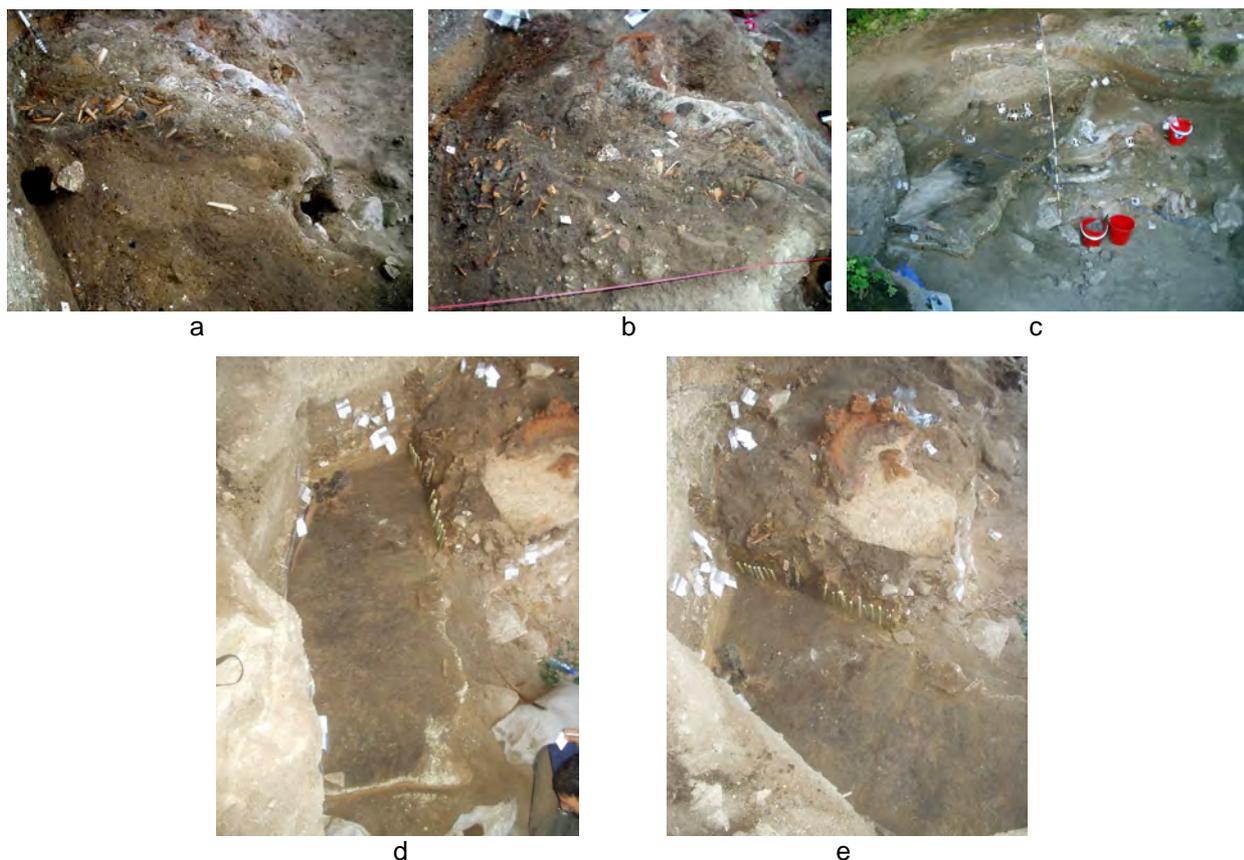


Fig. 9. Cheile Turzii - *Peștera Ungurească*. a: level 1; b: level 2; c: level 2B_3A; d-e: the floor of the inferior level.

cattle and deer.

The *Peștera Ungurească* inhabitations. Besides pottery we have identified several tools made of flint and obsidian: splints, blades and arrows; a fragment from a copper awl; jewellery pieces, seven gold leafs, a golden plate and beads made of shell, stone and six of gold. Some of the beads, especially the shell ones, were in the process of being manufactured, which shows that they were made on the spot. Although we have dug with extreme care, most of these objects have been discovered after the material has been washed and filtered through the screens.

In order not to mix the materials we have numbered them based on the relative depths, following the layers based on the pottery inclination and not on their absolute depth (Tab. 2). The inhabitation levels were at -0.46 m, 0.50 m, 0.56 m, 0.85 m. In the table, it is possible to see the percentages that indicate that the climax of the inhabitation is at -0.60 m. The best

correlation is between the fine and the common/coarse pottery, which confirms the pragmatic character of this community.

Based on the colour of the pottery we have observed its dynamic in relation to the shades, depths and squares (Tab. 3). The dominant colours are brown and chestnut, representing approx. 80%. In the main square (F6, -0.60 with 15.40%) the main colour is dark brown, approx. 27%.

Based on the table showing the mixture of the clay (Tab. 4) we can assess that the dominant pottery is the one that has crushed fragments in its composition, 56.10%, followed by the one with sand, 23.80%. A study focusing on the evolution of the pottery would be interesting, but the investigated surface is too small for any conclusions.

The gold jewellery (Fig. 11-12). There are seven gold leafs, one gold thin plate and beads made of gold. The seven leafs have the following dimensions: 40 x 12 mm; 15 x 13 mm; 11 x 10 mm; 7 x 5 mm;



Fig. 10. Cheile Turzii - *Peștera Ungurească*. The oven. a: profile through the oven'wall; b: the oven' hearth with stake holes; c: the oven with its central pillar; d: place for the crucible and the interior frame for limit the molt metal to flow; e-d: the oven and the hole for air blowing, phase I (e), phase II (f).

17 x 4 mm; 9 x 2 mm; 5 x 5 mm. The edges of some leaves were twisted (Fig. 11), suggesting that they may have been applied on a band of thicker fabric, worn at the neck, on the forehead or maybe on a hat. Another leaf seems to have been applied on a thicker fabric, maybe even on a piece

of leather. Another gold leaf looks like the end of a leaf or an earring. It may have been part of a necklace, together with the rest of the gold beads, which we believe to have been combined with other stone and shell beads. The intact gold plate (63 x 19 mm), has nine small holes and was discovered at

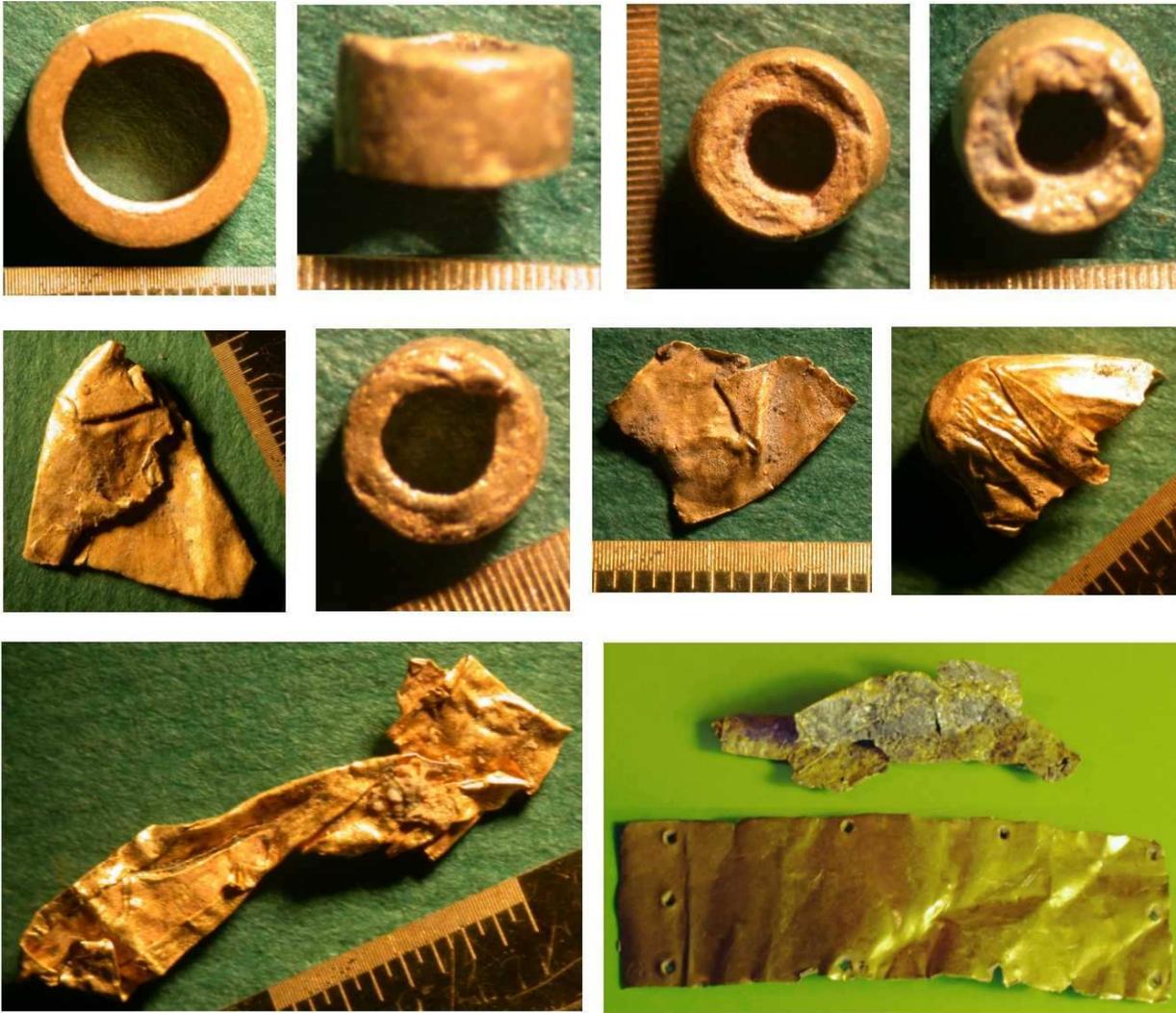


Fig. 11. Cheile Turzii - Peștera Ungurească. Golden pieces from the workshop, different levels.

about 3 m from the gold workshop. The holes on its margins suggest that it was applied on a piece of clothing. The piece may come from the area of the second workshop (the one in the western part, researched in 1994 and disturbed by earlier investigations).

Two of the stone beads (Fig. 13/b-c), are extremely interesting, especially because of their very small perforation, only 0.5 mm, similar to other gold beads (5 of the gold beads have a diameter of 1.5 mm only one of them is larger 6 x 2 mm). The gold beads are made of thin layers that have been cut in an angle and then joint together; this can be observed on some macro photographs. In some cases the gold beads are that well made that one cannot observe

where the layers were joint or they where they were soldered in the oven.

A large number of small bones has been discovered after the material has been washed and screened. They belong to reptiles and mice; there are also fragments of charcoal, carbonised fragments of plants and bushes, small flint and obsidian pieces and fragments of gold jewellery.

As already mentioned, during 2003-2004 investigations we have collected samples for various analysis, but up to now we do not know the results of most of these.

Some parts of the carbonised fragments have been analysed by Beatrice Daisa-Ciută. There were identified rests from cereals (**Cerealia** - 113 caryopses: *Triticum dicoccum*: 36 caryopses; *Triticum*

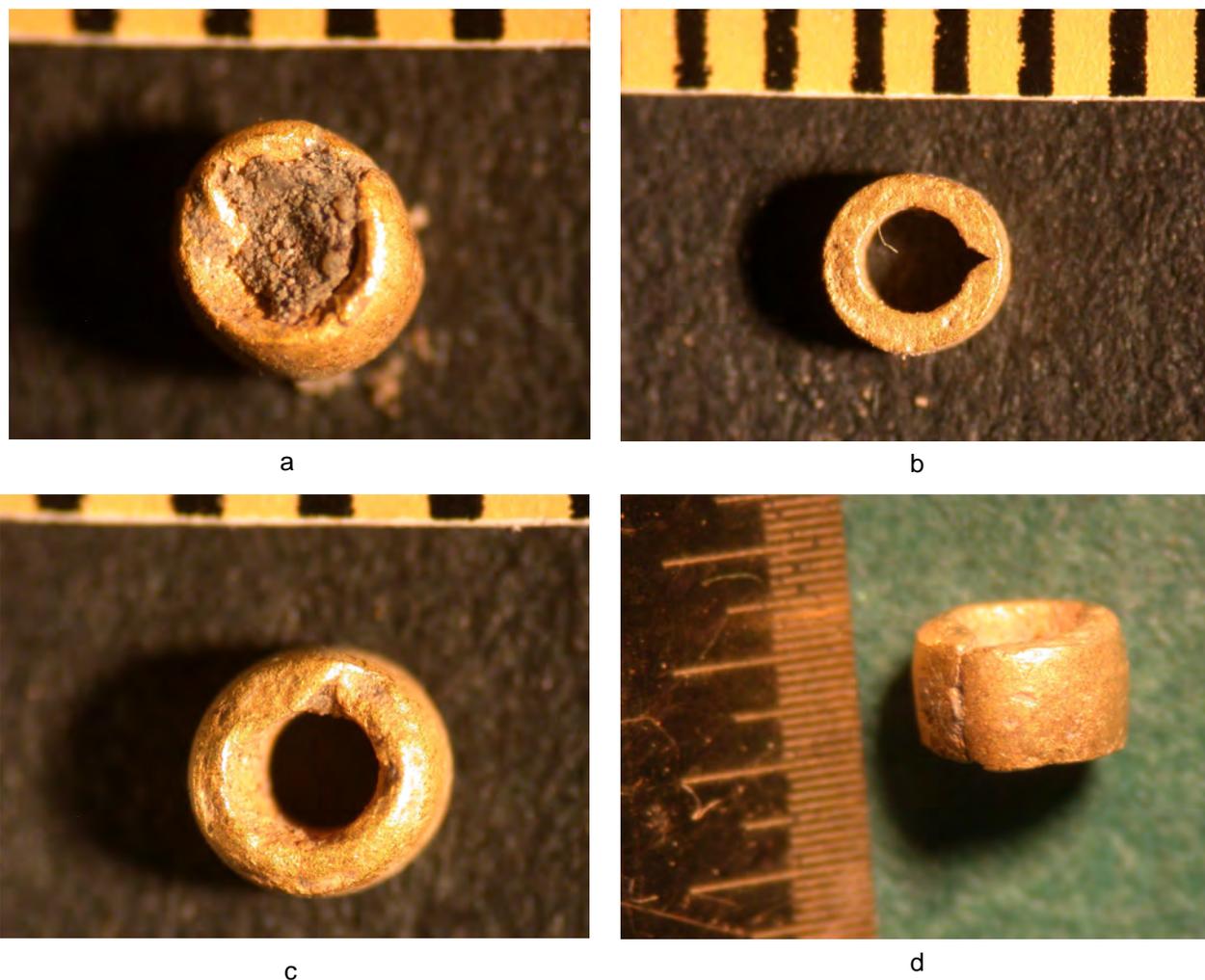


Fig. 12. Cheile Turzii - Peștera Ungurească. Golden beads.

monococcum: 9 caryopses; *Panicum miliaceum*: 1 carhops), vegetables (*Lens esculenta*: 2 cotyledon, maybe from the same seed) and fruits (*Cornus mas*: 19 whole cores and 29 fragments of bark; *Prunus avium/Cerasus avium*: 3 cores) (LAZAROVICI *et alii* 2006).

Conclusions

In the area of the Turda Canyon, the discoveries belonging to the *Scheibhenckel* horizon are extremely rich and numerous. Similar discoveries are related in N. Vlassa's excavations, as well as in earlier investigations in the following caves: *Peștera unguerească* / *Peștera caprelor*, *Balica*, *Cetățeaua Mică*, *Cetățeaua Mare*, *Binder*, *Hornarilor*, *Călăștur*, in several other sites *Feldioara-Dealul Cetății*, at *Galații Bistriței*, *Vințu de Jos - Dealul*

Satului, at *Carei -Bobald VII*; recently a settlement belonging to this horizon is mentioned at *Fundătura* (LAZAROVICI, MEȘTER, DASCĂLU 1995; MAXIM 1999).

During the Copper Age, the exploitation and working of gold is a well known activity in Transylvania; there are similar evidence within contemporary horizons at *Ariușd*, *Bobâlna*, *Moigrad*, *Oradea* and *Târgu Mureș* (COMȘA 1974, 13-22; LAZAROVICI, MEȘTER, DASCĂLU 1995, 537-574), suggesting its importance. The numerous small gold objects from the *Peștera unguerească/Peștera caprelor*, the small beads still under work, the gold leafs and the gold plate, the elements of jewellery, the oven, all suggest the existence of a gold workshop in the cave.

Our investigations in this area aimed at conducting an interdisciplinary research,

Table 1. Distribution of the pottery at *Peștera Ungurească*.

	CCTLNI	Petrești	Toarte pastilate	Coțofeni	Preistorice	Romane	Sec VIII - IX	Suma	Procent
Fină	2	13	117	7				139	11.2
Grosieră	1	2 3	288			(1)		313	25.3
Semifină	20	109	611	26	4	(4)		774	62.2
Semifină, la roată înceată							1	1	0.08
Semifină, la roată rapidă						5	8	13	0.6
Suma	23	145	1016	33	4	5	9	1235	
Procent	1.8	11.7	82.2	2.6	0.3	0.4	0.7		100

Table 2. Density of habitation based on pottery analysis.

	Fină	Grosieră	Semifină	Suma	Procent
Suma	111	264	566	941	
F6;-60	35	35	87	157	16.6
E6;-56	12	44	65	121	12.8
amestec	9	18	73	100	10.6
F5;-85	9	19	53	81	8.6
E6;-46	3	15	35	53	5.6
E6;-50	3	15	33	51	5.4
Restul de % sunt sub 5,4% adică 50 fragmente					
Procent	11.8	28	60.1		100

Table 3. Dynamic of the pottery based on shades, depth and squares.

Tabel 18	E1;-35	E6;-35	E6;-45	E6;-46	E6;-50	E6;-56	F5;-75	F5;-80	F5;-85	F6;-53	F6;-60	F6;-65	F6;-77	F6;-85	Suma	Procent
Brun î.	5	8	11	13	17	36	16	9	23	5	57	10	14	14	313	30.8
Brun flec.	10	2	3	14	9	34	12	15	13	5	20	12	8	4	225	22.1
Brun deschis	11	10	6	16	9	17	8	11	18	8	34	6	3	8	190	18.7
Castaniu	3	7	9	8	7	12	5		6	4	32	2	4	6	130	12.8
Cărămiziu	2	5	1	1	6	9	3	3	10	3	10	3	2	2	84	8.2
Negru		1	1		2	4	1		1	2	2	1		1	25	2.4
Pe linii și coloane au fost eliminate cele sub 3 %																
Suma	32	33	33	53	51	121	46	39	81	31	157	35	31	37	1016	
%	3. 1	3.2	3.2	5.2	5	11.9	4.5	3.8	7.9	3	15.4	3.4	3.05	3.6		100

Table 4. Dynamic of the pottery based on the mixture of the clay.

Tabel 19	Cioburi pisate	Cioburi si nisip	Nisip	Nisip cu bob mare	Nisip fin	Nisip si cioburi	Nisip si mica	Suma	Procent
F6;-60	65	10	14	1	36	3	25	157	15.4
E6;-56	78	2	7		26	4	3	121	11.9
Pass.	46		6	3	34	6	4	100	9.8
F5;-85	51		1	2	22	1	1	81	7.9
E6;-46	35		3		8	5	1	53	5.2
E6;-50	33		1	2	12	2	1	51	5
F5;-75	33	1	2	1	5	3	1	46	4.5
Sub 4,5% pe coloană și 22,2% pe linie au fost eliminate									
Suma	570	23	54	23	242	32	55	1016	
Procent	56.1	2.2	5.3	2.2	23.8	3.1	5.4		100

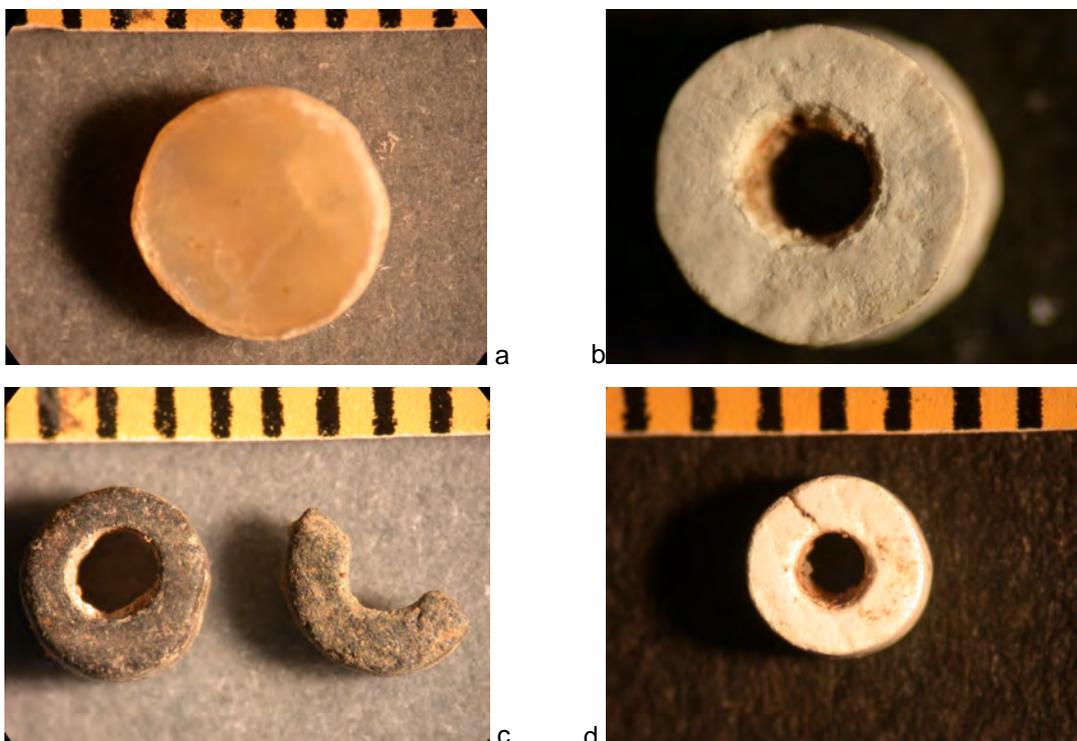


Fig. 13. Cheile Turzii - Peștera Ungurească. Shell and stone beads.

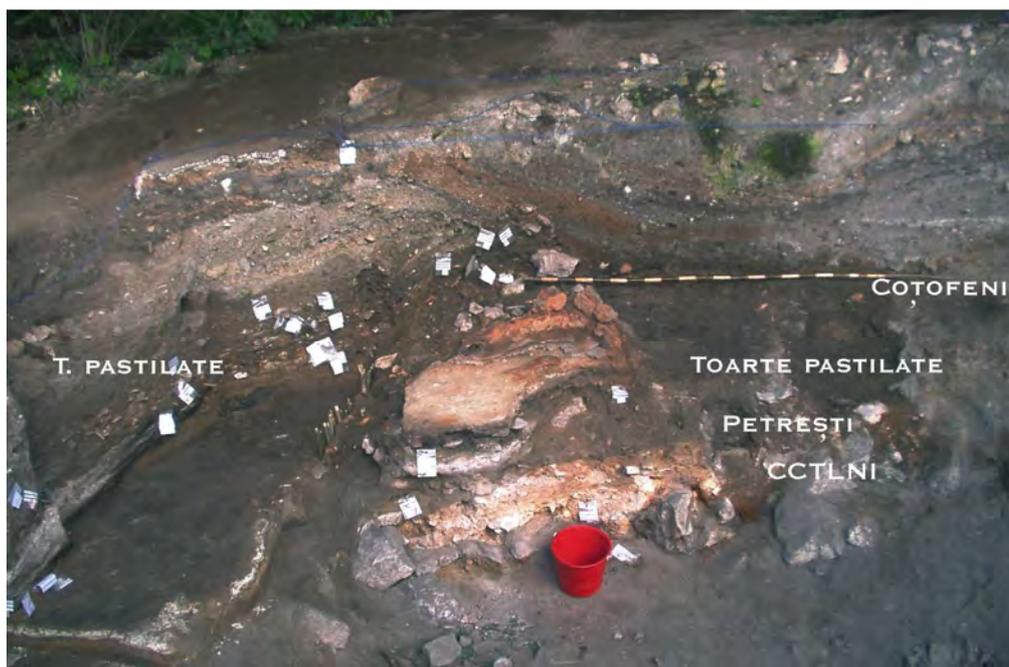


Fig. 14. Cheile Turzii - *Peștera Ungurească*. Horizons with pottery.



Fig. 15. Chalcolithic pottery of Transylvania. a: Petrești AB pottery; b: Petrești pottery, the Foeni group; c: pottery of the *Scheibhenckel* horizon – Bodrogresztúr III; d: pottery of the Cheile Turzii group.

analysis for the Petrești and CCTLNI pottery (grading, diffraction with X rays, thin sections). We have already established the clay sources, the burning temperatures, the modelling as well as polishing techniques (GHERGARI, IONESCU, LAZĂR 2003, 38).

In order to establish the source of the chalcedonies and wood used, we have made several expeditions (C.-M. Lazarovici, G. Trnka, Gh. Lazarovici). Our aim was to find out whether the sources from the Canyon and from the geologic massive (the Trascău Mountains) to which the canyon belongs or if different ones were used. Our conclusion is that both local sources as well as other ones, located in a more vast area, have been used. The archaeozoological material is analysed by Diana Bindea (Cluj-Napoca), while the archaeobotanic one by Beatrice Daisa-Ciută (Alba Iulia).

During investigations in *Peștera unguească/Peștera caprelor* we have found many obsidian blades and small fragments of the same raw material. Obsidian represents 50% of the lithic inventory. Some pieces have been analysed (16 pieces from 256) and show that one sort of raw material came from Carpathian I area, from E Slovakia (Cejkov and/or Kašov), from about 300 km NNW of Cheile Turzii (BIAGI, VOYTEK 2006, 177-202). Exchange with other areas seems to be shown by some other categories of materials from the cave: transdanubian radiolarit comes from Urkút area (0.39%), Bakany Mountains, and flint is related with Volhynia (25.79%), NW Ukraine; both raw material sources are from long distances: 500 km NW and 400 km NE comparative from Cheile Turzii (BIAGI, VOYTEK 2006, 177-202). We can assume that the exchange was with golden jewels.

We still need to establish the nature of this inhabitation, seasonal or permanent. The various levels with ashes and charcoal have different colours, shades and thickness and seem to indicate a seasonal inhabitation at the beginning of the warm season, when there are the best conditions for washing the gold from the Arieș River.

In our study we have intended to shortly present an important discovery, that we will fully analyse after the completion of our investigation.

Bibliography

- BIAGI Paolo, VOYTEK Barbara A.
2006 *Excavations at Peștera Ungurească (Caprelor) (Cheile Turzii, Petreștii de Jos, Transylvania) 2003-2004: A Preliminary Report on the Chipped Stone Assemblages from the Chalcolithic Toarte pastilate (Bodrogkeresztúr) Layers*, AnB S.N., XIV, 2006/1, p. 177-202.
- COMȘA Eugen
1974 *Date despre folosirea aurului în cursul epocii neolitice pe teritoriul României*, Apulum, XII, 1974, p. 13-22.
- GHERGARI Lucreția, IONESCU Corina, LAZĂR Cătălin
2003 *The mineralogy of the Neolithic ceramics from Ungurului Cave (Suncuius, Romania)*, in vol.: *Acta Mineralogica-Petrografica, Abstracts*, vol. 1, Szeged, p. 38.
- GIURCĂ Virgil
1997 *Geomologia arheologică și resursele gemologice actuale din partea de nord a Munților Trascău*, AMN, 34, p. 829.
- LAZAROVICI Cornelia-Magda, LAZAROVICI Gheorghe
2006 *Arhitectura neoliticului și epocii cuprului din România. I. Neoliticul, Iași*.
- LAZAROVICI Gheorghe
1991 *Grupul Cheile Turzii*, in vol.: *Cultura Vinča în România* (eds.: Gh. Lazarovici, Fl. Drașovean), Timișoara, p. 109-110.
2000 *The main Problems of the Cultural Complex CCTLNI*, AnB S.N., VII-VIII (1999-2000), p. 35-52.
- LAZAROVICI Gheorghe, KALMAR-MAXIM Zoia
1992 *Săpături arheologice de salvare și cercetări etnoarheologice în Munții Petrindului în anul 1986*, AMN, XXIV-XXV (1987-1988), p. 949-996.
1992a *Necropolele tumulare din Munții Petrindului și Dealul Feleacului*, AMN, XXIV-XXV (1987-1988), p. 997-1009.
- LAZAROVICI Gheorghe, MEȘTER Mihai, DASCĂLU L.
1995 *Cheile Turzii 1994. Raport de cercetare arheologică și etno-arheologică*, AMN, 32/1, p. 537-574.
- LAZAROVICI Gheorghe *et alii*
2006 *Petreștii de Jos, com. Petreștii de Jos, jud. Cluj. Punct: Cheile Turzii*, <http://www.cimec.ro/Arheologie/cronica CA2006/cd/index.htm>
- LUCA Sabin Adrain
1999 *Sfârșitul eneoliticului pe teritoriul*

- intracarpatic al României. Cultura Bodrogkeresztúr*, Alba Iulia.
- LUCA Sabin Adrian, ROMAN Cristian, DIACONESCU Dragoș
2004 *Cercetări arheologice în Peștera Cauce*, vol. I, BS IV, Sibiu.
- LUCA Sabin Arian *et alii*
2005 *Cercetări arheologice în Peștera Cauce*, vol. II, BS V, Sibiu.
- MAXIM Zoia
1999 *Neo-eneoliticul din Transilvania*, Cluj-Napoca.
- RUSU Mircea
1977 *Transilvania și Banatul în secolele VI-IX*, Banatica, 4, 1977, p. 195-201.
- UCELLI GNESUTTA Paulla
1999 *La grotta di Settecanelle (Ischia di Castro, VT)*, in vol.: Ferrante Rittatore e la Maremma, 1936-1976: paesaggi naturali, umani, archeologici; *Atti del Convegno 4-5 aprilie 1998, Comune di Ischia di Castro* (a cura di: Renato Peroni, Lavinia Rittatore Vonwiller), Ischia di Castro, p. 141-154.

A CHALCOLITHIC CULTURAL PIT (*BOTHROY*) DISCOVERED AT ȘEUȘA-GORGAN (ALBA COUNTY)

MARIUS CIUTĂ*

Keywords: *Chalcolithic, Coțofeni culture, cultural pit, well, magic-religious rituals.*

Cuvinte cheie: *eneolitic, cultura Coțofeni, groapă de cult, fântână, manifestări magico-religioase.*

Abstract. *The present paper deals with the presentation and interpretation of an archaeological complex that was discovered in the Late Chalcolithic settlement from Șeușa, belonging to the Coțofeni culture, more specifically a pit, which, by its special archaeological deposits, and its position in the settlement and in the area, can be interpreted as having a cultal destination. The presence of a well with very rich and special materials, specific to the magic-religious rituals, offers new perspectives for the interpretation of the Chalcolithic communities' spiritual life.*

Rezumat. *Lucrarea de față își propune să prezinte un complex arheologic inedit, descoperit în cadrul așezării eneolitice târzii de la Șeușa, aparținând culturii Coțofeni, mai precis a unei gropi care, prin depunerile conținute, prin destinația sa (fântână), prin poziția geo-morfologică și în cadrul așezării, poate fi interpretată ca având destinație cultică. Prezența unei fântâni cu un inventar arheologic deosebit de bogat, specific ritualurilor magico-religioase oferă noi perspective interpretării vieții spirituale a comunităților eneolitice.*

From the geo-morphological point of view, the *Gorgan Hill* (*Gorganu, The Gorgan Peak*), belongs to the West rim of the Secașe Plateau, in the contact sector with the Mureș Valley on its middle sector, near Alba Iulia, which is situated to the west. For a clearer localization within the micro-area, we mention the fact that the hill is situated approximately at a distance of 4-5 km south-east of the fortified Hallstattian location of Teleac, approximately 2.5 km west of the *Măgura Străjii* Hill Peak and at about 6 km east of Alba Iulia (latitude: 46°3'53"; longitude: 23°39'2") (Fig. 1). The hill dominates the Mureș passage, in the sector delimited by the localities Sântimbru - Vințu de Jos, benefiting from an excellent perspective (altitude: 463 m, 469 m respectively from the Baltic Sea). The etymology of the toponym: *Gorgan = mound, ground prominence situated above a grave* (DEX 1998, 429), to which we also add the configuration of the area and the

areas where the ceramic materials discovered by surface research were spread, indicated possible existence of a settlement belonging to the Coțofeni culture.

The mound is situated exactly at the top of the hill, being slightly flattened and sectioned in the north and south, about 3-4 m from the topographical landmark situated at the top, by two old ditches, almost entirely filled up, south-east oriented, of uncertain lengths (Fig. 2-3).

The systematic research of the archaeological site at Șeușa-Gorgan started in 2000¹, by including it in the complex research plan of the Pre- and Protohistoric Research Center of the "1 Decembrie 1918" University of Alba Iulia (the RAN code of the

¹ Regarding the obtained results during nine consecutive campaigns (2000-2007), view: CIUTĂ, GLIGOR 2001, 242-243; 2002, 149-151; 2003, 2-31; 2003a, 118-121; 2006; CIUTĂ *et alii* 2002, 519-520; 2003, 312-314. You can also find further information regarding a more detailed cultural-chronological framework of the chalcolithic places in the area in these reports, as well as regarding the significance of the discovered contexts.

* "1 Decembrie 1918" University of Alba Iulia,
e-mail: mariusciuta@yahoo.com

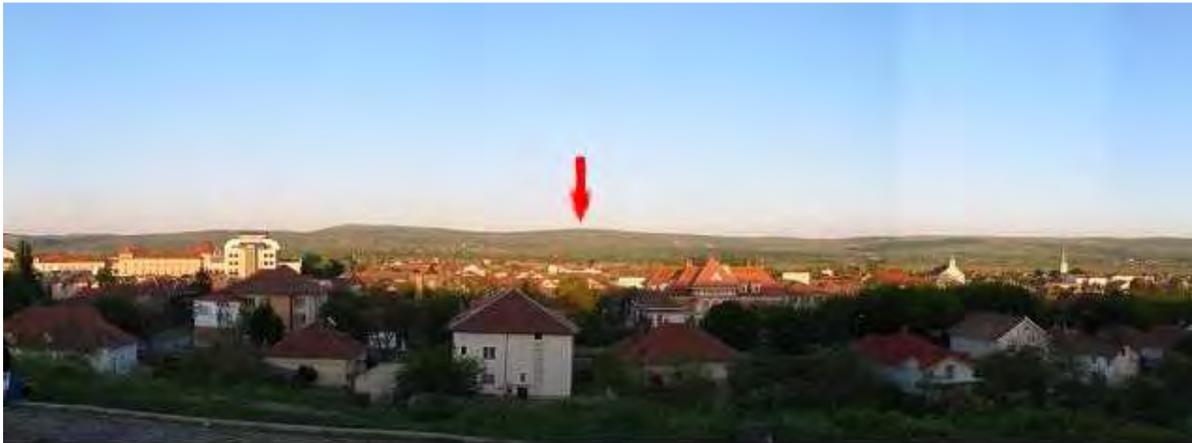


Fig.1. Panoramic view of the *Gorgan Hill* (red arrow), from the Obelisc, in Alba Iulia.

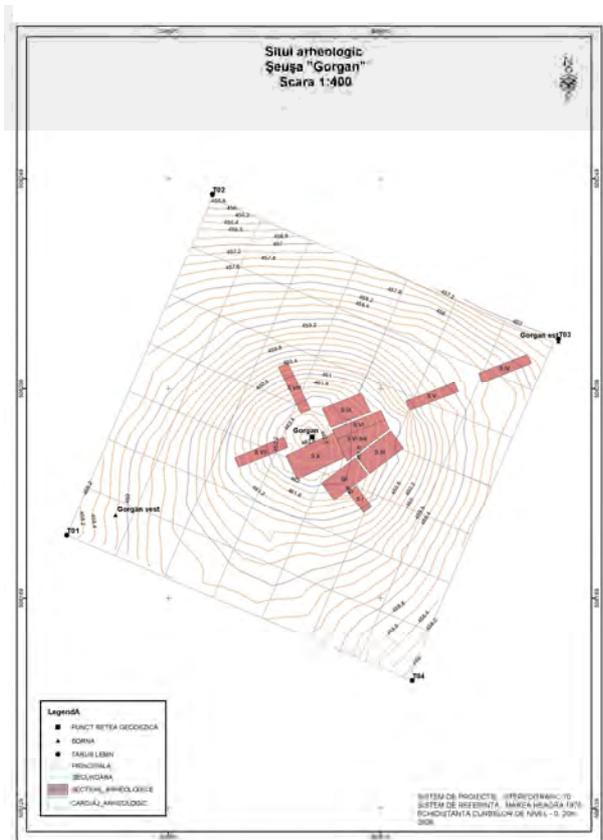


Fig. 2. Topographical plan of *Gorgan Hill* with the position of the research units and the pit G7/2003.

site: - 1124.02).

This paper focuses on the context that was discovered in the 2004² campaign, in one of

² The 2004 campaign took place between August 31 – September 18, as a school-practice archaeological excavation of the University of Alba Iulia. The financing was ensured by the mentioned university.

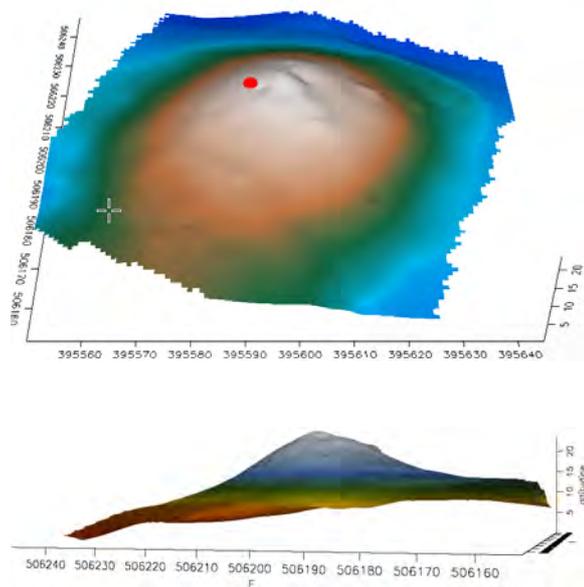


Fig. 3. 3D perspective, from the South, of the *Gorgan Hill*, indicating the location where the G7 pit was discovered (•).

the stratigraphical information and control sections: SVII/2003-2004 = 10 x 2.5 m. The main aim of the survey was to identify the possibility of the expansion of the successive chalcolithic settlements on the south-west slope of the hill as well, unexplored in the last campaigns. The research unit was positioned at a 5 m distance west from the topographical landmark, situated at the top of the hill, on the north-east – south-west direction, on the imaginary line situated after the sections IV-V-VI/2001, aiming to finalise one of the branches of the “crossed” sections (with spared distances), expected to be achieved (Fig. 2).

Opened in the 2003 campaign, the section is still not final, for objective reasons, connected to the weather conditions; the research was continued in the 2004 campaign.

After rebuilding and cleaning the section, at a 1.90 depth in the north-east area (the squares 1-2 – Fig. 2-3), the G7 pit was revealed (again) and the surface dwelling L 12 as well, both of them belonging to the first Coțofeni level from *Gorgan* (the stage IIIb-c).

Even at the beginning of the excavations, in 2004, what was unusual was the way the pit was shaped; it was strongly emphasized because of the large amount of water it contained, strongly contrasting with the living structures (L 12) situated nearby. The opening of the pit proved to be relatively rounded, having the starting diameter of about 1.5 m (Fig. 4).



Fig. 4. The pit G7, revealed *in situ* in the beginning of the 2004 campaign.

The complex was emptied (through the *cross-section* technique) and the location was cleaned; the characteristic finds included a consistent “carpet” of burnt adobe (the walls), burnt wood (the roof) and ceramic fragments. We decided to empty the south-east half, situated near the profile that it partially crosses, just to emphasize the stratigraphic reports (Fig. 4-5).

Even while emptying the first filling levels (the last ones in a chronological order!), we realized the rich presence of the fragmentary materials in the broken up layers in the ground: fragmentary ceramic pieces, lithic pieces, burnt adobe, fauna remnants, etc. The sediments from the upper side of the pit



Fig. 5 The pit G7, excavated using the *cross-section* technique.

confirmed the **initial** working hypothesis, regarding the function of the place, seen as a simple store pit, ultimately changed into a garbage pit. By its depth, the pit proved that it was slowly filled (through the arrangement of the deposited lenses), the successive sediments being clearly delimited, especially if each upper limit has a lighter colour (Fig. 6).



Fig. 6. Section-profile with the successive sediments of the pit .

From the depth of approximately 1 m from the shaping level of the pit, the dirt filling proved to be more and more difficult to excavate, as the amount of water in the ground, unaccountable for at that moment, got bigger and bigger. Practically, the grey-argillaceous dirt had a lot of water in it, making the emptying of the place an improper operation.

Concomitantly, once we got to the bottom of the pit, the archaeological materials proved to be richer and richer, and less

fragmentary. Complete ceramic pots (most of them broken on the spot), almost complete, and fragmentary stone mills (broken on the spot), tools of bones and stone, a few faunal residues associated with burnt pieces of wood were the first categories of discovered materials. Exactly near the bottom of the pit, at the same level as its filling, placed chronologically at the time when the place started to be used, there were more fragments of burnt clay (20-25 fragments), flattened on some sides and with some images made by the successive needle point technique, difficult to perform at the moment of their shaping and sampling (the working hypotheses; they were either hung on a wall in a dwelling, or on an altar, or *bucrania* – Fig. 12-13).



Fig. 7. Bone artifact (amulet?) discovered in G 7. *Apud* BELDIMAN, CIUȚĂ, SZTANCS 2005a.

A really special case is pointed out by the presence, inside the pit, of no less than 18

finite pieces (tools, ornaments) and half-finished bones belonging to IMDA (BELDIMAN, CIUȚĂ, SZTANCS 2005, 27-52)³, as well as of a typical piece for processing the hard animal substances through abrasion: a tile grinder (made of sand stone) in order to shape the tips and the flatterers, which have the specific elements (the traces) of the process of manufacturing tools.

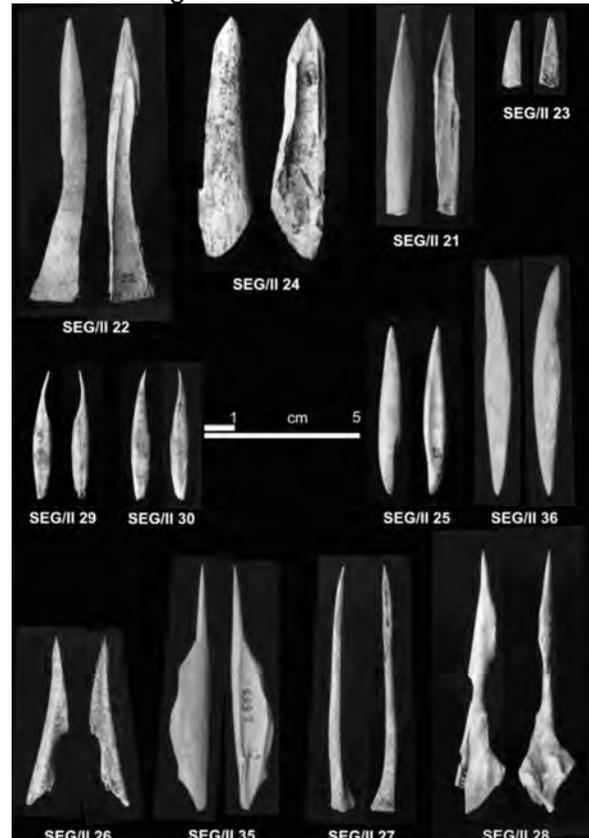


Fig. 8. Different types of bone peaks, discovered in the pit G7. *Apud* BELDIMAN, CIUȚĂ, SZTANCS 2005.

Towards its bottom, the pit suddenly became narrower, so that a small dimensioned cell resulted, which became about 50 cm deeper (in the shape of a vertical niche), the pit finally reaching a depth of about 1.5 m, and exactly on the archaeological barren ground (represented by *loess*), two complete pots (a cup with a very high bail and a bowl), together with two fragmentary amphorae with bails of great dimensions were deposited, both decorated in the successive pricking technique (Fig. 9). When they were picked up, the

³ There are also considerations regarding the functionality of the pieces.

presence of an active, relatively strong spring was discovered (which accounted for the large amount of water in the upper and lower levels of the pit). The spring had got there by capillarity.



Fig. 9. The two pots, together with the fragmentary amphorae, deposited at the bottom of the pit.

Certainly, when trying to interpret the functionality and the significance of the previously described place, we have to take into account the details connected to the place, such as:

1. The geo-morphological position;
2. The position towards the inhabited places and the pointed out anthropical structures;
3. The morphology of the pit;
4. The way the sediments are arranged and the material inventory (artefactual and non-artefactual).

As regards the position in the site, which has in its turn a dominant position, the pit belongs to the latter's central area, exactly near the highest point of the mound, more exactly about 6-7 m west of the ancient top of the hill, above which, about 2 m, the present topographical landmark is situated (Fig. 2). We appreciate that, in prehistory, the visibility of the Mureș Valley was the most advantageous one from that point.

The western area of the site is characterized, in the present stage of the research, by a reduced density of the chalcolithic presences (both in Decea Mureșului and in Coțofeni), but exactly near the pit there is a surface dwelling (L 12). We do not exclude the possibility that the pit might have been included in the dwelling or in

one of its annexes.

By its general shape, of an irregular cone trunk, with the small base in the lower side, which continues in the depth in the shape of a niche, the pit is like, a primitive well, deep enough to capture the spring, and large enough to retain a sufficient amount of water for a relatively numerous community. We cannot exclude the fact that, initially, the pit that can be presently interpreted as a well for tapping drinking water, might also have had access steps. After all, such a step can be the one delimited by the inferior side of the pit, to have access to the niche-depth (Fig. 11). Archaeologically, we did not notice any enforcement meant to protect the pit.



Fig. 10. The two Coțofeni pots deposited at the bottom of the pit, after taking them out to the surface.

The primary analysis of the way the levels were arranged proves that after the first two stages, of slow filling, probably associated with the period of actual use of the pit as a well, during the first Coțofeni living stages, the filling became a fast one, when perhaps the place gradually lost its initial functionality and was used as a garbage pit.

What remains completely spectacular is the presence, at the maximum altitude of the hill and exactly on this form of relief, of a spring with drinking water, in the conditions in which, nowadays, at a distance of more than 2-3 km around it there is no source of water, even 50-70 m lower. As a working hypothesis, we can suspect that, at the cultural-chronological stage of the chalcolithic, when the forest covered the perimeter of the hill, the flow capacity of the

spring, initially captured under the shape of a small size pit, was much higher, ensuring a permanent drinking water supply.

The presence of the spring at the bottom of the pit brings new perspectives on the way of interpreting the functionality and the significance of this place, but also of the whole inhabited area at *Gorgan*. A relatively rich flow of the spring (even under the circumstances of some really droughty years, like the 2001-2004 years), makes possible the interpretation of the prehistoric place as a well, used for supplying the Coțofeni communities that populated this area (when the flow capacity was probably a lot larger).

The material sediments, complete bone tools, ceramic pots of large and average sizes – amphorae, jugs – in one piece, with a narrow neck and bails, meant to keep the water safe (usually broken on the spot), but also of very small sizes, but extremely well decorated, complete or fragmentary stone tools, fragments of tile grinders and the way they are disposed, the sequence of the filling lenses, plead for the possibility of interpreting the place as being one with a special destination, ultimately connected to the cult significance of the water sources.



Fig. 11. View on the pit G7, after being excavated.

Even when lacking some materials that belong to the first settlement, Decea Mureșului, it is hard to believe that the spring was not used by the inhabitants of this cultural group. The special character of the Decea Mureșului location in *Gorgan*, on which we had insisted on the occasion of the previous interventions⁴, could thus be explained through the presence of a

permanent water spring, situated exactly near or inside the location.

What is certain is that the first inhabitants, who belonged to the Cotofeni culture, who had built lasting surface houses (7 such houses have been analysed so far), created this spring as a well, initially probably of small size, where, due to reasons that had to do with the recognition of a well, they abandoned a series of complete or almost complete ceramic pots, destined for storing liquids. Subsequently, probably once the location was deserted, there were broken things in the well – an almost rectangular-shaped altar (new appearance through massiveness and morphology in the Cotofeni environment), together with some other fragmentary pots, bone tools (most of them complete), fragments of tile grinders, a perforated fragment from an axe of the hammer type, etc.

The upper filling levels of the fountain probably belong to the seasonal Cotofeni IIIc inhabitation, when the clogged pit could be equipped as a place for garbage as well.



Fig. 12. Fragment from the ceramic altar, decorated by successive pricks.

We consider the pit-complex (G7) a cultural place, a well with ritual deposits; used as a garbage pit afterwards? The cult pit (*bóthroi*) was used as a well and contained ritual, magical-religious offerings.

Since we lack an analysis of the fauna remnants, we cannot go further with the idea of a sacrifice pit for now, which is difficult to accept, given the context of the spring-well, with specific-distinct significance. The presence of some remnants of a human skeleton is less

probable (but not impossible!). The artefacts discovered in the pit suggest inclusion of the place in the category of those with ancient objects.

As it is known, an important aspect of the spiritual life of the chalcolithic communities was constituted by the ritual pits (COTIUGĂ, HAIMOVICI 2004, 317-324), difficult to interpret though, because of their occult significance on one hand, impossible to completely understand because of their cultural delimitation, but also because of the technical details, specific to the archaeological research of the places of this kind.



Fig. 13. The altar, or *bucrania*, after the restoration.

The wells, dug on purpose, with an (initially at least) clear functionality, can also be interpreted as cult pits (*bóthroi*), through their primordial functionality, the gesture of supplying with and consuming water having its own religiousness. With their transformation into ritual pits, containing offerings brought on the occasion of some magical-religious rituals, or sometimes a part of the remnants of those ceremonies (usually as intentionally broken, fragmentary artefacts), they acquired a cultual character. They had the role of purifying the

water they contained, the symbolism of water having multiple connotations inside the prehistoric communities as well, whose daily evolution was unrolled between the coordinates of beliefs and taboos. Moreover, in this case, whereas in the case of the deposits in the inferior levels we cannot talk under any circumstances about refuse, the ones in the upper levels, even if they can be defined, in our acceptance, as residues, they can also represent the results of a ritual act, with a cult significance.

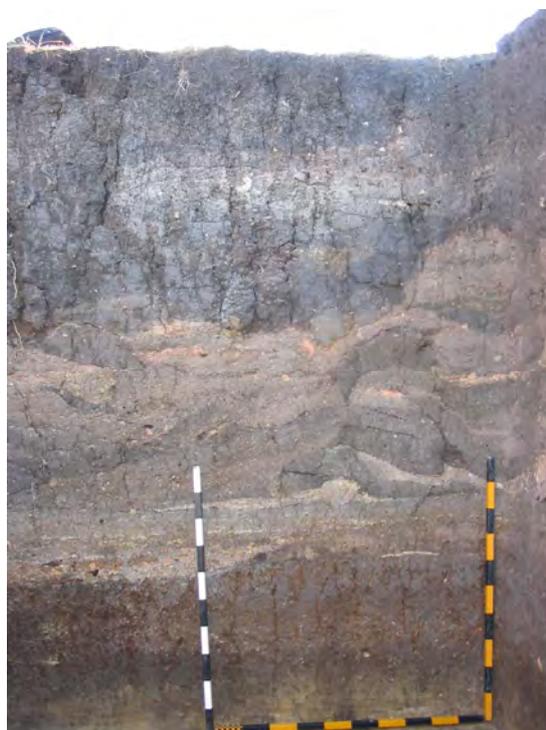


Fig. 14. Stratigraphic sequence from Section VII/2003-2004.

Section VII confirmed the stratigraphic sequences previously signalled; it proved that prehistoric inhabited locations are at least as intense as the ones on the western slope of the hill (the archaeological layer captured here is the thickest one so far – 2.5 m ! – Fig. 14), it answered one of the main questions connected to the prehistoric habitat at *Gorgan* (the one of the water supply sources) and it finally proved the fact that not only the Decea Mureșului type of inhabited location, but also the Coțofeni one, had structures with a cultic, ritual destination.

Bibliography

BELDIMAN Corneliu, CIUTA Marius-Mihai, SZTANCS Diana-Maria

2005 *Industria materiilor dure animale în preistoria Transilvaniei: descoperirile aparținând epocii eneolitice de la Șeușa-„Gorgan”, com. Ciugud, jud. Alba*, Apulum, XLII, p. 27-52.

2005a *Contribuții la cunoașterea patrimoniului arheologic mobil apulens; podoabe din materii dure animale descoperite în așezarea aparținând culturii Coțofeni de la Șeușa-„Gorgan”, PAp, V-VI.*

CIUTĂ Marius

2004 *Cercetări arheologice sistematice la Șeușa-„Gorgan” (com. Ciugud, jud. Alba)*, PAp, IV, p. 129-137.

CIUTĂ Marius, GLIGOR Adrian

2001 *Șeușa, com. Ciugud, jud. Alba. Punct: Gorgan*, Cronica. Campania 2000, p. 242-243.

2001a *Raport preliminar asupra cercetărilor arheologice de la Șeușa - „Gorgan” (com. Ciugud, jud. Alba)*, campania 2000, APAT, I, in press.

2003 *Descoperiri arheologice în situl de la Șeușa - „Gorgan” (com. Ciugud, jud. Alba)*, I, Apulum, XL, 2003, p. 1-38.

2006 *Archäologische Funden nach Șeușa-„Gorgan” (Ciugud, Alba District)*, Das Altertum.

CIUTĂ Marius, GLIGOR Adrian, KADAR Manuella

2000 *Considerații pe marginea unei piese de aramă eneolitice descoperite la Șeușa-Gorgan (com. Ciugud, jud. Alba)*, Corviniana, VI, p. 69-74.

CIUTĂ Marius *et alii*

2000 *Șeușa, com. Ciugud, jud. Alba. Punct: La cărarea morii*, Cronica. Campania 1999, p. 101.

2002 *Șeușa, com. Ciugud, jud. Alba. Punct: Gorgan*, Cronica. Campania 2001, p. 519-520.

2003 *Șeușa, com. Ciugud, jud. Alba. Punct: Gorgan*, Cronica. Campania 2002, p. 312-314.

2004 *Șeușa, com. Ciugud, jud. Alba. Punct: Gorgan*, Cronica. Campania 2003, p. 330-332.

2005 *Șeușa, com. Ciugud, jud. Alba. Punct: Gorgan*, Cronica. Campania 2004, p. 367-373.

COTIUGĂ Vasile, HAIMOVICI Sergiu

2004 *Fosses culturelles (bóthroi) et a caractères culturels du néolithique et l'énéolithique de la Roumanie*, in vol.: *Acts of the XIVth UISPP Congress, University of Liège, Belgium, 2-8 September 2001. Section 9. The Neolithic in the Near East and Europe. Section 10. The Copper Age in the Near East and Europe. General Sessions and Posters*, BAR-International Series 1303, Oxford, p. 317-324.

LAZĂR Valeriu

1982 *Așezări de înălțime cu terase Coțofeni în Transilvania. Considerații generale social-economice și istorice (IV)*, Marisia, 11-12 (1981-1982), p. 31-40.

LUCA Sabin Adrian

1999 *Sfârșitul eneoliticului pe teritoriul intracarpatic al României. Cultura Bodrogkeresztúr*, BMAp XI, Alba Iulia.

1999a *Aspecte ale neoliticului și eneoliticului din sudul și sud-vestul Transilvaniei*, Apulum, XXXVI, p. 5-33.

CONTRIBUTIONS TO THE ABSOLUTE CHRONOLOGY OF THE NEOLITHIC AND CHALCOLITHIC OF TRANSYLVANIA

MIHAI GLIGOR*

Keywords: ¹⁴C AMS, Neolithic, Chalcolithic, absolute chronology, Alba Iulia - Lumea Nouă, Foeni cultural group, Petrești culture.

Cuvinte cheie: C14 AMS, neolitic, eneolitic, cronologie absolută, Alba Iulia - Lumea Nouă, grupul cultural Foeni, cultura Petrești.

Abstract. *The Neolithic-Chalcolithic archaeology of Transylvania registered notable progresses through the research carried out in the last decades. The present study intends to introduce in the scientific circuit the results of the radiocarbon analyses from Alba Iulia - Lumea Nouă (Alba county, Romania). The ¹⁴C AMS data interpretation provides us both the possibility to achieve a good chronological frame of the Foeni habitation from the Neolithic and Chalcolithic site from Lumea Nouă and discuss the problems of absolute chronology of the above mentioned period for Transylvania and Banat in a larger context.*

Rezumat. *Arheologia neo-eneoliticului Transilvaniei a înregistrat progrese notabile prin cercetările efectuate în ultimele decenii. Studiul de față își propune să introducă în circuitul științific rezultatele analizelor radiocarbon de la Alba Iulia - Lumea Nouă (jud. Alba, România). Interpretarea datelor C14 AMS ne oferă posibilitatea să realizăm o bună încadrare cronologică a locuirii Foeni din situl neolitic și eneolitic de la Lumea Nouă și totodată să discutăm într-un context mai larg problematica cronologiei absolute a perioadei pentru Transilvania și Banat.*

Introduction

The Neolithic and Chalcolithic settlement from *Lumea Nouă* is located in the north-eastern part of Alba Iulia town, on the second terrace of the Mureș River. It was discovered by chance in 1942, following some town planning work. Several archaeological campaigns were carried out at *Lumea Nouă* in 1942-1947, 1961-1963, 1976, 1995-1996, and 2002-2007 (GLIGOR 2007c).

The stratigraphic sequence of the site from Alba Iulia - *Lumea Nouă* for the Neolithic and Chalcolithic period is the following: Vinča B – Vinča C – Lumea Nouă – Foeni – Petrești – Coțofeni.

Recent research throws new light on the dwelling evolution from the settlement

of *Lumea Nouă* through the research carried out in 2005-2006. Hence, several deepened complexes of the pit-house type, as well as surface dwelling with archaeological materials that are framed in the form and decorum index defining for the Foeni group community evolution (GLIGOR, FLORESCU, BREAZU 2006, 161-172, fig. 1; GLIGOR *et alii* 2007, 39-49, pl. V; GLIGOR 2007b, 55, 57-60, no. 33, 37, 39, 40, 45) have been identified. A deepened complex of the pit-house type – completely investigated - (B1/Sp. II-2005) that provided a rich archaeological material and allowed the finding of the typological, stylistic characteristics of the Foeni pottery from *Lumea Nouă* (GLIGOR 2007a, 1-28, pl. II-XVIII; 2007b, 54-61, no. 31-32, 34-36, 38, 42-44) is representative in this respect.

A special find from *Lumea Nouă* is considered to be “the funeral complex” that is known because of the diggings carried out

* “1 Decembrie 1918” University of Alba Iulia,
e-mail: m_gligor@yahoo.com

in 2003 and 2005. On the occasion of drawing up a preliminary study (GLIGOR 2006, 16-19, photo 1-4) that aimed at the popularization of the funeral find of *Lumea Nouă*, we ascertain – though having a restricted set of data at our disposal – that the dating of these data cannot be later than the Petrești culture from an archaeological point of view and taking into account the typological, stylistic pottery characteristics and the stratigraphic context, though lacking analogies. The stratigraphic position allowed the identification in successive sediments of some skull remains out of joint, dissimilar brains and old bone remains that were not in anatomic connection. The archaeological context was therefore pleading for a violent and simultaneous death of a large number of individuals at first sight. Human bone remains (skulls in preponderance) from approximately 100 individuals – among which mature men, women and children – have been found in the entire area. A rich archaeological material typical for the Foeni group was drawn out associated to the skeleton remains.

Nevertheless, the preliminary archaeological report¹ set off the existence of more skulls endowed with engross fractures and abrasion areas, most probably resulted from a post-mortem brain manipulation during specific rituals that mark completely new funeral practices from the beginning of the Chalcolithic on the present-day territory of Romania. We accredit the idea of the existence of a ritual centre at *Lumea Nouă* in the Foeni habitation period with necessary prudence determined by the fact that archaeological research is not carried out yet.

The archaeological context

Bone material samples had been taken for ¹⁴C AMS analysis in order to find data of absolute chronology and determined a chronological dating of the funeral find from

¹ The anthropological research upon the old bone material was carried out by a staff led by Ph.D. Viorel Panaitescu (INML Bucharest). There are provided the data included in an initial preliminary report of archaeological research. We wish to thank Ph.D. V. Panaitescu once more for the information that he provided us with such amiability.

Lumea Nouă as much as possible. Charcoals samples coming from the pit-house closed complexes have been taken for analyses in order to make the connection with the habitation structures of the settlement. Hence, a number of 10 samples² were sent for ¹⁴C dating to Poznań Radiocarbon Laboratory, Poland.

The sample origin and the archaeological context are presented below³:

1. ALN #01 (Poz-19489) - 5750±50 BP (Fig. 2/1) was provided by the bone material sampled from human maxilla from G1/Sp. II-2003 (0,90m depth);

2. ALN #02 (Poz-19375) - 5650±40 BP (Fig. 2/2) was provided by the bone material sampled from human mandible from G1/Sp. II-2003 (1,00m depth);

3. ALN #03 (Poz-19376) - 5670±40 BP (Fig. 1/3) was provided by the bone material sampled from human maxilla from C1/Sp. III-2005 (0,80m depth);

4. ALN #04 (Poz-19377) - 5770±40 BP (Fig. 1/4) was provided by the bone material sampled from human mandible from G1/Sp. III-2005 (1,10m depth);

5. ALN #05 (Poz-19378) - 6850±40 BP was provided by the bone material sampled from human maxilla from G1/Sp. III-2005 (1,60-1,70m depth);

6. ALN #06 (Poz-19451) - 5700±50 BP (Fig. 2/3) was provided by the charcoal sampled from pit-house B1-Sp. II/2006 (1,00m depth);

7. ALN #07 (Poz-19490) - 6090±50 BP (Fig. 2/4) was provided by the charcoal sampled from the pit-house B1-Sp. II/2006 (1,40-1,50m depth);

8. ALN #08 (Poz-19379) - 7420±50 BP was provided by the charcoal sampled from the pit-house B2-Sp. III/2006 (1,70-1,80m depth);

² The analyses were worked out with the financial support provided by the CEEX project *The Study of Anthropogenetics Parameter Dynamics Determined by the Bioarchaeological Elements Discovered at the Middle Mureș Basin*.

³ See: GLIGOR 2006, 16-21; GLIGOR, FLORESCU, BREAZU 2006, 161-172; GLIGOR *et alii* 2007, 39-49 for more details regarding the complexes out of which the samples for the ¹⁴C analyses were taken off.

9. ALN #9 (Poz-22521) - 5690±40 BP (Fig.1/1) was provided by the bone material sampled from human mandible from G1/Sp. III-2005 (1,55-1,60m depth);

10. ALN #10 (Poz-22522) - 5695±35 BP (Fig. 1/2) was provided by the bone material sampled from human maxilla from G1/Sp. III-2005 (1,85-1,90m depth).

Discussions

The results of each assay – identified with the laboratory logo – are presented in the table of Fig. 3, and the ^{14}C data calibration⁴ is rendered by the diagrams of the Fig. 1-2.

The tooth of a maxilla belonging to a skull (G1/Sp. II-2003, depth 1,65m), out of which the ALN#5 (Poz-19378) sample was taken was characterized by less than 1% collagen⁵, and that is why the date sample obtained, 6850±40BP, is not correct. The analysis was done again on a sample sampled a maxilla fragment from the same archaeological context (ALN#10).

The samples drawn out of fired structures – charcoal for the present case - needs supplementary debates. The ALN #06 (Poz-19451) sample obtained from the analysis of charcoal extracted from the pit-house B1-Sp. II/2006, 1m depth, provided a dating that may be framed in the interval 4550-4410 calBC (1 σ) according to the Foeni habitation in the *Lumea Nouă* site. The ALN #07 (Poz-19490) sample obtained through the charcoal analysis of the same pit-house, B1-Sp. II/2006 (1,40-1,50m depth), provided a dating that frames in the interval 5020-4880 calBC (1 σ). The dating seems too early for a Foeni complex in the intra-Carpathian area and inscribes itself in the series obtained for the eponym settlement, at the superior limit, at first sight. Nevertheless, we also have to take into account the fact that the ^{14}C date was obtained out of the charcoal resulted from wood firing. Therefore, the dated organic material lost its life before being included in

the archaeological context, trunk or wooden beam from the structure of the pit-house arrangement, in this case. If the respective beam is part of a long-life wooden species or was retrieved we have the explanation of an earlier dating that must be interpreted as representing the dating of the organic material and not the proper dwelling in the pit-house. Such an interpretation is rendered by the connection of the 2 ^{14}C data, taking into account the archaeological context out of which they were sampled. Hence, we believe that the sample was not contaminated and the dating is a correct one. Such situations appear when the ^{14}C data obtained from charcoal are under analysis (PALINCAȘ 1997, 26-30).

The ALN#8 (Poz-19379) sample was sampled from a consistent burn layer from B2/Sp. III-2006 pit-house from 1,70-1,80 m depth. The archaeological material resulted from the pit-house emptying is typical for the Foeni habitation from Alba Iulia-*Lumea Nouă* and frames itself in the typological, stylistic index of the Foeni pottery group. The 7420±50 BP date that was obtained and then 6320-6180 calBC (1 σ) calibrated indicates a chronological interval that would be early for the first phase of the Starčevo-Criș culture, too.

The ^{14}C dating method is essential for the funeral find from *Lumea Nouă*. An initial remark is that the data obtained from the samples taken from Sp. II/2003 and Sp.III/2005 undoubtedly certify their contemporaneity. So, we have one funeral “complex” that separates the two findings at close distance from one another (12-13 m). The chronological period offered by the 6 data is inscribed as 4690-4450 calBC (1 σ) and 4720-4360 calBC (2 σ). If the top of the curve of each sample is under observation – as one may notice in the case of the calibrated ^{14}C dating diagrams - a much shorter interval of approximately 100-120 years may be ascertained (Fig. 3). This period of time is the result of the data provided by the absolute dating methods; in our opinion it is the period of functioning of the ritual centre from *Lumea Nouă* during which human bone remains were manipulated and deposited.

⁴ The calibration was carried out through OxCal, 3.10 version, according REIMER *et alii* 2004, 1029-1059.

⁵ Information stated in the report provided by the Poznań ^{14}C Laboratory.

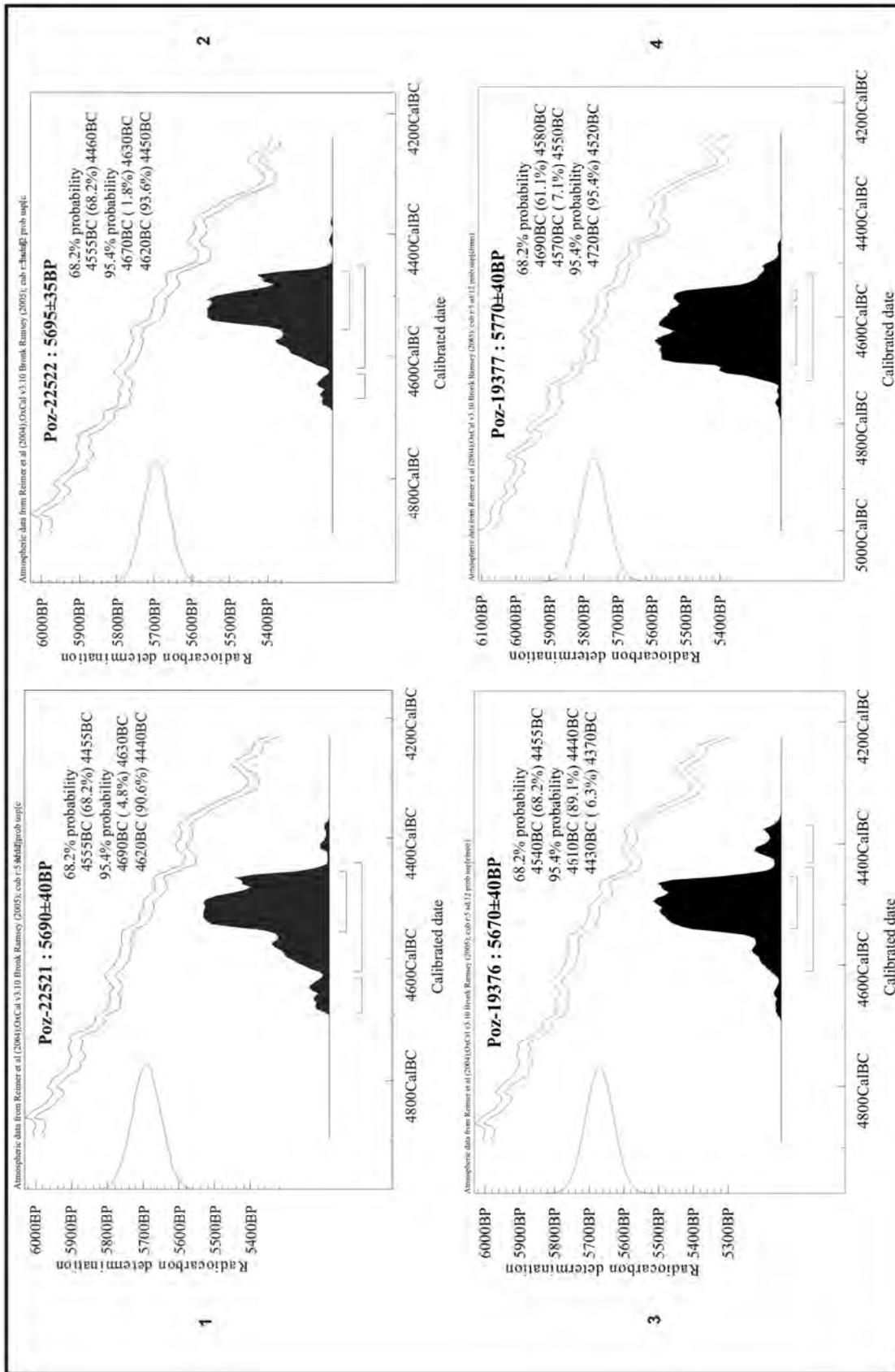


Fig. 1. ¹⁴C calibrated data.

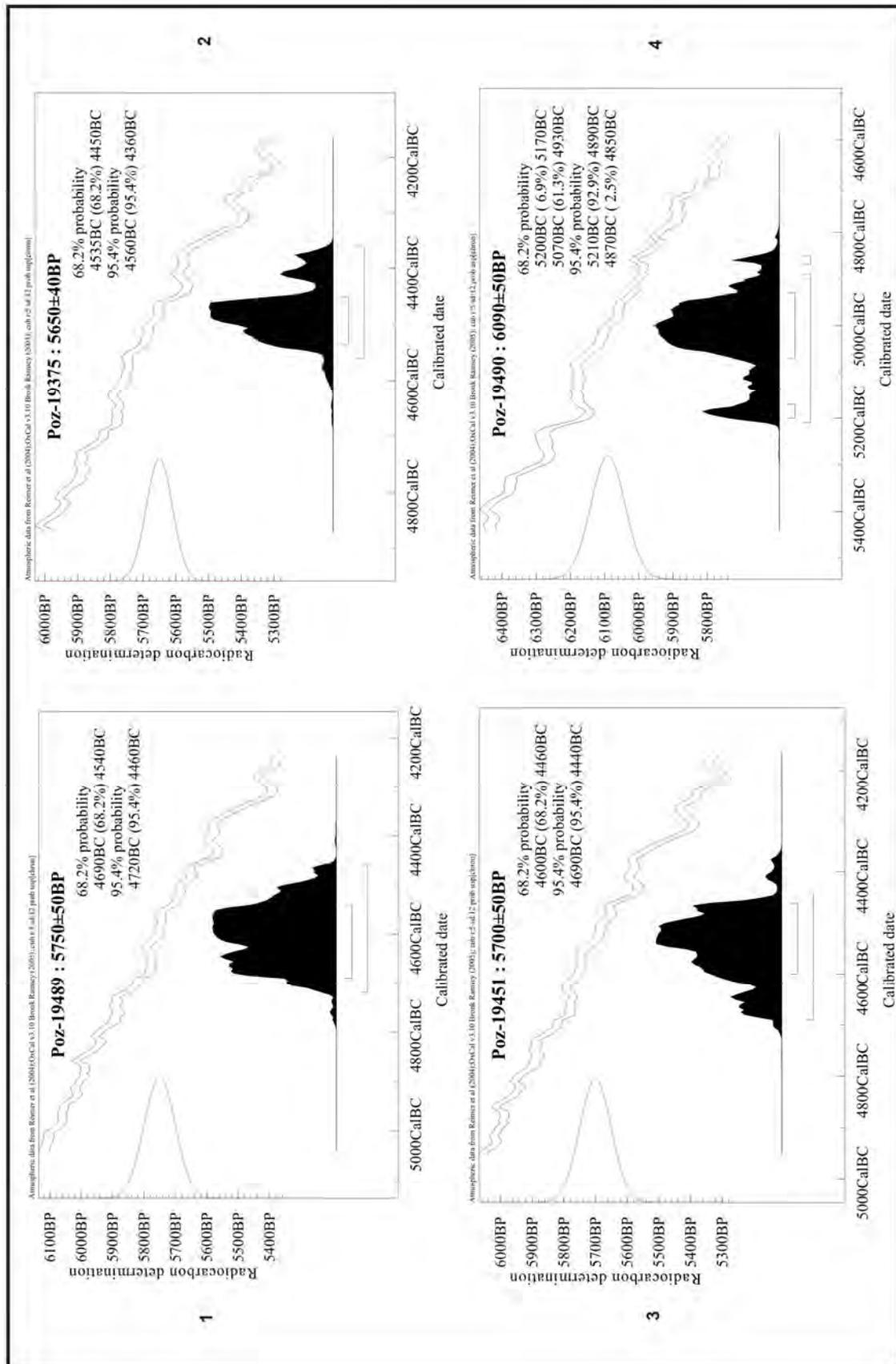


Fig. 2. ¹⁴C calibrated data.

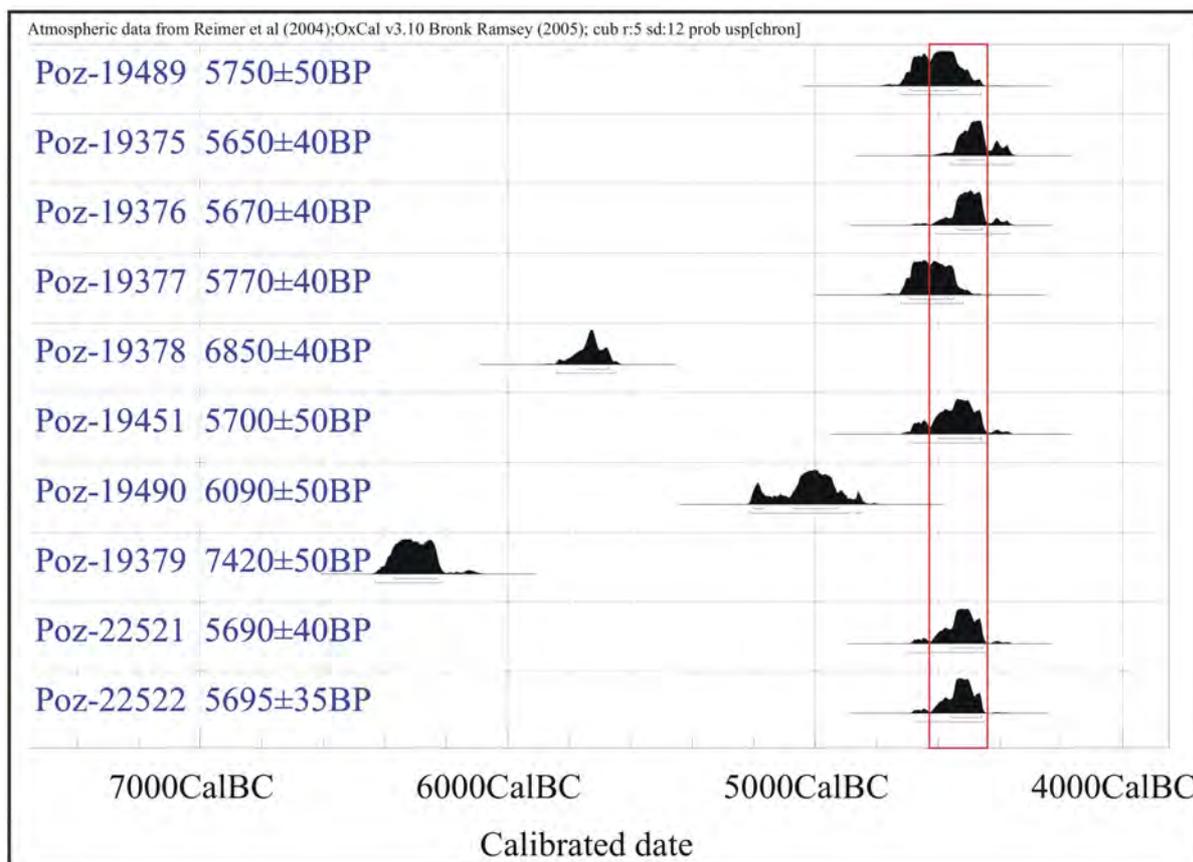


Fig. 3. General table of ^{14}C data.

It is also significant to add that the calibrated data of the funeral find coincide with the calibrated data from the habitation structures (Fig. 3); this is a supplementary argument for adding these findings to the late phase of the Foeni cultural group evolution.

Data of absolute chronology have also been provided by the thermoluminescence method from Alba Iulia - *Lumea Nouă*. Four pottery fragments have been taken from Sp. III/2005, square A, 0,80-0,90 m depth. The pottery samples have been taken from the layer of culture ascribed to the Foeni group (BENEA *et alii* 2007, fig. 2). The ages that have been provided are generally between 6.6-6.3±0.9 Ka (BENEA *et alii* 2007, tab. 1). We may notice that the data obtained resulting from the thermoluminescence method are enclosed in the interval given by using the ^{14}C method.

We believe that a comparison between the ^{14}C data of *Lumea Nouă* and the data obtained for the Foeni group from the eponym site, the ^{14}C data belonging to the A

phase of the Petrești culture from Daia Română - *Părăuț*, and data provided by the Turdaș complexes of the settlement from Orăștie - *Dealul Pemilor* is useful. The ^{14}C data from Foeni inscribe themselves in the 4920/4675-4580/4460 calBC interval (DRAȘOVEAN 2005, 20, 12-26), those of Daia Română in the 5030/4520-4780/4350 calBC one (MAXIM 1999, 133), and those from Orăștie in the 4768/4582-4734/4549 calBC interval (LUCA 2003, 216-218).

It has been found that the date of 5790±55 BP (Deb. 5775) from Orăștie - *Dealul Pemilor*, that was drawn out from the B2/1994 pit-house and belongs to the old Turdaș level (LUCA 2003, 216-218, fig. 1) indicates the chronological bearing to which the two cultural entities evolve during the Vinča C1-C2 phases, if it is compared with the date of 5700±50 BP (Poz-19451) from Alba Iulia - *Lumea Nouă* that was sampled from the pit-house B1-Sp. II/2006 (Fig. 2/3) and belongs to the Foeni group; that is because the ^{14}C data from Hodoni for the Vinča C1 phase in Banat are the following:

(Deb-1963) 5880±60 BP (DRAȘOVEAN 1996, 115-118), and for the ¹⁴C data from Uivar for the Vinča C2 phase are these ones: (Hd-22928) 5740±55 BP (SCHIER, DRAȘOVEAN 2004, 202).

The ¹⁴C data from Zau de Câmpie make the habitation levels from Vinča B2/C1 and C1 period part of the 6230±55 BP (Ly. 8934) - 6050±55 BP interval (Ly. 8931); they are superposed by the level of materials belonging to the Foeni group (LAZAROVICI, LAZAROVICI 2006, 431-432, fig. IIIe.26-IIIe.27).

Samples from S V/1971 from the basis of level II 1 and that of the level II 2 were gathered for dating the inferior levels of Daia Română through the ¹⁴C method. The pottery material is included in the monochrome and two colour species from the stylistic A Ia-A Ib and A IIa-A IIb groups where Pre-Cucuteni pottery was also found (PAUL 1992, 50-51, 127, pl. IVb/8-9). Black pottery and grey-blackish pottery with yellowish or red-yellowish stains, strongly polished, both in the exterior and interior (PAUL 1992, 49, pl. XXVIII/4) comes from the same context, it is actually the black-topped pottery specific to the Foeni group (GLIGOR 2007d, pl. CLXXVIa/2). Hence, our assumptions were correct and one of the ¹⁴C dating obtained from Daia Română attests habitation levels belonging to the Foeni group (Fig. 4) at least. Polychrome pottery (three colour) specific to the A III (PAUL 1992, 51) hardly appears out of the II4 and III1 levels at Daia Română-Părăuș. Anyway, the ¹⁴C data from Daia Română must be carefully discussed having in view a margin of error of ±100 years taking into account the fact that they were obtained more than three decades ago.

According to the ¹⁴C data, a certain contemporaneity of the Foeni group and the A phase of the Petrești culture was established (MANTU 1998, 143; DRAȘOVEAN 2003, 45; 2004, 33; LAZAROVICI 2006, fig. 3, 7). Indirectly, we may also indicate the final period of evolution of the Petrești communities. The final phase Petrești B layer is superposed by the level with pottery material belonging to the pots with handles with discoid attachment horizon (*Scheibenhenckel*) in the caves from Cheile Turzii (LAZAROVICI *et alii* 1995, 553-557). The radiocarbon analyses provide the following

data for the level of materials belonging to this horizon: (GrN-29100)-5100±40 BP; (GrN-29102)-5120±40 BP; (GrN-29101)-5260±40; (GrN-29014)-5350±40 BP (BIAGI, VOYTEK 2006, 199, fig. 5). Therefore, these data come to confirm the chronological bearing up to which the Petrești culture finished its evolution.

Final remarks

The result interpretation of the ¹⁴C AMS analyses from *Lumea Nouă* led to the following conclusions:

1. the ¹⁴C AMS data from Alba Iulia - *Lumea Nouă* is placed in the interval 4690-4450 calBC (Fig. 3), corresponding to a fully accomplished phase of the Foeni group evolution;

2. as it is natural and expected, the data from *Lumea Nouă* are later than those of Foeni and demonstrate the migrational direction of the Foeni communities from Banat in Transylvania (Fig. 4). The relatively short interval elapsed from the beginning of the migration and up to the moment of the setting up of the settlements in the interior of the Carpathian arch attest the mobility and dynamism of the bearers of this cultural group;

3. the ¹⁴C Foeni data from *Lumea Nouă*, if compared with the ¹⁴C Turdaș data from Orăștie (Fig. 4) point out to the fact that the Turdaș people were already populating this geographical area in the moment of the Foeni migration in Transylvania and sites occupancy in the middle Mureș basin;

4. the late Foeni habitations of Transylvania are partially contemporaneous with the first phase of the Petrești culture. A stronger connection could be effected in the moment of drawing and dating new samples from typical sites of the A phase-type.

*

It is to Fl. Drașovean that we owe the Foeni group defining, the disclosure of connections with the Transylvanian area, the Southern origin and identification of the role played by these communities for the Petrești culture genesis (DRAȘOVEAN 1997, 54-88; 2003, 39-58; 2004, 27-36; 2005, 12-26). The results of recent archaeological research from the Transylvanian area also provide

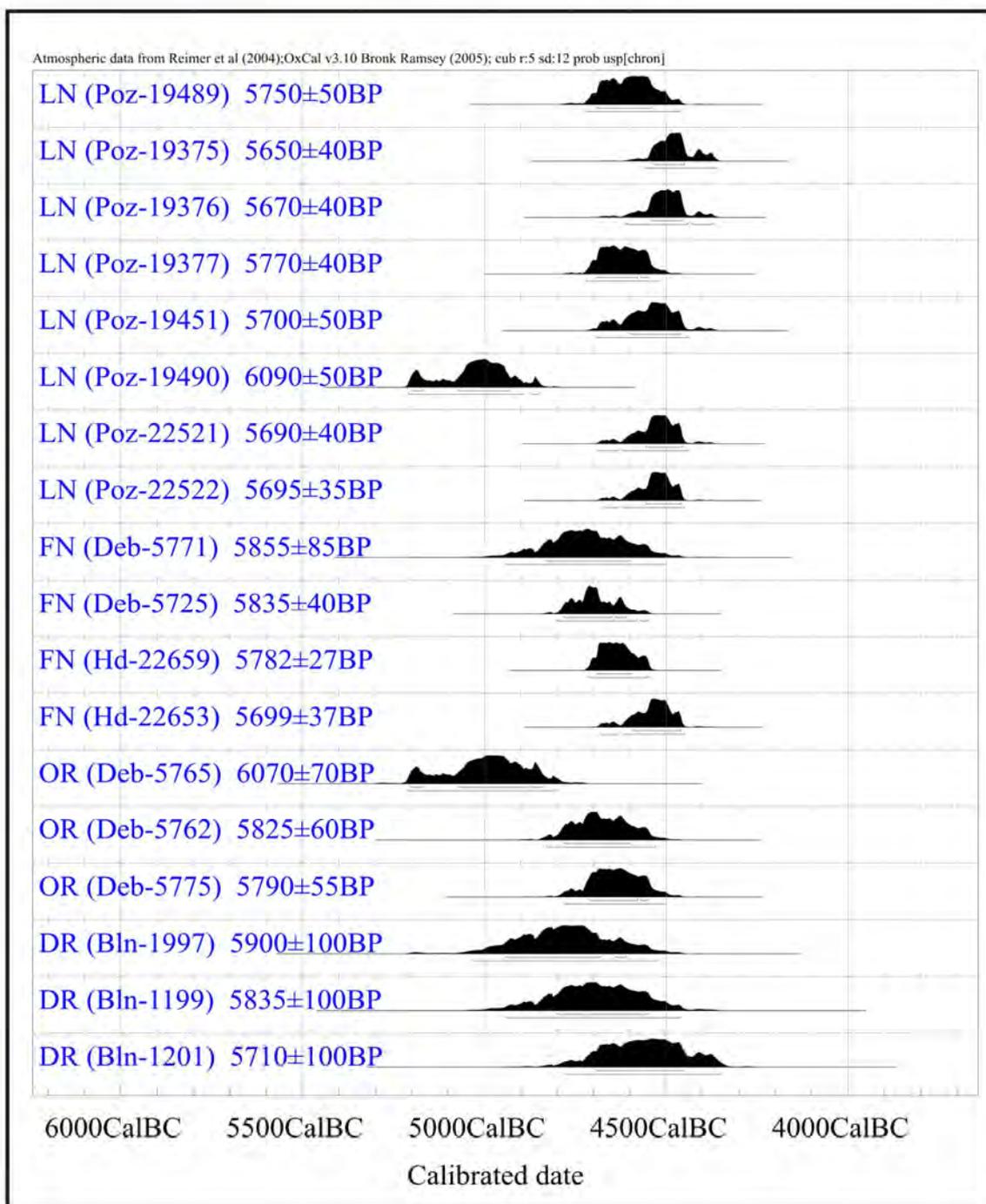


Fig. 4. Comparaision between Foeni (*Lumea Nouă*) and Turdaş (Orăştie) ^{14}C data.

us consistent arguments to support these opinions based on stratigraphied archaeological materials belonging to the Foeni group communities (GLIGOR 2007b, 51-53; 2007d, 118-137).

Through the find of the Foeni-type from *Lumea Nouă*, the non-autochthonism theory regarding the genesis of the Petreşti culture

gains a solid point of support. Therefore, the Southern impulses (GLIGOR 2007b, 63, no. 46) are defining for the birth of the Petreşti culture at the half of the V millennium B.C., and Alba Iulia - *Lumea Nouă* represents one of the key-settlements for elucidating this ample and complex process at the present moment.

We believe that the Foeni group marked the end of the Late Neolithic evolution and represents the beginning of the Chalcolithic age in the intra-Carpathian area (LAZAROVICI, LAZAROVICI 2006, 497).

In conclusion, the ^{14}C AMS data displayed in the present study bring up the Neolithic and Chalcolithic site from *Lumea Nouă* among the Transylvanian settlements with sequences of absolute chronology and provide a credible basis for discussion regarding the evolution of the communities belonging to the Foeni cultural group inside the Carpathian arch.

Bibliography

- BENEA Vasile *et alii*
 2007 *Luminescence dating of Neolithic ceramics from Lumea Nouă, Romania*, *Geochronometria*, 28, 2, p. 9-16.
- BIAGI Paolo, VOYTEK Barbara
 2006 *Excavations at Peștera Ungurească (Caprelor) Cheile Turzii, Petreștii de Jos, Transylvania 2003-2004: A preliminary report on the chipped stone assemblages from the chalcolithic toarte pastilate (Bodrogkeresztúr) layers*, *AnB S.N.*, XIV, 1, p. 177-202.
- DRAȘOVEAN Florin
 1996 *Cultura Vinča târzie (faza C) în Banat*, BHAB I, Timișoara.
 1997 *Die Petrești-Kultur im Banat*, *PZ*, 72, p. 54-88.
 2003 *Transilvania și Banatul în neoliticul târziu. O contribuție la originile culturii Petrești*, *Apulum*, XL, p. 39-58.
 2004 *Transylvania and the Banat in the late Neolithic. The origins of the Petrești culture*, *Antaeus*, 27, p. 27-36.
 2005 *Zona thessalo-macedoneană și Dunărea mijlocie la sfârșitul mileniului al VI-lea și la începutul mileniului al V-lea a.Chr.*, *Apulum*, XLII, p. 12-26.
- GLIGOR Mihai
 2006 *Înmormântări multiple în așezarea preistorică de la Alba Iulia-Lumea Nouă*, *RJLM*, 14, (1), p. 16-21.
 2007a *Cercetări arheologice preventive la Alba Iulia-Lumea Nouă. O descoperire aparținând grupului Foeni*, *Apulum*, XLIV, p. 1-28.
 2007b *Grupul cultural Foeni*, in vol.: *Ceramica neolitică – o lecție de istorie* (Catalog de expoziție), Alba Iulia, p. 50-63.
 2007c *Situl arheologic de la Alba Iulia-Lumea Nouă. Istorical cercetărilor*, *AUA*, XI/1, 2007 (in press).
 2007d *Așezarea neo și eneolitică de la Alba Iulia - Lumea Nouă în lumina noilor cercetări*, PhD Thesis, Universitatea "1 Decembrie 1918" Alba Iulia.
- GLIGOR Mihai, FLORESCU C., BREAZU M.
 2006 *Raport preliminar privind cercetările arheologice preventive de la Alba Iulia-Lumea Nouă* (2005), *PAp*, V-VI (2005-2006), p. 161-172.
- GLIGOR Mihai *et alii*
 2007 *Alba Iulia, jud. Alba. Punct: Lumea Nouă*, *Cronica. Campania* 2006, p. 39-49.
- LAZAROVICI Cornelia-Magda
 2006 *Absolute chronology of the late Vinča culture in Romania and its role in the development of the Early Copper Age*, in vol.: *Homage to Milutin Garašanin*, Belgrade, p. 277-293.
- LAZAROVICI Cornelia-Magda, LAZAROVICI Gheorghe
 2006 *Arhitectura neoliticului și epocii cuprului din România. (I) Neoliticul, Iași*.
- LAZAROVICI Gheorghe *et alii*
 1995 *Cheile Turzii 1994. Raport de cercetare arheologică și etnoarheologică*, *AMN*, 32/1, p. 537-574.
- LUCA Sabin Adrian
 2003 *Date noi cu privire la cronologia absolută a eneoliticului timpuriu din Transilvania. Rezultatele prelucrării probelor radiocarbon de la Orăștie-Dealul Pemilor, punct x₂, jud. Hunedoara*, *Tibiscum*, 11, p. 215-230.
- MANTU Cornelia Magda
 1998 *Cronologia absolută a culturilor neolitice din România și relațiile cu lumea egeo-anatoliană*, *CI*, XVII/1, p. 86-100.
- MAXIM Zoia
 1999 *Neo-eneoliticul din Transilvania*, *BMN* XIX, Cluj-Napoca.
- PALINCAȘ Nona
 1997 *Câteva observații cu privire la utilizarea datelor radiocarbon*, *SCIVA*, 48, 1, p. 17-30.
- PAUL Iuliu A.
 1992 *Cultura Petrești*, București.
- REIMER Paula J. *et alii*
 2004 *IntCal04 terrestrial radiocarbon age calibration, 0-26 cal kyr BP*, *Radiocarbon*, 46, (3), p.1029-1059.
- SCHIER Wolfram, DRAȘOVEAN Florin
 2004 *Vorbericht über die rumänisch-deutschen Prospektionen und*

*Ausgrabungen in der befestigten
Tellsiedlung von Uivar, jud. Timiș,
Rumänien (1998-2002), PZ, 79, 2,
p. 145-230.*

CONSIDERATIONS CONCERNING THE HABITAT OF THE TISZAPOLGÁR CULTURE IN ROMANIA

DRAGOȘ DIACONESCU*

Keywords: *Tiszapolgár culture, Chalcolithic, habitat, Romania.*

Cuvinte cheie: *cultura Tiszapolgár, eneolitic, habitat, România.*

Abstract. *Within this short contribution, the author catalogues, in an exhaustive manner, the Tiszapolgár settlements identified on Romanian territory, also making some short considerations on the environment. The author analyses the character of the settlements, the favoured relief forms for their placement, their repartition within the different phases of the culture and the archaeological finds, concluding that the Tiszapolgár settlements have a relatively short life-span, being placed especially in the proximity of water courses, above the floodplain (terraces, hills). During the phase B of the Tiszapolgár culture, the location of the settlements may be connected to the exploitation of specific raw materials, especially copper.*

Rezumat. *În acest articol autorul realizează un repertoriu cuprinzător al așezărilor culturii Tiszapolgár din România, cu scurte considerații asupra habitatului. Analizând caracterul așezărilor, formele de relief preferate pentru amplasarea așezărilor, materialele descoperite și repartiția în funcție de faze, autorul ajunge la concluzia că așezările culturii Tiszapolgár sunt relativ de scurtă durată, amplasate cu precădere în zonele neinundabile din apropierea cursurilor de apă (terase, dealuri). În faza B a culturii Tiszapolgár, amplasarea așezărilor poate fi pusă în legătură cu exploatarea materiilor prime, mai ales cuprul.*

The Tiszapolgár culture is considered to represent the beginning of Copper Age (*Kupferzeit*) in the Carpathian Basin. The culture spread in the eastern part of Hungary, east of the Tisza River, in south-east Slovakia, northern Serbia, and in Romania, in the regions of Banat, Crișana, Sălaj, Sătmar, south-west of Maramureș and part of western Transylvania. On Romanian territory the extension of the culture was made through the basins of the rivers Someș, Crișuri, lower Mureș, Timiș and Bega. Absolute chronology data obtained on evidence from the eastern side of Hungary (8 analyzed samples) dates this culture between 4410 and 3760 CAL B.C. (HERTELENDI *et alii* 1995, 242).

The purpose of our study is to present the repertory of this culture's

settlements, also including cave settlements and in the same time the sites with a double function (settlements and necropolis).

This study is structured into two different parts; the first one contains the catalogue of the discoveries, and the second one represents the conclusions that can be extracted from this kind of approach.

I. The catalogue of settlements belonging to the Tiszapolgár culture on the Romanian territory

The repertory considers the following elements: A = the toponym of the zone where the site is situated; B = geographical type of the site's location; C = research mode; D = chronological phase of Tiszapolgár culture; E = the place where the archaeological material is kept; F = bibliography.

* Brukenthal National Museum of Sibiu, e-mail: goshu_d@yahoo.com

- 1. Acâș (Acâș commune, Satu Mare county)**
 A. *Crasna Veche*.
 B. Terrace.
 C. Surface survey.
 D. Phase A.
 E. Carei Town Museum.
 F. IERCOȘAN 2002, 25.
- 2. Arad (Arad county)**
 A. *Gai*.
 B. Unspecified.
 C. Archaeological excavation: M. Roska (1912)¹.
 D. Cannot be specified.
 E. Arad County Museum (lost materials).
 F. ROSKA 1942, 26, no. cat. 98; RUSU 1971, 80; LAZAROVICI 1983, 13, cat. no. 3; MAXIM 1999, 140, no. cat. 41; RAJA, 35, no. cat. 6a; IERCOȘAN 2002, 26-27.
- 3. Arad (Arad county)**
 A. *Uzina de apă*².
 B. Tell.
 C. Surface survey.
 D. Unspecified.
 E. Eugen Pădureanu's personal collection.
 F. PĂDUREANU 1985, 29, n. 22; MAXIM 1999, 140, no. cat. 41; RAJA, 37, no. cat. 8g; IERCOȘAN 2002, 101, no. cat. 1b.
- 4. Apa (Apa commune, Satu Mare county)**
 A. *Ciarda popii*.
 B. Terrace.
 C. Surface survey.
 D. Phase B.
 E. Carei Town Museum.
 F. IERCOȘAN 2002, 25-26.
- 5. Archiud (Teaca commune, Bistrița-Năsăud county)**
 A. *Hânsuri*.
 B. Unspecified.
 C. Unspecified.
 D. Cannot be specified.
 E. Bistrița-Năsăud County Museum.
 F. LAZAROVICI 1983, 13, no. cat. 5³; MAXIM 1999, 140, no. cat. 43.
- 6. Așchileu Mic (Așchileu commune, Cluj county)**
 A. *Groapa popii*.
 B. Unspecified.
 C. Surface survey.
 D. Cannot be specified.
 E. National History Museum of Transylvania, Cluj-Napoca.
 F. LAZAROVICI 1983, 14, no. cat. 6; RACJ, 39 (the Tiszapolgár site is situated between the points *Gaura Popii* and *Lespezi*, in *Berea* forest); MAXIM 1999, 141, no. cat. 50.
- 7. Balta Sărată (Caransebeș town, Caraș-Severin county)**
 A. *Câmpul lui Andrei*.
 B. Terrace.
 C. Archaeological intrusive survey.
 D. Phase A.
 E. Ethnography and Border Regiment County Museum, Caransebeș
 F. GUMĂ-PETROVSZKY 1978, 97-114; LAZAROVICI 1979, 185, no. cat. 3c; 1983, 14, no. cat. 8; OPRINESCU 1981, 49, no. cat. 1; BOCHIȘ 2004, 55, no. cat. 2; LUCA 2004, 44-45, no. cat. 46.9.
- 8. Beba Veche (Beba Veche commune, Timiș county)**⁴
 A. Unspecified.
 B. Unspecified.
 C. Archaeological excavation.
 D. Unspecified.
 E. Museum of Banat, Timișoara; *Ferenc Móra* Museum, Szeged.
 F. BOGNÁR-KUTZIÁN 1972, 114, no. cat. 221; LAZAROVICI 1975, 20, no. cat. 1; 1979, 186-187, no. cat. 3c; 1983, 14, no. cat. 12; OPRINESCU 1981, 49, no. cat. 2; BOCHIȘ 2004, 55, no. cat. 4; LUCA 2006, 32, no. cat. 30.
- 9. Berea (Sanislău commune, Satu Mare county)**
 A. *Dolláros*.
 B. Unspecified.
 C. Unspecified.
 D. Phase B.
 E. Satu-Mare County Museum.

¹ IERCOȘAN 2002, p. 26-27, n. 7.

² N. Iercoșan considers this point uncertain (IERCOȘAN 2002 101).

³ The author mentions pottery, but only at *La Dâlme*.

⁴ Ida Bognár-Kutzián considers that the pottery belonging to Tiszapolgár comes from some graves (BOGNÁR-KUTZIÁN 1972, 114, n. 600). Adriana Oprinescu and S. A. Luca mention a settlement with materials from Tiszapolgár, Bodrogkeresztúr and Baden cultures (OPRINESCU 1981, 47; LUCA 2006, 32).

- F. MAXIM 1999, 143, no. cat. 104;
IERCOȘAN 2002, 27, no. cat. 4a.
- 10. Berea (Sanislău commune, Satu Mare county)**
A. *Cigány rét (Ritul țiganilor)*.
B. Unspecified.
C. Surface survey.
D. Phase B.
E. Satu-Mare County Museum.
F. MAXIM 1999, 143, no. cat. 104;
IERCOȘAN 2002, 27, no. cat. 4b.
- 11. Berea (Sanislău commune, Satu Mare county)**
A. *Szentgyörgy tag*
B. Unspecified.
C. Surface survey.
D. Phase B.
E. Satu-Mare County Museum.
F. MAXIM 1999, 143, no. cat. 104;
IERCOȘAN 2002, 27-28, no. cat. 4c.
- 12. Berea (Sanislău commune, Satu Mare county)**
A. *Zsidó tag*.
B. Unspecified.
C. Surface survey.
D. Phase B.
E. Satu-Mare County Museum.
F. MAXIM 1999, 143, no. cat. 104;
IERCOȘAN 2002, 28, no. cat. 4d.
- 13. Bervenii (Bervenii commune, Satu Mare county)⁵**
A. *Lutărie*.
B. Unspecified.
C. Surface survey.
D. Phase A.
E. Collection of Secondary School no. 1 Carei.
F. MAXIM 1999, 143, no. cat. 108;
IERCOȘAN 2002, 28, no. cat. 5a.
- 14. Bervenii (Bervenii commune, Satu Mare county)**
A. *Malul Crasnei⁶*.
B. Terrace.
- C. Surface survey.
D. Phase B.
E. Carei Town Museum.
F. MAXIM 1999, 143, no. cat. 108;
IERCOȘAN 2002, 28-29, no. cat. 5b.
- 15. Beșenova Veche (today Dudeștii Vechi, Dudeștii Vechi commune, Timiș county)**
A. *Movila Mare (Gornja Aranca)*.
B. Tell.
C. Archaeological excavation.
D. Phase B.
E. Unspecified.
F. BANNER 1932, pl. XXIX/2,9; XXXI/1-3, 10; BOGNĂR-KUTZIÁN 1972, 114, no. cat. 223; LAZAROVICI 1975, 20, no. cat. 6; 1979, 187, no. cat. 8c; 1983, 14, no. cat. 16; OPRINESCU 1981, 49, no. cat. 11 (as Dudeștii Vechi); BOCHIȘ 2004, 56, no. cat. 19.a (as Dudeștii Vechi).
- 16. Biharia (Biharia commune, Bihor county)**
A. *Căramidărie*.
B. Terrace.
C. Archaeological excavation.
D. Unspecified.
E. Criș County Museum, Oradea.
F. RUSU 1971, 80; IGNAT 1973, 8, no. cat. 1; LAZAROVICI 1983, 14, no. cat. 17; DUMITRAȘCU 1994, 50; MAXIM 1999, 144, no. cat. 122; IERCOȘAN 2002, 29, no. cat. 6.
- 17. Bocșa (Bocșa commune, Sălaj county)**
A. *Pietriș*.
B. Terrace.
C. Eva Lakó's archaeological survey.
D. Unspecified.
E. County Museum of History and Art, Zalău.
F. MAXIM 1999, 144, no. cat. 135;
IERCOȘAN 2002, 30, no. cat. 8.
- 18. Bodrogu Nou (Felnac commune, Arad county)**
A. *Către vale*.
B. Terrace.
C. Ceramics.
D. Phase A.
E. Arad County Museum.
F. PĂDUREANU 1985, 30; LUCA 1985, fig. 3/1, 3, 5, 7; 4/9, 10; MAXIM 1999, 145, no. cat. 139; RAJA, 45, no. cat. 4; IERCOȘAN 2002, 30-31, no. cat. 9; BOCHIȘ 2004, 56, no. cat. 6⁷; LUCA 2006, 44, no. cat. 58.2c.

⁵ Gh. Lazarovici mentions this site as Breveni (Sălaj county) (LAZAROVICI 1983, 14, no. cat. 19). Z. Maxim makes an error referring to the bibliography, considering the study of Gh. Lazarovici as speaking about this site at no. cat. 14; but in that study at no. 14 appears Berea-Ciumești (MAXIM 1999, 143).

⁶ In study of J. Némethi, at page no. 126 (not page 123 as it appears in IERCOȘAN 2002, but n. 13) this site also appears as Cămin-Malul Crasnei (NÉMETHI 1988, 126).

⁷ This author considers that the archaeological discovery point is the one that erroneously is named, *La Hodaie*.

19. Buciumi (Buciumi commune, Sălaj county)

- A. *Centru satului*.
- B. Terrace.
- C. Surface survey⁸.
- D. Phase A.
- E. County Museum of History and Art, Zalău.
- F. LAKÓ 1981, 44, no. cat. 15h; LAZAROVICI 1983, 14, no. cat. 20; MAXIM 1999, no. cat. 175; IERCOȘAN 2002, 31, no. cat. 10.

20. Bucovăț (Remetea Mare commune, Timiș county)

- A. *Cremenîș (Gruniul cu cremene)*.
- B. Tell.
- C. Archaeological excavation.
- D. Phase A (materials from here are considered to be the results of late Bucovăț IIIb elements contributing to the birth of Tiszapolgár culture)⁹.
- E. Museum of Banat, Timișoara.
- F. LAZAROVICI 1975, 20, no. cat. 8; 1983, 14, no. cat. 21; OPRINESCU 1981, 49, no. cat. 4; BOCHIȘ 2004, 56, no. cat. 7; LUCA 2006, 51, no. cat. 90.1a.

21. Buziaș (town, Timiș county)

- A. *Hillul Silagiului (Pirvova)*.
- B. Terrace.
- C. Surface survey.
- D. Unspecified.
- E. Museum of Banat, Timișoara.
- F. OPRINESCU 1981, 45, 49, no. cat. 6, 21 (as Silagiu); LAZAROVICI 1983, 14, no. cat. 22; BOCHIȘ 2004, 56, no. cat. 8; LUCA 2006, 53, no. cat. 97. 2a.

22. Carei (municipality, Satu Mare county)

- A. *Bobald III*.
- B. Terrace.
- C. Surface survey.
- D. Phase A.
- E. Carei Town Museum.
- F. LAZAROVICI 1983, 14, no. cat. 24; MAXIM 1999, 147, no. cat. 104; IERCOȘAN 2002, 31-32, no. cat. 11a.

23. Carei (municipality, Satu Mare county)

- A. *Bobald VII*¹⁰.
- B. Terrace.
- C. Surface survey.
- D. Phase B.
- E. Carei Town Museum.
- F. LAZAROVICI 1983, 14, no. cat. 24; MAXIM 1999, 147, no. cat. 190; IERCOȘAN 2002, 32, no. cat. 11b.

24. Carei (municipality, Satu Mare county)

- A. *Cozard*.
- B. Terrace.
- C. Archaeological excavation.
- D. Phase B.
- E. Carei Town Museum.
- F. MAXIM 1999, 147, no. cat. 190; IERCOȘAN 2002, 32-38, no. cat. 11c.

25. Carei (municipality, Satu Mare county)

- A. *Stația de epurare*.
- B. Terrace.
- C. Archaeological rescue excavation.
- D. Phase B.
- E. Carei Town Museum; Collection of Secondary School no. 1 Carei.
- F. MAXIM 1999, 147, no. cat. 190; IERCOȘAN 2002, 38-40, no. cat. 11d.

26. Cămin (Căpleni commune, Satu Mare county)

- A. *Podul Crasnei*.
- B. Terrace.
- C. Surface survey¹¹.
- D. Phase B.
- E. Carei Town Museum.
- F. NÉMETI 1988, 129; MAXIM 1999, 147-148, no. cat. 206; IERCOȘAN 2002, 40, no. cat. 12.

27. Cehei (Șimleul Silvaniei town, Sălaj county)

- A. *Misig*.
- B. Terrace.
- C. Archaeological rescue excavation.
- D. Phase A.
- E. County Museum of History and Art, Zalău.
- F. MAXIM 1999, 148, no. cat. 223; IERCOȘAN 2002, 41, no. cat. 13; POP

⁸ The materials were discovered as a result of an archaeological surveillance.

⁹ Bogdan Bochiș considers the site from Bucovăț (no. cat. 7) belonging to Phases A and B, but does not give any argument (BOCHIȘ 2004, pl. 2).

¹⁰ The location *Bobald V* presented as having Tiszapolgár materials at Gh. Lazarovici (LAZAROVICI 1983, 14, no. cat. 24) and Zoia Maxim (MAXIM 1999, 147, no. cat. 190), does not really contain materials belonging to this cultural phenomenon (see IERCOȘAN 2002, 32, n. 32).

¹¹ Materials recovered after utilitarian works.

et alii 2006, 23-25.

28. Cehei (Șimleul Silvaniei town, Sălaj county)

- A. *Tău fără fund*.
- B. Terrace.
- C. Surface survey.
- D. Phase A.
- E. County Museum of History and Art, Zalău.
- F. POP *et alii* 2006, 25.

29. Cerișor (Lelese commune, Hunedoara county)

- A. *Peștera Cauce*.
- B. Cave.
- C. Systematic archaeological excavation: S.A. Luca, C. Roman and D. Diaconescu (1998-1999).
- D. Phase A¹².
- E. The Corvins' Castle Museum, Hunedoara.
- F. LUCA *et alii* 2004; 2005; Luca 2005, 44, no. cat. 102.1b.

30. Ciufud (today Izvoarele, Blaj town, Alba county)¹³

- A. *Căstău*.
- B. Unspecified.
- C. Cannot be specified.
- D. Unspecified.
- E. National History Museum of Transylvania, Cluj-Napoca.
- F. LAZAROVICI 1983, 14, no. cat. 31 (the author does not clearly specify the county or the locality from where the material from this archaeological point is; he is using only the toponym „Mureș” (?); MAXIM 1999, 151, no. cat. 282.

31. Cluj-Napoca (municipality, Cluj county)

- A. *Hoiă*¹⁴.
- B. Unspecified.
- C. Surface survey.
- D. Unspecified.
- E. National History Museum of

Transylvania, Cluj-Napoca.

- F. RAJCj, 123, no. cat. 8; MAXIM 1999, 153, no. cat. 293.

32. Cluj-Napoca (municipality, Cluj county)

- A. *Calea Florești*.
- B. Unspecified.
- C. Unspecified.
- D. Unspecified.
- E. National History Museum of Transylvania, Cluj-Napoca.
- F. MAXIM 1999, 153, no. cat. 293.

33. Cluj-Napoca (municipality, Cluj county)

- A. *Mânăștur Nord*¹⁵.
- B. Unspecified.
- C. Surface survey.
- D. Unspecified.
- E. National History Museum of Transylvania, Cluj-Napoca.
- F. LAZAROVICI 1983, 14, no. cat. 33; RAJCj, 120-122, 146, no. cat. 2; MAXIM 1999, 153, no. cat. 293.

34. Cluj-Napoca (municipality, Cluj county)

- A. *Strada Mecanicilor*.
- B. Unspecified.
- C. Surface survey.
- D. Unspecified.
- E. National History Museum of Transylvania, Cluj-Napoca.
- F. LAZAROVICI 1983, 14, no. cat. 32; RAJCj, 146; MAXIM 1999, 153, no. cat. 293.

35. Comănești (Hășmaș commune, Arad county)

- A. *Vechiul Cimitir*.
- B. Terrace.
- C. Surface survey.
- D. Phase A.
- E. Arad County Museum.
- F. MAXIM 1999, 153, no. cat. 303; RAJA, 59, no. cat. 1; IERCOȘAN 2002, 42-43, no. cat. 15.

36. Crasna (Crasna commune, Sălaj county)

- A. *Dirica (Dirika)*.
- B. Terrace.
- C. Rescue archaeological excavation.
- D. Phase A.
- E. Sălaj County Museum of History and Art, Zalău.

¹² S.A. Luca affirms a very probable contemporarily with the site at Deva-*Ciangăi*, a fact that, in our opinion, is not so trenchant, considering in the first place Tiszapolgár ceramic materials from *Cauce*, materials that don't have the slightest evolutive tendency to Bodrogkeresztúr (LUCA *et alii* 2004, 114).

¹³ In RAJAb in this point is mentioned a Bronze Age settlement, with archaeological materials as ceramics, a stone blade (?), a shell bead and a fragmentary stone axe (RAJAb, 113)

¹⁴ In RAJCj there is not specified any Tisa or Tiszapolgár settlement in this point.

¹⁵ In RAJCj in this point is mentioned no Tiszapolgár settlement (RAJCj, 120-122); but this site is mentioned at p. 146 (RAJCj, 146).

- F. LAKÓ 1981, 50-51, no. cat. 25b; LAZAROVICI 1983, 15, no. cat. 41; MAXIM 1999, 154, no. cat. 320; IERCOȘAN 2002, 43-44, no. cat. 16.

37. Crișeni (Crișeni commune, Sălaj county)

- A. *Măzăriște*.
 B. Terrace.
 C. Surface survey.
 D. Phase A.
 E. County Museum of History and Art, Zalău.
 F. LAKÓ 1981, 51, no. cat. 26b; LAZAROVICI 1983, 15, no. cat. 42 (the author places the site in Bistrița-Năsăud county); MAXIM 1999, 155, no. cat. 335; IERCOȘAN 2002, 44, no. cat. 17.

38. Cuptoare (Cornea commune, Caraș-Severin county)

- A. *Sfogea*.
 B. Hill.
 C. Systematic archaeological excavation: Gh. Lazarovici (1975-1977); I. Uzum (1978-1979).
 D. Tiszapolgár imports in Sălcuța IIc level.
 E. Mountainous Banat Museum, Reșița.
 F. LAZAROVICI 1979, 194, no. cat. 30; OPRINESCU 1981, 49, no. cat. 27; LAZAROVICI 1983, 15, no. cat. 45; BOCHIȘ 2004, 56, no. cat. 15; LUCA 2004, 57, no. cat. 80.1.

39. Curtici (Curtici commune, Arad county)¹⁶

- A. *Dâmbul Popilor*.
 B. Unspecified.
 C. Surface survey.
 D. Unspecified.
 E. Arad County Museum.
 F. MAXIM 1999, 153, no. cat. 303; RAJA, 63; IERCOȘAN 2002, 104, no. cat. 11.

40. Curtuișeni (Curtuișeni commune, Bihor county)

- A. *Livadă*.
 B. Unspecified.
 C. Surface survey.
 D. Phase A.
 E. Collection of Secondary School no. 1, Carei.
 F. LAZAROVICI 1983, 15, no. cat. 43; MAXIM 1999, 155, no. cat. 348; IERCOȘAN 2002, 44, no. cat. 19.

41. Dăbîca (Dăbâca commune, Cluj county)

- A. *Cetate*.
 B. Promontory of the hill.
 C. Systematic archaeological excavation.
 D. Phase B.
 E. National History Museum of Transylvania, Cluj-Napoca.
 F. VLASSA 1969, 27-45; BOGNĂR-KUTZIÁN 1972, 112, no. cat. 118; LAZAROVICI 1983, 15, no. cat. 47; RAJČ, 174; MAXIM 1999, 156, no. cat. 357.

42. Dedrad [Goreni] (Batoș commune, Mureș county)¹⁷

- A. *Tormaș*.
 B. Flooded terrace.
 C. Archaeological sounding.
 D. Unspecified¹⁸.
 E. Mureș County Museum, Târgu-Mureș.
 F. VLASSA 1969, 32, n. 6; LAZAROVICI 1983, 15, no. cat. 48; ZRINYI 1982, 17-29; MAXIM 1999, 156, no. cat. 363.

43. Dindești (Andrid commune, Satu Mare county)

- A. *Cetate*.
 B. Promontory of terrace.
 C. Systematic archaeological excavation.
 D. Phase B.
 E. Carei Town Museum.
 F. LAZAROVICI 1983, 15, no. cat. 51; MAXIM 1999, 157, no. cat. 373; IERCOȘAN 2002, 45-46, no. cat. 20.

¹⁷ This site is also named Goreni by A. Zrinyi (ZRINYI 1982, 22) and is at the same level with the one from Dedrad indicated by N. Vlassa (VLASSA 1969, 32, n. 6), fact clearly mentioned by A. Zrinyi (ZRINYI 1982, 22, n. 7). But in the study of Gh. Lazarovici (LAZAROVICI 1983, 15, no. cat. 48) also appears as Dedrad (Bistrița-Năsăud county). In the study of Zoia Maxim also appears as Dedrad, Batoș commune, Mureș county (MAXIM 1999, 156); that is why we made our choice for this name - Dedrad, often invocated in archaeological literature.

¹⁸ Under these circumstances we preferred to consider the phase of Tiszapolgár culture there as unspecified, because here we can speak about a Tisza-Petrești-Ariușd facies (VLASSA 1969, 32; ZRINYI 1982, 22), a fact that, in our opinion, is hard to demonstrate. The materials presented to A. Zrinyi rather present themselves as a mixture of materials, some of them having (as much as we could distinguish from the published figures in the study) characteristics of Tiszapolgár pottery (ZRINYI 1982, 17-29).

¹⁶ N. Iercoșan considers this discovery as unsure (IERCOȘAN 2002, 104).

- 44. Diniaş (Peciu Nou commune, Timiş county)**
- Gomilă* sau *La Hotar*.
 - Tell.
 - Surface survey.
 - Unspecified.
 - Unspecified.
 - BOCHIŞ 2004, 56, no. cat. 17a; LUCA 2006, 90, no. cat. 199.1a.
- 45. Diniaş (Peciu Nou commune, Timiş county)**
- Trei Sâlcii/Trei plopi*¹⁹.
 - Tell.
 - Surface survey.
 - Unspecified.
 - Mountainous Banat Museum, Reşiţa.
 - BOCHIŞ 2004, 56, no. cat. 17b; LUCA 2006, 90, no. cat. 199.2b.
- 46. Dragu (Dragu commune, Sălaj county)**
- Lespezi* sau *Vîrful Tighiletului*²⁰.
 - Promontory of hill.
 - Archaeological soundings and surface surveys.
 - Phase A.
 - National History Museum of Transylvania, Cluj-Napoca.
 - ROSKA 1942, 70, no. cat. 66; BOGNÁR-KUTZIÁN 1972, 113, no. cat. 117; LAZAROVICI 1983, 15, no. cat. 54; KALMAR 1984, 105-107; MAXIM 1999, 157, no. cat. 390; IERCOŞAN 2002, 46-47, no. cat. 21.
- 47. Dud (Târnova commune, Arad county)**
- Valea Lugoşului*.
 - Terrace.
 - Supervision of building activities.
 - Unspecified.
 - Arad County Museum.
 - PĂDUREANU 1973, 400-401; MAXIM 1999, 158, no. cat. 394; IERCOŞAN 2002, 47-48, no. cat. 22a.
- 48. Dud (Târnova commune, Arad county)**
- Cioaca-Chiciora*.
 - Hill.
 - Surface survey and unfinished stratigraphic sounding.
 - Unspecified.
 - Unspecified.
- 49. Dumbrava (Livada commune, Satu Mare county)**
- La Cosma*.
 - Terrace.
 - Systematic archaeological excavation.
 - Phase B.
 - Carei Town Museum.
 - MAXIM 1999, 158, no. cat. 396; IERCOŞAN 2002, 49-51, no. cat. 23.
- 50. Foieni (Foieni commune, Satu Mare county)**
- Movilă*.
 - Terrace.
 - Surface survey.
 - Phase A.
 - Carei Town Museum.
 - LAZAROVICI 1983, 15, no. cat. 55; MAXIM 1999, 159, no. cat. 429; IERCOŞAN 2002, 51-52, no. cat. 24.
- 51. Galoşpetreu (Tarcea commune, Bihor county)**
- Rîtul Morii*.
 - Terrace.
 - Surface survey.
 - Phase A.
 - Collection of Secondary School no. 1 Carei.
 - LAZAROVICI 1983, 15, no. cat. 56; MAXIM 1999, 160, no. cat. 436; IERCOŞAN 2002, 52, no. cat. 25.
- 52. Gârbău²¹ (Gârbău commune, Cluj county)**
- Labul Cioroiului*.
 - Unspecified.
 - Unspecified.
 - Cannot be specified.
 - National History Museum of Transylvania, Cluj-Napoca.
 - ROSKA 1942, 151, no. cat. 32c; LAZAROVICI 1983, 15, no. cat. 60; MAXIM 1999, 160, no. cat. 445.
- 53. Gârbău (Gârbău commune, Cluj county)**
- Bobora (Babavár)*.
 - Hill.
 - Archaeological intrusive survey.
 - Phase A.

¹⁹ In the study of Bogdan Bochiş this point appears as *Tell* (BOCHIŞ 2004, 56).

²⁰ Zoia Maxim considers that the two toponyms represent the same archaeological site (MAXIM 1999, 157, no. cat. 390).

²¹ In the study of Gh. Lazarovici also appears as Gîrbău (LAZAROVICI 1983, 15); in the study of M. Roska appears as Gârbăul Unguresc (Magyargorbó) (ROSKA 1942, 151, no. cat. 32).

- E. National History Museum of Transylvania, Cluj-Napoca.
- F. ROSKA 1942, 51, no. cat. 32e; RADU-FEURDEAN 1977, 29-41; LAZAROVICI 1983, 15, no. cat. 59; MAXIM 1999, 160, no. cat. 445.
- 54. Ghenci (Căuaș commune, Satu Mare county)**
- A. *Movilă*.
- B. Terrace.
- C. Surface survey.
- D. Unspecified.
- E. Collection of Secondary School no. 1 Carei.
- F. NÉMETI 1993, 60, lit. cat. J, fig. 6/4-8; MAXIM 1999, 161, no. cat. 453; IERCOȘAN 2002, 52-53, no. cat. 26.
- 55. Gherla (municipality, Cluj county)**
- A. *Pietriș*.
- B. Hill.
- C. Unspecified.
- D. Unspecified.
- E. National History Museum of Transylvania, Cluj-Napoca.
- F. LAZAROVICI 1983, 15, no. cat. 57; MAXIM 1999, 161, no. cat. 456.
- 56. Gilău (Gilău commune, Cluj county)**
- A. *Castrul roman* or *Castel*.
- B. Promontory of hill.
- C. Systematic archaeological excavation.
- D. Phase B.
- E. National History Museum of Transylvania, Cluj-Napoca.
- F. KALMAR 1980, 393-416; 1981, 305-320; 1982, 247-252; LAZAROVICI 1983, 15, no. cat. 58; MAXIM 1999, 161, no. cat. 461.
- 57. Giurtelecu Șimleului (Măierîște commune, Sălaj county)**
- A. *Dâmbul Radului*.
- B. Terrace.
- C. Chance discovery.
- D. Phase A.
- E. The archaeological materials were stored at some time at the Catholic Secondary School's Collection in Șimleul Silvaniei; subsequently lost.
- F. ROSKA 1942, 249, no. cat. 73; LAKÓ 1979, 48; 1981, 54-55; MAXIM 1999, 161, no. cat. 465; IERCOȘAN 2002, 53, no. cat. 27.
- 58. Giurtelecu Șimleului (Măierîște commune, Sălaj county)**
- A. *Coasta lui Damian*.
- B. Terrace.
- C. Systematic archaeological excavation²².
- D. Phase B.
- E. County Museum of History and Art, Zalău.
- F. BEJINARIU 1995, 17, no. 3; MAXIM 1999, 161, no. cat. 465; IERCOȘAN 2002, 53, no. cat. 27.
- 59. Hățăgel (Densuș commune, county Hunedoara)**
- A. *Gostat*.
- B. Terrace.
- C. Surface survey.
- D. Unspecified.
- E. Unspecified.
- F. KALMAR-TATU 1986, p. 93; LAZAROVICI 1983, 15, no. cat. 63; MAXIM 1999, 163, no. cat. 487; LUCA 2005, 85, no. cat. 205.1a.
- 60. Hodoni (Satchinez commune, Timiș county)**
- A. *Pocioroane*.
- B. Terrace.
- C. Systematic archaeological excavation.
- D. Unspecified²³.
- E. Museum of Banat, Timișoara.
- F. DRAȘOVEAN, MUNTEANU, ȚICU 1996, 10-12; BOCHIȘ 2004, 56, no. cat. 23; LUCA 2006, 134, no. cat. 289. 1a.
- 61. Homorodu de Sus (Homoroade commune, Satu Mare county)**
- A. *Lunca*²⁴.
- B. Terrace.
- C. Systematic archaeological excavation.
- D. Phase B.
- E. Satu Mare County Museum.
- F. LAZAROVICI 1983, 15, no. cat. 62; MAXIM 1999, 163, no. cat. 496; IERCOȘAN 2002, 53, no. cat. 28.

²² We thank our colleague Ioan Bejinariu for his kindness in offering us, for study, the materials coming from his own archaeological excavations.

²³ Bogdan Bochiș considers that this settlement belongs to phase B (without argumentation) (BOCHIȘ 2004, pl. 2, no. cat. 23).

²⁴ Gh. Lazarovici uses the toponym *Valea Medîșa* (see no. cat. 62 from the quoted study) (LAZAROVICI 1983, 15).

62. Horia (Vladimirescu commune, Arad county)

- A. *Satini*.
- B. Unspecified.
- C. Surface survey.
- D. Unspecified.
- E. Eugen Pădureanu's personal collection.
- F. PĂDUREANU 1985, 34, n.63; MAXIM 1999, 163, no. cat. 487; IERCOȘAN 2002, 104, no. cat. 13.

63. Hotoan (Căuș commune, Satu Mare county)

- A. *Lângă CAP*.
- B. Terrace.
- C. Archaeological surveillance for utilitarian works
- D. Unspecified.
- E. Collection of Secondary School no. 1 Carei.
- F. LAZAROVICI 1983, 15, no. cat. 64; MAXIM 1999, 163, no. cat. 502; IERCOȘAN 2002, 59-60, no. cat. 29b.

64. Iclod (Iclod commune, Cluj county)

- A. *La Doroaie*.
- B. Unspecified.
- C. Systematic archaeological excavation
- D. Unspecified.
- E. National History Museum of Transylvania, Cluj-Napoca.
- F. MAXIM 1999, 164, no. cat. 509.

65. Iclod (Iclod commune, Cluj county)

- A. *La Ghețari*.
- B. Unspecified.
- C. Unspecified.
- D. Unspecified.
- E. National History Museum of Transylvania, Cluj-Napoca.
- F. MAXIM 1999, 164, no. cat. 509.

66. Ip (Ip commune, Sălaj county)

- A. *Casa Csepei*.
- B. Terrace.
- C. Surface survey.
- D. Phase B.
- E. National History Museum of Transylvania, Cluj-Napoca; County Museum of History and Art, Zalău.
- F. LAZAROVICI 1983, 15, no. cat. 69; KALMAR 1984, 393, no. cat. 24; MAXIM 1999, 164-165, no. cat. 524; IERCOȘAN 2002, 60, no. cat. 30a .

67. Jupa (Caransebeș town, Caraș-Severin county)

- A. *Sud*.
- B. Terrace.
- C. Systematic archaeological excavation.
- D. Phase A²⁵.
- E. Ethnography and Border Regiment County Museum, Caransebeș.
- F. LAZAROVICI 1983, 15, no. cat. 71; OPRINESCU 1981, 49, no. cat. 12; LUCA 1993; 2006, 151, no. cat. 325.2a₁; BOCHIȘ 2004, 56, no. cat. 25.

68. Lelei (Hodod commune, Satu Mare county)

- A. *Movilă*.
- B. Promontory of hill.
- C. Surface survey.
- D. Phase A.
- E. Carei Town Museum.
- F. LAZAROVICI 1983, 16, no. cat. 73; MAXIM 1999, 166, no. cat. 552; IERCOȘAN 2002, 61, no. cat. 31.

69. Lucăceni (Bervenii commune, Satu Mare county)

- A. *Pe Crasna*.
- B. Promontory of hill.
- C. Archaeological surveillance for utilitarian works.
- D. Phase A.
- E. Carei Town Museum.
- F. LAZAROVICI 1983, 16, no. cat. 74; MAXIM 1999, 166, no. cat. 570; IERCOȘAN 2002, 61-62, no. cat. 32.

70. Lugoj²⁶ (municipality, Timiș county)

- A. *Gomilă*.
- B. Hill.
- C. Surface survey.
- D. Unspecified.
- E. Museum of History, Ethnography and Arts Lugoj.
- F. LAZAROVICI 1983, 16, no. cat. 75; BOCHIȘ 2004, 56, no. cat. 26; LUCA 2006, 162, no. cat. 345.1e.

71. Măcișu (Chinteni commune, Cluj county)

- A. *Horhiș*.
- B. Hill.
- C. Unspecified.

²⁵ Bogdan Bochiș considers, without argumentation, that this site belongs to phase B (BOCHIȘ 2004, 56, pl. 2, no. cat. 25).

²⁶ S.A. Luca considers that this point is on the territory of the Boldur commune. We prefer to use the „old appurtenance”, to avoid confusions (LUCA 2006, 162).

- D. Unspecified.
E. National History Museum of Transylvania, Cluj-Napoca.
F. MAXIM 1999, 167, no. cat. 591.
- 72. Măureni (Măureni commune, Caraș-Severin county)**
A. *Marginea drumului spre Șoșdea, lângă gară.*
B. Terrace.
C. Unspecified.
D. Phase B²⁷.
E. The Boariu Collection at Șoșdea.
F. LAZAROVICI 1979, 201, no. cat. 53; 1983, 16, no. cat. 76; OPRINESCU 1981, 49, no. cat. 13; BOCHIȘ 2004, 56, no. cat. 27; LUCA 2006, 168, no. cat. 371.1a.
- 73. Mănerău (Bocsig commune, Arad county)**
A. *Pământul Ungurului.*
B. Terrace.
C. Surface survey.
D. Phase A.
E. Arad County Museum.
F. DUDAȘ 1970, 356; MAXIM 1999, 168, no. cat. 609; IERCOȘAN 2002, 62, no. cat. 33.
- 74. Mehadia (Mehadia commune, Caraș-Severin county)**
A. *Podul Tăinii.*
B. Unspecified.
C. Unspecified.
D. Sălcuța II with Tiszapolgár imports.
E. Ethnography and Border Regiment County Museum, Caransebeș.
F. LAZAROVICI 1983, 16, no. cat. 77; RADU 2002, 27; LUCA 2006, 168, no. cat. 375.1a.
- 75. Moșnița Veche (Moșnița Nouă commune, Timiș county)**
A. Unspecified.
B. Unspecified.
C. Unspecified.
D. Unspecified.
E. Museum of Banat, Timișoara.
F. LAZAROVICI 1979, 202, no. cat. 58; 1983, 16, no. cat. 80; BOCHIȘ 2004, 56, no. cat. 28; LUCA 2006, 177, no. cat. 387.1a.
- 76. Naimon (Dobrin commune, Sălaj county)**
A. *Bálványvár.*
B. Terrace.
- C. Surface survey.
D. Phase A.
E. County Museum of History and Art, Zalău.
F. MAXIM 1999, 171, no. cat. 662; IERCOȘAN 2002, 62-63, no. cat. 34.
- 77. Nandru (Peștișu Mic commune, Hunedoara county)**
A. *Peștera Curată.*
B. Cave.
C. Systematic archaeological excavation.
D. Unspecified.
E. Institute of Archaeology "Vasile Pârvan" Bucharest.
F. NICOLĂESCU-PLOPȘOR 1957, 36; LAZAROVICI 1983, 16, no. cat. 83; MAXIM 1999, 171, no. cat. 663; LUCA 2005, 105, no. cat. 263.1a₁.
- 78. Nandru (Peștișu Mic commune, Hunedoara county)**
A. *Peștera Spurcată.*
B. Cave.
C. Systematic archaeological excavation.
D. Unspecified.
E. Institute of Archaeology "Vasile Pârvan" Bucharest.
F. LAZAROVICI 1983, 16, no. cat. 82; MAXIM 1999, 171, no. cat. 663; LUCA 2005, 105, no. cat. 263.1a₂.
- 79. Oarța de Sus (Oarța de Jos commune, Maramureș county)**
A. *Măgura.*
B. Hill.
C. Systematic archaeological excavation.
D. Unspecified.
E. County Museum of History and Archaeology, Baia Mare.
F. COMȘA, KACSÓ 1973, 48-51; LAZAROVICI 1983, 16, no. cat. 85; MAXIM 1999, 172, no. cat. 682; IERCOȘAN 2002, 63, no. cat. 35.
- 80. Oarța de Sus (Oarța de Jos commune, Maramureș county)**
A. *Oarță.*
B. Terrace.
C. Surface survey.
D. Unspecified.
E. County Museum of History and Archaeology, Baia Mare.
F. MAXIM 1999, 172, no. cat. 682; IERCOȘAN 2002, 63, no. cat. 35.

²⁷ BOCHIȘ 2004, pl. 2, no. cat. 27.

81. Olari (Olari commune, Arad county)

- A. *Movilă*.
- B. Tell.
- C. Surface survey.
- D. Phase A.
- E. Arad County Museum.
- F. Maxim 1999, p. 172, no. cat. 698; Iercoșan 2002, p. 63-64, no. cat. 36.

82. Oradea (municipality, Bihor county)

- A. *Salca I (Fabrica de cărămidă Gutmann)*.
- B. Terrace.
- C. Systematic archaeological excavation.
- D. Phase B.
- E. Criș County Museum, Oradea.
- F. BERCIU 1961, 84-85; BOGNÁR-KUTZIÁN 1972, 114-115, no. cat. 131; RUSU *et alii*. 1962, 159-163; IGNAT 1973, 11-12, no. cat. 11e; LAZAROVICI 1983, 16, no. cat. 86; MAXIM 1999, 173, no. cat. 701; IERCOȘAN 2002, 64-65, no. cat. 37a.

83. Oradea (municipality, Bihor county)

- A. *Salca II (Ghețarie)*.
- B. Terrace.
- C. Systematic archaeological excavation.
- D. Phase B.
- E. Criș County Museum, Oradea.
- F. BOGNÁR-KUTZIÁN 1972, 114-115, no. cat. 131; LAZAROVICI 1983, 16, no. cat. 87; BEJINARIU, LAKÓ 1996, 11-33; MAXIM 1999, 173, no. cat. 701; IERCOȘAN 2002, 65-67 no. cat. 37b.

84. Panic (Hereclean commune, Sălaj county)

- A. *Pepenărie*.
- B. Terrace.
- C. Archaeological surveillance for utilitarian works.
- D. Phase A.
- E. County Museum of Art and History, Zalău.
- F. LAZAROVICI 1983, 16, no. cat. 89; MAXIM 1999, 173, no. cat. 714; IERCOȘAN 2002, p. 67-68, no. cat. 38.

85. Parța (Șag commune, Timiș county)

- A. *Tell-ul 1*.
- B. Tell.
- C. Systematic archaeological excavation.
- D. Phase B.
- E. Museum of Banat, Timișoara.
- F. LAZAROVICI 1975, 10, 22, no. cat. 27; 1979, 204, no. cat. 64a; 1983, p. 16, no. cat. 90; OPRINESCU 1981, 49, no. cat. 16; BOCHIȘ 2004, 56, no. cat. 30a; LUCA 2006, 191, no. cat. 424.1a.

86. Parța (Șag commune, Timiș county)

- A. *Tell-ul 11*.
- B. Tell.
- C. Systematic archaeological excavation.
- D. Unspecified.
- E. Museum of Banat, Timișoara.
- F. LAZAROVICI 1975, 22, no. cat. 28; 1979, 204, no. cat. 64b; 1983, 16, no. cat. 91; OPRINESCU 1981, 49, no. cat. 16a; BOCHIȘ 2004, 56, no. cat. 30b; LUCA 2006, 192, no. cat. 424.1b.

87. Parța (Șag commune, Timiș county)

- A. *Nord (Așezarea 3)*.
- B. Terrace.
- C. Surface survey.
- D. Unspecified.
- E. Museum of Banat, Timișoara.
- F. LAZAROVICI, MUNTEANU 1982, 125, no. 27; LAZAROVICI 1983, 16, no. cat. 92.

88. Parța (Șag commune, Timiș county)

- A. *Sud (Așezarea 5)*.
- B. Terrace.
- C. Systematic archaeological excavation.
- D. Unspecified.
- E. Museum of Banat, Timișoara.
- F. LAZAROVICI, MUNTEANU 1982, 125, no. 27; OPRINESCU 1981, 49, no. cat. 16b; LAZAROVICI 1983, 16, no. cat. 93; BOCHIȘ 2004, 56, no. cat. 30c; LUCA 2006, p. 192, no. cat. 424.1c.

89. Păuliș (Păuliș commune, Arad county)

- A. *La Năidoreni*.
- B. Grind.
- C. Surface survey.
- D. Cannot be specified.
- E. Unspecified.
- F. PĂDUREANU 1973, 401; MAXIM 1999, 174, no. cat. 727; IERCOȘAN 2002, 105, no. cat. 16a.

90. Păuliș (Păuliș commune, Arad county)

- A. *Vatra Satului*.
- B. Terrace.
- C. Surface survey.
- D. Phase B.
- E. Arad County Museum.
- F. MAXIM 1999, 174, no. cat. 727; IERCOȘAN 2002, 68, no. cat. 39.

91. Periam Port (Periam commune, Timiș county)

- A. Unspecified.
- B. Terrace.
- C. Unspecified.

- D. Unspecified.
- E. Schifmann collection.
- F. LAZAROVICI 1975, 22, no. cat. 29; 1983, 16, no. cat. 94; OPRINESCU 1981, 49, no. cat. 17; BOCHIȘ 2004, 56, no. cat. 31; LUCA 2006, 196, no. cat. 435.1a.

92. Pericei (Pericei commune, Sălaj county)

- A. *Keller-tag*.
- B. Terrace.
- C. Archaeological intrusive survey.
- D. Unspecified.
- E. County Museum of History and Art, Zalău.
- F. MAXIM 1999, 174, no. cat. 731; IERCOȘAN 2002, 69-70; no. cat. 41.

93. Petrești (Sebeș municipality, Alba county)

- A. *Groapa Galbenă*.
- B. Terrace.
- C. Systematic archaeological excavation.
- D. Tiszapolgár imports(?) in Petrești settlement.
- E. Municipal Museum Sebeș.
- F. Unpublished materials²⁸.

94. Pir (Pir commune, Satu Mare county)

- A. *Várgáncs*.
- B. Terrace.
- C. Surface survey.
- D. Phase A.
- E. Collection of Secondary School no. 1 Carei.
- F. LAZAROVICI 1983, 16, no. cat. 97; MAXIM 1999, 176, no. cat. 759; IERCOȘAN 2002, 71; no. cat. 43.

95. Pișcolt (Pișcolt commune, Satu Mare county)

- A. *Cărmidărie*.
- B. Terrace.
- C. Archaeological surveillance for utilitarian works.
- D. Phase B.
- E. Carei Town Museum.
- F. LAZAROVICI 1983²⁹, 16, no. cat. 96; MAXIM 1999, 176, no. cat. 760; IERCOȘAN 2002, 71-72; no. cat. 44.

²⁸ It is interesting that Petre I. Roman clearly mentions the existence of some "Tiszapolgár pottery fragments from the settlement of Petrești" (ROMAN 1973, 62). Studying the materials that are deposited in the Museum from Sebeș-Alba (we thank our colleague Radu Totoianu for being so kind to allow us access to the materials in question) we sustain P. Roman's affirmation.

²⁹ The author indicates the toponym *Lutărie*.

96. Ratin (Crasna commune, Sălaj county)

- A. Unspecified.
- B. Unspecified.
- C. Unspecified.
- D. Unspecified.
- E. National History Museum of Transylvania, Cluj-Napoca.
- F. MAXIM 1999, 177, no. cat. 786.

97. Răstoțu Deșert (Agrij commune, Sălaj county)

- A. *Pusta*.
- B. Terrace.
- C. Surface survey.
- D. Phase A.
- E. County Museum of History and Art, Zalău.
- F. LAZAROVICI 1983, 16, no. cat. 99; MAXIM 1999, 177, no. cat. 795; IERCOȘAN 2002, 73; no. cat. 46.

98. Răstoțu Mare (Buciumi commune, Sălaj county)

- A. *Capul Hillului*³⁰.
- B. Hill.
- C. Surface survey.
- D. Phase A.
- E. County Museum of History and Art, Zalău.
- F. LAZAROVICI 1983, 16, no. cat. 100; MAXIM 1999, 177, no. cat. 796; IERCOȘAN 2002, 73; no. cat. 47a.

99. Răstoțu Mare (Buciumi commune, Sălaj county)

- A. *Calea Oilor*.
- B. Unspecified.
- C. Surface survey.
- D. Unspecified.
- E. County Museum of Art and History, Zalău.
- F. LAZAROVICI 1983, 16, no. cat. 101; MAXIM 1999, 177, no. cat. 796; IERCOȘAN 2002, 73-74; no. cat. 47b.

100. Răstoțu Mare (Buciumi commune, Sălaj county)

- A. *Șugăreasa*.
- B. Unspecified.
- C. Surface survey.
- D. Phase A.
- E. County Museum of Art and History, Zalău.

³⁰ In the collection of the History and Art Museum from Zalău this archaeological location is mentioned as being a part of the Răstoțu Deșert village.

- F. Unpublished material, no. inv. CC. 286/1966.
- 101. Răstolțu Mare (Buciumi commune, Sălaj county)**
- A. *Cărbunar*.
 B. Terrace.
 C. Surface survey.
 D. Cannot be specified.
 E. County Museum of Art and History, Zalău.
 F. Unpublished material, no. inv. CC. 115/1974³¹.
- 102. Răstolțu Mare (Buciumi commune, Sălaj county)**
- A. *La Plopi*.
 B. Unspecified.
 C. Surface survey.
 D. Cannot be specified.
 E. County Museum of History and Art, Zalău.
 F. Unpublished material, no. inv. CC. 272/1966 .
- 103. Sacoșu Mare (Darova commune, Timiș county)**
- A. *Valea Codrului*.
 B. Terrace.
 C. Systematic archaeological excavation.
 D. Phase A³².
 E. Unspecified.
 F. LAZAROVICI 1979, 206, no. cat. 75; 1983, 16, no. cat. 105; OPRINESCU 1981, 49, no. cat. 19; BOCHIȘ 2004, 56, no. cat. 33; LUCA 2006, 215, no. cat. 505.1a.
- 104. Sălacea (Sălacea commune, Bihor county)**
- A. *Hillu*³³.
-
- ³¹ Materials from Cioroi are to be found under the same inventory number, but also under the numbers CC. 279/1966 and 278/1966 Considering the fact that toponyms are no longer a certain criteria in what concerns the elaboration, of a repertory, and considering the variability of a toponym according to the man that provides the data, we consider that the two locations: *Cioroi* and *Cărbunar* are one and the same. Possible archaeological surveys with modern methods of investigation, and (why not) possible systematic archaeological excavations in the area, could confirm or invalidate our proposal.
- ³² Bogdan Bochiș consideres this site as belonging to phases A and B (BOCHIȘ 2004, 56).
- ³³ Zoia Maxim considers that in the archaeological location *Movila Vinerii* is a Tiszapolgár settlement, and that from the location *Hillu* comes a copper axe of Nádudvar type (MAXIM 1999, 180).
- B. Hill.
 C. Unspecified.
 D. Unspecified.
 E. Museum of History from Săcuieni and Criș County Museum, Oradea.
 F. IGNAT 1975, 14; LAZAROVICI 1983, 17, no. cat. 111; MAXIM 1999, 180, no. cat. 851; IERCOȘAN 2002, 77, no. cat. 52.
- 105. Sânnicolau de Beiuș (Șoimi commune, Bihor county)**
- A. *Boțocana*.
 B. Promontory.
 C. Systematic archaeological excavation.
 D. Phase A.
 E. Criș County Museum, Oradea.
 F. MAXIM 1999, 181, no. cat. 893; IERCOȘAN 2002, 77, no. cat. 53.
- 106. Sântana (Sântana commune, Arad county)**
- A. *Holumb*.
 B. Tell.
 C. Archaeological survey.
 D. Unspecified.
 E. Arad County Museum.
 F. DUMITRAȘCU 1975, 355-358; LAZAROVICI 1983, 17, no. cat. 120; MAXIM 1999, 182, no. cat. 902; IERCOȘAN 2002, 80-82, no. cat. 57a.
- 107. Sebiș (Sebiș town, Arad county)**
- A. *Pleșa*.
 B. Hill.
 C. Surface survey.
 D. Phase A.
 E. Arad County Museum.
 F. IERCOȘAN 2002, 77, no. cat. 53.
- 108. Seini (Seini town, Maramureș county)**
- A. *Ferma 7 IAS*.
 B. Unspecified.
 C. Unspecified.
 D. Unspecified.
 E. National History Museum of Transylvania, Cluj-Napoca.
 F. MAXIM 1999, 183, no. cat. 917.
- 109. Sic (Sic commune, Cluj county)**
- A. *Valea Rechet*.
 B. Unspecified.
 C. Unspecified.
 D. Unspecified.
 E. Cannot be specified.
 F. MAXIM 1999, 183, no. cat. 924.

110. Silvașu de Sus (Hațeg town, Hunedoara county)

- A. *Între ogăși*.
- B. Terrace.
- C. Surface survey.
- D. Cannot be specified.
- E. The Corvins' Castle Museum, Hunedoara.
- F. Unpublished materials³⁴.

111. Sinteia Mică (Olari commune, Arad county)

- A. *La meri*.
- B. Ridge.
- C. Surface survey.
- D. Phase A.
- E. Arad County Museum.
- F. MAXIM 1999, 183, no. cat. 931; IERCOȘAN 2002, 77-78, no. cat. 54.

112. Slatina Timiș (Slatina Timiș commune, Caraș-Severin county)

- A. *Podul Ilovei (Gura Ilovei)*.
- B. Terrace.
- C. Surface survey.
- D. Phase B.
- E. Mountainous Banat Museum, Reșița, Ethnography and Border Regiment County Museum, Caransebeș; Ioan Munteanu's personal collection.
- F. LAZAROVICI 1979, 210, no. cat. 102; 1983, 17, no. cat. 122; BOCHIȘ 2004, 57, no. cat. 37a; LUCA 2006, 234, no. cat. 550.1a.

113. Slatina Timiș (Slatina Timiș commune, Caraș-Severin county)

- A. *Romulus* Hill.
- B. Hill.
- C. Unspecified.
- D. Cannot be specified.
- E. Unspecified.
- F. OPRINESCU 1981, 49, no. cat. 22; BOCHIȘ 2004, 57, no. cat. 37b; LUCA 2006, 234, no. cat. 550.1c.

114. Stupini (Hida commune, Sălaj county)

- A. *Stupinilor* Hill.
- B. Hill.
- C. Surface survey.
- D. Phase A.
- E. County Museum of History and Art, Zalău.
- F. MAXIM 1999, 184, no. cat. 953; IERCOȘAN 2002, 77-78, no. cat. 54.

115. Suplacu de Barcău (Suplacu de Barcău commune, Bihor county)

- A. *Lapiș II*.
- B. Terrace.
- C. Systematic archaeological excavation.
- D. Phase B.
- E. County Museum of History and Art, Zalău.
- F. LAZAROVICI 1983, 17, no. cat. 132; IGNAT 1982; MAXIM 1999, 185, no. cat. 960; IERCOȘAN 2002, 83-84, no. cat. 59a.

116. Suplacu de Barcău (Suplacu de Barcău commune, Bihor county)

- A. *Somályhegy*³⁵.
- B. Hill.
- C. Surface survey.
- D. Phase B.
- E. County Museum of History and History, Zalău.
- F. MAXIM 1999, 185, no. cat. 960; IERCOȘAN 2002, 84-85, no. cat. 59b.

117. Supuru de Jos (Supur commune, Satu Mare county)

- A. *Sentiului* Hill.
- B. Terrace.
- C. Surface survey.
- D. Phase A.
- E. Carei Town Museum.
- F. LAZAROVICI 1983, 17, no. cat. 133; MAXIM 1999, 185, no. cat. 961; IERCOȘAN 2002, 85, no. cat. 60.

118. Șag (Șag commune, Timiș county)

- A. *Șag II*.
- B. Unspecified.
- C. Surface survey.
- D. Unspecified.
- E. Museum of Banat, Timișoara.
- F. OPRINESCU 1981, 45, no. cat. 7; LAZAROVICI 1983, 17, no. cat. 123; BOCHIȘ 2004, 57, no. cat. 38; LUCA 2006, 241, no. cat. 574.1a.

³⁴ Information from Sorin Tincu.

³⁵ Regarding this archaeological location, there are opinions that place it on the territory of the Șumal village (Marca commune, Sălaj county) (LAKÓ 1981, 72, no. cat. 83b). Unfortunately, the inconsistency in placing this location on the territory of two different villages in two different counties, as well as using both the Hungarian toponymy and the Romanian one, leads to confusions of the kind Zoia Maxim produces, in considering the same location as two different ones: the *Somalhegy Hill* belonging to the Suplacu de Barcău village, Bihor county (MAXIM 1999, 185, no. cat. 960) and *Hillul Șumalului (Sammályhegy)* in Șumal village, Sălaj county.

119. Șimleu Silvaniei (town, Sălaj county)

- A. *Gară*.
- B. Terrace.
- C. Surface survey.
- D. Unspecified.
- E. The collection of Secondary School no 1 and the collection of „Simion Bărnuțiu” High school Șimleu Silvaniei.
- F. LAZAROVICI 1983, 17, no. cat. 128; MAXIM 1999, 186, no. cat. 982; IERCOȘAN 2002, 87, no. cat. 63a.

120. Șimleu Silvaniei (town, Sălaj county)

- A. *Măgura*.
- B. Hill.
- C. Surface survey.
- D. Unspecified.
- E. Hungarian National Museum, Budapest.
- F. LAKÓ 1981, 70; LAZAROVICI 1983, 17, no. cat. 127; MAXIM 1999, 186, no. cat. 982; IERCOȘAN 2002, 87-88, no. cat. 63b.

121. Șiria (Șiria commune, Arad county)

- A. *Punct 11*.
- B. Terrace.
- C. Surface survey.
- D. Unspecified.
- E. Unspecified.
- F. LUCA 1985, 457-463, fig.1; MAXIM 1999, 186, no. cat. 987; IERCOȘAN 2002, 88, no. cat. 64a.

122. Șiria (Șiria commune, Arad county)

- A. *Punct 16*.
- B. Terrace.
- C. Surface survey.
- D. Phase A.
- E. Arad County Museum..
- F. LUCA 1985, 457-463; MAXIM 1999, 186, no. cat. 987; IERCOȘAN 2002, 88, no. cat. 64b.

123. Șofronea (Șofronea commune, Arad county)

- A. *Hotarul Satului*.
- B. Terrace.
- C. Surface survey.
- D. Phase A.
- E. Arad County Museum.
- F. MAXIM 1999³⁶, 184, no. cat. 936; IERCOȘAN 2002, 89, no. cat. 65.

124. Șoimeni (Vultureni commune, Cluj county)

- A. *La Cruce*.

- B. Unspecified.
- C. Unspecified.
- D. Unspecified.
- E. National History Museum of Transylvania, Cluj-Napoca.
- F. MAXIM 1999, 187, no. cat. 991.

125. Șoimuș (Someș-Odorhei commune, Sălaj county)

- A. *Peștean*.
- B. Hill.
- C. Surface survey.
- D. Phase A.
- E. County Museum of History and Art, Zalău
- F. LAKÓ 1981, 71; MAXIM 1999, 187, no. cat. 995; IERCOȘAN 2002, 89-90, no. cat. 66.

126. Șoșdea (Măureni commune, Caraș-Severin county)

- A. *Hodaie*.
- B. Terrace.
- C. Unspecified.
- D. Unspecified.
- E. Boariu Collection.
- F. LAZAROVICI 1979, 208, no. cat. 90; 1983, p. 17, no. cat. 131; OPRINESCU 1981, p. 49, no. cat. 25; BOCHIȘ 2004, 57, no. cat. 39; LUCA 2006, 244; no. cat. 584.1a.

127. Șumal (Marca commune, Sălaj county)

- A. *Hill of Kun*.
- B. Hill.
- C. Surface survey.
- D. Phase A and B.
- E. County Museum of History and Art, Zalău
- F. BOGNÁR-KUTZIÁN 1972, 115-116, no. cat. 108; LAKÓ 1981, 72, no. cat. 83a; MAXIM 1999, 187, no. cat. 1003; IERCOȘAN 2002, 90-92, no. cat. 67.

128. Tauț (Tauț commune, Arad county)

- A. *Deluț*.
- B. Hill.
- C. Surface survey.
- D. Phase A.
- E. Arad County Museum.
- F. PĂDUREANU 1978, 33-44; LAZAROVICI 1983, 17, no. cat. 136; MAXIM 1999, 188, no. cat. 1015; IERCOȘAN 2002, 92-93, no. cat. 68.

129. Timișoara (municipality, Timiș county)

- A. *Freidorf*.
- B. Terrace.

³⁶ The author names the village Șofronea.

- C. Surface survey.
- D. Unspecified.
- E. Museum of Banat, Timișoara.
- F. LAZAROVICI 1983, 17, no. cat. 137; BOCHIȘ 2004, 57, no. cat. 40a; LUCA 2006, 251, no. cat. 598.2a.

130. Timișoara (municipality, Timiș county)

- A. *Mehala IV*.
- B. Terrace.
- C. Surface survey.
- D. Unspecified.
- E. Museum of Banat, Timișoara.
- F. BOCHIȘ 2004, 57, no. cat. 40b; LUCA 2006, 251, no. cat. 598.2c.

131. Tiream (Tiream commune, Satu Mare county)

- A. *Ville Tireamului*.
- B. Terrace.
- C. Surface survey.
- D. Phase B.
- E. Carei Town Museum.
- F. LAZAROVICI 1983, 18, no. cat. 138; MAXIM 1999, 189, no. cat. 1034; IERCOȘAN 2002, 94, no. cat. 70.

132. Tureni (Cheile Turenilor) (Tureni commune, Cluj county)

- A. *Poderei*.
- B. Terrace.
- C. Archaeological excavation.
- D. Phase B³⁷.
- E. National History Museum of Transylvania, Cluj-Napoca.
- F. MAXIM 1999, 190, no. cat. 1052.

133. Tureni (Cheile Turenilor) (Tureni commune, Cluj county)

- A. *Chei*.
- B. Unspecified.
- C. Archaeological excavation (?)³⁸.
- D. Unspecified.
- E. National History Museum of Transylvania.
- F. MAXIM 1999, 190, no. cat. 1052.

134. Uivar (Uivar commune, Timiș county)

- A. *Gomilă*.
- B. Tell.

- C. Systematic archaeological excavation.
- D. Phase A and B.
- E. Museum of Banat, Timișoara.
- F. SCHIER-DRAȘOVEAN 2004, 145-230; BOCHIȘ 2004, 57, no. cat. 41; LUCA 2006, 261, no. cat. 618.2a.

135. Unimăt (Acâș commune, Satu Mare county)

- A. *Dâlboci*.
- B. Terrace.
- C. Systematic archaeological excavation.
- D. Phase A.
- E. Unspecified.
- F. DUMITRAȘCU 1969, 41-47; LAZAROVICI 1983, 18, no. cat. 142; MAXIM 1999, 191, no. cat. 1071; IERCOȘAN 2002, 94-95, no. cat. 71.

136. Vadu Crișului (Vadu Crișului commune, Bihor county)

- A. *Peștera Devențului 1*.
- B. Cave.
- C. Systematic archaeological excavation.
- D. Phase A.
- E. National History Museum of Transylvania, Cluj-Napoca.
- F. VLASSA 1961, 17-24; MAXIM 1999, 191, no. cat. 1081; IERCOȘAN 2002, 95, no. cat. 72.

137. Vadu Crișului (Vadu Crișului commune, Bihor county)

- A. *Peștera Devențului 2*.
- B. Cave.
- C. Systematic archaeological excavation.
- D. Phase A.
- E. National History Museum of Transylvania, Cluj-Napoca.
- F. LAZAROVICI 1983, 18, no. cat. 143; MAXIM 1999, 191, no. cat. 1081; IERCOȘAN 2002, 95, no. cat. 72.

138. Valea lui Mihai (town, Bihor county)

- A. *Groapa cu lut*.
- B. Unspecified.
- C. Fortuitous discovery.
- D. Phase B.
- E. Criș County Museum, Oradea.
- F. BOGNÁR-KUTZIÁN 1972, 113, no. cat. 84; IGNAT 1973, 17, pl. 1-3; LAZAROVICI 1983, 18, no. cat. 144; MAXIM 1999, 191, no. cat. 1089; IERCOȘAN 2002, 95-96, no. cat. 73.

³⁷ Here are mentioned „three phases of house construction” from Tiszapolgár culture. Knowing that this level succeeds the settlements of Cheile Turzii - Lumea Nouă - Iclod cultural complex and Petrești A and AB settlements we consider that the Tiszapolgár settlement belongs to phase B.

³⁸ Zoia Maxim uses the term „was researched”.

139. Valea Timișului (Buchin commune, Caraș Severin county)

- A. *Rovină.*
- B. Terrace.
- C. Rescue archaeological excavation.
- D. Phase B.
- E. Mountainous Banat Museum, Reșița.
- F. GUMĂ-PETROWSZKY 1978, 99-103; LAZAROVICI 1979, 212, no. cat. 104; 1983, p. 18, no. cat. 145; OPRINESCU 1981, 49, no. cat. 26; BOCHIȘ 2004, 57, no. cat. 42; LUCA 2006, 265, no. cat. 636.1b.

140. Vărșand (Pilu commune, Arad county)

- A. *Movila dintre vii.*
- B. Hill.
- C. Systematic archaeological excavation.
- D. Unspecified.
- E. Criș County Museum, Oradea.
- F. POPESCU 1956, 120, fig. 73/3³⁹; BOGNÁR-KUTZIÁN 1972, 117, no. cat. 188; LAZAROVICI 1983, 18, no. cat. 147; MAXIM 1999, 192, no. cat. 1112; IERCOȘAN 2002, 96, no. cat. 74.

141. Vășad (Curțieșeni commune, Bihor county)

- A. *Valea Ganașului.*
- B. Terrace.
- C. Surface survey.
- D. Phase A.
- E. Collection of Secondary School no. 1 Carei.
- F. LAZAROVICI 1983, 18, no. cat. 148; MAXIM 1999, 192-193, no. cat. 1114; IERCOȘAN 2002, 96-97, no. cat. 75.

142. Vezendiu (Tiream commune, Satu Mare county)

- A. *Drumul Tireamului.*
- B. Terrace.
- C. Systematic archaeological excavation.
- D. Phase B.
- E. Collection of Secondary School no. 1 Carei.
- F. MAXIM 1999, 193, no. cat. 1118; IERCOȘAN 2002, 97-99, no. cat. 76.

143. Vinga (Vinga commune, Arad county)

- A. *Izvor.*
- B. Terrace.
- C. Surface survey.
- D. Unspecified.
- E. National History Museum of Transylvania, Cluj-Napoca.
- F. LAZAROVICI 1979, 208, no. cat. 94; BOCHIȘ 2004, 57, no. cat. 43; LUCA 2006, 271, no. cat. 650.1c.

144. Visag (Victor Vlad Delamarina commune, Timiș county)

- A. *Blaj.*
- B. Unspecified.
- C. Surface survey.
- D. Unspecified.
- E. Unspecified.
- F. BOCHIȘ 2004, 57, no. cat. 44a; LUCA 2006, 271, no. cat. 652.1bc.

145. Visag (Victor Vlad Delamarina commune, Timiș county)

- A. *Ogășele.*
- B. Unspecified.
- C. Surface survey.
- D. Unspecified.
- E. Unspecified.
- F. OPRINESCU 1981, 49, no. cat. 27; BOCHIȘ 2004, 57, no. cat. 44b; LUCA 2006, 271, no. cat. 652.1c.

146. Zalău (municipality, Sălaj county)

- A. *Valea Miții.*
- B. Terrace.
- C. Rescue archaeological excavation.
- D. Phase A.
- E. County Museum of History and Art, Zalău.
- F. LAKÓ 1981, 78, no. cat. 100i; LAZAROVICI 1983, 18, no. cat. 152; MAXIM 1999, 194, no. cat. 1142; IERCOȘAN 2002, p. 99-100, no. cat. 77.

147. Zăuan (Ip commune, Sălaj county)

- A. *Dâmbul Spânzuraților.*
- B. Terrace.
- C. Surface survey.
- D. Phase A.
- E. Personal collection.
- F. LAKÓ 1981, 80, no. cat. 103c; LAZAROVICI 1983, 18, no. cat. 154; MAXIM 1999, 194, no. cat. 1148; IERCOȘAN 2002, 100, no. cat. 78.

³⁹ Although the author considers this pottery fragment as being from Bronze Age, its form, shape and perforation make us think it is rather a the leg of a vessel with circular perforations, so much typical to the Tiszapolgár culture (to be mentioned that it is published reverse).

II. Short considerations regarding the habitat of Tiszapolgár communities from Romania

At this moment, on the present territory of Romania, are documented 190 sites that we consider as certainly belonging to Tiszapolgár culture (for this we also proceeded, beside our own verification of the materials originated in the archaeological sites mentioned above, in asking the confirmation and reconfirmation of the information from the authors that used independent sources of documentation) and 41 sites we integrated in the category of the unsure sites (settlements mentioned as belonging to this civilisation but that have also another cultural attribution, a fact caused by the information took up erroneously or the incorrect assessment of the existing archaeological materials)⁴⁰.

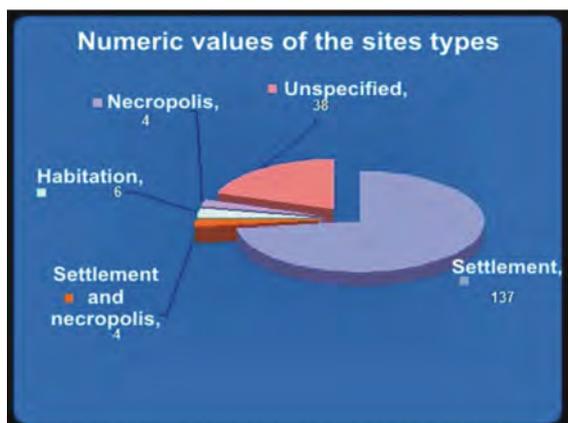


Fig. 1. Numeric value of the sites types.

In the present study we analyse the first category, the category of sure sites, granting special attention to the settlements of this culture. From 190 sites, 137 are considered as settlements, six have the characteristics of habitation place (generally speaking caves have these characteristics that demonstrates that they have a rather seasonal character), four have funerary character, four combine the two characters (settlement and necropolis) and 38 sites have an undetermined function (we preferred to use the term „unspecified”

⁴⁰ Here we do not discuss about the problems related to copper objects attributed to Tiszapolgár culture (LAZAROVICI 1983, 13-18, appendix I).

because sometimes the bibliographical sources were very laconical, fact often caused by the method of research of the archaeological objectives). Next, we will study only the sites that have the character of a settlement, habitation, settlement and necropolis (double „function”), summing 147 sites.

First, we will insist on the research methods. From this point of view, surface surveys have a big weight, being used in 69 cases, followed by the archaeological excavation, used in 39 cases. The next category is the one of the sites that do not have a specified way of research, meaning 23 sites. Archaeological surveys and the archaeological supervise of utilitarian workings are in number of seven cases and in only two cases we can talk about fortuitous discoveries.

This situation generates certain precariousness in studying this civilisation, knowing that the systematic archaeological excavation has only 26 % from all the sites considered as settlements, fact that could visibly affect the percent of this kind of archaeological station in the case already mentioned method would perceptually rise.

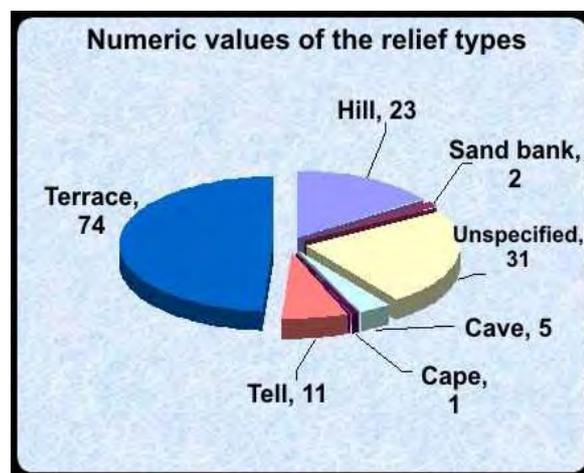


Fig. 2. Numeric values of the relief types.

Another important criterion in the right evaluation of the habitat of the culture that we study is the relief preferred for arranging the settlements. Thus, we ascertain that in 74 cases communities (50%) preferred to establish on the river terraces, in 23 cases they used the hills, 11 groups preferring tells. A significant fact that is generated by

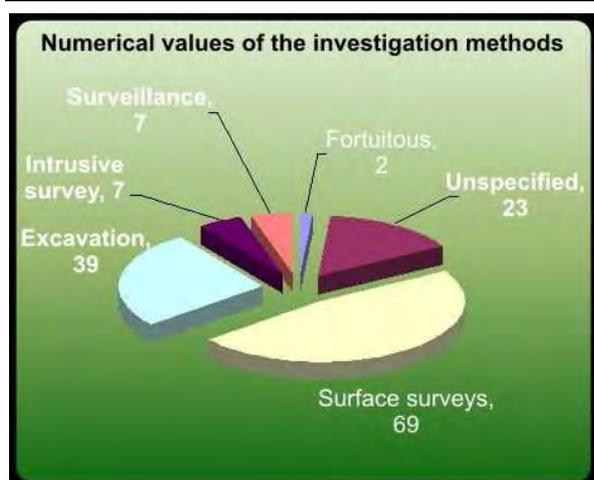


Fig. 3. Numeric values of the investigation methods.

the method of research is the large number of unspecified situations: 31 cases (meaning 23%). We also consider necessary mentioning the use of caves, in five cases, number indicating a low preference for this kind of habitation.

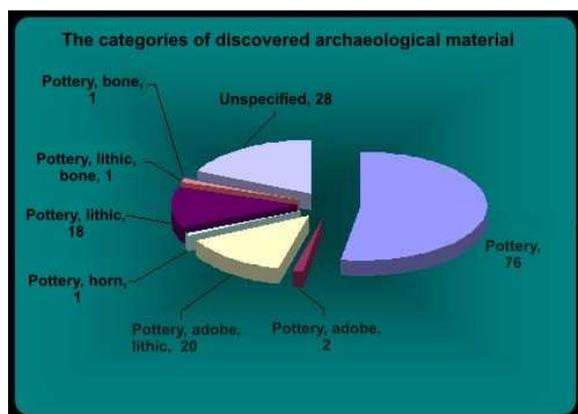


Fig. 4. The categories of discovered archaeological material.

Another consequence of the precarious of researching methods can be noticed in the categories of archaeological materials attributed to the settlements of this culture. Logically, ceramics, the most characteristic type of artefact for prehistoric communities, has a 52 % (appears in 76 cases) percentage, followed by 28 cases in which aren't specified the discovered materials. Anyway, we must consider the fact that from 20 settlements were recovered ceramic fragments, adobe (remains of constructing materials) and artefacts of lithic industries in

14%. Here, we must mention that most of the Tiszapolgár settlements do not create thick archaeological levels; often they are disturbed by the subsequent settlements or other anthropical interventions (one of the most cogent example is the one of the site *Hodoni-Pocioroane* (DRAȘOVEAN, MUNTEANU, ȚICU 1996, 10-12), no. 60 in our catalogue, destroyed by the modern agricultural works, from the Tiszapolgár settlement being recovered only little material).

From the point of view of the appurtenance to the phases of Tiszapolgár culture, we can notice the high percent of settlements that couldn't be framed in a phase - 45% (65 cases), first of all because of the research methods - in 48% archaeological surface survey, which is not an advantage, because this kind of research is only for topographical identification of the sites and also for the preliminary cultural attribution. To the rest, the discovered materials are in secondary stratigraphic position (at least), in a high degree of fragmentation and conservation, batching samples are numeric low and not at last mixed up, the selection being made on comparative criterias. All this makes their chronological attribution in a cultural frame risky. As a result of the situation, only 50 % from all archaeological sites which are considered as Tiszapolgár settlements, can be attributed to the phases of this culture: 45 settlements belonging to phase A (almost 30%) and 32 to phase B (almost 20%). Just in two cases we can talk about two chronological clear distinct levels, that contain both phases of evolution (A and B). There are also three situations in which we can talk about typically Tiszapolgár artefact imports in settlements belonging to Sălcuța and Petrești cultures.

In the settlements from the first phase of evolution we can observe a preference for inhabiting river terraces (28 cases representing 63% from all). The following relief used is the hill, in eight cases, followed by the situation of three cases with no specified relief. Tells and caves are less preferred by this communities.

Predominant use a of terraces indicates a population in move, fact



Fig. 5. Settlements number by phases.

suggested also by Map 1, where we can observe a close grouping of settlements that has as central axe - the Valley of Crasna River, Valley of Barcău and affluents of Someș river, as Agrij; another group of sites, less manifold, has as „backbone” The Valley of Crișul Alb River (White Criș), and the third group is set on Timiș Valley, apparently sheering into two directions: one is the Valley of Bistra, the other penetrates the south-west of Transylvania.

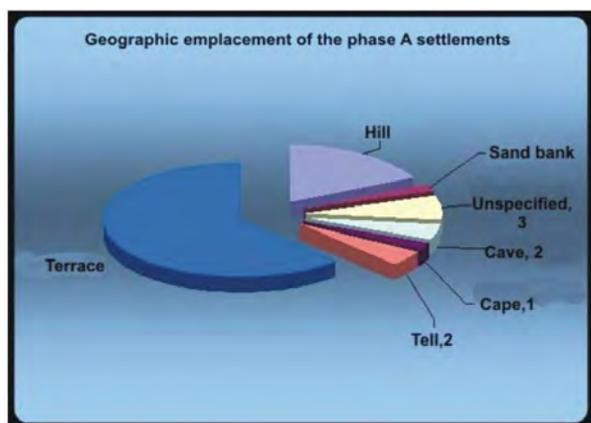


Fig. 6. Geographic emplacement of the phase A settlements.

In the second phase of Tiszapolgár culture (phase B) we assist, generally speaking, to the same proportions for the relief forms preferred in settling habitat. Thus, terraces are used in 20 cases, followed by use of hills (4 cases). What is really interesting in this case is the situation presented in Map 2, where we can notice a „regrouping” of the settlements, observing a

very powerful core around Crasna River, at south-west from the present-day town Satu-Mare. In the Valley of Crișul Alb River the situation is radically modified, fact that isn't confirmed in the plain of Banat, where we can see how the general picture is preserved.

All the things said above demonstrate that Tiszapolgár settlements are not of long standing (they do not develop a complex stratigraphy), and at least on Romanian territory they use mostly the unflodable areas, close to the rivers (terracces, hills).

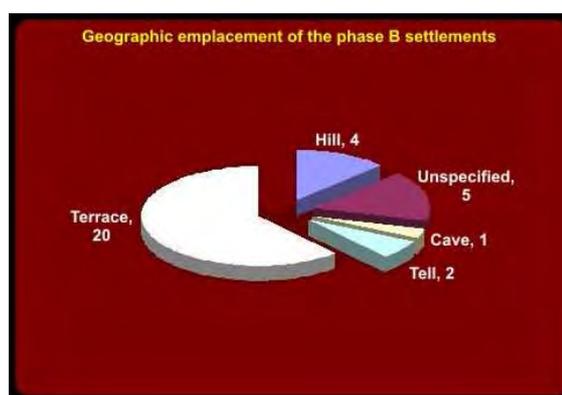
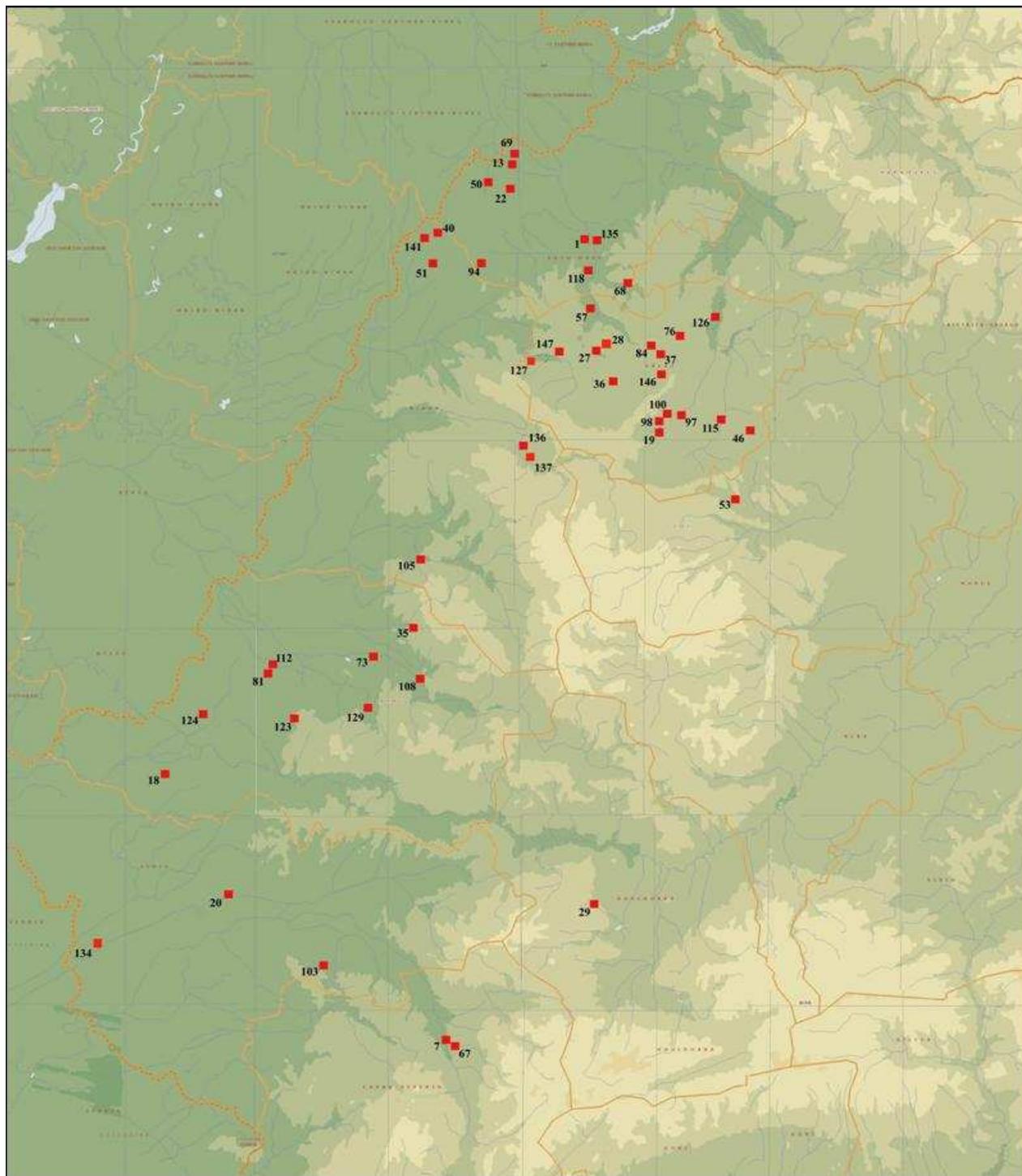


Fig. 7. Geographic emplacement of the phase B settlements.

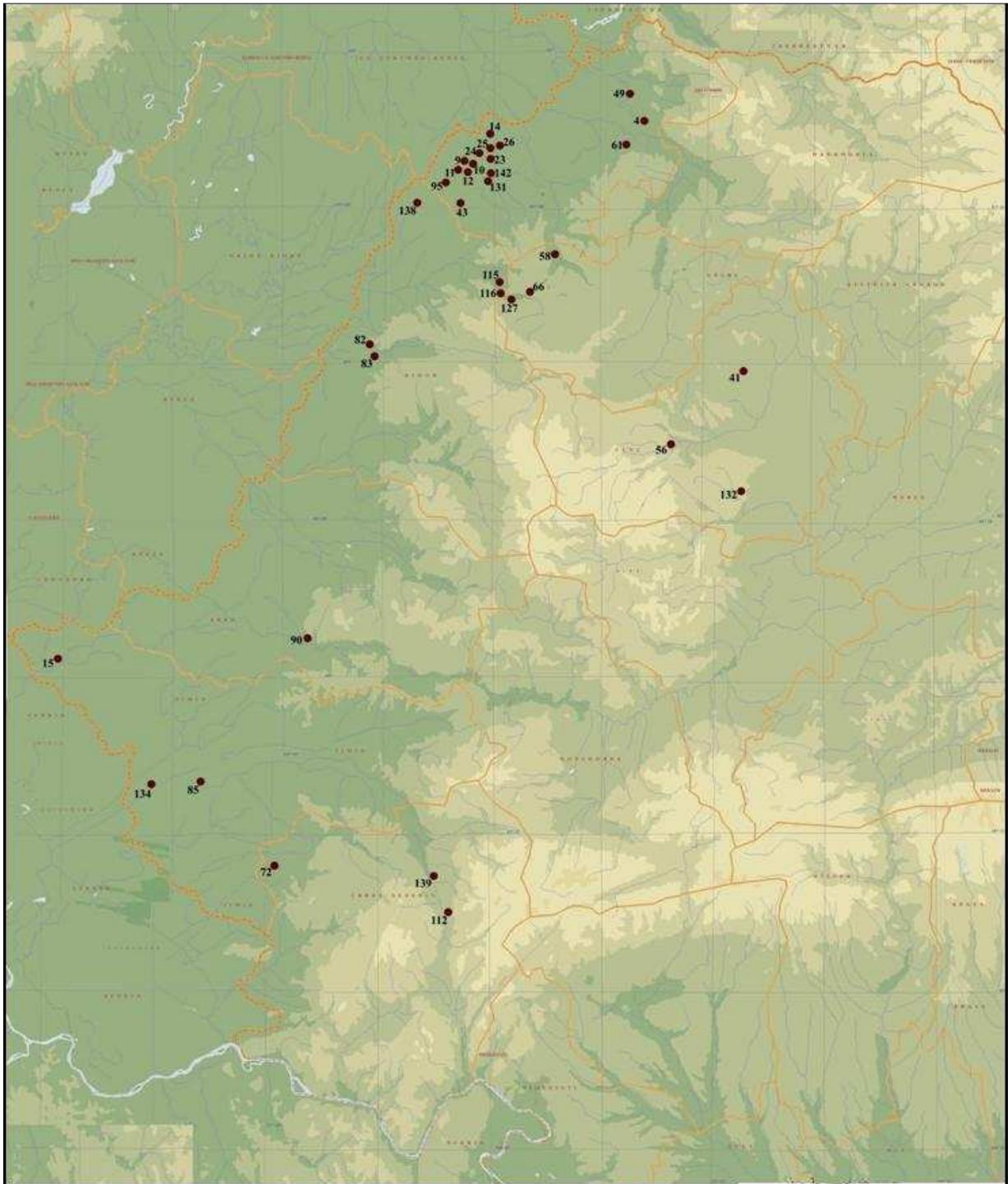
The use of this kind of relief is in a powerful contradiction with the late neolithic fond that stays at the genesis of this culture, but this fact is already known, one of the characteristics of Tiszapolgár communities being the abandoning of the tell type settlements (BOGNÁR-KUTZIÁN 1972, 190). The points layout on Map 1 presents us a mobile civilisation that covers a large area, and which, in our opinion, sets sight on copper deposits and barings (and probably salt resources) in the western part of Romania⁴¹. The most consistent group is clearly the one trying to get access to the interior of the Carpathian arch on the Crasna Valley.

Map 2 presents the situation of some communities, which, with little exceptions, do not occupy the territories from the

⁴¹ The first two groups from phase A, that we indicated above, certainly have as target the deposits from Occidental Carpathian, and the third, with the group that penetrates the Valley of Bistra River targets the deposits from the south-west of Romania (for compliance, see MAREȘ 2002, Map 1).



Map 1. Settlements of A phase of the Tiszapolgár culture.



Map 2. Settlements of B phase of the Tiszapolgár culture.

intracarpatic zone and that prefer to occupy low areas from the river valleys or hills from proximity, existing the hypothesis that the purpose was to assure the supplies with raw material, including (or in first place) copper (BOGNÁR-KUTZIÁN 1972, 74-75).

Bibliography

BANNER János

1932 *Die neolitische Ansiedlungen von Hódmezővásárhely - Kopáncs und Kotacpart und die III Periode der Theiss-Kultur*, Dolgozatok, VIII, 1-2, p. 32-48.

BĂCUEȚ Dan

1996 *Noi date cu privire la așezarea aparținând perioadei de tranziție la epoca bronzului de la Dud, Ziridava XIX-XX*, p. 7-13.

BEJINARIU Ioan

1995 *Materiale arheologice preistorice din colecția Liceului „Simion Bărnuțiu” din Șimleu Silvaniei*, AMP, XIX, p. 17-37.

BEJINARIU Ioan, LAKÓ Éva

1996 *Despre sondajul arheologic de la Cehei, punctul Misig (1987)*, AMP, XX, p. 11-31.

BERCIU Dumitru

1961 *Contribuții la problemele neoliticului în România în lumina noilor cercetări*, București.

BOCHIȘ Bogdan

2004 *Contribuții la repertoriul așezărilor Tiszapolgár din Banatul românesc*, PB, III, p. 51-62.

BOGNÁR-KUTZIÁN Ida

1972 *The Early Copper Age Tiszapolgár Culture in the Carpathian Basin*, Budapest.

1976 *The Origins of Early Copper Processing in Europe*, in vol.: *To illustrate the monuments. Essays on archeology presented to Stuart Piggott* (ed.: J.V.S. Megaw), London, p. 69-76.

COMȘA Eugen, KACSÓ Carol

1973 *Rezultatele sondajelor din complexul neolitic de la Oarța de Sus, jud. Maramureș (1910)*, Materiale, X, p. 47-51.

DRAȘOVEAN Florin, MUNTEANU Marius,

ȚICU Dumitru

1996 *Hodoni, locuirile neolitice și necropola medievală timpurie*, Reșița.

DUDAȘ Florin

1970 *Repertoriul arheologic al Țării*

Zarandului, în lumina ultimelor descoperiri, RM, 4, p. 355-358.

DUMITRAȘCU Sever

1969 *Săpăturile arheologice de la Unimăt*, SM, I, p. 41-47.

1975 *Așezarea neolitică de la Sântana-Holomb*, Banatica, 3, p. 355-358.

1994 *Biharia (I). Săpături arheologice din anii 1973-1980*, Oradea.

GUMĂ Marian, PETROVSZKY Richard

1979 *Noi descoperiri eneolitice timpurii în zona Caransebeșului*, Tibiscus V, p. 97-114.

HERTELENDI Ede et alii

1995 *Re-evaluation of the Neolithic in eastern Hungary based on calibrated radiocarbon dates*, Radiocarbon, 37, 2, p. 239-244.

IERCOȘAN Neța

2002 *Cultura Tiszapolgár în vestul României*, Cluj-Napoca.

IGNAT Doina

1973 *Repertoriul descoperirilor neolitice din Bihor*, Crisia, III, p. 7-17.

1975 *Colecția veche neolitică a Muzeului Țării Crișurilor (I)*, Crisia, V, p. 9-14.

1982 *O nouă așezare eneolitică la Suplacu de Barcău*, Crisia, XII, p. 19-28.

KALMAR Zoia

1980 *Descoperiri eneolitice la Gilău*, AMN, XVII, p. 393-416.

1981 *Descoperiri eneolitice la Gilău (II)*, AMN, XVIII, p. 305-320.

1982 *Descoperiri eneolitice la Gilău (III)*, AMN, XIX, p. 247-252.

1984 *O așezare Tiszapolgár la Dragu (Contribuții la geneza culturii Tiszapolgár în județul Sălaj și în zonele învecinate)*, AMP, VIII, p. 105-109.

KALMAR Zoia, TATU Hristache

1986 *Materialele neo-eneolitice descoperite în Țara Hațegului, Sargeția*, XVIII-XIX (1984-1985), p. 91-100.

LAKÓ Eva

1979 *Repertoriul topoarelor de aramă din județul Sălaj*, AMP, III, p. 41-49.

1980 *Repertoriul topografic al epocii pietrei și a perioadei de tranziție spre epoca bronzului în județul Sălaj*, AMP, V, p. 31-119.

LAZAROVICI Gheorghe

1974 *Despre eneoliticul timpuriu din Banat*, Tibiscus, IV, p. 9-32.

1979 *Neoliticul Banatului*, Cluj-Napoca.

1983 *Principalele probleme ale culturii Tiszapolgár în România*, AMN, XX, p. 3-31.

- LAZAROVICI Gheorghe, MUNTEANU Ioan
1981 *Așezarea neolitică de la Slatina Timiș*, StComCaransebeș, IV, p. 121-135.
- LUCA Sabin Adrian
1984 *Observații pe baza unui material ceramic inedit de la Bodrogu Nou (Către vale)*, Crisia, XV, p. 279-290.
1993 *Așezarea neolitică de la Jupa-Sud, Caraș-Severin*, Tibiscum VIII, p. 27-33.
2004 *Repertoriul arheologic al județului Caraș-Severin*, București.
2005 *Repertoriul arheologic al județului Hunedoara*, Alba Iulia.
2006 *Descoperiri arheologice din Banatul românesc. Repertoriu*, Alba Iulia.
- LUCA Sabin Adrian, ROMAN Cristian, DIACONESCU Dragoș
2003 *Cercetări arheologice în Peștera Cauce (I) (sat Cerișor, comuna Lelese, județul Hunedoara)*, Sibiu.
- MAXIM, Zoia
1999 *Neo-Eneoliticul din Transilvania*, Cluj-Napoca.
- MAREȘ Ion
2002 *Metalurgia aramei în neo-eneoliticul României*, Suceava.
- NÉMETI Janos
1988 *Noi descoperiri arheologice din eneoliticul târziu din nord-vestul României*, AMP, XII, p. 121-145.
1993 *Repertoriul arheologic al localității Ghenci (com. Căuaș, jud. Satu Mare)*, SM, IX-X, p. 57-75.
- OPRINESCU Adriana
1981 *Răspândirea culturii Tiszapolgár-Românești în Banat*, Banatica, VI, p. 43-49.
- PĂDUREANU Eugen
1973 *Noi descoperiri neolitice și din epoca bronzului în județul Arad*, Banatica, II, p. 395-402.
1978 *O așezare eneolitică la Tauț, Ziridava*, X, p. 33-44.
1985 *Contribuții la repertoriul arheologic de pe Valea Mureșului inferior și a Crișului Alb*, Crisia XV, p. 27-60.
- NICOLĂESCU-PLOPȘOR C.S.
1957 *Șantierul arheologic Nandru*, Materiale, III, p. 41-50.
- POP Horea et alii
2006 *Șimleu Silvaniei. Monografie arheologică. I. Istoricul cercetărilor*. Cluj-Napoca.
- POPESCU Dorin,
1956 *Cercetări arheologice în Transilvania II. Săpăturile arheologice de la Vârșand*, Materiale, II, p. 89-103.
- RADU Adriana
2002 *Cultura Sălcuța în Banat*, Reșița.
- RADU Dionisie, FEURDEAN Nicolae
1977 *Așezarea neolitică de la Gîrbău (Județul Cluj)*, AMN, XIV, p. 29-41
- ROMAN Petre
1973 *Modificări structurale ale culturilor eneoliticului final din regiunea carpato-danubiană*, Banatica, II, p. 57-78.
- ROSKA, Márton
1942 *Erdély régészeti repertórium*, Kolozsvár.
- RUSU Mircea
1971 *Cultura Tisa*, Banatica, I, p. 77-83.
- RUSU Mircea, SPOIALĂ V, GALAMB L.
1962 *Săpăturile arheologice de la Oradea-Salca*, Materiale, VIII, p. 159-163.
- SCHIER Wolfram, DRAȘOVEAN Florin
2003 *Vorbericht über die rumänisch-deutschen Prospektionen und Ausgrabungen in der befestigten Tellsiedlung von Uivar, jud. Timiș, Rumänien (1998-2002)*, PZ 79, 2, p. 145-230.
- VLISSA Nicolae
1961 *O contribuție la problemele legăturilor culturii Tisa cu alte culturi neolitice din Transilvania*, SCIV 12, 1, p. 17-24.
1969 *Așezarea neolitică de la Dăbâca*, AMN, VI, p. 27-45.
- ZRINYI A.
1982 *Contribuții la cunoașterea neoliticului din valea superioară a Mureșului: săpăturile de la Gorenii (com. Batoș)*, Marisia, XI-XII, p. 17-29.

ASPECTE REGIONALE ÎN PROCESUL DE NEOLITIZARE A BANATULUI. LOCUIREA STARČEVO-CRIȘ DE LA FOENI-SĂLAȘ

FLORIN DRAȘOVEAN*

Cuvinte cheie: *neolitizare, aspecte regionale, Banat, Starčevo-Criș, Foeni-Sălaș.*

Keywords: *neolithisation, regional aspects, Banat, Starčevo-Criș, Foeni-Sălaș.*

Rezumat. *După o scurtă prezentare a geografiei și a particularităților etnografice ale Banatului, autorul discută principalele caracteristici ale procesului de neolitizare în cele trei zone ale provinciei sud-vestice românești. În partea a doua a articolului sunt rezumate principalele caracteristici ale așezării Starčevo-Criș de la Foieni-Sălaș și implicațiile acestora în înțelegerea fenomenului de neolitizare a vestului Banatului.*

Abstract. *Following a brief description of the geographical and ethnographical particularities of the Banat province, the author discusses the main characteristics of the neolithisation process of the three areas of this region. The second part of the paper resumes the major characteristics of the Starčevo-Criș inhabitation from Foieni and its implications in the understanding of the neolithisation process in the west of the Banat province.*

Neolitizarea spațiului sud-est european a fost un proces istoric de o deosebită complexitate care s-a derulat gradual și discontinuu în timp și spațiu. Începuturile neoliticului a fost rezultatul direct al schimbărilor climatice radicale de la începutul Holocenului care au contribuit în mod substanțial la modificarea structurală a mediului înconjurător (FĂRCAȘ, TANȚĂU 2004, 227-234; JUHÁSZ 2004, 213-225; SÜMEGI 2003, 53-60; 2004, 117-127).

În vestul României, în zona Tisei, momentul final al acestor profunde schimbări ale mediului, în care flora și fauna capătă caracteristicile actuale, a fost plasat de analizele palinologice și sedimentologice la sfârșitul mileniului al IX-lea BC. În pădurile și pe pășunile care au luat locul tundrei arctice, viețuiau animale sălbatice care i-au permis omului să-și asigure o sursă de subsistență bogată și variată. Apariția primelor graminee sălbatice și creșterea interesului omului pentru unele dintre animale au deschis calea spre

cultivarea plantelor și creșterea animalelor. Aceasta a determinat schimbări ale strategiilor de subsistență ale omului, prin domesticirea animalelor și cultivarea plantelor, modificarea tipului de habitat, prin acomodarea treptată la stilul de viață sedentar, precum și a credințelor magico-religioase, prin adoptarea unui nou sistem filosofic și de valori.

A. Poziționarea geografică și particularitățile etnologice ale regiunilor Banatului

În cadrul geografic al Europei de sud-est, în decursul întregii istorii, prin poziția sa geografică situată între răsăritul și centrul continentului, Banatul a avut un rol distinct și particular, acela de a transmite dar și sintetiza influențele venite din zone diferite ale acestuia. Mărginit la est de ramura vestică a Munților Carpați, la sud de Dunăre, la vest de Tisa, iar la nord de Mureș, Banatul a jucat în cadrul procesului de neolitizare un rol de placă turnantă între sud-estul și centrul continentului, vehiculând influențele

* Muzeul Banatului, Timișoara, e-mail: fdrasovean2000@yahoo.com

venite pe valea Dunării și pe văile tributare acesteia.

Cadrul geografic bănățean se împarte în trei zone distincte, care și acum, după multe milenii, formează entități etnologice riguros conturate. În primul rând, în partea de sud-est și est a provinciei este zona de munte, ce se caracterizează, din punct de vedere etnologic, prin prezența unei populații preponderent pastorale, relativ omogene care, în ciuda fenomenului de transumanță care i-ar putea permite stabilirea unor legături cu alte zone, primește foarte rar influențe din partea altor comunități și care și-a păstrat identitatea culturală și etnică pe parcursul întregii epoci moderne (GAGA 2004, 9-35). Această observație este valabilă și pentru preistorie, când s-a putut constata faptul că toate comunitățile umane care s-au așezat acolo au evoluat fără a primi influențe notabile din partea altor civilizații contemporane care locuiau sau au penetrat zona prin văile râurilor (KALMAR, BAGOZKI, LAZAROVICI 1987, 65-85).

Cea de-a doua zonă este formată de defileul Dunării, o zonă etnografică conservatoare și autarhică, deși este străbătută de una dintre cele mai importante căi de comunicație ale Europei, Dunărea. În acest moment, în Clisură există comunități relativ compacte de români, sârbi și cehi, care conviețuiesc și își păstrează, în prezența unor influențe reciproce, individualitatea etno-folclorică.

Cea de-a treia zonă, cea mai întinsă, este reprezentată de partea de vest a Banatului, situată într-o regiune de câmpie joasă, străbătută de principalele cursuri de apă – râurile Timiș și Bega –, o zonă cu pământ foarte fertil și climă temperat-continentală, cu accente mediteraneene, care au creat condiții optime pentru locuire încă din cele mai vechi timpuri (ZĂVOIANU, ARDELEAN 1979). Spre deosebire de celelalte două zone, din punct de vedere etnologic se pot constata cele mai multe fenomene de interferență culturală și etnică, care îi conferă un aspect multicultural caracterizat prin relații reciproce constante dar și de fenomene de aculturație și chiar de pierdere a identității culturale.

Am dorit ca în introducere să precizez

aceste lucruri pentru a sublinia relativa constanță în timp a derulării fenomenelor istorice din Banat în contextul determinismului geografic, care are un rol deosebit în evoluția comunităților umane de aici și să subliniez diferențele care pot fi constatate încă din zorile civilizației între aceste trei regiuni.

B. Principalele caracteristici ale procesul de neolitizare din cele trei zone ale Banatului

În cadrul procesului de neolitizare a Banatului, cele trei zone au avut un rol diferit. Dacă partea muntoasă din răsăritul Banatului nu a fost implicată în acest fenomen cultural, o entitate geografică și culturală distinctă a constituit-o defileul Porților de Fier a Dunării. Cercetările întreprinse cu precădere în ultimele patru decenii au condus la descoperirea a numeroase situri mezolitice/epipaleolitice și neolitice timpurii care au polarizat interesul specialiștilor. Dintre acestea, fără îndoială, cea mai cunoscută și mai discutată descoperire este cea de la Lepenski Vir (SREJOVIĆ 1969; 1979, 33-76; RADOVANOVIĆ 1996; 1996a, 33-48; BORIC 1999, 41-70). În acest sit, cercetarile efectuate în anii 60 ai secolului trecut au condus la descoperirea unor colibe trapezoidale pe care descoperitorul le-a împărțit în trei faze de evoluție a sitului, primele două fiind încadrate în mezolitic (I și II), iar cea de-a treia în neoliticul timpuriu (III) (SREJOVIĆ 1979, 33-76). Dacă la momentul publicării descoperirilor puțini se îndoiau de veridicitatea atribuirilor lui Srejović, pe măsură ce au fost cercetate și alte situri din Porțile de Fier a devenit tot mai evident faptul că ceramica descoperită în nivelurile și complexe fazelor Lepenski Vir I și II nu reprezintă pătrunderi ulterioare în stratul mezolitic, așa cum a afirmat descoperitorul, ci fac parte organică din conținutul cultural a nivelurilor în discuție (JOVANOVIĆ 1987, 1-16; GARAȘANIN, RADOVANOVIĆ 2001, 118-125). Aceste observații au fost completate și susținute de o serie de analize interdisciplinare de ordin arheozoologic, antropologic, carpologic, a uneltelor de piatră, analize care au acreditat ideea că în

această zonă comunitățile epipaleolitice au supraviețuit și au conviețuit cu noii veniți, care îi vor influența în mod notabil. Acestea sunt indicate de schimbări fundamentale în dieta oamenilor, în care accentul s-a transferat gradual de la o hrană obținută în principal prin pescuit și vânătoare la cultivarea cerealelor și domesticirea animalelor și producerea și folosirea ceramicii (BOLOMEY 1973, 41-51; RADOVANOVIĆ 1996; 1996a, 39-48; BONSALL *et alii* 2000, 119-132; 2004, 293-300). Conform datelor de cronologie absolută de care dispunem, acest proces istoric a avut loc în ultima parte a celei de-a doua jumătăți a mileniului al VIII-lea (WHITTLE *et alii* 2002, 65-117; 2005, 347-355), iar din punct de vedere cultural în faza veche a culturii Starčevo-Criș (LAZAROVICI 1983, 9-34; 1996, 21-38; 1998, 7-37). Acestea au demonstrat că în această zonă comunitățile autohtone mezolitice și epipaleolitice au supraviețuit până în vremea primilor agricultori, purtători ai culturii Starčevo-Criș.

Neolitizarea Porților de Fier este doar un aspect regional și particular al procesului de neolitizare din zona dunăreană. Începutul acestuia este determinat de fenomenele etno-culturale care s-au derulat în Balcani în a doua jumătate a mileniului al VIII-lea, conform datelor C14 calibrate, și care, în zona carpato-dunăreană, a dat naștere locuirilor de la Gura Baciului I, Cârcea-*Hanuri* și *Grădinile*, Ocna Sibiului I, Miercurea Sibiului-*Pietriș*, *Röszke-Ludvar*, Donja Branjevina (NICA 1977, 13-53; 1981, 27-39; TROGMAYER 1989, 311-316; 2003, 8-20; LAZAROVICI, MAXIM 1995; PAUL 1995, 28-68; KARMANSKI 2005). Din punct de vedere cultural, aceste locuiri se încadrează, după periodizarea lui Gh. Lazarovici, în faza Ia-Ib a culturii Starčevo-Criș, iar din punct de vedere istoric fac parte din primul val de migrație a comunităților neolitice care au ajuns în regiunea dunăreană (LAZAROVICI 2006, 111-158). Odată ajunse aici, așa cum o arată dispunerea geografică a siturilor mai-sus menționate, aceste comunități au migrat spre nord și vest pe văile celor mai importante cursuri de apă: Dunărea (pentru a înainta spre vest), Oltul și Mureșul (pentru a pătrunde în Transilvania) și Tisa (spre a ajunge în Câmpia Panonică).

În zona de câmpie a Banatului, la acest stadiu al cercetărilor, primele comunități agrar-pastorale identificate până în prezent (fig. 1) sunt cele de la Foeni-*Sălaș* și *Gaz* (GREENFIELD, DRAȘOVEAN 1994, 45-85; CIOBOTARU 1998, 73-82), Unip (LAZAROVICI, RESCH, GERMANN 1981, 13-20), *Timișoara-Fratelia* (DRAȘOVEAN 2001, 33-40), *Dumbrăvița* (DRAȘOVEAN *et alii* 2004), *Biled* (DRAȘOVEAN 1989, 9-48), *Dubova-Cuina Turcului* (PĂUNESCU 1979, 11-56) și *Röszke-Ludvar* (TROGMAYER 1989, 311-316; 2003, 8-20). Din punct de vedere al dispunerii lor, toate locuirile amintite se situează pe malul unor cursuri de apă sau foste brațe de divagație ale acestora dovedind faptul că pătrunderile acestor comunități s-a făcut pe cele două cursuri principale de ale câmpiei bănățene: *Timișul* și *Bega*. Dintre acestea, cea mai reprezentativă datorită cercetărilor întreprinse în deceniul trecut, este așezarea de la Foeni-*Sălaș*.

C. Caracteristicile sitului de la Foeni-*Sălaș* și implicațiile acestora în înțelegerea fenomenului de neolitizare a vestului Banatului

C.1. Situația geografică. Localitatea Foeni este situată în partea de sud a Banatului, în câmpia joasă a Torontalului (fig. 1). Așezarea neolitică timpurie s-a dezvoltat pe o ridicătură formată din depozite de loess pleistocen, situată între cursurile actuale ale *Timișului* și *Begăi*, în dreapta unui mic curs de apă, astăzi canalizat. În intervalul dintre cele două râuri, altitudinea medie se menține în jur de 80 m, cu o ușoară înclinație a terenului spre sud și vest (ZĂVOIANU, ARDELEAN 1979, 27). Zona în care se află situl este una joasă, care se înalță la doar 84 de metri față de nivelul mării, fiind străbătută de brațe de divagație ale *Begăi*, care au o pantă de scurgere mică, fapt ce determină bălțiri ale apelor de suprafață sau freatică. Din studiul unor hărți austriece din secolul al XVIII-lea, făcute înainte de marile lucrări de regularizare a râurilor din Banat, reiese faptul că pe cursul inferior a *Timișului* și *Begăi* era o zonă mlăștinoasă care era inundată periodic de apele celor două râuri. Studiile de teren care au fost efectuate atât în cadrul proiectului

arheologic Foeni, cât și în alte cercetări de teren din Banat au arătat că toate siturile din neoliticul timpuriu sunt dispuse pe terase joase ce mărginesc vechile cursuri de apă sau pe malul unor bălți sau mlaștini. Aceste terase au o înălțime suficientă pentru a nu fi inundate de creșterile periodice ale debitelor celor două râuri. Acest lucru a devenit evident în cazul marilor inundații care au avut loc în sudul Banatului românesc în primăvara anului 2005, când niciunul dintre siturile preistorice – și implicit neolitice timpurii – nu au fost acoperite de ape. Faptul că oamenii și-au poziționat așezările în zone neinundabile denotă că aceștia, chiar dacă nu aveau poate sensul pericolului în accepțiune modernă, prin observații multianuale empirice făcute în aceeași zonă, au constatat ieșirile periodice din matcă a cursurilor de apă și au procedat în consecință prin poziționarea așezărilor pe cele mai înalte locuri.

C.2. Cronologia relativă și absolută a sitului de la Foeni-Sălaș. Cercetările arheologice sistematice întreprinse între 1992 și 1994 au condus la descoperirea unui sit Starčevo-Criș cu un singur nivel de locuire.

Ceramică descoperită în strat și în bordeie este foarte unitară. Din punct de vedere tehnologic, aceasta era făcută din lutul pe care îl găseau din abundență în vecinătate, fie din sedimentul geologic aflat imediat sub stratul de humus sau din malul unor bălți sau cursuri de apă (SPATARO 2003, 7-26). Analizele XRD și SEM-EDS au evidențiat faptul că lutul era amestecat cu materie organică și ars la 600-650 °C, dar fără însă a depăși temperatura de 850° C (SPATARO 2003, 16). Un fapt demn de remarcat este acela că olarii au folosit același tip de degresant (temper) indiferent de categoria uzuală sau fină a vaselor, de forma acestora, decor sau finisarea suprafețelor ceramicii. Acest lucru denotă faptul că materia primă era prelucrată în prealabil într-o anumită cantitate și doar ulterior olarul decidea asupra utilității vasului și implicit a formei și decorului acestora.

Formele tipice sunt oalele de formă globulară și strachinile semisferice acoperite cu un slip de culoare monocromă, brun-roșcată, bine lustruit (fig. 2/1), decorate cu

ciupituri și impresiuni realizate de unghia, caneluri (fig. 2/2-3) și pseudo-barbotină. În asociere cu acestea au fost descoperite decoruri compuse din buline pictate cu o culoarea albă pe fondul brun-roșcat al vasului (fig. 2/4). Pe baza acestor elemente pe care le avem la dispoziție, în acest moment putem să afirmăm că din punct de vedere tipologico-stilistic ceramica se poate încadra în același orizont cronologic și cultural cu siturile de la Gura Baciului I/II, Rösztke-Ludvar, Ocna Sibiului I/II și Miercurea Sibiului-Pietriș, mai exact în cultura Starčevo-Criș, etapa IC (LAZAROVICI 2006, 116, 138-144).

Din punctul de vedere al cronologiei absolute, pentru așezarea de la Foeni-Sălaș dispunem până în prezent de șapte date radiocarbon care au fost obținute prin analizarea unor oase de animale. Cinci dintre acestea au fost recoltate și analizate în cadrul proiectului de cercetare româno-canadian, dar doar trei formează un *cluster* credibil care este situat în ultimele două secole ale mileniului al VIII-lea BP (GREENFIELD 2006). Alte două date analizate recent la Laboratorul din Groeningen ocupă capetele unui segment temporal cuprins între 7510±60 BP și 7080±50 BP (BIAGI, SPATARO 2004, 9-10, 13; BIAGI, SHENNAN, SPATARO 2005, 43-53). Cu toate aceste neconcordanțe, patru dintre cele șapte date de care dispunem formează un *cluster* care ocupă ultimele două secole ale mileniului al VIII-lea BP, tocmai perioada când a avut loc neolitizarea regiunilor centrale și nordice ale Peninsulei Balcanice. Analizând date similare din alte situri (WHITTLE *et alii* 2005, 347-355; BIAGI, SPATARO 2004, 7-20; CIUȚĂ 2005; LAZAROVICI 2006, 111-158) constatăm că datele de la Foeni sunt parțial contemporane cu cele de la Gura Baciului I, Ocna Sibiului I, Miercurea Sibiului, Șeușa, dar și cu alte situri precum Donja Branjevina și Lepenski Vir care aparțin, în linii generale, primului val de neolitizare a zonei dunărene. Spre deosebire însă de situația din Porțile de Fier, unde constatăm o conviețuire a fondului autohton cu noii veniți, nici în partea de nord a acestei provincii nu au fost identificate dovezi clare ale unei prezențe umane mezolitice și nici elemente ale unor influențe ale acestora.

În partea de nord a Banatului, la stadiul actual al cercetărilor, acest prim orizont cultural și cronologic nu este documentat. Așa cum am mai amintit, cele mai timpurii prezențe neolitice identificate aici sunt cele de la Timișoara-*Fratelia* (DRAȘOVEAN 2001, 33-40), Dumbrăvița (DRAȘOVEAN *et alii* 2004), Biled (DRAȘOVEAN 1989, 9-48), Foeni-Gaz și Unip (LAZAROVICI, RESCH, GERMANN 1981, 13-20), care reprezintă cel de-al doilea val de migrație care pătrunde în această zonă și care se caracterizează prin ceramica monocromă de culoare vișinie, vase globulare și tronconice, decoruri realizate prin impresiuni cu degetele și adâncituri late pe buza vaselor tronconice. El marchează în nordul Banatului cel mai vechi orizont ocupațional al neoliticului. Acest orizont a fost încadrat în faza a II-a a culturii Starčevo-Criș și, prin caracteristicile sale, este contemporan cu Lepenski Vir IIIa-IIIb din regiunea Porților de Fier (SREJOVIĆ 1969; LAZAROVICI 1983, 9-34; 1998, 7-37; 2006, 111-158). Din punctul de vedere al cronologiei absolute, acest nou val de migrație se situează la începutul mileniului al VII-lea, imediat după 7000 BP necalibrat (5900 BC CAL) (BIAGI, SPATARO 2004, 10; LAZAROVICI 2006, 111-158).

C.3. Raporturile omului cu mediul înconjurător. Încă de la începuturile existenței sale ca entitate biologică, omul a fost strâns legat de mediul înconjurător fiind influențat și, la rândul-i, influențându-l prin activitățile sale (JUHÁSZ 2004, 213-225). În cadrul acestui proces dihotomic, cu precădere în perioada străveche, supraviețuirea dar și calitatea vieții sale a depins direct și nemijlocit de capacitatea sa de adaptare la mediul și de inteligența cu care i-a exploatat resursele. În acest context dual considerăm drept un pas esențial în înțelegerea în toată complexitatea ei a societății umane preistorice identificarea a cât mai multora dintre trăsăturile cadrului natural în care au trăit acele comunități (BÁNFFY 2004). În acest demers, la acest stadiu al cercetărilor, pentru zona Foeni, ca de altfel pentru a întregului Banat, suntem iremediabil dezavantajați de absența unor date sporo-polinice care să ne permită o reconstituire a mediului natural din acea perioadă. Prin urmare, în acest moment, nu

putem preciza caracteristicile climei, dacă în această zonă existau păduri sau doar pâcuri de arbori care creșteau pe malurile cursurilor de apă și nici nu putem preciza extinderea lor. În situația concretă de la Foeni aceste date le putem afla, doar indirect și parțial, din studierea economiei făcută pe baza resturilor faunistice și a semințelor găsite în sit.

La Foeni-Sălaș, studiile arheozoologice (GREENFIELD, DRAȘOVEAN 1994, 73-74) au demonstrat rolul major pe care animalele domestice l-au jucat în cadrul strategiilor de subzistență a locuitorilor de aici. Acestea arată faptul că economia era dominată de creșterea animalelor domestice, care ocupă un procent de 79%. Din rezultatele finale ale analizelor făcute de Haskel Greenfield (GREENFIELD 2006) reiese faptul că ovicaprinele ocupă un loc important, fiind situate la 40% din totalul animalelor domestice, fiind urmate de vaci, cu 35%, și porci, cu doar 4%. Cu toate că ponderea porcului nu este reprezentativă, atragem atenția că el poate influența în mod sensibil celelalte date, în special ale animalelor mici, deoarece este binecunoscut faptul că porcul, alături de câine, poate mânca oasele de mici dimensiuni din așezare, cum ar fi cele ale ovi-caprinelor, păsărilor etc., micșorând astfel eșantionul statistic.

Raportat la creșterea animalelor, un loc cu totul subsidiar în cadrul strategiilor de subzistență a comunității de la Foeni-Sălaș, cu un procent de numai 21%, îl ocupă exploatarea prin vânatoare și pescuit a resurselor sălbatice. Dintre animalele vâdate se remarcă cerbul (*Cervus elaphus*), capra (*Capreolus capreolus*) și bourul (*Bos primigenius*), dar nici alte animale precum mistrețul, iepurele și păsările nu au fost neglijate (GREENFIELD 2006).

Alături de vânatoare, dar fără a avea importanța avută de acest tip de resurse în cadrul strategiilor de obținerea hranei a comunităților contemporane din Porțile de Fier ale Dunării, pescuitul și culegerea scoicilor aveau o pondere importantă. Studiile arheozoologice preliminare au demonstrat că peștele ocupă în dieta oamenilor de la Foeni un loc bine definit de un procent care îl situează pe primul loc în cadrul exploatarea animalelor sălbatice,

înaintea cerbului, bourului sau mistrețului, luate individual. Pe lângă de pești, melcii ocupă un eșantion reprezentativ din totalul resurselor acvatice folosite de om. Pe teritoriul sitului, în gropile unor locuințe dezafectate, au fost descoperite o cantitate impresionantă de peste 18.000 de cochilii de melci (*Helix sp.*) și în cadrul strategiilor de subzistență aceste animale au avut rolul bine conturat de a completa necesarul de hrană în anumite perioade ale anului. Preponderența exploatării animalelor acvatice în raport cu cele sălbatice terestre este dată de oportunismul omului de a exploata la cote optime resursele mediul înconjurător și nicidecum o trăsătură a unei economii mezolitice.

Această opinie este susținută de reprezentările în arta plastică descoperite în acest sit. Dacă în orizontul cronologic contemporan din Porțile de Fier, la Lepenski Vir plastică este dominată de reprezentările de ființe acvatice, la Foeni-Sălaș au fost descoperite doar statuetele de lut, modelate realist, ale unor bovidee (fig. 2/5-6) (CIOBOTARU 1998, 73-74; DRAȘOVEAN 2001a). Aceasta este o dovadă grăitoare a conținutului sistemului filosofic și de valori al locuitorilor de aici în a căror panteon, un loc central, este ocupat de animalele terestre, legate de noul mod de viață agrar-pastoral. Totodată, prin adorarea taurului – un simbol al forței și puterii de procreere –, locuitorii de la Foeni reprezintă un exemplu de comunitate detașată de vechiul panteon al mezoliticului, dominat de zeități legate de ocupațiile principale, vânatoarea și pescuitul.

Alături de exploatarea animalelor, agricultura a jucat un rol important în strategia de subzistență a omului neolitic de la Foeni. Deși nu au fost descoperite foarte multe semințe, dintre cele care au putut fi găsite, gramineele reprezintă un eșantion important. Datele statistice arată că 57% aparțin speciei *Triticum monococcum*, 29% speciei *Triticum dicocum* și 14% speciei *Hordeum vulgare* (GREENFIELD 2006). Activitățile legate de agricultură sunt probate de prezența lamelor de silex, a căror luciu pe muchii denotă că au folosite ca părți componente ale unor seceri precum și de fragmente de *ground stone* găsite în strat și bordeie (KUIJT 1994, 86-93).

Toate aceste date referitoare la economia comunității de la Foeni pot să ne ofere informații asupra mediului natural. Astfel, chiar dacă inițial terenul ar fi fost acoperit de păduri, practicarea intensivă a agriculturii a necesitat terenuri noi care se puteau obține doar prin defrișări. De asemenea numărul mare vite pe care îl avea comunitatea necesita o anumită suprafață de pășune care, dacă nu a existat, trebuia să se dezvolte în detrimentul pădurilor. La toate aceste argumente se adaugă acțiunea asupra mediului înconjurător pe care au exercitat-o ovi-caprinele pe care le poseda comunitatea, care, prin apetența pentru frunze și lăstăriș, au contribuit semnificativ la reducerea arboretului din zonă. Totodată necesarul de lemn pentru construcția colibelor și pentru încălzit au determinat tăieri semnificative de copaci. Toate acestea au putut contribui la despăduriri a căror anvergură este presupusă a nu fi una neglijabilă.

C.4. Uneltele. Mediul geografic în care este situată locuirea neolitică timpurie de la Foeni-Sălaș, caracterizat prin depuneri sedimentare leosoide din pleistocen în care piatra lipsește cu desăvârșire, a determinat comunitatea de la Foeni să aducă materia primă de la mari distanțe. Studiile de specialitate au pus în evidență că uneltele de aici au fost confecționate din opal maroniu, silex, cuarț lăptos și obsidian, iar râșnițele din gresie (KUIJT 1994, 86-93). Dacă cuarțul ar putea proveni din sedimentele locale de pietriș situate sub sedimentele de loess, toate celelalte tipuri de roci nu se găsesc în sursele locale. Dintre materiile silicioase, procentual se remarcă ocurența silexului și a opalului. Astfel, silexul ar fi putut fi adus din zăcămintele aflate pe cursul superior al râului Bega, situate la peste 150 km spre nord-est, sau din straturile cretacee de lângă Belgrad (KUIJT 1994, 90); cele mai apropiate depozite de opal sunt în depozitele de calcare mezozoice cu accidente silicioase de la Silagiu, lângă Buziaș (LAZAROVICI, MAXIM 1995, 158). Pe lângă materiile prime menționate au fost descoperite și unelte din obsidiană. După aspectul său morfologic, caracterizat prin culoarea fumurie și aspect translucid,

obsidiana poate proveni din zona Tokay, situată la peste 400 km spre nord-vest.

Cercetările asupra utilajului litic de la Foeni au evidențiat și faptul că au fost găsite extrem de puține așchii și resturi rezultate de la prelucrarea prin cioplire a uneltelor. Acest fapt ne poate determina să considerăm că majoritatea uneltelor erau prelucrate primar fie în zona de proveniență a materiei prime, fie au fost aduse aici, prin intermediul rețelelor de schimb, gata prelucrate sau într-o formă semi-finită.

Toate aceste date arată în mod indubitabil faptul că locuitorii primului val agrar-pastoral de colonizare al Banatului erau implicați direct într-un sistem de schimb al materiilor prime și valorilor care se derula pe spații geografice largi (WHITTLE 2004, 17-18), fapt ce a contribuit decisiv la difuziunea culturală a neoliticului timpuriu și la accelerarea procesului de neolitizare a unor zone aflate mult în afara Banatului.

Din păcate, la acest stadiu al cercetărilor, nu putem preciza rolul jucat de comunitățile mezolitice care ar fi putut viețui în zonă în transmiterea materiilor prime deoarece, până în acest moment, la fel ca și în alte zone (BÁNFFY 2004, 344), nu au fost descoperite indicii privind existența unor astfel de comunități în partea de câmpie a Banatului. Studiul artefactelor litice de la Foeni nu au constatat, aidoma celor din Porțile de Fier (PĂUNESCU 1970, 36-37; 1979, 32; VOYTEK, TRINGHAM 1989, 492-499), influențe tipologice ale utilajului litic mezolitic/epipaleolitic, caracterizat de regulă, printr-un microlitism pronunțat. Acest lucru poate presupune fie absența în acest areal a unor astfel de comunități, fie o prezență redusă numeric care, atât în teren cât și în utilajul litic, nu a lăsat urme.

D. Concluzii

Neolitizarea Banatului este un proces unitar dar discontinuu particularizat la trei zone geografice: Porțile de Fier ale Dunării, regiunea muntoasă din sud-est și est și partea de câmpie din vestul provinciei.

Primele comunități agrar-pastorale sosesc în bazinul carpatic în ultimele secole ale mileniului al VIII-lea BP și fac parte integrantă din fenomenele culturale care au contribuit la neolitizarea Balcanilor. Această

primă migrație a dat naștere comunităților de la Gura Baciului I, Cârcea-Hanuri și Grădinile, Ocna Sibiului I, Donja Branjevina. În regiunea Porțile de Fier comunitățile mezolitice/epipaleolitice care au supraviețuit au intrat în contact cu noii veniți și, treptat, au primit influențe vizibile indicate de schimbările fundamentale petrecute în dieta oamenilor în care accentul s-a transferat gradual de la o hrană obținută în principal prin pescuit și vânătoare, la cultivarea cerealelor și domesticirea animalelor și producerea și folosirea ceramicii.

Partea muntoasă din răsăritul Banatului poate fi divizată în două zone. Prima dintre acestea este zona de sud-est, caracterizată de un relief muntos, cu platouri înalte, nu a fost locuită în neoliticul timpuriu, primii ei locuitori aparțin eneoliticului și s-au așezat pe culoarul Timiș-Cerna la sfârșitul mileniului al V-lea BC.

Cea de-a doua zonă este delimitată de culoarul Bistrei la sud, valea Timișului la vest, valea Begăi la nord și Munții Poiana Ruscă la est. Aceasta a fost locuită începând cu neoliticul timpuriu de purtătorii culturii Starčevo-Criș faza III, a căror așezări au fost situate pe terasele ce mărginesc cursurile superioare ale râurilor Timiș și Bega. Cu toate acestea, zona muntoasă propriu-zisă nu a fost implicată direct în procesul de neolitizare a Banatului.

Cea de-a treia regiune a Banatului este câmpia delimitată de dealurile vestice ale Munților Banatului și râul Tisa. Aceasta, alături de Porțile de Fier, dar nu la fel de bine studiată ca și aceasta, a fost cadrul principal al procesului de neolitizare. Primii agricultori au pătruns aici pe principalele cursuri de apă și s-au stabilit pe terasele joase din preajma lor sau pe brațele tributare acestora. În acest areal geografic oamenii au găsit din abundență terenuri fertile, vânat și animale acvatice, precum și o climă propice care a favorizat practicarea agriculturii și a înlesnit habitatul.

În câmpia vestică a Banatului, așezarea de la Foeni-Sălaș face parte din primul val de migrație al comunităților neolitice, fără a fi însă la fel de timpurie ca și locuirile de la Gura Baciului I și Donja Branjevina. Din punct de vedere cultural ea aparține purtătorilor culturii Starčevo-

Criș etapa Ic, iar cronologic se plasează în ultimele două secole ale mileniului al VIII-lea BP.

Așezarea de la Foeni este situată pe o zonă mai înaltă, înconjurată de lacuri sau mlaștini și are un caracter deschis, fără a fi fortificată. Zona, cu un excedent de umiditate determinat de inundațiile periodice ale Timișului și Begăi, a oferit omului hrană dar și protecție împotriva animalelor sălbatice sau a semenilor. De asemenea cursurile de apă au constituit căi de comunicație care le-au înlesnit legăturile cu alte comunități sau cu zonele de materii prime.

Locuințele din acest sit sunt reprezentate de bordeie cu o suprafață cuprinsă între 20 și 40 mp, dispuse circular în jurul unei locuințe centrale mai mari. În unele dintre aceste locuințe au fost găsite instalații de încălzire, ceea ce certifică faptul că așezarea a fost locuită mai mult de un sezon. Totodată, prezența unei locuințe dispusă central denotă posibilitatea existenței unei „case a tribului”, fapt ce ar presupune un anumit sistem de organizare socială. Dimensiunile relativ mici ale bordeielor sugerează existența unor familii mici, cu puțini membri, iar numărul redus al bordeielor care au fost identificate ne permit să apreciem că numărul locuitorilor se ridica la cel mult 100 de persoane.

Caracterul economiei este determinat, printre altele, de strategiile de subsistență. În cazul așezării de la Foeni, un loc important îl ocupă creșterea animalelor și pescuitul și este urmat de vânătoare. În acest cadru ocupațional nu a fost neglijată nici agricultura, fiind cultivate grâul (*Triticum monococcum* și *Triticum dicoccum*) și secara (*Hordeum vulgare*). Strategiile de obținere a hranei, axate pe creșterea ovicaprinelor și a vitelor și pe cultivarea pământului – și doar în subsidiar pe exploatarea resurselor acvatice – arată o economie tipic neolitică, fără influențe din partea unui ipotetic, dar posibil, fond mezolitic/epipaleolitic autohton. Această observație este subliniată și de absența unor astfel de influențe în domeniul utilajului litic și al credințelor magico-religioase. Totodată, nici preponderența exploatării animalelor acvatice în raport cu cele terestre, sălbatice,

care a fost constatată la Foeni, nu poate să constituie un argument în sprijinul ideii unor influențe mezolitice, deoarece această situație este dată de oportunismul omului de a exploata la cote optime resursele oferite de mediul înconjurător și nu reprezintă o trăsătură a unei economii mezolitice.

Proveniența materiilor prime litice din locuirea de la Foeni arată în mod elocvent faptul că locuitorii primului val agrar-pastoral de colonizare al Banatului erau implicați direct într-un sistem de schimb al materiilor prime și valorilor care se derula pe spații geografice largi, fapt ce a contribuit decisiv la difuziunea culturală a neoliticului timpuriu și la accelerarea procesului de neolitizare a altor zone.

În etapa imediat următoare, în jurul datei de 6900 BP, are loc o nouă migrație, marcată de așezările de la Foeni-Gaz, Timișoara-*Fratelia*, Unip, Biled, Dumbrăvița, Dudeștii Vechi, Perlez Batka „C” (MARINKOVIĆ 2006, 63-79), care desăvârșește colonizarea Banatului de câmpie. Aceștia le corespund, în Fortițele de Fier ale Dunării, locuirile de la Lepenski Vir III, Padina B-2, Gornea-*Locurile Lungi*, Dubova-*Cuina Turcului*. Din punct de vedere cultural, aceste comunități aparțin fazei IIA-IIB a culturii Starčevo-Criș și se încadrează în intervalul temporal 6900-6800 BP.

Bibliografie

- BÁNFFY Eszter
2004 *The 6th Millennium BC Boundary in Western Transdanubia and Its Role in the Central European Neolithic Transition*, VAH XV, Budapest.
- BIAGI Paolo, SPATARO Michaela
2004 *Noi datări cu radiocarbon în așezările culturii Starčevo-Criș din Banat și Transilvania (România)*, PB, III, p. 7-20.
- BIAGI Paolo, SHENNAN S., SPATARO Michaela
2005 *Rapid Rivers and Slow Seas? New Data for the Radiocarbon Chronology of the Balkan Peninsula*, in vol.: *Prehistoric Archaeology & Anthropological Theory and Education. Report of Prehistoric Research Projects* (eds.: L. Nikolova, J. Fritz, J. Higgings), 6-7, Salt Lake City - Karlovo, p. 43-51.

- BOLOMEY Alexandra
1973 *An outline of the late epipalaeolithic economy at the 'Iron Gates', the evidence on bones*, Dacia N.S., XVII, p. 41-52.
- BONSALL Clive *et alii*
2000 *Stable Isotopes, Radiocarbon and Mesolithic-Neolithic Transition in the Iron Gates*, DP, XXVII, p. 119-132.
2004 *Radiocarbon and stable isotope evidence of dietary change from the Mesolithic to the Middle Ages in the Iron Gates: new results from Lepenski Vir*, Radiocarbon, 46, p. 293-300.
- BORIĆ Dušan
1999 *Places that Created Time in The Danube Gorges and Beyond, c. 9000-5500*, DP, XXVI, p. 41-70.
- CIOBOTARU Dan
1998 *Plastica neolitică din așezarea de la Foeni-Sălaș (jud. Timiș)*, AnB S.N., VI, p. 73-82.
- CIUTĂ Marius-Mihai
2005 *Începuturile neoliticului timpuriu în spațiul intracarpatic transilvănean*, BUA XII, Alba Iulia.
- DRAȘOVEAN Florin
1989 *Observații pe marginea unor materiale inedite privind raporturile dintre culturile Starčevo-Criș, Vinča A și lumea liniară în nordul Banatului*, Apulum, XXVI, p. 9-48.
2001 *Early Neolithic Settlement at Timișoara-Fratelia*, in vol.: *Festschrift für Gheorghe Lazarovici* (ed.: Fl. Drașovean), BHAB XXX, Timișoara, p. 33-40.
2001a *The Neolithic Art in Banat*, Timișoara.
- DRAȘOVEAN Florin *et alii*
2004 *Cercetările arheologice preventive de la Dumbrăvița*, BHAB XXXIII, Timișoara.
- FĂRCAȘ Sorina, TANȚĂU Ioan
2004 *The Human Presence in Pollen Diagrams from Romanian Carpathians*, Antaeus, 27, p. 227-234.
- GAGA Lidia Maria
2004 *Norme sociale și atitudini individuale în obiceiurile de familie din Banat*, BHAB XV, Timișoara.
- GARAȘANIN Milutin, RADOVANOVIĆ Ivana
2001 *A Pot in House 54 at Lepenski Vir I*, Antiquity, 76, p. 118-125.
- GREENFIELD Haskel J.
2006 *Foeni-Sălaș: Early Neolithic intra-settlement special organization*, comunicare prezentată la Colocviul arheologilor din Banat, Pančevo.
- GREENFIELD H Haskel J., DRAȘOVEAN Florin
1994 *Preliminary Report on the 1992 Excavations at Foeni-Sălaș: An Early Neolithic Settlement in the Romanian Banat*, AnB S.N., III, p. 45-85.
- JOVANOVIĆ Borislav
1987 *Die Architektur und Keramik der Siedlung Padina B am Eisener Tor, Jugoslawien*, Germania, 65, 1, p. 1-16.
- JUHÁSZ Imola
2004 *Palynological Evidence of Preneolithisation in South-Western Transdanubia*, Antaeus, 27, p. 213-225.
- KALMAR Zoia, BAGOZKI C., LAZAROVICI Gheorghe
1987 *Cercetări etno-arheologice și sondaje în Munții Banatului*, Banatica, 9, p. 65-85.
- KARMANSKI S.
2005 *Donja Branjevina: an Early Neolithic Site near Odzaci in Vojvodina (Serbia)*, Societa per la Preistoria e Protoistoria della regione Friuli-Venezia Giulia, Quaderno 10, Trieste.
- KUIJT Ian
1994 *Foeni, Romania, 1992 Preliminary Report: Analysis of Chipped Tools*, AnB S.N., III, p. 86-93.
- LAZAROVICI Gheorghe
1983 *Neoliticul timpuriu din zona Porțile de Fier (Clisură)*, Banatica, 7, p. 9-34.
1996 *The Proces of the Neolithisation and the Developement of the First Neolithic Civilizations in the Balkans*, in vol.: *The Neolithic in The Near East and Europe, Colloquium XVII*, Forli, p. 21-38.
1998 *About the Neolithisation Process of the Second Migration of The Early Neolithic*, in vol.: *The Late Neolithic of the Middle Danube Region* (ed.: Fl. Drașovean), Timișoara, p. 7-37.
2006 *The Anzabegovo-Gura Baciului Axis and the First Stage of the Neolithization Process in Southern-Central Europe and the Balkans*, in vol.: *Homage to Milutin Garašanin* (eds.: N. Tasić, C. Grozdanov), Belgrade, p.111-158.
- LAZAROVICI Gheorghe, MAXIM Zoia
1995 *Gura Baciului. Monografie arheologică*, BMN XI, Cluj-Napoca.
- LAZAROVICI Gheorghe, RESCH Friedrich E., GERMANN Karl
1981 *Așezarea preistorică de la Unip*, AnB S.N., I, p. 13-20.
- MARINKOVIĆ Snezana
2006 *Starčevo Culture in Banat*, in vol.: *From Starčevo to Vinča Culture*, Zrenjanin,

- p. 63-79.
- NICA Marin
 1977 *Nouvelles données sur le néolithique ancien d'Olténie*, Dacia N.S., p. 13-53.
 1981 *Grădinile, o nouă așezare a neoliticului timpuriu în sud-estul Olteniei*, AO S.N., I, p. 27-39.
- PAUL Iuliu
 1995 *Vorgeschichtliche Untersuchungen in Siebenbürgen*, Alba Iulia.
- PĂUNESCU Alexandru
 1970 *Evoluția uneltelor și armelor de piatră cioplită descoperite pe teritoriul României*, București.
 1979 *Cercetările arheologice de la Cuina Turcului-Dubova (jud. Mehedinți)*, Tibiscus, 5, p. 11-56.
- RADOVANOVIĆ Ivana
 1996 *The Iron Gates Mesolithic*, Ann Arbor.
 1996a *Mesolithic/Neolithic Contacts: A Case of The Iron Gates Region*, DP, XXIII, p. 39-48.
- SPATARO Michaela
 2003 *Scientific Study of Ancient Pottery Production: A Case-Study from the Early Neolithic Site of Foeni Gaz (Timiș County, Romania)*, PB, II, p. 7-26.
- SREJOVIĆ Dragoslav
 1969 *Lepenski Vir. Doba praistorijska kultura u Podumavlju*, Beograd.
 1979 *Protoneolit-kultura Lepenskog Vira*, PJZ, II, p. 33-76.
 2003 *Early Neolithic man and the riparian environment in the Carpathian Basin*, in vol.: *Morgenrot der Kulturen. Frühe Etapen der Menschheitsgeschichte in Mittel- und Südosteuropa* (eds.: E. Jerem, P. Raczky), Budapest, p. 53-60.
- SÜMEGI Pál
 2004 *Environmental Changes under the Neolithisation Process in Central Europe. Before and After*, Antaeus, 27, p. 117-127.
- TROGMAYER Ottó
 1989 *Frühneolithische Importgegenstände aus dem Marosmündgebiet*, in vol.: *Neolithic of Southeastern Europe and its Near Eastern Connections* (ed.: S. Bökönyi), VAH, II, Budapest, p. 311-316.
 2003 *Röszke-Ludvar*, OL, 5, p. 8-20.
- VOYTEK Barbara, TRINGHAM Ruth
 1989 *Rethinking the mesolithic: the case of South East Europe*, in vol.: *Mesolithic in Europe* (ed.: C. Bonsall), Edinburgh, p. 492-499.
- WHITTLE Alasdair
 2004 *Connections in the Körös Culture World: Exchange as an Organising Principle*, Antaeus, 27, p. 17-26.
- WHITTLE Alasdair et alii
 2002 *In the beginning: new radiocarbon dates for the Early Neolithic in northern Serbia and south-east Hungary*, Antaeus, 25, p. 65-117.
 2005 *New Radiocarbon Dates for the Early Neolithic in Northern Serbia and South-East Hungary: Some Omissions and Corrections*, Antaeus, 28, p. 347-355.
- ZĂVOIANU Ion, ARDELEAN Victor
 1979 *Județul Timiș*, București.

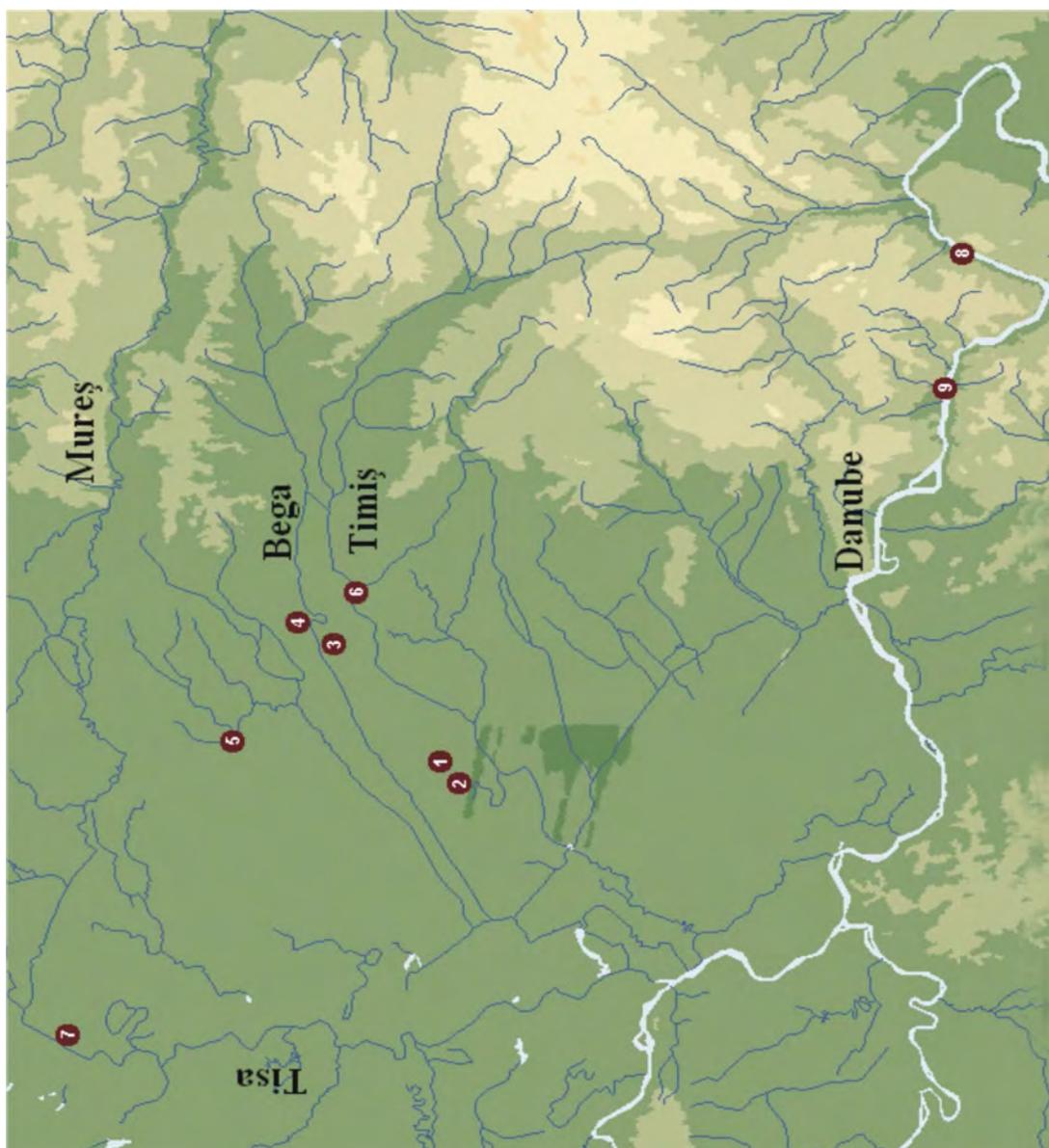


Fig. 1. Harta cu cele mai vechi așezări neolitice din Banat. 1: Foeni-Sălaș; 2: Foeni-Gaz; 3: Timișoara-Fratelia; 4: Dumbrăvița; 5: Biled; 6: Unip; 7: Rösztke-Ludvar; 8: Dubova-Cuina Turcului; 9: Gornea-Locurile Lungi.



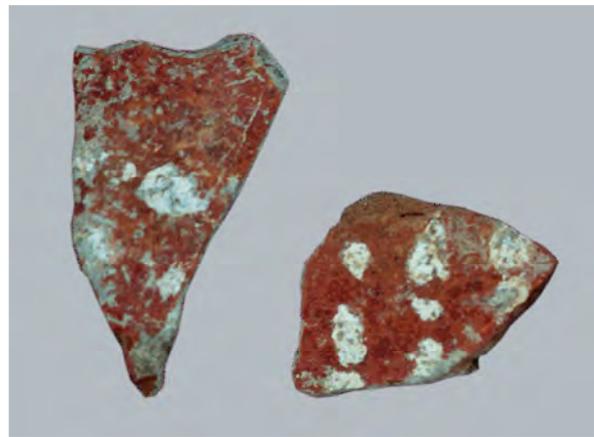
1



2



3



4



5



6

Fig. 2. Cultura Starčevo-Criș, faza Ic. Foeni-Sălaș. 1: ceramică monocromă; 2: ceramică monocromă decorată cu impresiuni; 3: ceramică monocromă decorată cu impresiuni și caneluri; 4: ceramică pictată cu buline de culoare albă; 5-6: statuete zoomorfe.

ON VĂDASTRA HABITATION IN SOUTHERN ROMANIA: CONTEXT AND RESULTS FROM THE TELEORMAN VALLEY

PAVEL MIREA*

Keywords: *Neolithic, Vădastra, Teleorman Valley, pit-features, pottery.*

Cuvinte cheie: *neolitic, Vădastra, Valea Teleormanului, gropi, ceramică.*

Abstract. *This study presents recent data regarding the presence of the Vădastra culture east of the Olt River, in an area where few discoveries of this kind were known. The researches carried out on the Teleorman Valley, at Măgura-Buduiasca, were first taken into account. As a result of the archaeological excavations that were accomplished between 2001 and 2005, as well as the analysis performed on the archaeological complexes and the inventory, there could be noticed some characteristics specific to the Vădastra habitation and the paleoeconomy of these communities.*

Rezumat. *Acest studiu își propune să prezinte date recente legate de prezența culturii Vădastra la est de Olt, într-o zonă în care erau cunoscute puține descoperiri de acest fel. Au fost avute în vedere, în primul rând, cercetările efectuate pe Valea Teleormanului, la Măgura-Buduiasca. În urma descoperirilor de aici, din perioada anilor 2001-2005, dar și a analizelor efectuate asupra complexelor arheologice și a inventarului acestora, au putut fi observate unele caracteristici specifice locuirii Vădastra și paleo-economiei acelor comunități.*

The purpose of this study is to unfold recent data regarding the presence of the Vădastra culture east of Olt River, taking into account the archaeological research on the Teleorman River's Valley, carried out as part of a Romanian-British project, entitled SRAP¹.

The „Vădastra culture” appellative, typical to the eastern Oltenia, was first mentioned in the literature in 1932 (NESTOR 1932, 56-57), based on the discoveries from the Vădastra settlement situated west of Olt. There, at *Măgura Fetelor*, the first Vădastra discoveries were made by Cezar Bolliac, between 1871 and 1873. The archaeological

excavations continued in 1926 under the supervision of Vasile Christescu (CHRISTESCU 1933, 167-225) and later, in 1934, of Dumitru Berciu (BERCIU 1937, 2). Most of the Vădastra settlements were known in the south-eastern Oltenia (Fig. 1). Some of them were archaeologically researched: Vădastra (MATEESCU 1959, 61-73; 1959a, 107-115; 1961, 57-62; 1962, 187-191; 1970, 67-75; 1971, 19-23), Crușovu (MATEESCU 1957, 103-113), Hotărani (BERCIU 1966, 93-98; NICA 1971, 5-33), Fărcașu de Sus (NICA 1970, 31-52), Vlădila and Piatra Sat (NICA, CIUCĂ 1989, 29-41) and continued the list of those discovered in the inter-war period: Orlea, Frâsinetul de Pădure, Reșca, Corabia, Celei, Șimnic, Bratovoști (BERCIU 1939, 34).

The discoveries east of the Olt River have convinced some researchers to consider that the Vădastra culture's area of spread is wider than the territory between the Jiu River and the Lower Olt and covers a zone that stretches from the Călmățui Valley to the Vedea Valley (BERCIU 1961, 53; FLORESCU, DAICOVICIU, ROȘU 1980, 12;

* Teleorman County Museum, Alexandria, e-mail: pavelcmirea@yahoo.com

¹ The project has been funded by the British Academy, the Society of Antiquaries of London, the Cardiff University, the Romanian Ministry of Culture and the Teleorman County Council and has been directed by PhD Douglass W. Bailey, Head of Archaeology and Conservation, Cardiff University and PhD Radian-Romus Andreescu, researcher with the National History Museum, Bucharest.

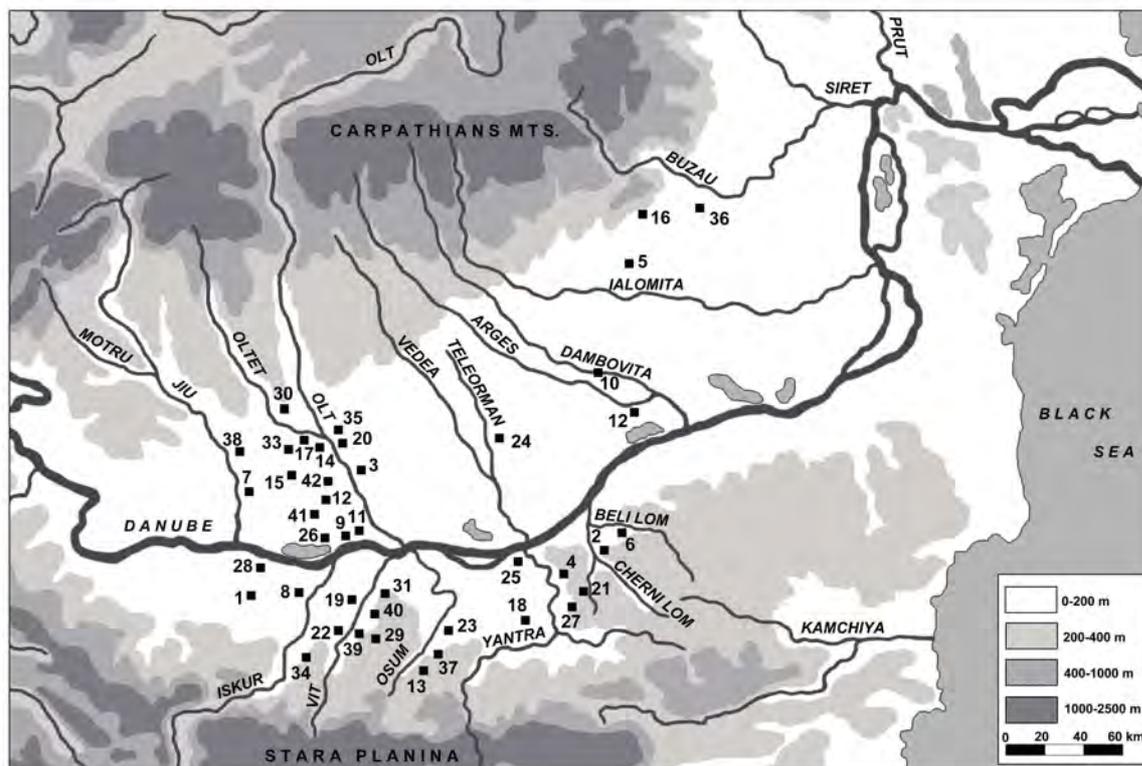


Fig. 1. Vădastra discoveries in the Danubian basin.

1. Altimir; 2. Baniska; 3. Beciu; 4. Bistrentsi; 5. Boldești-Grădiște; 6. Borovo; 7. Bratovoiești; 8. Brenitsa; 9. Celei; 10. Chitila; 11. Corabia; 12. Crușovu; 13. Devetaki; 14. Fărcașu de Sus; 15. Frâsinetu de Pădure; 16. Ghinoaica; 17. Hotărani; 18. Hotnitsa; 19. Iasen; 20. Ipotești; 21. Koprivets; 22. Krushovitsa; 23. Krushuna; 24. Măgura; 25. Novgrad; 26. Orlea; 27. Orlovets; 28. Ostov; 29. Peturnitsa; 30. Piatra Sat; 31. Pleven; 32. Radovanu; 33. Reșca; 34. Ruptsi; 35. Slatina; 36. Sudiți; 37. Suhindol; 38. Șimnic; 39. Todorovo; 40. Turnene; 41. Vădastra; 42. Vlădila.

DUMITRESCU, VULPE 1988, 34; URSULESCU, PETRESCU-DÎMBOVIȚA, MONAH 2001, 149).

The presence of the Vădastra culture was postulated at least for the western Muntenia, even though the researches had no revealed significant artifacts that could be connected to this culture nearer than the eastern bank of the Olt River, first at Slatina (BERCIU, BUTOI 1961, 139-142; BUTOI 1973, 139) and Ipotești (COMȘA 1962, 217; 1973, 35-36) and later at Beciu (MIREA 2005, 78, 92).

The pottery uncovered in the settlement of Radovanu II, along the Argeș River, which was attributed by the author of the researches to a local „facies”, named *Radovanu II*, chronologically situated between the end of the Boian-Bolintineanu phase and the beginning of the Boian-Giulești phase (COMȘA 1977, 327), could belong, stylistically speaking, to the Vădastra style. Moreover, the discoveries at Chitila-*Fermă*

were attributed to the same culture, whose spread could be much wider, on a territory south of Carpathians, from the Jiu to the eastern Romanian Plain, in the hilly area and the Buzău Plain (BORONEANȚ 2005, 49-50, 60-61). From this point of view, we mention the discoveries of some Vădastra pottery fragments with excised decoration at Boldești-Grădiște, Ghinoaica and Sudiți. If we are to consider the first one as an isolated discovery, the two later ones revealed Vădastra materials mixed with Dudești and Boian-Bolintineanu pottery. Victor Teodorescu noticed the presence of several ceramic fragments with a typical Vădastra I / Dudești decoration of some Bolintineanu archaeological complexes (FRÂNCULEASA 2007, 30).

The Vădastra settlement at Măgura-Buduiasca was first attested in 2001 when the diggings revealed pottery fragments



Fig. 2. The Teleorman Valley at Măgura-Buduiasca.

with excised decoration at an archaeological level seriously disturbed by post-Neolithic interventions. The archaeological excavations carried out in the following years (2002-2005) led to the discovery of some complexes with Vădastra finds (ANDREESCU, BAILEY 2002, 195-199; 2003, 189-190; 2004, 184-189).

On the origins of the Vădastra culture several theories, rather contradictory, have been expressed in course of time. On the one hand, Dumitru Berciu considered that it arose on an ancient Vinča foundation and some LBK influences (BERCIU 1961, 56-57). Later, he emphasized the idea that it was the Dudești culture that established its basis (BERCIU 1966, 93-98). On the other hand, unlike Dumitru Berciu, Corneliu Mateescu considered that the origins of the Vădastra culture should be sought within the Starčevo-Criș culture.

Marin Nica expressed an other theory on the origins of the Vădastra culture. Based on typological observations on the pottery and stratigraphical facts of the new sites, he showed that the Vădastra culture was created on the basis of the Dudești culture, with LBK influences, and that certain Starčevo-Criș elements were transferred to the Vădastra culture by the Dudești cultural background (NICA 1970, 50; 1997, 107). Vladimir Dumitrescu also showed that Vădastra culture has in its origins characteristics of the

Dudești culture of Oltenia and Western Muntenia and belongs to the cultural group with black pottery (DUMITRESCU, VULPE 1988, 34).

In a first attempt to divide Vădastra culture into periods, based on the observations on the site from *Măgura Fetelor*, it has been concluded that the Vădastra II layer overlaps the Vădastra I layer (BERCIU 1937, 1-7; 1961, 51). At that point in the research there was a strong conviction that those two layers consisted of materials from two different cultures. It was Dumitru Berciu who proposed a different division into periods, based on the new discoveries from Vădastra. He stated that Vădastra I and Vădastra II shouldn't be regarded as two different cultures but a single one whose evolution emphasizes at least four main phases (Vădastra I, II, III, and IV), that haven't been yet stratigraphically proved (BERCIU 1961, 51-53; 1966, 96-97).

Sebastian Morintz divided Vădastra culture into two phases, the second one being subdivided into two stages (MORINTZ, CANTACUZINO 1963, 53). Later, Corneliu Mateescu came to a similar conclusion, based on the stratigraphical information from the Vădastra and Crușovu sites (MATEESCU 1961, 58; 1970, 70).

As a result of the diggings from

Fărcașele, Hotărani, Piatra Sat and Vlădila, Marin Nica reconsidered the theory of the division of Vădastra culture into four phases, each one having two stages, considering excised decoration of the pottery rather than the stratigraphic meaning of the archaeological complexes (NICA 1971, 5-33; 1997, 106-116; NICA, CIUCĂ 1989, 17-41).

In commenting on the evolution of Vădastra culture, Eugen Comșa believed that it was a complicated issue and covered a long period, corresponding to the entire progression of the Boian culture. He agrees with the existence of several phases, without mentioning their number and characteristics (COMȘA 1987, 48-49). Regarding the Vădastra I, he expresses the idea that it belongs to a late phase of the Dudești culture, partly synchronous with the Bolintineanu phase of the Boian culture. In fact, the beginning of the Vădastra culture coincides with the Vădastra II phase and it is connected to the adoption of the excised decorated ware (COMȘA 2000, 300). The author puts forward the hypothesis that the Vădastra II phase represents a regional version of the Boian culture, synchronous with the Boian-Giulești phase and partly with the Boian-Vidra phase (COMȘA 1955, 427). The idea developed, showing that the Boian-Giulești elements („characterized by the excision technique used at the decoration of the pottery”) in combination with the Bolintineanu typical elements and the local Dudești background, led to the creation, on a small area, of a local version of the Boian culture, the Vădastra culture (COMȘA 2000, 302-303).

According with the materials discovered at Chitila-*Fermă*, near București, Vasile Boroneanț, who carries out the research, considers that the Bolintineanu stage is non-existent and the finds should be connected to a regional easterly feature of the Vădastra culture (BORONEANȚ 2005, 60-61).

As a result of the archaeological diggings at Vădastra and other settlements in Oltenia, several scholars have established an approximate chronology of the Vădastra culture, by using a complicated system of similarities established between the nearer or remote cultural regions and based on the analysis of shape and decoration of pottery

fragments rather than stratigraphical facts (MATEESCU 1959, 66; 1959a, 112; MORINTZ, CANTACUZINO 1963, 51, Tab.16; NICA 1971, 32; 1997, 107; COMȘA 1977, 327; NEAGU 2003, 147).

Some opinions suggest the idea that there is an indisputable presence of Vădastra south of the Danube, in the central-northern Bulgaria (Fig. 1). From the stratigraphical point of view, the four phases of the Vădastra culture, as were defined by Dumitru Berciu and Marin Nica, haven't been proven. Considering the present state of the research, the Vădastra typical materials discovered here have been divided into two chronological groups, based on formal analysis. The first one, an early stage, shows similarities to the Vădastra I and Vădastra II materials from Oltenia. The pottery from the second one, a late stage, resembles Vădastra III and Vădastra IV ware (NAIDENOVA 2005, 43). The discoveries from the Brenitsa settlement (TODOROVA, VAJSOV 1993, 111), have been attributed by Bogdan Nikolov to an „original culture”, making connections with the Vădastra II and Boian-Giulești materials from the North of the Danube (NIKOLOV 1986, 17). Vencislav Gergov also considers that the settlements from these areas are part of a local cultural phenomenon of the late Neolithic, naming it „the Brenitsa culture” which is related to the Vădastra and Boian cultures (GERGOV 2000, 397-400; 2001, 30).

Regarding the chronological division of the Vădastra discoveries in the Teleorman Valley, based especially on formal analogies, they date back to an early stage², corresponding to Vădastra I attested west of the Olt River (ANDREESCU, BAILEY 2002, 195-199; 2003, 189-190). Even though the archaeological research has revealed an horizontal stratigraphy at Măgura-Buduiasca, there are some cases where it has been found that Vădastra complexes overlay early-stage Dudești ones.

Concerning the geographical position of the Vădastra settlements in the western Muntenia one can only make general assessments.

² Several ¹⁴C samples taken from in the Vădastra contexts at Măgura-Buduiasca are now being analyzed at the Oxford University.

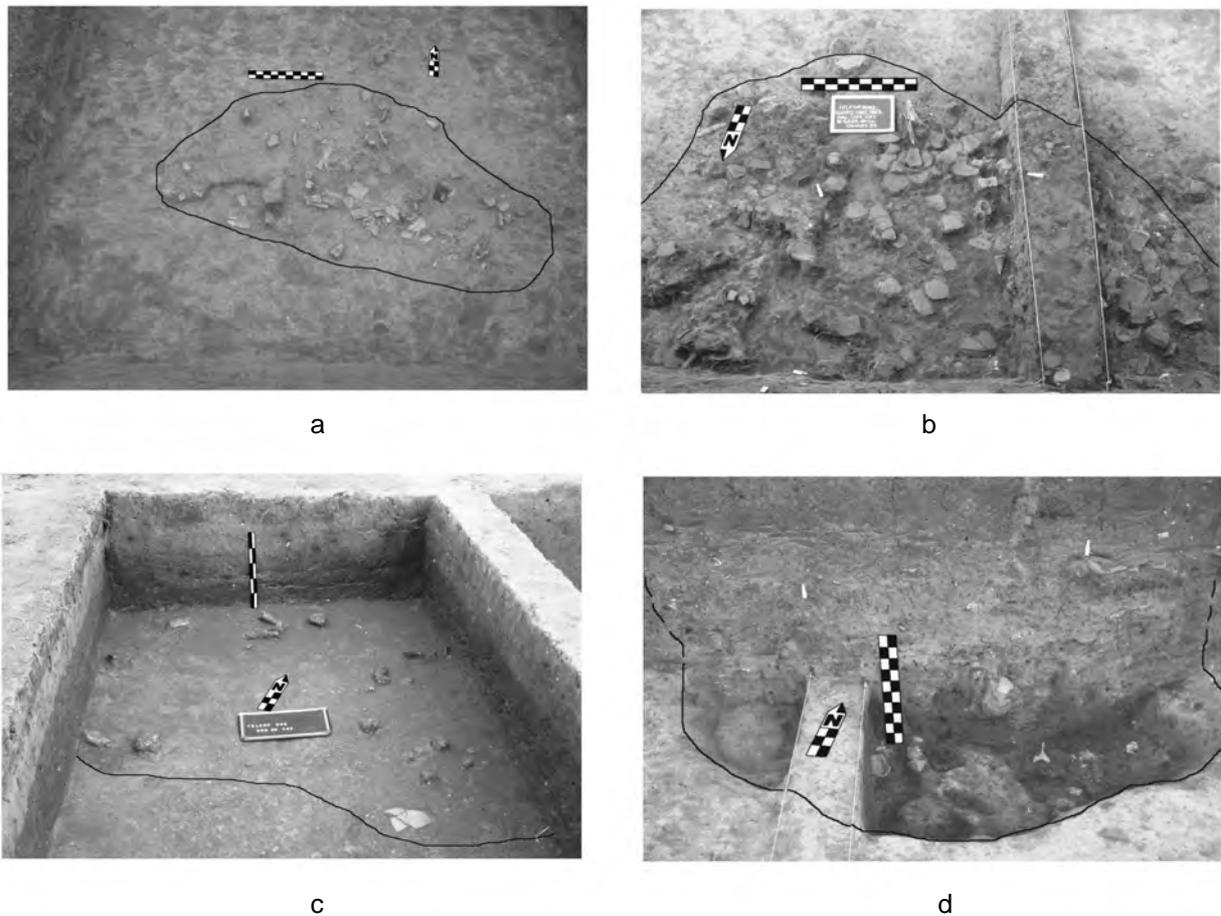


Fig. 3. Vădastra complexes from Măgura-Buduiasca.

The investigated settlements at east of the Olt River (Slatina, Ipotești and Beciu) are situated on high terraces. At Măgura-Buduiasca the only site that was systematically researched, the settlement seemed to be situated on the low terrace of the Teleorman River and the archaeological complexes stretched on a surface of about 600 m on the east-west axis and 300 m on the north-south axis (Fig. 2).

The complexes attributed to the Vădastra culture are usually represented by pits of different shapes and sizes. Those elements that could define best their functions (pit-houses, refuse-pits etc.) are missing in most of the cases. Some of them consist in simple shapes, almost circular or oval, with diameters and depths of no more than 2.80 m and 0.40 m, respectively. Others are oval or almost circular, with a maximum diameter of 2.00 m and depths between 0.60 and 1.00 m.

There is only one case where the

archaeological remains can indicate a approximate 5 sq.m wide agglomeration of daub and pottery fragments. No remarks were possible, the dwelling being seriously disturbed by a post-Neolithic habitation. The inventory of the researched complexes is similar. Among them, we mention ceramic fragments, animal bones, pieces of tools or the entire objects (of flint, stone or bone), fired daub and hearth fragments, in different quantities (ANDREESCU, BAILEY 2003, 190; 2004, 185-186; 2005, 225-226). Neither the micro-survey, nor the examination of the distribution of the archaeological materials from the researched complexes that were considered to be domestic pits, can confirm this fact. Certain social customs should be taken into account, which contributed to this creation of „store places” (CHAPMAN 2000). The massive daub fragments, some of them carrying wooden prints, but also the large hearth fragments discovered in the filling of the pits, therefore situated in a secondary position,

would imply the existence of surface dwellings, probably in the wide area.

Among other materials, two fragments of human bones were discovered in two complexes. Their presence in no funeral contexts, noticed in several complexes at Măgura, Vădastra types as well as Starčevo-Criș and Dudești, raised a series of controversies concerning certain social customs (LAZĂR, SOFICARU 2005, 231).

The absence of surface dwellings and the aggregation of some domestic complexes could suggest the existence of such areas, if not at the periphery of the settlement, probably at certain distances from the dwelling areas (ANDREESCU, BAILEY 2005, 224). This seems to characterize the early and developed Neolithic stages in the western areas of the Balkans and the region of the Lower Danube where this settlement type, wide in surface, with oval or circular half-sunken structures and sometimes even with surface constructions resembling temporary dwellings, are typical (BAILEY 2000, 62). It is most likely that many of the social and economic activities developed outside the settlement, their archaeological traces being difficult to track (BAILEY 2000, 265).

Understanding the paleo-economy of the Vădastra communities in this part of Muntenia depends on the extent of the researches. Most of the animal bones assemblages are now being analyzed. That is why all the information concerning the animal breeding can only create a general view on the issue. We mention that for the moment *Bos taurus* prevails (BĂLĂȘESCU, RADU, MOISE 2005, 185).

The paleo-botanical Vădastra samples are now being analyzed and, for that reason, they are no references to the nature of the crops that were grown. Parts of some compound tools, such as sickles (flint blade fragments with a specific gloss on certain parts), grinders, and sandstone crushers (that were probably used also for crushing the cereal grains) and fragments of horn tools (mattocks and dibbles) represent indirect evidence.

Various flint tools have been discovered at Măgura-Buduiasca, in Vădastra contexts (Fig. 4). The typological analysis of the items

discovered in a complex, illustrates the fact that the finished products exist in a proportion of almost 40% and most of them are blades, in fragments of blades and scrapers. Other kinds of tools represent isolated cases, such

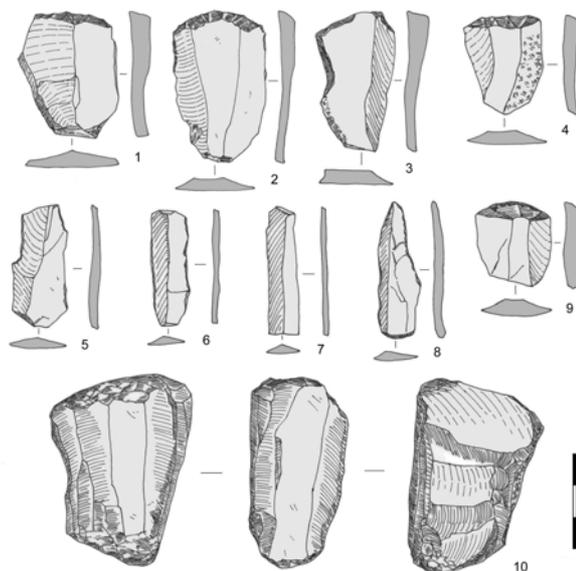


Fig. 4. Various flint tools.

as a reworked flake, an awl and a sickle blade. The presence of the flakes in a proportion of over 50%, the percussors and the cores in large number (almost 8%), suggest the possibility that they were manufactured on the spot. The items are made especially of flint stone with nuances that range from grey and yellowish-grey to brown and black-grey (73%). In lower proportions, there are yellowish-cream and yellowish-brown colored pieces. Three tools of polished stone made, three flat, trapezoidal small chisels have also been discovered in the same complex (Fig. 5).

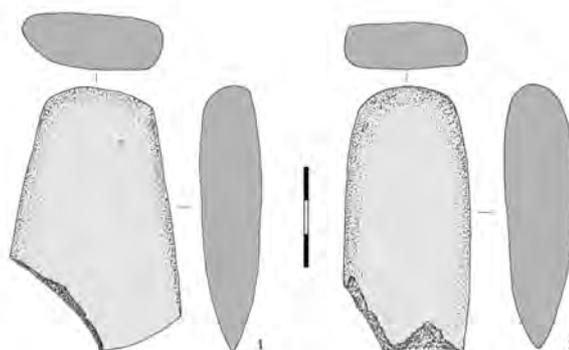


Fig. 5. Stone chisels.

The only piece that has remained from one of them is its proximate segment. Three sandstone grinder fragments and a weight made of the same mineral represent the lithic inventory. Grinder fragments and a cylindrical sandstone rubber have been identified in some other complexes. The items have oval or rectangular shapes, their useful part being flat or slightly widened. One of the pieces of this kind has a circular dimple on one side. Another complex contained three grinder fragments, three fragmented sandstone rubbers and a stone weight (Fig. 6).

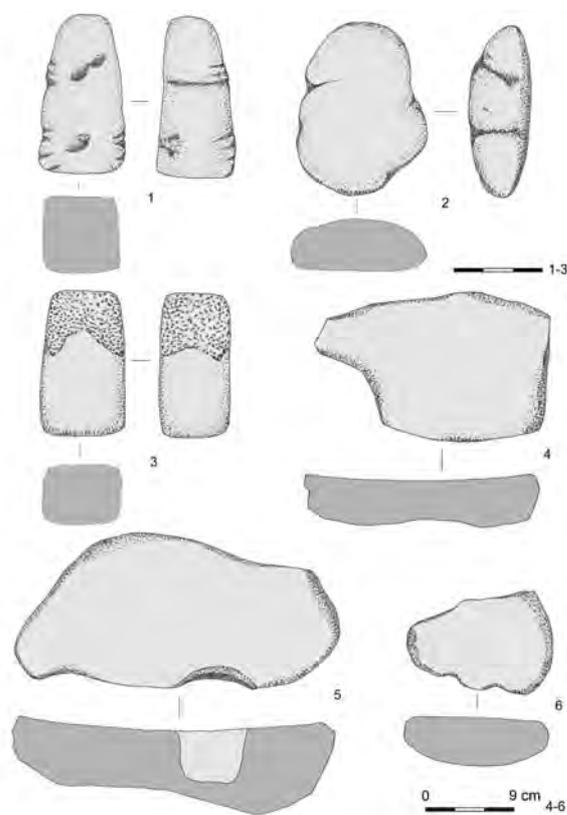


Fig. 6. Various stone tools.

Among the finds at Măgura-Buduiasca, there are bone and horn tools, almost fragmented. From the first category we may mention the spatulas, the lutes and the awls (Fig. 7). It wasn't possible to reconstruct the *chaînes opératoires*, but it has been noticed that the majority of the pieces are made of half rib fragments and cattle and sheep/goat metapodes. As a polisher, a *Bos taurus* astragal was probably used, the traces on one side indicating this function.

Tools like mattocks and dibbles were

manufactured of deer horn. The bone and horn made tools were used during certain occupations and domestic activities: processing and assembling leather and textile

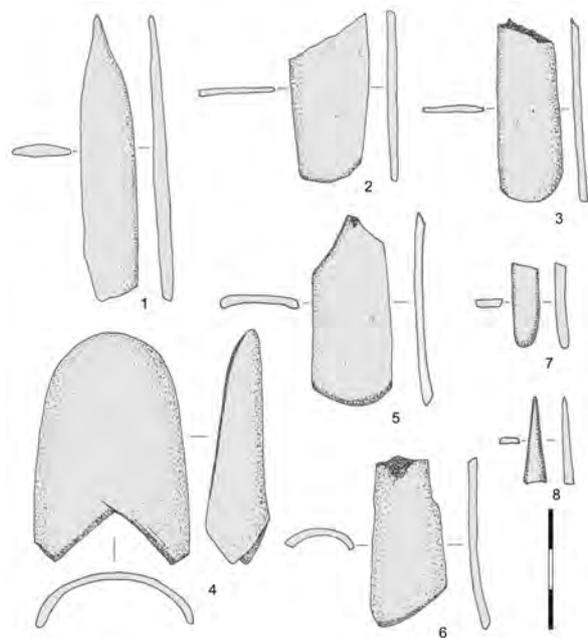


Fig. 7. Various bone tools.

materials, knitting vegetal and animal fibers processing wood, cooking meals, but also works like cultivating plants. The category of bone items also includes certain adorning objects, like a bracelet fragment of *Spondylus* and two perforated astragals³.

The Vădastra pottery is recognized especially by its specific ware category decorated by the excision technique; that is considered the „guiding fossil”. The pots, decorated with spirals, meanders, triangles series of rhombuses arranged in various types of combinations, and with white filling are real masterpieces (Fig. 8). It has been considered, with good reason, that beside the painted pottery of the Cucuteni culture, the Vădastra pottery represents perhaps the highest expression of pottery art of all the European Neolithic period (DUMITRESCU 1968, 20-21).

³ Ph.D. Adrian Bălășescu and Ph.D. Valentin Radu, from the „Alexandra Bolomey” National Centre of Pluridisciplinary Researches of the National History Museum of Bucharest, to whom we express our gratitude, have accomplished the lab determinations.

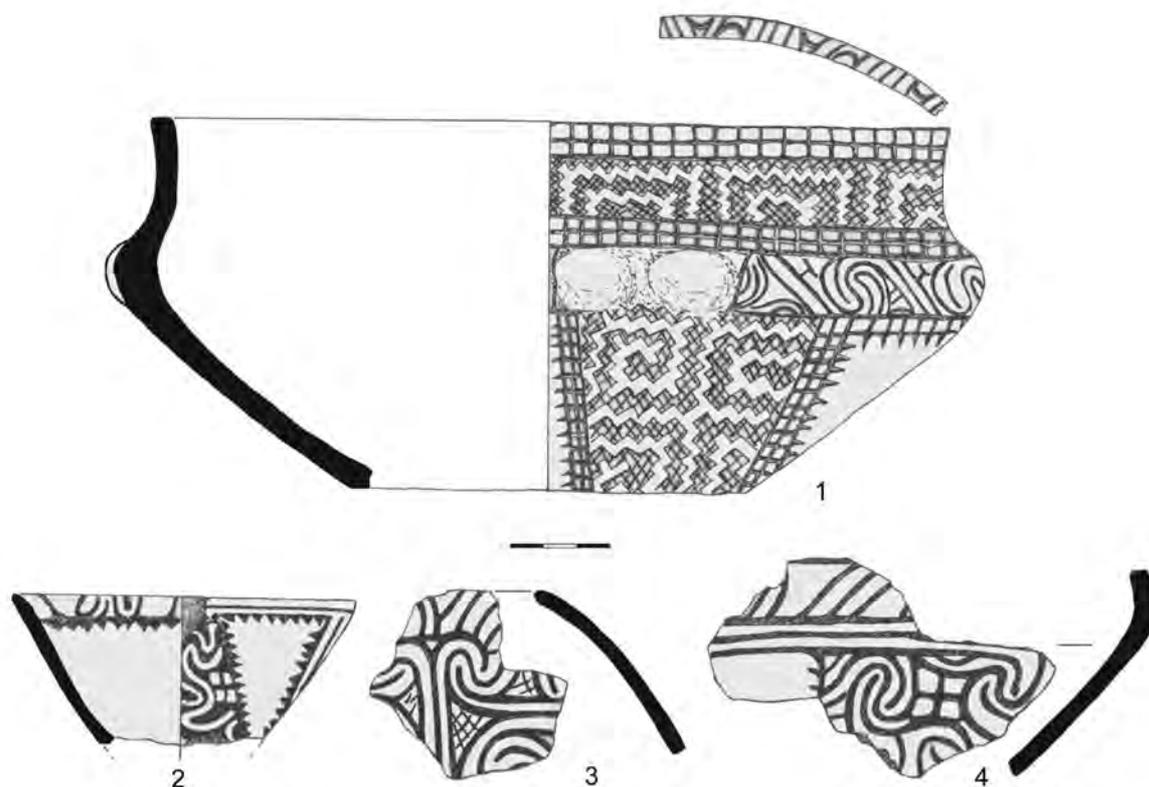


Fig. 8. Vădastra excised decorated pottery.

Published articles have regularly presented this category of special ceramics, references to the other types being indirect, or even ignored (MATEESCU 1957, 103-113; 1959, 61-71; 1959a, 107-114; 1961, 57-60; 1962, 187-190; 1970, 67-75; 1971, 19-23; NICA 1970, 31-51; 1971, 5-32; NICA, CIUCĂ 1989, 17-41). The study performed on an assemblage of pottery from Măgura-Buduiasca revealed interesting data. From the amount of 2536 ceramic fragments only 113 can be attributed to that special category decorated by the excision technique (4.4%). Only 25% of all the ceramic fragments are decorated by different techniques (incision, flute, clay slip, impressions and painting after firing). Regarding the method of surface treatment, it can be noted that the coarse ceramics with rough surface prevail (76%), and it is followed by the fine, burnished ones (13%), and by the ceramics with smooth surfaces (11%).

The Vădastra pottery was handmade, by using the coiling technique. As a result of the preliminary analysis, it has been presumed that the clay contained sand and

organic material (chaff), separately or in differently mixed proportions, used as a degreasing substance. The microscope detailed study was performed on a total of 800 ceramic fragments, from three pits. The clay contained mineral inclusions (quartz, iron oxides and limestone silt) as well as organic fibers. The color of the pottery fragments on the outside (ranging from light brown and reddish brown to different shades of grey) and in the middle suggests that the pots had been fired at a temperature of about 750° C. In order to identify possible sources of clay, several samples of clay were taken from the surrounding area of the settlement in the Teleorman Valley and the Clănița Valley (a tributary of the Teleorman River). The samples have been tested to establish their plasticity and firing degree. The conclusion was that the pottery was most likely produced by using local clay. The samples displayed the same kind of mineral inclusions and colour shades after firing (VAN AS, JACOBS, THISSEN 2005, 63-67).

The Vădastra pottery forms were divided into open and closed forms and in special shapes (Fig. 9). The closed types are represented by vessels with curved walls and rounded rims, amphora-shaped vessels with cylindrical neck, bi-conical-shaped ones. From the open shaped category we may mention the cups, the bowls and the dishes. The cups

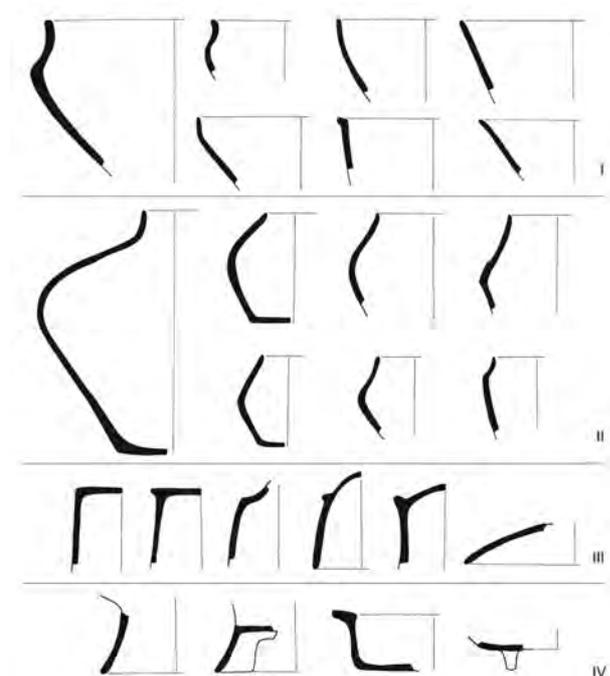


Fig. 9. Vădastra pottery shapes.

had, in some cases, a rectangular leg, empty on the inside, with rectangular fenestration. The bowls can be conical or carinated. The special shapes comprise a varied range of lids, cylindrical with a flat calotte, with or without margins, with slightly curved walls and a semispherical calotte. The rectangular vessels, having disc-shape knobs at corners and four legged vessels of Karanovo III tradition⁴, complete the list of the special shapes. Regarding the decoration, it should be outlined that the coarse pottery has a clay slip decoration (patterned barbotine) associated with finger-impressions, alveolar

bands and buttons. The clay slip forms vertical lines and waves. The decoration produced with the „small broom”, has a similar disposition. This kind of decoration can often be found with the vessels with curved walls and rounded rim. The excised decoration is illustrated by zigzag girdle, limited by hatched strips, broken lines, and double-opposed spirals, rhombus and rectangles, all creating vertical rows that define the decoration register. The white filling and the red painting created a special colour effect, increased by the contrast between the paste and the vessel’s surface which is dark shaded in most of the cases.

The fine burnished pottery is usually decorated with vertical, horizontal, oblique or spiral *plissé* patterns on the shoulder and on the superior half of the pot’s body, sometimes in combination with circular or triangular impressions and flutes, forming horizontal or oblique angles on its neck.

As a result of the fabric analysis performed on certain pottery assemblages discovered at Măgura-Buduiasca that belonging to the entire Neolithic sequence in the area (Starčevo-Criș, Dudești and Vădastra), it has been found that there was technological continuity. In time, only the pottery shape and decoration changed (VAN AS, JACOBS, THISSEN 2004, 126; 2005, 67). Furthermore, the technology of the Boian and Gumelnița pottery, discovered in settlements of the surrounding area, resembles the techniques used during the preceding periods (VAN AS, JACOBS, THISSEN 2006, 143-146).

Various fragments of anthropomorphic figurines and a piece of an anthropomorphic lid have been discovered in Vădastra contexts (ANDREESCU 2007, 56-57) (Fig. 10). One figurine head is oval and thinned out and has a schematic face, red painted. Other two fragments, busts of figurines are similar from the morphological point of view but have different sizes. Their bodies are oblates, the arms out-stretched and breasts represented by two little conical prominences, one of them having a vertical perforation. A fourth fragment has the sexual triangle represented by an incised line, red filled. A leg fragment is decorated with different geometrical patterns, widely incised. The anthropomorphic lid

⁴ The massive presence of the traditional elements of Karanovo III: vessels with four or five legs, handles with cylindrical or disc-shape knobs and triangular and rectangular “cult tables” (ANDREESCU, BAILEY 2003, 189-190; 2004, 184-189) in the previous Neolithic sequence („early Dudești”) revealing the relations with the area south of the Danube.

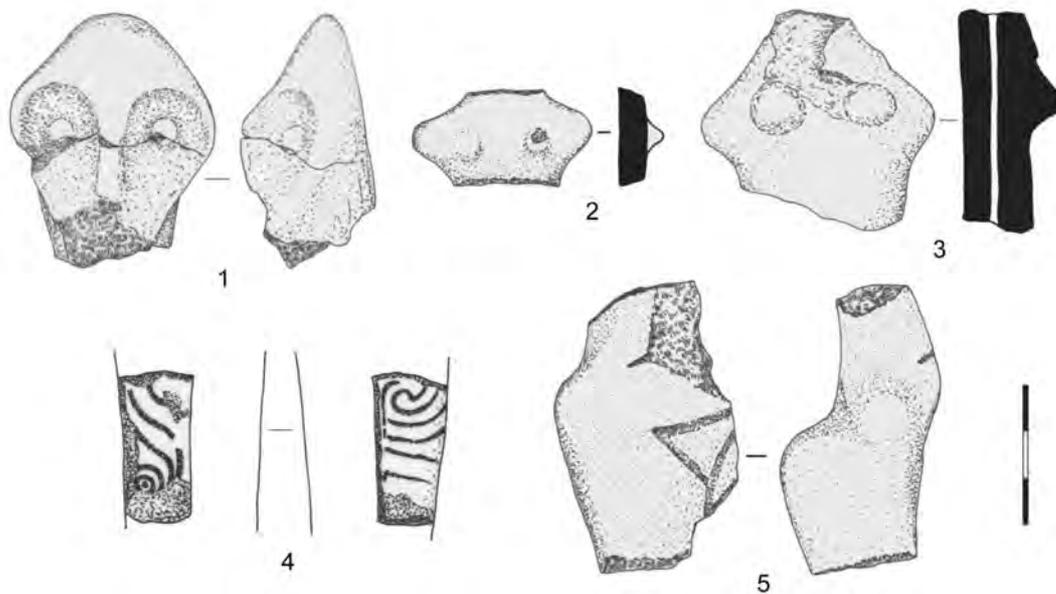


Fig. 10. Anthropomorphic figurines.

fragment had a cylindrical shape, perhaps with a semispherical calotte (Fig. 11). Vădastra zoomorphic figurines have not yet been discovered at Măgura-Buduiasca.

From another complex comes a cylindrical object, slightly prolonged, clay made, with an incised decoration that depicts two human figures (ANDREESCU 2007, 57) (Fig. 12).

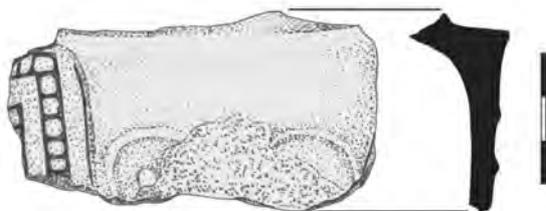


Fig. 11. Anthropomorphic lid.

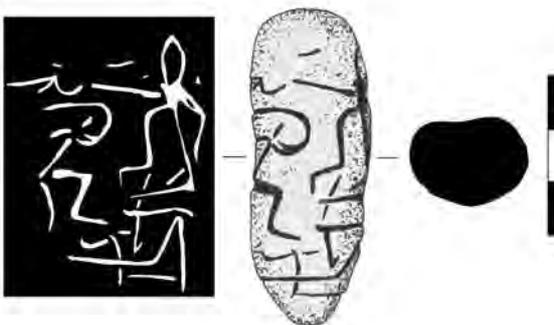


Fig. 12. Decorated clay object.

One fragment of a clay object, of a disc shape, is decorated on one side with irregular circular pricks (Fig. 13).

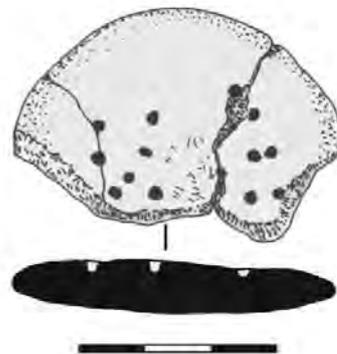


Fig. 13. Clay object.

Several fragments specific to the so-called „small cult altars” or „cult tables”, that are typical of the entire early and developed Neolithic in the Balkan area, have been discovered at Măgura-Buduiasca (Fig. 14). Of different shapes and sizes, clay made, burnished, with excised or incised decoration, white filled sometimes, the „small cult altars” have long disputed functions: clay lamps, miniature representations, small cult tables, vessels for burning substances on ritual occasions, bowls, recipients used for ritual or profane purposes (SCHWARZBERG 2003, 79).



Fig. 14. „Cult tables” fragments.

The discoveries at Măgura-Buduiasca confirm the presence of the Vădastra culture along the Telorman Valley. Even though it is a singular reality for the moment, it raises important questions about its origin and its connection to the neighboring territories: South-Eastern Oltenia, Central and Southern Muntenia and Northern Bulgaria.

The various theoretical aspects that were emphasized in what concerns the starting point and the evolution of the Vădastra culture have often been contradictory. The traditional type analysis overvalues the cultural-historical approach specific to the Romanian archaeology (ANGHELINU 2003; DRAGOMAN 2006, 131-148).

A real synchronism between the cultural phenomena in the second half of the fifth millennium B.C. has been difficult to establish. It is most likely that we are dealing with local evolution and influences among the neighboring cultural areas as well as with chronological differences among the various regions where Vădastra materials have been researched. In the absence of certain ¹⁴C test results, this chronological image can be considered as incomplete.

Acknowledgements

Many thanks are due to Alexandra Țânțăreanu, for translating the text into English and to Stephen Mills for reading this text.

Bibliography

- ANDREESCU Radian
2007 *Valea Teleormanului. Considerații asupra plasticii antropomorfe*, SP, IV, p. 53-65.
- ANDREESCU Radian, BAILEY Douglass
2002 *Măgura-Lăceni-Vitănești*, (com. Măgura, com. Orbeasca, sat Lăceni, com. Purani, sat Vitănești, jud. Teleorman. Punctele: Lăceni „Valea Cioroaița”, Măgura (CLA 2), Măgura-Bran (CLA 001), Măgura-Buduiasca (TELEOR 003), Vitănești (TELEOR 007), Cronica. Campania 2001, p. 195-199.
- 2003 *Măgura*, com. Măgura, jud. Teleorman. Punct: Măgura - Buduiasca, TELEOR 003, Cronica. Campania 2002, p. 189-190.
- 2004 *Măgura*, com. Măgura, jud. Teleorman. Punct: Măgura - Buduiasca, TELEOR 003, Cronica. Campania 2003, p. 184-189.
- 2005 *Măgura*, com. Măgura, jud. Teleorman. Punct: Măgura - Buduiasca, TELEOR

- 003, *Cronica. Campania* 2004, p. 224-234.
- ANGHELINU Mircea
2003 *Evoluția gândirii teoretice în arheologia din România. Concepte și modele aplicate în preistorie*, Târgoviște.
- VAN AS Abraham, JACOBS Loe, THISSEN Laurens
2004 *Preliminary data on Starčevo-Criș and Dudești pottery from Teleor 003, Teleorman River Valley, Southern Romania*, LJPS, 20, p. 121-127.
2005 *Vădastra pottery from Teleor 003, Teleorman River Valley, Southern Romania: a preliminary report*, LJPS, 21, p. 61-68.
2006 *Preliminary data on Boian and Gumelnița pottery from Teleor 008 and Măgura-Bran respectively, Teleorman River Valley, Southern Romania*, LJPS, 22, p. 137-147.
- BAILEY Douglass W.
2000 *Balkan Prehistory. Exclusion, Incorporation and Identity*, London.
- BĂLĂȘESCU Adrian, RADU Valentin, MOISE Dragoș
2005 *Omul și mediul animal între mileniiile VIII-IV la Dunărea de Jos*, BMNR XI, Târgoviște.
- BERCIU Dumitru
1937 *Colecția de antichități "Gh. Georgescu - Corabia"*, Caracal.
1939 *Arheologia preistorică a Olteniei*, Craiova.
1961 *Contribuții la problemele neoliticului în România, în lumina noilor cercetări*, București.
1966 *Zorile istoriei în Carpați și la Dunăre*, București.
- BERCIU Dumitru, BUTOI Mihai
1961 *Cercetări arheologice în orașul Slatina și împrejurimi*, Materiale, VII, p. 139-142.
- BORONEANȚ Vasile
2005 *Chitila Fermă. Studiu monografic*, CAB, VI, p. 47-81.
- BUTOI Mihai
1973 *Noi descoperiri arheologice în orașul Slatina*, RM, X, 2, p. 137-139.
- CHAPMAN John
2000 *Fragmentation in Archaeology. Places and Broken Objects in the Prehistory of South-Eastern Europe*, London-New York.
- CHRISTESCU Vasile
1933 *Les stations préhistoriques de Vădastra*, Dacia, III-IV (1927-1933), p. 167-225.
- COMȘA Eugen
1955 *Săpături de salvare și cercetări de suprafață în regiunea București*, SCIV, 6, 3-4, p. 411-445.
- 1962 *Săpăturile de la Ipotești*, Materiale, VIII, p. 213-219.
1973 *Rezultatele săpăturilor din așezarea neolitică de la Ipotești, jud. Olt (1961)*, Materiale, X, p. 33-37.
1977 *Remarques sur l'étape finale de la phase Bolintineanu-culture Boian (à Radovanu II)*, Dacia N.S., XXI, p. 319-328.
1987 *Neoliticul pe teritoriul României. Considerații*, București.
2000 *Raporturile dintre cultura Boian și cultura Vădastra*, CA, XI/1 (1998-2000), p. 299-303.
- DRAGOMAN Alexandru
2006 *Texte, discursuri și ideologie în cercetarea (e)neoliticului din România*, SP, 3, p. 131-148.
- DUMITRESCU Vladimir
1968 *Arta neolitică în România*, București.
- DUMITRESCU Vladimir, VULPE Alexandru
1988 *Dacia înainte de Dromihete*, București.
- FLORESCU Radu, DAICOVICIU Hadrian, ROȘU Lucian
1980 *Dicționar enciclopedic de artă veche a României*, București.
- FRÂNCULEASA Alin
2007 *Repere cronologice privind cultura cu ceramică liniară la sud de Carpați*, Mousaios, XII, p. 27-56.
- GERGOV Venciislav
2000 *Selishta ot kusniya neolit v Plevensko*, in vol.: *Paleobalkanistika i starobulgaristika. Vtori esenni mezhdunarodni cheteniya*, Veliko Trnovo, p. 397-409.
2001 *Câteva date despre așezările neoliticului târziu din împrejurimile orașului Plevna - Bulgaria*, Oltenia, XIII, p. 29-32.
- LAZĂR Cătălin, SOFICARU Andrei
2005 *Antropologie. Date preliminare. Măgura, com. Măgura, jud. Teleorman. Punct: Măgura-Buduiasca, TELEOR 003*, *Cronica. Campania* 2004, p. 231.
- MATEESCU Corneliu
1957 *Săpături arheologice la Crușovu*, Materiale, III, p. 103-114.
1959 *Săpăturile de la Vădastra*, Materiale, V, p. 61-73.
1959a *Săpături arheologice la Vădastra*, Materiale, VI, p. 107-115.
1961 *Săpături arheologice la Vădastra*, Materiale, VII, p. 57-62.
1962 *Săpăturile arheologice la Vădastra*, Materiale, VIII, p. 187-192.
1970 *Săpături arheologice la Vădastra (1960-1966)*, Materiale, IX, p. 67-75.

- 1971 *Săpături arheologice la Vădastra (1970)*, Materiale, X, p. 19-23.
- MIREA Pavel
2005 *Considerații asupra locuirii Dudești din sud-vestul Munteniei*, SP, 2 (2003-2003), p. 75-92.
- MORINTZ Sebastian, CANTACUZINO Gheorghe
1963 *Die jungsteinzeitlichen Funde in Cernica*, Dacia N.S., VII, p. 27-53.
- NAIDENOVA Evghenia
2005 *Culturile Vădastra și Boian din sudul Dunării*, PhD thesis, Institutul de Arheologie "Vasile Pârvan" București.
- NEAGU Marian
2003 *Neoliticul mijlociu la Dunărea de Jos*, CCDJ, XX.
- NESTOR Ion
1932 *Der Stand der Vorgeschichtsforschung in Rumänien*, BRGK 22, Frankfurt am Main.
- NICA Marin
1970 *Asupra originii și dezvoltării culturii Vădastra de la Fărcașele (jud. Olt)*, Historica, I, p. 31-51.
1971 *Evoluția culturii Vădastra pe baza descoperirilor de la Hotărani - Fărcașele (jud. Olt)*, Historica, II, p. 5-33.
- 1997 *Unitate și diversitate în culturile neolitice de la Dunărea de Jos*, Pontica, XXX, p. 105-116.
- NICA Marin, CIUCĂ Ion
1989 *Așezările neolitice de la Piatra Sat (jud. Olt)*, AO S.N., 6, p. 17-41.
- NIKOLOV Bogdan
1986 *Selishte ot kusnyia neolit pri Brenitsa, Vracianski okrug*, Archeologija, 4, p. 5-17.
- SCHWARZBERG Heiner
2003 *On Problems in Identifying Ritual Pottery: The Example of the So-called "Cult-tables"*, in vol.: *Early Symbolic System for Communication in Southeast Europe*, I (ed.: L. Nikolova), BAR-International Series 1139, Oxford, p. 79-84.
- TODOROVA Henrieta, VAJSOV Ivan
1993 *Novo-kamennata epokha v Bulgaria*, Sofia.
- URSULESCU Nicolae, PETRESCU-DÎMBOVIȚA, Mircea, MONAH Dan
2001 *Neo-eneoliticul*, in vol.: *Istoria românilor*, vol. I, *Moștenirea timpurilor îndepărtate* (coord.: M. Petrescu-Dîmbovița, Al. Vulpe), București, p. 111-209.

“EGYPTOID” AND “SEMITIDIC” ELEMENTS AS RELICS FROM PREHISTORIC SUBSTRATA OF EUROPEAN LANGUAGES

ADRIAN PORUCIUC*

Keywords: *Egyptoid, pre-Indo-European substratum, primitive technical-agricultural terminology.*
Cuvinte cheie: *egiptoid, substrat pre-indoeuropean, terminologie tehnică-agricolă primitivă.*

Abstract. *The author of the present article resumes a demonstration aimed to argue that many European languages contain substratal (pre-Indo-European) elements of an “Egyptoid” type, which have correspondents in Hamito-Semitic languages, and especially in Ancient Egyptian. By taking into consideration primary models of word-formation, this author observes that the Semitic vocabulary is clearly dominated by words with triconsonantal bases, whereas the (obviously more archaic) Egyptian vocabulary contains a mass of terms with mono- and biconsonantal bases. It is precisely the latter that have most correspondents in Indo-European (especially European) languages. Analyzed in detail in this article is the connection between terms based on a primeval monoconsonantal root **AK**, which is manifest in Hamito-Semitic and Indo-European terms that refer to such notions as “stone, sharp implement, cutting, reaping” – cf. Egypt. *akhā* ‘to carve’, *aqḥu* ‘adze, axe’, *āk* ‘stonemason’, *āku* ‘stone quarry’, *āken* ‘hoe, plough’, as well as Lat. *acus*, *aceō*, *acidus*, *aciēs*, *ācer*. Also discussed is a biconsonantal extension, **S-AK**, with a causative prefix – cf. Egypt. *s-āq* ‘to cut, to destroy’, *sek* ‘to plough’, *seki* ‘to grind, to pound grain into flour’, *sekhi* ‘to strike, to break, to defeat, to beat, to mark cattle, to knap flints’, as well as Lat. *saxum*, *secō*, *sacēna*, *sēcula*, *secūris*. The analysis and interpretation of such doubtless correspondences can lead to a better understanding of the common elements to be found in Hamito-Semitic and Indo-European languages, and of the prehistoric idioms spoken by the Mediterranean population that spread primitive agriculture over both the Fertile Crescent and Southeast-Central Europe.*

Rezumat. *Autorul articolului de față reia o demonstrație menită să aducă argumente în favoarea ideii că multe limbi europene conțin elemente substratice (pre-indoeuropene) de tip „egiptoid”, care au corespondente în limbile hamito-semitice, cu precădere în egipteană veche. Luând în considerație modelele primare de formare a cuvintelor, se poate observa că lexiconul semitic este dominat clar de cuvinte cu baze triconsonantice, pe când cel egiptean (evident mai arhaic) prezintă o masă de termeni cu baze mono- și biconsonantice. Și tocmai acestea din urmă au cele mai multe corespondențe în limbi indoeuropene (cu precădere europene). Analizată în detaliu în acest articol este legătura dintre termeni bazați pe o rădăcină monoconsonantică primordială **AK**, vizibilă în termeni hamito-semitici și indoeuropeni referitori la noțiuni precum „piatră, unealtă ascuțită, tăiere, recoltare” – cf. egipt. *akhā* ‘a ciopli’, *aqḥu* ‘teslă, topor’, *āk* ‘cioplitor în piatră’, *āku* ‘carieră de piatră’, *āken* ‘săpăligă, plug’, dar și lat. *acus*, *aceō*, *acidus*, *aciēs*, *ācer*. Este discutată și o extensiune biconsonantică, **S-AK**, cu prefix cauzativ – cf. egipt. *s-āq* ‘a tăia, a distruge’, *sek* ‘a ara’, *seki* ‘a sfărâma boabe, a măcina’, *sekhi* ‘a lovi, a sparge, a învinge, a bate, a marca vite, a sparge cremene’, dar și lat. *saxum*, *secō*, *sacēna*, *sēcula*, *secūris*. Analiza și interpretarea unor asemenea indubitabile corespondențe poate duce la o mai bună înțelegere a elementelor comune limbilor hamito-semitice și indoeuropene, precum și a idiomurilor preistorice vorbite de populația mediteranidă care a răspândit agricultura primitivă atât în Semiluna Fertilă, cât și în Europa sud-estică și centrală.*

About a decade ago (as a part-time researcher of the Romanian Institute of

Thracology) I published a series of articles on what I considered to be a stock of “Egyptoid” elements that reflect prehistoric substrata of the Indo-European languages of Europe (PORUCIUC 1998, 3-41; 1999, 13-16; 2000,

* “Alexandru Ioan Cuza” University of Iași,
e-mail: aporuciuc@yahoo.com

5-12; 2001, 5-14). More recently I published an article on a similar issue, more precisely on what I consider we could credibly say about the language of the population that created the Chalcolithic Cucuteni civilization (PORUCIUC 2005, 377-382). One of the main points of that article was that the language of the "Cucutenians" must have had much in common with the one spoken by the prehistoric Levantine - Mediterranean population that appears to have introduced agriculture on the Nile. It was that population that can be rightly called "proto-Egyptian."

In the meantime I have discovered that my views on substratal Egyptoid elements can be compared (and partly contrasted) to what Theo Vennemann presents as a "Semitidic" sub- and adstratum manifest in historical West European languages. Taking Vennemann's views into consideration¹, I will resume some of the main ideas of my earlier articles on Egyptoid elements, and I will add some new theoretical statements and etymological interpretations. But first I will make some comments on basic terminology.

I must explain (again) what I mean by *Egyptoid*, and why I will not simply use the label *Egyptian*. The latter would be misleading, since it refers to a *historically recorded language*, and it would create the impression that certain European substrata had something to do with direct influence (or even colonization) from historical Egypt. By the (anthropology-based) derivative *Egyptoid* I refer to a *type* of elements (lingual, as well as genetic and cultural) that have Ancient Egyptian correspondents, which appear to reflect divergence from a common source in prehistory. I have reasons to believe that such a European-Egyptian connection has much to do with the original spreading of plant and animal domestication, that is, with the beginnings of agriculture, which also implied the rather rapid creation of a solid demic basis in the Near-Middle East and in Southeast-Central Europe.

In his turn, Vennemann, as continuator of earlier substratists (notably Pokorny), considers that many lingual aspects

(especially syntactic patterns) manifest in West European language groupings, such as Celtic and Germanic, contain important non-Indo-European elements that can be designated as "Semitidic." Quite often, Vennemann calls those elements directly "Semitic," which, in my opinion, historicizes the matter too much. First of all, I do not really know when exactly the actual beginnings of Semitic proper can be placed, in prehistory. Also, whereas there are strong arguments in favor of the idea that British Celtic developed on a substratum that can be regarded as Semitidic (VENNEMANN 2004, 34-35), the status of Semitidic (or, I would say, Semitoid) elements in Germanic is a more complicated matter. Personally, I find it hard to believe that, as late as the 5th-4th centuries BC, "Semitic acculturation" (or "massive linguistic and cultural Semitic influence" - VENNEMANN 2004a, 455) could eventually produce Proto-Germanic in the European North. Germanic, like other European idioms (including ancient and present ones of the Balkans), does show structural correspondence with Hamito-Semitic (or call it even Afroasian), but the roots of those correspondences look substratal (rather than adstratal), and they go much deeper than the historical age of Phoenician navigation along Atlantic coasts of Europe.

Certainly, if we join the mainstream view according to which we all come from Africa and all languages of the world must have diverged from one and the same primeval African idiom (ROSS 1991, 139-140; FISCHER 2001, 49-53), then we may assume (as many specialists have already done) that correspondence can be found among *all* languages of the world, not only among the ones commonly included in the Nostratic macro-family (datable to a vague time around the end of the last Ice Age). We may also assume that the further back in time we explore, on the basis of early records and of linguistic reconstructions, the more obvious such correspondents become.

For this particular discussion, I will make the following common-sense statements: the basic lexical units of a primeval ("Adamic") idiom must have been monosyllables, each made of one consonant

¹ In this article I will refer especially to VENNEMANN 2003, 319-332; 2004, 21-56; 2004a, 439-458.

+ some kind of implicit vowel (probably of a *schwa* type); therefore, multi-consonantal roots must have developed after (and on the basis of) primeval mono-consonantal ones, many of which remained visible in subsequent combinations and extensions.² In regard to Semitic, one specific feature of the languages included in that family has usually been presented as “triliterality” (BERGSTRÄSSER 1983, 6). Nevertheless, since my focus is on sounds, rather than on letters, I prefer to use the adjective *triconsonantal* about specific Semitic roots³. And, since I have already quoted from Bergsträsser, I will mention that, after referring to Semitic “triliteral” roots, he observes (*loc.cit.*): “Many such roots can be identified as extensions of original biliterals. Traces of unaltered biconsonantal roots are found on the one hand in irregular, so-called weak verbs, and on the other in the primary nouns”⁴. Along the line of that statement, I will observe that for many of the biconsonantal (Indo-) European roots⁵ we can reveal origins in “primary” roots, if we resort to comparisons with well-recorded Egyptian correspondents that show transparent word-formation (see examples below).

It would be very hard for me (especially since I am a specialist in Indo-European, with only partial knowledge of Hamito-Semitic) to decide whether what Bergsträsser calls “original” or “primary” goes back to Proto-Semitic, Hamito-Semitic,⁶

² It is worth mentioning that practically all the Nostratic roots reconstructed by Illich-Svitych (see index included in KAISER 1990, 187-197) are biconsonantal.

³ In certain cases, instead of “root” I will say “base” (as used in KLEIN 1987).

⁴ Note that Bergsträsser also uses “consonantal”, besides “literal”.

⁵ In such statements, I often hesitate between “Indo-European” and “European,” since I have observed that there is correspondence especially between Egyptian and Indo-European languages of Europe, whereas (especially in regard to roots on which primitive agricultural terminology is based) there is less correspondence between Egyptian and the Indo-Iranian branch of Indo-European.

⁶ The mainstream view of Hamito-Semitic is reflected in the tree-diagram by which Haddadou presents the very early (although undated) bifurcation of “Common Hamito-Semitic” into a Semitic branch (with three twigs) and a more complicated branch whose main twigs are represented by languages like

Afroasian, or Nostratic. But, in order to understand what European substrata can have had in common with Hamito-Semitic, I made a thorough analysis of the Egyptian lexical stock included in the Wallis Budge dictionary and of Bergsträsser’s appendix entitled “Common-Semitic Words,” then I referred elements from both Egyptian and Semitic to the concentrated AHD-Appendix of Indo-European roots. Here are some of my most general conclusions:

(1) Historical Indo-European languages of Europe appear to have more elements in common with Ancient Egyptian than with Semitic.

(2) What European languages (and most notably the Germanic ones) have in common with Egyptian is represented mainly by mono- and biconsonantal roots, that is, roots that appear to be older than the triconsonantal ones specific to Semitic.

(3) Of the ca. 170 “Common-Semitic” units presented in Bergsträsser’s appendix, I could count 37 that Semitic (as a whole, or by some of its varieties) has in common with Egyptian, whereas Egyptian and European languages appear to share at least 45 basic lexical elements for which I could not find Semitic counterparts. I could, however, also detect 14 important Egyptian-Semitic-European correspondents and 16 Semitic-European ones (without apparent Egyptian counterparts). No doubt (also considering the writing-system difficulties that I have encountered), my observations are far from completeness; but they can provide sufficient arguments for the issue under discussion.

(4) For a concrete impression rendered by certain Egyptian words analyzed in parallel with Indo-European corresponding roots, one may observe that the latter appear as *indivisible units*, whereas their Egyptian counterparts show *transparent word-formation* (be it reduplication, composition, or derivation).

(5) Last but not least, in regard to semantics, it is especially Egyptian-European correspondents that appear as designations of primeval anthropic actions, including primitive tilling and preparation of

Chadic, Berber and Egyptian (with its Coptic prolongation) (HADDADOU 2000, 208).

farm produce, as I will demonstrate by a minimum of illustrative material below.

Speaking of designations of fundamental actions, I will resume and extend an argument of the final footnote of PORUCIUC 2005, 381. In that note, I briefly referred to the peculiar situation of well-recorded Indo-European words such Latin *secō* 'I cut', *sacēna* 'double-axe', *sēcula* 'sickle', *secūris* 'axe' and *saxum* 'stone', as well as Old Icelandic *sax* 'knife' and Old High German *sahs* 'dagger'. All these (and many others of the same category) have been referred by Indo-European etymologists to a Proto-Indo-European (PIE) root **sek-* 'to cut', whereas Greek *sakkos* and Latin *saccus* have been presented as Semitic loans⁷, by reference to a Semitic term *śaq* 'sack' (which corresponds with Egypt. *sāq* 'sack, bag' > Copt. *sak* - WALLIS BUDGE 1978, 647a). In fact, the Semitic term under discussion (whose original meaning, in my opinion, must have been 'a piece of cloth cut in a certain shape') can be referred to a primeval biconsonantal root **SAK**⁸, which appears to be a predecessor of the above-mentioned PIE reconstruction **sek-*. Nobody, as far as I know, has considered PIE **sek-* 'to cut' as an extension of PIE **ak-* 'sharp', that is, of the root given in the AHD-Appendix as origin of such words as Greek *akē* 'point' and *oxus* 'sharp', Latin *ācer* 'sharp', *acus* 'needle' and *ocris* 'stony mountain', Old Norse *eggja* 'to incite', as well as Old Norse *ógn* 'chaff' and Old English *æhher* 'spike, ear of corn'. (The last two agricultural terms should persuade us to include Latin *acus* 'grain of corn' in the Latin lexical family commonly considered to be

⁷ See the ERNOUT, MEILLET 1985, s.v. *saccus*.

⁸ What counts in such pre-Indo-European and pre-Hamito-Semitic reconstructions (for which I will use capital letters) is mostly the consonantal skeleton. My use of the vocalic letter **A** is rather conventional (similar to Wallis Budge's use of *e* in his transliterations of Egyptian words). Nevertheless, I also take into account that *a*-vocalism appears to be specific to "rustic", "popular," or "technical" Latin words of obscure (possibly substratal) origin – see *cacō*, *carcer*, *faba*, *falx*, *far*, *labra*, *pāla*, *sappa*, *talpa*, etc. (ERNOUT, MEILLET 1985).

based on PIE **ak-* 'sharp'⁹). A primitive **AK** > **SAK** development becomes evident if we analyze the *s-* of PIE **sek-* as reflection of a primeval formant. Such an interpretation would not find sufficient support in the rather vague element called *s-mobile* in Indo-European studies (cf. Lat. *taurus* ~ Germ. *Stier*, or Lat *pīca* ~ Germ. *Specht*). Support can be found, rather, in the existence of a well-known Hamito-Semitic causative prefix *s-/š-*¹⁰. Not only is that formant very productive (in Egyptian, Berber and Semitic), but it also has, in my opinion, a transparent connection with a monoconsonantal root **SA**, whose original meaning is visible in such Egyptian verbs (of energetic action) as *sa* 'to break' and the reduplicative *sasa* 'to run against, to attack' (WALLIS BUDGE 1978, 633a)¹¹.

We may easily imagine that a primitive notion of "action by smiting/ cutting" could be originally expressed by a compound **SA + AK**, which, in a later stage of lingual evolution, came to appear as a derivative **S-AK** (whose **S-** appears to be a reduced form of the earlier **SA** that eventually came to function as causative formant). **AK** is actually the radical that I had in mind when I first discussed the substratal relationship between Egyptian and Indo-European (PORUCIUC 1992, 23). At present, I have many more reasons to assume a relationship between, on the one hand, the rich family of Latin terms given in the Ernout/Meillet

⁹ Latin *acus* 'grain of corn' is not given under *ac-*, but as a separate entry in the Ernout/ Meillet dictionary, since the term under discussion has correspondents, such as Greek *ákhne* 'grain of wheat' and Latin *agna* 'ear of corn', which do not appear to be "regular" members of the Indo-European family governed by **ak-*.

¹⁰ For Egyptian, see "s [...] a causative prefix" in Wallis Budge 1978: 583a, that prefix corresponding with the Akkadian causative *š-* (BERGSTRÄSSER 1983, 28), and with the Berber "s de sens actif" (HADDADOU 2000, 241).

¹¹ On another occasion (PORUCIUC 2000, 9), I explained why I preferred Wallis Budge's transliteration system to the ones used by more recent Egyptologists. What I may add here is that Wallis Budge indicated, as often as he could, correspondences between Ancient Egyptian and its modern heir, Coptic; and, in regard to the lexical material analyzed in the present article, it is significant, for instance, that Wallis Budge's transliterations *aqū* ('destruction') and *āq* 'to be injured' both correspond with Coptic *ako*.

dictionary under *ac-* (*aceō*, *acidus*, *acerbus*, *aciēs*, *ācer*, *acētum* – all showing PIE **ak-*)¹² and Egyptian terms such as *akhā* ‘to carve’ (9a)¹³, *aqu* ‘destruction’ > Coptic *ako* (10b), *aqhu* ‘adze, axe’ (11a), *āk* ‘stonemason’ and *āku* ‘stone quarry’ (94a), *āken* ‘a digging tool, hoe, plough’ (95a), etc. I also consider that there is correspondence between the Latin *secō-sacēna-sēcula-secūris-saxum* family (to which we should add *sēcale* ‘rye’, which originally must have meant ‘cuttable plant’)¹⁴ and an Egyptian series represented by words such as *s-āq* ‘to cut, to destroy’ (647a), *seki* ‘to grind, to pound grain into flour’ and *sek* ‘to plough’ (704a), or the reduplicative terms *sekhsekh* ‘to beat to pieces’ (685b) and *seksek* ‘to crush, to destroy, to cut down’ (703b). For the present discussion, really relevant words (of the same Egyptian technical-agricultural series) are *sekh* ‘to cut, to cut off, to reap’ and *sekhi* ‘to strike, to break, to defeat, to beat, to mark cattle, to knap flints’ (685b). The meanings ‘to knap flints’ and ‘to reap’ actually reflect two extremely important moments in the semantic history of the primeval roots **AK** and **SAK**, and of the material things they came to designate in course of time.

A mere review of the terms taken into consideration above (both Indo-European

and non-Indo-European) can reveal, on the one hand, an evolution from “stone (as raw material for various prehistoric implements)” to the related notions “smiting”-“cutting”-“drilling”-“sharp”-“pointed” and then to the later notion of “reaping”; on the other hand, there is a quite obvious secondary evolution of certain **AK** terms from the senses of ‘sharp, pointed’ to the one of ‘ear of corn’ (as ‘upper, spiky part of a plant’). Of course, the **AK** and **SAK** terms that reflected a subsistence system at least partly depending on seeds of gramineous plants may already have been in use during a *proto-agricultural* age, when certain *wild* plants of that kind could be reaped, by means of primitive sickles, whose cutting part consisted of a row of sharp flint chips fixed on a haft of wood or of bone¹⁵.

There are tens of other terms, of the ones that can be designated as “Egyptoid” (and/or “Semitidic”), which can lead us back to pre- or proto-agricultural moments of prehistory. In a previous article (Poruciuc 2000) I presented the evolution of terms based on a primeval monosyllable **AR** from a general senses of ‘to make, work, act’ to subsequent senses of ‘to cultivate, till, plough’. There also are exceptional cases of correspondence between European and Hamito-Semitic languages in tri- and even quadri-consonantal roots. Obvious is, for instance, a triconsonantal **KRN** base (referring mainly to horns and horned animals), as manifest in Latin *cornū* and Germanic *horn*, as well as in the pan-Semitic *qrn* family of cognates (cf. Akkadian *qarnu*, Hebrew *qeren*, South Arabic *qarn*, etc.)¹⁶. Even more spectacular is the case of a quadriconsonantal base **SPLT** (which

¹² Although Indo-Europeanists reconstructed a separate root, **agwesī* (see AHD-Appendix), in order to explain Germanic terms for ‘axe’ (Gothic *aqizi*, Old High German *ackus*, Old English *æx*, all comparable with Latin *ascia* < **acsia*, and with Greek *axinē* ‘axe’), it would be absurd to exclude a connection between such names of cutting implements and the prehistoric root **AK**. Actually, according to a German etymological dictionary, Pfeifer 1989 (s.v. *Axt*), the question has been raised whether such terms for ‘axe’ should be referred to PIE **ak-* (‘scharf, spitz, kantig, Stein’), or to a non-Indo-European *Wanderwort* (coming from where?).

¹³ What I indicate in such parentheses are pages and columns in Wallis Budge’s dictionary (WALLIS BUDGE 1978).

¹⁴ The Ernout/Meillet dictionary is much too radical in considering that the form of Latin *sēcale* (> Romanian *secară*) excludes “le rapprochement avec *secō*.” As radically, the same dictionary (s.v. *sēcale*) assumes that the Latin word under discussion is “sans doute emprunté,” without any indication of a source. The Latin term is, however, presented (loc.cit.) as member of a European (Celts-Germano-Italic) family of designations for the same important cereal: cf. Old High German *sihhila*, Old English *sicol*, Irish *secul*.

¹⁵ See the early Neolithic example of such an implement found on a Starčevo-Criș site of Romania (MICLEA, FLORESCU 1980, Pl. 19); or the Hassuna “flint sickle” (datable to the 6th millennium BC) discovered in Iraq (ROUX 1980, Pl. 1).

¹⁶ Such a European-Semitic correspondence is indicated neither by the Ernout/Meillet dictionary, s.v. *cornū*, nor by Klein’s Hebrew dictionary (1987: 595a), in the case of the base *qrn* ‘to grow horns’. We cannot, however, avoid the similarity, in form and meaning, between the Semitic base *qrn* and the PIE **kr-n-* extension given in the AHD-Appendix (under PIE **ker-* ‘horn, head’) as base of Latin *cornū* and of Germanic *horn*.

appears to be an extension of a primeval root **PAL** by an **S-** prefix and a **-T** suffix). That base is visible, on the one hand, in European agricultural terms such as English *spelt*¹⁷, German *Spelz*, Latin *spelta* (the last one being presented by Ernout/Meillet as a borrowing from Germanic!), and, on the other hand, in the solid Semitic lexical family (with the basic meaning 'ear of grain') represented by Hebrew *šibboleth* Akkadian *šubultu*, Aramaic *šebbeltā*, South Arabic *sabl*, Arabic *sunbulatun* (BERGSTRÄSSER 1983, 212-213)¹⁸. Most probably, the making of a primeval derivative that showed the consonantal skeleton **SPLT** should be dated to a period during which primitive agricultural practices had already been generalized in the Near-Middle East, as well as in certain parts of Europe. I consider that the problems raised by the existence of European-Semitic correspondents that reflect the **SPLT** base are interesting enough to deserve a separate article.

As a general conclusion, I will observe that, by getting away from what is too rigid and exclusive in classical Indo-European reconstructions, and by taking into consideration whatever proves to be credible in the interpretations of earlier and more recent substratists (including Vennemann and his school)¹⁹, we may draw tenable conclusions regarding the type of languages spoken in our part of the world at the time of

¹⁷ In the AHD dictionary, that plant is presented as follows: "A hardy wheat, *Triticum spelta*, grown mostly in Europe."

¹⁸ Etymologically, the European *spelt-* terms appear to be transparent on Indo-European ground, according to the explanation given in the AHD-Appendix (s.v. ***spel-**) for the connection between ***spel-** 'to split, break off' and Middle Dutch *spelte*: "probably from the splitting of its husk at threshing." We should go deeper and observe that ***spel-** is just an s-extension of a root given in the AHD-Appendix as ***pel-** 'to thrust, strike, drive'. As for Semitic, the family of Hebrew *šibboleth* should not be referred only to the base *šbl* 'to hang down' (as proposed in Klein 1987: 636c), but also to the base *šbr* 'to break, break into pieces' (included as an entry in Klein 1987, 637c).

¹⁹ Vennemann rightly considers that correspondence in syntactic patterns is most significant in estimations of substratal connections. By my present article (on the basis of only a few of the examples I have in stock) I aim to demonstrate that such connections can be revealed by word-formation analysis too.

the earliest farmers. In regard to the early Neolithic spreading of agriculture, whether we adopt the classical Fertile-Crescent theory, or the more recent vision of a spreading whose initial impulse was the Euxine Flood of the 7th millennium BC,²⁰ we can turn to good account the results of archaeolinguistic investigations. By "digging" into lingual matter, as deep as we can (down to primeval monoconsonantal bases), we are bound to find clues to the forms and contents of prehistoric idioms, which did not simply vanish without leaving traces in historical ("classifiable") languages.

Bibliography

- AHD Dictionary
1973 *AHD – The American Heritage Dictionary of the English Language* (ed.: W. Morris, with an Indo-European "Appendix" by Calvert Watkins *et alii*), New York.
- BERGSTRÄSSER Gotthelf
1983 *Introduction to the Semitic Languages. Text Specimens and Grammatical Sketches*, translated by Peter T. Daniels, Winona Lake, Indiana.
- CHANTRAINE Pierre
1990 *Dictionnaire étymologique de la langue grecque*, Paris.
- ERNOUT Alfred, MEILLET Antoine
1985 *Dictionnaire étymologique de la langue latine*, Paris.
- FISCHER Simon Roger
2001 *Eine kleine Geschichte der Sprache*, München.
- HADDADOU Mohand Akli
2000 *Le Guide de la culture berbère*, Paris.
- KAISER M.
1990 *Semantic Index to Nostratic Reconstructions*, in vol.: *Proto-Languages and Proto-Cultures* (ed.: V. Shevoroshkin), Bochum.
- KLEIN Ernest
1987 *A Comprehensive Etymological Dictionary of the Hebrew Language for Readers of English*, Jerusalem.
- MICLEA Ion, FLORESCU Radu
1980 *Preistoria Daciei*, București.
- PFEIFER Wolfgang *et alii*
1989 *Etymologisches Wörterbuch des Deutschen*, Berlin.

²⁰ See the whole of RYAN, PITMAN 1998.

PORUCIUC Adrian

- 1992 *Problems and Patterns of the SE European Ethno- and Glottogenesis (ca. 6500 BC – AD 1500)*, MQ, XXXIII/1, p. 3-41.
- 1998 *Scurtă introducere în domeniul elementelor moștenite de limbi europene din idiomuri preistorice egiptoide avându-și originea în Semiluna Fertilă*, TD, XIX, 1-2, p. 7-14.
- 1999 *On Indo-European and Egyptoid (Fertile-Crescent) Correspondents of Thracian poris*, TD, XX, 1-2, p. 13-16.
- 2000 *Radicalul AR- 'a (se) face, a alcătui' > 'a cultiva, a ara' în limbi indoeuropene și ne-indoeuropene*, TD, XXI, 1-2, p. 5-12.
- 2001 *Corespondențe egipto-(indo)europene în vocabularul legat de toponimele isoglosei TAPA/TABA și de radicalul *tap-*, TD, XXII, 1-2, p. 5-14.
- 2005 *The 'Cucutenian Language' and the Euxine – Levantine - Egyptian Connection*, in vol.: *Cucuteni - 120 Years of Research* (eds.: Gh. Dumitroaia et alii), Piatra-Neamț, p. 377-382.

ROSS Philip E.

- 1991 *Hard Words*, StA, 4, p. 138-147.

ROUX Georges

- 1980 *Ancient Iraq*, Pelican Books, Middlesex.

RYAN William, PITMAN Walter

- 1998 *Noah's Flood: New Scientific Discoveries about the Event that Changed History*, London.

VENNEMANN Theo

- 2003 *Languages in prehistoric Europe north of the Alps*, in vol.: *Language in Prehistoric Europe* (eds.: Alfred Bammesberger, Theo Vennemann), Heidelberg, p. 319-332.

- 2004 *Zur Entstehung der germanischen Sprachen*, in vol.: *Sprachtod und Sprachgeburt* (eds.: Peter Schrijver, Peter-Arnold Mumm), Bremen, p. 21-56.

- 2004a *Phol, Balder, and the birth of Germanic* in vol.: *Etymologie, Entlehnungen und Entwicklungen – Festschrift für Jorma Koivulehto zum 70. Geburtstag* (eds.: Irma Hyvärinen et alii), Helsinki, p. 439-458.

WALLIS BUDGE E. A.,

- 1978 *An Egyptian Hieroglyphic Dictionary* (I, II), New York.

EXPERIMENTAL ARCHAEOLOGY: THE BURNING OF THE CHALCOLITHIC DWELLINGS

VASILE COTIUĞĂ*

Keywords: *experimental archaeology, Chalcolithic, dwellings, burn.*

Cuvinte cheie: *arheologie experimentală, eneolitic, locuințe, ardere.*

Abstract. *The author discusses the issue of the causes behind the burning of the Chalcolithic dwellings. In the first part there are enumerated the hypotheses enunciated in the course of time, regarding the causes of the burning of the Chalcolithic dwellings, which can be divided into voluntary and involuntary ones. The second part presents the results achieved by the author in the course of the burning and firing experiments, on several types of dwellings specific to the Cucuteni culture. In all, four dwellings were burned, two as “accidents” without additional fuel, and two on purpose, with addition of fuel, in the form of firewood. It was concluded that the “accidental” burning did not result in a degree of fire-hardening similar to the one found within the archaeological excavations, while the intentional firing led to an intense fire-hardening of the walls, the daub being transformed into a brick-like material, similar to the one uncovered on the archaeological sites. These results allowed the author to conclude that during the Chalcolithic dwellings were burned on purpose, with the addition of fuel (firewood), the burning having a ritual character.*

Rezumat. *Autorul articolului aduce în discuție problema cauzelor incendiarii locuințelor eneolitice. În prima parte sunt prezentate ipotezele emise de-a lungul timpului cu privire la cauzele arderii locuințelor, care puteau fi de natură voluntară sau involuntară. În partea a doua a articolului sunt prezentate rezultatele obținute de autor în cadrul experimentelor de ardere a mai multor tipuri de locuințe cucuteniene. Cu această ocazie au fost incendiate patru locuințe, două accidental, fără aport de combustibil, și două intenționat, cu aport de combustibil lemnos. S-a constatat că arderea accidentală nu a condus la obținerea de lutuie li arse, așa cum apar ele în cadrul săpăturilor arheologice, în timp ce incendiarea intenționată a dus la arderea puternică a pereților, lutuielele căpătând consistența celor din săpăturile arheologice. Aceste rezultate au permis autorului să considere că în eneolitic locuințele erau incendiate intenționat, cu aport de combustibil lemnos, arderea având probabil un caracter ritual.*

One of the most discussed issues regarding the Chalcolithic dwellings on the Romanian territory focuses on the way in which these ended. In most of the cases, the dwellings appear as agglomerations of burned adobe, a fact that generated, even after the first discoveries, strong support for the hypothesis of their ending in fire (BELDICEANU 1885, 8; 1885a, 192; BUȚUREANU 1890, 260, 263; 1891, 299). The uncovered remains are fragments of walls and floors, the latter being better preserved. These are found as baked clay surfaces, more or less

flat, of various thicknesses and very often preserving on their undersides the imprint of staves and branches from the timber substructure.

Less well preserved are the remains of the wall daubing, found usually in secondary position, due to the collapse of the walls after the abandonment of the building. These fragments are small (fist-size or smaller), with imprints of twigs, rods and even planks, as well as traces of chaff and minced straw. In very few cases the walls were preserved as such, up to a height of 10-15 cm (COTIUĞĂ 2001, 194).

The common feature of all but few of the daub remains is their intense burning.

* “Alexandru Ioan Cuza” University of Iași,
e-mail: vasicot@uaic.ro

Either from walls or floor, these are well and thoroughly burned, from pale brown to salmon pink¹. Most of the daubing is thoroughly fired, meaning that the fire reached over 500°C, even over 700°C. By comparing the colour of the burned remains to the clay samples fired experimentally, it can be concluded that the dwellings were burned at temperatures between 600° and 900°C (BÂRZU 1985, 83-84).

In few cases the burned daub shows a spongy or even glassy appearance. These occurrences are caused by firing at very high temperatures, exceeding 1100°C, a process that transform certain types of clay in a spongy mass. At 1175°C the clay vitrifies, taking a glassy appearance. This process results from the clogging of the pores of certain clays with glassy compounds of the silica dioxide (resulting from the clay firing) and the metallic oxides produced by the heat decomposition of the impurities within the clay mass (BÂRZU 1985, 83-84).

Although the archaeological research of the last decades uncovered also non-burned dwellings (COMȘA 1962, 223; 1971a, 18; MONAH, CUCOȘ 1984, 50; MONAH *et alii* 2005, 282; POPOVICI *et alii* 1995, 15) the massive dominance of the burned dwelling remains caused the unanimous support among the archaeologists for the “burning-down” hypothesis on the end of the Chalcolithic dwellings, with several variants formulated along the years, mainly on the intentional or non-intentional (accidental) origin of the fire. The answers given to this issue were many and complex, with numerous interpretations (VI. DUMITRESCU *et alii* 1954; VI. DUMITRESCU 1960, 64; FLORESCU, FLORESCU 1961, 80-82; DRAGOMIR 1962, 394-396; MARINESCU-BÎLCU 2000a, 26-29; PETRESCU-DÎMBOVIȚA 2001, 17; 2002, 111; KOLEŠNIKOV 1993, 63-73; BOGHIAN 2004, 67), the projected causes of the fires ranging from functional reasons to rituals (PATEL 2004, 11-20).

Below, we shall review the hypotheses formulated in the course of time, on the issue

of the burning of the Chalcolithic dwellings, and then discuss the results achieved by us within a project of experimental archaeology aimed at the experimental reproduction of such theories.

I. Hypotheses regarding the burning of the Chalcolithic dwellings

There are two main categories to consider, upon the way in which the fire occurs: the dwellings burned unintentionally, and the ones burned intentionally (i.e. fired).

I.1. Interpretations of building burning as unintentional

Together with the functional reasons, this first category of buildings destroyed by fire include the results of certain accidents, occurring during its habitation, of natural causes or caused by human activities (VL. DUMITRESCU 1965, 34-35; MONAH *et alii*, 1983, 8; MONAH, CUCOȘ 1985, 50; PATEL 2004, 14-15).

I.1.1. Accidental burning due to natural causes. This type of destruction may be caused by lightning, by earthquake followed by fire or by the self-ignition of the roofing material caused by sun overheating. In all of the cases, the fire starts in the roof, inside its roofing made of highly flammable vegetal material. The destruction of the wooden framing usually results in the collapse of the whole burning roof on the rooms below, leading to the fire being temporarily suppressed. In case the wattle of the walls is well daubed, the rooms do not house flammable materials (cloth, dried vegetal matter, animal skins) and there are no air drafts to keep the flame going, the fire can die by its own, without human intervention. In this particular situation only the roof will be destroyed by fire, the rest of the building being only slightly damaged. Consequently, the dwelling could be re-roofed and its habitants could continue to live in it. The conclusion is that the fire, in this case, could not be of such intensity, as to result in the total burning of the dwelling, to the point of transforming the clay of the walls and floor in a brick-like material.

Moreover, burning of dwellings accidental or natural or anthropic causes, and would have led to the death by suffocation of some of those who lived in the

¹ During firing, the colour of the clay takes different hues, according to the firing temperature: light brown at 600°, light salmon-pink at 800°, salmon-pink at 900°, grayish yellow at 1100°, yellowish green at 1175°, which is the vitrification point (BÂRZU 1985, 83).

dwelling, especially children and disabled elderly. Data known to us, archaeological surveys have not recorded such cases, so it difficult to accept this hypothesis.

I.1.2. The man-caused accidental burning. These occurrences entail the burning of the dwellings by accident, by their inhabitants. The most probable cause is the cooking fire left without supervision in the hearth or oven. Like the burning by natural causes, the ignition of the roof from the cooking installation is the starting point of the fire. This could have an evolution similar to the previous case, thus is hardly possible that a fire caused by a domestic accident could have caused the destruction by fire uncovered archaeologically. Conversely the frequent occurrence of such finds can be hardly explained by the “domestic fire accidents” hypothesis (STEVANOVIĆ 1997). In fact, this hypothesis was negated by the results of several experimental archaeology projects, of which a few are very worth mentioning, such are the one carried out by Arthur Bankoff and Fred Winter in 1977, in Serbia (BANKOFF, WINTER 1979) and the one carried out by our own team in Cucuteni, in 2004 and 2005.

I.2. Interpretations of building burning as intentional

This category includes the hypotheses covering the burning of dwellings as the result of a deliberate human action, for functional, destructive (i.e. conflict-related) or ritual aims.

I.2.1. Interpretations of building burning as functional

There are four functional reasons for the building burning: to strengthen the structure of the building; to demolish the building; to fumigate; to reuse the demolition remains for other buildings (PATEL 2004, 11-20).

I.2.1.1. Strengthening of the building structure. This is one of the oldest hypotheses on the building burning, especially with regard to the floors of Cucuteni and Tripolye dwellings. In this respect, the well-known scientist Tatiana S. Passek, after demonstrating that the famous fired clay platforms in the Tripolyan settlements (*ploščiadki*) are something else

than funeral structures, as was previously concluded by the Ukrainian archaeologist V. V. Chvoiko (CHVOIKO 1901, 803), i.e. dwellings, stated that the floors of these constructions have been burned intentionally, by burning bonfires on top, before raising the walls. The fired clay provides the floor with consistency, important for protecting the health of its inhabitants and for storing, drying and preparing the grains, which the floor of fired clay kept safe from the damp and rodents. Moreover, in the case of floors with successive burned daub layers, Tatiana S. Passek upheld the repeated burning of the floors, after each daubing (PASSEK 1949, 7-88).

In the same respect, the Russian research was accepting also the hypothesis of the floors being made and fired in pieces, in various locations, being brought in and assembled on the site of the future building (PASSEK 1949, 7-88).

Both hypotheses of Tatiana Passek were discussed by Vladimir Dumitrescu when describing the Cucuteni dwellings excavated at Hăbășești, with both for and against arguments. Without stating a firm position, for or against the intentional burning of floors, the well-known research thought that the intentional burning was more plausible (VI. DUMITRESCU *et alii* 1954, 183-184). His decision toward one of the hypotheses came later, firstly on the occasion of publishing the micro-monograph of the Cucuteni cultural complex inside the Treatise of Romanian History in 1960, when he concluded that “it is to be believed that, in order to ensure the resistance of these platforms and to protect the inhabitants from damp, bonfires were burned on top of the platforms, thus the clay was taking the consistency and colour of brick” (VI. DUMITRESCU 1960, 64), and after that on the occasion of discussing the issue of fired clay platforms in the buildings of certain Chalcolithic cultures, when stated that “the most plausible hypothesis is that of log platforms, laid on the ground and covered with a thick layer of clay and then *burned intentionally*” (author’s emphasis) (VI. DUMITRESCU 1968, 395), a conclusion that other specialists adopted in the meantime (FLORESCU, FLORESCU 1961, 80-82; DRAGOMIR

1962, 394-396), or reached after some time (KOLEŠNIKOV 1993, 63-73; BOGHIAN 2004, 67)².

Apart from this hypothesis, of the intentional burning of building floors, I. T. Dragomir, taking into consideration the building methods of the Cucuteni-Tripolye dwellings, brought forward a new hypothesis³, of intentional burning of both floor and walls of buildings. In this case, the burning lasted several days, by constantly fuelling the bonfire and even possibly funnelling air-draught. The result would have been the baking of the floor and walls, up to the vitrification point in certain areas, obtaining thus a remarkable strength of construction, although the wooden structure disappeared (DRAGOMIR 1962, 394-398; 1983, 35).

The same hypothesis was later raised by Corneliu Mateescu, in the case of one of the above-ground dwellings found at Vădastra-Măgura Fetelor, pertaining to Vădastra culture (MATEESCU 1978, 71).

In the case of the first hypothesis, the archaeological evidence from Trușești (PETRESCU-DÎMBOVIȚA 1963, 175; PETRESCU-DÎMBOVIȚA, FLORESCU, FLORESCU 1999, 195), Malnaș-Băi (A. LÁSZLÓ 1988, 29) and Poduri (COTIUGĂ 2001, 194) invalidated the intentional floor-burning. On all three sites, the "climbing" of the burned daub from the floor onto the walls was confirmed, which occurrence would have not existed in case the floor would have been daubed and burned intentionally before raising the walls. These observations led some of the

archaeologists into rejecting the hypothesis of intentional burning of the floors previous to the building of the dwelling (PETRESCU-DÎMBOVIȚA 1965, 48; PAUL 1967, 6; 1992, 33; A. LÁSZLÓ 1988, 29; PETRESCU-DÎMBOVIȚA, FLORESCU, FLORESCU 1999, 195).

As regarding the hypothesis of burning both the floor and the walls of the building, this was refuted categorically by most archaeologists due to its lack of plausibility, as the wooden structure would have burned completely, together with the walls (PAUL 1967, 16, footnote 22; VI. DUMITRESCU 1968, 395, footnote 32). The burning of the wood posts of a building will result in weakening the joining of its walls, which would collapse outwards under the weight of the roof, as evidenced by the experiments we carried out in Cucuteni.

I.2.1.2. Demolition of the building.

The demolition of an obsolete dwelling might be another reason for the intentional burning of the structure, with the intent of avoiding the dangerous collapsing of the old walls, which is an action being quite often put to practice throughout the history. After N.K. Patel (discussing the issue of burning of dwellings in the Hungarian Plain), there is a possibility that the inhabitants might demolish their homes by controlled fire. The hypothesis is supported by the low quality of the constructions, which useful life was quite short, due to adverse weather exposure. Thus, the most feasible way to demolish a building was the fire. The functional reason of building burning was even extended to the level of whole settlements, the community setting fire to the village in order to clear the lots for future constructions (PATEL 2004, 18-20).

Without excluding the above theory, which is the most probable as the functional burning is involved, we believe that the demolition would have been easier and less dangerous by manual work. Thus, the wooden structural elements, made out of oak, which resists in time, even underground, and difficult to acquire, would have been recovered for reuse. Moreover, in several cases the site remained deserted after the fire, which is an archaeological proof against the functional burning as site-clearing method.

² Silvia Marinescu-Bîlcu was often included among the scholars supporting the intentional burning of floors in the Chalcolithic dwellings, following her monographic analysis of the Pre-Cucuteni building. A thorough lecture of the respective chapter reveals the fact that Marinescu-Bîlcu did not expressly affirmed that the floors of the Pre-Cucuteni buildings with staves platforms were intentionally burned, but said that this possibility cannot be ignored ("...in case the floor was fired on purpose...") (MARINESCU-BÎLCU 1974, 34). Moreover, the author of the Pre-Cucuteni culture monograph affirmed that "...the only issue that still raises questions is the one of the intentional burning of the platforms." (MARINESCU-BÎLCU 1974, 35).

³ This idea might be regarded as new, even though V. V. Hvoiko, on his considerations about the fired platforms (*ploščiadki*) as remains of funeral structures, mentioned also the intentional burning of the walls of said structures.

I.2.1.3. Fumigation. The supporters of the “fumigation” hypothesis claim that the baking of the clay walls and floor is the result of pest-control procedures, i.e. fumigation, as a mean to kill the xylophagous insects that could cause the destruction of the wooden structure of the building (PATEL 2004, 12-13).

In any form this fumigation would have been carried out, the archaeological evidence is unsupportive. First of all, the very nature of the burned daub suggest that the fire involved was very strong, the force of it much too destructive to be useful for fumigations, which require a lot of smoke and much less flame. If the burning was intended for pest-destruction, the required fire would have been of small intensity, made of wet materials, in order to produce smoke, and consequently with no such force to bake the daub of the dwellings, often to the point of vitrification. In fact, the fumigation as a pest-control procedure for wood-eating insects and fungi could be employed for the wooden elements only, before raising the construction, by searing the outer surface of the wooden members, resulting in an increased resistance of the material against the biological attacks.

I.2.1.4. Recovery and re-use of the burned daub remains for other buildings. The recovery and re-use of remains is another functional interpretation for the intentional burning of dwellings (PATEL 2004, 13-14). This is, perhaps, the least evidenced archaeologically hypothesis, lacking as well a good logical explanation. First of all, the bulk of burned remains were uncovered in place, i.e. if the burned daub and adobe would have been reused afterwards, the fragments should have been found scattered over a certain surface. In the same respect, the clay remains of the wall are devoid of any trace of grog, as the case would be if the burned daub and adobe remains had a use as construction material. Moreover, the most valued building material of a Chalcolithic dwelling is the wood of the structure (as posts, beams or staves) and the roof framing. The recovery of such pieces would have been impossible from the burned buildings, as the fire would most likely have destroyed them.

The burning of the daub and adobe after the removal of the wooden pieces is out of questions, since these would have been the main firewood of the burning process. In any case, the burned daub preserves the imprint of the wooden elements, leading to the conclusion that these were not recovered (in which case the daub and adobe fragments would be broken in the process), but burned along with rest of the dwelling. Moreover, the burning of a dwelling as means of obtaining baked clay to use as construction material is nonsensical, since the clay is a readily available material.

In addition to the above, it is worth mentioning the fact that in many cases (as shown *supra*), there is no further habitation documented on the spot, which renders pointless the burning of the house to obtain reusable materials for a new home, if no such home is afterwards built there. As for the long-distance transportation of the recovered burned remains, to other villages, located several kilometres away, we consider it highly improbable.

I.2.2. Interpretations of building burning as war-related

These interpretations stem from the premise of existence of conflicts between the Chalcolithic communities, reaching the stage of open war (VL. DUMITRESCU 1960, 64; DRAGOMIR 1983, 35; MONAH, CUCOŞ 1985, 50-51; PATEL 2004, 15-18). The burning of buildings as a result of military conflicts could fall into the category of intentional burning, by the attackers.

The idea of the peace-loving Chalcolithic civilization is an old one, but the emergence and development of fortifications, the evolution of weaponry and the increased quantities of it, led some scientists to the conclusion that the reality was different. Even though the causes behind the armed conflicts are hard to discern, being those of functional (to propagate the organization or the values of a society), utilitarian (to achieve or increase material gains) or natural (the warlike nature of humans, inherited philogenetically from our animal ancestors (DESCOLA, IZARD 1999, 563-566). Thus, the warlike conflicts ended in burned-down settlements, dwellings and fortifications alike (MONAH, CUCOŞ 1985, 50-51).

Even though this hypothesis found a large following among the archaeologists, its probability is quite small, due to several reasons. First of all, there are no finds of human remains interpretable as victims, on any of the sites with burned dwellings, which would have been the normal occurrence in the case of violent conflict. The acceptance of this theory would mean, then, that almost all of the Chalcolithic settlements were destroyed by attacks, i.e. the entire Chalcolithic civilization must be characterized as a violent and warlike one, which is by no means confirmed by the rest of the archaeological finds. Likewise, the inventory of the burned dwellings is very poor, meaning that all the valuables were carefully collected, which procedure would have not occurred had the dwelling been destroyed by the invaders. To conclude, even though the war-related burning of the dwellings is not a hypothesis that can be totally dismissed, we believe that this not a credible option as an explanation for the burning of the Chalcolithic dwellings.

1.2.3. Interpretations of building burning as ritual

The ritual firing is one of the reasons for building burning that is most discussed by the archaeologists, as well as one of the most plausible one in regard to the interpretation of the burning of Chalcolithic dwellings. The burning would occur as the ritual destruction at the end of the habitation cycle of a settlement (STEVANOVIĆ 1997) or other causes related to the community life, such were epidemics, natural catastrophes, death of a ruler, etc. In fact, the ritual burning of dwellings is an item of spiritual life for numerous communities, not only prehistoric, but classical and contemporary traditional ones as well. For example, we know that the ancient Celts burned their houses during the great celebrations (HUBERT 1983, 433), while the Bushmen who leave temporarily their settlements to allow "the land to rest", put fire to their huts and fences, to not offend the spirits of the ancestors. The "sacred fire" consumes thus the remains of the old settlement and then it is rekindled within the new one, in a sacred ceremony and it is distributed to all the families of the gens (VULCĂNESCU 1967, 61-62).

Some archaeological arguments can be brought to support the hypothesis of ritual burning. Thus, the burned building remains were devoid of any human skeletal remains, with very rare exceptions as is the case of a Cucuteni A dwelling in Girov-*Mănioaia* (Neamț county) where the remains of three children and one adult female with a trepanned skull (BOLOMEY 1983, 164; MONAH, CUCOȘ 1985, 99-100; NECRASOV, CRISTESCU, BOTEZATU, MIU 1990, 194), which points out, as shown above, that the fires were not caused by accidents or war-related conflicts, which would have also made human victims. In the same respect, very few artefacts were uncovered from within the burned dwellings, with the exception of potsherds, proving that the homes were voluntarily deserted, their inhabitants taking the valuables with them (stone axes, metal objects). The sacred objects related to the domestic cults were also left in place (the statuettes, the cult assemblages as those of Poduri and Isaiia, the building models as the one of Căscioarele or the altars as those of Trușești and Târgu Frumos). These objects were most probably desecrated ritually with the burning of the home.

The same interpretation, of desecrating ritual, could be given to the destruction or ransacking of the hearths, the keeping place of the sacred fire. In some cases, the desecration of the hearth was performed even by completely turning over the fireplace (e.g. at Târgu Frumos). The desecration of the living site was then completed by burning down the house completely.

To support this hypothesis, there is the thoroughness of the fire, the buildings being burned on their whole surface, at high temperature. This thorough burning could not have been achieved without a minimal control over the firing process (at least in the ignition phase) and a massive addition of fuel, to determine the spread of the fire to all the buildings and the reach of high temperatures. As shown above, the accidental fires could have been easily extinguished, without damaging the bearing structure of the building, which could be then immediately repaired.

There is the possibility that, taking into

account the stratigraphic situations revealed by several sites, the dwellings were fired either individually, separately or as homesteads of a certain social group, or as whole villages/settlements.

A final argument supporting the ritual burning of Chalcolithic dwellings is the logic of the facts. A ritual practiced by all the Chalcolithic communities in the North Balkan area, during an extensive period of time, at intervals of at least one generation, imposed by a strict tradition and linked to a cosmogony myth and a ritual of world, village or house rejuvenation, is seemingly the probable cause of the thorough burning of the Chalcolithic dwellings. Only such custom and ritual could explain the burning performed by all the Chalcolithic communities, on all the sites.

II. The experimental burning of reconstructed Chalcolithic buildings

In order to answer the question whether the dwellings were intentionally burned or not, we carried out, between 2002 and 2005, several experiments in Cucuteni (Iasi county), consisting in the burning of several buildings typical of Cucuteni civilization, which were reconstructed within the Cucuteni Archaeological Park Project (COTIUGA, COTOI 2004, 337-351). The experiment revealed several factual situations, which will be presented below.

II.1. The framework of the experiment

The experiment was planned to include four phases, i.e. the intentional burning of a clay floor built on a platform of staves, the burning of an isolated house in an accidental fire (dwelling No. 1), the intentional burning of an isolated house, with the addition of firewood (dwelling No. 2) and the burning of a group of two houses very close to each other, one with addition of firewood as intentional burning (dwelling No. 3) and the other without additional firewood as accidental fire (dwelling No. 4).

II.2. The limitations of the experiment

It is obvious that the implementation of

such experiments will assume certain limitations, which may affect the experimental results. First of all, the water content of the structural wood is to be taken into consideration. The dry wood will burn faster, producing a lot more energy than the wet, freshly cut timber. In the case of our experiment, only dwelling No. 1 was older (2 years), while the other three were only 1 year old, their wooden components being much less dry than would be the case of a lived-in prehistoric house, with a consequently higher degree of flammability for its timber and roofing.

Secondly, the flammable content of a prehistoric house is another unknown: the vegetal matter (reeds) used for the roofing, the stacked wood for the cooking fire (stored inside or outside the walls), the wooden furniture and other combustible materials, like clothing, weavings, hides etc. The presence or absence of such content could greatly influence the burning process, especially in the case of an accidental fire.

Another limitation is the daub thickness of the walls. The preserved remains of the dwellings do not give information on this type of facts, which could influence burning mechanism. In the case of thickly daubed walls, the burning of their wooden structure would have been much slower than in the case of walls with only a thin washing of daub or not daubed at all.

The limitations of the experiments could also include other factors, such the density of the buildings within the settlement (with intervals even smaller than 1 meter as revealed by the archaeological excavations), the air draughts and the weather conditions during the fire, which limitations should have influenced the burning of a prehistoric building. These objective factors should be complemented by the subjective ones, such as our scarce grasp of certain cultural phenomena within the prehistoric life-frame.

Taking the above into account, our experiment was designed to avoid, as much as possible, the corruption of the experimental results. Thus, in the case of the "accidental fire" experiment, we reproduced two settings that are, within reason, believably close to the prehistoric ones. The dwellings No. 1 and 4 were furnished with

home equipment and appliances (wooden table and stools, hides and a pile of firewood near the hearth) and, in the case of dwelling No. 1, several storage piles stacked outside against the walls of the house: firewood up to the eaves and dry fodder (hay and straws). Dwelling No. 1 was built relatively apart from the others, in order to verify the burning mechanism of an isolated building, while dwelling No. 4 was built close to another house (1 m to dwelling No. 3), which was burned "intentionally" with addition of fuel, to verify the burning behaviour of a building ignited accidentally by a "neighbourhood" fire.

The site-related constraints were present also in the case of the "intentional" burning experiment, where the wood used as additional firewood was both high-caloric (oak) and average-caloric (beech), both with high moisture-content (freshly felled timber), a situation that affected the speed and intensity of the fire.

II.3. The wood combustion mechanism

Before the presentation of the experimental results, we believe that a short introduction of the burning mechanism of the wood is required, for a better understanding of the experimental framework.

In the case of a fire, the wooden elements of a house get charred at the surface, the thickness of the burned layer growing with an average speed of 0.6-1 mm per minute. The burning reduces the working cross-section of the wood member, while the high temperatures reduce the strength of the unburned wood. Thus, during an extensive fire, the wooden structure loses steadily its bearing strength, due to the shrinking of the working cross-section and the destruction of its material (DECHER 2003, 229).

There are four distinct phases during the burning process (DECHER 2003, 229-230):

1. *The ignition phase:* during which the wood is heating-up and starts decomposing, with absorption of thermal energy (endothermic process). Once the temperature increases above 110°C, the flammable gases start evaporating from the wood, produced by its thermal decomposition, and the wood changes its

colour to yellow. If the heating-up is a longer-than-usual process, the ignition could start even below 110°C.

2. *The flameless slow-burning phase:* the charcoal left after the gases were distilled away is prone to oxidizing; this process can occur only when the atmospheric oxygen penetrates the depth of the fuel. The in-depth slow-burning of the charcoal is specific to the deciduous hardwoods, which is rich in long and wide vessels, which behave as air-ducts within the wood. In the case of coniferous softwoods, with small and confined cells, the wood slow-burns only at the surface; during a fire, the slow-burning of the softwood members ceases relatively shortly.

3. *The flame burning phase:* the combustible gases evaporated from the heated wood ignite when in contact with open flame, at temperatures between 215 and 260°C. Even without contact with open flame, the gases will auto-ignite at temperatures between 350 and 450°C. This phase is characterized by the outward effusion of the combustion gases, toward the atmospheric oxygen; when the wood reaches a heating point of about 280°C, the effusion intensifies and the process becomes exothermic, producing almost 2/3 of the caloric output of the wood (which is 4500 Kcal/kg)

4. *The flameless hot-burning phase:* is the final phase, different from the slow-burning, also flameless, phase. The charcoal left after the gases evaporated oxidizes when in contact with an air draught. When the open flame is removed, the combustion continues only in those areas where the high temperatures are maintained through physical closeness or insulation. In the case of a burning building, the air input produces an intense combustion in this phase of the wooden members of the walls and ceiling.

The wood burning with excess air input will produce temperatures around 800°C. These temperatures are mostly reached in the case of small buildings. In the case of a wide-area fire, with several buildings burning simultaneously, the heat loss is smaller, while with a strong draught the fire can reach well above 1000°C. The increase in the air and hot combustion gases velocity will

accelerate the successive ignition of all the wooden elements. The duration of the fire depends on the number and size of the wooden members, as well as on their consecutive ignition and burning phases. The simultaneous combustion of the wooden members depends on a sequence of factors: the constructive characteristics of the building, the positioning of the burning elements and the propagation direction of the fire. The buildings that include wooden members with wide exposed areas (planks, squared beams) will burn easier than the ones with non-squared timber elements (DECHER 2003, 230).

II.4. The firing of a clay floor on wooden staves platform

II.4.1. The preparation of the floor.

The first experiment, carried out between August and October 2003, was supposed to answer the question whether the floors built on platforms of wooden staves were fired prior to the raising of the walls. As per the preparation of the experiment, we built a 3 x 3 meters floor, on a bearing structure made of split logs. These were laid with the flat face down, after a rough levelling of the building site (Fig. 1/1-2). The staves were covered with a layer of beaten clay, mixed with chaff and minced straw, 3-4 cm thick (Fig. 1/3-4), smoothed afterwards (Fig. 1/5-6). The floor was left to dry in the sun for three days. The quick drying resulted in deep cracks on the floor surface (Fig. 1/6).

II.4.2. The firing of the floor. It must be pointed out that the first firing attempt did not take into consideration the quality of firewood and neither the placement of the firewood onto the floor, which influenced the results of the experiment. Thus, after the laying of a thick layer of straw onto the floor, which was hoped to raise rapidly the temperature of the fire, almost a full cartload of dry oak branches, faggots and logs, totalling near to 0.4-0.5 cubic metres of wood. The firewood was not piled neatly, but thrown onto the floor in an approximately conical pile (Fig. 2/1-2). After the ignition (Fig. 2/1) and the quick burning of few dry branches, it was revealed that the fire was snuffed out by the layer of straw (Fig. 2/2) and finally extinguished (Fig. 2/3). The straw

layer was overturned to allow the oxygen to the fire, which took approximately 4 hours, consuming the entire quantity of wood (Fig. 2/4). The results were discouraging: the surface of the floor was only burned on small areas, mainly in the centre and slightly on the edges and barely one centimetre deep.

These results, as well as the quality of the burning, determined us to remake the experiment after three months, in which time the floor dried thoroughly. This time, the organization was more systematic, in order to attain a more significant result. Thus, we used a quantity of over 0.5 sq.m of dry oak logs, cut and split in 0.7 m long pieces. These were arranged on top of the floor in a layered structure, allowing the inflow of the air to maintain the fire up to the centre of the floor (Fig. 2/5). The fire took over seven hours (Fig. 2/6) to burn down, the entire quantity of wood becoming a mass of charcoal (Fig. 3/1) that maintained the temperature high.

The remaking of the experiment, with better firing conditions, did not result in better outcome. In the corners of the room, the floor was barely touched by the fire (not even blackened) (Fig. 3/3). The edges of the floor were slightly baked red, with frequent black spots (Fig. 3/2); the sectioning of the floor revealed that the burned layer was under one centimetre thick, and the platform logs and their clay covering were not affected at all (Fig. 3/4). In the centre of the floor the situation is only slightly different, with only the depth of the baked layer of more than one centimetre (Fig. 3/5). As for the logs of the platform, they were not even heated by the fire above (Fig.3/6).

II.4.3. The conclusions of the experiment. Following the experiment, we reached the conclusion that it is difficult to ensure, for a longer period, a high level of stable temperatures, above 800°C, which is required for the burning of the clay to a degree similar to the one of the archaeological features. The open space of the firing leads to a quick decrease in temperature and consequently to the end of the fire. Only a large quantity of firewood would result in a high-quality firing, which quantity should be proportional to the floor area, which could be over 100 sq.m

(requiring around 100 cubic meters of firewood, i.e. roughly 500 trees, an extraordinary effort, with destructive effect on the natural surroundings of the settlement). It is also hard to believe that one community, even a large one, could control the fire on such a large surface, without affecting the neighbouring dwellings. In regards to the simultaneous firing of all the buildings within the settlement, which would avoid endangering the already built dwellings, this is highly improbable, as the archaeological research did not uncover the burned soil that should be present in between the dwellings.

To conclude, the results of the experiments reveal that there is no other option than to believe that the clay floors built on wooden staves platform could not be fired intentionally before the building of the walls.

II.5. The “accidental” burning of a dwelling⁴

The reconstruction of an accidental fire in a Chalcolithic dwelling included, as shown above, the reconstruction of two possible situations. These consisted, firstly, in burning of an isolated dwelling (No. 1), of under-average size (28 sq.m), with less dense wooden structure (with no wooden floor substructure and sparse, irregular wattle) and thicker than average daub (Fig. 4/1).

Secondly, the experiment involved a small building (12 sq.m), with more ample wooden structure (floor raised on a wooden platform of split logs and with thickly woven wattle) and thinner daub (dwelling No. 4). This building was built very close to another one (1 m distance), which was burned with addition of fuel, in order to verify also the

behaviour of a burning building in such situations.

II.5.1. The “accidental” burning of dwelling No. 1. The first stage of the experiment consisted in the “accidental” burning of dwelling No. 1. The ignition was produced by extending the fire from the dwelling’s fireplace. The roof caught fire after roughly three minutes, during which the roofing material heated and emitted smoke (Fig. 4/2). The opening at the top of the roof (produced by the burning away of the roofing material, i.e. thatch), together with the entrance left open, resulted in a vertical draught that sustained the fire, which reached a high intensity for a short period of time, of few minutes, with the appearance of bonfire (Fig. 4/3). Due to the sharp increase in fire temperature and intensity, the structure of the roof (especially the ridge) burned very fast, resulting in the collapse of the whole roof on the room below (Fig. 4/4-5), after 21 minutes following the moment when the roof caught fire.

The collapse of the roof was followed shortly by the collapse of the two gables. These were built of wattle and thickly daubed and were not structurally linked to the underlying walls of the dwelling. Consequently, after the collapse of the roof, the gables, which were leaning forward due to the slope of the terrain and the weight of the roof, collapsed also, the front one outwards and the back one inward (Fig. 4/6). This process is also a result of the partial burning of the sill-plates under the gables, which led to the breaking of the connections between the gables and their bearing walls.

After the roof collapsed, the intensity of the fire diminished. Its flameless slow burn continued, under the collapsed roofing, which gradually transformed into ashes, but without any capacity to ignite other parts of the dwelling. The fire gradually died, after 20 hours approximately.

It is to be remarked upon the fact that the firewood stacked against the wall (of dwelling No. 1) (Fig. 5/1) did not catch fire with the roof, but after the collapse of the later and that only from the dried fodder, which was ignited by the burning thatch. The stacked firewood continued to burn after the fire inside the dwelling subsided. In the area

⁴ The building burning experiments were carried out in two stages. The first stage was concluded in 2004, October 24th with the occasion of the visit paid to Cucuteni camp by the participants of the International Colloquium *Cucuteni - 120 Years of Research. Time to sum up* held in Piatra-Neamț, when the accidental fire of an isolated dwelling and the intentional firing of an isolated dwelling were recreated. The second stage was concluded in 2005, May 14th when the two adjacent buildings were burned. The experiment could not have been possible without the support given by the *Cucuteni for the 3rd Millenium* Foundation, through its President, Mr. Romeo Dumitrescu, to whom we offer our gratitude.

of the firewood pile the wall was burned at the base, together with one of its embedded structural wooden posts (Fig. 5/2), which damage later produced the partial collapse of the wall (Fig. 5/5).

One of the goals within the experiment was also the recording of the peak temperatures reached during the fire. The recording was made possible through the loan of two thermocouple sensors (platinum-radium, with ranges of up to 1200°C) from the University of Fine Arts in Bucharest, courtesy of Professor Dragoş Gheorghiu, who also undertook the measurements. The sensors were each inserted in one of the two buildings that underwent the experiment of 24 October 2004, by means of a hole drilled in the wall opposite to the door, right above the floor. The recording was carried out every 15 minutes⁵ by a team of students from the Faculty of History, "Al. I. Cuza" University in Iasi. Thus, in the case of the dwelling No. 1 ("accidental" burning) the peak temperature reached was 270°C.

II.5.2. The "accidental" burning of dwelling No. 4. The second experimental "accidental" fire was aimed at monitoring the burning behaviour of a building that is accidentally set on fire (dwelling No. 4) by being very close to another (dwelling No. 3) that was burned intentionally, with addition of firewood (Fig. 7/1). We intended thus to answer the questions (at least two of them) regarding the burning of the Chalcolithic dwellings: how the fire is spread from one building to another and what quality of burned material such spread fire will produce. In the same regard, we also have taken into account the burning behaviour of

a raised floor, which wooden platform was uplifted (on wooden sills and blocks) (Fig. 7/1), as was recorded in the settlement Cucuteni A from Hoiseşti (URSULESCU, TENCARIU, BODI 2003, 5-18).

In order to reach these objectives, the experiment started by setting fire to the dwelling loaded with additional fuel (firewood) (dwelling No. 3), by igniting its thatch from outside. The fire quickly engulfed the roof and after 55 seconds jumped to the roof of the neighbouring building (dwelling No. 4) (Fig. 7/2). Three minutes later, as a consequence of its external origin, the fire consumed the binding of the thatch, which slid to the ground (Fig. 7/2). The burning continued along the walls, on the ground level, and after four minutes it propagated to the substructure of the raised floor; it gradually decreased in intensity, while after nine minutes it was almost extinguished. The fire revived from time to time, boosted by air draughts and by the heat from the fire of dwelling No. 3, and continued to smoulder for approximately 24 hours.

The exposed wooden members and the ones only slightly daubed burned quickly, e.g. the long wall opposite the dwelling No. 3, which was built half as a lightly daubed reed-woven screen and half as a clay-washed dense wattle. In fact, this wall burned quite fast, after two hours only the charred wooden framing remained. During the first 24 hours of the fire, these elements also burned out gradually, further weakening the bearing structure of the building (Fig. 7/3).

Following the burning of the thatch, the roof structure endured for a while, unlike the one of dwelling No. 1. The rafter detached from the ridge and collapsed one after the other inside the room below; the ridge-beam continued to burn for two hours, after that, due to the joints burning away, it fell onto the floor.

The raised floor started burning approximately half-hour after the starting of the fire. After four hours the floor collapsed in certain areas, i.e. the entrance and one corner (Fig. 7/3). In this corner, the pottery stored here fell through, onto the ground below, some surviving unbroken (Fig. 7/4). In other areas, the floor remained sound, with

⁵ Unfortunately, Mr. Gheorghiu provided us only with the results of the second, "intentional", firing, of October 24th 2004, which diagram we present in the annexes. He explained that the data were lost, or have been badly recorded, in either case Mr. Gheorghiu did not provide the diagram of the "accidental" burning, trying even to determine us to abandon the presentation of the second, "intentional", firing temperature diagram, under the pretense of the results being altered. Without trying to understand the reasons of such anti-academic behavior, we shall produce the "intentional" firing diagram, for the "accidental" burning presenting only the raw data of the peak temperatures, as they were recorded by our students and were confirmed, on-site, by Mr. Gheorghiu.

its wooden structure intact (not touched by the fire) (Fig. 7/4) and the material stored above left in place.

Due to the extended duration of the fuelled fire in the dwelling No. 3 (over 72 hours), the side walls of the dwelling No. 4 were kept heated, resulting in the slow-burning of their structural timber. This led to the collapse of the walls, burned or not; only a few posts remained standing (Fig. 19/5).

II.5.3. The results of the experiment.

The experiment continued also after the burning down of the two buildings, by surveying the weathering behaviour of the burned remains for the following two years. Thus, in the case of dwelling No. 1, immediately after the end of the fire, it was remarked that an accidental fire that damages an isolated building results only in the complete destruction of the roof, which collapsed inside. The walls remained standing (Fig. 5/2-4), barely touched by the fire. Only the area where the firewood was piled against the wall suffered some form of fire-hardening, and that only locally (Fig. 5/1-2). A certain reddening of the wall surface was noticed inside, to a depth of 6.77 mm (Fig. 6/1), which corresponds to the clay-washing layer, and was produced by the occurrence of oven-effect heating inside the house, prior to the collapse of the roof. The bearing wooden structure survived intact: forks (corner-posts), posts, struts and wood buttress (Fig. 5/2-4).

The walls endured for six months, from October to April, under the specific winter and spring weather (snow and rain). The buttressed wall fell outwards, under its own weight rather than as a protracted result of the fire (Fig. 5/6). It brought down with it the entrance wall, which collapsed outwards too. It is a remarkable fact that the vertical timber withstood the collapse (Fig. 5/6).

The burning of the stacked firewood, determined the charring of two adjacent posts and consequently the outward collapse of the respective area of the west wall (Fig. 5/5).

The floor, made only of 3-7.5 cm thick beaten clay, was only burned superficially (under 1 cm deep) (Fig. 6/2) and on certain areas the baked layer was completely washed out by the rain.

The furnishings of the room were burned too. The clay bench built against the short wall opposite the entrance was only superficially burned, like the floor, to a depth of less than 0.5 cm. The whole rest of the bench was untouched by the fire.

The hearth of dwelling No. 1, which was in use for the whole duration of the household experiment (two years), was also baked superficially under the collapsed burning roof. It is to be remarked that the elements of the hearth were not destroyed by the fire, the rim, especially, was found intact (Fig. 6/3). Its sectioning revealed that the rim underwent a thorough fire-hardening process, under reducing atmosphere, as its black colour (instead of red) shown (Fig. 6/4).

The oven, like the hearth, survived the collapse of the roof. Its dome was well hardened, the outer layers were red-baked into a hard, brick-like material that could not be crumbled between the fingers, while the interior lining was black-baked and crumbly.

The grain-storage clay case was similarly burned, its walls being hardened and red-baked on the surface and crumbly, black-baked at the core. Nine months after the fire, the walls of the case collapsed inward. The bottom of the case was only slightly burned, in the form of a thin and hard red crust. The grain stored in the case was carbonized and buried by the ash fallen from the burning roof (Fig. 6/5).

The enclosure of the quern stone was also hardened by heat, taking into account the intensity of the fire. Its walls were similarly burned as the hearth rim and the walls of the grain case (Fig. 6/6).

There were no remains left of the vertical loom, except its weights made of clay. The pots placed around the quern enclosure broke and several shards were projected over a small area (Fig. 6/6). On the area of the flint tools workshop the sandstone slab used as anvil broke in several pieces due to the heat.

Two years after the fire, parts of the walls were still standing, event though washed by the rains. The fallen walls "melted" away, the unfired clay being gradually soaked by the rain- and snow-water. Even the fire-hardened clay, quite

friable, started to crumble. The structural timber survived standing.

In the case of dwelling No. 4, the follow-up of the experiment did not record any special situation, compared to the moment immediately after the fire. Due to its very dense wooden structure and thinner daub, as well as a result of its closeness to the building burned intentionally with additional fuel, the walls were quite thorough burned, especially the ones close to dwelling No. 3; in their case, the daub was hardened to a degree similar to the one of the archaeological finds. The other walls were only partially burned, preserving parts of their unfired daub, which were gradually soaked by the rainwater.

One of the points of interest was the firing of the raised floor and its behaviour in the after-fire period. As shown above, the floor caught fire in stages and it was not entirely burned, as it was expected. The ends of the structural beams burned, as well as the sills of their respective (long) walls, as a result of the burning of these walls (Fig. 7/4). The supporting wooden blocks below the centre of the floor were not burned with the result of the floor not collapsing. In fact, the burning process of the beams did not progress, apparently, beyond ignition phase, and they maintained their whole cross-section (Fig. 7/4). The daub of the floor was also moderately burned, the hardened layer being friable and blackened, which indicates a temperature below 500°C.

II.5.4. The conclusions of the experiment. The results achieved within the Cucuteni experiments allow the formulation of certain conclusions regarding the accidental burning of Chalcolithic buildings. Thus, in the case of an accidental fire of a somehow isolated building, we can safely assume that only the roof will burn thoroughly. This fire will not affect severely the dwelling, only damaging some furniture and not affecting the bearing structure, especially when thickly daubed. In fact, we could notice that, in such cases, the people were able to intervene and to extinguish the fire, once the roof burned down and collapsed. In case the roof is not rebuilt and the dwelling reoccupied, it can be demolished and its timber used for raising a

new one. Even the not-hardened clay could be reused, after re-softening with water.

In the case of an accidental fire of a building located close to another one, burned intentionally, we could notice a completely different situation. As a result of the flames and heat from the neighbouring building (burned with additional firewood), the bearing structure of our dwelling was destroyed and its walls collapsed. The most damaged area is the one closest to the building burned intentionally. Some wooden members survived, especially from the walls farther from the source of fire, and could be recovered. The high temperatures of the neighbouring fire prevented the intervention of any fire-fighting people. In this regard, even though the degree and extension of clay fire-hardening is high, it is not comparable to the one found on the Chalcolithic sites.

The results of our "accidental fire" experiments allow us to disregard this type of fire as the possible cause for the destruction of the Chalcolithic buildings. The accidental fires are a historical reality, but their intensity could not be even close to that required for the thorough brick-like hardening of the daub, especially of the floors, as is often the case with the building remains unearthed in the archaeological excavations.

II.6. The intentional burning of a dwelling

This part of the experiment consisted in two cases: the intentional burning of an isolated building (dwelling No. 2 – Fig. 8/1 –, of small size – 4 x 3 m, with a denser wattle and similar daub thickness compared to dwelling No. 1) and the intentional burning of a non-isolated building (dwelling No. 3, also of small size – 4 x 3 m, with dense wattle and thin daub, built close to another one, i.e. dwelling No. 4) projected to reproduce a "crowded village" situation (Fig. 7/1). Both buildings were built upon raised floors, on wooden platforms of split logs.

II.6.1. The intentional burning of dwelling No. 2. The first part of the experiment involved dwelling No. 2, built in isolation, and it was carried out at the same day as the burning of dwelling No. 1. Anticipating the results of the dwelling No. 1 burning, we built upon the fact that the

burning on purpose of an Chalcolithic building should have been carried out by using additional firewood, the sole explanation of the degree and extension of the brick-like fire-hardening of the daub. In this respect, attempting to achieve the highest level of firing, we brought in approximately 16 cubic meters of firewood (oak and beech) of high caloric power. The only drawback was the fact that the wood was green, from freshly felled trees. The logs were cut in pieces less than 1m in length and then split.

The firewood was stacked alongside the walls, both outside (Fig. 8/2) and inside (Fig. 8/3), in crosswise oriented courses, in order to allow a good air penetration for maintaining the flames.

One of the secondary objectives of the experiment was to survey the behaviour of the skeletal remains inside a burning building. This part of the experiment was supposed to answer the question whether the animal bones found on the sites of the burned down Chalcolithic buildings were left by its dwellers or disposed of in ad-hoc garbage pit of the burned ruins by other villagers. Thus, the experiment implied the deposition of two carcasses (one pig, 1 year old, and one sheep, 4 years old) inside the house (Fig. 8/4).

The fire was set from both inside and outside the dwelling. Due to the rapid progress of the exterior fire to the whole roof (Fig. 8/5), the binding of the thatch burned away, letting the burning bundles of stalks to slide to the ground (Fig. 9/1). The high temperature in the area (100°C at floor level after 30 minutes – see also the temperatures diagram – Fig. 21) caused the stacked firewood to ignite (the first phase, with heating and thermal decomposition).

As the experiment team was not confident in the igniting capacity of the firewood, immediately after the burning of the thatch, we thrown another 100 bundles of rushes inside the house, to maintain the flames. The result of this was the maintaining and the somehow forced growing of the fire for more than half an hour, leading to the ignition of all the firewood and the reaching of 200°C at the floor level after 1 hour).

Once burning, the wood reached the second stage (the flameless slow-burning) (Fig. 9/2), which took approximately half an hour, the temperature at the floor level reaching 250°C. As the wood burning in this phase is flameless, the team re-fuelled the fire, which we believe now that was not required.

After reaching the temperature of 250°C, the flammable gases released by the heated wood ignited (Fig. 9/3) and the fire reached the third phase (the flame burning). Two hours after the fire-starting the temperature reached a new peak value of 270°C dropping, soon after, to 220°C, due, most probably, to the weather conditions. Beyond this point the fire slowly intensified, the temperature reaching 420°C, four hours after the start, followed by a short interval of cooling (15 minutes, reaching 400°C) and then by a steady heating, reaching 500°C at five hours and 700°C at six hours after the start, when we stopped the temperature monitoring. The fire reached already, at this point its fourth phase (the hot flameless burning), being protected from the elements by the hot walls of the building (Fig. 9/4) but with enough air input, though, to maintain it. This final phase lasted another 84 hours before the fire was completely extinguished.

As a result of the high temperatures reached during the last phase, the wooden elements of the walls caught fire, both the bearing members (Fig. 9/5-6) and the wattle panels, leading to the weakening of the walls and the quick collapse of one of them (Fig. 10/1).

II.6.3. The intentional burning of dwelling No. 3. The second part of the “intentional” burning experiment was carried out in May 2005, with the recreation of a “crowded village” simulated environment, with two buildings very close to each other (Fig. 7/1). One of the two was burned intentionally, with addition of firewood (dwelling No. 3 - Fig. 18/1), i.e. 10 cubic meters of firewood (linden and beech) of moderate caloric power (Fig. 18/2-3).

Most of its duration, the experiment was carried out in the same conditions as the burning of dwelling No. 2, following the same stages (Fig. 18/4-5; 19/1-3). Due to the fact that dwelling No. 3 was built with a

denser wooden structure and thinner daub, its fire gave better results, in terms of reproducing the archaeological features. In fact, the complete burning of its wooden structure caused the collapse of the walls even during the fire (Fig. 19/1-3), which did not happen in the case of dwelling No. 2. Unfortunately, it was not possible to monitor the temperatures for this part of the experiment, the end of the fire occurring some 75 hours after its start.

II.6.3. The results of the experiment.

In regard to the objective of the experiment, the results of this part are outstanding. Firstly, we were able to record the duration of the complete burning down of a Chalcolithic dwelling, which totals more than three days (90 hours in the case of dwelling No. 2 and 75 hours for dwelling No. 3).

Secondly, we collected data on the evolution of the temperature during the fire, even though for the first six hours only, recording the peak value of 700°C (Fig. 21). We are certain that the maximum temperature reached inside the building was higher, around 900°C, after the recording ended. In fact the temperature of some prehistoric fires could have reached 1175°C (the vitrification point for most of the clays) as confirmed by the archaeological finds.

The most important results of the experiment are the data on the behaviour and the results of the fire. First of all, we proved that the fire, in the case of intentional burning, is less than probable to be controlled, while the possibility of directing the air draughts as hypothesized by I. T. Dragomir (DRAGOMIR 1962, 394-398; 1983, 35) is even smaller. Although this control could be accepted for accidental fires, once the roof collapses, the intentional burning with addition of firewood produces such an adverse environment (heat, smoke and lack of oxygen) that the control of the fire is out of question. During the experiment, in the periods of intense burning, the team could not go closer than 4 meters to the buildings.

Then, in the case of the intentional burning, the wooden structure of the buildings burned almost completely. The vertical members especially burned – the corner-post (Fig. 9/5-6; 10/2-3; 19/2-4), the uprights (Fig. 13/3-4; 19/2-3) and the stakes

(Fig. 10/1; 19/2-3), and then the horizontal ones – the wall plates (sills) (Fig. 10/4-5), and the floor platform (Fig. 14/3; 15; 16/5). The wattle panels burned mostly in the lower areas of the walls (Fig. 12/4-5; 20/1-2). The destruction of the wooden structure, especially of the vertical bearing members, resulted, immediately or later, in the collapse of the walls. We can conclude that the intentional burning of the Chalcolithic buildings was by no means serving to the strengthening of the walls!

The observation of the burned walls also provided several interesting results. It should be said from the start that there were significant differences between the burning of the dwelling No. 2 walls and that of the dwelling No. 3 walls, as the former were thicker and thick daubed and the latter were thinner, with denser wattle, more timber and very thin daub. The latter were thoroughly (crosswise and lengthwise) burned (Fig. 19/4; 20/1-3) to a degree of fire-hardening close to that of the archaeological finds.

In the case of dwelling No. 2, the long wall burned thoroughly across its thickness, from the base up to a height of 0.6-0.7 m (Fig. 11/1; 12/1, 4-5). Its upper reaches were burned only superficially (Fig. 11/4-5; 12/2-3, 6-7; 13/1-2), the thickness of the burned layer decreasing with the height of the wall: 2 cm at 1.35 m (Fig. 13/1), 1.65 cm at 1.50 m (Fig. 13/2) and 1 cm at 1.70 m of height (Fig. 12/3). The same remark can be made on the east wall (Fig. 11/2-3; 13/3-5), which preserved at its base, though some unburned timber (Fig. 13/3-4). Conversely, the north wall was fire-hardened mostly within, only its lining daub layer burned on the outside, 0.67 cm thick.

Even though the walls of dwelling No. 2 were not wholly burned, the large quantity of burned daub is to be remarked upon, in comparison to those of dwelling No. 1, which was burned “accidentally”. The quality of the fire-hardening process is also to be outlined, as the burned daub is very similar to the one found within the archaeological sites.

Another interesting observation on the building walls, resulting from the experiment, involves the vertical bearing members that were lodged into postholes. Even though the

upper part was preserved as an imprint into the daub (Fig. 10/2-3; 13/3-4), the lower part, which was buried, was preserved whole (Fig. 13/4; 20/4-5). In the absence of oxygen, the fire stopped at the treading level, without touching the buried parts of the vertical members. This confirms the archaeological finds of Malnaş-Băi (A. LÁSZLÓ 1988, 27) and Hârşova (TOMESCU 2004, 76-77, pl. VI), where the wooden remains in the postholes did not burn, but decayed naturally, the space being then filled by burned remains from above (TOMESCU 2004, pl. VIII).

Another point of interest is the group of results regarding the floor of beaten clay with substructure of split logs. This is a long-debated issue and the results of our experiments should, in our opinion, clarify it to a certain extent. Firstly, as shown above, in the case of the separately burned floor, the possibility of being fired prior to the raising of the walls should be discarded.

Even though some might disregard the results of the first experiment, we believe that the experimental results following the burning of the buildings with wooden platform floors shall be much more convincing. Thus, in our eagerness to verify the status of the dwelling No. 2 floor, we were more than surprised to see that no less than 20 hours after the start of the fire the wooden structure of the floor was still untouched by the fire. This find should have demolished instantly the myth of the intentional burning of the wooden platform floors!

Two month after the fire, when the team came to Cucuteni for a recording of the post-fire results of the experiment, the myth was reborn: the wooden structure of the floor was completely burned. The explanation is given by the burning behaviour of the wood.

As shown above, the last phase of wood burning consists in slow-burning of the wood in the areas that can retain heat. This is the case of a clay floor with wooden substructure, where the wood continues to burn slowly due to the high temperature retained by the hardened clay debris. This is also the case of a split-log structure (the one of dwelling No. 2), where the clay beaten on top of the logs is separated and behaves differently than the clay squeezed between

the logs. Once the fire is started at the ends, where there is the junction with the walls, and benefitting from the heat on the clay floor surface, the timber in its structure will continue to burn, even after the fire ended above it, as the high temperature was maintained for a long time. Thus, if after 20 hours since the start of the fire the split logs of the floor were not even charred, 70 hours later, when the above-ground fire died completely, the same wooden pieces were charred and even burned, a process that continued, most probably, after the fire above the floor was extinguished.

Two months after the fire, the clay of the floor was very friable, the floor crumbling under our feet (Fig. 14/1). The question of why this floor was so less strong than the archaeological floors was answered after six months, during which the burned ruins were weathered by the melted snow and the spring rains. Following the soaking and drying, the fired clay turned into a brick-like, hard material, as is known from the archaeological finds. This process is caused by the binding of all the aluminosilicates and of the calcium and magnesium hydroxides (resulting from the presence of the carbon dioxide in the water and air) into a hard material (in a process similar to the concrete-making), and after the fire, in the presence of the atmospheric humidity and during the freeze-thaw cycles, there take place processes of hydration and carbonation, which strongly bind together the clay micro-particles.

II.6.4. The conclusions of the experiment. Taking into account also the above results, we uphold our prior affirmation that the firing of the clay floors on wooden platforms prior to the raising of the walls is highly improbable. If the result desired by the builders would have been a floor hardened to the strength and consistency found in the archaeological features, this would require a very intense fire, fuelled by a huge quantity of hardwood, over a long period of time. In case they would have achieved the desired result, the experimental evidence suggests that the floor would collapse under the weight of the inhabitants, as its bearing structure would have burned away during the fire.

The cross-section through the floor of dwelling No. 2 would confirm the archaeological finds. Thus, the clay of the floor was fire-hardened throughout its thickness, including the wedges between the staves (Fig. 14/2-3; 15). The burning of the wooden pieces caused the charring of the soil at their base (Fig. 15/2), without reaching the degree of fire-hardening of the clay above.

The floor was covered in a layer of ash of burned grassy plants, from the burned thatch that was covered, after falling, by collapsed burned daub from the walls (Fig. 15/1), a situation found very often within the buildings uncovered on the Chalcolithic sites.

The data regarding the burning of the clay bench in dwelling No. 2 are also interesting (Fig. 16/1-2). The bench was fire-hardened throughout its thickness only at one of the ends, in the middle of the east wall (Fig. 16/5). Its northern area was only superficially burned (Fig. 16/3), causing the wooden substructure of the floor to remain unburned in that area (Fig. 16/4), the clay of the bench, 10 cm thick, preventing the heating of the wood.

Regarding the two animal carcasses, they were intensely burned, reducing the bones to ash (Fig. 17/1, 4). The pig bones were burned to a stronger degree, due to the younger age of the slaughtered animal (1 year), even the teeth becoming so burned that could be crumbled between the fingers (Fig. 17/2-3). The sheep bones were also intensely burned but they retained a certain degree of consistency (could not be crumbled between the fingers) due to the maturity of the slaughtered animal (4 years) (Fig. 17/5-6). These data determined us to have a more critical look at the skeletal remains found inside the Chalcolithic dwellings, where these appear not burned. The conclusion is that the bones were disposed of in the ruins of the buildings, used as a garbage dump, after its desecration by fire.

III. Conclusions

All the results produced by the first series of experiments of burning Chalcolithic

dwellings led to the conclusion that the fire is a deliberate act, occurring at the end of the dwelling's useful life. In support to the above, we can bring several arguments: the accidental fire of a building does not result in the burning of the architectural elements (walls, floor), as they appear in the archaeological features, where these are fire-hardened to brick-like consistency; the large quantities of firewood required to achieve the necessary intensity of the fire and the high temperatures for hardening the daub of the Chalcolithic dwellings; the lack of remains from eventual victims and the scarce inventory of goods inside the burned buildings, which prove a planned leaving of the house; not in the least, the general spread of this phenomenon on the area inhabited by the Chalcolithic communities north of Balkans and in Europe, a phenomenon originating, in our firm opinion, not in need of hygiene, but in a religious custom, adopted by almost all the Chalcolithic communities of the time.

To conclude, we view the burning of the Chalcolithic dwellings as a deliberate act, at the end of the useful life of the building or settlement, of ritual significance.

It is more difficult, though, to ascertain the nature of this ritual. In our opinion, this is not a ritual triggered by a crisis of sorts (food-related, perhaps) or a natural catastrophe (earthquake, epidemic). The rare occurrence of such events does not justify the generalization and long duration of this practice. In the same respect, it is equally improbable that the ritual would be triggered by the death of a community leader (chieftain or shaman) or be periodical (yearly or multi-annually). The most probable explanation is a cosmogonic ritual, performed in order to desecrate the lived-in space (dwelling or settlement), at the end of a longer cycle (a generation, perhaps) a ritual of great importance in an agricultural world.

Bibliography

- BÂRZU Ligia
1985 *Arheologie generală. Curs*, București.
- BANKOFF Arthur H., WINTER Fred
1979 *A House-Burning in Siberia*, *Archaeology*, 32, 5, p. 8-14.
- BELDICEANU Nicolae
1885 *Antichitățile de la Cucuteni. Schiță arheologică*, Iași.
1885a *Antichitățile de la Cucuteni*, RIAF, III, V, p. 187-192.
- BOGHIAN Dumitru
2004 *Comunitățile cucuteniene din bazinul Bahluiului*, Suceava.
- BOLOMEY Alexandra
1983 *Noi descoperiri de oase umane într-o așezare cucuteniană*, CA, VI, p. 159-173.
- BUȚUREANU Grigore C.
1890 *Notiță asupra săpăturilor și cercetărilor făcute la Cucuteni din comuna Băiceni județul Iași*, Arhiva, I (1889-1890), p. 257-271.
1891 *Notes sur Coucouteni et plusieurs autres stations de la Moldavie du Nord*, in vol.: *Congrès International d'Anthropologie et d'Archéologie Préhistoriques. Compte-rendu de la dixième session à Paris 1889*, Paris, p. 299-307.
- CHVOJKA V. V.
1901 *Kamenyi vek v Srednem Podneprovye*, in vol.: *Trudy XI Arheol. Siezda v Kieve v 1899 g.*, 1, Moskva, p. 736-812.
- COMȘA Eugen
1962 *Săpături arheologice la Luncavița*, Materiale, VIII, p. 221-225.
1971 *Neoliticul județului Tulcea*, Peuce, II, p. 11-18.
- COTIUGĂ Vasile
2001 *Poduri, com. Poduri, jud. Bacău. Punct: Dealul Ghindaru. Cercetarea locuinței nr. 74. O privire preliminară*, Cronică. Campania 2000, p. 193-194, pl. 50.
- COTIUGĂ Vasile, COTOI Ovidiu
2004 *Parcul arheologic experimental de la Cucuteni. Perspective în cunoașterea realizării uneltelor și locuințelor cucuteniene prin arheologie experimentală*, in vol.: M. Petrescu-Dîmbovița, Mădălin-Cornel Văleanu, *Cucuteni-Cetățuie. Săpăturile din anii 1961-1966. Monografie arheologică*, BMA XIV, Piatra-Neamț, p. 337-351, fig. 310-319.
- DECHER Emanuela
2003 *Construcții din lemn*, vol. I, *Studiul lemnului*, Iași.
- DESCOLA Philippe, IZARD Michel
1999 *Război*, in vol.: *Dicționar de etnologie și antropologie* (coord.: Pierre Bonte, Michel Izard), Iași, p. 563-566.
- DRAGOMIR Ion T.
1962 *Unele considerații cu privire la modul de construcție al locuințelor culturii Cucuteni-Tripolie*, SCIV, 16, 2, p. 393-398.
1983 *Eneoliticul din sud-estul României. Aspectul cultural Stoicani-Aldeni*, București.
- DUMITRESCU Vladimir
1960 *Complexul cultural Cucuteni*, in vol.: *Istoria României*, vol. I (coord.: C. Daicoviciu et alii), București, p. 60-70.
1965 *Căscioarele. A Late Neolithic Settlement on the Lower Danube*, *Archaeology*, 18/1, p. 34-40.
1968 *Cu privire la platformele de lut ars ale locuințelor unor culturi eneolitice*, AMN, V, p. 389-396.
- DUMITRESCU Vladimir et alii
1954 *Hăbășești. Monografie arheologică*, București.
- FLORESCU Adrian C., FLORESCU Marilena
1961 *Șantierul arheologic Trușești*, Materiale, VII, p. 79-89.
- HUBERT Henri
1983 *Celții și civilizația celtică*, București.
- KOLEŠNIKOV O. G.
1993 *Tripil's'koe domobudivnictvo*, *Archeologija*, III, p. 63-74.
- LÁSZLÓ Attila
1988 *Date noi privind tehnica de construcție a locuințelor eneolitice*, ArhMold, XII, p. 22-33.
- MARINESCU-BÎLCU Silvia
1974 *Cultura Precucuteni pe teritoriul României*, București.
2000 *Dwellings, pits*, in vol.: Silvia Marinescu-Bîlcu, Alexandra Bolomey, *Drăgușeni. A Cucutenian Community*, București-Tübingen, p. 25-48.
- MATEESCU Corneliu
1978 *Contribution to the study of neolithic dwellings in Romania: a dwelling of the second phase of the Vădastra Culture (middle neolithic)*, *Dacia N.S.*, XXII, p. 65-71.
- MONAH Dan, CUCOȘ Ștefan
1985 *Așezările culturii Cucuteni din România*, Iași.
- MONAH Dan et alii
1983 *Cercetările arheologice de la Poduri - Dealul Ghindaru*, CA, VI, p. 3-22.
2005 *Poduri, com. Poduri, jud. Bacău. Punct:*

- Dealul Ghindaru*, Cronică. Campania 2004, p. 281-283.
- NECRASOV Olga *et alii*
1990 *Cercetări paleoantropologice privitoare la populațiile de pe teritoriul României*, ArhMold, XIII, p. 173-223.
- PASSEK Tatiana S.
1949 *Periodizacija tripol'skikh poselenij*, MIA, 10.
- PATEL Nisha K.
2004 *House Construction and Destruction Patterns of the Early Copper Age on the Great Hungarian Plain*, <http://www.anthro.fsu.edu/research/koros/publications/PatelThesis.pdf>
- PAUL Iuliu
1967 *În legătură cu problema locuințelor de suprafață cu platformă din așezările culturilor Petrești și Cucuteni-Tripolie*, SCIV, 18, 1, p. 3-24.
1992 *Cultura Petrești*, București.
- PETRESCU-DÎMBOVIȚA Mircea
1963 *Die wichtigsten Ergebnisse der archäologischen Ausgrabungen in der neolithischen Siedlung von Truşeşti (Moldau)*, PZ, 41, p. 173-186.
1965 *Din rezultatele săpăturilor arheologice de la Truşeşti cu privire la cultura Cucuteni*, in vol.: *Omagiu lui P. Constantinescu-Iași cu prilejul împlinirii a 70 de ani*, București, p. 43-49.
- 2001 *Realizări și perspective în cercetarea culturii Cucuteni. Discurs rostit la 6 noiembrie 2000 în ședință publică*, București.
2002 *Unele probleme ale culturii Cucuteni în context interdisciplinar*, in vol.: *Omagiu Virgil Cândea la 75 de ani* (coord.: Paul H. Stahl), vol. II, București, p. 107-120.
- PETRESCU-DÎMBOVIȚA Mircea, FLORESCU Marilena, FLORESCU Adrian C.
1999 *Truşeşti. Monografie arheologică*, București-Iași.
- POPOVICI Dragomir *et alii*
1995 *Programul de cooperare arheologică româno-francez pe tell-ul neo-eneolitic Hârşova. Raport 1995*, București.
- STEVANOVIĆ Marjana
1999 *Raport on Experimental Archaeology at Çatalhöyük*, http://catal.arch.cam.ac.uk/catal/Archive_rep99/stevanovic99.html.
- TOMESCU Iulia
2004 *Studiul resturilor lemnoase în arheologie. Paleoecologie și paleoetnografie*, Târgoviște.
- URSULESCU Nicolae, TENCARIU Felix Adrian, BODI George
2003 *Despre problema construirii locuințelor cucuteniene*, Carpica, XXXII, p. 5-18.
- VULCĂNESCU Romulus
1967 *Boşimani*, București.



1



2



3



4



5



6

Fig. 1. The burning of a floor with split logs substructure. 1-2: the mounting of the split logs; 3-4: the daubing of the wooden substructure; 5: the finishing of the floor surface; 6: the surface of the floor after drying.



1



2



3



4



5



6

Fig. 2. The burning of a floor with split logs substructure. 1: the building of the wood pile and the starting of the fire; 2: the burning of the floor; 3-4: the floor after the fire; 5: the preparation for the second burning; 6: the second burning.



1



2



3



4



5



6

Fig. 3. The burning of a floor with split logs substructure. 1: the second burning; 2: the appearance of the floor surface after the second burning; 3: the results of the burning, on a corner of the floor; 4: the results of the burning at the edge of the floor; 5-6: the results of the burning on the center of the floor.



1



2



3



4



5



6

Fig. 4. The “accidental” burning. Dwelling No. 1. 1: view from outside; 2: the roof catching fire; 3: the burning of the roof; 4-5: the roof collapsing; 6: the collapse of the gable.



1



2



3



4



5



6

Fig. 5. The “accidental” burning. Dwelling No. 1. 1: the burning of the firewood piled against the wall; 2-4: the walls two months after the fire, viewed from outside; 5: the walls six months after the fire; 6: the walls nine months after the fire.



Fig. 6. The “accidental” burning. Dwelling No. 1. 1: the burned surface of a wall; 2: cross-section through the burned floor; 3: the hearth after the fire; 5: cross-section through the burned hearth; 6: the burned clay storage-case with the carbonized wheat; 7: the quern place.



Fig. 7. The “accidental” burning. Dwelling No. 4. 1: outside view of dwellings No. 3 and 4; 2: the burning of dwellings No. 3 and 4; 3: dwelling No. 4 after the fire ended (a: the raised floor); 4: the raised floor two days after the fire (a: the interior of the building before the fire).



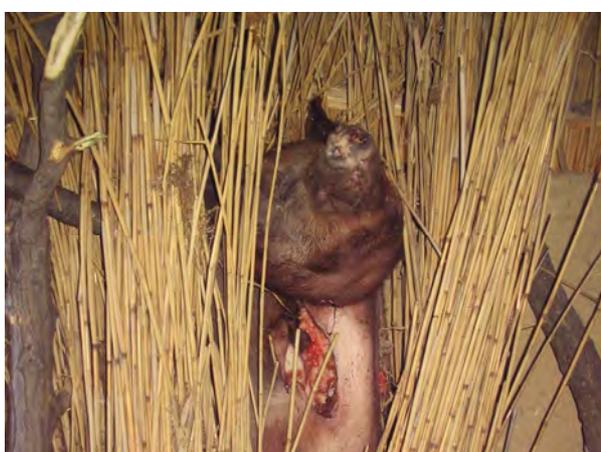
1



2



3



4



5

Fig. 8. The intentional burning. Dwelling No. 2. 1: the dwelling viewed from outside; 2-4: the preparation for the fire; 5: the burning of the roof.



1



2



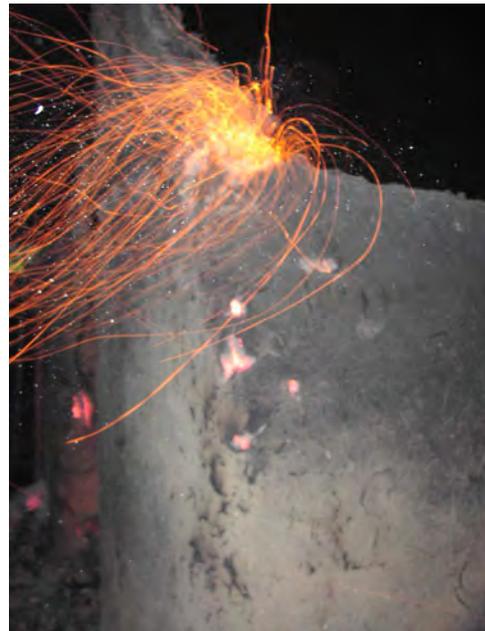
3



4



5



6

Fig. 9. The intentional burning. Dwelling No. 2. 1: the burning of the roof; 2-4: the burning of the walls; 5-6: the burning of the wall-timbers.



1



2



3



4



5

Fig. 10. The intentional burning. Dwelling No. 2 two months after the fire. 1: general view; 2: the corner of the building, with the imprint of the corner-post (*furcă*) and the wall-plate; 3: the imprint of the corner-post, after the fire; 4: the eastern wall, with the imprint of the wall-plate; 5: detail of the ceiling-sill imprint.



1



2



3



4



5

Fig. 11. The intentional burning. Dwelling No. 2 six months after the fire. 1: general view; 2-3: the research of ruins; 4: the eastern wall, surviving in standing position; 5: cross-section through the western wall.

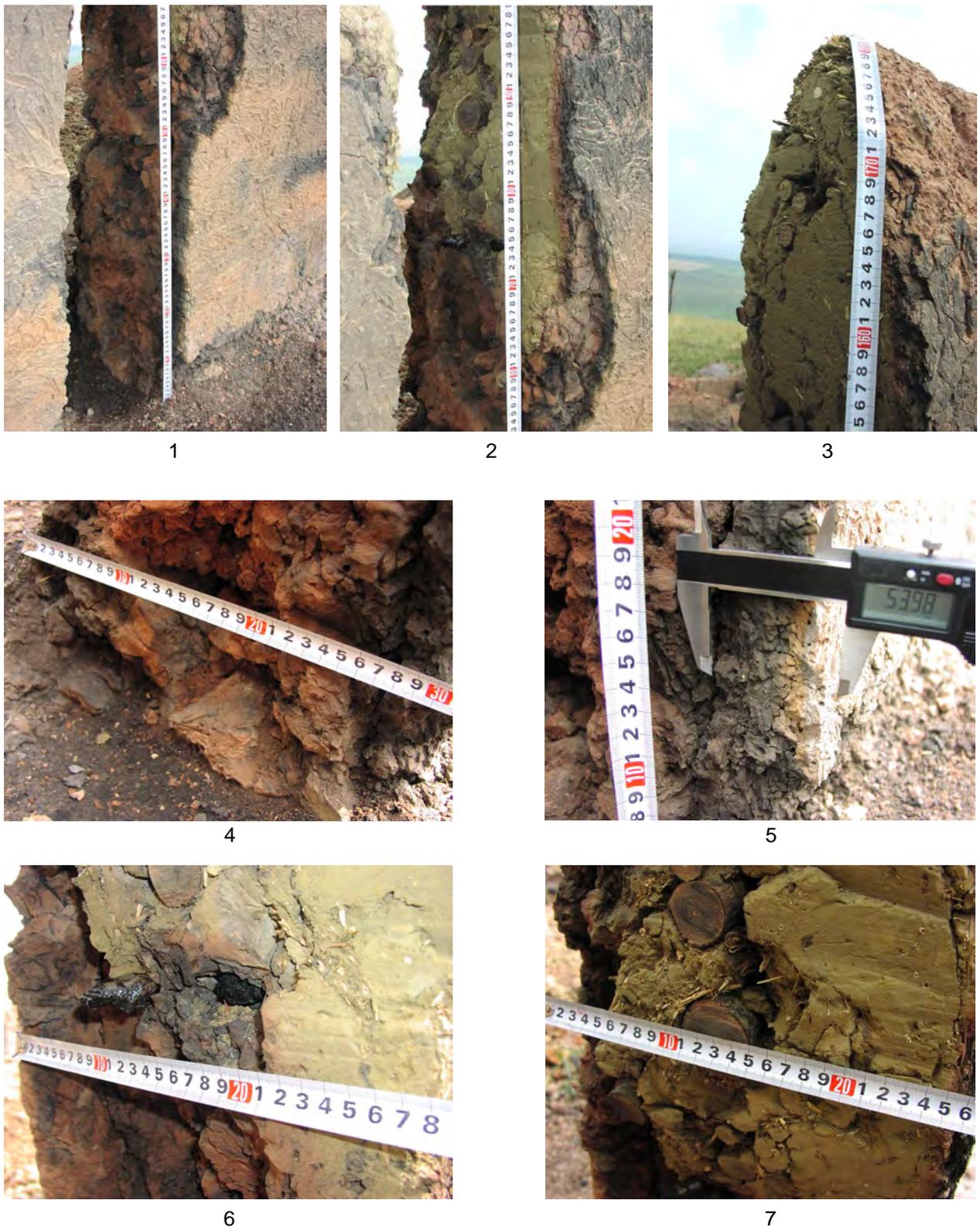


Fig. 12. The intentional burning. Dwelling No. 2 six months after the fire, the western wall. 1: cross-section through the wall, from the base up to a height of 0.6 m; 2: cross-section through the wall, from 0.6 m up to a height of 1 m; 3: cross-section through the wall, from 1.5 m up to a height of 1.8 m; 4: cross-section through the base of the wall; 5: section detail inside the wall, at 0.15 m above the base; 6: section detail inside the wall, at 0.75 m above the base; 7: section detail inside the wall, at 0.9 m above the base.

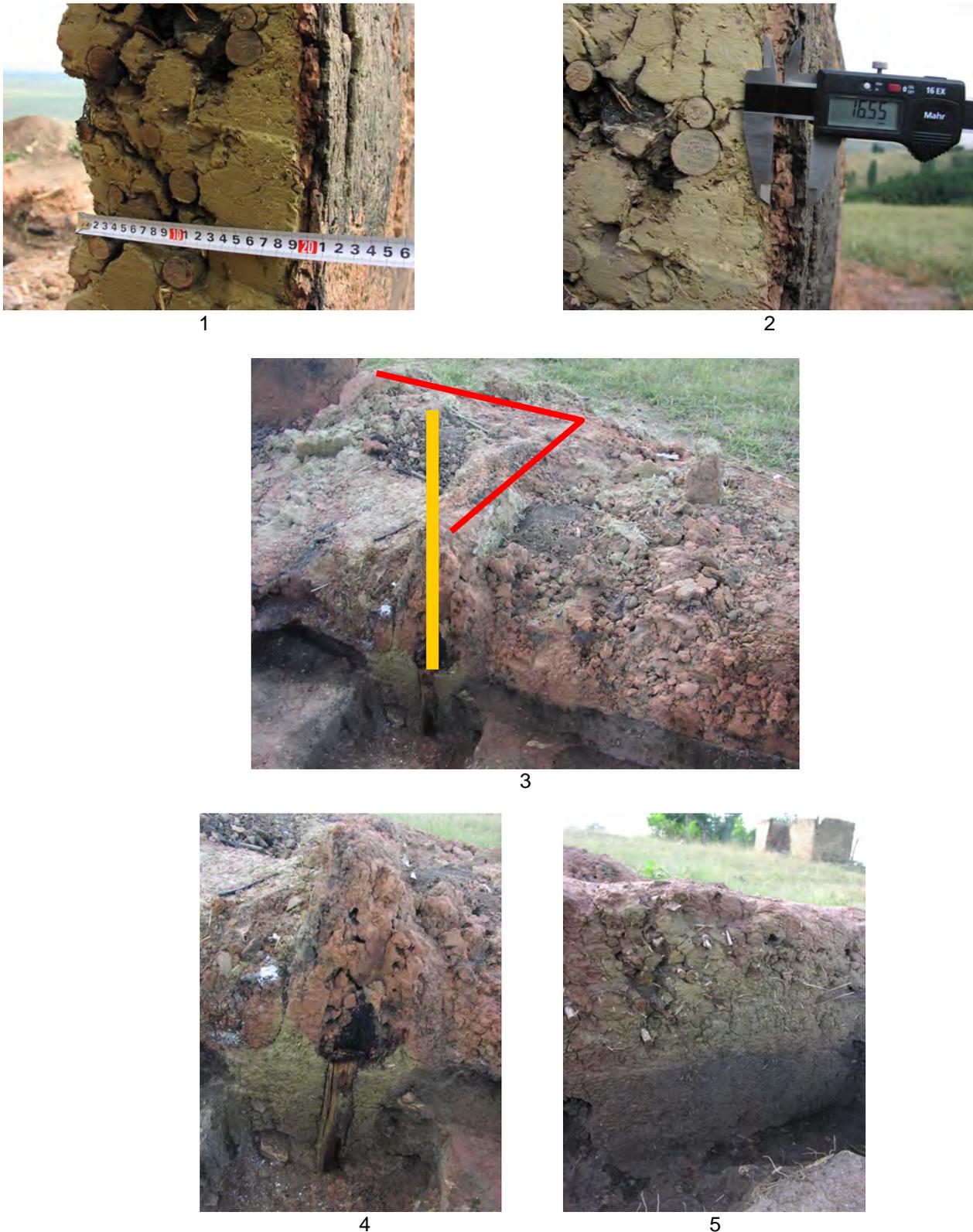


Fig. 13. The intentional burning. Dwelling No. 2 six months after the fire. 1: section detail inside the western wall, at 1.35 m above the base; 2: section detail inside the western wall, at 1.5 m above the base; 3: cross-section through the collapsed east wall (the red lines indicate the directions of the walls and the yellow outlines the post within the bearing structure of the wall); 4: the hole and the post inside the eastern wall with the base of the wall visible in elevation; 5: cross section through the remains of the east wall collapsed outside the dwelling.



1



2

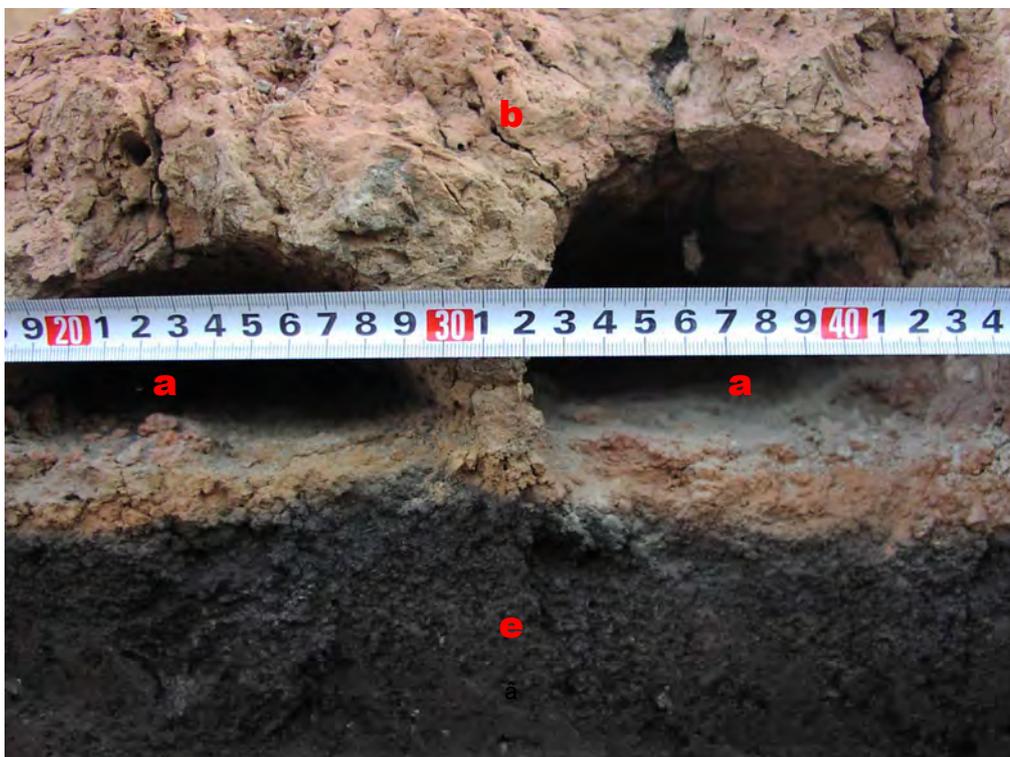


3

Fig. 14. The intentional burning. Dwelling No. 2. 1: the surface of the floor two months after the fire; 2: the surface of the floor and the clay bench six months after the fire; 3: cross-section through the floor.



1



2

Fig. 15. The intentional burning. Dwelling No. 2 six months after the fire. The floor. 1-2: cross-section through the floor - details (a: imprint of a beam; b: daub from the lining of the wooden substructure; c: ashes from the burned thatch; d: burned daub from the walls; e: the mounting level of floor wooden substructure).

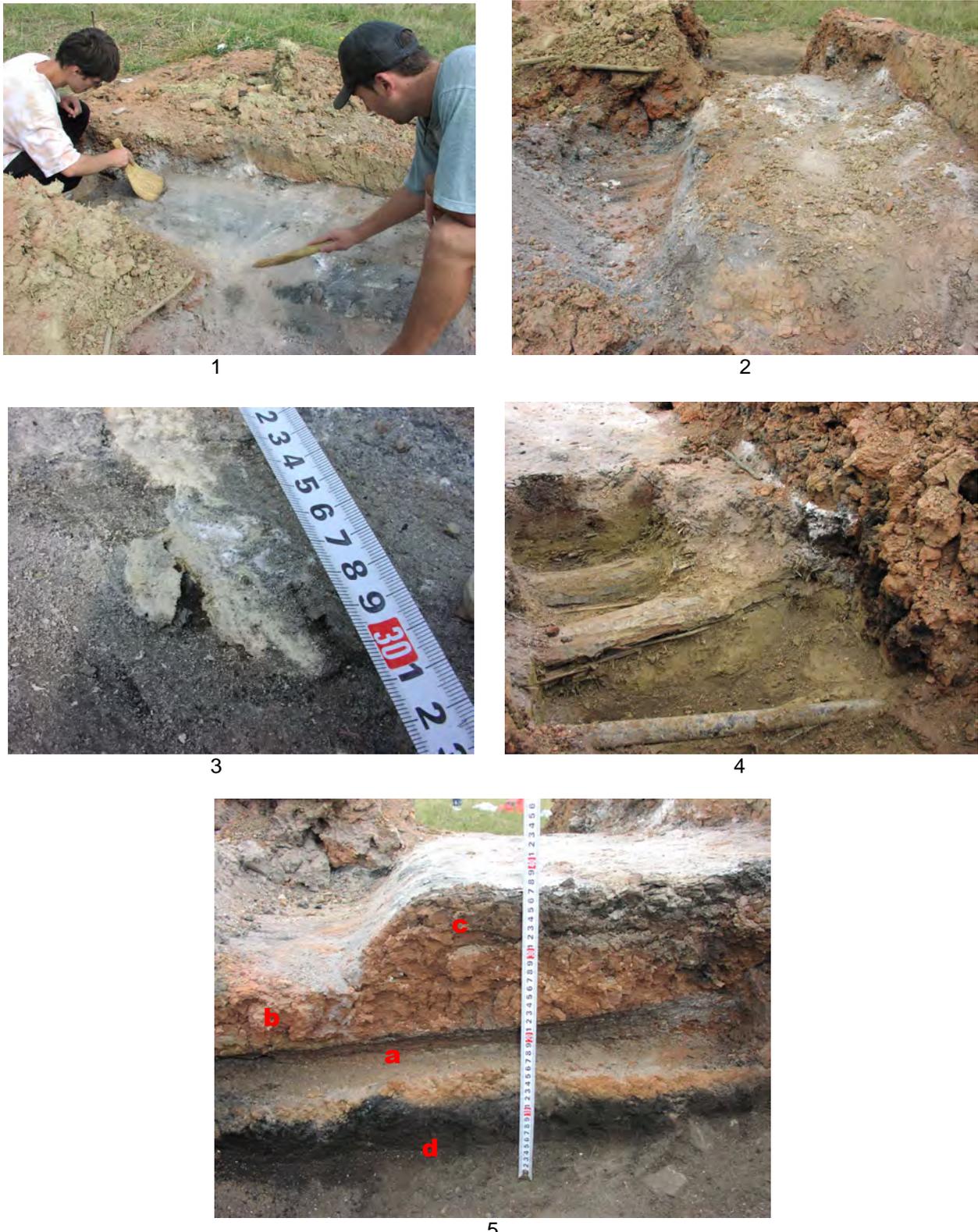


Fig. 16. The intentional burning. Dwelling No. 2 six months after the fire. The clay bench. 1: cleaning the surface of the feature; 2: the surface of the clay bench, along the east wall; 3: the daub lining the surface of the bench; 4: cross-section through the bench, near the north wall; 5: section through the center of the bench, taking in the floor (a: imprint of a wooden member from the floor substructure; b: daub from the lining of the wooden substructure; c: the daub lining the surface of the bench; d: the mounting level of floor wooden substructure).



1



2



3



4



5



6

Fig. 17. The intentional burning. Dwelling No. 2. 1: the burned remains of the pig carcass; 2-3: burnt pig teeth; 4: the burned remains of the sheep carcass; 5-6: burnt sheep bones.



1



2



3



4



5

Fig. 18. The intentional burning. Dwelling No. 3. 1: the dwelling, before the fire; 2-3: the preparation for the fire; 4: the ignition of the stacked firewood; 5: the firewood burning.



1



2



3



4



5

Fig. 19. The intentional burning. Dwelling No. 3. 1: the burning of the firewood stacked along the wall; 2-3: the burning of the wood piled inside the dwelling; 4: the remains of the building, three days after the fire; 5: the remains of dwellings No. 3 and 5, three months after the fire.



Fig. 20. The intentional burning. Dwelling No. 3, three months after the fire. 1: the burned ruins; 2: the surviving east wall, with imprint of the wattle; 3: the northern corner of the dwelling; 4-5; the northern corner-post in its post-hole.

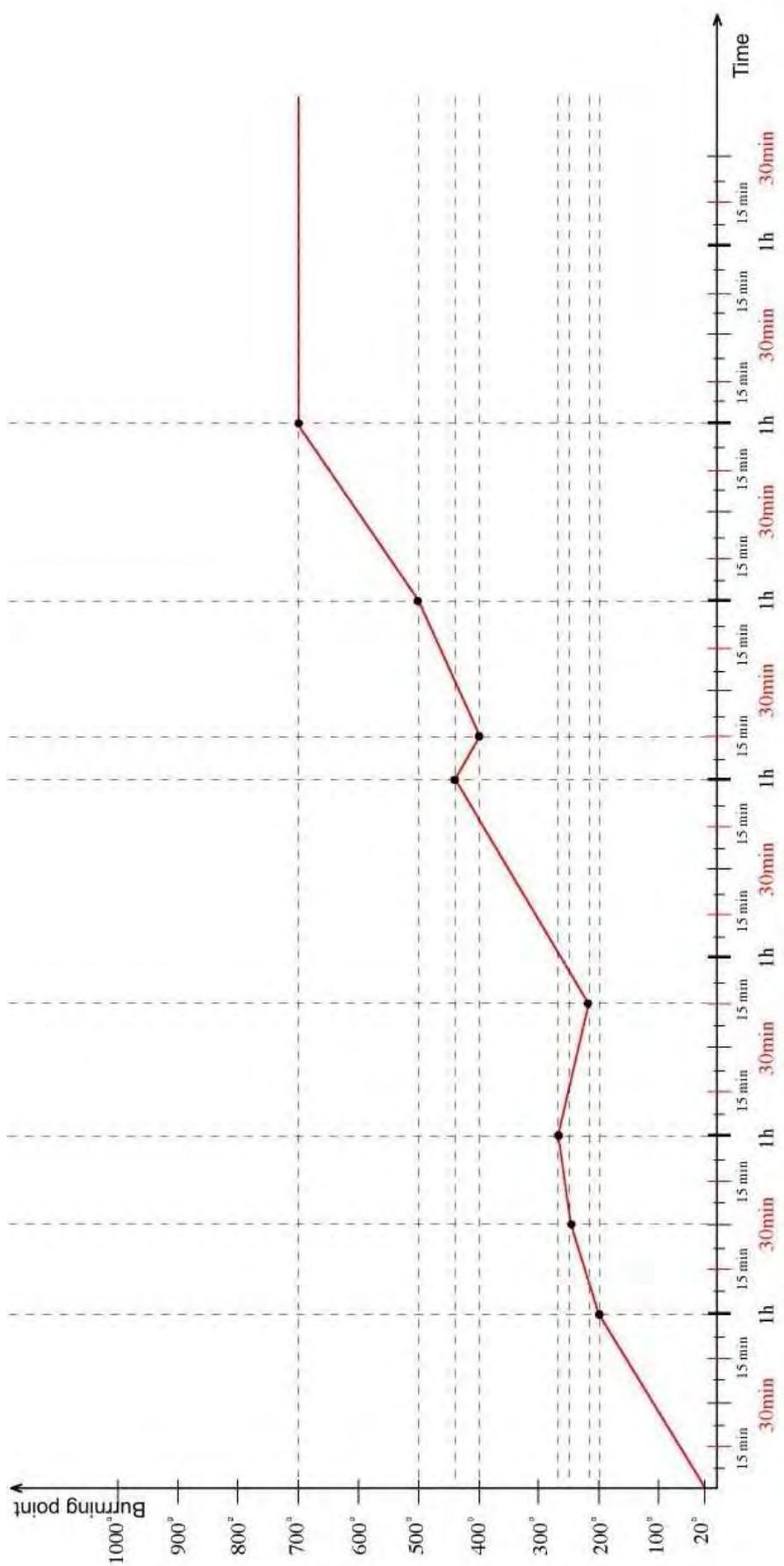


Fig. 21. The diagram with temperatures recorded for the dwelling No. 2.

EXEMPLES ETHNOGRAPHIQUES D'ORGANISATION DU TRAVAIL: LES DIFFÉRENTES EXPLOITATIONS DE SEL DANS LES HAUTES TERRES DE NOUVELLE-GUINÉE

OLIVIER WELLER*

Mots clefs: *ethnologie, ethnoarchéologie, organisation du travail, sel, Nouvelle-Guinée.*

Cuvinte cheie: *etnologie, etnoarheologie, organizarea muncii, sare, Noua Guinee.*

Résumé. *À travers trois exemples actuels d'organisation de la production de sel dans les Hautes Terres de Nouvelle-Guinée (Indonésie et Papouasie-Nouvelle-Guinée), nous montrons comment ces groupes culturels régis par un même grand type d'organisation sociopolitique (sociétés dites égalitaires à Leaders ou Grands Hommes) organisent l'exploitation du sel de façon radicalement différente suivant les cas. Selon le groupe, elle est assurée soit par la famille, soit seulement par les hommes, soit par un véritable spécialiste. On cherchera à comprendre les raisons d'une telle variabilité de l'organisation du travail à travers les modes de circulation, les fonctions socio-économiques du sel et plus largement, les organisations sociales de ces sociétés égalitaires.*

Rezumat. *Plecând de la trei exemple actuale de organizare a producției de sare din zonele înalte din Noua Guinee, se arată în ce fel grupurile culturale de aici, definite de un același tip general de organizare socio-politică (societăți numite egalitare cu lideri), organizează exploatarea sării în modalități radical diferite în cazuri distincte. În funcție de grup, exploatarea sării este efectuată fie de către o familie, fie numai de bărbați, fie de adevărați specialiști. Se urmărește cauzalitatea unei asemenea variabilități a organizării muncii prin studierea modului de circulație, a funcțiilor socio-economice ale sării și, pe plan mai larg, a organizării sociale a acestor societăți egalitare.*

Lorsque l'on m'a proposé de présenter mes recherches sur l'exploitation préhistorique du sel en lien avec la question de la spécialisation des tâches, j'ai été tout d'abord bien embarrassé en me référant aux données archéologiques disponibles pour la Préhistoire. Puis très vite, il m'est revenu en mémoire un problème auquel j'avais été confronté lors de mes enquêtes ethnographiques : pourquoi, dans différentes sociétés dites égalitaires des Hautes Terres de Nouvelle-Guinée, la production de sel était-elle parfois l'affaire de tous, parfois seulement des hommes, ou encore d'un seul homme

reconnu comme spécialiste ?

La question n'est pas ici de savoir en quoi la spécialisation des tâches informe sur l'organisation des sociétés, mais, dans ces situations actuelles, comment expliquer que, dans le cadre d'un même grand type d'organisation sociale, l'organisation de la production d'une même denrée varie autant. En quoi, alors, les modes de circulation, les types d'échanges et la valeur accordée au produit renseignent-ils sur ces organisations sociales ?

Même si aujourd'hui aucune grille bien établie ne peut être présentée, nous proposons de suivre trois groupes des Hautes Terres de Nouvelle Guinée et d'observer leurs modes respectifs d'organisation de l'exploitation des sources salées et l'utilisation qu'ils font de ces pains

* CNRS-Universités Paris 1 - Panthéon Sorbonne et Paris X-Nanterre, UMR 7041 – *Protohistoire européenne*, Maison de l'Archéologie et de l'Ethnologie, e-mail: olivier.weller@mae.u-paris10.fr

de sel, marqueurs de leur propre identité.

1. Les exploitations du sel en Nouvelle-Guinée

Les trois groupes étudiés s'organisent socialement autour de quelques individus au pouvoir mérité, et non hérité, hormis les maîtres d'initiation. Ce sont des sociétés dites égalitaires où émergent de façon temporaire un ou plusieurs individus reconnus pour leur bravoure à la guerre, leur habileté à la chasse ou leurs connaissances spécifiques. Il s'agit des Moni et des Dani de l'Ouest en Papouasie (Indonésie) que nous avons étudié avec Pierre Pétrequin (WELLER *et alii* 1996, 3-30) et des Baruya en Papouasie-Nouvelle-Guinée, que j'ai pu étudier avec Anick Coudart à la suite de M. Godelier (GODELIER 1969, 5-37) et P. Lemonnier (LEMONNIER 1985, 71-126) (fig. 1).

1.1 Chez les Moni

La production du sel est assurée par trempage dans l'eau salée, puis combustion de végétaux poreux. Elle est réalisée sur place par les communautés les plus proches de la source, c'est-à-dire dans un rayon de 5 à 10 km autour de celle-ci.

La récolte, la mise en botte et le trempage dans le bassin de la source salée sont assurés par un travail collectif d'hommes et de femmes, selon la division classique du travail en Nouvelle-Guinée: les hommes recherchent et coupent le combustible et les plantes à sel, les femmes transportent le bois abattu et les fagots de végétaux. Cuire le sel et trier rapidement les cendres sont des tâches collectives plutôt féminines intégrant les jeunes adolescentes, alors que le moulage dans un trou et l'emballage des pains de sel sont réservés aux hommes et aux adolescents. Après séchage, les pains de sel de forme irrégulière seront vendus sur place. Cette forme d'exploitation n'est pas très fréquente et reste destinée aux besoins immédiats et aux échanges occasionnels pour les acheteurs venus de l'extérieur. Le sel est un produit abondant sur place et de valeur modérée dans les échanges locaux.

Mais ici, en pays moni, où les sources se révèlent si concentrées en sel, les

principaux exploitants sont en fait les voisins des Moni orientaux, les Dani de l'Ouest.

1.2 Chez les Dani de l'Ouest

Lors de véritables expéditions mobilisant uniquement de jeunes hommes en armes, les Dani de l'Ouest n'hésitent pas à parcourir jusqu'à 10 jours de marche à travers la haute chaîne centrale de Papouasie pour accéder aux sources du pays moni et viennent s'installer pour plusieurs semaines à proximité de ces émergences fortement salées. Ces expéditions sont montées et encadrées par un leader souvent reconnu pour ses faits d'armes et pour ses relations multiples. Jadis rares et rythmées par les cycles de guerre et de rétablissement de la paix (LARSON 1987), elles sont aujourd'hui bien plus fréquentes avec la pacification menée par les missionnaires.

L'exploitation est entièrement réalisée par ce groupe d'hommes : récolte de plantes sauvages spongieuses, trempage, combustion des plantes. Le tri entre cendres, charbons de bois et petites concrétions de sel s'effectuent collectivement et de façon très minutieuse. C'est encore le groupe tout entier qui assure le moulage dans un cadre en bois et l'emballage soigneux des pains de sel dans de longues feuilles de pandanus. La seule étape individuelle est la ligature des pains où quelques-uns seulement sont capables d'assembler avec une rigueur quasi géométrique les liens de rotin. C'est d'ailleurs ce qui permettra de distinguer du premier coup d'œil leurs pains de sel de ceux fabriqués par leurs voisins. À la fin de l'exploitation, chaque homme part avec une quantité égale de sel. Même ceux qui conduisaient le groupe, parce qu'ils avaient déjà exploité les sources du pays moni, rentrent avec une même quantité de pains de sel que les autres.

Pour les Dani de l'Ouest, la fonction la plus importante du sel n'est pas la consommation alimentaire mais bien son utilisation dans les échanges collectifs ou individuels, les dots et les paiements pour, par exemple, compenser la perte de leurs proches, des guerriers tués, des femmes ou des cochons volés. L'exploitation collective du sel est un moyen rapide pour les jeunes hommes d'accéder aux richesses en porcs, en haches et en coquillage, richesses

indispensables pour devenir un homme véritable et pour participer aux échanges incessants. Contribuer aux expéditions vers les sources salées où, il y a peu, vers les carrières de pierre, permet alors d'acquérir par échange des porcs que l'on aurait mis des années à élever.

Si, chez les Moni, l'exploitation du sel est assurée par tous suivant la division du travail domestique et agricole, chez les Dani de l'Ouest, où le pain de sel représente un bien à forte valeur d'échange et une forme de stockage durable de la richesse, cette exploitation n'est assurée que par les hommes suivant les règles du travail collectif sous le contrôle plus ou moins soutenu d'un leader expérimenté.

Entre ces deux groupes voisins, la division sexuelle du travail montre des adaptations très spécifiques en fonction de la distance entre source salée et village d'origine des exploitants, mais aussi en fonction de l'ampleur de la diffusion et de la circulation du sel (fig. 2). En fait, dès lors qu'il s'agit d'une exploitation rentable en termes d'échanges ou de compétition sociale, les hommes, à l'instar des Dani de l'Ouest, s'attribuent exclusivement la fabrication et la circulation des pains de sel, mais reconnaissent néanmoins, à travers leurs mythes, une origine exclusivement féminine au sel (PÉTREQUIN, PÉTREQUIN, WELLER 2000, 545-564).

1.3 Chez les Baruya

Dans le troisième cas, celui des Baruya de Papouasie-Nouvelle-Guinée étudiés par M. Godelier (GODELIER 1969) puis P. Lemonnier (LEMONNIER 1985, 71-126), l'exploitation du sel se fait sur place à partir d'une plante à croissance rapide (la *Coix Gigantea Koenig ex Rob*) repiquée dans des zones irriguées naturellement ou artificiellement, à partir de sources fortement minéralisées situées en amont de ces "jardins à sel" (observations personnelles). Le sel produit n'est donc pas seulement simplement végétal, comme on l'a souvent prétendu : il combine des origines minérale et végétale. Toutes les sources se trouvant sur le territoire conquis par les Baruya, on comprend pourquoi ils sont les seuls, parmi toutes les tribus Anga, à pouvoir fabriquer du sel blanc sous forme de longues barres

pouvant atteindre presque un mètre de long. Leur sel s'échange à plusieurs jours de marche des lieux de fabrication, et la réputation des Baruya comme fabricants de sel dépasse de loin leurs propres réseaux d'échange.

Mais revenons à l'organisation de la production de ce sel déjà décrite (GODELIER 1969, 5-37) et même finement analysée (LEMONNIER 1985, 71-126). Si le repiquage des plantes est assuré essentiellement par les femmes, les hommes, de leur côté, assurent les travaux collectifs d'irrigation. Les jardins de plantes à sel peuvent couvrir d'importantes surfaces mais ne nécessitent que peu d'entretien régulier.

Après qu'un petit groupe de femme a coupé et étendu les plantes à sel, un petit groupe d'hommes, dont le propriétaire du jardin, coupe le bois de chauffe pour le bûcher et le four. Hommes et femmes assurent alors la combustion des plantes; les femmes ramassent les plantes séchées, les hommes les rassemblent en meule. La mise à feu et la surveillance de la combustion durant la nuit seront effectuées par un seul homme. Le lendemain, il construira seul un petit abri en bois au-dessus du tas de cendres chargées de sel.

Jusque-là, l'organisation du travail semble correspondre peu ou prou à celle des travaux agricoles collectifs. Mais c'est véritablement ici que la fabrication du sel commence pour les Baruya.

Il s'agit alors d'un travail essentiellement masculin, entouré d'interdits sexuels et de rituels discrets qui évitent les risques de pollution féminine. C'est avant tout le travail d'un spécialiste qui, par ses pouvoirs magiques et son savoir-faire technique pour les opérations d'évaporation et de cristallisation, est reconnu comme tel. Ces spécialistes sont peu nombreux, de deux à cinq par village sur une population moyenne de 50 hommes.

Après transport des cendres salées chez le spécialiste, ce dernier va procéder à leur filtrage à l'aide d'une eau douce versée dans des gourdes emplies de cendres. L'eau salée récupérée dans de longs bambous sera stockée près du four. Puis elle sera versée progressivement dans les alvéoles aménagées sur la table du long four à tunnel.

Ce dernier est installé à l'intérieur d'un bâtiment spécifique, à l'abri des pluies et des regards indiscrets. Après cinq jours et cinq nuits de surveillance et d'entretien, il obtiendra une douzaine de barres de sel allongées de deux à trois kg chacune. Après un emballage très soigné dans des feuilles de bananier, la production de sel sera redistribuée entre le propriétaire du jardin, le spécialiste et les différents partenaires ayant collaboré.

Ici encore, le sel n'est pas destiné principalement à l'alimentation puisque, essentiellement composé de chlorure de potassium, c'est un poison à haute dose; il est exclusivement consommé dans des contextes rituels. Ces barres de sel sont en fait destinées au don à l'intérieur du groupe sans contrepartie, mais surtout à l'échange à l'extérieur du groupe vers les tribus voisines. Il s'échange contre toutes les marchandises (haches, arcs, flèches, parure, cochons) et il entre classiquement dans les biens de luxe utilisés lors des paiements. Unité de mesure divisible sans perdre sa valeur d'usage, il confère un prix à l'ensemble des marchandises et agit comme un des rares biens de substitution. Aussi, on a pu parler de "monnaie" pour ces barres de sel (GODELIER 1969, 5-37), mais en précisant que ces dernières ne sont jamais produites en surplus, ni stockées dans le but d'en tirer profit (GODELIER 1996).

2. Quelques éléments de réflexion sur ces sociétés égalitaires

Au terme de la présentation de ces trois groupes producteurs, on voit clairement qu'au sein d'un même type de sociétés dites égalitaires, l'organisation de la production d'un même bien, le pain de sel, peut fortement varier, ainsi que la valeur socio-économique qui lui est accordée.

Pour tenter de préciser les relations entre spécialisation et organisation sociale, il faut chercher à définir plus précisément ces sociétés et chercher des critères discriminants. Pour éclairer les processus en jeu, je reprendrais les principaux traits établis par Pierre Lemonnier (LEMONNIER 1990, 148) pour définir les sociétés à Grands Hommes comme les Baruya, et les sociétés

à Leaders de guerre comme les Dani de l'Ouest et les Moni.

À la lecture d'un tableau (fig. 3), les grandes distinctions entre ces deux types de sociétés apparaissent : il s'agit, outre la qualité du personnage éminent, de la concentration ou de la dispersion de ses fonctions. Chez les Baruya, les Grands Hommes ont chacun leur domaine d'action propre : la guerre, la chasse, la magie ou le sel, et ne cherchent pas à diversifier leurs compétences. En revanche, les leaders Dani de l'Ouest, reconnus avant tout comme guerriers, cherchent à multiplier leurs compétences : taille de la pierre, fabrication du sel, habileté à la chasse et à étendre leurs réseaux d'alliance.

L'autre distinction importante est la pratique de la substitution. Si, chez les Baruya, les paiements compensatoires pour un mariage, une faute, une mort sont peu fréquents, les échanges devant être strictement équilibrés dans la guerre (même nombre de morts) comme dans le mariage (échange de sœurs), ils sont extrêmement développés chez les Dani de l'Ouest où tous les délits et les morts doivent être payés. On comprend alors que les jeunes Dani ont intérêt à pouvoir accéder aux richesses par eux-mêmes et ainsi participer aux échanges incessants dans un contexte de forte compétition sociale et d'expansion territoriale générant de nombreuses tensions (PÉTREQUIN, PÉTREQUIN 2000). Dans ce contexte social, la production du sel, comme d'ailleurs celle de haches en pierre, ne saurait être aux mains d'un seul spécialiste dans la mesure où les ressources exploitées sont situées chez leurs ennemis traditionnels, et que ces exploitations par expédition sont en fait les moteurs mêmes de la colonisation territoriale des Dani de l'Ouest aux dépens de leurs voisins. L'existence de spécialistes, dans le cas des Baruya, pourrait alors s'expliquer par le fait que l'ensemble des sources minérales exploitées moyennant des plantes, se situe dans le territoire conquis et contrôlé par les Baruya. Toutefois, ne négligeons pas les usages rituels de ce sel que seul un individu, par ses connaissances et ses savoir-faire, peut doter d'une force de vie magico-religieuse qui lui est propre, force utilisée aussi bien par les Baruya que par

leurs partenaires d'échanges (GODELIER 1996). Organisation collective du travail (LEMONNIER 1999, 349-368), savoir technique de haut niveau de ces spécialistes et pouvoir magico-religieux sont indissociables dans le cas la production de sel des Baruya.

En conclusion, à travers ces différents exemples d'exploitation du sel au sein de sociétés égalitaires, on constate que l'organisation du travail et la spécialisation des tâches sont souvent très variables dans le cadre de ces sociétés non hiérarchisées, dès lors que l'on sort du domaine domestique et des travaux agricoles. Type de pouvoir, de parenté, mode de paiement, contrôle des ressources, organisation et dynamique des échanges, intensité des compétitions, contexte social sont quelques critères qui permettent de mieux cerner ces relations entre sociétés égalitaires et travail.

*

Pour la Pré- et la Protohistoire européenne, les données archéologiques, lacunaires par définition, permettent néanmoins d'envisager les relations entre organisation de la production de sel et type de société. Des éléments identifiables comme les intensités de production, les impacts et la gestion du milieu naturel, les modes de contrôle de la production et/ou des ressources, les dynamiques d'échanges ou les pratiques funéraires permettent de mieux caractériser les types de sociétés qui produisent, manipulent et distribuent le sel.

Bibliographie

- GODELIER Maurice
1969 *La "monnaie de sel" des Baruya de Nouvelle-Guinée*, L'Homme, 9 (2), p. 5-37.
1996 *L'énigme du don*, Paris.
- LARSON Gordon Frederick
1987 *The Structure and Demography of the Cycle of Warfare among the Ilaga Dani of Irian Jaya*, PhD thesis, Ann Arbor.
- LEMONNIER Pierre
1985 *La production de sel végétal chez les Anga (Papouasie-Nouvelle-Guinée)*, JATBA, XXXI (1-2), p. 71-126.
1990 *Guerres et festins*, Paris.
1999 *Agir de concert : la coopération chez les Anga*, in vol.: *Dans le sillage des techniques. Hommage à Robert Cresswell* (éds.: J.-L. Jamard, A. Montigny et F.-R. Picon), Paris, p. 349-368.
- PÉTREQUIN Pierre, Anne-Marie PÉTREQUIN, Olivier WELLER
2000 *Cuire la pierre et cuire le sel en Nouvelle-Guinée : des techniques actuelles de régulation sociale*, in vol.: *Arts du feu et productions artisanales (XXe Rencontres Internationales d'Archéologie et d'Histoire d'Antibes, 1999)* (éds.: P. Pétrequin et alii), Antibes, p. 545-564.
- PÉTREQUIN Pierre, Anne-Marie PÉTREQUIN
2000 *Écologie d'un outil. La hache en pierre en Irian Jaya*, Paris.
- WELLER Olivier et alii
1996 *Du sel pour les échanges sociaux. L'exploitation des sources salées en Irian Jaya (Indonésie, Nouvelle-Guinée)*, JSO, 102, p. 3-30.

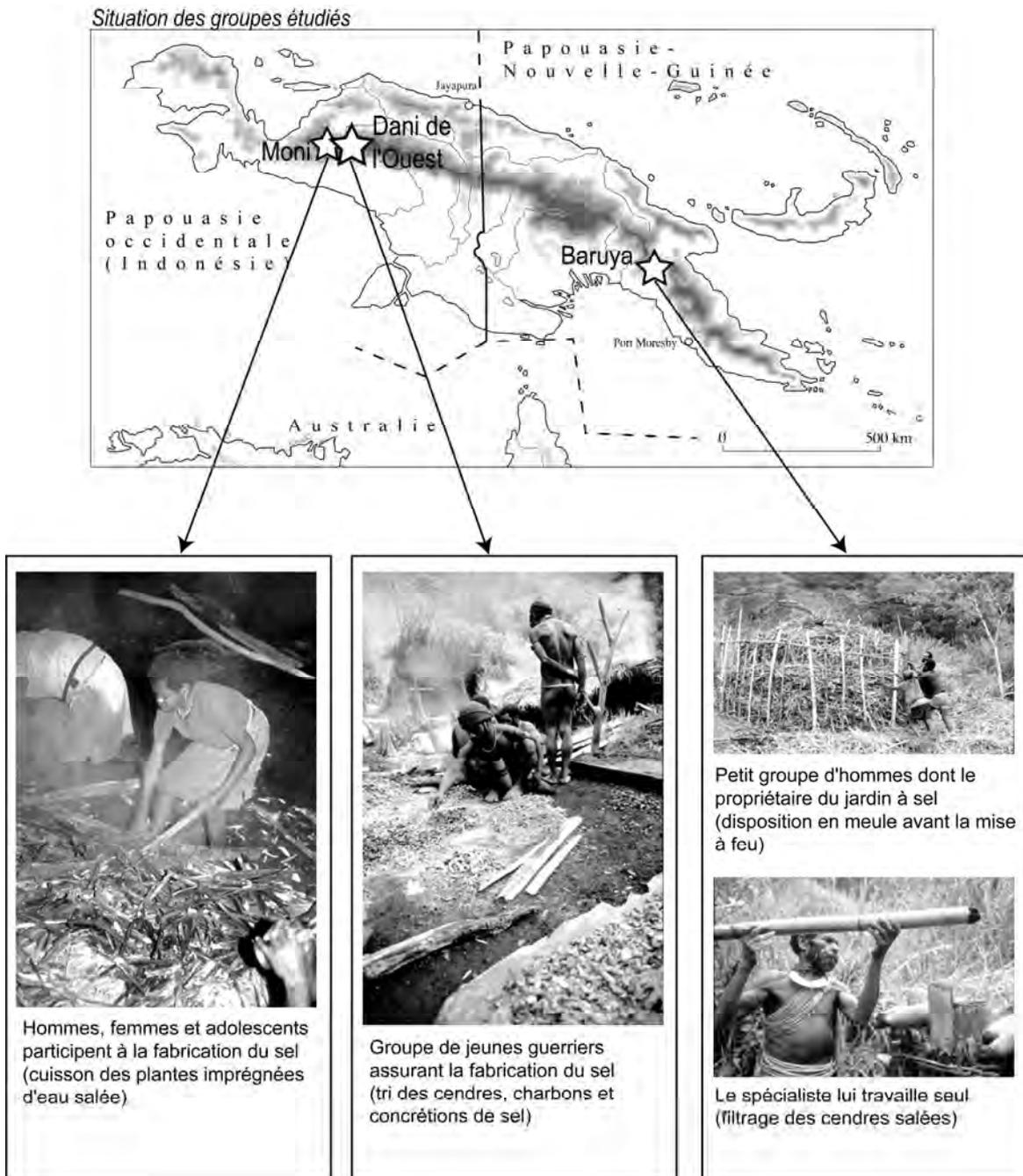


Fig. 1. Productions de sel en Nouvelle-Guinée.

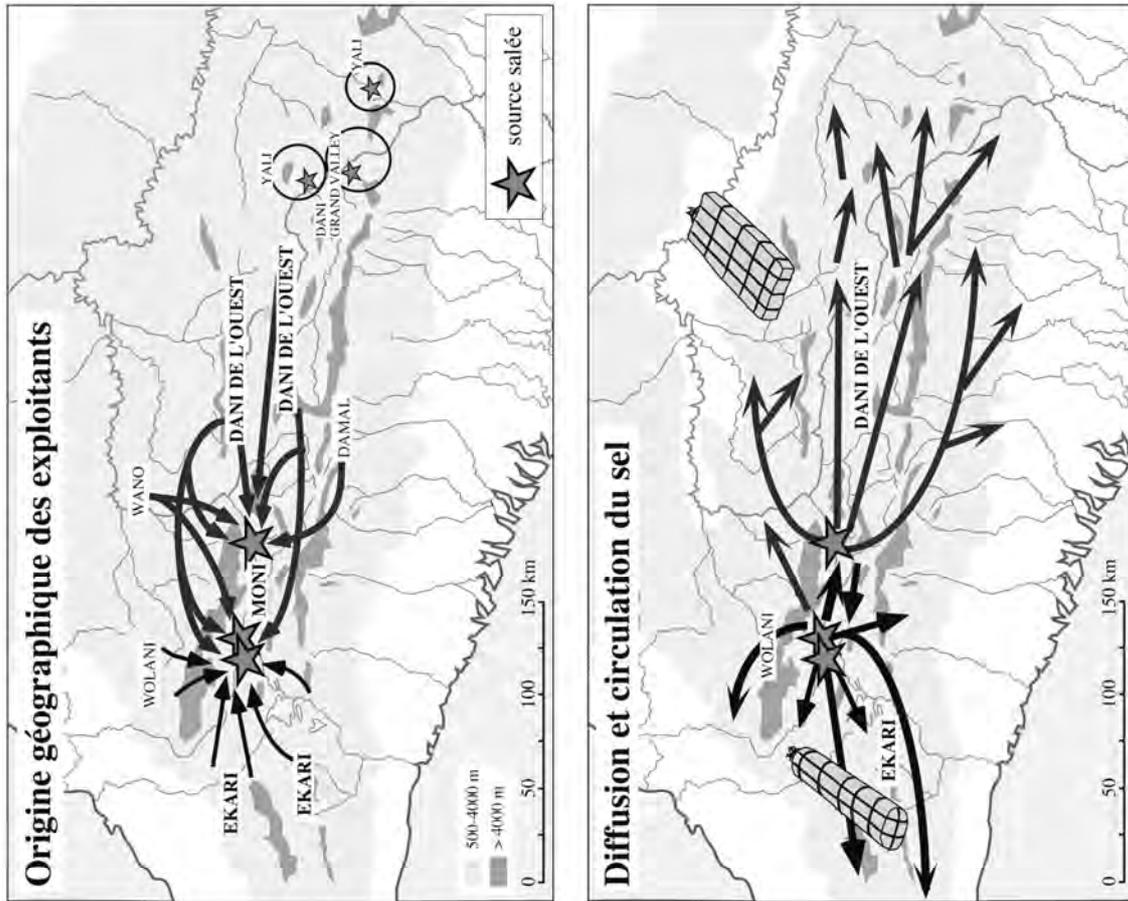


Fig. 2. Exploitation et diffusion du sel chez les Dani de l'Ouest.

	BARUYA Société à Grands Hommes	DANI DE L'OUEST et MONI Société à Leaders
Personnage éminent	guerrier, chamane, chasseur ou "spécialiste"	guerrier
son pouvoir	faible sur autrui, hors de sa sphère d'influence	ébauche de pouvoir sur autrui, voire "despotisme"
rivalité	forte à l'intérieur des Grands hommes	forte à l'intérieur et à l'extérieur des Leaders (notamment dans la guerre)
fonctions	dispersées entre les Grands hommes (guerre, rituels, chasse, sel...)	concentration croissante des diverses fonctions d'organisation
Les richesses		
leur manipulation	quasi inexistante	de faible ampleur
utilisées comme substitut de vie	peu fréquent	très fréquent Les substitus (richesses) circulent partout
Les paiements		
à la guerre	un tué pour un tué	compensation des guerriers tués
le mariage	échange direct : une femme pour une femme	échange direct et compensations matrimoniales
Les relations avec les ennemis		
le mariage	mariage avec les ennemis très rares	mariage avec les ennemis fréquents
les échanges	aucun	fréquents

Fig. 3. Traits résumés des sociétés à Grands Hommes et Leaders. *Apud* LEMONNIER 1990, modifié.

ABBREVIATIONS - ABRÉVIATIONS - ABREVIERI

AA	- <i>Archäologischer Anzeiger</i> , Deutsches Archäologisches Institut, Berlin.
AAC	- <i>Acta Archaeologica Carpathica</i> , Instytut Archaeologii U. J. Kraków.
AB	- <i>Archaeologia Bulgarica</i> , Sofia.
Academica S.N.	- <i>Academica. Revistă de știință, cultură și artă editată de Academia Română</i> , Serie Nouă, București.
Acta Siculica	- <i>Acta Siculica</i> , Muzeul Național Secuiesc, Sfântu Gheorghe.
AÉ	- <i>Archaeologiai Értésítő</i> , Budapest.
AFLFB	- <i>Annali della Facoltà di Lettere e Filosofia</i> , Università degli Studi di Bari.
AIIAI	- <i>Anuarul Institutului de Istorie și Arheologie "A.D. Xenopol"</i> , Iași.
AIM	- <i>Arkheologičeskie issledovanija v Moldavii</i> , Kișinev.
AISC	- <i>Anuarul Institutului de Studii Clasice</i> , Cluj.
Aluta	- <i>Aluta. Studii și comunicări</i> , Muzeul Județean Covasna, Sfântu Gheorghe.
AMM	- <i>Acta Moldaviae Meridionalis</i> , Muzeul Județean "Ștefan cel Mare" Vaslui.
AMN	- <i>Acta Musei Napocensis</i> , Muzeul de Istorie a Transilvaniei, Cluj-Napoca.
AMP	- <i>Acta Musei Porolissensis</i> , Muzeul Județean de Istorie și Artă, Zalău.
AMT	- <i>Acta Musei Tutovensensis</i> , Muzeul "Vasile Pârvan" Bârlad.
AnB S.N.	- <i>Analele Banatului</i> , Serie nouă, Muzeul Banatului, Timișoara.
Angustia	- <i>Angustia. Arheologie - Etnografie</i> , Muzeul Carpaților Răsăriteni, Sfântu Gheorghe.
Antaeus	- <i>Antaeus. Communicationes ex Instituto Archaeologico Academiae Scientiarum Hungaricae</i> , Budapest.
Anatolica	- <i>Anatolica. Annuaire international pour les civilisations de l'Asie antérieure</i> , Institut Historique-Archéologique Néerlandais, Istanbul.
Antiquity	- <i>Antiquity. A Quarterly Review of World Archaeology</i> , York.
AO	- <i>Arhivele Olteniei</i> , Craiova.
AO S.N.	- <i>Arhivele Olteniei</i> , Serie Nouă, Institutul de Cercetări Socio-Umane "C.S. Nicolaescu-Plopșor" Craiova.
APAT	- <i>Acta Praehistorica et Archaeologica Transsilvaniae</i> , Alba Iulia.
Apulum	- <i>Apulum. Acta Musei Apulensis</i> , Muzeul Național al Unirii, Alba Iulia.
Archaeology	- <i>Archaeology</i> , Archaeological Institute of America, New York.
Archeologija	- <i>Archeologija</i> , Institutul de Arheologie al Ucrainei, Kiev.
Arhiva	- <i>Arhiva Societății Științifice și Literare din Iași</i> , Iași.
ArhMold	- <i>Arheologia Moldovei</i> , Institutul de Arheologie Iași, București.
ARS	- <i>Analele româno-sovietice</i> , serie istorie, București.
AȘUI	- <i>Analele Științifice al Universității "Al. I. Cuza" din Iași</i> , Iași.
ATS	- <i>Acta Terrae Septemcastrensis</i> , Universitatea "Lucian Blaga" Sibiu.
AUA	- <i>Annales Universitatis Apulensis, Series Historica</i> , Univeristatea "1 Decembrie 1918" Alba Iulia.
AVSL	- <i>Archiv des Vereins für Siebenbürgische Landeskunde</i> , Hermannstadt (Sibiu).
AUVT	- <i>Annales d'Université "Valahia" Târgoviște</i> , Section d'Archéologie et d'Histoire, Universitatea "Valahia" Târgoviște.

BAI	- <i>Bibliotheca Archaeologica lassiensis</i> , Institutul de Arheologie Iași.
Balcanica	- <i>Balcanica</i> , Godišnjak Balkanološkog instituta SANU, Beograd.
Banatica	- <i>Banatica</i> , Muzeul de Istorie al Județului Caraș-Severin, Reșița.
BAR	- <i>British Archaeological Reports</i> , Oxford.
BAVA	- <i>Beitrage zur Allgemeinen und Vergleichenden Archäologie</i> , München.
BHAB	- <i>Bibliotheca Historica et Archaeologica Banaticum</i> , Timișoara.
BMA	- <i>Bibliotheca Memoria Antiquitatis</i> , Centrul Internațional de Cercetare a Culturii Cucuteni, Piatra-Neamț.
BMAp	- <i>Bibliotheca Musei Apulensis</i> , Muzeul Național al Unirii, Alba Iulia.
BMN	- <i>Bibliotheca Musei Napocensis</i> , Muzeul de Istorie a Transilvaniei, Cluj-Napoca.
BMNR	- <i>Biblioteca Muzeului Național</i> , Seria Cercetări Pluridisciplinare, Muzeul Național de Istorie a României, București.
BPS	- <i>The Baltic-Pontic Studies</i> , Department of Prehistory of Poland, Institute of Prehistory of Adam Mickiewicz University of Poznan, Institute of Archaeology of National Academy of Sciences of the Ukraine of Kiev, Poznan.
BRGK	- <i>Bericht der Römisch-Germanischen Kommission des Deutschen Archäologischen Instituts</i> , Frankfurt am Main.
BS	- <i>Bibliotheca Septemcastrensis</i> , Universitatea "Lucian Blaga" Sibiu.
BSAP	- <i>Bulletin de la Société Anthropologique de Paris</i> , Paris.
BSIS	- <i>Buletin științific. Lucrările Laboratorului de cercetări istorice</i> , Institutul de Învățământ superior, Suceava.
BTh	- <i>Bibliotheca Thracologica</i> , Institutul Român de Tracologie, București.
BUA	- <i>Bibliotheca Universitatis Apulensis</i> , Universitatea „1 Decembrie 1918” Alba Iulia.
BullTh	- <i>Bulletin de Thracologie. Recherches paleobalcanique et carpatopontiques</i> , Commission internationale consultative pour la promotion d'études indo-europeennes et thraces, Mangalia.
CA	- <i>Cercetări arheologice</i> , Muzeul Național de Istorie a României, București.
CAANT	- <i>Cercetări arheologice în aria nord-tracă</i> , Institutul Român de Tracologie, București.
CAB	- <i>Cercetări arheologice în București</i> , Muzeul de Istorie a municipiului București.
Carpica	- <i>Carpica</i> , Complexul Muzeal "Iulian Antonescu" Bacău.
CC S.N.	- <i>Codrul Cosminului</i> , serie nouă, Universitatea "Ștefan cel Mare" Suceava.
CCDJ	- <i>Cultură și civilizație la Dunărea de Jos</i> , Muzeul Dunării de Jos, Călărași.
CI	- <i>Cercetări istorice</i> , Muzeul de Istorie a Moldovei, Iași.
CNA	- <i>Cronica numismatică și arheologică</i> , București.
ComArchHung	- <i>Communicationes Archaeologicae Hungariae</i> , Budapest.
CorrespondenzblattDGAEU	- <i>Correspondenzblatt der Deutschen Gesellschaft für Anthropologie, Ethnologie und Urgeschichte</i> , Braunschweig.
Corviniana	- <i>Corviniana. Acta Musei Corvinensis</i> , Muzeul "Castelul Corvineștilor", Hunedoara.
Crisia	- <i>Crisia</i> , Muzeul Țării Crișurilor, Oradea.
Cronica. Campania...	- <i>Cronica cercetărilor arheologice din România. Campania...</i> , Institutul de Memorie Culturală, București.
CSC	- <i>Culegere de studii și cercetări</i> , Muzeul Regional Brașov.
Dacia	- <i>Dacia. Recherches et découvertes archéologique en Roumanie</i> , Muzeul Național de Antichități, București.
Dacia N.S.	- <i>Dacia. Revue d'Archéologie et d'Histoire Ancienne</i> , Nouvelle Série, Institutul de Arheologie "Vasile Pârvan", București.

Das Altertum	- <i>Das Altertum</i> , Berlin.
DMÉ	- <i>A Debreceni Déri Múzeum Évkönyve</i> , Debrecen.
DP	- <i>Documenta Praehistorica</i> , University of Ljubljana.
Dolgozatok	- <i>Dolgozatok az Erdélyi Nemzeti Múzeum Érem- és Régiségtárából</i> , Kolozsvár.
Dolgozatok Ú.S.	- <i>Dolgozatok az Erdélyi Múzeum Egyesület Érem- és Régiségtárából</i> , Új sorozat (Serie Nouă), Kolozsvár (Cluj-Napoca).
DolgSz	- <i>Dolgozatok a Szegedi József Tudományegyetem Archaeológiái Interzeből</i> , Szeged.
ERAUL	- <i>Études et Recherches Archéologiques de l'Université de Liège</i> , Liège.
ESA	- <i>Eurasia Septentrionalis Antiqua</i> , Helsinki.
Germania	- <i>Germania. Anzeiger der Römisch-Germanischen Kommission des Deutschen Archäologischen Institutes</i> , Frankfurt am Main.
Geochronometria	- <i>Geochronometria. Journal on Methods and Applications of Absolute Chronology</i> , Institute of Physics, Silesian University of Technology, Gliwice.
Hierasus	- <i>Hierasus</i> , Muzeul Județean Botoșani.
Historica	- <i>Historica</i> , Centrul de științe sociale din Craiova, București.
Interacademica	- <i>Interacademica</i> , Commissions mixtes d'histoire, d'archéologie, d'ethnographie et de folklore de l'Académie Roumanie et de l'Académie Nationale des Sciences de l'Ukraine, București.
ISIS	- <i>ISIS-Erdélyi Magyar Restaurátor Füzetek</i> , Haáz Reszö Múzeum, Székelyudvarhely.
Istros S.N.	- <i>Istros</i> , serie nouă, Muzeul Brăilei, Brăila.
JAS	- <i>Journal of Archaeological Science</i> , St. Louis.
JATBA	- <i>Journal d'Agriculture Traditionnelle et de Botanique Appliquée</i> , Muséum National d'Histoire Naturelle, Paris.
JRAI	- <i>Journal of the Royal Anthropological Institute</i> , London.
JSO	- <i>Journal de la Société des Océanistes</i> , Paris.
Korunk	- <i>Korunk. Kultúra-Haza-Nagyvilág</i> , Cluj-Napoca.
KözlK	- <i>Közlemenyek, Közlemények az Erdély Nemzeti Múzeum Érem-és Régiségtárából</i> , Kolozsvár.
Living Past	- <i>Living Past. A Challenge for a better Archaeology</i> , Institutul de Memorie Culturală, București.
LJPS	- <i>Leiden Journal of Pottery Studies</i> , Department of Pottery Technology, Leiden University, Leiden.
LSCD	- <i>Lucrări științifice ale cadrelor didactice</i> , Institutul Pedagogic Suceava.
LSGDC	- <i>Lucrările Seminarului Geografic "Dimitrie Cantemir"</i> , Iași,
Oltenia	- <i>Oltenia. Studii și Comunicări</i> , Muzeul Olteniei, Craiova
MAGW	- <i>Mitteilungen des Anthropologischen Gesellschaft in Wien</i> , Wien.
Mannus	- <i>Mannus. Zeitschrift für Deutsche Vorgeschichte</i> , Leipzig.
Materiale	- <i>Materiale și cercetări arheologice</i> , Institutul de Arheologie "Vasile Pârvan" București.
Marisia	- <i>Marisia</i> , Muzeul Județean Mureș, Târgu Mureș.
Materiale S.N.	- <i>Materiale și cercetări arheologice</i> , Serie Nouă, Institutul de Arheologie "Vasile Pârvan", București.
MemAnt	- <i>Memoria Antiquitatis. Acta Musei Petrodavensis</i> , Complexul Muzeal Județean Neamț, Piatra Neamț.
MI	- <i>Magazin Istoric</i> , București.
MIA	- <i>Materialy i issledovanija po archeologii SSSR</i> , Moskva-Leningrad.
MKÉ	- <i>Múzeumi és Könyvtári Értesítő</i> , A Múzeumok és Könyvtárak Országos Főfelügyelősége, Budapest.

MKHD	- <i>Mitteilungen der K. K. Zentral-kommission für Kunst und historische Denkmale</i> , Wien.
MM	- <i>Magyar Múzeumok</i> , Budapeșt.
Mousaios	- <i>Mousaios. Buletinul științific al Muzeului Județean Buzău</i> , Buzău.
MPKKAW	- <i>Mittheilungen der Prähistorischen Kommission der Kaiserlichen Akademie der Wissenschaften</i> , Wien.
MQ	- <i>The Mankind Quarterly</i> , Institute for the Study of Man, Washington, D.C.
Művészeti	- <i>Művészeti</i> , Budapeșt.
NEA	- <i>Near Eastern Archaeology</i> , American School of Oriental Research, Boston.
OL	- <i>Ősrégészeti Levelek</i> , Budapeșt.
Oltenia	- <i>Oltenia. Studii. Documente. Culegeri</i> , Asociația Generală a Arhiviștilor din România, Filialele județene Dolj, Gorj, Mehedinți, Olt și Vâlcea, Craiova.
PA	- <i>Preistoria Alpina</i> , Museo Tridentino di Scienze Naturali, Trento.
PARh	- <i>Problemy arkheologii</i> , Leningrad.
PAP	- <i>Patrimonium Apulense. Anuar de: arheologie, istorie, cultură, etnografie, muzeologie, conservare, restaurare</i> , Direcția Județeană pentru Cultură, Culte și Patrimoniu Cultural Național Alba, Alba-Iulia.
PB	- <i>Patrimonium Banaticum</i> , Direcția Județeană pentru Cultură, Culte și Patrimoniu Cultural Național Timiș, Timișoara.
PBF	- <i>Prähistorische Bronzefunde</i> , München
PE	- <i>Préhistoire Européenne</i> , Université de Liège.
Peuce	- <i>Peuce</i> , Muzeul "Delta Dunării", Tulcea.
PJZ	- <i>Praistorija Jugoslovenskih Zemalja</i> , Sarajevo.
PMJH	- <i>Publicațiile Muzeului Județului Hunedoara</i> , Deva.
Pontica	- <i>Pontica</i> , Muzeul de Istorie Națională și Arheologie Constanța.
PPS	- <i>Proceedings of the Prehistoric Society</i> , London.
PZ	- <i>Præhistorische Zeitschrift</i> , Berlin.
Radiocarbon	- <i>Radiocarbon. An Internatioonal Journal of Cosmogenic Isotope Research</i> , Tucson.
RAJA	- <i>Repertoriul arheologic al Mureșului inferior: județul Arad</i> (coord. I. H. Crișan), Timișoara, 1999.
RAJAb	- <i>Repertoriul arheologic al județului Alba</i> (red.: V. Moga, H. Ciugudean), Alba Iulia 1995.
RAJB	- Al. Păunescu, P. Șadurschi, V. Chirica, <i>Repertoriul arheologic al județului Botoșani</i> , I-II, București, 1976.
RAJC	- <i>Repertoriul arheologic al județului Covasna</i> (ed.: V. Cavruc), Sfântu Gheorghe, 1998.
RAJCj	- <i>Repertoriul arheologic al județului Cluj</i> (coord.: I. H. Crișan), Cluj-Napoca, 1992.
RAJS	- <i>Repertoriul arheologic al județului Sibiu (situri, monumente arheologice și istorice)</i> (coord.: S. A. Luca, Z. K. Pinter, A. Georgescu), Sibiu, 2003.
RIAF	- <i>Revista pentru istorie, arheologie și filologie</i> , Organ al Societății Istorice Române, București.
RM	- <i>Revista Muzeelor</i> , București.
RMI	- <i>Revista monumentelor istorice</i> , Institutul Național al Monumentelor Istorice, București.
RMM	- <i>Revista Muzeelor și Monumentelor</i> , București.
RJLM	- <i>Romanian Journal of Legal Medicine</i> , Societatea de Medicină Legală din România, București.

RSP	- <i>Rivista di scienze preistoriche</i> , Istituto Italiano de Preistoria e Protostoria, Firenze.
SA	- <i>Sovetskaja Arkheologija</i> , Moskva.
SAA	- <i>Studia Antiqua et Archaeologica</i> , Universitatea "Al. I. Cuza" Iași.
SAI	- <i>Studii și articole de istorie</i> , Societatea de Științe Istorice din România, București.
Sargetia	- <i>Sargetia. Acta Musei Devensis</i> , Muzeul Civilizației Dacice și Romane Deva.
SCIV(A)	- <i>Studii și cercetări de istorie veche (și arheologie)</i> , Institutul de Arheologie "Vasile Pârvan" București.
SCȘ-Iași	- <i>Studii și cercetări științifice</i> , seria III, științe sociale, Academia Română, Filiala Iași.
StA	- <i>Scientific American</i> , New York.
StComCaransebeș	- <i>Studii și comunicări de etnografie-istorie</i> , Muzeul Județean de Etnografie și Istorie Caransebeș.
StComSfGheorghe	- <i>Studii și comunicări</i> , Muzeul Județean Covasna, Sfântu Gheorghe.
Semiotica	- <i>Semiotica. Journal of the International Association for Semiotic Studies</i> , Toronto.
SM	- <i>Satu Mare. Studii și comunicări</i> , Muzeul Județean Satu Mare.
SP	- <i>Studii de Preistorie</i> , Asociația Română de Arheologie, București.
SPh	- <i>Studia Praehistorica</i> , Sofia.
SympTh	- <i>Symposia Thracologica</i> , Institutul Român de Tracologie București.
STU	- <i>Știință-Tehnică-Umanism</i> , Institutul Politehnic Iași.
Suceava	- <i>Suceava. Anuarul Complexului Muzeal Bucovina</i> , Suceava.
Tibiscum	- <i>Tibiscum. Studii și comunicări de etnografie-istorie</i> , Muzeul Județean de Etnografie și al Regimentului de Graniță Caransebeș.
Tibiscus	- <i>Tibiscus. Istorie-Arheologie</i> , Muzeul Banatului, Timișoara.
TD	- <i>Thraco-Dacica</i> , Institutul Român de Tracologie București.
Thracia	- <i>Thracia</i> , Institute of Thracology, Sofia.
VAH	- <i>Varia Archaeologica Hungarica</i> , Institut Archaeologiae Academiae Scientiarum Hungarica, Budapest.
WA	- <i>World Archaeology</i> , London-New York.
Zargidava	- <i>Zargidava. Revistă de istorie</i> , Societatea de Științe Istorice din România - Filiala Bacău, Fundația Cultural-Științifică "Iulian Antonescu", Bacău.
Ziridava	- <i>Ziridava</i> . Complexul Muzeal Arad.
ZfE	- <i>Zeitschrift für Ethnologie</i> , Berlin.