

In Memoriam
Dr. Dan Monah

CONSILIUL JUDEȚEAN NEAMȚ
COMPLEXUL MUZEAL JUDEȚEAN NEAMȚ
CENTRUL INTERNAȚIONAL DE CERCETARE A CULTURII CUCUTENI

Colocviul Internațional

***CULTURA CUCUTENI
ÎN CONTEXTUL
NEO-ENEOLITICULUI EUROPEAN***

CUCUTENI – 130

International Colloquium

***CUCUTENI CULTURE
WITHIN THE EUROPEAN
NEO-ENEOLITHIC CONTEXT***

PROGRAM / PROGRAMME

Piatra-Neamț
15 - 17 octombrie 2014

Collaborator
FUNDAȚIA CULTURAL - ȘTIINȚIFICĂ „CONSTANTIN MATASĂ”

Organising committee:
President: **Gheorghe Dumitroaia**, PhD
Members: **Constantin Preoteasa**, PhD
Ciprian-Dorin Nicola, PhD
Vasile Diaconu, PhD

Scientific committee:
Researcher **Gheorghe Dumitroaia**, PhD
Professor **Sławomir Kadrow**, PhD, Hab.
Professor **Gheorghe Lazarovici**, PhD
Professor **Andrzej Pelisiak**, PhD, Hab.
Researcher **Dragomir Nicolae Popovici**, PhD
Professor **Nicolae Ursulescu**, PhD
Researcher **Mykhailo Videiko**, PhD

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PROGRAM / PROGRAMME

Marti, 14 octombrie
Grand Hotel „Ceahlău”
15:00 – 21:00

- sosirea și cazarea invitaților.

Tuesday, 14th October
Grand Hotel „Ceahlău”
15:00 – 21:00

- arriving and accommodation of the guests.

Miercuri, 15 octombrie

Muzeul de Istorie și Arheologie
10:00 – 14:00

- primirea și înregistrarea participanților;
- vizitarea expoziției permanente a muzeului și documentare științifică.

Muzeul de Artă Eneolitică Cucuteni
16:00 – 20:00

- deschiderea oficială a Colocviului Internațional ***Cultura Cucuteni în contextul neo-eneoliticului european***;
 - salutul organizatorilor;
 - cuvânt de salut din partea Academiei Române, adresat de Prof. Univ. Dr. Victor Spinei, Membru Corespondent al Academiei Române;
 - mesaje din partea invitaților din străinătate.
- lansare de volume: ***L’impact anthropique sur l’environnement durant le néo-énéolithique du sud-est de l’Europe / In Honorem Dr. Gheorghe Dumitroaia***, editori Constantin Preoteasa și Ciprian-Dorin Nicola; ***Constantin Matasă – opera istorică și arheologică***, editori Ciprian-Dorin Nicola, Constantin Preoteasa și Gheorghe Dumitroaia;
- vernisaj de expoziție: ***In Memoriam Dr. Dan Monah***;
- vizitarea expoziției permanente de artă eneolitică cucuteniană.

Wednesday, 15th October

History and Archaeology Museum

10:00 – 14:00

- reception and registration of the scientists;
- visiting of the exhibition and scientific documentation.

Cucuteni Eneolithic Art Museum

16:00 – 20:00

- opening ceremony of the International Colloquium ***Cucuteni Culture within the European Neo-Eneolithic Context***;
 - welcoming speech of the organisers;
 - opening talks from the Romanian Academy, presented by Professor Victor Spinei, Member of the Romanian Academy;
 - opening talks from the abroad guests.
- books release: ***L'impact anthropique sur l'environnement durant le néo-énéolithique du sud-est de l'Europe / In Honorem Dr. Gheorghe Dumitroaia***, editors Constantin Preoteasa and Ciprian-Dorin Nicola; ***Constantin Matasă – opera istorică și arheologică***, editors Ciprian-Dorin Nicola, Constantin Preoteasa and Gheorghe Dumitroaia;
- exhibition opening: ***In Memoriam Dr. Dan Monah***
- visiting of the Cucuteni eneolithic art exhibition.

Joi, 16 octombrie

Muzeul de Artă Eneolitică Cucuteni

09:00 – 13:00 / 16:00 – 20:00

- sesiune de comunicări științifice.

13:00 – 14:00

- sesiune de postere.

Thursday, 16th October

Cucuteni Eneolithic Art Museum

09:00 – 13:00 / 16:00 – 20:00

- scientific session.

13:00 – 14:00

- posters session.

Vineri, 17 octombrie

Muzeul de Artă Eneolitică Cucuteni

09:00 – 13:00 / 16:00 – 20:00

- sesiune de comunicări științifice; concluzii.

13:00 – 14:00

- vizitarea ansamblului ***Curtea Domnească***.

Friday, 17th October

Cucuteni Eneolithic Art Museum

09:00 – 13:00 / 16:00 – 20:00

- scientific session; conclusions.

13:00 – 14:00

- visiting of the ***Voivodal Court***.

PAPERS

Thursday, 16th October

1st Chair: JOHN CHAPMAN and DRAGOȘ GHEORGHIU

09:00 – 09:20

Bogdan Petru Niculică

Les premières découvertes des vestiges cucuténiens de Bucovine

09:20 – 09:40

**Mariana Filipova-Marinova, Danail Pavlov, Vladimir Slavchev,
Liviu Giosan**

Palaeoecology and Geoarchaeology of the Varna Lake, Northeastern Bulgaria

09:40 – 10:00

Tzvetana Popova

Neolithic Bulgar from Neolithic Jabalkovo, South Bulgaria

10:00 – 10:20

Galyna Pashkevych

Data of the Trypillian Agriculture: New Palaeoethnobotanical Evidence

10:20 – 10:40

Luminița Bejenaru, Simina Stanc

*New Archaeozoological Data on the Cucuteni Culture in Eastern Romania:
Sites of Tăcuta (Vaslui County) and Costești (Iași County)*

10:40 – 11:00

Georgeta El Susi

*New Data on Livestock of the Eneolithic Communities at Pietroasele -
Gruicul Dării (Buzau County) and its Place in the Cucuteni B Sites from the
extra-Carpathian Regions*

11:00 – 11:20

Selena Vitezović

*The Sea within: The Use of Mollusc Shells as Ornaments in the Central
Balkans Neolithic*

11:20 – 11:40

Andreea Vornicu

Technological Traditions in Manufacturing Bone Pointed Tools. A Comparison between Precucuteni and Cucuteni Assemblages

11:40 – 12:00

Corneliu Beldiman, Diana-Maria Sztancs, Costel Ilie

Symbolic Behaviour and Artefacts in the Eneolithic. Pendants, Beads, Perforated Plates made of Osseous Materials Discovered in South Moldova, Romania

12:00 – 12:20

Corneliu Beldiman, Dan Lucian Buzea, Diana-Maria Sztancs, Björn Briewig

Symbolic Behaviour and Artefacts in the Eneolithic. Pendants made of Osseous Materials Discovered in Eastern Transylvania, Romania

12:20 – 12:40

Alexandra Comşa

Cranial Deformation in the Romanian Neolithic

12:40 – 13:00

Robin Brigand, Olivier Weller, Mariana Vasilache, Andrei Asăndulesei

Le peuplement néo-énéolithique de Moldavie: analyse et modélisation spatiale

Thursday, 16th October

2nd Chair: SŁAWOMIR KADROW and NICOLAE URSULESCU

16:00 – 16:20

Dumitru Boghian, Sergiu-Constantin Enea

The Dynamics of the Habitat from the Bahluieț Basin (Târgu Frumos Microzone)

16:20 – 16:40

Valentin Dergachev, Olga Larina

Planigraphie et structure de l'établissement de type Criș de Sacarovca I (République de Moldova)

16:40 – 17:00

Maciej Dębiec, Dmytro Kiosak, Andrzej Pelisiak, Martin Posselt, Thomas Saile, Taras Tkachuk, Stanislav Țerna

Geomagnetic Prospection on Tripillian Sites in Central Ukraine

17:00 – 17:20

John Chapman

Settlement Planning at the Trypillia Mega-Site of Nebelivka – The Household, the Neighbourhood and the Community

17:20 – 17:40

Mykhailo Videiko

Reconstruction of Nebelivka Mega-Structure

17:40 – 18:00

Nataliia Burdo

Interior of the Nebelivka Temple

18:00 – 18:20

Laurent Carozza, Cristian Micu, Albane Burens, Florian Mihail, Sorin Ailincăi, Adrian Bălășescu, Valentin Radu, Jean-Michel Carozza, Mihaela Danu, Robin Furestier, Tiberiu Groparu, Constantin Haită, François Lévêque, Erwan Messenger, Cătălin Mihail, Sylvie Philibert, Noëlle Provenzano, Philippe Valette

Archéologie du delta du Danube. Le tell submergé chalcolithique de Taraschina

18:20 – 18:40

Anca-Diana Popescu

The Eneolithic Settlement from Costișa-Cetățuia

18:40 – 19:00

Valeriu Cavruc, Dan Lucian Buzea

The Păuleni Settlement as an Important Reference to the Cucuteni Culture Research

19:00 – 19:20

Lăcrămioara-Elena Istina

Recherches archéologiques dans le site cucuténien de Fulgeriș, département de Bacău (2013-2014)

19:20 – 19:40

Eduard Ovchynnikov

Trypillya Culture in the Dnipro River Region, near Kaniv (Stages BII-CI)

19:40 – 20:00

Aleksandr Diachenko, Mariana Vasilache

Sources and Sinks: Comparing the Cucuteni-Tripolye Settlements

Friday, 17th October

3rd Chair: GHEORGHE LAZAROVICI and ANDRZEJ PELISIAK

09:00 – 09:20

Dragomir Nicolae Popovici

Histoire de la maison. Données archéologiques et identités culturelles

09:20 – 09:40

Constantin-Emil Ursu, Stanislav Țerna

*Building No. 3 / 2013 Discovered at Baia-În Muchie (Suceava County).
Initial Data*

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Vasile Cotiugă, Nicolae Ursulescu, Ștefan Caliniuc

On the Multi-Storeyed Dwellings on the Cucuteni-Tripillya Cultural Complex

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Dmytro Chernovol

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Remains of Tripolian Houses: Forming Process

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Europe on the Example of Tripolian Buildings. Sources and Problems*

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New Discovery of the kilns in the Tripolian Giant-Settlement Talianki

11:20 – 11:40

Dragoş Gheorghiu

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Transfer of Cucuteni-Tripolyan Ideas and Things into the Areas of South-East Poland

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Małgorzata Rybicka, Aleksandr Diachenko, Dariusz Król

The Funnel Beaker Culture and the Tripolye Culture

12:20 – 12:40

Radu Băjenaru

About the Metal Daggers from Cucuteni-Ariuşd Area

12:40 – 13:00

Maria Gurova

Neolithic and Chalcolithic Flint Assemblages: Diachronic Perspective from Bulgaria

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4rd Chair: DRAGOMIR POPOVICI and MYKHAILO VIDEIKO

16:00 – 16:20

Andrzej Pelisiak, Taras Tkachuk

Chipped Stone Assemblage of Early Trypolie Culture from Kozyna-Solovtche Settlement Site (Tismenitsa District, Western Ukraine)

16:20 – 16:40

Katalin T. Biró, Sándor József Sztáncsuj

Dynamism in the Lithic Industry: Changes in the Chipped Stone Assemblage of the Ariuşd Settlement

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Andrzej Pelisiak, Thomas Saile, Maciej Dębiec

Late Tripolye (C2) Chipped Assemblage from Western Ukraine. Technological Aspects of Large Blade Productions

17:00 – 17:20

Dimitra Malamidou

Late Neolithic / Eneolithic 'Black on Red' Painted Pottery Production and Consumption in Northern Greece

17:20 – 17:40

Ion Mareş, Constantin Aparaschivei

Nouvelles données concernant l'obtention du sel de saumure durant l'énéolithique: briquetages découverts dans l'habitat Cucuteni A-B1 de Adâncata-Dealul Lipovanului

17:40 – 18:00

Oleksandr Kyrylenko

Cucuteni-Trypillian Ceramics of the CI and CII Stages in the Middle Dnieper Region as the Major Cultural and Chronological Marker

18:00 – 18:20

Stanislav Țerna

Clay Figurines in Mortuary Context in the Neolithic and Copper Age of the Western, North-Western and Northern Black Sea Regions: Disparate Phenomena or Consequent Episodes ?

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Dan Lucian Buzea, Adela Kovacs

Stone Idols Belonging to the Precucuteni Culture, Discovered at Olteni-The Sand Quarry, Covasna County

18:40 – 19:00

Ilya Palaguta

On the Problem of Interpretation of the Neolithic Anthropomorphic Clay Sculpture: Figurine Sets – Their Structure, Functions and Analogies

19:00 – 19:20

Gheorghe Lazarovici, Cornelia-Magda Lazarovici

Mask in the Cultural Complex Cucuteni-Tripolye. Similarities and Differences with other Cultures

19:20 – 19:40

Attila László

Les statuettes anthropomorphes – représentations artistiques, objets de culte ou bien requises rituelles ? Quelques remarques relatives à la plastique anthropomorphe découverte dans l'établissement de Malnaș Băi

19:40 – 20:00

Senica Țurcanu, Maria Geba, Nicoleta Vornicu, Coralia Costas

Metal Inserts in the Cucuteni-Tripolye Plastic Art. Case Study: The Anthropomorphic Statuette of Cucuteni-Cetățuie

20:00 – 20:20

Sergiu-Constantin Enea, Dumitru Boghian

The Anthropomorphic and Zoomorphic Plastic Art Discovered in the Cucutenian Sites Giurgești-Dealul Mănăstirii and Costești-Cier

20:20 – 20:40

Sabin Adrian Luca

A New Culture in Southern Transylvania ?

POSTERS

Thursday, 16th October

13:00 – 14:00

Mariana Prociuc, Vlad Codrea

*Archaeozoological Data from the Eneolithic site Fruntișeni (Vashui County).
Field Mission 2013*

Diana-Maria Sztancs, Corneliu Beldiman, Costel Ilie

*Symbolic Behaviour and Artefacts in the Eneolithic. Red Deer Antler
Sceptre Discovered in South Moldova, Romania*

**Diana-Maria Sztancs, Corneliu Beldiman, Dan Lucian Buzea,
Björn Briewig**

*Symbolic Behaviour and Artefacts in the Eneolithic. Beads made of Osseous
Materials Discovered in Eastern Transylvania, Romania*

Vasile Diaconu

Lithic Tools of the Cucutenian Settlement of Petricani (Neamț County)

Gheorghe Dumitroaia, Constantin Preoteasa, Ciprian-Dorin Nicola

*Vase aux représentations sacrées peintes lié du sanctuaire à étage dans
l'étape Cucuteni B1 de Poduri-Dealul Ghindaru*

NEAMȚ COUNTY MUSEUM COMPLEX
CUCUTENI CULTURE INTERNATIONAL RESEARCH CENTRE

CUCUTENI CULTURE WITHIN THE EUROPEAN NEO-ENEOLITHIC CONTEXT



Piatra-Neamț
2014

In Memoriam
Dr. Dan Monah

*The logo of the colloquium is a pot-stand,
realised in clay, called „Hora de la Frumușica”.
This masterpiece of the cucutenian art
has been discovered in a Cucuteni A settlement
from Bodești (the Moldavian sub-Carpathians)
by the priest Constantin Matasă,
the founder of the actually
History and Archaeology Museum of Piatra-Neamț.
This ring-dance represents six females
with stylized bodies, painted with white on red.*

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CUCUTENI CULTURE INTERNATIONAL RESEARCH CENTRE

***CUCUTENI CULTURE
WITHIN THE EUROPEAN
NEO-ENEOLITHIC CONTEXT***

INTERNATIONAL COLLOQUIUM

CUCUTENI – 130

abstracts

Edited by:

**GHEORGHE DUMITROAIA
CONSTANTIN PREOTEASA
CIPRIAN - DORIN NICOLA**

**Piatra-Neamț
15th - 17th October 2014**

The Colloquium is sustained by
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Researcher **Dragomir Nicolae Popovici**, PhD
Professor **Nicolae Ursulescu**, PhD
Researcher **Mykhailo Videiko**, PhD

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IN MEMORIAM DR. DAN MONAH



(11.02.1943 - 21.09.2013)

En 2013 l'archéologie roumaine a été fortement ébranlée par la perte de quelques personnalités marquantes dont l'activité a été déterminante pour sa destinée. Parmi celles-ci, Dan Monah, infatigable archéologue, ayant dédié la plus grande partie de son activité professionnelle à la recherche et à la mise en valeur de l'exceptionnel patrimoine du néo-énéolithique roumain, en particulier du complexe culturel Precucuteni-Cucuteni.

Dan Monah est né à Mogoșești-Siret (département de Iași). Pendant la période trouble qui a suivi la Seconde Guerre Mondiale, il s'est établi avec sa famille à Piatra-Neamț, où il a suivi – entre 1956 et 1960 – les cours du lycée *Petru Rareș*. Ensuite, entre 1963-1968, Dan Monah a fréquenté les cours de la Faculté d'Histoire et de Philosophie de l'Université *Alexandru Ioan Cuza* de Iași, spécialisation Histoire de la Roumanie, sous-spécialisation Histoire ancienne et Archéologie.

Immédiatement après la fin des études il a été pour une courte période professeur d'histoire au Lycée Militaire *Ștefan cel Mare* de Câmpulung Moldovenesc. A partir de l'automne 1969 il est devenu muséographe dans le cadre de prestigieuses institutions, comme le Musée d'Histoire et d'Archéologie de Piatra-Neamț, le Musée d'Histoire de Bicăz et le Musée d'Histoire de Bacău. A partir de 1986 Dan Monah a occupé les fonctions d'archéologue et de chercheur scientifique à l'Institut d'Histoire A.D. *Xenopol*, et à partir de 1990 à l'Institut d'Archéologie de Iași.

En 1995 il a obtenu le titre de docteur en histoire pour la thèse intitulée *Plastica antropomorfă a culturii Cucuteni*, réalisée sous la direction du regreté académicien Mircea Petrescu-Dîmbovița. Cet ouvrage d'exception, constituant la plus représentative synthèse sur la plastique anthropomorphe et la religion cucuténiennes, a été publié dans une première édition en 1997 et réédité en 2012 dans une version révisée et enrichie. Le regreté spécialiste qu'on commémore aujourd'hui a été membre de nombreux jurys de thèse; habilité à diriger des thèses en 2004, il a supervisé, avec une exigence bien connue, l'activité de ses doctorants dans le cadre de l'Institut d'Archéologie de Iași.

Eminent spécialiste, Dan Monah a été membre de plusieurs organisations nationales et internationales de prestige dans le domaine de l'archéologie : ainsi, il a été membre de la commission pour le néolithique de l'Union Internationale des Sciences Préhistoriques et Protohistoriques, de l'European Association of Archaeologists, du *The Research Centre for the Archaeology of Central and Eastern Europe* des Universités de Durham et Newcastle (Grande Bretagne), de la *Federación Iberoamericana de Sociedades de Defensa del Patrimonio Geológico y Minero*, secrétaire scientifique du Centre International de Recherche de la Culture Cucuteni de Piatra-Neamț, membre des conseils scientifiques de l'Institut d'archéologie de Iași et du Complexe Muséal du Département de Neamț. Il a été également co-éditeur de la renommée collection de spécialité *Bibliotheca Memoriae Antiquitatis*, fonctionnant dans le cadre du Complexe Muséal du Département de Neamț, membre dans le comité de lecture de la revue *Memoria Antiquitatis*, membre dans les comités de rédaction des revues *Arheologia Moldovei*, *Memoria Antiquitatis*, *Carpica*, *Studia Historica*. *Analele Universității „Dunărea de Jos”* de Galați.

Certains des projets réalisés le long de son riche activité professionnelle lui ont apporté les plus hautes distinctions dans le domaine de la mise en valeur publicistique et expositionnelle du patrimoine du complexe culturel Precucuteni-Cucuteni. Ainsi, en 1987, l'Académie Roumaine lui a offert le prix *Vasile Pârvan* pour la publication (en collaboration) du volume *Așezările culturii Cucuteni din România*. En 2003 Dan Monah a reçu de la part du Ministère de la Culture et des Cultes le prix *Adrian Rădulescu* pour le projet et le catalogue de l'exposition *Poduri-Dealul Ghindaru. O Troie în Subcarpații Moldovei*, réalisé en collaboration avec une équipe de spécialistes du Musée d'Histoire et d'Archéologie de Piatra-Neamț. Dan Monah est aussi l'auteur du

chapitre concernant la religion et l'art cucuteniens du catalogue *Primul muzeu Cucuteni din România* (paru jusqu'à l'heure actuelle en deux éditions), catalogue qui complète le projet de management muséal réalisé par les spécialistes du Musée d'Histoire et d'Archéologie de Piatra-Neamț, finalisé par la création, en 2005, du Musée d'Art Enéolithique Cucuteni, démarche distinguée avec le prix *Iulian Antonescu* par le Ministère de la Culture et des Cultes. La riche activité de Dan Monah a été reconnue et récompensée par l'octroi, par l'institution ministérielle sous-citée, du *Diplôme de mérite pour l'activité dans le domaine de la recherche archéologique*.

Dès 1969 et pendant toute sa carrière, Dan Monah a participé en tant que membre de l'équipe ou en tant que responsable des fouilles dans le cadre des recherches archéologiques de Brășăuți, Ghelăiești, Vermești, Petricani, Târgu Ocna, Văleni, Izvoare, Lunca, Prohozești, Solca, Mitoc, Mărgineni et Poduri. Le site de Mărgineni a été investigué de manière exhaustive tandis que le *tell* chalcolithique de Poduri a fait l'objet, pendant les trois décennies et demie qui ont passé depuis sa découverte, d'amples recherches, y compris pluridisciplinaires, se constituant dans une véritable école qui a vu se former toute une série de jeunes archéologues intéressés par les énigmes cucuténiennes. De même, le regreté chercheur a participé, en tant qu'invité, aux investigations archéologiques de Putinești III (République de Moldavie), Wettolsheim et Rosheim (France). Le patrimoine culturel découvert suite aux fouilles de Dan Monah – remarquable par sa quantité, sa qualité et sa diversité – enrichit les collections de plusieurs musées importants parmi lesquels il faut rappeler le Musée d'Histoire et d'Archéologie et le Musée d'Art Enéolithique Cucuteni de Piatra-Neamț, le Musée d'Histoire de Bacău, le Musée d'Histoire de Botoșani, le Musée de la Civilisation Cucuteni de Iași ou le Musée National d'Histoire de la Roumanie de Bucarest.

Naturellement, un tel patrimoine a offert à son découvreur la possibilité d'organiser des expositions (en collaboration) extrêmement intéressantes, dédiées surtout à l'art cucuténi, mais aussi au *tell* de Poduri, auquel Dan Monah a consacré la plus grande partie de son activité de terrain et qui, à son tour, l'a récompensé par les résultats d'importance scientifique exceptionnelle qu'il a fournis.

Désireux d'enrichir ses connaissances, Dan Monah a effectué pendant les deux dernières décennies des stages de documentation dans des institutions de spécialité étrangères de prestige, à Chișinău, Paris, Londra, Cardiff, Durham, Exeter, Oxford, Cambridge, Barcelona, Mainz ou bien en Anatolie (Tüz Gölü).

En plus, Dan Monah a pu partager sa vaste expérience professionnelle grâce aux conférences qu'il a données à de diverses occasions dans des centres universitaires et de recherche de renom de Roumanie (Iași, Galați, Piatra-Neamț) et de l'étranger (Heidelberg, Durham, Londres, Oxford, Cambridge, Paris). Dans le même ordre d'idées, nous rappelons ici le soutien scientifique que le chercheur a offert à la réalisation de quelques films documentaires.

Pendant ces dernières années, Dan Monah a réalisé – en tant que directeur ou membre de contrats de recherche nationaux et internationaux – d’amples projets de recherche, grâce auxquels il a réuni des institutions et des personnalités marquantes de Roumanie et de l’étranger. Les résultats extraordinaires obtenus suite à ces démarches (qui ont supposé des fouilles archéologiques, des visites de documentation, l’organisation et la participation à des manifestations scientifiques ou bien des publications dans la presse) ont contribué de façon substantielle à l’enrichissement des connaissances sur des thèmes complexes comme la religion et l’arts cucuténien ou l’exploitation et l’utilisation du sel dans la préhistoire.

Au long du temps le regretté collègue a organisé (en collaboration), une série de colloques nationaux et internationaux (surtout à Piatra-Neamț et à Iași), colloques dont la thématique visait en principal le complexe culturel Precucuteni-Cucuteni. Ces manifestations ont souvent été accompagnées de volumes d’une haute tenue scientifique, comprenant les contributions des participants mais aussi d’autres spécialistes. Il a été, à son tour, invité à de nombreuses réunions scientifiques organisées en Roumanie et à l’étranger, souvent en tant que modérateur et principal animateur des débats. On rappelle dans ce sens les manifestations de Chișinău, Châlons-sur-Marne, Compiègne, Lons-le-Saunier, Bratislava, Istanbul, Treignes, Liège, Esslingen, Durham, Cambridge, Cardiff, Talyanki, Kiev, Sigiienza, Provadia, Varna, mais aussi celles de București, Iași, Piatra-Neamț, Bacău, Suceava etc.

Promoteur de la recherche archéologique moderne, caractérisée par une forte dimension interdisciplinaire, Dan Monah a collaboré pendant sa longue carrière avec des spécialistes renommés des domaines de la botanique (bénéficiant ici surtout du soutien de Mme. Felicia Monah, qui a toujours été à ses côtés), de la zoologie, anthropologie, géologie, physique, chimie, ethnographie. Par son vaste oeuvre, Dan Monah a eu une contribution essentielle à une meilleure connaissance des réalités spécifiques des civilisations néo-énéolithiques de l’espace situé à l’Est des Carpates, et surtout du complexe culturel Precucuteni-Cucuteni, auquel il s’est dédié avec passion et professionnalisme.

Les Editeurs

LES PREMIERES DECOUVERTES DES VESTIGES CUCUTENIENS DE BUCOVINE

Bogdan Petru Niculiță

Mots-clés: *Cucuteni, Bucovine, Musée du Pays de Bucovine, Société du Musée de Siret, la Société Archéologique Roumaine de Tchernivtsi, Commission Centrale pour la conservation et recherche des monuments historiques et d'art de Vienne.*

La Civilisation Cucuteni, entrée depuis longtemps dans la littérature scientifique nationale, se trouve à présent devant un beau moment anniversaire, à savoir le marquage des 130 ans depuis la découverte et sa fondamentatation internationale. Les „antiquités” cucuténiennes, encore loin d'être élucidées dans l'intégralité des formes d'expression artistique, symbolique et technologique sont toujours plus dans l'attention des spécialistes. Pourtant, au-delà des résultats révélateurs des recherches interdisciplinaires, par exemple, il existe encore assez d'inconnues en ce qui concerne les débuts de la connaissance de la civilisation Cucuteni, débuts qui appartiennent à la période fondatrice de l'archéologie nationale et qui se retrouvent, en ce qui concerne l'espace historique auquel nous nous référons ici – la province autrichienne Bucovine, dans la seconde moitié du XIXe siècle.

Ce sujet n'a pas été approché jusqu'à présent dans la littérature roumaine, c'est pourquoi nous essayerons, avec un maximum de prudence, de présenter les données de nos investigations historiographiques dans un ordre précis, chronologique, cohérent, ayant à sa base l'interprétation historique événementielle. La Bucovine, province autrichienne (1775-1918), a souvent constitué dans la littérature archéologique un espace historico-géographique à rôle de repère, parce qu'elle offre un cadre précis, dans lequel il est possible de figurer certains sens scientifiques qui, en fait, sont basés sur l'organisation administrative et institutionnelle de la province. C'est aussi notre cas: en Bucovine il y a eu, naturellement, de nombreuses découvertes archéologiques préhistoriques, tel que le montre le mieux Dionisie Olinescu (1852-1924) dans son *Charta archeologica a Bucovinei* (București, 1894), réalisée tant sous la forme d'un répertoire, qu'en tant que représentation cartographique. A Vienna, il y a eu une préoccupation majeure pour toutes les „antiquités” et non

seulement, découvertes dans l'Empire; de la sorte, la *Commission Centrale pour la conservation et la recherche des monuments historiques et d'art* a nommé, pour la province Bucovine, trois membres conservateurs et cinq membres correspondants, qui avaient le devoir d'envoyer, annuellement, des rapports détaillés qui décrivent les respectives découvertes. Ces rapports étaient par la suite traités et publiés dans les deux publications périodiques de la *Commission Centrale de Vienna: Mittheilungen et Jahrbuch*.

Si nous nous référons strictement aux premières découvertes cucuténiennes de Bucovine, alors il faut considérer tout d'abord l'activité de Otto von Petrino, qui à partir de 1870-1871 déjà décrivait plusieurs haches en pierre, non perforées, évidemment liées au monde énéolithique, découverts à Tchernivtsi, Chisălău, Mamornița, Suceava etc., les pièces étant été publiées dans l'annuaire de la *Société d'Anthropologie* de Vienna (*Mittheilungen der Antropologischen Gessellschaft*) par Josef von Gutter (1809-1886), le fondateur de la *Société du Musée de Siret* (1870 / 1871 - 1886). Des nombreuses découvertes appartenant à la civilisation cucuténienne signalées par Gutter, nous retenons une belle statuette féminine découverte à Siret, dans la zone de l'ancienne fabrique de briques Beill, pièce gardée à présent dans les collections du musée de la localité.

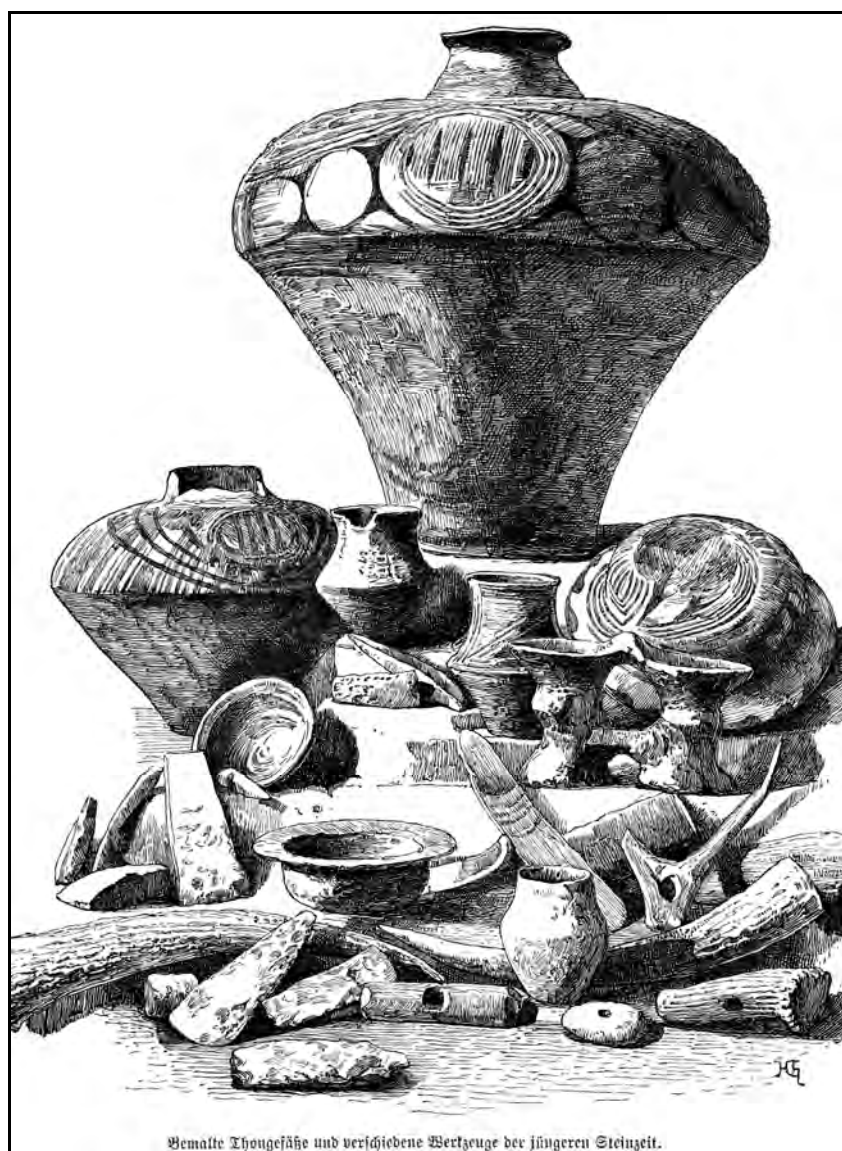
Dionisie Olinescu signale plusieurs découvertes à céramique peinte en divers points de la région de Bucovine, le long d'une carrière de publiciste de plus de 40 ans, déroulée en Bucovine, dans l'Empire Hongrois-Autrichien et dans le Royaume de Roumanie. Raimund F. Kaindl (1866-1930), dans son fameux travail monographique *Geschichte der Bukowina* (Cernăuți, 1896), fournit une synthèse des découvertes préhistoriques, y compris de celles cucuténiennes, en mentionnant parmi d'autres les belles pièces découvertes dans le site de Șipeniț, près de Tchernivtsi. Karl A. Romstorfer (1854-1916), dont le nom est lié à la fondation du *Musée du Pays de Bucovine* de Tchernivtsi (1893) et du *Musée de la Ville de Suceava* (1900) a fait aussi référence aux découvertes préhistoriques énéolithiques, initiant, dans l'annuaire du musée de Tchernivtsi la rubrique *Aus den Mittheilungen der k.k. Central-Kommission*, dans laquelle il a présenté les rapports publiés à Vienna, concernant la Bucovine.

Mais, les plus importantes recherches dans le domaine de la préhistoire de la Bucovine et surtout concernant la culture Cucuteni, ont été effectuées par Josef Szombathy (1853-1943), qui est l'auteur des investigations de terrain visant l'archéologie préhistorique de 1893 et 1894. L'archéologue viennois, connu pour ses immenses contributions à la pré- et protohistoire européenne, a des mérites particuliers, aussi bien par la valeur des découvertes (l'exemple du site cucuténien de Șipeniț), que par la qualité des informations publiées. En ce qui concerne les voyages d'étude de Josef Szombathy en Bucovine, il existe seulement quatre témoignages documentaires. Les trois premiers ont été publiés sous la forme d'articles-rapports dans l'annuaire, encore jeune à ce moment-là, du *Musée du Pays de Bucovine* de Tchernivtsi (*Jahrbuch des Bukowiner Landes-Museums*) –

dans les années 1894 – no. II (*Prähistorische Recognoscierungstour nach der Bukowina im Jahre 1893*, p. 11-21), 1895 – no. III (*Zweite Recognoscierungstour in die Bukowina*, p. 20-24) et 1896 – no. IV (*Zweite Recognoscierungstour in die Bukowina*, p. 131-135), celui-ci étant en fait une reprise du texte de l'an précédent. La dernière contribution, constituant une belle synthèse de ses recherches et conceptions historiques, date de 1899, lorsque le travail monographique d'envergure *Die österreichisch-ungarische Monarchie in Wort und Bild. Bukowina* (Vienna, 1899). Là-bas, Josef Szombathy a signé un chapitre documenté et intéressant, sous le titre *Vorgeschichte (Préhistoire)*, dans lequel on présente en détail les découvertes appartenant à la civilisation Cucuteni de Șipeniț.

Entre 19 août et 2 septembre 1893, Szombathy a été accompagné et soutenu dans ses recherches, par le professeur d'*Histoire de l'Autriche* de l'Université de Tchernivtsi, Raimund F. Kaindl, lui aussi passionné par l'histoire des époques éloignées. Il a été très impressionné par le site archéologique de Șipeniț, situé à 15 km à l'ouest-nord-ouest de Tchernivtsi, sur la rive gauche du Prut. Là-bas, l'enseignant Vasile Arici, apprenant des légendes sur certains trésors cachés dans le sol, avait déjà commencé les fouilles, découvrant des pots en terre glaise, une partie d'entre eux étant livrés au baron Mustăță et gardés dans le *Musée du Pays* de Cernăuți. Leurs ornements peints, spiralés (connus, tel que le remarque Szombathy, d'une série de découvertes de Pologne), complètement particuliers, sont décrits en détail par l'archéologue viennois, qui mentionne un grand pot, ayant la hauteur de 64 cm et le diamètre de 67 cm, au nez court et „courbé vers le haut”. Recherchant attentivement, Szombathy remarque un niveau culturel, qui apparaissait pendant les excavations archéologiques, niveau dans laquelle il y a avait des charbons de bois, cendre, enduits de parois, os d'animaux domestiques, fragments céramiques peints, poids en terre glaise pour les métiers-à-tisser, pots de type binocles et beaucoup d'autres vestiges. Sa conclusion: à Șipeniț il y a eu autrefois un site détruit par le feu, et les habitations de ces temps-là étaient du type des huttes, à murs faits de plessis couverts de terre; l'habitat préhistorique de Șipeniț est comparé par Szombathy à certains autres sites déjà connus et étudiés de Galice.

En guise de conclusion de ses réflexions sommaires concernant les premières mentions concernant les découvertes de type Cucuteni de Bucovine, nous mentionnons un autre travail intéressant, signé par le professeur Heinrich Klauser de Tchernivtsi, dédié à la céramique cucuténienne de Șipeniț, et aussi une découverte intéressante, effectuée par l'archéologue amateur, prêtre Vasile Tomiuc, celui qui a trouvé le beau sceptre cruciforme, rencontré aussi dans certains sites de type Tripolye, du territoire de l'Ukraine. Toutes ces données mentionnées ci-dessus appartiennent à l'histoire de la recherche de la culture Cucuteni et complètent, de manière bénéfique, croyons-nous, l'image d'ensemble sur les débuts des recherches de cette brillante civilisation énéolithique.



*Découvertes archéologiques de Bucovine: céramique peinte de Șipeniț
(apud Szombathy, Vorgeschichte, 1899, p. 51)*

PALAEOECOLOGY AND GEOARCHAEOLOGY OF THE VARNA LAKE, NORTHEASTERN BULGARIA

**Mariana Filipova-Marinova
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Keywords: *pollen, dinocysts, non-pollen palynomorphs, AMS dating, Holocene, Black Sea level changes.*

The coastal lakes are rich sources of biostratigraphic information that is very useful in palaeoecological reconstructions of climate changes and human impact on the natural vegetation. This information is of great importance for the archaeological descriptions of submerged praehistorical settlements found in the northern Bulgarian Black sea area. There are 4 archaeological sites in this area that have been palynologically studied for the last 30 years: the Durankulak Lake, the Shabla-Ezeretz Lake system, the Lake Bolata, as well as the Varna-Beloslav Lake system. Because of the lack of AMS radiocarbon dates for these sites, it was not possible to correlate adequately all palaeoenvironmental results with the available archaeological chronology.

Aimed to receive additional information on the Holocene vegetation dynamics and lake level changes, as well as on the anthropogenic impact during the Late Eneolithic and Early Bronze Age, the high-resolution spore-pollen analysis of AMS dated laminated sediments from a new Core 3 – Varna Lake was combined with analyses of dinoflagellate cysts, acritarchs, and other non-pollen palynomorphs.

The location of the core is close to submerged praehistorical sites and permits the palaeoenvironmental correlations of obtained results with available archaeological and geochronological data. The core is 995 cm long, but its palynologically investigated length is 870 cm. It contains dark grey clay and laminated sediments (varves). Seven samples of sediments were submitted for radiocarbon dating to the National Ocean Sciences Accelerator Mass Spectrometry Facility of Woods Hole Oceanographic Institution. The dates have been calibrated using the program CALIB version 6.1.0 of using

the IntCal09 curve. An Age Model for the sedimentation rate was created by the newest version 1.17.16. of the TILIA software.

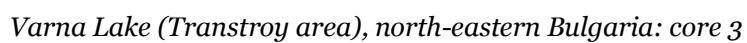
Thirty-five samples for spore-pollen analysis were processed according to the standard acetolysis laboratory method, slightly modified to remove the mineral components with sodium pyrophosphate and hydrofluoric acid. Up to 400 pollen grains of terrestrial plants were counted per sample. One-hundred-and-seventeen taxa have been determined. The dinoflagellate cysts and other NPP were counted in the samples prepared for routine spore-pollen analysis. The percentage values of the pollen taxa were calculated on the basis of AP + NAP pollen sum (arboreal plus non-arboreal plants excluding spores, aquatics, dinoflagellate cysts and other algae, acritarchs, and other NPP) and a spore-pollen diagram has been constructed. The frequency of the dinoflagellate cysts and NPP is also presented in percentages based on this pollen sum. The spore-pollen percentage diagram of Core-3-Varna Lake is divided into three local pollen assemblage zones and five subzones to facilitate description and understanding of vegetation succession. TGVIEW version 2.0.1. software was used for all percentage pollen calculations. Cluster analysis program CONISS was applied for more precise zonation as well. Blytt - Sernanders' northerneuropean climatostratigraphic subdivision of the Holocene, the regional archaeological chronology, and the regional palynostratigraphy were used for the correlations of pollen assemblages.

The established Age Model and the high percentage values of marine dinoflagellates *Lingulodinium machaerophorum* and *Spiniferites belerius*, as well as acritarchs *Cymatiosphaera globulosa* shows that the accumulation of lake sediments started after 7870 cal. BP and is connected with a rise of the Black Sea level during the First Phase of the Vityazevyan Transgression. Most probably, the Provadiyska River valley was submerged and turned into firth, connected with the sea. The vegetation palaeosuccession after 7870 cal. BP could be correlated to the Early Atlantic chronozone of the Holocene. Mixed oak forests were widespread and reached their maximal distribution. The extremely high values of arboreal pollen suggests dense forests dominated by *Quercus* with abundant other temperate species such as *Ulmus*, *Corylus*, *Tilia*, *Carpinus betulus*, *Fraxinus excelsior* and *Fagus*. The presence of indicator species such as *Hedera* suggests high humidity and temperature. Single pollen grains of *Juglans* found in this subzone confirm that the walnut was preserved along the Bulgarian Black Sea coast during the Late Glacial.

One-hundred-ninety-cm-long molluscan shell hash layer of *Mytilus galloprovincialis* covers the interval from 7776 to 6183 cal. BP and coincides with the Second Phase of the Vityazevyan Transgression. The mixed oak and hornbeam forests dominated the vegetation cover during the Middle and Late Atlantic, Subboreal and Subatlantic chronozones of the Holocene. An important change in the forest composition occurred at ca 5598 cal. BP, when *Carpinus betulus* increased its spreading due to climatic changes.

The high-resolution reconstruction of palaeovegetation also reveals the extent of anthropogenic influence in Varna Lake area. Two periods of significant presence of pollen from cultivated cereals including *Cerealia*-type and *Triticum*, weeds such as *Centaurea cyanus*-type and *Papaver*, and ruderals *Plantago lanceolata*, *Polygonum aviculare*, Cichoriaceae, *Carduus*-type and *Urtica* were identified. According to the available AMS-radiocarbon data, these periods are attributed to the Late Eneolithic and Early Bronze Age. The anthropogenic impact on the natural vegetation has been identified by deforestation and agricultural practice. The appearance of *Carpinus orientalis* and *Fraxinus ornus* is connected with degradation of forests due to a strong anthropogenic influence. The increased values of *Corylus* coincidentally with decrease of *Quercus* and *Ulmus* also suggest clearance of forests and enlargement of arable areas. The absence of microcharcoals and fungal spores of *Neurospora* sp. during the intervals of deforestation provide evidence for clearance of oak woodlands by cutting. This is also confirmed by archaeological finds of stone tools such as axes and adzes from the Varna Lake area for the Late Eneolithic. The high anthropogenic influence on palaeoenvironment is also confirmed by dung indicators such as *Podospora*-type, *Cercophora*-type, *Sordaria*-type, and *Chaetomium*. The low percentage values of marine dinoflagellate cysts *Lingulodinium machaerophorum*, the presence of coenobia of *Pediastrum boryanum*, and pollen of aquatic species such as *Myriophyllum spicatum* and *Potamogeton* suggest the brackish-water environment and shallow open relatively eutrophic waters during the Late Eneolithic. The Black Sea level was low and soils around the Varna Lake were humid, rich in humus and suitable for cultivation during this time of inhabitation of the area.

The decrease of pollen of cereals and other anthropogenic species such as *Plantago lanceolata*, *Polygonum aviculare*, Cichoriaceae, *Carduus*-type and *Urtica* and the gap in human activities confirm a cultural hiatus of ca. 319 yrs between the Late Eneolithic and Early Bronze Age. The maximum values of cysts of euryhaline marine dinoflagellates *Lingulodinium machaerophorum* and *Spiniferites belerius*, acritarchs *Cymatiosphaera globulosa* and *Micrhystridium* cf. *ariakense*, as well as *Foraminifera* at 5598 cal. BP suggest influx of marine waters and increase of salinity in the brackish-water lake. Most probably, the sea level became higher and influenced the Varna Lake area during the First Phase of the Kalamitian Black Sea Transgression. This supports the assumption that settlements near the Varna Lake were abandoned for about three centuries.



NEOLITHIC BULGUR FROM NEOLITHIC JABALKOVO, SOUTH BULGARIA

Tzvetana Popova

Keywords: *Neolithic, Bulgur, Jabalkovo, Bulgaria.*

„Cooking provides not only ‘food for the body’ but also ‘food for thought’. The fundamental importance of food as the medium for initiating and maintaining social relations is well recognized in both anthropological and archaeological literature. However, it is beer that characteristically binds people together and serves to reinforce solidarity in ritual and in everyday. The preparation of food in pots must have represented a critical step in cultural evolution. In the pottery container, food was transformed from a natural to a cultural product” (Randi Haaland, 2007).

Jabalkovo Lake presents some examples related to the techniques of food preparation, conservation of different types of food in the Neolithic settlement Jabalkovo. The village Jabalkovo is located in southeast Bulgaria. Our example is based on archaeological data related to food preparation and there are attempted culinary models of prehistorically settlements in the territory of Bulgaria. The main information comes from the recently excavated in the Maritsa River valley Early Neolithic sites Jabalkovo.

This is very interesting finding and is detected for the first time on the territory of Bulgaria in the Neolithic settlement. They are found in the central sector. The amount of grain was apparently content of pithos. The analysis shows that all the grains are broken. The species composition consists of cereals including the following: *Triticum monococcum*, *Triticum dicoccum*, *Hordeum vulgare var. nudum*. The cereals have been stored in the pithos and thus are more easily too consumed. Thus the early Neolithic population could at any time to prepare meals of bulgur.

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DATA OF THE TRYPILLIAN AGRICULTURE: NEW PALAEOETHNOBOTANICAL EVIDENCE

Galyna Pashkevych

Keywords: *Chalcolithic, Trypillia, palaeoethnobotany, cultivated plants.*

The palaeoethnobotanical investigations show that the basic assemblage of cultivated plants of Trypillian culture were hulled wheats, barley and pulses.

The report deals with results of recently palaeoethnobotanical research of materials from settlements of Trypillian culture Bernashevka and Ozhevo (Dniester region) and settlement Nebelivka (district Kirovogradsky). The objects of palaeoethnobotanical research were charred grains and seeds of cultivated plants and weeds as well as their impressions on fragments of pottery and mud daub of dwellings. The charred materials were extracted by means of manual water flotation. Such flotation made for the first time on Trypillian settlements.

The large-scale of collections ceramics, mud daub, plastics are saved from well-known settlements at the Institute of archeology of Ukraine. Thousand fragments of ceramics and plastics have been investigated (Збеневич, Пашкевич, 1988; Пашкевич, Відейко, 2006). Results of these researches together with data of Z. Yanushevich and N. Kuzminova provide conclusive evidence of basic assemblages of cereals and pulses of Trypillian culture (Янушевич, 1976; 1980; 1986; Кузьминова, 1990). The most important cereals were hulled wheats einkorn (*Triticum monococcum*), emmer (*Triticum dicoccum*) and nudum and hulled barley (*Hordeum vulgare* var. *coeleste*, *Hordeum vulgare*). These cereal species were accompanied by spelt (*Triticum spelta*) and pulses: bitter vetch (*Vicia ervilia*), pea (*Pisum sativum*) and lentil (*Lens culinaris*).

On the settlements of Trypillian culture the carbonised plant remains met very seldom. Already some ten years researchers of Europe use flotation of occupation layers for reception of fossil material. In 2010-2012 flotation of Trypillian settlements Bernashevka, Ozhevo, Nebelivka has been spent for the first time.

On the settlement **Bernashevka 1** (Trypillia A2) samples with charred material have been received from pit no. 2. Grains two hulled wheats emmer and einkorn were almost in equal. Naked barley was almost half less. Results include also several grains of spelt and hulled barley. Small fragments of grains contained in samples in considerable quantity. Their definition is impossible. It's evidence the rich structure of pit. More informative are impressions. It is a wide range of impressions of plant remains and among them – impressions of grains emmer, einkorn, naked and hulled barley, and also impressions of their ears are well visible. Composition of grains of cultivated plants and their impressions coincide. Grains hulled wheats einkorn and emmer prevail. Barley takes the second place. Pulses are presented only as impressions. It's seeds of bitter vetch. But these seeds are absent among the charred material.

On the settlement **Ozhevo** (Trypillia BI (4300-4200 BC) samples for washing were selected in different places. Grains of hulled wheats, naked and hulled barley and a lot of fragments of grains were found. Considerable quantity of the vegetative rests contains on daub.

The settlement **Nebelivka** has been investigated by joint British - Ukraine expedition in 2012-2013. The settlement concerns a stage BII and has date about 5000 BC. Botanical macro-remains, charcoals and different organic materials were separated from soil with used special water-carrying vehicle. Samples contained a lot of rootlet of modern plants, pieces of charcoals, small fragments of ceramics and daub and rare carbonized grains of cultivated plants samples. In most cases they have been destroyed. Sometimes this destruction was so considerable that has not given possibility to identify either species or genus. Several samples contained only small fragments of grains. The most part of settlements practically does not contain grains.

Grains and seeds of the following cultivated plants were discovered: cereals: emmer – 33, einkorn – 17, spelt – 6, bread wheat / club wheat (*Triticum aestivum* s.l.) – 1, hulled barley – 4, naked barley – 11 and pulses: lentil – 1, pea – 4, bitter vetch – 3. The assortment of cultivated plants revealed in samples from Nebelivka is typical for Trypillia culture. More informative are impressions on daub. It is a lot of impressions of plant remains and among them – imprints of grains emmer, einkorn, hulled barley, and also imprints of their ears which are well visible. Thus, all these data show that in crops of inhabitants of settlement Nebelivka there was hulled wheats, barley and pulses – pea, lentil and bitter vetch.

Large palaeoethnobotanical materials from more than hundred settlements of the Trypillia culture makes possible to determine the assortment of cultivated plants used by tribes. This assortment consisted of hulled wheats: emmer, einkorn and spelt, as well as barley and pulses. Bread wheat / club wheat formed small admixtures to other cereals (Янушевич, 1976; 1980; 1986; Пашкевич, 1989; 1991; 2000; Пашкевич, Відейко, 2006).

Palaeoethnobotanical researches have revealed on settlements of the Neolithic and the Eneolithic times of Europe have shown that tribes used more or less homogeneous assortment (Wasylikowa *et alii*, 1991). In Bulgaria hulled wheats - einkorn and emmer were the main among the revealed grain crops. In Romania the Precucuteni and Cucuteni tribes, which chronologically were close to the Trypillia tribes used hulled wheats, barley, millet and pulses. But materials from the tell Poduri-Dealul Ghindaru considerably differ. The considerable quantity charred grains of naked wheat are found in layers of phase the Precucuteni III. It's values fluctuate from 58.6 to 100%. Researchers believe that inhabitants used next wheats: *Triticum aestivum*, *Triticum dicoccum*, *Triticum monococcum*. Barley was not less important (Monah, Monah, 2008).

I hope that flotation during future excavation of Trypillia settlements will give new interesting palaeoethnobotanical materials and will expand the assortment used by Trypillian tribes.

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**ARCHAEOZOOLOGICAL DATA FROM THE
ENEOLITHIC SITE FRUNȚIȘENI (VASLUI COUNTY):
FIELD MISSION 2013**

**Mariana Prociuc
Vlad Codrea**

Keywords: *Holocene, Eneolithic, Stoicani-Aldeni, Frunțișeni, faunal remains, animal husbandry, hunting, fishing.*

The Eneolithic settlement unearthed on July 2013 belongs to Stoicani-Aldeni cultural aspect, located in Eastern Romania, Vaslui County. The bone remains analyzed from this site originating from the ancient food garbage were found behind the vestige of a house, into a kitchen. All the faunal remains were anatomically and taxonomically assigned in order to build-up a database. 1232 remains belonging to molluscs (*Unio pictorum*, *Unio* sp.), fish (Pisces indet.), turtles (*Emys orbicularis*), birds (*Gallus* sp.), wild mammals (*Bos primigenius*, *Cervus elaphus*, *Capreolus capreolus*, *Sus scrofa ferus*, *Meles meles*, *Lepus europaeus*) and domestic mammals (*Bos taurus*, *Ovis aries*, *Capra hircus*, *Sus scrofa domesticus*, *Canis familiaris*; (see the table).

Statistics show that the assemblage is dominated by domestic animals, essentially sheep / goat, cattle and pig. Sheep / goat were raised for their secondary products (milk, skin and wool), but young individuals were often killed for consumption. For cattle which rank the second place the situation is similar: the young individuals were killed for consumption and the adults were used for primitive agriculture and their second products. Pig was raised for meat as it is shown by a number of young animals sacrificed before they could be productive, and the old animals were kept for reproductive purposes.

The evidence that the animals were slaughtered for meat consumption is a large number of cut marks identified on the bones surfaces (127 bones with cut marks) and regarding the location on each bone where they were created, as well as the morphology of the cut marks. Based on these arguments, we presume that the community had specialized butchers.

Also we can notice that hunting would play a minor role in the supply, because in this site the wild mammals do not exceed 8.19%. The ancient communities focused on hunting large mammals, which yielded large amount of meat, such as *Bos primigenius*, *Capreolus capreolus*, *Cervus elaphus* and *Sus scrofa ferus*.

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Taxon	NISP	%	MNI	%
Domestic animals				
<i>Bos taurus</i>	240	19.48	19	8.67
<i>Ovis aries</i>	175	14.20	39	17.8
<i>Capra hircus</i>	97	7.87	25	11.41
<i>Ovis aries / Capra hircus</i>	167	13.57	27	12.32
<i>Sus domesticus</i>	145	11.77	35	15.98
<i>Canis familiaris</i>	6	0.49	3	1.36
Total domestic mammals	830	67.38	148	67.54
Wild animals				
<i>Bos primigenius</i>	36	2.93	5	2.28
<i>Sus ferus</i>	12	0.97	3	1.36
<i>Cervus elaphus</i>	51	4.14	7	3.19
<i>Capreolus capreolus</i>	9	0.73	1	0.45
<i>Meles meles</i>	1	0.08	1	0.45
<i>Lepus europaeus</i>	6	0.49	2	0.91
<i>Unio pictorum</i>	47	3.82	37	16.89
<i>Emys orbicularis</i>	2	0.16	1	0.45
Fish	2	0.16	1	0.45
<i>Gallus sp.</i>	2	0.16	1	0.45
Total wild mammals	139	13.64	59	26.88
<i>Bos sp.</i>	47	3.81	4	1.83
<i>Sus sp.</i>	107	8.68	8	3.65
<i>Unio sp.</i>	80	6.49		
Total	1232	100	219	100

The species identified in the Fruntișeni site (Stoicani-Aldeni), field mission 2013

**NEW ARCHAEOZOOLOGICAL DATA
ON THE CUCUTENI CULTURE IN EASTERN ROMANIA:
SITES OF TĂCUTA (VASLUI COUNTY)
AND COSTEȘTI (IAȘI COUNTY)**

**Luminița Bejenaru
Simina Stanc**

Keywords: *Archaeozoology, Cucuteni, Eastern Romania, Tăcuta, Costești.*

Animal remains of two Cucuteni sites from eastern Romania (Tăcuta and Costești) are described in terms of their frequencies based on the number of identified specimens (NISP). The two archaeozoological assemblages are compared in point of paleoeconomy and paleoecology.

Assemblage of Tăcuta

Animal remains collected in the archaeological campaigns of 2011-2012 belong to the Cucuteni A cultural level. The degree of fragmentation of skeletal elements is relatively small and only about 19% of the remains were not identified up to the level of genus. Some of remains show an external crust of cement being affected by tissue diagenesis especially through water and temperature regimes. Only about 4% of remains have traces of gnawing, and only five fragments are burned. But many skeletal pieces were butchered and 35 specimens were worked.

As table 1 shows, the domestic mammals are better represented (71%) than the wild mammals (6%); the molluscs have a frequency of 23%, and the birds under 0.5%.

The domestic mammals identified consist of cattle, sheep, goat, pig and dog. Pig dominates the assemblage of domestics with about 35%; sheep / goat come on the second place (about 33%), while cattle on the third (about 29%). The remains of dog are less frequent (about 2%).

The wild mammals are red deer, wild boar, roe deer, aurochs, fox, and wolf. Because a large part of the red deer remains are antler fragments, we do not consider this species as the most common. Wild boar would be the

wild species with the highest frequency (about 32%), that is followed by roe deer (about 19%). Red deer remains, excluding the antler fragments, represent only about 6% and the other species something like 1% each of them. The horse is represented only by two remains.

The prevalence of swine remains, domestic and wild, is not a common feature for Cucuteni settlements, in which, mostly, cattle dominates as domestic species and red deer as wild (Haimovici, 1987; Bejenaru, Stanc, 2013).

The gathering of molluscs was important; it was oriented more on the use of snails than shells.

Assemblage of Costești

The sample is represented almost exclusively by household, with a high degree of fragmentation. A small number of remains show traces of animal teeth (animals consuming bones). We notice a good conservation status, and skeletal remains with traces of burning are rare.

The domestic mammals identified consist of cattle, sheep, goat, pig and dog. Domestic mammals with the highest frequency are cattle, sheep / goat and pig (tab. 2). Sheep / goat dominates the assemblage of domestics in the level Cucuteni A3, but sheep / goat come on the second place in Cucuteni A-B2 / B1 (cattle dominate in this level). Pig is on the third place, while dog are less frequent.

The wild mammals are relatively well represented (24.16% NISP in Cucuteni A3, and 16.98% NISP in Cucuteni A-B2 / B1). Red deer was the favourite hunted species. Wild boar appears as the second wild species. Aurochs and roe deer, both considered species of forest outskirts, have a frequency of remains constant but relatively lower.

The gathering of molluscs is very poorly represented (tab. 2).

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Taxon	Common name	NISP
<i>Bos taurus</i>	Cattle	372
<i>Ovis aries</i>	Sheep	7
<i>Capra hircus</i>	Goat	20
<i>Ovis aries</i> / <i>Capra hircus</i>	Sheep / goat	399
<i>Sus scrofa domesticus</i>	Pig	444
<i>Canis familiaris</i>	Dog	24
Total identified domestic mammals		1266
<i>Bos primigenius</i>	Aurochs	1
<i>Cervus elaphus</i>	Red deer	48
<i>Capreolus capreolus</i>	Roe deer	21
<i>Sus scrofa ferus</i>	Wild boar	35
<i>Canis lupus</i>	Wolf	1
<i>Vulpes vulpes</i>	Fox	2
<i>Cricetus cricetus</i> ?	Common hamster ?	1
Total identified wild mammals		109
<i>Equus caballus</i>	Horse	2
Total identified mammals		1377
Unidentified mammals		422
Aves	Bird	4
<i>Unio</i> sp.	River mussel	33
<i>Helix</i> sp.	Garden snail	384
Total assemblage		2220

Tab. 1. Quantification of faunal remains from Tăcuta site

Taxon	Common name	NISP
Cucuteni A3		
<i>Bos taurus</i>	Cattle	47
<i>Ovis aries</i> / <i>Capra hircus</i>	Sheep / Goat	84
<i>Sus domesticus</i>	Pig	35
<i>Canis familiaris</i>	Dog	2
Total identified domestic mammals		168
<i>Bos primigenius</i>	Aurochs	5
<i>Cervus elaphus</i>	Red deer	25
<i>Capreolus capreolus</i>	Roe deer	6
<i>Sus scrofa</i>	Wild boar	15
<i>Lepus europaeus</i>	Hare	3
<i>Castor fiber</i>	Beaver	2
Total identified wild mammals		56
<i>Equus caballus</i>	Horse	2
<i>Bos taurus</i> / <i>Bos primigenius</i>	Cattle / Aurochs	2
<i>Ovis</i> / <i>Capra</i> / <i>Capreolus</i>	Sheep / Goat / Roe deer	1
Unidentified mammals	206	
Total unidentified mammals		209
Aves	Bird	2
<i>Unio</i> sp.	River mussel	11
<i>Helix</i> sp.	Garden snail	1
Total		449
Cucuteni A-B2 / B1		
<i>Bos taurus</i>	Cattle	66
<i>Ovis aries</i> / <i>Capra hircus</i>	Sheep / Goat	27
<i>Sus domesticus</i>	Pig	15
<i>Canis familiaris</i>	Dog	5
Total identified domestic mammals		113
<i>Bos primigenius</i>	Aurochs	3
<i>Cervus elaphus</i>	Red deer	15
<i>Capreolus capreolus</i>	Roe deer	1
<i>Sus scrofa</i>	Wild boar	5

<i>Canis lupus</i>	Wolf	2
<i>Vulpes vulpes</i>	Fox	1
Total identified wild mammals		27
<i>Equus caballus</i>	Horse	12
<i>Bos taurus</i> / <i>Cervus elaphus</i>	Cattle / Red deer	3
Unidentified mammals		208
Total unidentified mammals		211
<i>Unio</i> sp.	River mussel	6
<i>Helix</i> sp.	Garden snail	1
Total		370
Cucuteni A3 + Cucuteni A-B2 / B1		
<i>Bos taurus</i>	Cattle	103
<i>Ovis aries</i> / <i>Capra hircus</i>	Sheep / Goat	113
<i>Sus domesticus</i>	Pig	49
<i>Canis familiaris</i>	Dog	3
Total identified domestic mammals		268
<i>Bos primigenius</i>	Aurochs	12
<i>Cervus elaphus</i>	Red deer	50
<i>Capreolus capreolus</i>	Roe deer	6
<i>Sus scrofa</i>	Wild boar	19
<i>Lepus europaeus</i>	Hare	6
<i>Castor fiber</i>	Beaver	2
<i>Canis lupus</i>	Wolf	1
<i>Meles meles</i>	Badger	1
<i>Ursus arctos</i>	Bear	2
Total identified wild mammals		99
<i>Equus caballus</i>	Horse	6
Unidentified mammals		358
Total unidentified mammals		358
<i>Emys orbicularis</i>	European pond turtle	1
<i>Unio</i> sp.	River mussel	3
<i>Helix</i> sp.	Garden snail	1
Total		736

Tab. 2. Quantification of faunal remains from Costești site

NEW DATA ON LIVESTOCK OF THE ENEOLITHIC COMMUNITIES AT PIETROASELE - GRUIUL DĂRII (BUZĂU COUNTY) AND ITS PLACE IN THE CUCUTENI B SITES FROM THE EXTRA - CARPATHIAN REGIONS

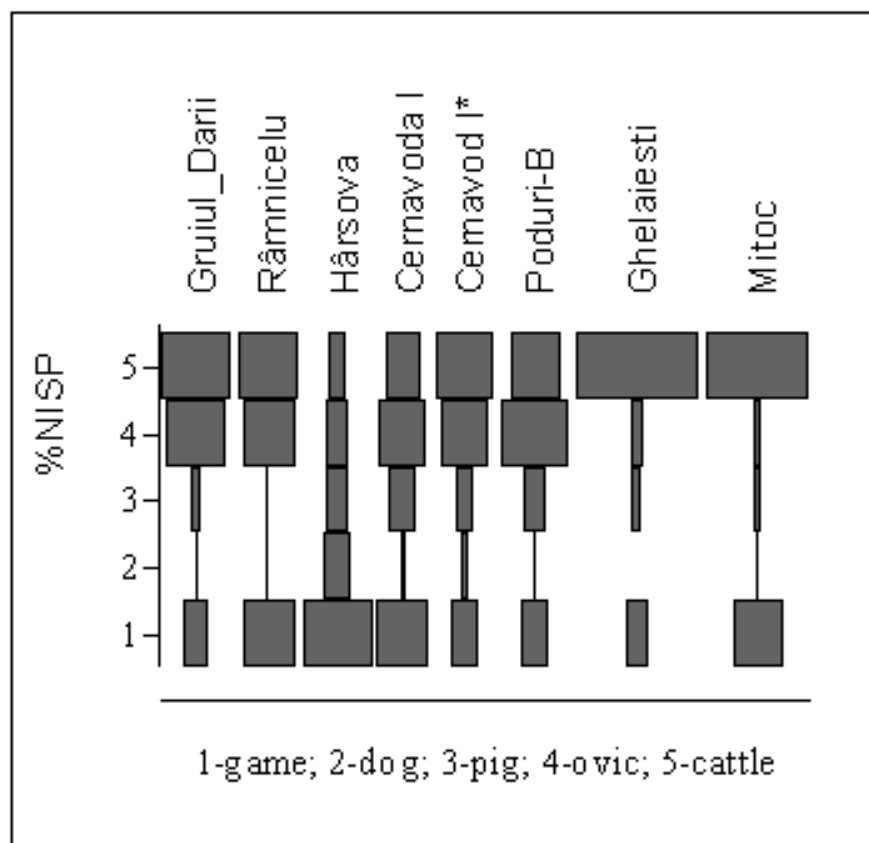
Georgeta El Susi

Keywords: *Pietroasele-Gruicul Dării, Cucuteni B, small ruminants, hunting, wild horse.*

Gruicul Dării is a headland with an ellipse shape and a peak of 534 m belonging to the hills of Istrița, a unit of the Buzău Sub-Carpathians, located between the Romanian Plain and the Buzău Mountains. The site provided bones from the Eneolithic (Cernavoda Ic / Cucuteni B), Bronze Age (Monteoru culture), 4th - 3rd centuries BC and Dacian epochs. 2,554 remains belonging to mammals, birds and fish have been studied. About 86% (2,199 fragments) of the sample comes from two burnt dwellings, noted by Cpl. 113, 157, and the culture layer. Domestic segment is prevalent by 84% against 16% the game. Small ruminants dominate the statistics by 35.09% (as individuals) followed by cattle with 18% and pig with 7.89%. Certainly, the environment will target the economy towards the sheep and goat farming. Let us note, which is somewhat unusual in the context of Eneolithic sites that ovicaprids' flocks had many goats. The report sheep/ goat as MNI is 1.3 / 1 and the same as NISP, of 1.2 / 1. It appears that the rocky terrain will be conducive to goat feeding. Even our days, about 40-50% of the small ruminant herds are goats (personal observations) in the area. Breeding of small ruminants was aimed at getting meat and milk. Cattle, despite their low percentage of 18% as individuals, had their definite role in the food economy and utility. It seems that their management was more balanced than that of small ruminants, cattle are more difficult to farm, and it was exploited mainly for by-products. The importance of pork in the diet is reduced, so it does not exceed 7%. Hunting was practiced to supplement the necessary meat, and to procure raw materials as fur, leather, (from small carnivores), antlers, bone for processing (red deer and roe deer). Medium and big specimens were targeted: horse, red deer, aurochs, wild boar and roe

deer. Close to 70% of the bones comes from red deer supposing the surroundings were something better wooded than today.

By now 23,000 bones from Cucuteni B / I Cernavoda sites have been published of which more than half from mammals. The envisaged settlements are spread over a big area of south-eastern Romania, with quite different context in terms of habitat. The proportion of domestic / wild species (% NISP) shows modest share of hunting about 13-16% in Sub-Carpathian regions, the ratio is higher in the lowlands. Linked up to domestic mammals, in terms of numbers of fragments, there are sites with an increased rate of cattle, 60.2% at Mitoc, and 73.3% at Ghelăiești. By contrary, at Poduri cattle rate is 30.8%, exceeded by small ruminants, with nearly 10%. At Mitoc and Ghelăiești, the very high frequency of cattle is linked to the community character „breeders, particularly of large horned”. The other settlements emphasize a much lower share of bovines, 30-40% at Pietroasele, Poduri, Râmnicelu, Cernavoda I or very low, 10-20% in the other ones. Large-scale exploitation of sheep/goat is found in almost all instances, irrespective of geographical location. Regarding pig, it seems that these communities were less interested in its exploitation, except the sites along the Danube and Poduri with a quota of 10-18%, not exceeding 5-6% in other instances. Linked up to horses, it is thought to be domestic or wild, in the mentioned settlements. It is impossible to pronounce whether, it was a component of wildlife (with a role in the diet) or it was already domesticated during Eneolithic times. The contribution of birds, reptiles, fish and molluscs is reduced in most samples.



Frequencies of mammals in Eneolithic sites

THE SEA WITHIN: THE USE OF MOLLUSC SHELLS AS ORNAMENTS IN THE CENTRAL BALKANS NEOLITHIC

Selena Vitezović

Keywords: *Central Balkans, Neolithic, mollusc shells, Spondylus, ornaments.*

Mollusc shells have always attracted the attention of humans, since the Palaeolithic times they were collected and used, in their natural form or modified, for diverse, mainly decorative, but other purposes as well (Taborin, 2004). Jewellery from mollusc shells is present in almost all corners of the world, from prehistory to the modern times. In prehistoric Europe, they are continually present, although the number of finds, their character, raw material etc., varies from region and period.

As exotic raw material, they also caught the attention of researchers very early and numerous studies are published concerning their distribution, possible meaning and symbolism. However, the level of research is not the same for all periods and all areas, and also the studies were often limited on mere cataloguing the finds, as if their exotic nature was sufficient. They were often interpreted in terms of prestigious and magic items, evidence of trade and exchange, but without going into details regarding their value and function, different symbolic meanings, or mechanisms, routes, intensity, etc. of trade and exchange. Most research was devoted to the *Spondylus* finds in the Neolithic and Chalcolithic (from latest works, especially should be noted Ifantidis, Nikolaidou eds., 2011, Séfériadès, 2010), but, despite long tradition of research and, in last few decades, diverse interdisciplinary studies, many questions are still open.

Regarding central Balkans, most attention was devoted to the site of Vinča-Belo Brdo, eponymous site of Vinča culture and its large collection of *Spondylus* and *Glycymeris* ornaments (Dimitrijević, Tripković, 2002; 2006; Dimitrijević *et alii*, 2010).

In this paper will be explored and synthesized the available data on the presence of mollusc shell in the Neolithic of the central Balkans, i.e., in Starčevo and Vinča cultures – the use and distribution of certain species as

raw materials, types of artefacts, context of finds. Especially the emphasis will be on technological analysis – raw material choices, possible traces of manufacture and remodelling, use wear traces and reconstruction of possible mode of wearing, in order to understand better the meaning, value, importance and general role of mollusc shell ornaments.

In the Starčevo culture, mollusc shells ornaments are sporadic, but this is most likely the result of non-systematic research and inadequate collection of material. However, *Spondylus* bracelets, *Dentalium* beads and small beads from non-identified mollusc were discovered on several sites. The richest collection, from eponymous site of Starčevo-Grad, included several bracelets and beads (Vitezović, 2011; 2012).

In the Vinča culture, due to low number of excavated graves, mollusc ornaments are mainly isolated finds. Richest collection comes from eponymous site, Vinča-Belo Brdo in Belgrade vicinity, where over 300 artefacts from *Spondylus*, *Glycymeris*, *Cardium* and *Dentalium* (Dimitrijević, Tripković, 2002; 2006; Ignjatović, 2008; Dimitrijević *et alii*, 2010) were collected during archaeological excavations which, with intermissions, last for over one century. Also important finds are from only *extra muros* cemetery of Vinča culture recovered so far in Serbian territory, Botoš-Živanića dolja, where diverse types of ornaments from both *Glycymeris* and *Spondylus* were discovered (Marinković, 2010).

New finds in past decade or two demonstrated that the mollusc jewellery were not limited to the Danube valley, but were found throughout central Balkan territory (for example, at Vitkovo near Trstenik, in Pomoravlje region, at one single pit six fragmented bracelets from *Spondylus* were discovered – Vitezović, 2013).

Although more research is needed, just the re-examination of available data demonstrated that the chronological and geographical distribution of mollusc jewellery was not as limited as previously thought – they were represented in Starčevo culture as well and were wide-spread on the entire Balkan territory. This suggests much more complex network of trade and exchange, and therefore raises important questions on exchange in general in the Neolithic period. Technological data suggest that they were repaired, and perhaps some could have been produced locally from imported raw material, or even be completely of local origin, as the *Dentalium* may be found in Belgrade vicinity (Dimitrijević *et alii*, 2010). Also, the life histories of mollusc jewellery, their value and meaning were not as straight-forward, judging from diverse context in which they were discovered – both graves and refuse pits.

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TECHNOLOGICAL TRADITIONS IN MANUFACTURING BONE POINTED TOOLS. A COMPARISON BETWEEN PRECUCUTENI AND CUCUTENI ASSEMBLAGES

Andreea Vornicu

Keywords: *Chalcolithic, Precucuteni, Cucuteni, technological behaviour, technological traditions, bone tools.*

Objects made of animal hard tissues from Chalcolithic sites from Moldova were poorly studied in comparison with other categories of artefacts. The few studies that regard this type of implements are, with some exceptions, typological oriented and provide no anthropological interpretations on the raw archaeological data. The situation should not be seen as the result of a lack of interpretive framework, since that could have been offered through the study of technology.

Based on a technological approach, our presentation aims to identify and explain the variations within the material culture during Chalcolithic period (namely Precucuteni and Cucuteni cultures), in terms of technological behaviour and traditions. We are looking at the case of bone pointed tools that are the most common class of artefacts made on animal hard tissues. Analysing the procedures used in their manufacturing we search to determine the elements that could define the technological behaviour of the human groups. Every technological act embeds cultural and social values, since it requires a series of transmitted common knowledge (the „know-how”) that guides the gestures of the craftsmen and gives specificity to the final products.

The study takes into account several pointed tools assemblages from sites that belong to Precucuteni culture – Târgu Frumos and Isaiia – and to Cucuteni culture: Costești, Fulgeriș and Tăcuta. The lots were analysed using the common methods of the technological approach, which involves the reconstruction of the *chaîne opératoire*. Data from the dedicated literature available for other contemporary sites were also used in order to verify our primary results.

The comparison was made at the level of raw material acquisition and of manufacturing schemas. We identified specific patterns that guide the technological processes in both Precucuteni and Cucuteni sites.

In Precucuteni sites, the choice of raw material shows signs of standardisation, seen in the specific search for metapodials of roe deer. There is no correlation between the patterns of faunal exploitation for manufacturing and that for subsistence purposes, meaning that the high use of roe deer metapodials could be more of a cultural or technological choice.

On the other side, when analysing Cucuteni assemblages we can see an increase in variety in terms of skeletal elements and animal species used in pointed tools manufacturing. Different types of long bones from both large and small ruminants and carnivores were identified. Also, the metapodials are no longer the favourite raw material, furthermore they are poorly represented. Instead, an increase of pointed tools made on tibias of small ruminants can be observed.

The manufacturing schemas are deeply related to the type of raw material used. In Precucuteni, the roe deer metapodials are transformed through longitudinal partition in halves and quarters. The last schema is the best represented within all the assemblages. Comparing our data to the information available in the literature, we could assume that the partitioning in quarters of metapodials represents a cultural-technological tradition that was shared on a vast area, including also sites from Tripolye area. This tradition seems to have declined in Cucuteni culture, when the schemas of transformation, as in the situation of raw material, are diversifying.

The technological conception of the final product involves a low degree of transformation, with objects that retain most of the anatomical features of the bone. The lack of investment is related only to shaping procedures. In contrast, a higher degree of investment can be seen in debitage operations, as the longitudinal partition of metapodials bones requires a greater amount of work and the mastering of a particular knowledge.

The pointed tools from Cucuteni assemblages are manufactured mostly by transversal / oblique division of the raw material or by fracturation. The both techniques of debitage imply a low technological investment and are not time consuming. The degree of transformation of blanks is similar to the above mentioned, the final products retaining unmodified most of the anatomical features of the bone.

The analysis of pointed tools manufacturing procedures shows specific technological traditions for the Chalcolithic period in the eastern part of Romania. Though our study concerns only one category of implements, we consider that the technological approach offers valuable data for further cultural interpretation of the archaeological assemblage. Within this theoretical framework, the study of bone tools manufacturing can contribute to the tracking of cultural traditions and identity in prehistory.

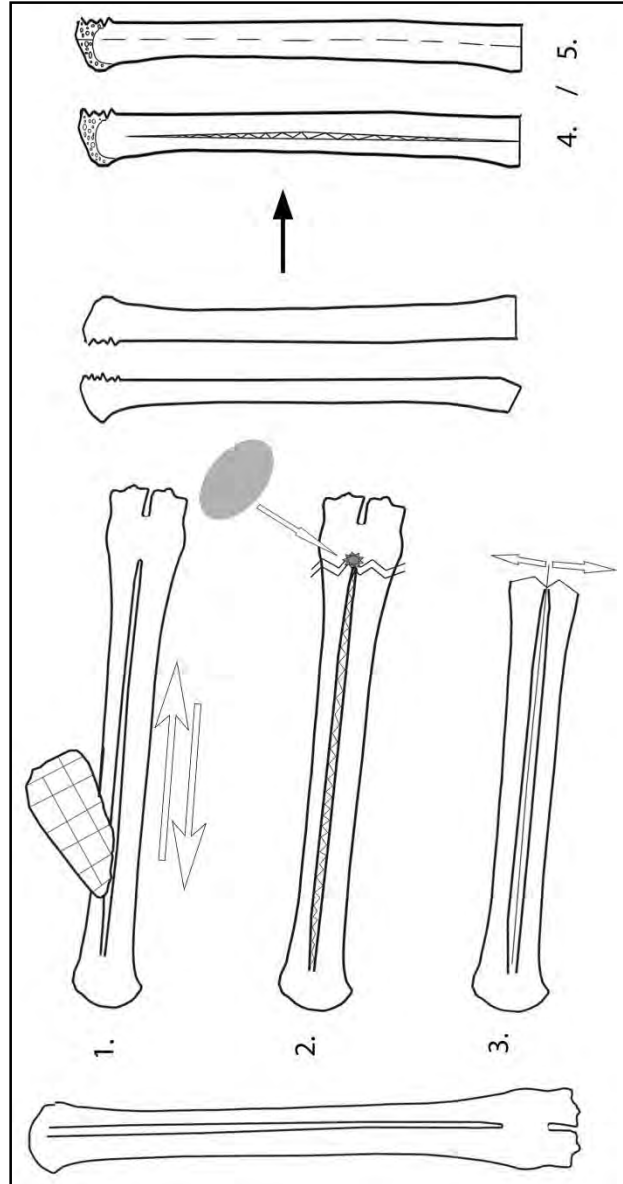


Fig. 1. Schema of metapodials debitage by partition in half (1-3) and in quart (4-5), specific to *Precucuteni* assemblages:
 1 – grooving; 2 – removal of the epiphysis by percussion;
 3 – splitting; 4 – internal grooving; 5 – indirect percussion

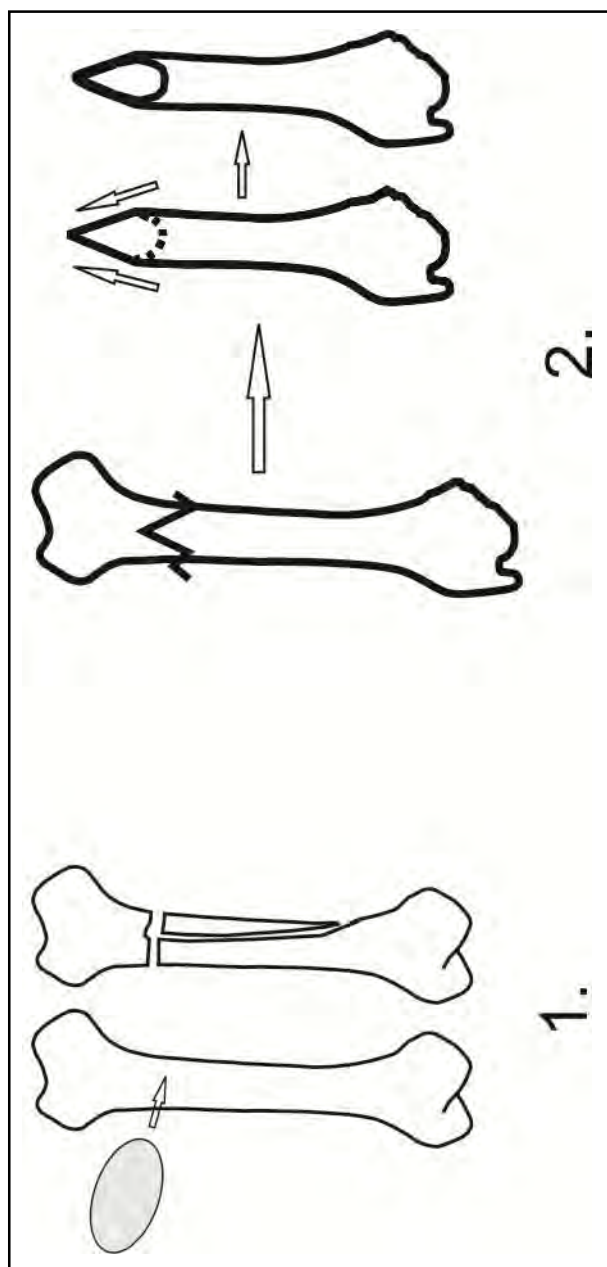


Fig. 2. *The most common schemas of bone pointed tools manufacturing in Cucuteni culture: 1 – fracturing; 2 – oblique partition*

**SYMBOLIC BEHAVIOUR
AND ARTEFACTS IN THE ENEOLITHIC.
PENDANTS, BEADS, PERFORATED PLATES
MADE OF OSSEOUS MATERIALS
DISCOVERED IN SOUTH MOLDOVA, ROMANIA**

**Corneliu Beldiman
Diana - Maria Sztancs
Costel Ilie**

Keywords: *Eneolithic, Stoicani-Aldeni, Cucuteni-Ariuşd, Moldova, Suceveni-„Stoborăni”, Bereşti-„Dealul Bulgarului”, „Paul Păltănea” History Museum of Galaţi, DanubiOs, palaeotechnology, osseous materials artefacts, adornments, bead, pendant, plate, spiritual life, symbolic artefacts.*

The Eneolithic cultures attested in the region of South Moldova offers various data regarding the complex use of osseous materials resources that the natural or the man-made environment abundantly offered to the human communities. On this occasion, we present an assemblage of pieces stored in the collection of the „Paul Păltănea” History Museum of Galaţi, resulted from the systematic research carried out during the 5th and 8th decades of the past century by Prof. PhD Ion T. Dragomir, former Director of the museum, at Bereşti-„Dealul Bulgarului” and Suceveni-„Stoborăni”.

The Suceveni-„Stoborăni” site dated from Stoicani-Aldeni cultural horizon (ca. 4500-4200 BC) was almost entirely excavated, being the most important site dated from the above mentioned cultural horizon up to the present. Other site belongs to the early phase of Cucuteni-Ariuşd culture (stage A3, ca. 4350-4050 BC) – Bereşti-„Dealul Bulgarului”. These brought an important contribution to the clarification of some aspects regarding the genesis of Cucuteni-Ariuşd culture in the South of Moldova. We have to underline the fact that the study of osseous materials industry dated from Cucuteni-Ariuşd culture still is at its beginning and the one dated from the Stoicani-Aldeni cultural horizon has never been studied in detail until recently, using the present methodology.

In this way, the data that were made accessible by the project financed by the Administration of the National Cultural Fund, „Digitisation of the cultural portable heritage of History Museum of Galați. Collection of Eneolithic osseous materials artefacts”, 2012 („**DanubiOs**”) whose editorial product is a catalogue (Beldiman *et alii*, 2012), brings notable contributions regarding the knowledge of these Eneolithic manifestations of the communities that lived in the actual space of Romania and in the surrounding areas.

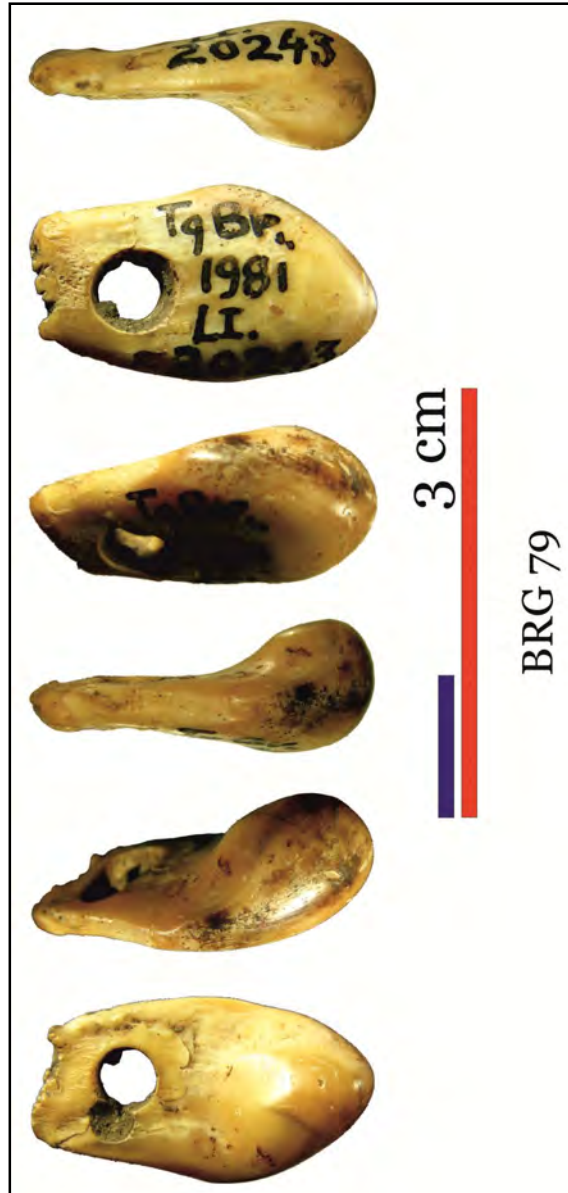
The detailed study of the assemblage comprising osseous materials artefacts stored at the History Museum of Galați, coming from important Eneolithic sites from the South of Moldova, a study that was realised for the first time during the above-mentioned project, brings new contributions to the knowledge of the technical manifestations characteristic for the Stoicani-Aldeni and Cucuteni-Ariuşd (stage A3) communities. It refers to the ways in which the natural resources were used and to the economical and spiritual activities in which this type of pieces can be used. The appliance of an unitary and standardised methodology that is at the same level with the international one, allows us to make some comparisons and to highlight the common elements and the differences between two cultures that are considered to have developed in a direct genetically connection.

The digitisation orders and make accessible, in an optimal way, an important quantity of data both to specialists and to the public. The data allows the development of the repertory and of the various analytic approaches through the sets of information that are systematised and made available for the following research that will be done with an identical or at least compatible methodology (<http://www.migl.ro/DanubiOs/eneolithic/index.html>).

The spiritual manifestations represent an important issue related to Eneolithic cultures which has not been approached in detail from the perspective of cataloguing and studying extensively the large amount of artefacts made of various raw materials. At Berești-„Dealul Bulgarului” and Suceveni-„Stoborâni” sites, the symbolic behaviour is illustrated by a series of artefacts which are very complex from a typological point of view (pendants, perforated plates, and beads). These are made of skeletal materials (bone, red deer antler, teeth, shells etc.), are manufactured *intra-site* or achieved by exchanges. They are the object of a detailed approach where the standardised methodology was applied. In this respect, microscopic analyses and palaeotechnological reconstructions were done. Their results have not been included in „**DanubiOs**” Project and subsequently being valorised in various contexts or published as articles and studies.

The catalogue, the data regarding the archaeological contexts, the extensive descriptions related to manufacture issues (raw materials, procedures and techniques used in order to transform the raw materials, use-wear traces and hypotheses regarding the usage of pieces etc.) are presented with this occasion. The approach is completed by an important imagistic material comprising schemes, drawings, macro- and microphotographs etc.

In this respect, the saying „It’s all in the details” is fully illustrated here and it is verified from the perspective of analysing archaeological artefacts. A new pattern of extensive approach is offered and it should be adopted and applied in a systematic manner within the Romanian research domain for a better knowledge of the spiritual manifestations. We have been applying this type of approach for many years and its results were published in studies, articles, books and communications.



Pendant

SYMBOLIC BEHAVIOUR AND ARTEFACTS IN THE ENEOLITHIC. RED DEER ANTLER SCEPTRE DISCOVERED IN SOUTH MOLDOVA, ROMANIA

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Keywords: *Eneolithic, Stoicani-Aldeni, Moldova, Suceveni-„Stoborăni”, „Paul Păltănea” History Museum of Galați, DanubiOs, palaeotechnology, red deer antler, sceptre, sleeve, spiritual life, symbolic artefacts.*

The Eneolithic cultures attested in the region of South Moldova offers various data regarding the complex use of osseous materials resources that the natural or the man-made environment abundantly offered to the human communities. On this occasion, we present an assemblage of pieces stored in the collection of the „Paul Păltănea” History Museum of Galați, resulted from the systematic research carried out during the 5th and 8th decades of the past century by Prof. PhD Ion T. Dragomir, former Director of the museum, at Suceveni-„Stoborăni”.

This site dated from Stoicani-Aldeni cultural horizon (ca. 4500-4200 BC) was almost entirely excavated, being the most important site dated from the above mentioned cultural horizon up to the present. We have to underline the fact that the study of osseous materials industry dated from the Stoicani-Aldeni cultural horizon has never been studied in detail until recently, using the present methodology. In this way, the data that were made accessible by the project financed by the Administration of the National Cultural Fund, „Digitisation of the cultural portable heritage of History Museum of Galați. Collection of Eneolithic osseous materials artefacts”, 2012 („**DanubiOs**”) whose editorial product is a catalogue (Beldiman *et alii*, 2012), brings notable contributions regarding the knowledge of these Eneolithic manifestations of the communities that lived in the actual space of Romania and in the surrounding areas.

The detailed study of the assemblage comprising osseous materials artefacts stored at the History Museum of Galați, coming from important

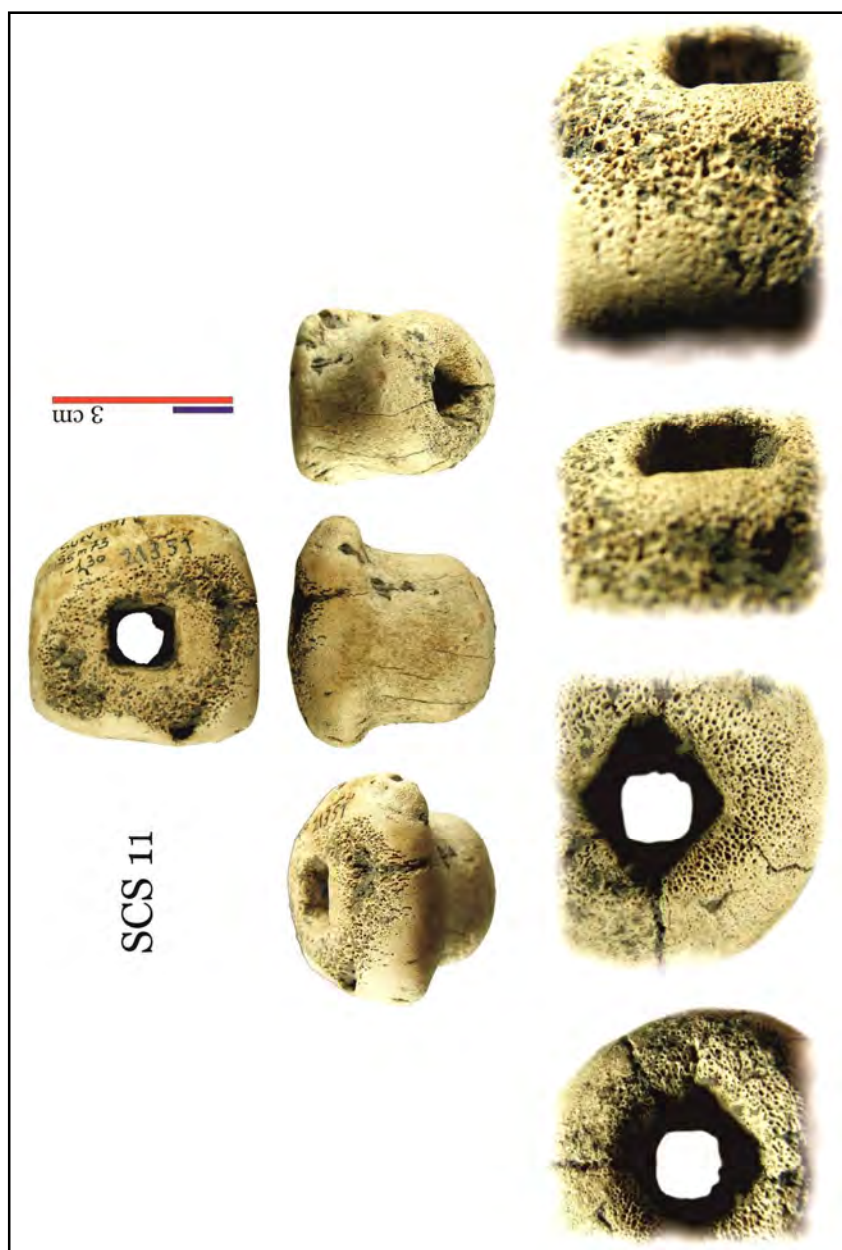
Eneolithic sites from the South of Moldova, a study that was realised for the first time during the above-mentioned project, brings new contributions to the knowledge of the technical manifestations characteristic for the Stoicani-Aldeni communities. The data allows the development of the repertory and of the various analytic approaches through the sets of information that are systematised and made available for the following research that will be done with an identical or at least compatible methodology (<http://www.migl.ro/DanubiOs/eneolithic/index.html>).

The spiritual manifestations represent an important issue related to Eneolithic cultures which has not been approached in detail from the perspective of cataloguing and studying extensively the large amount of artefacts made of various raw materials. At Suceveni-„Stoborăni” site, the symbolic behaviour is illustrated by a series of artefacts which are very complex from a typological point of view (pendants, perforated plates and beads). These are made of skeletal materials (bone, red deer antler, teeth, shells etc.), are manufactured *intra-site* or achieved by exchanges.

Among these, a unique piece made of red deer antler is preserved in very good conditions. It could be included in the category of symbolic artefacts with ceremonial role, generally called sceptres or sleeves, drum sticks (catalogue code SCS_11). The artefact was summary published by Ion T. Dragomir (Dragomir, 1983). With this occasion, it is the object of a detailed approach where a standardised methodology was applied: microscopic analyses and palaeo-technological reconstructions were done. Their results have not been included in „*DanubiOs*” Project and subsequently being valorised in various contexts. The data regarding the archaeological contexts, the extensive description related to manufacture issues (raw material, procedures and techniques used in order to transform the raw material, use-wear traces and hypotheses regarding the usage etc.), imagistic materials (schemes, drawings, macro- and microphotographs etc.) are presented in this context.

SCS_11 • Perforated piece („sceptre” or sleeve) • Varia – symbolic artefact • MIGL • 21351 • 1971 S 5 M 73 –1.30 m • Stoicani-Aldeni Cultural Horizon • Shed red deer antler, segment of a beam. • Piece entirely preserved. Good status of conservation. • Perforated piece (sleeve or „sceptre”?) made of a basal segment of beam. Debitage by direct percussion / precise chopping and fracture applied at the distal end. The entire shaping of the piece was made by direct percussion / chopping and intense abrasion. Proximal end is convex, oblique and made of the burr shaped by chopping and abrasion. The burr was partially shaped by abrasion on outline in order to remove the anatomic aspect; square-shaped with rounded corners at the proximal end, with a convex cross-section. The surface of the beam and distal end were shaped by chopping and abrasion. The perforation is placed central; it was bilaterally shaped by carving and cutting; the shape is squared; at the proximal end the edges are parallels with the edges of the

ones' of the respective end; at the distal end, it is oblique shaped, in rhombus. About a half of in its depth is shaped like it is mentioned above, then the walls are oriented parallels with the edges as it is at the proximal end. There are no observable use-wear traces. Probable prestige piece, sceptre-like, sleeve; another hypothesis is related to the use as end piece of a drum stick? • L tot 54 at 84; EP 58 at 92 / 57 at 84; PM 51.53 / 47 at 20; ED 49 at 23 / 47 at 28; perf at EP 17 at 49 / 16 at 27; perf at ED 18 at 40 / 18 at 37. • Dragomir, 1983; Beldiman *et alii*, 2012, p. 129, 130, 202, pl. 129; <http://www.migl.ro/DanubiOs/eneolithic/index.html>.



Antler sleeve

**SYMBOLIC BEHAVIOUR
AND ARTEFACTS IN THE ENEOLITHIC.
PENDANTS MADE OF OSSEOUS MATERIALS
DISCOVERED IN EASTERN TRANSYLVANIA, ROMANIA**

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Dan Lucian Buzea
Diana - Maria Sztancs
Björn Briewig**

Keywords: *Eneolithic, Cucuteni-Ariuşd, Transylvania, Eastern Carpathians National Museum, Păuleni-Ciuc / Csíkpálfalva - Şoimeni / Csíkcsomortán - Dâmbul Cetăţii / Várdomb”, CronOs, palaeotechnology, pendant, spiritual life, symbolic artefacts.*

The archaeological site Păuleni-Ciuc / Csíkpálfalva – Şoimeni / Csíkcsomortán - Dâmbul Cetăţii / Várdomb” is located in the Ciuc Basin, approximately 8 km east of Miercurea-Ciuc, Harghita County, in the hills above the village of Şoimeni. It is positioned on a small natural promontory, referred to locally as *Dâmbul Cetăţii (The Hill Fortress)*, in small saddle between ridgelines of the Ciuc Mountains.

First archaeological excavations lead by Székely Zoltán of the National Szekler Museum, Sfântu Gheorghe / Sepsiszentgyörgy have been carried out in 1954, with subsequent excavations until 1967. He identified multiple levels underlying the Dacian material, belonging to the Middle Bronze Age, Wietenberg and Ciomortan cultures, the Coţofeni culture, and the Eneolithic Cucuteni-Ariuşd culture. The site’s Bronze Age components included an embankment which accentuated the natural promontory. Eastern Carpathians National Museum of Sfântu Gheorghe, Covasna County began a new investigation of the site in 1999 and these research continues until today, led by Valerii Kavruk and Dan Lucian Buzea with large collaboration of several specialists and institutions from Romania and abroad. In 2010 and 2011 an international team of „Archaeotek” volunteers, directed by Raymond Whittlow (State University of New York at Buffalo) joined the field excavations.

The new project adopted a large area excavation strategy. Under the new approach the archaeologists were able to discern multiple occupation layers, which informed their new stratigraphic interpretation of the site. The Bronze Age strata contain two occupations, belonging to the Wietenberg and Ciomortan cultures. The large area excavation also led to the discovery of multiple Eneolithic Ariuşd-Cucuteni dwellings spread across three occupation layers.

The extensive research program established at Păuleni-Ciuc has resulted in a number of publications and exhibits which explore the many dimensions of modern excavations and prehistoric life at the archaeological site. The most recent program, *Experimental Archaeology Camp „CronOs” at Păuleni-Ciuc - „Dâmbul Cetăţii”* taught experimental archaeology methods and bone production techniques. A recent trilingual catalogue – in Romanian, English and Hungarian (Beldiman *et alii*, 2012) analyzed in detail more than 100 osseous artefacts from all layers.

Three levels of Eneolithic occupation are present at Păuleni-Ciuc: Păuleni I, corresponding to the Cucuteni A1 stage, Păuleni II, corresponding to the Cucuteni A2 stage, and Păuleni III, corresponding to a late Ariuşd stage. Remains of eight structures were discovered across the three Păuleni levels. They were partially built on raised wooden foundations. All of the structures so far identified were destroyed through burning. In addition to the structures, a number of other complexes, including pits and hearths, were present in the Eneolithic levels.

Level Păuleni I contained material belonging to the Cucuteni A1 stage. A dwelling (L24) and a disturbed structure which may have been a hut (complex 23) were identified in this level. Several hearths, constructed on the surface or directly on the bedrock, were identified outside of these structures. Complex 17, is a large scatter of Cucuteni-Ariuşd archaeological remains.

Four structures (L5, L5A, L21, L31) were discovered in the Păuleni II level. The material culture recovered in the Păuleni II level matches Cucuteni A2 styles. Of these L5 is the largest. The structure may in fact be larger, since it is possible that L5A (6.5 m x 3.5 m) may be an extension of L5 rather than an independent structure. L5 was built slightly after L21 burned down, as evidence by the superimposition of L5 over part of the L21 destruction layer. The structure L31 was found in association with an external hearth, complex 30.

Păuleni III structures are limited to L16 and L12. Due to the absence of decoration compared to material in the Păuleni I and II levels and the presence of late Eneolithic material culture, the Păuleni III level is interpreted as belonging to a late stage of the Ariuşd culture.

Of the Eneolithic samples for radiometric datation, one was from a poor context and yielded an unlikely date, while the remaining two samples date the Ariuşd occupation to between 4200-4000 BC (Whittlow *et alii*, 2013).

The archaeological excavations carried out during 1999-2013 campaigns in the Prehistoric site from Păuleni-Ciuc / Csíkpálfalva - Șoimeni / Csíkcsomortán - *Dâmbul Cetății / Várdomb* offered the opportunity of recovering an assemblage of artefacts made of osseous materials belonging to *Cucuteni-Ariuşd*, *Jigodin*, *Costișa-Ciomortan* and *Wietenberg* cultures. It was recovered from the three Eneolithic layers as well as from the ones dated from the Bronze Age, both from complexes (pits, huts) and from archaeological layers. The assemblage contains the largest repertory of artefacts dated from *Cucuteni-Ariuşd* culture from Transylvania and the single repertory of artefacts dated from *Wietenberg* culture which were analysed according to the current exhaustive methodology of the domain. Data regarding the artefacts dated from *Cucuteni-Ariuşd* (discoveries from 1999-2013) were presented in various publications from 2010 to present.

The pieces that we have studied until now are preserved in the collections of the Eastern Carpathians National Museum of Sfântu Gheorghe, Covasna County. Their status of conservation is good and very good. This fact allowed us to quantify in optimal conditions all the aspects required by the complex study of the pieces. Our approach supposed a systematic examination of all artefacts using an optical microscope (x10-x40) and a digital microscope (x10-x400).

The assemblage of osseous materials artefacts recovered from the Eneolithic layers comprise 89 pieces dated from the Eneolithic and 19 from the Bronze Age. For the *Cucuteni-Ariuşd* culture we should underline the preference for long awls made of fragments of large herbivore bones and the use of red deer antler, as well as the presence of various adornments and other symbolic artefacts.

A special attention was paid to the assemblage of artefacts related to *Cucuteni-Ariuşd* communities' symbolic manifestations. It is about various adornments made of osseous materials (pendants, plates, perforated teeth, perforated and decorated phalanxes). These are the object of the current presentation in terms of a detailed approach by applying a standardised methodology using microscopic analyses and palaeo-technological reconstructions whose results have not been included in the editorial project „Animals, technology and Prehistoric osseous materials artefacts discovered at Păuleni-Ciuc, Harghita County” (Beldiman *et alii*, 2012), subsequently being valorised with various occasions.

The catalogue, the data regarding the archaeological context, extensive descriptions, and details regarding the manufacturing sequences (raw materials, procedures and techniques of manufacture, hypotheses regarding the usage of the pieces) are presented. An extensive imagistic material is also included (schemes, drawings, macro- and micro-photographs etc.). The studied artefacts have also been dated (4200-4000 BC); consequently, the documentary value of the research is a higher one.

The osseous materials artefacts assemblage from Păuleni-Ciuc / Csíkpálfalva - Șoimeni / Csíkcsomortán - *Dâmbul Cetății* / *Várdomb* offers new benchmarks from a typological, palaeo-technological, cultural and chronological point of view. These allow the complex and extensive approach of the manifestations of civilisation and culture of the communities that lived during the Eneolithic in Transylvania.

Acknowledgements: the contribution of Dan Lucian Buzea to this work was possible with the financial support of European Social Fund, Operational Programme Human Resources Development 2007-2013, Priority no. 1 „Education and training in support for growth and development of the knowledge society”, Key Area of Intervention 1.5 „Doctoral and post-doctoral research support” Title: „*MINERVA – Cooperation for elite career in PhD and post doctoral research*”, ID POSDRU 159/1.5/S/137832.



Pendants

**SYMBOLIC BEHAVIOUR
AND ARTEFACTS IN THE ENEOLITHIC.
BEADS MADE OF OSSEOUS MATERIALS
DISCOVERED IN EASTERN TRANSYLVANIA, ROMANIA**

**Diana-Maria Sztancs
Corneliu Beldiman
Dan-Lucian Buzea
Björn Briewig**

Keywords: *Eneolithic, Cucuteni-Ariuşd, Transylvania, Eastern Carpathians National Museum, Păuleni-Ciuc / Csíkpálfalva - Şoimeni / Csíkcsomortán - Dâmbul Cetăţii / Várdomb”, CronOs, palaeotechnology, bone bead, spiritual life, symbolic artefacts.*

The archaeological excavations carried out during 1999-2013 campaigns in the Prehistoric site from Păuleni-Ciuc / Csíkpálfalva - Şoimeni / Csíkcsomortán - Dâmbul Cetăţii / Várdomb, Harghita County offered the opportunity of recovering an assemblage of artefacts made of osseous materials belonging to *Cucuteni-Ariuşd* culture. It was recovered from the three Eneolithic layers, both from complexes (pits, huts) and from archaeological layers. The assemblage contains the largest repertory of artefacts dated from *Cucuteni-Ariuşd* culture from Transylvania and has been analysed according to the current exhaustive methodology of the domain. Data regarding the artefacts dated from *Cucuteni-Ariuşd* (discoveries from 1999-2013) were presented in various publications from 2010 to present.

The pieces that we have studied until now are preserved in the collections of the Eastern Carpathians National Museum of Sfântu Gheorghe, Covasna County. Their status of conservation is good and very good. This fact allowed us to quantify in optimal conditions all the aspects required by the complex study of the pieces. Our approach supposed a systematic examination of all artefacts using an optical microscope (x10-x40) and a digital microscope (x10-x400).

The assemblage of osseous materials artefacts recovered from the Eneolithic layers comprises 89 pieces. We should underline the preference

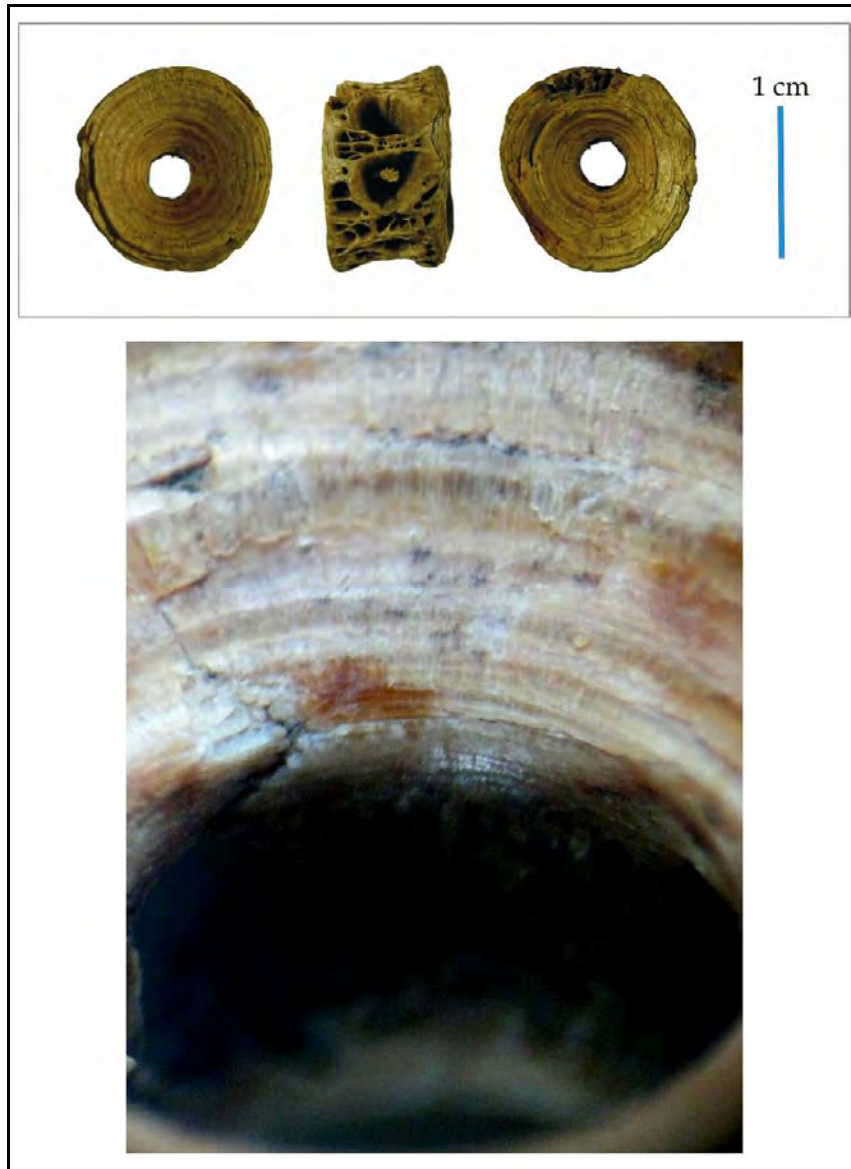
for long awls made of fragments of large herbivore bones and the use of red deer antler, as well as the presence of various adornments and other symbolic artefacts.

A special attention was paid to the assemblage of artefacts related to symbolic manifestations of Cucuteni-Ariuşd communities. Besides various adornments made of osseous materials artefacts (pendants, plates, perforated teeth, perforated and decorated phalanxes), nine beads were also studied. Among these, six are made of bone, are circular or oval and three were made of vertebrae coming from large species of fish (catfish – *Silurus glanis*). These represent the object of the present paper.

They were approached in a detailed manner, by applying a standardised methodology, using microscopic analyses and palaeotechnological reconstructions whose results have not been included in the editorial project „Animals, technology and Prehistoric osseous materials artefacts discovered at Păuleni-Ciuc, Harghita County” (Beldiman *et alii*, 2012), subsequently being valorised with various occasions.

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Bone bead

CRANIAL DEFORMATION IN THE ROMANIAN NEOLITHIC

Alexandra Comşa

Keywords: *Neolithic, anthropology, skeleton, cranial deformation.*

The changes occurring on the ancient skulls had always stirred the interest of the specialists from various fields, beginning with the archaeology and continuing with other fields, like physical or cultural anthropology. The present contribution studies a way which could be resulted in the cranial deformation during the Romanian Neolithic.

LE PEUPLEMENT NEO-ENEOLITHIQUE DE MOLDAVIE: ANALYSE ET MODELISATION SPATIALE

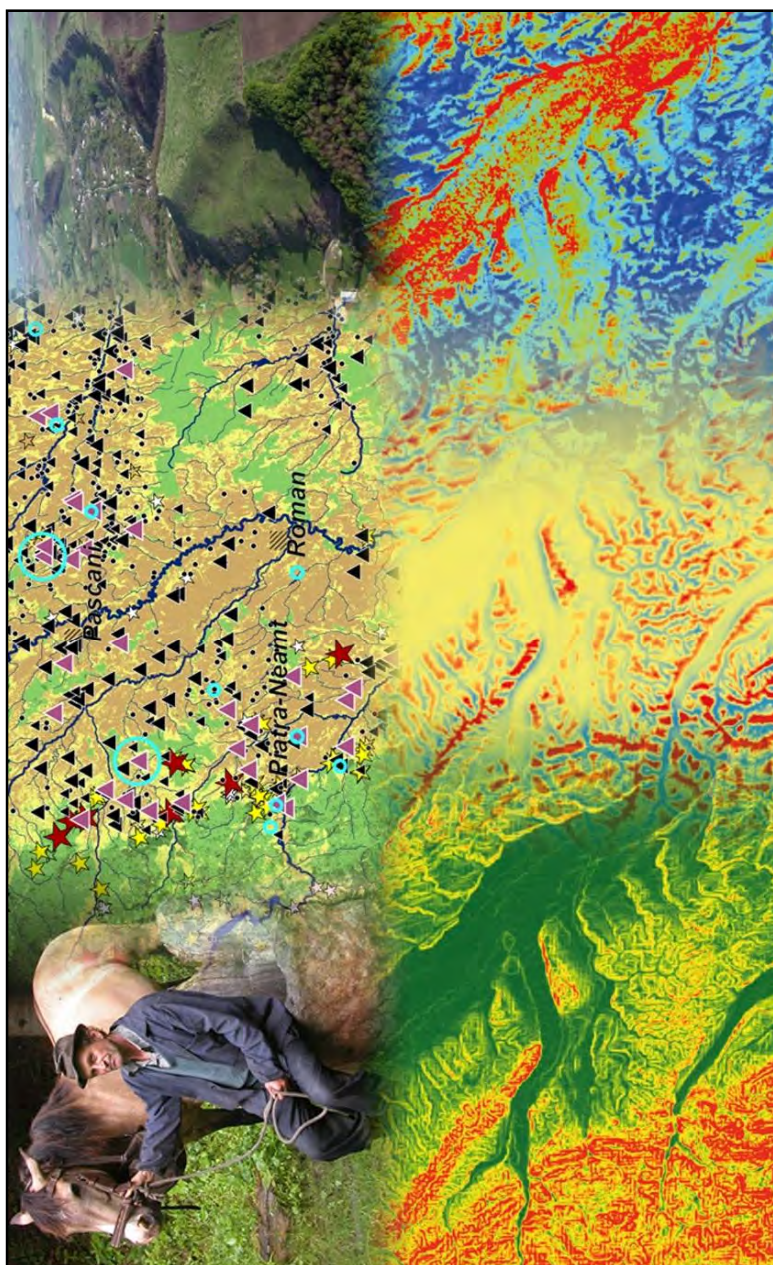
**Robin Brigand
Olivier Weller
Mariana Vasilache
Andrei Asăndulesei**

Mots-clés: *analyse spatiale, SIG, modélisation, Moldavie, peuplement, paysage, Cucuteni.*

Cette contribution entend proposer une synthèse des travaux les plus récents menés sur les formes et dynamiques des peuplements néolithiques et énéolithiques de Moldavie (c. 6000-3500 BC). A travers la prise en compte de plusieurs fenêtres d'étude qui courent des Carpates au Dniestr, il va s'agir d'explorer les modalités par lesquelles les sociétés de la Préhistoire récente ont occupé et exploité un milieu et ses ressources.

1. A l'échelle de la Moldavie roumaine et plus particulièrement de la région subcarpatique, il s'agira de mettre en perspective près d'une décennie de recherche sur les stratégies territoriales des sociétés de la Préhistoire récente. Une question fondamentale forme la base de notre réflexion : le sel est-il une ressource structurante, attractive et fixatrice des peuplements du premier Néolithique (Cris) jusqu'à la fin de l'Énéolithique (Cucuteni B)? 2. Dans un second temps il va s'agir de proposer une étude des peuplements Précucuteni et Cucuteni autour de la station éponyme sise dans le département de Iași. En effet, de par la qualité des informations archéologiques dont nous disposons et surtout en raison de l'exhaustivité des recherches menées ces dernières années, la Valea Oii s'avère être un laboratoire particulièrement intéressant. 3. Nous proposons enfin une étude inédite axée sur les seuls peuplements du Cucuteni A des Carpates orientales au Dniestr. Elle abordera la première phase du Cucuteni en tâchant de dépasser les clivages administratifs et politiques qui ont jusqu'à ce jour, singulièrement limité l'étude de cette culture.

La méthodologie suivie emprunte autant à l'analyse spatiale, à la cartographie assistée par ordinateur qu'aux statistiques spatiales et à la prédiction archéologique. De nature multiscalaire, ce travail envisage la mise en perspective de plus d'un siècle de recherches en Moldavie et contribue à une modélisation des peuplements anciens afin de répondre à la question des relations et interactions entre l'homme et son milieu.



THE DYNAMICS OF THE CUCUTENIAN HABITAT FROM THE BAHLUIEȚ BASIN (TÂRGU FRUMOS MICROZONE)

Dumitru Boghian
Sergiu - Constantin Enea

Keywords: *habitat, landscape archaeology, Cucuteni, Bahluiet Basin, Târgu Frumos microzone.*

The Cucutenian habitat (and by extension, the Tripolian one as well) is relatively well-investigated, through a series of general and special works, highlighting more or less some of the general specific features, as well as the similarities and the differences with the types / ways of living of the contemporary communities civilisations, which are close or more distant. In many general works, there is reference to habitats different in surface and which were inhabited by the Cucutenian communities, there are also presented site inventories / catalogues, in which data of about 1000 to 3000 sites were gathered, „vital areas” for macro-communities, micro-communities and individuals are hypothetically distributed, statistics without enough samples and reference data are made, all these being interpreted from the perspective of the contemporary man’s necessity. On the very same lines, in this paper, being aware that all the general examinations must be based not only on generalization and synthesis lacking substance, but also on systematic, extensive and elaborate microzonal investigations, the authors present considerations referring to the natural conditions during the Eneolithic (middle and final Atlantic), the evolution and the dynamics of the Cucutenian habitat from the area surrounding Târgu Frumos, as they result from the integrated analysis and interpretation of the older or newer results of the systematic surface examination.

The Târgu Frumos site in the western half of Bahluiet water catchment area, is one of the microzones well investigated with regard to Cucuteni culture, both systematically (Cucuteni / Băiceni - *Cetățuie*, Ruginoasa-Colina (*Dealul*)

Drăghici, Hăbășești-Holm, Fedeleșeni-Dealul Cânepăriei, Costești-Cier, Giurgești-Dealul Mănăstirii), and surface investigations.

It lies in the eastern part of Șeua Ruginoasa - Strunga, being known in the older geographical literature as „The Târgu Frumos Gate” (V. Tufescu). This contact microzone makes the passage between the three sub-units of Podișul Moldovei (the SE of Podișul Sucevei, the NW of Podișul Central Moldovenesc, the WNW of Câmpia Moldovei), as well as between the two major water catchment areas (the middle water catchment areas of Siret and Prut).

The gathering of the archaeological data together with those of *landscape ecology* and *landscape archaeology* and the digital elevation model (DEM), in the generous GIS framework, allowed us, directly or through analogy, to carry out some models and reconstructions of the evolution of the landscape / pre- and protohistorical ecosystems within Târgu Frumos microzone, making easier for us to understand and to interpret in a coherent and integrated way the complex and the sensible geosystemic and anthropic equilibrium in this area, during the Eneolithic.

In order to proceed integrated from a crono-cultural point of view, historically and synchronically, within the extensive Eneolithic time space in the east of the Carpathians (mil. 50 - 35 / 30 BC), there were taken into discussion both the precucutenian sites in the area as well as those which are specific for the three phases of the *cucutenian millennium* (Cucuteni A, A-B and B), to which there were added in a sequence, the results of the inventory of Horodiștea - Erbiceni - Gordinești sites to emphasize the continuity and / or the discontinuity of some patterns of the humans-natural environment relationship, during the middle and final Atlantic and at the beginning of Subboreal. The comparisons with other well investigated east-Carpathian areas (the German Subcarpathian area) highlights elements and *patterns* of the Cucuteni Eneolithic habitat, based on the parental tradition and the acculturation received throughout the time, and they speak about the adaptability and the force of creation of each community, allowing the detection of the stages of micro-regional population, however, with the appropriate scientifically probability.

The authors tried to offer a repertoire as complex as possible of the Eneolithic sites from the Târgu Frumos area (within an area of about 300 km²), to clarify the problem of the sites which, in the literature, are found under more names, and to place the Precucuteni, Cucuteni and Horodiștea sites crono-culturally and as precisely as possible, on phases, stages and sequences of living, to be able to talk, accurately enough, about the dynamics of the habitat and to obtain a series of valid conclusions about the Geography and the History of the place.

Within this context, and following the stage and the possibilities of the research, one can easily notice a rise in the number of Precucuteni II and III sites, of those from Cucuteni A3-A4 and Cucuteni B1-B2 stages.

A normal rise of the population must be taken into consideration, but we believe that the exogene population contributions, sometimes consistent enough, can't be omitted. Although the number of the sites is smaller than in the preceding ones, for Cucuteni A-B phase and for Horodișteea-Erbiceni culture they exist more than in other micro-regions, providing that the ecosystem has continued to offer the same favourable living conditions. The explanations can be multiple. Besides the research gaps and the hazard of the archaeological surface discoveries, which we must take into consideration, the lowering of the sites number can be due to the macrostage phenomena: the movement of the population in and from the Precucutenian, Cucutenian and Post-cucutenian environments (colonisations, movements of human groups etc.), affecting the density and the patterns of the Eneolithic living from the Târgu Frumos microzone and not only this. At the same time, taking into consideration the contacts between the groups of humans with different cultural traditions, the changing of the traditional habitat pattern can't be excluded.

The density of the Cucutenian sites from the Târgu Frumos microzone was high, due to the location of the micro-region, in a known space of intense human circulation and contact between the segments of the middle water catchment areas of Siret, Bahlui and Prut, even on small water streams (Bahluieț with its tributaries) and on other ways of communication than today's. This favoured the transversal contacts, within some complementary economical liaisons (the Carpathian and Subcarpathian communities and those in the south of Câmpia Moldovei), as well as the longitudinal ones, between the north and the south of Moldavia (Podișul Sucevei, the north of Câmpia Moldovei), on the distribution / redistribution paths of some resources, products, ideas. The high density of the Eneolithic sites was due to the favourable living conditions from the middle and final Atlantic (the dense hydrographical network, the rich springs, the wide forest and the forest-steppe areas, mixed with open areas, which the Cucuteni people transformed into cropped fields with soils at the beginning of human intervention, into settlements and in the proximity of the built places).

To all these, the associated socio-economical phenomena are added: the type of economy, with the periodical change of fields and grazing lands, with different specializations from site to site, the demographic natural growth, with the extinction and the „swarming” of the settlements, the depopulations and the exogene human contribution, and last but not least, the cultural patterns of these communities.

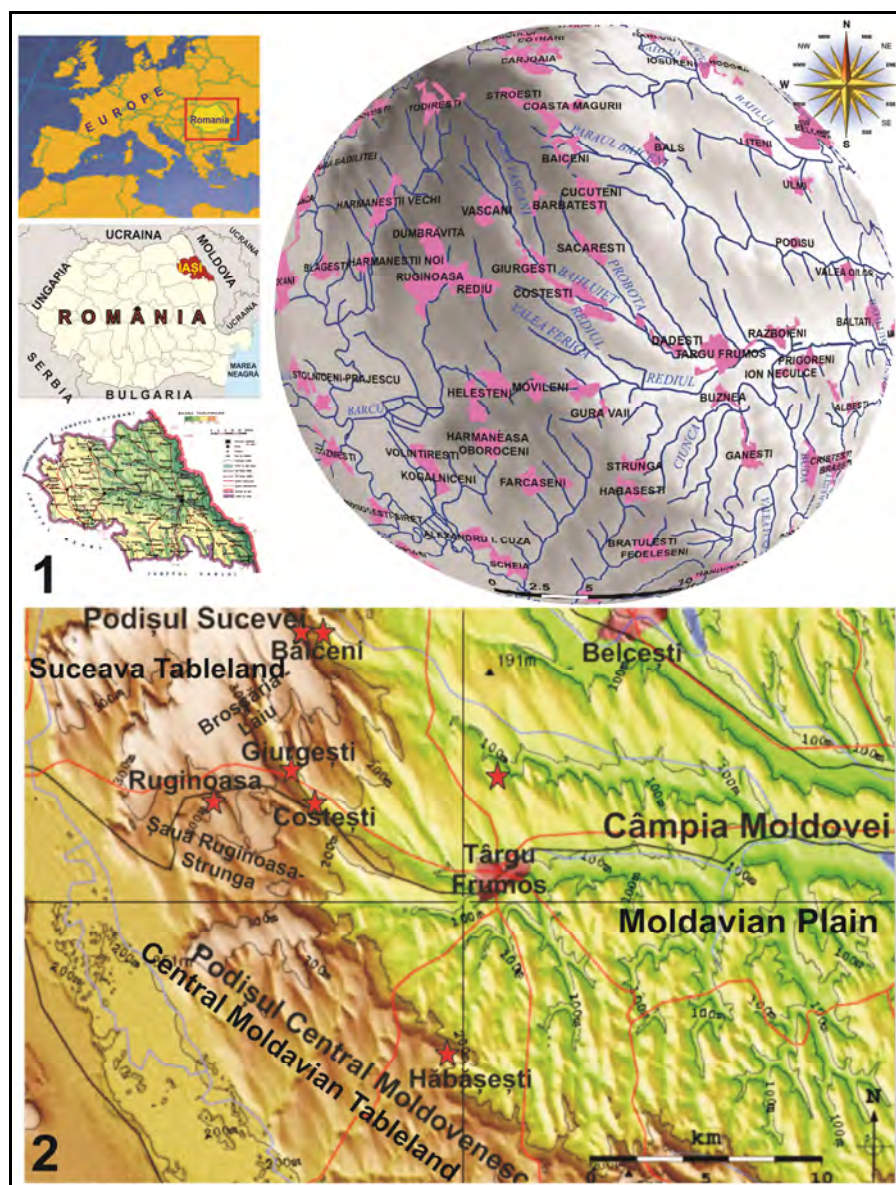


Fig. 1. Geographical location of the Târgu Frumos area:
 1 – general location; 2 – hypsometric map

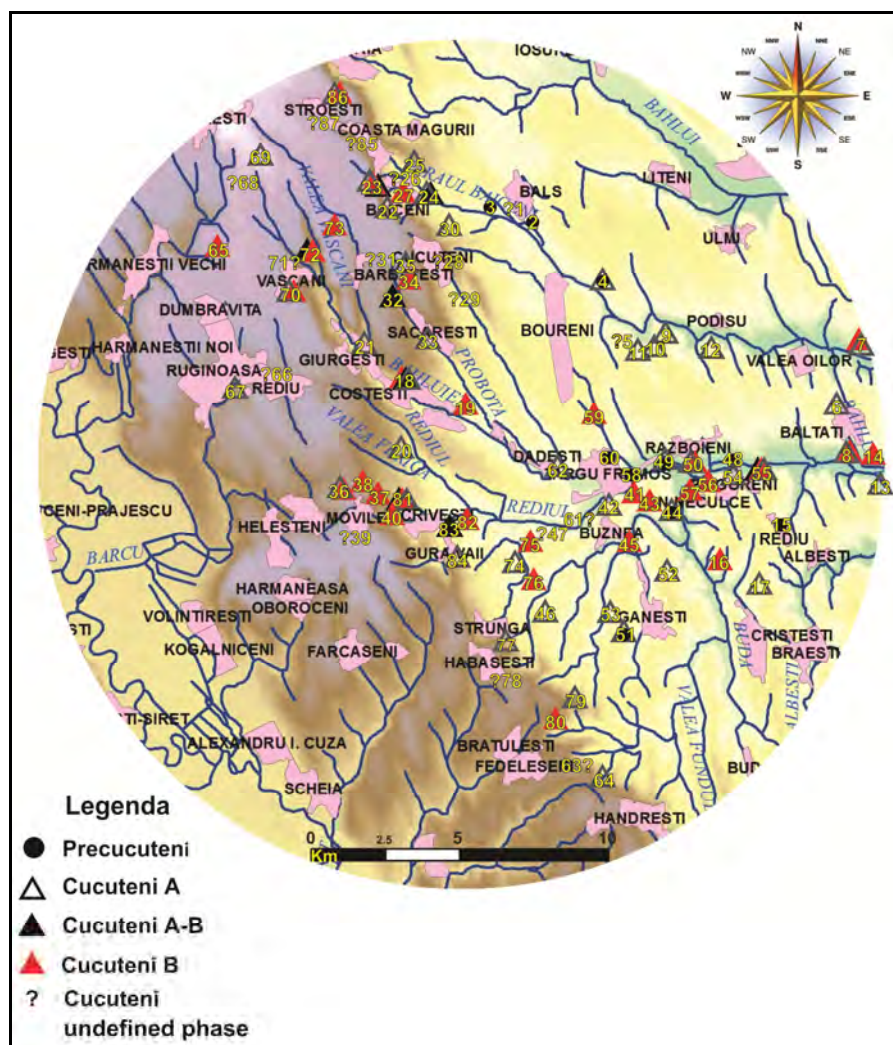


Fig. 2. Archaeological repertoire of the Eneolithic sites in Târgu Frumos area

PLANIGRAPHIE ET STRUCTURE DE L'ETABLISSEMENT DE TYPE CRIȘ DE SACAROVCA I (REPUBLIQUE DE MOLDOVA)

**Valentin Dergachev
Olga Larina**

Mots clés: *Néolithique, Criș, République de Moldova, Sacarovca I, planigraphie, structure sociale.*

Cette contribution est dédiée au problème de la planigraphie et de la structure de l'établissement du type Criș de Sacarovca. Les recherches ont été entreprises sur une surface de plus de 5600 mètres carrés, soit environ 80-90% de la surface totale, et ont mis en relief 45 complexes avec des matériaux du type Criș, réunis au point de vue constructif et fonctionnel en groupes et sous-groupes à destination différente.

A. Etablissements: a) de longue durée, enfouillés profondément (huttes) (8 complexes) et b) temporaires, de surface (8 complexes).

B. Complexes du type foyer: a) enfouillés profondément (8 complexes) et b) gisements de surface (14 complexes).

C. Plate-formes de pierre à caractère de culte (6 complexes).

D. Funérailles (1 complexe).

Suite à l'analyse de l'emplacement des complexes au cadre de l'établissement on peut y distinguer deux zones relativement autonomes, c'est-à-dire A – la zone de l'habitat, correspondant à l'emplacement de la plupart des habitations et B – la zone du foyer, regroupant les habitations temporaires de surface et la plupart des complexes de foyer enfouillés dans le sol et de surface. Parmi les plate-formes de pierre, deux (situées l'une à côté de l'autre, au milieu de l'établissement) représentent, on le croit, un objectif de culte commun, alors que les autres, situées au voisinage des habitations de base sont plutôt des objectifs de culte familiales.

La répartition de l'établissement en deux zones relativement distinctes est confirmée pleinement par la planigraphie des catégories principales de matériels, découverts dans la couche culturelle. La plupart des pièces en céramique, en silex ou des restes faunistiques se rapportent à

la zone dite „du foyer”, ne se retrouvant que tout à fait par hasard dans la zone dite „de l’habitat”.

Grâce à leur emplacement particulier, il est à remarquer les restes de l’habitation – l’objectif nr. 21, dans la zone centrale de l’établissement. C’est l’unique habitation à deux niveaux, l’un sous-terrain et l’autre de surface, avec 26,9% du total des matériels caractéristiques des complexes étudiés ou encore 21% du total des matériels de l’établissement (y compris ceux provenant de la couche de culture). En outre, c’est la seule habitation de provenance des pièces à caractère de culte, telles: un autel tripède en terre cuite (retrouvé au plancher du four du niveau sous-terrain) et une figurine anthropomorphe stylisée. Cela nous fait penser à ce que les habitants en aient été membres d’une famille ou personnes plus importantes de la communauté.

GEOMAGNETIC PROSPECTION ON TRIPILLIAN SITES IN CENTRAL UKRAINE

**Maciej Dębiec
Dmytro Kiosak
Andrzej Pelisiak
Martin Posselt
Thomas Saile
Taras Tkachuk
Stanislav Ţerna**

Keywords: *Eneolithic, Cucuteni-Tripolye, linear band keramik (LBK), Bilsziwcy, Kamyane-Zavalija, geomagnetic prospection.*

In 2011 we started an international project focusing on the *linear band keramik (LBK)* in its eastern area of distribution. As a part of it we conducted extensive field walking, small scale excavations and geomagnetic prospection on several areas and sites in Volhynia, Dniester basin and Southern Bug basin. On researched areas we have encountered also Cucuteni-Tripolye materials. We would like to present first glimpse on obtained data regarding this eneolithic complex. We will focus mainly on two sites where extensive geomagnetic research was carried out: Bilsziwcy and Kamyane-Zavalija.

Bilsziwcy is located on the bank of Gnila Lipa River in Dniester Basin. The site has been excavated for several years by Taras Tkachuk. It produced *LBK*-materials and structures and finds from different phases of Cucuteni-Tripolye Complex: Zalishchiki local group from BI-BII stage, Shipinci local group from CI stage, Koshilivci local group from the beginning of CII stage. Geomagnetic prospection covered area approximately 5 ha. We were able to distinguish at least 3-4 remains of burnt clay houses from Cucuteni-Tripolye Complex.

Second site, Kamyane-Zavalija, is located on the bank of Southern Bug in Savran Region. Site was discovered by V.N. Stanko in 1974. Since beginning of new Millennium site has been systematically surveyed by O.S. Peresunchak and Dmytro Kiosak. It yielded lots of Cucuteni-Tripolye artefacts. Also a small

test trench was excavated. All the materials allowed to dated site to stage BI Cucuteni-Tripolye. Geomagnetic prospection was done there in autumn 2013 concentrated on the *LBK* part of the site and covering an area of about 8 ha. Unfortunately local geological background produced some disturbance in geomagnetic data. We were able to distinguish in magnetogram at least two parallel ditches that belong to Cucuteni-Tripolye Complex.

SETTLEMENT PLANNING AT THE TRYPILLIA MEGA - SITE OF NEBELIVKA – THE HOUSEHOLD, THE NEIGHBOURHOOD AND THE COMMUNITY

John Chapman

Keywords: *Chalcolithic, Trypillia, Nebelivka, geophysical survey, mega-site plan, early urbanism.*

Recent research by British, Ukrainian and German teams have used modern geophysical techniques to achieve what we have termed the second phase of the Trypillia mega-site ‘Methodological Revolution’. A prime example is the research of Durham University geophysicists under the aegis of the joint Anglo-Ukrainian Project ‘Early urbanism in prehistoric Europe: The case of the Trypillia mega-sites’ to produce the first complete modern mega-site plan. Many types of new features have been discovered at the 250-hectare site of Nebelivka, as well as a wide range of new feature combinations. In this paper, I use some insights from performance theory and ideas about the maintenance of tradition to explore the ways in which people developed the three spatial levels of the mega-site plan – the individual household (both burnt and unburnt structures), the ‘neighbourhood’ level (or feature combinations) and the community level (or complete plan), as well as the ways in which people responded to the opportunities and constraints provided by each level in tension with the other two levels. This deconstruction of mega-site ‘planning’ in the Trypillia BII phase offers some interesting insights into the social order at Nebelivka.

RECONSTRUCTION OF NEBELIVKA MEGA - STRUCTURE

Mykhailo Videiko

Keywords: *Chalcolithic, Trypillia, Nebelivka, mega-structure.*

In 2012 at Nebelivka were explored remains of structure B5 („mega-structure”) 20 x 60 m size, detected by geomagnetic survey at 2009. Excavations confirmed the size and configuration of structure. It consisted of burnt daub with imprints of wood, which usually recognized as remains of burnt houses. From usual houses it diverged mainly by size and also some elements of design. The first gives us possibility to work with these remains according to the conventional procedure of investigations and interpretation of Trypillia Culture dwellings remains.

Remains of structure were oriented by long side nearly West-East (fig. 1/1, 2). They consisted of two parts: accumulation of burnt daubs (Western part, near 20 x 38 / 40 m) and area partly surrounded by narrow (1-1.5 m) lines of burnt daubs (Eastern part, near 20 x 20 m).

At the Western part were investigated two layers of burnt daubs, associated with plastering of wooden constructions, which belonged to overlapping structures of loft (upper layer) and level ceiling (lower layer). Both layers of daub had imprints of different wooden constructions. Fixing of all imprints gave the evidences for reconstruction of the wooden skeleton of structure (fig. 1/1, 2).

On the upper layer were found only imprints of the chopped wood. The direction of most imprints was South-North, it means crosswise the long side of structure, as it usually we see exploring Trypillia culture dwellings. This imprints associated with 3.5-4 m planks up to 10 cm thick. It was enough to hold 5-7 cm plastering from clay mixed with reduced straw. Construction of loft ceiling may be was supported by the same system on frame construction as the level ceiling (see below).

The lower layer demonstrated not only imprints of planks, but of the numerous round beams which belonged to sophisticated frame construction (fig. 1/3, 4). In many cases places of beams were well visible after the cleaning up upper layer. It was possible because plaster was broken exactly on line of

beams. Fixing of these lines gave us the picture of horizontal frame construction. All imprints which were fixed here belonged to round beams 20-25 cm in diameter. On few daubs also imprints of ropes were visible, by which this beams were fastened to other parts of the frame, probably to poles.

Horizontal frame consisted of 3.5 x 4 - 4 x 4 (4.5) m sections (fig. 1/3, 4). Such size corresponding with the width of usual Cucuteni-Trypillia dwellings. So it was possible to cover each frame by 3.5-4-4.5 planks. It was nice solution how to create impressive structure 20 m wide and 38 m long. For long side were created from 11 to such 12 sections, for short side up to 6. It means that this construction also included up to 91 (7 x 13) poles, which also supported the frames of the loft construction.

Such strong construction of frame created a good foundation for the first floor rooms. Plan of this part of „mega-structure” based on the finds of the remains of thresholds and location of such details of interior, as a long elevation – podium (near 18 x 0.4 m) and round elevation (up to 2 m in diameter). Such elements of interior are usual and well known for smaller Cucuteni-Trypillia dwellings, only the size in case of Nebelivka structure was different. All mentioned above objects associated with the lower layer of burnt daubs.

From the Eastern side 1.7 m wide threshold located exactly at the middle of structure. It was based on beam from the front frame of construction. To the left and to the right were visible postholes from vertical poles. The Eastern entrance located also at the middle frame. Remains of the next two thresholds located on both sides of the next (the second) frame to the West. It means that here were entrances to two large rooms, located around 4 m wide and up to 12 m corridor, at the end of which the fourth, 2.2 m width threshold was found. Here was entrance to the largest room with the long podium under the Southern wall. It was stucked to wall, which was well seen in few places. All rooms, especially the largest, were divided by rows of frame construction poles.

The last threshold located at the middle of the Western side, in 4 m from its beginning, also based on the beam of frame construction. Here was a Western wall of the central hall of the structure. At this part of structure, but before this wall located also round elevation, associated with fireplace, usual for Cucuteni-Trypillia houses construction and size. It means that here was a room, suitable for whole-year live, only one at this structure.

From three sides lodges of the first floor were surrounded by open gallery, associated with daub horizon of the level ceiling extended on 1.5 m from the line of the walls. This gallery was constructively continued at the Eastern part of mega-structure, where its remains were represented by 1-1.5 m lines of burnt daubs with imprints of wood on bottom.

The ground floor level marked by remains of seven fired clay platforms of different size, but the same construction. One of them, cross-like (4.3 x 4.3 m) located on axis of symmetry close to Western side of structure. Other six

situated close to Eastern side in two equal groups (3 in each), to the left and to the right to axis of symmetry. Under the Northern wall remains of two bins with stones inside were discovered. Placement of all features was coordinated with location of poles, which divided the space of the ground floor. Level of the floor was leveled and it was covered by brown (up to 6 cm thickness) clay plaster, which left unburnt.

Yard which located from the Eastern side, near 20 x 20 m size was surrounded by gallery, may be with external wall. Any traces of entrance were found, put it possible that it was opposite to the entrance to the first floor. At space of yard (near 400 m²) only near 100 fragments of pottery and animal bones were found. It demonstrated a big difference with cultural layer around other three sides structure, where above 1500 such finds happened. Also is interesting 0.4 m difference with the levels of yard and the ground floor, which means that this part of mega-structure stayed on elevation. May be this feature appeared because here is small slope, which was necessary to improve in process of erection of mega-structure. This feature possibly also had some symbolical significance.

We have any direct evidences about the construction of the roof. It is possible to suppose that it looks as on pottery models of houses, which were found on sites of Nebelivka group: arched (probably from rush mates) with conventionalized bull horns over pediment.

Nebelivka mega-structure located at the internal row of houses, but it probably was built before it, since orientation of the nearest dwellings was changed to include it to system of planning. We must also mention that at Nebelivka was discovered only one construction of such size. Its construction, planning, details of interior and also size, location on the settlement (one of the highest points) distinguished it from other dwellings at this site. We have all motives and enough evidences to determine it as a central temple of the whole village community.

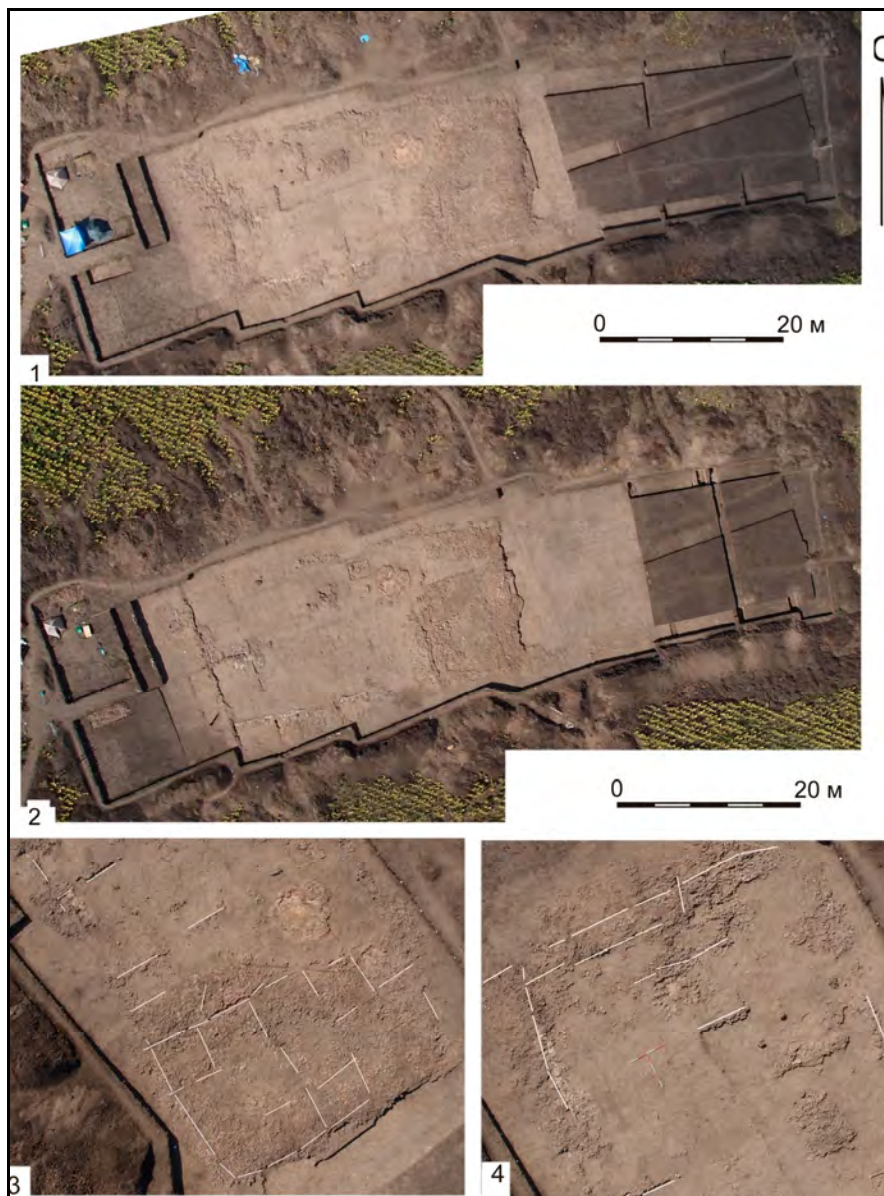


Fig. 1. Excavations of mega-structure at Nebelivka:
 1 – cleaning of the upper layer;
 2 – cleaning of the bottom layer of burnt daubs;
 3, 4 – traces of frame beams, visible after cleaning (marked by white)

INTERIOR OF THE NEBELIVKA TEMPLE

Nataliia Burdo

Keywords: *Chalcolithic, Trypillia, Nebelivka, mega-structure, temple.*

During explorations of Nebelivka mega-structure (Trypillia BII) were discovered a lot of details of interior – thresholds, clay platforms, bins, podium, storage vessels, decoration of floor and walls which are interesting and important features for reconstruction of this dwelling as the main temple of the settlement (fig. 1).

Some of the features well preserved, but a lot preserved in fragments. It was visible, that platforms, thresholds, floors and clay bins were repaired during the period when structure existed. Upper layer of platform 2 was destroyed by ploughing. Some of platforms, like 4 and 7 were probably destroyed before the temple was abandoned. Other features destroyed at moment when structure was burnt, mainly which was located on the 1st floor. Platforms were burnt in process of their using, bins, podium, thresholds, floor of the 1st floor and part of walls were burnt at moment, when structure was burnt. Distribution of features, their material, decoration and size described in table 1, numbers corresponding to figure 1 (a and b).

The main constructive material for all described above features was clay with different kinds of admixtures. Clay platforms and podium were created using clay mixed with loamy soil. Clay for platforms was supplied from source out of site. The same clay used for floor at this level. The pit, in which reserves of this clay were stored, was located to West from platform 2. Clay bins, storage vessels, clay arch were done from clay mixed with a lot threshing remains (tr), imprints of which are clear visible. Their surface was covered by thin layer of clay. Floor and walls at the 1st floor were created at the same way. At floor plastering also were found such admixture, as small fragments of pottery, burnt bones, flint, stones and top part of human figurine.

Platforms 1-7 could be recognized as altars (fig 1 /a). Cross-like altars with painted surface and incised decoration well known from excavations at Volodymyrivka, Maydanetske and other BII-CI sites at this region, also from the pottery models of dwellings, found at this region. Altars/platforms 1 and 2 stand out by their size, which is two-three times more, than usually (fig. 1/b, c). Altar / platform 5 after restoration, which first time was done for this kind of objects, demonstrated a nice sample of decoration by paint and incised lines

(fig. 1/d). System of ornament is similar to decoration of the large storage vessels. Altars were repaired several times: 1st – up to 7-8, 2nd – 3-4, other – 2-3 times. Each layer was burnt at process of using. Near the 2nd altar fragments of binocular vessels were found, on 1st – large broken pot and two bowls. Platform 8 from the 1st floor recognized as remains of fireplace, partly destroyed at central part. Near this fireplace two broken pots were found.

Clay bin (feature 8) located close to platform 2 (fig. 1/a). Bottom was partly burnt. On it remained some clay construction (at central part) and large granite milling stone, broken pot at corner. Corners of the bin probably were decorated by some modelled features, which not preserved. From the 2nd bin, located near the 1st to the West, preserved only piece of its corner and few pieces of walls. At its area also pieces of the large milling stones were found. Such bins known from excavations of Cucuteni-Trypillia sites, but usually the largest never had such size. Ritual milling and production of bread was usual thing for sanctuaries.

All other features related to the 1st floor of mega-structure (fig. 1/b). Clay thresholds situated at two entrances from East and West. The Eastern threshold (1.7 m wide, feature 18) two times larger, than usual threshold known from excavations of Trypillia dwellings. Close to it part of clay arch, which probably decorated this doors frame was found. The middle threshold to the largest room was 2.2 m wide. Such doors are comparable with the width of entrances to temples from Mesopotamia. Near the one threshold (feature 19) remains of clay decoration of the doors frame were found.

Podium with three large storage vessels located under the Southern wall at the largest room on the 1st floor. Here were also several usual painted vessels and bowls. Podium surface was painted in white, while storage vessels – in red (fig. 1/b). Bulk of each vessel was around 50 l and they probably were used for storage of grain. On surface of podium also were found numerous burnt bones of lamb, associated with sacrifice. Floors and walls of all rooms at the 1st floor was decorated by red paint, which created ceremonial atmosphere.

At the ground floor of mega – structure concentrated all altars and bins, which were used for rituals and sacrifices. Its square without platforms and bins was around 600 square meters, which enough for few hundred peoples. Garden before had around 300 square meters, available for 200-300 peoples at one moment. Division of the 1st floor on rooms decreased the number of visitors. Probably, two rooms around corridor were used for storage. At Southern were found large pot, two bowls and 22 small pots around them. Small room on the 1st floor with fireplace was only one at dwelling, suitable for living whole year and / or cooking.

The area of Nebelivka mega-structure included elements, usual for ancient temples: sacred places for sacrifice (altars-platforms), closed from all sides open-air yard before the entrance from the East, rooms for storage and ceremonies for some persons on 1st floor, small living room for personnel. Some elements of interior, such as altars 1 and 2, bins, podium, thresholds at main entrances were created similar to the usual houses, only 2-3 times enlarged.

Feature no.	Name	Floor	Material	Paint, Decoration	Size (m) fixed / possible
1	clay platform	GF	clay	red ? + incised	4.3 x 4.3 (cross)
2	clay platform	GF	clay	red ? + incised	5.3 x ? (round ?)
3	clay platform	GF	clay	red ?	1.4 x 1.5 / 2 (cross ?)
4	clay platform	GF	clay	red ? + incised	0.7 x 0.8 / 1.2 (cross ?)
5	clay platform	GF	clay	red + incised	1.3 / 1.3 (cross)
6	clay platform	GF	clay	red ?	1.2 x 1.3 / 1.4 (cross ?)
7	clay platform	GF	clay	red ? + incised	0.5 x 0.6 / 1.3 - 1.4 (cross)
8	clay bin	GF	clay + tr	red ?	2 x 2.4
9	clay bin	GF	clay + tr	red ?	? / 2 x 2.4
10	clay floor	GF	clay	–	GF
11	clay platform	1	clay	–	diam. 1.2
12	podium	1	clay	white	0.1 x 0.4 x 18
13	storage vessel	1	clay + tr	red + incised	–
14	storage vessel	1	clay + tr	red + incised	–
15	storage vessel	1	clay + tr	red + incised	–
16	storage vessel	1	clay + tr	red ?	–
17	threshold	1	clay + tr	red	0.7 / 1.3 (wide)
18	threshold	1	clay + tr	red	1.7 / 1.7 (wide)
19	threshold	1	clay + tr	red	1.5 / 1.5 (wide)
20	threshold	1	clay + tr	red	0.3 / 1.5 (wide)
21	threshold	1	clay + tr	red	2.2 / 2.2 (wide)
22	clay arch	1	clay + tr	red ?	?
23	painted clay floor	1	clay + tr	red	–
24	painted clay walls	1	clay + tr	red	–

Tab. 1. *Details of interior, their distribution by floor, material, decoration, size*

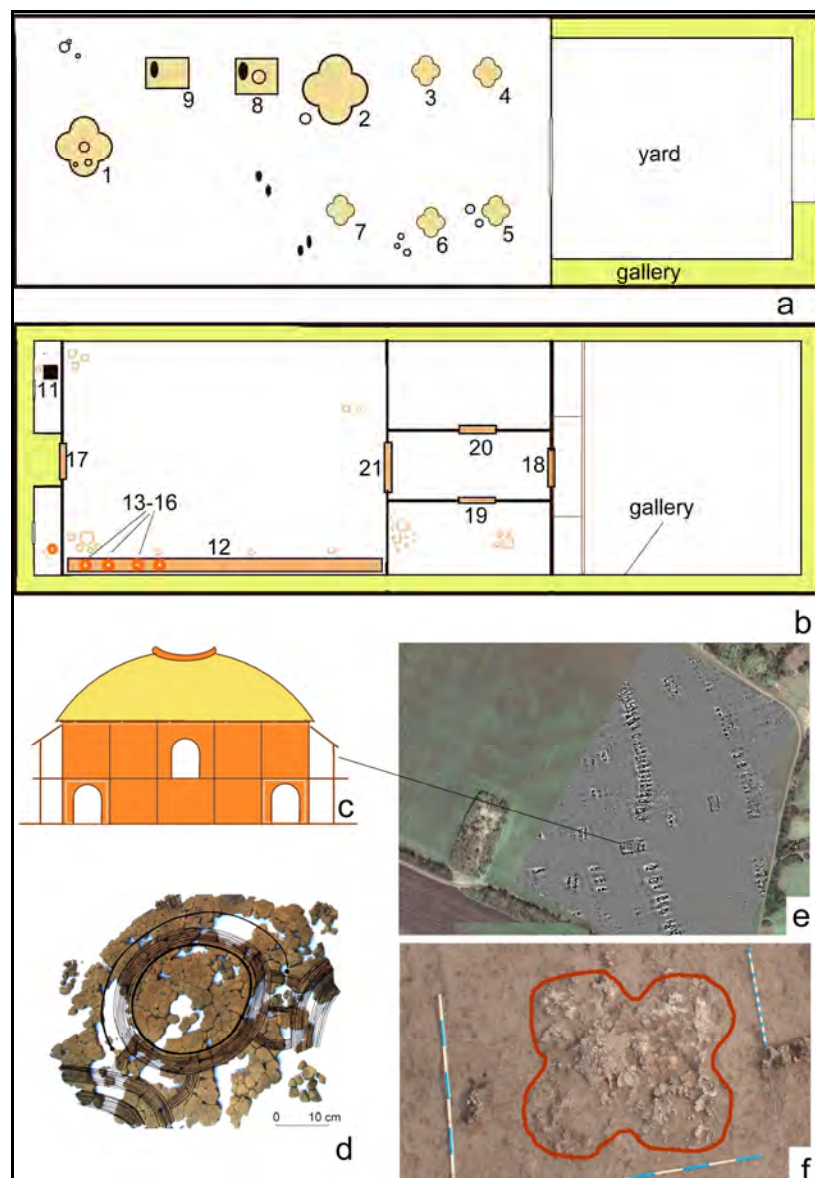


Fig. 1. Nebelivka temple: a – plan of the ground floor (GF);
b – plan of the 1st floor (all numbers corresponding with the table 1);
c – facade East (reconstruction); d – clay platform 5 (restoration);
e – temple on geomagnetic plan from 2009; f – clay platform 1

THE ENEOLITHIC SETTLEMENT FROM COSTIȘA - *CETĂȚUIA*

Anca - Diana Popescu

Keywords: *Eneolithic, Precucuteni III, Cucuteni A, Costișa.*

The archaeological site is located on the „Cetățuia” Hill, part of the left terrace of the Bistrița River, at the eastern edge of Costișa village (Neamț County). „Cetățuia” consists of two areas labeled A and B: the „A” plateau is located higher, having an oval shape (ca. 70 x 36 m); the second compartment (the „B” plateau), shorter but wider (56 x 52 m), makes the connection with Bistrița terrace.

The first systematic excavations were undertaken in 1959-1960 and 1962 by Alexandru Vulpe and Mihai Zămoșteanu. They were resumed in 2001 and continued, with a few interruptions, until today.

Underneath the vegetal soil and slightly differentiated from it, there is a grayish soil containing archeological features dating from the Middle Bronze Age. Underneath this layer there is another one, brown-yellowish in colour, compact in its aspect, having varying thicknesses, containing features from the Eneolithic period. This deposit stretches over the whole plateau A, while on the plateau B the Eneolithic layer covers the central zone. At the bottom of the archeological deposits there is a yellow archeologically sterile soil.

The present discussion will focus on the features and the materials dating from the Eneolithic period. The remains of an Eneolithic building were found in the north-western sector of the plateau A during the first archaeological excavations (1959 and 1960). These remains – scattered over an area of 10 x 5.5 m – consisted of massive pieces of adobe, two hearths, incised and grooved decorated pottery and red-painted pottery. The pottery was assigned to the Cucuteni A1 period (in the fieldnotes of the earlier excavation this structure was called „the Proto-Cucuteni house” as Alexandru Vulpe and Mihai Zămoșteanu considered that the pottery found underneath and among the adobe collapsed walls was similar to that from the Izvoare II2 level). A second well preserved feature, a hearth, also belonging to the Eneolithic period was found in the northern half of the plateau A, more precisely in the surface C / 2001, at the depth of 0.51 m. The hearth, oval in

shape (with a diameter of 1.20 x 0.75 m), was covered by a layer of ashes ca. 2-4 cm thick (Fig. 1/1). Some red-painted potsherds were found close to the hearth. Below the hearth were uncovered incised and grooved Precucuteni III pottery sherds, animal bones and a piece of wood (ca. 0.20 x 0.10 m) (Fig. 1/2). It is obvious that the Eneolithic deposit contains two levels in this area. The Eneolithic deposition is poor in the rest of the plateau A; there are no adobe walls or hearths, but only scattered potsherds, animal bones, anthropomorphic and zoomorphic figurines, flint blades and stone axes and chisels (Fig. 2). The Eneolithic finds on the plateau B are equally scarce. It was noticed that among the pottery shapes belonging to the Precucuteni III, the carinated bowl is the most frequent type.



Fig. 1. *Costișa-„Cetățuia”*: 1 – hearth 1 / 2001; 2 – *Precucuteni III* pottery



Fig. 2. *Costișa-„Cetățuia”: Eneolithic artefacts*

THE PĂULENI SETTLEMENT AS AN IMPORTANT REFERENCE TO THE CUCUTENI CULTURE RESEARCH

**Valeriu Cavruc
Dan Lucian Buzea**

Keywords: *Eneolithic, Cucuteni, Ariuşd, Transylvania, exchange.*

The *Păuleni* settlement lies at the western foot of the Ciuc Mountains, in the Ciuc Depression, in the hills above the village of Şoimeni / Csomortan, Păuleni-Ciuc commune, Harghita County. It occupies a small natural promontory *Dâmbul Cetăţii* („*The Fortress Hill*”) situated in a narrow saddle between the ridgelines of the Ciuc Mountains.

Székely Zoltán has carried out the first archaeological excavations in 1954. He identified a number of levels. The latest level belongs to the Bronze Age (Costişa-Ciomortan and Wietenberg cultures); under it the Late Eneolithic period (Coţofeni culture) occupation level was noticed; the earliest three occupation level belong to the Eneolithic Cucuteni-Ariuşd culture. Since 1999 the research is directed by Valeriu Cavruc, with large collaboration of several scholars and institutions from Romania (Neamţ County Museum Complex) and abroad (USA, Canada, Germany).

Three layers of Eneolithic occupation are present at Păuleni-Ciuc: Păuleni I, corresponding to the Cucuteni A1 phase, Păuleni II, corresponding to the Cucuteni A2 phase, and Păuleni III, corresponding to a late Ariuşd stage. Remains of eight structures were uncovered across the three Păuleni layers. They seem to have been based on raised wooden foundations. All of the structures were destroyed through burning. Close to the structures several pits and hearths are present.

Three radiocarbon samples the Eneolithic Păuleni III level were analyzed at the Center for Applied Isotope Studies at the University of Georgia. The results of this analysis suggest that the late Ariuşd occupation at Păuleni-Ciuc dates to 4210-4050 B.C.

The Păuleni settlement was contemporaneous with the Cucuteni A2 settlement at Poduri and the Cucuteni A2-3 settlement at Malnaş Băi,

indicating a possible line of communication between southeast Transylvania and Moldova, via Păuleni and the Ghimeș-Făget pass.

One of the reasons for this communication could be the exchange of salt (from the Moinești area, near Poduri) and copper (from rich deposits at Bălan situated 25-30 km north of Păuleni) could play an important role. To confirm or infirm this hypothesis the analytical methods of research are needed.

**RECHERCHES ARCHEOLOGIQUES
DANS LE SITE CUCUTENIEN DE FULGERIȘ,
DEPARTEMENT DE BACĂU (2013-2014)**

Lăcrămioara - Elena Istina

Mots clés: *Énéolithique, Cucuteni A3, Fulgeriș, système de fortification.*

L'établissement cucutenien de Fugeriș - La 3 cireși / Dealul Fulgeriș, com. de Pâncești, est situé au sud-est du département de Bacău, au rive gauche du Siret, au nord du village Fulgeriș, com. Pâncești. La colline Fulgeriș occupe la partie de l'ouest des Collines de Tutova, en tant que subunité du Plateau de Bârlad et partie composante des pays colineaux du dép. de Bacău. Les limites qui soulignent le mieux le contact des domaines à traits distincts de l'environnement sont notamment celles du sud – le ruisseau Fulgeriș et du nord-ouest – le ruisseau Soci, s'inscrivant donc dans une zone d'interfleuve. A l'est la limite est représentée d'un petit affluent du ruisseau Soci, alors que à l'ouest la Colline Cristea se trouvant au prolongement de la Colline Fulgeriș représente la limite du Plateau de Bârlad vers Siret.

La station de Fulgeriș a été découverte suite aux recherches de surface entreprises par Marilena Florescu et Viorel Căpitanu, dans les années '60, à l'occasion des recherches effectuées sur plusieurs zones géographiques du dép. de Bacău, suivies, dans les années '80, des sondages archéologiques menés par Viorel Căpitanu. Les recherches archéologiques de date récente ont débuté en 2003 pour que, actuellement, soient tracées 15 sections réparties sur une surface totale investiguée de 633.5 m².

Cela nous a permis d'étudier un nombre de 8 habitations cucuteniennes de surface, aménagées à même le sol, travaillé ou non suivant le cas. Cependant 56 complexes fermés ont été étudiés, des fosses ménagères pour la plupart, remontant à la période énéolithique (culture Cucuteni A3), mais aussi à l'époque du bronze (culture Monteoru) ou encore à celle des Géo-Daces.

Grâce aux recherches archéomagnétique réalisé en 2009 par une équipe composante de la Plate-forme *ARHEOINVEST*, au cadre de

l'Université „Alexandru Ioan Cuza” de Iași on a pu constater aussi la présence d'un système de fortification. En 2010 une section a été tracée dans la zone susceptible de comporter des anomalies concernant les systèmes de défense. Ainsi, on a découvert dans la section S. XI / 2010 deux tranchées de défense réalisées en „V”, qui protégeaient le flanc / le côté du nord de la station cucutenienne, alors que les trois autres côtés étaient protégés naturellement.

TRYPILLYA CULTURE IN THE DNIPRO RIVER REGION, NEAR KANIV (STAGES BII - CI)

Eduard Ovchynnikov

Keywords: *Chalcolithic, Middle Dnieper Region, Western Trypillian Culture, Eastern Trypillian Culture, Kaniv Group, Kolomyishchyna Group, Tomashivka Group, Lukashi Type.*

The Dnipro River region near Kaniv was settled by the early agricultural communities with painted monochrome ceramics in the last quarter of the Middle Trypillya (BII stage). It happened at the end of development of „Western Trypillian” culture („Western Trypillya”), a separate branch in Cucuteni-Trypillya cultural and historic community. Kaniv local and chronologic group became the formation in this large body of tribes which was the latest in time of its origin and the most distant to the north-east.

Settlements were situated on the uplands' capes and were planned traditionally, in circles. Apart from ground one-stored dwellings, there were subsidiary deepened structures. Manufacture workshops related with pottery and flint processing is discovered. Production of traditional grain-crops, hulled wheat and barley, prevailed in agriculture. Pig farming presumably came to the forefront. In certain points related with the moment of first settling of the territory, foraging played a significant role. Local source base, for instance, flint, was an important factor in preserving distinctive features of Kaniv local group.

Spiritual life of the region habitants is illustrated by numerous plastic objects related first of all with fertility cult. Along with traditional and even archaic female images, the original figurines with separately modelled legs appear and widely spread. Realistically made statuettes are also known. Traversed are also traces of production related with pottery, building, as well as of rituals connected with set of customs of settlements leaving.

Based on the materials from the sites, for example, painted ceramics, local peculiarities are traced and phases of Kaniv group Western Trypillya culture existence are determined. This was conducted with the maximum consideration of indications: technological, morphological, and stylistic.

Technological peculiarities include the usage of iron-rich clays, where natural admixture of fine sand was a leaner. Such raw material was used in 70-90% of ceramics. Painted ceramics was always burned in oxidant layer (700-900 °C), and obtained various tints of orange colour. Products quality is high; the crock is solid and light. However, in the latest settlements, more than 50% of ceramics were of low quality, bad burned and perhaps were considered for a short-term usage. It is probably explained by the crisis in pottery production on the eve of the Kaniv group collapse.

Based on their forms, the vessels are divided into 13 types: bowls, vessels of spherical, biconical, pear-shaped, and napiform shapes, jugs, craters, cups, cup-shaped vessels, amphorae, lids, binocular-shaped objects, and miniature copies of vessels. Some of them, in their turn, are divided into sub-types and variants. Sphericon form dominates; rounded shoulders are typical for most of the forms. Biconical and sharp-edged forms were not widely used and were peculiar mostly for cups.

Main ornamental schemes for Kaniv group ceramics are the following: festoons, „*Tangentenkreisband*”, meander (its variants: S-like, leaf like, and volute), linear simplified, segment-shaped, metope-shaped, „facial”, concentric circles scheme, wave-like, radial, comet-like, figure-eight shaped, heavily transformed „owl’s face” („owl’s face of Kaniv”). Festoon scheme is the leading one; „*Tangentenkreisband*” and some meander variations widely used. Scheme of concentric circles, which have something in common with „owl’s face of Kaniv”, was widely used in the late phases. Combination of painting on certain zones of surface with the deep lines decoration is known only from the early monuments. Number of such vessels is less then tenth of a percent. All the features testify for the deep technique fading, which happened in the late phases.

Certain signs-symbols accomplish the main scheme. Besides the widely spread painted circles, lenses, crescents, etc. depictions of a „flying dog” were often used. A „divided tree” motif and its variants „one-sided tree”, „divided tree” with the third central line, „a trunk”, appear.

Comparative analysis of Kaniv and Volodymyrivka-Tomashivka types of ceramic production shows their originality and insulation. General tendencies which reach the pick in the late phases are determined. They are the minimization in set of forms and ornamental schemes, oversaturation of schemes with some signs-symbols. The latter usually reflects the tension and the crisis state of societies, in our case, Kaniv and Volodymyrivka-Tomashivka groups. Consequently, a development process of ceramic complexes of both local variants of the „Western Trypillya” is vividly presented as parallel and synchronous, and lasting since the end of the BII stage and during all the CI stage.

Apart from painted pottery, coarser kitchenware and so-called „grey-polished” vessels were used. The results of morphologic and stylistic analysis

of these groups of ceramics accomplish the conclusions concerning the local and chronological division of the sites in the region.

Thus, during the period of relatively short habitation in the region (approximately 350-450 years) the ancient agricultural population came through several stages:

1st (from the last quarter of Trypillya BII stage to the beginning of the CI) – a period of the initial settling the territory between the Ros and Vilshanka Rivers represented by the sites of Valiava and Peremozhentsi types;

2nd (the first half of Trypillya CI stage) – a period of relatively stable cultural development and widening of settled area up to the Dnipro River shore, represented by the sites of Kaniv-Novoselytsia I and Vilshana I types;

3rd (from the second half of Trypillya CI to the edge of CI and CII) – a period of break-up and gradual disappearing of the group, represented by the sites of Pekari II and Hryshchyntsi I types.

Remarkable is the non-uniformity of Kaniv community development probably caused by foreign policy factors. These processes are reflected in sites of the second half of Trypillya CI stage, when contacts with the Prut and Dnister basin, the native area of „Western Trypillian” culture, were interrupted first and then renewed. Kaniv communities confined contacts with „Western Trypillian” Tomashivka group which coincided with life of „supercentres” Talyanki and Maydanetske. The relations were maintained mainly with the neighbours in the north: the population of „Eastern Trypillian” Kolomyishchyna group („Eastern Trypillia”). Perhaps, at the same time did the gradual moving of Kaniv communities to the north in the Dnipro River region near Kyiv and, together with the „Eastern Trypillia” population, to the Dnipro River left bank region which caused the appearance of Lukashi type settlements.

Climate changes at the edge of CI and CII stages stipulated for the final disintegration and disappearance of Kaniv group. Mass moving to the Dnipro River left bank and quick disappearance of features typical for this local group of „Western Trypillian” culture happened in this period. The process of Kaniv communities moving coincided in time with disappearance of local units of „Western Trypillia” in Dnister and Bug Rivers region and the area between them (Petreni, Šipeniț, Chechelnyk, Tomashivka, and other groups). Sole powerful groups were strewn, population dense was decreasing, giant settlements were disappearing, house-building was simplifying, and the way of life and customs were changing. Trypillian tribes changed the regions of their settling where new syncretic cultural groups defining the course of events at the stage CII were developing. It can be preliminarily assumed that the history of agricultural population in the Dnipro River region at the latest period localized already behind the boundaries of Kaniv region when Kaniv local group folded.

Stages	Subdivisions Cucuteni-Trypillya in the Middle Dnieper and the Southern Bug-Dnieper Regions		
CII	Sofievka Culture	?	
CI	Yevminka I, II	Hryshchyntsi I Type	Kosenivka
	Lukashi Type		Maydanetske (Zelena Dibrova)
	Kolomyishchyna I Type	Pekari II Type	Talyanki
	Chapaevka Type (Ihnatenkova Gora)	Kaniv-Novoselytsia I Type	Dobrovody
		Vilshana I Type	Stara Buda
		Peremozhentsi Type	Kolodyste II
		Valiava Type	Nebelivka
	Kolomyishchyna II Type	—	Volodymyrivka
BII	Kolomyishchyna Group	Kaniv Group	Volodymyrivka, Nebelivka, Tomashivka Groups
	Eastern Trypillian Culture	Western Trypillian Culture	

*Cucuteni-Trypillya Culture in the Middle Dnieper
and the Southern Bug-Dnieper Regions*

SOURCES AND SINKS: COMPARING THE CUCUTENI - TRIPOLYE SETTLEMENTS

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Mariana Vasilache

Keywords: *Chalcolithic, Cucuteni-Tripolye, demography, density of dwellings, migrations, regional groups, settlement size.*

The discovering of the large Tripolye settlements in the Southern Bug and Dnieper interfluvium that was accompanied with introduction of the aerial photography and geomagnetic surveys to the Soviet archaeology caused interest to the internal structure and hierarchy of these sites and composition of the regional settlement groups since 1970's. No surprise that different regional groups were compared with each other, and the related conclusions have set a base for the most general understanding of the demography and socio-economic development of the populations. New, much more precise, plans of the Cucuteni-Tripolye (here in after, CTCC) settlements in Romania, Moldova and Ukraine were obtained recently, primarily in the result of the international collaboration (Mischka, 2008; Popa *et alii*, 2010; 2012; Boghian *et alii*, 2012; Asăndulesei, 2013; Kruts *et alii*, 2013; Chapman *et alii*, 2014). It is also a case for some settlements that were surveyed earlier with older geomagnetic techniques. These data will obviously stimulate a new wave of literature regarding the CTCC settlements and their groups at different spatial levels. Therefore, critical analysis of the current state of related issues seems to be a timely goal. This paper deals with the comparison of settlements that were located in different regions. The related issues are discussed in the context of possible migrations within the CTCC.

From the most general perspective spatial behavior of the CTCC populations is seen as migration waves from the „mother area”, basins of the Siret, Dniester and Prut rivers, to the north and the east. This could be traced archaeologically by the formation of complexes of material culture in new areas that are similar to the complexes of material culture in the „mother area”. Reconstructions of few migration waves within the CTCC seem to be more speculative. Conclusions of this kind are ordinary based upon ceramics seriation. However, processes that are absolutely different in nature could

cause similar distributions of the archaeological data (Hodder, Orton, 1976; Kozhyn, 1984; Lesman *et alii*, 2002). Quantitative approaches to interpretation of changes in ceramics that were proposed over last years (Tkachuk, 2007) also require the additional verification. Thus, any attempts to indicate the demographic processes (i.e. migrations, diffusions etc.) within a framework of cultural history remain the doubts.

Demographic development at any given time could be quantified in terms of population estimates, population density within a settlement or region etc. (Zubrow, 1973; Hassan, 1981; Chamberlain *et alii*, 2006). Studies in demography of the Cucuteni-Tripolye populations have a relatively long history (for the most recent reviews see: Preoteasa, 2009; Videiko, 2012; 2013). As a rule, one of few variables was taken for criterion when comparing the local and regional settlement groups or different sites one with another. These variables are the number or density of sites and / or the size of a settlement. Even keeping in mind the much higher density of sites to the south-east of the Dniester than to the east of it, one could find a contradiction between the reconstructed migration waves within the CTCC and location of the giant-settlements to the east of the Dniester. This contradiction may be explained by the criteria of comparison. Since cemeteries are almost not known and sex-age structure of the population is impossible to reconstruct besides the case of Vykhatintsy cemetery (Velikanova, 1975), population values should be viewed as being proportional to the number of synchronous dwellings instead of being proportional to the size of a settlement.

Taking into account the relatively low number of geomagnetic plans, it would be reasonable to calculate the number of dwellings as a mean value for each taxonomic unit in settlement sizes (Diachenko, 2010; 2012). However, this approach is also conjuncted with some issues. Considering the mean values exclusively, one will find that the number of taxonomic units for the number of dwellings and the number of taxonomic units for settlement sizes are equal. This could be explained by the linear dependence of the number of dwellings upon the average density of dwellings (which is a constant for each taxonomical unit) and the size of a settlement (which is a variable). However, real number of dwellings does not always correlate with the average values.

Analysis of the geomagnetic plans of the CTCC settlements that were published led to identification of two trends. Settlement size increases, while the density of dwellings decreases from the south-east to the north-west. In general, this confirms most of the recent views on migratory behavior of the populations. Meanwhile, each assumption regarding the particular migration that caused dramatic changes in ceramics requires the precise demographic analysis.

HISTOIRE DE LA MAISON. DONNEES ARCHEOLOGIQUES ET IDENTITES CULTURELLES

Dragomir Nicolae Popovici

L'affirmation suivant laquelle la maison, composant très importante de l'espace social, matérialise les conceptions cosmogoniques des différentes communautés humaines du Chalcolithique au Nord du Danube est une affirmation commune, acceptée par la plupart des chercheurs.

La forme, les matériaux mis en œuvre, les dimensions et surtout la structuration de leur espace, aussi comme l'inventaire, peuvent se constituer dans des arguments significatifs dans ce sens.

L'histoire d'une structure bâtie est marquée par quelques étapes, voir la construction, l'utilisation et la fin de sa évolution, chacune ayant son contenu et ses significations.

La présente communication se propose d'insister sur un seul moment de leur évolution, voir la fin, sujet sur lequel les spécialistes n'ont pas insisté suffisamment et leurs conclusions ne sont pas unanimes.

Plusieurs hypothèses peuvent être envisagées: l'abandon, destruction par hasard, destruction intentionnelle (le sacrifice ?).

L'analyse comparative des données archéologiques existantes pour divers milieux culturels nous accorde la possibilité d'affirmer l'existence d'un fond commun pour plusieurs cultures archéologiques et fort probablement sur grandes espaces, mais, dans le même temps, la manifestation de l'existence des différences spécifiques pour chaque une d'elles.

Ces différences, beaucoup plus visibles actuellement, peuvent nous aider d'avancer dans le domaine de l'identité de ces grandes civilisations, Gumelnița et Cucuteni.

**BUILDING NO. 3 / 2013 DISCOVERED
AT BAIA - ÎN MUCHIE (SUCEAVA COUNTY).
INITIAL DATA**

**Constantin - Emil Ursu
Stanislav Țerna**

The latest archaeological studies, undertaken during the 2012 and 2013 excavations at Baia (Suceava County) (fig. 1), which uncovered a settlement preliminary dated to the intermediary phase Precucuteni I-II, revealed important data regarding the architecture of the buildings constructed during this particular era in Precucuteni-Tripolye A area. The two archaeological dig campaigns uncovered four dwellings, of which two were fully excavated (fig. 2).

Within this context, Building no. 3 / 2013 (fig. 3), the largest dwelling ever discovered in Precucuteni area, provided unique data on the way buildings were constructed during this time, revealing a complex structure of fired-clay rubble, post-holes, and unburned, at times doubled, walls, varying in thickness. It must be mentioned, nonetheless, that this kind of association and analyzes of architectural elements from Precucuteni-Tripolye A area, on Romanian territory that is, is being documented for the first time.

The methodology used in researching this particular dwelling is only partially used in Romania¹. It consists of several phases, starting with the removal of the fired-clay layers on the entire surface of the building, the plan of which was afterwards recorded by photometric survey, i.e. by measuring every depth and marking every individual archaeological fragment and whole ceramic vessels. The bases of the ceramic vessels and the stone artefacts were granted special attention, as they marked the position and number of finds (fig. 5/2). The finds were collected only after the impressions in the fired-clay were recovered and marked on the archaeological plan using different symbols for different impression, as well as their position (beams, planks, sticks, twigs, thatch, burned plates and burned and / or vitrified clay) (fig. 5/1).

¹ Methodology proposed by Stanislav Țerna, after К.В. Зиньковский.

On three conventional archaeological layers (fig. 3, 4), the following structures were identified and recorded: the foundation trenches for the exterior and interior walls (fig. 4/2), the structure of the exterior and interior walls, and a series of interior structures similar to hearths; based on the research of these structures, a plan for the dwelling was suggested.

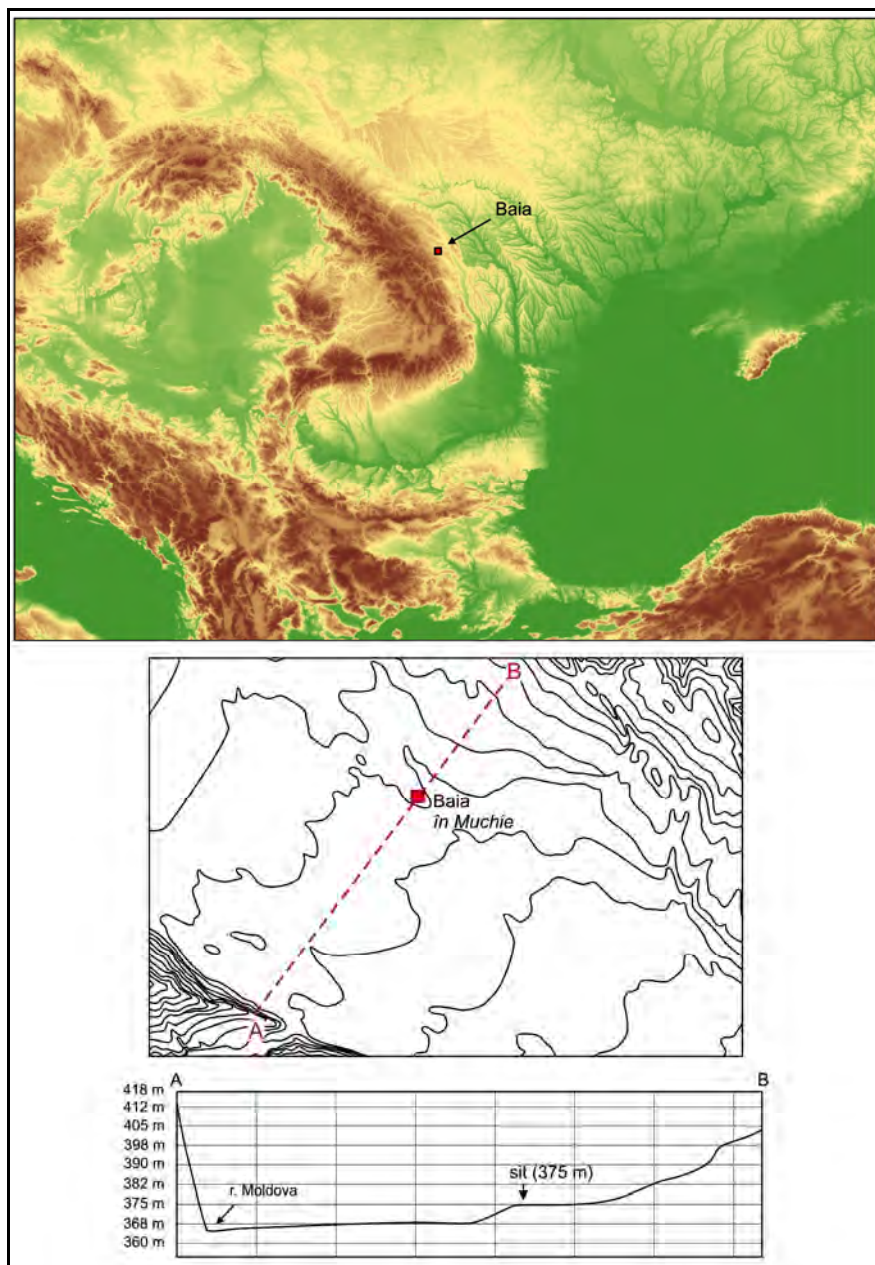


Fig. 1. Baia-„În Muchie”: geographical coordinates

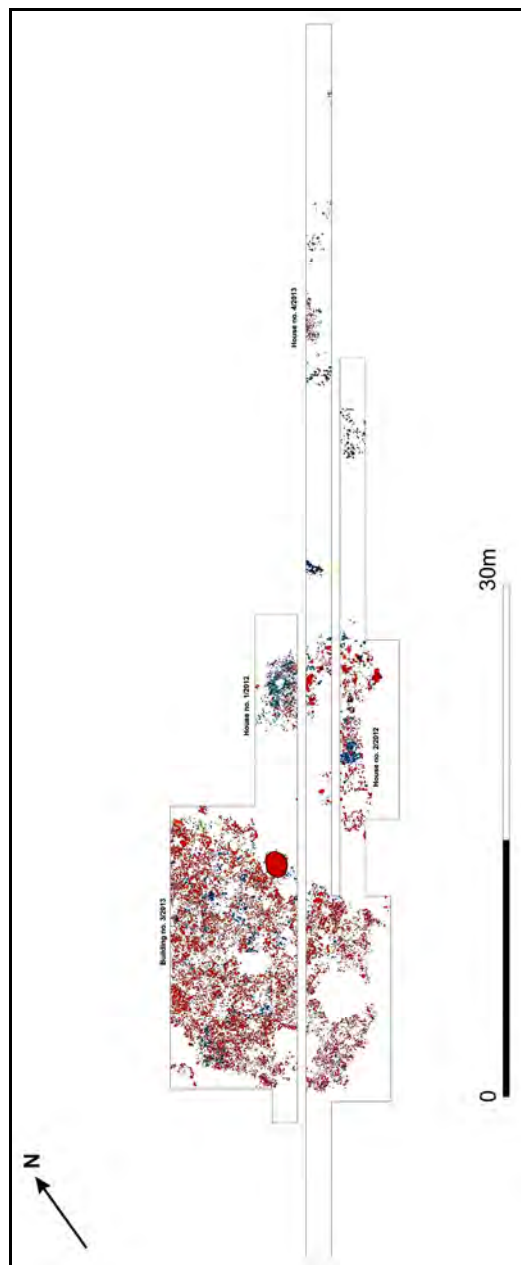


Fig. 2. Baia-„În Muchie”: general plan with Precucuteni complexes

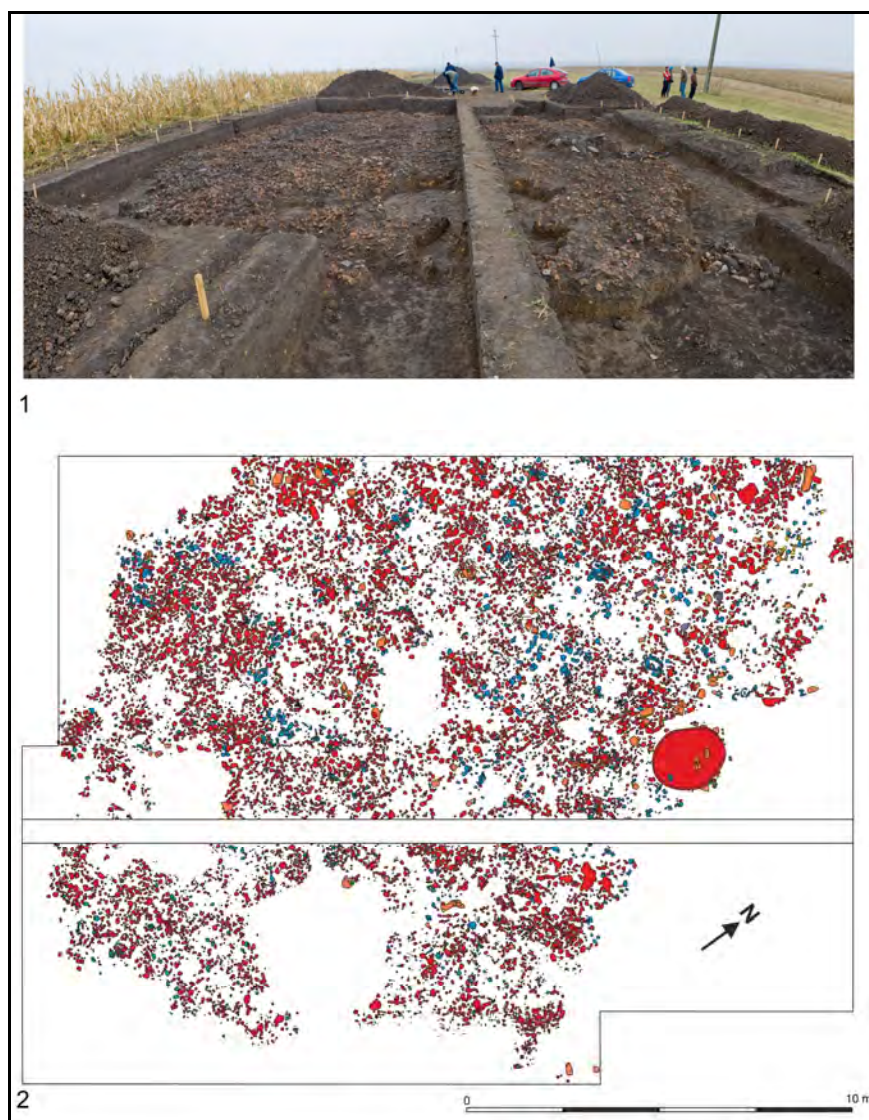


Fig. 3. *Baia-„În Muchie”: building no. 3 / 2013*
(1 – remains; 2 – the conventional level 1)

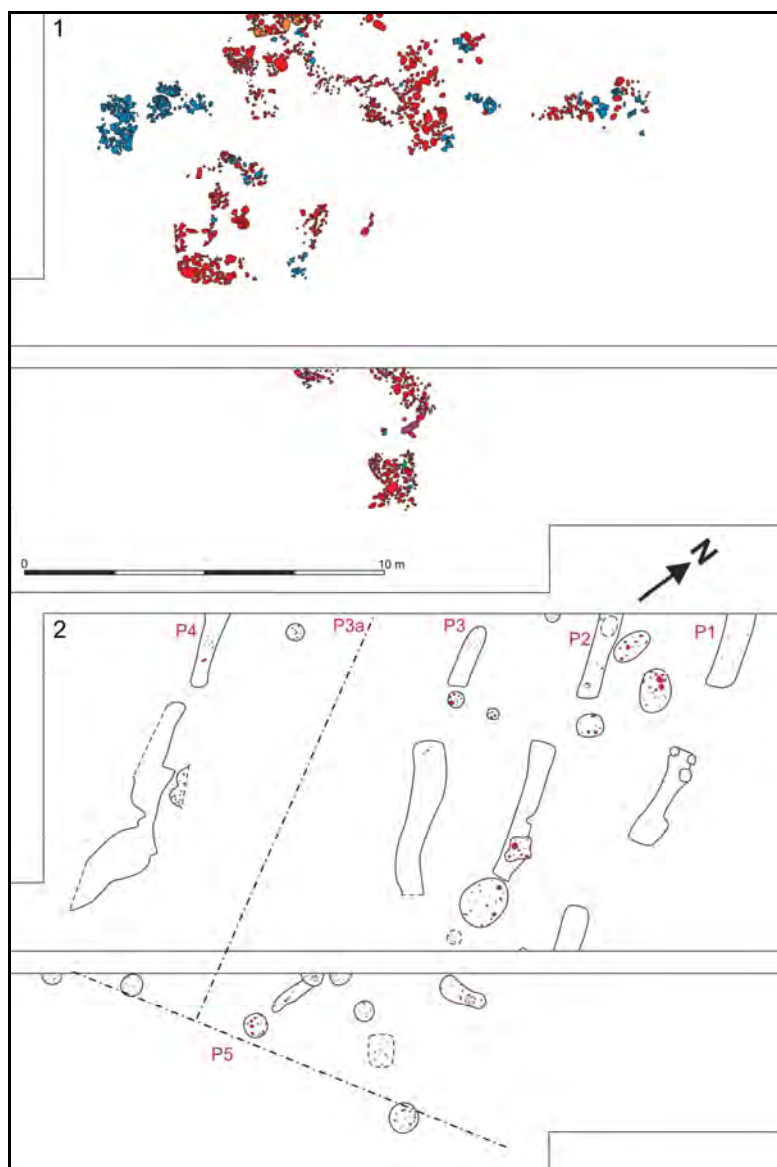


Fig. 4. *Baia-„În Muchie”: building no. 3 / 2013*
(1 – the conventional level 2; 2 – the conventional level 3)

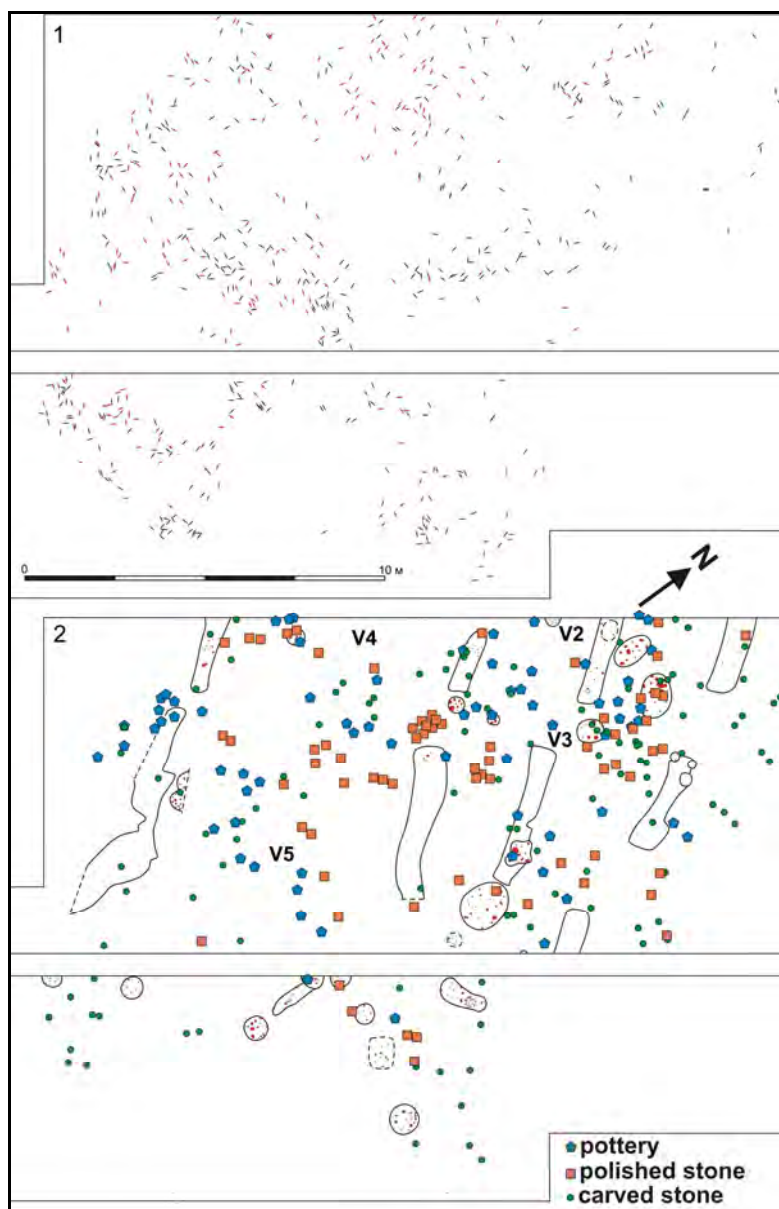


Fig. 5. Baia-„În Muchie”: building no. 3 / 2013
(1 – impressions; 2 – inventory; V – fireplace)

ON THE MULTI - STOREYED DWELLINGS OF THE CUCUTENI - TRIPILLYA CULTURAL COMPLEX

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Nicolae Ursulescu¹
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Keywords: *Eneolithic, Cucuteni-Tripillya, dwellings, storeys, scale-models.*

The possible existence of multi-storeyed dwellings in the Cucuteni-Tripillya Cultural Complex (C-T CC) has been the topic of discussion since the onset of the research on this vast cultural complex, with the discovered remains of domestic architectural structures being interpreted as belonging either to some constructions raised entirely on the ground level (Hvoiko, 1901; Markevich, 1964; Monah, 2003; Lazarovici, 2007) or partially below ground (underground basement and surface storey) (Tsvek, 1980).

For the western part of the vast cultural complex spanning from the Dnieper to the Carpathians, the novel discoveries from Poduri have allowed a number of archaeologists, such as Dan Monah, Gheorghe Lazarovici and Constantin Preoteasa, to bring back to the fore the problematics of these multi-storeyed buildings. The existence of clay scale-models depicting two-storeyed buildings, as well as archaeological evidence that seems to confirm this type of constructions, have been brought forward in this respect.

Without dismissing the existence of complex buildings, even multi-storeyed ones, for the Neolithic and Chalcolithic of South-eastern Europe, particularly in the areas where stone was the most important building material, the present authors consider that for the C-T CC area, the existence of storeyed dwellings built on the ground level has not been fully ascertained. This assertion is based both on the archaeological evidence, and on that provided by experimental archaeology. No site has ever produced clear *in situ* instances of walls at the level of an upper floor, which could confirm the existence of multi-storeyed structures. At most, it can be argued for the existence of floorings covering either the entire dwellings (less likely) or only certain parts of the houses (most probable) meant to increase the storage or

working space, on account of the fact that in some cases there have even discovered traces of hearths from such tiered areas (dwelling L 75 from Poduri). As a matter of fact, in no archaeological situation were flooring remains identified for the entire areas of the „storeyed buildings”, but only over some sections, a reality in accord with our assertion.

From an architectural point of view, it is almost impossible for a construction with a wooden vertical structural frame to sustain the weight of a roof (be it a thatched one), which for a surface area of 28 m², according to the data provided by experimental archaeology, would be greater than 2500 kg. For a surface of at least 50 m² (the majority of Cucuteni dwellings measure between 50 and 100 m²), taking into account the fact that that interior supporting elements have not been confirmed archaeologically, it is difficult to maintain the position that the vertical elements (the crutches and intermediary wall posts), which should have measured at least 3 m in height in the case of two-storeyed buildings (2 m for the ground floor and 1 m for the storey), would have resisted a pressure exerted both by the weight of the roof (with its structural elements — rafters, summer and transverse beams, along with the thatch cover, with a thickness of 30–50 cm) and the flooring (consisting of a plastered wood lattice), and this without also taking into account the wall filling.

The existence of walls built only from horizontal posts for the lower (ground) level, which could have taken the weight of the upper storey, of the flooring and of the roof, as it is often suggested for the eastern (Tripillya) areas of C-T CC, is not supported by the archaeological evidence; the architectural solution advanced by Russian and Ukrainian archaeologists is a rather ethnographical one, unwarranted by the actual archaeological material.

In the case of the dwellings with sunken ground floors, we should rather speak of a type of a single-storeyed dwelling built on the surface, with a sunken area for domestic use, which did not develop into a multi-storeyed architectural solution.

With respect to the existence of clay scale models of C-T CC buildings, these artefacts should not be regarded as depicting real structures, but should instead be interpreted in terms of ritual practices. Many of these models present, for instance, four, five or six clay legs that have been interpreted as images of structures erected on piers or with underground structural frames. The presence of such fittings on Christian church tabernacles is not due to them representing features of raised structures or, respectively, structural frames; these elements were added for practical considerations, to more easily manipulate the objects during the rituals in which they are employed.

On the basis of archaeological, ethnographical and experimental-archaeology data, the authors consider that for the C-T CC it is warranted to speak only of single-storeyed structures built on the ground level, which could have had a supplemental upper ceiling built in some areas (rooms), creating a space for storing household objects or agricultural products, conceivably also serving as an area for performing household activities.

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THE TRIPOLYE BI DWELLINGS IN THE MIDDLE DNIESTER REGION

Dmytro Chernovol

Keywords: *Eneolithic, Tripolye BI, Middle Dniester Region, Polivanov Yar, Nezvisko, Vasilyevka, Ozhevo-ostrov, dwellings.*

The remains of the Tripolye BI dwellings (so called „ploshchadki”) in the Middle Dniester region were investigated at the settlements of Polivanov Yar, Nezvisko, Vasilyevka and Ozhevo-ostrov.

Different experts had different views regarding the structure and interior of the Tripolye buildings. Tatiana Passek and Ekaterina Chernysh believed that the dwellings had one level with clay „platform” constructed on a ground. Valentina Shumova interpreted the houses as dwellings with one level, and the „platform” as the remains of garret. I interpret dwellings of Ozhevo-ostrov as houses with two levels, where the platform is the remains of a floor of the second level. The first level (ground floor) was used for domestic purposes. It could have one or several rooms. The second level (the first floor) was divided into two parts, entrance and living room.

Excavations that were conducted within last years and analysis of earlier works led to identification of a trend. The second level in most of dwellings of different chronological periods was divided into two parts. Oven in a living room is located to the right from the entrance. Altar (or constructions with similar function) is located opposite the entrance.

Constructions related to sacred practices were found in dwellings of Polivanov Yar and „ploshchadka” 6 of Ozhevo-ostrov. Two more dwellings of Ozhevo-ostrov had altars and ovens. The remains of these constructions are poorly preserved, so the reconstruction of their form is impossible. Other dwellings of Vasilyevka and Ozhevo-ostrov did not contain the elements of interior. Therefore, Valentina Shumova interpreted the „platforms” as the remains of garrets. However, all the elements were made of clay, and their preservation depends upon the temperature. Thus, interpretation of the Vasilyevka dwellings remains a problem.

Interior of the first level (ground floor) is also different. Different houses were included into two groups, „A” and „B”. Group „A” includes

dwelling where the interior was absent, while group „B” includes houses with different objects at the ground floor. Dwellings that belong to group „B” are typical for several local-chronological groups of the Tripolye culture.

Houses of Vasilyevka and Ozhevo-ostrov belong to group „B”. However, the interior of the ground floor of these dwellings is different. Moreover, settlement Ozhevo-ostrov included dwellings of groups „A” and „B”. Houses that belong to group „A” were joined by the system of „ditches”. Ditches were connected with the pits that were located at the ground floor of the houses. Interior of the first level of houses in Nezvisko and Polivanov Yar are hard to interpret. Since authors of the excavations believed that these were the one-level houses, they could relate the objects of the first level to earlier chronological horizons.

Thus, we could suggest that the „living space” was already formed in the formation period of the Tripolye culture, while the space related to domestic activities was organized later. It may be confirmed by different traditions in the location of interior elements within a region. Also different interior may be related to different activities of different families.

REMAINS OF TRIPOLIAN HOUSES: FORMING PROCESS

Aleksey Korvin-Piotrovskiy

Keywords: *Eneolithic, Tripolye, house building, reconstruction.*

The archaeological remains – house remains – of Tripolian buildings are one of the main objects of archaeological field studies. There are different points of view as far as explaining the principles of construction is concerned. Completely opposite concepts originated back at the time of Tripolye culture's discovery, when the problem of explaining the functional purpose of the house remains and of reconstructing their original look and construction technology emerged.

Initially opinions were split: Vikentiy Khvoika and Ernest Stern considered them „houses of the dead” (similar to mastabas tombs), while Nikolay Beliashevskiy, Vasiliy Gorodtsov and Aleksander Spitsyn thought they were residential buildings. Those points of view, however, were hypothetical assumptions lacking convincing physical evidence. In the 1920's and 1930's, thanks to the transition to large-scale studies conducted across large areas, scientists came to a single conclusion: the house remains were indeed buildings of the Tripolian settlements.

In the 1930's and 1940's Tatiana Passek made an invaluable contribution to the study of Tripolian dwellings by describing them according to the example of the Kolomyishchina 1 settlement (stage CI), presenting the first substantiated concept of house building principles (according to Krichevskiy and Passek). It is worth pointing out two basic elements of this concept, which was the only one that existed until the mid-1960's:

1. The buildings only had one storey (the ground floor).
2. The technological use of fire in the process of house building.

The second concept, which supposed the existence of two-storey houses, was proposed by Vsevolod Markevich as the result of observations made during excavations of the Varvarovka VIII settlement. Later, this idea found support among many researchers. In the 1970's and 1980's this hypothesis had already received the status of a substantiated concept, confirming that „houses with vertical development” can be considered the

main type of structures of the Tripolye culture settlements. The essence of this concept is that the houses were of the wattle and daub type, and fire was *not* used as a technological factor in their construction. Rather, it was a destructive element used during demolition of the dwellings.

Despite all the various experiments and studies, scholars still disagree on the methods of construction of the Tripolian house. To create a methodological approach to the reconstruction of the main principles of Tripolian house building it is necessary to develop a general understanding of the conditions in which the remains such structures were formed, particularly those with which researchers deal directly. It is understood that while excavating an ancient dwelling we simultaneously obtain an image that, in compressed form, depicts various kinds of activities occurring over an extended period of time. Different types of finds, construction layers, stand-alone structures – all represent the activities of Tripolian people, despite their varied character or duration. As a result, it is important to identify the following taphonomic and chronological influences (phases) in the formation and distribution of objects associated with house remains:

1. The possibility that the area of the house was occupied before the house itself was constructed.
2. The presence of objects relating to activities of a ritual or cult nature associated with the subsequent building of the house.
3. Variation in the structures, details, elements and technological units of the various buildings.
4. The nature and „use-life” of the house. This is the longest-term „activity”, and is reflected in different variables: renovation, reconstruction, additional structures added to the building (if there were any), and the material remains of everyday, household and cult activities that may have accumulated over 1-3 generations.
5. Objects reflecting actions of a ritual or cult nature associated with subsequent abandonment of the house and of the settlement in general (the ceremonies for „making order”, „breaking the stove”, burning the settlement, and so on).
6. The natural and anthropogenic influence on the remains of the structure from the moment it was abandoned until it was discovered.

Every aspect (except the first) affects, to one degree or another, the material evidence of the others. Division of the materials from the examination of house remains, according to these phases, can generate a more constructive approach to identifying the basic principles of Tripolian house building. Therefore, for example, the presence of archaeological material under the main residential unit of the house may indicate that it arrived there as the result of „actions” of phase 1, as well as phases 2 and 3. The 'actions' of phase 5 – the ritual incineration of the settlement when abandoning it – have no association with the construction process, but can seriously alter the results of phase 3, construction, turning a wattle and daub

house into a fired house, parts of which have collapsed and even fused together. With the same likelihood, however, Tripolians could also have set their houses on fire at the construction stage - the result would be similar. Under these conditions determining whether houses were baked during the construction stage or not is associated with the analysis of materials from phase 4. The presence of artefacts without traces of firing on the platforms, or on the fired floors daubed on the ground, testifies that they appeared in the house after its construction and firing and did not appear in the high temperature zone during the incineration ritual.

It is by using the approach proposed here that scholars will be able to create detailed reconstructions of the remains of Tripolian houses and to verify existing theoretical approaches on house building processes.

RECONSTRUCTION OF THE ROOF SHAPE OF ENEOLITHIC HOUSES IN SOUTH - EASTERN EUROPE ON THE EXAMPLE OF TRIPOLIAN BUILDINGS. SOURCES AND PROBLEMS

Liudmyla Shatilo

Keywords: *Eneolithic, Tripolye, South-Eastern Europe, house building, roofs, reconstruction.*

Remains of houses are some of the basic and most frequently studied static (immovable) objects left by early agricultural communities in South-East Europe. That is why there are quite a lot of reconstructions of their form. Such reconstructions may be graphic ones or built on the ground (in a reduced form, or a life-size), or made in three-dimensional format, created with the use of computer technology. Due to the fact that houses are among of the main objects in the archaeological excavations, it is a house (or rather, its reconstruction) that created and creates a certain image of communities, and the architecture of a building turns up to be a kind of a „calling card” of ancient cultures (along with ceramics and figurines). Incorrect reconstruction of the external appearance of buildings can indirectly call up creation and rooting of „pseudoscientific” myths, or serve as a dubious tool in evidence base of one or another hypothesis.

For example, in contemporary Ukrainian society the argument about „Tripolian origin of the Ukrainian people” has practically taken root, and when they recreate Tripolian buildings in the style of „Ukrainian wattle and daub thatched huts” only „adds fuel to the fire”.

It is important to note that, in addition to the myth-making, such reconstructions may also be used to create „scientific” theories. It is well known that such kind of human activity as architecture has been influenced by different factors: climate, social structure, level of technology, traditions, as well as interconnections of different communities. It is also necessary to take into account the availability of sufficient quantities of construction materials (wood, clay, stone etc.) that have different characteristics and

properties. Conventionally, there are two basic systems in the building construction: post-and-girder (or column system) and arched roof system. And if in the first case the material used in the construction was mostly wood (sometimes stone), then in the second case it was mainly adobe brick used in the construction on semi-desert territories. It was from the Near East that the system was brought to the Mediterranean region. Thus, based on the shape of the reconstructed buildings, a researcher can estimate technologies developed in the society, and argue on more general issues such as the origin of local groups or the genesis of cultures. And if based on clearly incorrect reconstruction, the researcher can come to the general conclusion that can be doubtful and raise questions. This is why, a researcher must reconstruct buildings very carefully regardless of whether they are on the ground or on a sheet of paper.

The reconstruction of the exterior of a standard house of early farming cultures in Southeast Europe consists of the reconstruction of the walls and windows of the house, its door opening and roof. It is the last element that the present work is dedicated to, since the other elements have been more carefully studied in the existing literature.

We will focus on the reconstruction of the roof of Tripolian culture houses. Since the discovery of culture, there have been several radically different forms of roof reconstructions. For example, E. von Stern, who was one of the first to become interested in the shape of tripolian houses roofs, suggested that it could be either flat or arched one (1906). Based on the shape of some fragments of coating, the latest version seemed to him more likely. O. Spitsin thought the roof was a gable and thatched one (1904). S. Gamchenko defended the view that the dugouts had a vaulted roof and houses had a flat one (1926). Despite this diversity of opinion, one of the first graphic Tripolian house reconstructions appeared only in the late 1940-s. Its author (T. Passek) recreated tripolian house as a one-storey house with a gable roof. The prototype of this housetop was several models of buildings from Western Europe.

At that time there was only one model of a house (from Kolomyishchina II) with some roof fragments in the culture. Despite the fact that it was very fragmented, and the key elements for the reconstruction of the roof were missing (eg, its upper part), the researchers reconstructed the model with a hipped roof. In the second half of the 20th century a number of models of buildings with an unusual rounded (arched) shape of the roof were found. However, this was not taken into consideration during later reconstructions of tripolian roofs that were made either gabled or hipped.

Thus, there are several major problems in the reconstruction of the roofs of tripolian houses: 1) during the excavation of real dwellings it is almost impossible to identify the remains of roofs; 2) researchers do not always consider all the possible shapes of the roof, and in these latter days they often simply make use of the roof reconstructions of the 1950s that

„have taken root in science”; 3) finally, the analysis of such an important source as models of buildings, have been carried out superficially.

Models of buildings with rounded (arched) roof were found on the settlements of Rozsohovatka, Sushkovka, Andreevka, Peschanoe. Speaking about the rounded shape of the roof, we mean the shape of its cross-section, such roof is sometimes called cylindrical or arched. Describing these models, researchers often specify that the roof is gable, but its upper part is not ribbed but rounded. Apart from the mentioned ones, there are several "closed" models, which are reconstructed as houses with a gable roof (from Okopy and Costești IV), but the models are fragmented and both the roof ridge and a large part of the roof are missing. Thus, so far no models of tripolitan buildings with a gable roof have been found. In addition to the models of buildings there are also a number of ethnographic analogies (parallels) with this type roofs.

Vaulted roofs were widespread in the past. They were typical of Mesopotamia, island and mainland Greece, China, Taiwan, South India, Indian architecture in North America, the Turkmen architecture, traditional Chechen and Moldavian architecture.

As we can see, these structures are found mainly in countries with warm climate, since the shape of the roof depends on both climatic conditions and the availability of building materials. Climatic conditions on the territory of Tripoli settlements (Atlantic climatic optimum) were close to the modern conditions of the Caucasus and Turkmenistan, where the roof of this form were made up to the mid-20th century.

If we accept the assumption of the existence of this type roof in Tripolitan culture, then the next question is about its design. The answer to this question can be found if we look at the back side of the model from Rozsohovatka. At the end portion one can see round relief images along the perimeter of the roof. They can be interpreted as girders (beams) which constituted the framework of the roof. They might have rested on the vertical columns of the front and end walls, the height of which determined the shape of the roof. On the same principle, the roof could be made in the shape of half a hexagon. Such a roof is shown on the model from Voroshilovka. Such a framework could be covered with reeds, woven mats, or in any other way. After that, as evidenced by observations of researchers during the excavation, the roof could be daubed with clay, both inside and outside.

Thus, if we take into consideration the models of tripolitan buildings, structural elements of their roofs and climatic condition of that period, it can be assumed that a similar type of roof could have existed in this society.

Trypolitan culture is a part of the early agricultural cultures of South-Eastern Europe and, therefore, if we admit the possibility of the existence of this type of roof in this culture, then the possibility of such a structure can be assumed and in some other synchronous societies. For example, in the Gumelnița community there are a number of models of buildings with this

type of roof (settlement of Căscioarele and others). However, in this culture the shape of the roof is described as „a gable one with a rounded ridge of the roof”. It is important to note that the model buildings of Tripolian culture differ from the models of other cultures in South-Eastern Europe in terms of realistic images of their structural parts, so that the analysis of models with a rounded roof of other cultures requires a separate study. We also raise the question of the possible existence of this type of roof in some societies of South-Eastern Europe.

Such reconstruction significantly alters the concept of the external shape of the houses of Eneolithic societies in the region. In addition, it can help to solve the problem of finding connections between different cultures of South-Eastern Europe as well as relations between them and the cultures of the Near East. Such shape of the roof should be taken into consideration when reconstructing houses of ancient cultures, and not only in the drawing. For example, in 2007, during the experiment by firing a Tripolian house (Tripoli expedition IA NASU) we constructed a building with a vaulted roof. In summer 2014 the Museum of Nature Reserve Tripolian culture (in Legedzine) began the construction of a Tripolian house with a rounded roof.

NEW DISCOVERY OF THE KILNS IN THE TRIPOLIAN GIANT-SETTLEMENT TALIANKI

Vladimir Kruts

Aleksey Korvin-Piotrovskiy

Knut Rassmann

Keywords: *Eneolithic, Tripolye, geomagnetic anomalies, kilns, pottery production, reconstruction.*

In 2011, the research project on the study of geomagnetic anomalies of the area of Tripolian giant-settlements started was launched due to the joint efforts of the Roman-Germanic Commission of German Archaeological Institute and the Tripolian Expedition of the Institute of Archaeology National Academy of Sciences of Ukraine.

The surveys conducted in 2011 and 2012, covered a total area of 220 hectares, accounting for over 60% of the area of the Talianki settlement-giant. There were identified anomalies of 1356 buildings and, what is more important, there were detected anomalies, which reflected other objects: non-firing holes, roads and small size burned objects.

The presence of these non-residential facilities that had been previously unknown, defined the tasks for Tripolian archaeological expedition in 2013, 2014 – to investigate one of the various types of small anomalies – their archaeological exploration and its attribution.

The northern section of the settlement, due to the high density of buildings, has been an interesting ground for research. Moreover, in its north-western part, on the geomagnetic plan there is well seen several approximately similar spot anomalies outside the settlement – and the outer houses limit and pits on the outside of the clay had been taken for their construction. As the location of the objects was quite unique, for the study there were selected three small-sized anomalies near excavation site XX, to the north-west of it, where we had investigated the remains of dwellings number 45, 46, 47 and the large pit. Moreover, to verify the identity of objects attribution, we had chosen one more similar small-sized anomaly. It was located 220 m to the east of the previously selected anomalies within the

settlement's limits (60 m east of the internal closed building loop of the settlement and approximately 20 m to the north-west of the nearest short line of internal housing development) (fig. 1).

The results exceeded all expectations. All of the four objects that had been chosen for the investigation turned out to be potter furnaces (kilns).

At each of the selected anomalies there were excavations of the same size 6 x 4 m. Each of the excavation/object was given the name: excavation „A” / kiln „A”, „B”, „C” (2013) and „D” (2014).

What were the Talianki kilns like? All investigated kilns can be defined as dual chamber with vertical connection of chambers: three-channel and two „goats” combustion chamber and a large burning compartment with adjustable temperature.

Let's look at construction of one kiln in detail (fig. 2). Kiln „B” was of rectangular shape with rounded corners, measuring 1.9 x 1.75 m and its long axis was oriented west -east. On the surface of this one there was no slagging clay caked with ceramics. The interior of the structure at a depth of 0.4-0.6 m was filled with fragments of pottery, and they were accumulated near the walls, out of which they seem to have fallen during the destruction of the roof.

On the southern, western and northern sides of the structure there were perfectly preserved its vertical walls, 15 cm thick and 25 cm high. Ceramics serve as a constructive element as conferring, upon firing, the rigidity of the arch of the firing chamber and increasing its resistance to heat. It was in the case of this design of walls that we do not see any traces of the wooden uprights inside them. In this furnace the traces of wooden structures – uprights – could be seen on the inside walls on the platform (the hearth) of the firing chamber. Altogether, there were four carefully made holes of about 5 cm in diameter. Two of them were at the western wall of the furnace (respectively, in the north-west and south-west corners). The third and fourth ones were in the middle of the long northern and southern walls. We can assume that another pair of these holes had to be in the eastern part of the furnace, completing the northern and southern walls. Most likely, these holes served as a place for setting poles that supported the frame of the dome of the firing chamber.

After removing fragments of ceramics and layered coating we could see partially preserved platform (hearth) of firing chamber up to 15 cm thick that rested on two longitudinal west-east, „goats”. At the base of the platform along the central axis as a transverse structure of the hearth there was used granite slabs laid in the direction north-south. Probably the design of the hearth (on each of the canals there were stacked three stone lintels) was a stone grid laid on the oven walls base and on „goats”. At the same time in the part of the clay platform that survived we can quite clearly see heat blowing holes. Altogether there are eight of them: three above the northern and southern canals and two heat blowing holes are above the mid one. Diameter of all of them, except the two ones in corners, is about 15 cm, and the corner ones at the western wall –

about 10 cm. The surface of the platform of the hearth burning compartment, judging from the design of heat blowing holes, had been carefully smoothed. Powered hearth there were fragments of two plane covers for heat blowing holes for adjusting the temperature found on the platform.

Two more large granite stones underlain near the north-eastern and south-eastern corners of the structure, as if framing the furnace mouth.

The height of the flue channels was about 30 cm, width of the northern one – about 40 cm and the other two – about 30 cm. The width of ground „goats” was about 20 cm. In the central part of the northern goat the soil was replaced with granite slab, and in the body of the southern „goat” there were pieces of granite. The bottom and walls of the flue channels were covered with a layer of clay with the addition of sand. The eastern part of the flue channels smoothly lowered into the combustion area in front of the oven, spread on the ground as a layer of clay about 3 cm thick and burned. Combustion area smoothly lowered into the pit of about 20 cm depth and of about 80 cm wide.

All known kilns from Talianki (which are dual chamber with vertical connection of cameras: three-channel and two „goats” combustion chamber and a large burning compartment), have difference in construction details. The difference lies in the construction of walls / roof of the burning chamber, their form (rectangle, square or round) and also the use of stone in the hearth of the firing chamber and the „goats”.

New geomagnetic data and kilns investigated in 2013-2014 enable us to look into the problem of ceramic production in a different way.

Firstly, all the investigated kilns belong to a different, more high-tech type than known earlier pottery furnaces.

Secondly, the size of the baking chambers can raise the question (for reconstructive level) of the possible production volumes for a single kiln.

Thirdly, the determination of the total number of pottery furnaces in the settlement, according to the lines of geomagnetic anomalies, gives the possibility to calculate the total amount of the ceramic production in the settlement.

And finally, fourth, the spatial distribution of anomalies corresponding to the kilns on the territory of the settlement in the context of the dwelling structural elements, allows us to put the issue of social interpretations of ceramic production within the community.



Fig. 1. Talianki giant-settlement – the north-west section of the geomagnetic data: „A”, „B”, „C”, „D” – anomalies of the kilns



Fig. 1. *Talianki giant-settlement: the kiln „B”*

**CUCUTENI UP - DRAUGHT KILNS FOR CERAMICS.
AN ETHNO - ARCHEOLOGICAL
AND EXPERIMENTAL APPROACH**

Dragoş Gheorghiu

Keywords: *Cucuteni-Tripolye, kilns, ceramic, ethno-archaeology, experimental archaeology, pyrotechnology, chaînes-opératoires.*

The Cucuteni-Tripolye ceramic production is a proof for the existence of an efficient technology of firing, i.e. the use of up-draught kilns. Due to their positioning outside settlements, there is slight evidence of the existence of these pyro-instruments. To bring data in favour of their use, ethnographic information mixed with data from archaeological experiments provides an efficient approach to the *chaînes-opératoires* of the technological processes as well as to the kinesthesia and visual ergonomics of the prehistoric potters. The paper will present a series of experiments of the use of sunken up-draught kilns, with perforated platform, describing some of the stages of the *chaînes-opératoires* and some of the ergonomics problems.

TRANSFER OF CUCUTENI - TRIPOLYAN IDEAS AND THINGS INTO THE AREAS OF SOUTH - EAST POLAND

Sławomir Kadrow

Keywords: *Copper Age, Cucuteni-Tripolye complex, Funnel Beaker culture, Lublin-Volhynia culture, transfer of ideas.*

During the 4th millennium BC in Lesser Poland (south-eastern part of Poland), covered extensively by loess soils, evolved to consecutive cultures. The older one – Lublin-Volhynia culture with strong links to Polgar culture complex in Carpathian Basin and to East-Balkan traditions is dated back the 1st part of 4th millennium BC. The younger one – Funnel Beaker culture with strong links to megalithic culture complex in western and northern Europe is dated to the 2nd part of 4th millennium and to the beginnings of the 3rd millennium BC.

There were no definite changes in strategies of occupation and exploitation of the terrain and economy in south-east Poland within the 4th millennium BC. Settlement networks of these two cultures were very similar each other. However such changes were visible between them rather in funeral rites and the range of specialization and organization of flint production and copper metallurgy. This directs our attention towards deep changes in the sphere of spiritual culture and social organization that is the so-called superstructure, which divided the societies of the Danubian cultures (Lublin-Volhynia culture in this case) and the Funnel Beaker culture.

Influences of Cucuteni-Tripolye culture complex on these two already mentioned cultures in Lesser Poland were not intensive. At the turn of 5th and 4th millennia BC communities of Lublin-Volhynia culture adopted the laminar oblique retouch to form the long blades made of flint. Later, i.e. in the mid of the 4th millennium BC communities of Funnel Beaker culture imitated production of Tripolyan big rectangular flint axes and the way of ornamentation of ceramic cups using figurines of rams' heads.

At the end of 4th and at the turn of 4th and 3rd millennia BC Funnel Beaker culture communities in Lesser Poland (Gródek Nadbużny, Zimne, Kamień Łukawski) used to import some painted pottery from Cucuteni-Tripolyan partners. A little later ornamentation of some pottery wares with

cord imprints was recorded on some settlements of Funnel Beaker culture (Zimne, Majdan Nowy, Tominy) in the way characteristic for Kasperivtsy and Gorodsk groups of the late Tripolye culture.

Transfer of Cucuteni-Tripolye ideas into Lesser Poland, what is confirmed by the presence of mentioned above elements of material culture: Tripolyan retouched blades and axes made of flint, imports of painted pottery and ornamentation of pottery with cord imprints, slightly imposed on mentioned cultures in south-eastern part of Poland, but did not changed their character. Lublin-Volhynia culture communities remained still as a Polgar-like one, and Funnel Beaker culture communities did not change their megalithic face.

In my opinion the modern theory of the network society (of Maffesoli and Castells) better explains the presence of Cucuteni-Tripolyan imitations and artefacts in south-eastern part of Poland in 4th millennium BC than some traditional models like diffusion, ethnic migrations or simply so-called 'influences'.

The synchronization of Cucuteni-Tripolye culture complex with Copper Age cultures in south-eastern part of Poland and some culture units from the Lowlands in 4th millennium BC is as follows:

1. Malice culture, phase MC IIb = Lublin-Volhynia culture, phase L-VC II (the classic phase) = late Banded Pottery culture in the Polish Lowlands, phase IIIa = Ocice group of the Lengyel culture = Tiszapolgar culture, phase B = Tripolye culture, phase BII.

2. Lublin-Volhynia culture, phase L-VC IIIa = Baalberg culture = Ludanice group of the Lengyel culture = Balaton-Lasinja culture = Bodrogkeresztur culture, phase A = Tripolye culture, phase CI.

3. Lublin-Volhynia culture, phase L-VC IIIb = Bajč-Retz group = Lažňany-Hunyadihálom group = south-eastern group of the Funnel Beaker culture (phases Gródek I, Zimne I and Bronocice II) = Tripolye culture, the turn of phases CI and CII and the beginning of phase CII.

Synchronization of groups of the late Tripolye culture looks as follows:

Sofievka group = Kasperivtsy group = Gorodsk group = Horodiștea-Foltești group = Usatovo group and with units of the late Funnel Beaker culture (phases Bronocice III-V, Gródek II and Zimne II) in Małopolska.

Absolute chronology of Lublin-Volhynia culture (phases II and III) based on radiocarbon dates is: 4200 / 4000 - 3600 / 3500 BC.

Absolute chronology of Funnel Beaker culture in Lesser Poland (phases: Bronocice II-V, Gródek I and II) is: 3650 / 3500 - 2900 / 2750 BC.

THE FUNNEL BEAKER CULTURE AND THE TRIPOLYE CULTURE

Małgorzata Rybicka
Aleksandr Diachenko
Dariusz Król

Keywords: *Funnel Beaker culture, Tripolye culture, Brînzeni group, Western Volyn, imports, syncretic materials, chronology.*

The relations between the populations of the Funnel Beaker culture and the Tripolye culture seems to be one of the most discussed topics. Understanding of the real borders of two cultures remains a key-issue. The answer was made possible by recent researches in the Western Volyn, Upper Dniester region and Pshemysl sub-mountain zone. In the result of the field work in these areas syncretic materials (that combine traditions of both cultures) of the Brînzeni group and Funnel Beaker culture (Novomalin-Podobanka and Ostroh sites in the Western Volyn), and Tripolye imports at the early sites of the Funnel Beaker culture (sites of Kotoryny and Skoloshov) were found. These data make possible the analysis of the chronological framework of the sites, and the nature of relations between their populations.

ABOUT THE METAL DAGGERS FROM CUCUTENI - ARIUȘD AREA

Radu Băjenaru

Keywords: *Eneolithic, Cucuteni-Ariușd, metal daggers.*

One of the most important features of the Eneolithic period in SE Europe is the emergence of metallurgy and the appearance of heavy copper artefacts. This phenomenon arises in the first half of 5th millennium BC and consists in production and spreading of copper flat axes, hammer axes, axe-adzes and daggers in the whole area.

The present discussion will focus on the metal daggers found in Romanian area of the Cucuteni-Ariușd culture. There are twelve such items, eleven related to settlements and only one was found in a hoard (Conțești), together with four copper flat axes of Cucuteni type.

There are two main groups of daggers from a typological point of view: blades with simple haft-plate (six items) and riveted blades with midrib or flattened cross-section (six items). Every group can be divided in more types showing good connections in different neighbouring areas.

A special attention deserves the silver riveted blade recently published from Poduri settlement. The context of this dagger is unclear and it was assigned, with a certain probability, to the Bronze Age. Without reject this chronological attribution, the present author suggests that a dating of silver dagger in the Eneolithic period should be take into consideration. There are some good typological similarities with the group of daggers included in the Malé Leváre type.

NEOLITHIC AND CHALCOLITHIC FLINT ASSEMBLAGES: DIACHRONIC PERSPECTIVE FROM BULGARIA

Maria Gurova

Keywords: *Neolithic, Chalcolithic, Balkan Flint, flint assemblages, macroblades, superblades.*

The paper focuses on the prehistoric flint assemblages from Bulgaria in a multiaspect perspective of raw material supply, techno-typological characteristics and functional connotations. Both Neolithic and Chalcolithic flint industries demonstrate remarkable achievement corresponding to the high level cultural development during the VI and V mil. BC.

The Early Neolithic flint industry is often called ‘macroblade’ due to the fact that a series of formal tools are made on regular blade (10-15 cm). These formal toolkits are very particular from raw material point of view – they are made of so-called Balkan Flint with originating from Nikopol-Pleven district (Upper Cretaceous Mezdra formation of hosted limestones). The formal toolkits are diagnostic feature of the EN Karanovo I (and II) culture in Bulgaria and appear far beyond its border – in a broader scale of the Karanovo I - Starčevo-Criș-Körös cultural unit.

In the second half of the VI mil. BC, during the Late Neolithic a significant microlithization of the flint industry took place, accompanying with declined use of the Balkan Flint and increase of the expedient industries using local raw material resources.

The Chalcolithic period in Bulgaria is known for its numerous manifestations of substantial craft specialisation, technological innovations and hierarchical social organisation and stratification. The flint assemblages being an inherent part of the social and economic novelties during the Copper Age, reached a peak in sophistication and variety of the knapping techniques. Typical examples of a high technological skill are the superblades, found among the grave-goods from the Varna and Durankulak cemeteries (recently Kozareva Tell cemetery could be inscribed in the same context). Outside the mortuary domain, the flint assemblages are interesting primarily for their typological uniformity and functional connotations, being

strongly influenced both by a high quality raw material availability and procurement / exchange mechanisms. The main source for the remarkable Chalcolithic flint industry is the Ludogorie (or Dobrudzha) flint in Northeastern Bulgaria which silica concretions of are hosted in Lower Cretaceous (Aptian) micrite limestones. The flint nodules appear as places deposits and became intensively exploited during the Chalcolithic period.



Flint assemblages: 1 – Early Neolithic artefacts of ‘Balkan Flint’ from the site of Yabalkovo (Haskovo district); 2 – Early Neolithic artefacts of ‘Balkan Flint’ from the site of Kovačevo (Blagoevgrad district); 3 – long and extra-long (superblades) of Ludogorie flint from Varna cemetery (late Chalcolithic Varna culture); 4 – long and extra-long (superblades) of Ludogorie flint from the Tell Smiadovo, hoard I (Photo by M. Gurova)

**CHIPPED STONE ASSEMBLAGE
OF EARLY TRYPOLIE CULTURE
FROM KOZYNA - SOLOVTCHE SETTLEMENT SITE
(TISMENITSA DISTRICT, WESTERN UKRAINE)**

**Andrzej Pelisiak
Taras Tkachuk**

Keywords: *Early Trypolie culture, Kozyna-Solovtche, Chipped industry, technology.*

The site Kozyna-Solovtche, Tismenitsa District, western Ukraine (49°04'93"N; 23°45'12"E) is located on the right-side high terrace of the Dnister river valley (229 m a.s.l.). The small scale excavations carry out in 2009 by Taras Tkachuk has covered the area 7 x 4 m. Beside of 807 flint artefacts, 228 pottery fragments, burnt clay, animal bones, and stone implements were found here. On the base of pottery analysis the relative chronology of this object can be placed within early (A) stage of Trypolie culture. It is a first Trypolie A settlement discovered in the upper part of Dnister Basin.

Both, the blocks of raw material, blank and tools suggest that three kind of raw material was used in chipped production here: Volhynian Cretaceous; Cretaceous flint from Upper Dnister basin deposits, and siliceous marls. In many respects Volhynian flint and Cretaceous flint from upper Dnister basin are similar to each other, and except of nodules, same part of blank and tools it is difficult to distinguish artefacts made of first or second kind of Cretaceous raw material.

The flint assemblage from Kozyna consists of components which confirm all stages of flint production, from the early stage of blade cores preparation to the tools production and renovation. This supposition refers to the utilisation of local Cretaceous flint. The spherical nodules up to 15 cm in diameter were transported to the site and the core preparation, and blade tools production took place here. There are no traces of production of long blades or preparation and utilization of cores which could have been used for a production of long blades in the site in Kozyna. Long blades were transported to the site from outside.

In respect of technology, typology and size of artefact two components were recognized within a group of flake blank and tools in this assemblage. The first group consist of tools and blank of medium size made probably from local Cretaceous flint: end-scrapers, end-scrapers or truncation, truncation, truncation with one edge with polishing, perforator, and blades with polishing on the edge. Blades as well as tools are up to 10 cm long and no more than 2 cm wide. This part of assemblage from the pit in Kozyna refers to the flint industry of Neolithic and Eneolithic Danubian cultures. The second group of flint assemblage consists of much larger blank and tools. Because of there are only fragment of blades and the tools were made of fragmented blades it is difficult to estimate size of blade blank. On a base of width (more than 3 cm) and thickness (more than 7 mm, sometime more than 12 mm) it can be supposed that these blades were much more than 100 mm long. The blade blank and tools of this group were only made of Volhynian flint: end-scrapers, truncations, burin, retouched blades, and blades with polishing or crushing of the edges. There are no tools shaped with regular, parallel trough-like retouch. In respect of size this group of flint artefacts refers to the Eneolithic macro-blade assemblages made of Volhynian flint from western and central Ukraine including Volhynia. Large blades and tools made of large blades have been used by the communities of Late Neolithic and Eneolithic Danubian cultures too including the group of the largest blades from the Varna cemetery in Bulgaria.

The techno-typological composition of chipped assemblage suggests domestic production of blades of local flint raw material. Three kind of chipping techniques were used to the production of blade blank by the early Trypolie culture people in the settlement at Kozyna. Direct percussion technique using hard flint hammer and soft antler hammer had been used to the testing of raw material and early preparation of cores. Direct percussion is confirmed by such attributes as large bulbs and impact cones on the butts on the flakes. Finally preparation of cores was associated with using both the direct percussion (probably soft antler hammer) and punch techniques using probably antler hammer. The blades were manufactured using punch technique and pressure technique (blades are regular, curved, have a lips and clear and convex bulbs, and the lens shaped butts). Flint hammers discovered in Kozyna confirm using both direct and indirect percussion techniques in this site. Large blades of Volhynian flint were made by pressure technique but production of this blank took place outside the settlement.

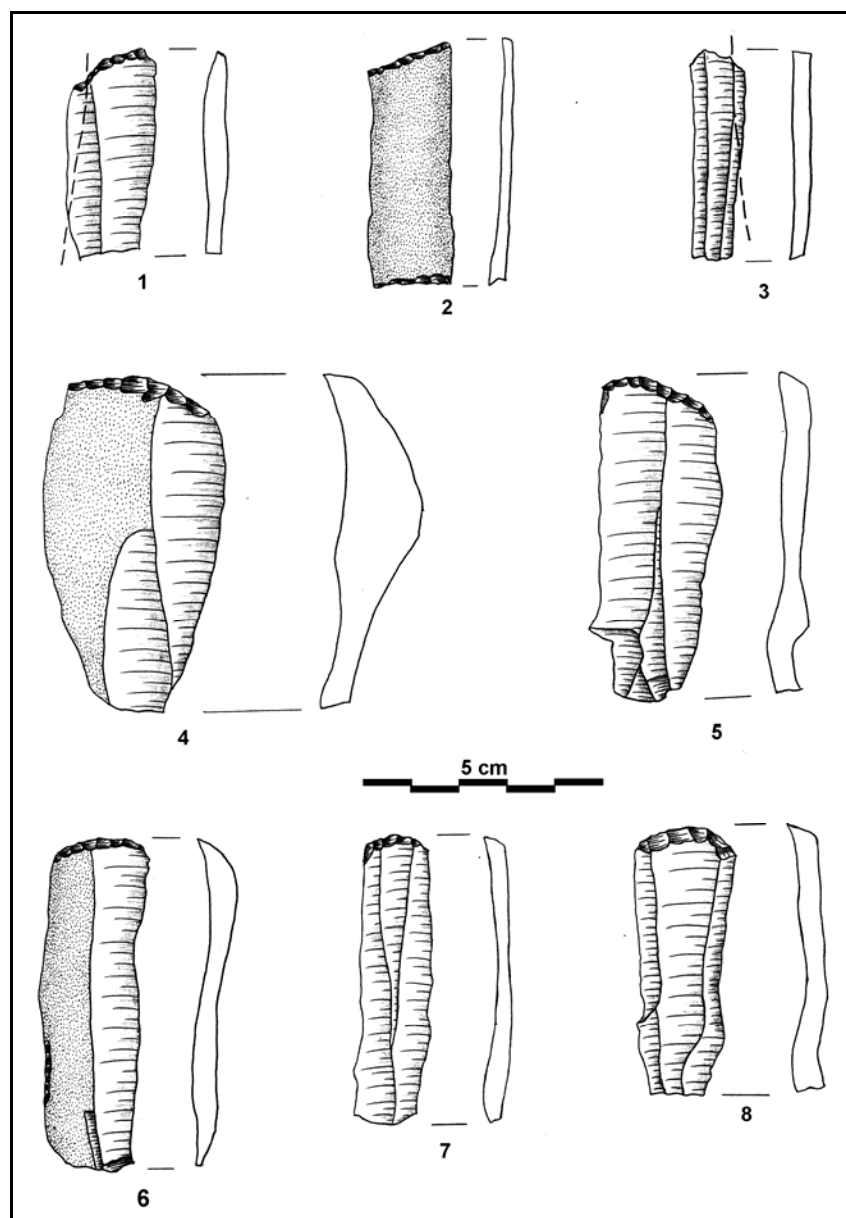


Fig. 1. Kozyna settlement site (Tismenitsa District, western Ukraine).
Selection of chipped artefacts

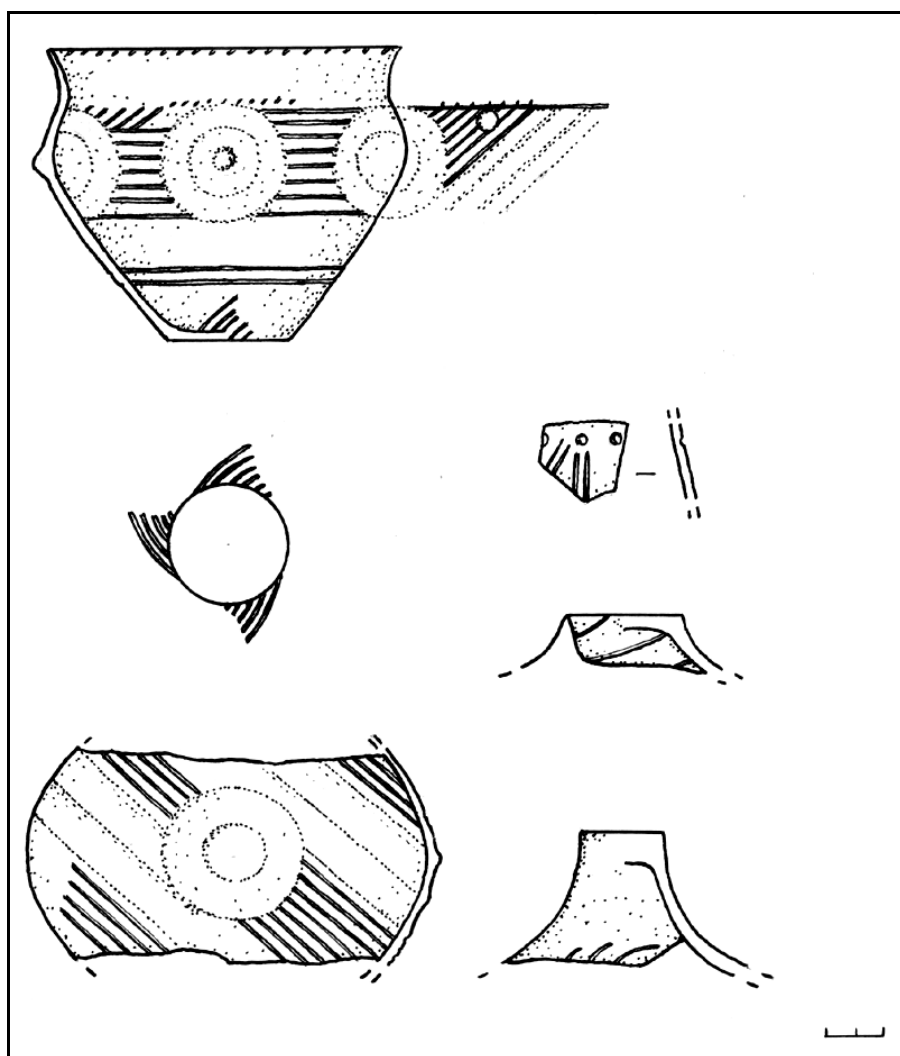


Fig. 2. *Kozyna settlement site (Tismenitsa District, western Ukraine).
Selection of pottery fragments*

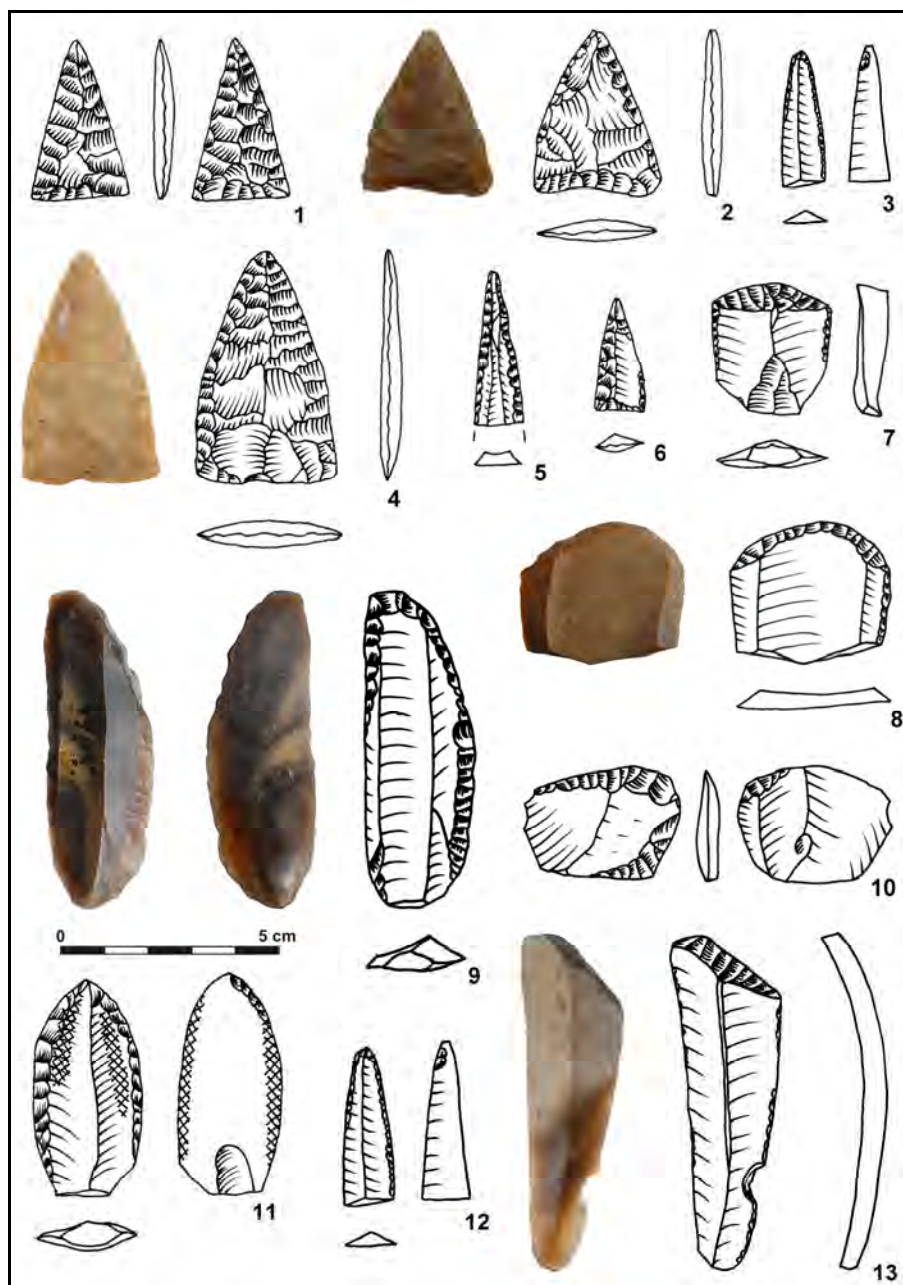
DYNAMISM IN THE LITHIC INDUSTRY: CHANGES IN THE CHIPPED STONE ASSEMBLAGE OF THE ARIUŞD SETTLEMENT

**Katalin T. Biró
Sándor József Sztáncsuj**

Keywords: *Copper Age, Ariuşd, lithic industry, internal development.*

The tell-settlement at Ariuşd (Erősd) – „*Tyiszk-hegy*” is the eponym site of the Ariuşd Group, representing the Transylvanian branch of the Cucuteni Culture. The large-scale archaeological excavations carried out during the past century have identified five habitation levels (with several successive layers) of the settlement, embracing the entire period of the Ariuşd Group. Although the complete results of the excavations have not been published so far, the original sequence of the layers could be identified for a large part of the finds due to the careful field observations made on the site.

Recently the authors started to investigate the chipped lithic material of the settlement. The complete survey of the available lithic finds, hosted in the Székely National Museum (Sfântu Gheorghe) and in the Hungarian National Museum (Budapest), was finished currently, including both macroscopic and geochemical investigations. The investigated lithic material comprises 778 pieces, among them, 541 can be assigned to levels of known stratigraphical position. The current paper will present the typological characteristics and the main tendencies of the development within the chipped lithic industry.



Ariuşd - „Tyiszk-hegy”. Lithic implements from the settlement

LITHIC TOOLS OF THE CUCUTENIAN SETTLEMENT OF PETRICANI (NEAMŢ COUNTY)

Vasile Diaconu

Keywords: *Eneolithic, Cucuteni, Petricani, lithic tools.*

The archaeological site is located in the sub-Carpathian area of Moldavia region, close to the Neamţ depression. Situated in the western side of the Petricani village, on the upper terrace of Topoliţa river, in the spot locally known as „La şcoală” or „Râpa lui Ravaru”. In 1938 a small archaeological survey was carried out in this place, being followed in 1973-1974 by systematic excavations coordinated by Ştefan Cucuş and Dan Monah. The site contains several inhabitation levels ascribed to phases A and B of the Cucuteni culture. There were researched four dwellings belonging to the phase A of the Cucuteni culture as well as remains of dwellings dated to phase Cucuteni B. The results of these researches have not been published so far, except for the anthropomorphic figurines analyzed by Dan Monah.

This paper attempts to discuss the stone tools, a category of pieces that is not very numerous, but it is typologically varied.

The artifacts were generally cut out in flint, but there are also chipped tools made from local rocks (sandstone, shale / schist, marl), which are, though, present only in a rather small percentage (< 5%). Typologically, blades and scrapers prevail, but we also identified numerous processing debris. The finished tools are microliths or have medium sizes.

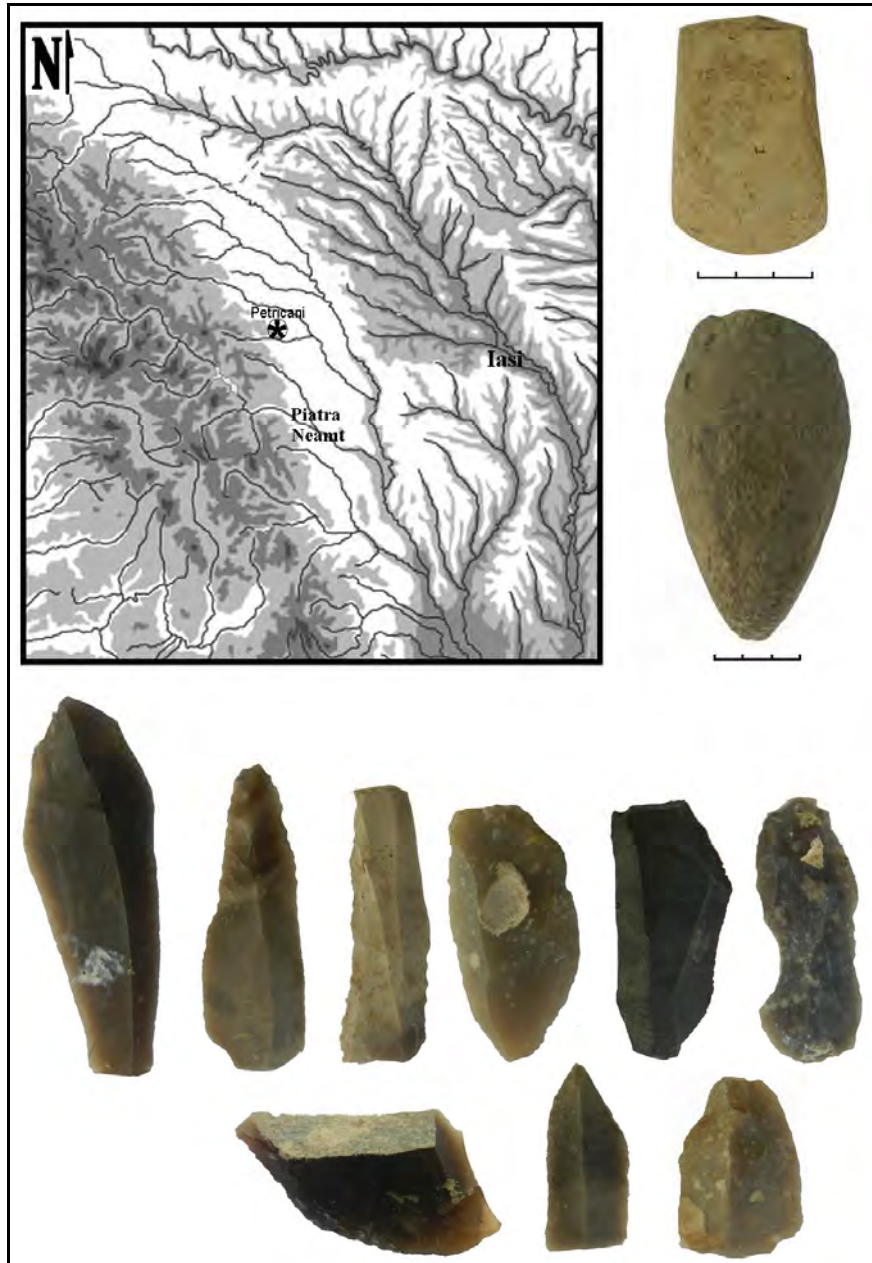
Polished artifacts form a numerous category but many of these items are in different processing stages. The artifacts in this category were made exclusively of local raw materials, marl being one of them, while sandstones were used as well. Adzes, followed by chisels and axes, are typologically, the most frequent tools. Most of them are of medium and small sizes.

Within the settlement, there were also discovered several entire or fragmentary mills made exclusively of local sandstones.

The stone tools of the Petricani settlement are similar to other finds in the sub-Carpathian area of Moldavia. As in other cases, one can notice the usage of qualitative raw material (flint) for the chipped tools while local rocks with medium or low hardness were used for the polished artifacts.

These local raw materials be easily obtained from the bed of the Topolița river or from the geological structure of the nearby hills.

The usage of different raw materials demonstrates that the Cucuteni communities in this area were engaged in exchange activities (possibly with salt, a resource readily available in this region) but also a certain specialization in exploiting local rocks.



Location of the site and different stone tools

**LATE TRIPOLYE (C₂) CHIPPED ASSEMBLAGE
FROM WESTERN UKRAINE.
TECHNOLOGICAL ASPECTS
OF LARGE BLADE PRODUCTIONS**

**Andrzej Pelisiak
Thomas Saile
Maciej Dębiec**

Keywords: *Late Tripolye culture, Biały Potok, chipped assemblage, blade production, technology.*

The lithic material from the Late Tripolye culture settlement-site at Biały Potok (Ternopil Province, western Ukraine) is the base of our study. Chipped stone assemblages of Tripolye culture from this site consist of 4751 artefacts made of Cretaceous silicites (Volhynian flints). They have been documented within three Tripolye culture settlement structures called as a house no 1, 2, 3: 1004 in house No. 1, 3621 in house No. 2, 126 in house No. 3. Majority of these assemblages consist of wastes blade cores preparation and exploitations and blade blank. Much numerous (3621 implements) and differentiated (confirms all categories of waste, blank and tools) is chipped material registered within house No. 2. This assemblage can be strong base to the reconstruction of flint production in the site, both the core preparation, blade production and tools making.

The presence of cortical flakes and flakes with natural ventral surface (both fully and partly covered by cortex or natural surface) and distribution of cortical and unidirectional flakes within a size classes (the larger dimension of flakes the smaller quantity of specimens confirms supposition that all stages of core preparation took place in the area of house no. 2).

The technological aspects of blade production (direct / indirect percussion, pressure technique including lever pressure) can be investigated on the base several basic features (Pelegriin, 2006): regularity and curvature of the blades, length of blades, width of blades, thickness measured in a bulb portion and in mid part of blade, frequency of different kind of bulbs and butts, correlation of different kind of bulb and different kind of butts,

relation of width to thickness measured both in mid part of the blades and in bulb portion, frequency of different kind of butts and bulbs within a group of blades of different width classes. Moreover presence of cracks on the butts and presence of the lips below butt can be suggestive in this respect (Pelegrin, 2006).

The chipped assemblage discovered within house No. 2 confirms two ways of flint production which took place here: (A) traditional domestic production of ordinary blades and (B) highly specialized production of large very regular blades. The ordinary blades were made of semi-globular relatively small nodules of Cretaceous silicite, the regular large blade were made of non-local Cretaceous raw material.

Almost all the large blades discovered at Biały Potok are fragmented. Fortunately numerous proximal fragments with well preserved butt and bulb portions allow for the technical diagnosis. This class of blades comprises the specimens from 20 to 57 mm in width. Moreover they are relatively thick both in bulb and mid portion. In this respect large blades from Biały Potok can be described as massive. Majority of these blades have point-like or conical butts and flat bulbs. The butts are small and thin what confirms that the contact area was set close to the edge of striking platform and flaking surface on the „top of the ridge” formed by flakes detached during the platform preparation. They are more or less regular, their curvature is slight to moderate but some of blades are clearly curved. Small cracks are clearly visible on the small butts. Some of the butts have a distinct arris. Some of the bulbs bearing ripples or / and a lip. The large blades produced here engaged probably two techniques: indirect percussion using copper tipped flaker, and pressure technique using copper tipped intermediary tools. The use of these techniques confirm features as follow: large length of the blades, clear but not extreme regularity of the blades, their differentiated curvature, relatively large thickness both in the bulb portion and in the mid part of the blades, semi-conical butts with small contact points located near the edge of platform and flaking surface, cracks on the butts and extensive or diffuse bulbs.



Fig. 1. *Biały Potok (Ternopil Province, western Ukraine).
Blade core and blades*

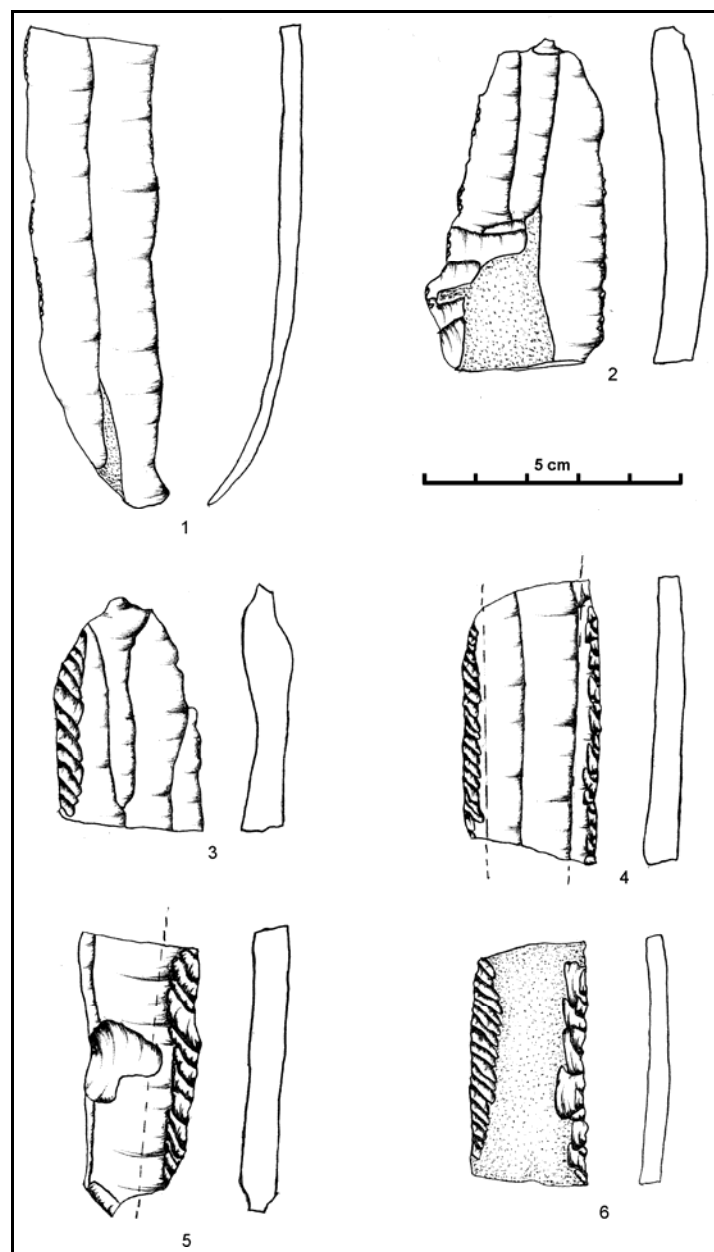


Fig. 2. *Bialy Potok (Ternopil Province, western Ukraine).
Selection of chipped artefacts*

LATE NEOLITHIC / ENEOLITHIC 'BLACK ON RED' PAINTED POTTERY PRODUCTION AND CONSUMPTION IN NORTHERN GREECE

DIMITRA MALAMIDOU

Keywords: *Late Neolithic, Eneolithic, Macedonia-Northern Greece, pottery production, pottery technology, black-on-red pottery, neutron activation analysis, exchange networks.*

The production of richly decorated pottery characterizes the cultures that thrived in south-eastern Europe during the Neolithic-Chalcolithic period (from sixth to fourth millennia BC). The fertile valleys and plains of the Balkan Peninsula were exploited by Neolithic farmers who founded long-lasting settlements and achieved a high level of technological skill, artistic creativity, and social sophistication. During last decades, archaeological excavations and study in numerous sites explore the technological, aesthetic, and social achievements that bound these cultures together, while at the same time reveal the unique qualities of each.

Our presentation is focusing on the 'black-on-red' painted ware, one of the most characteristic typological groups which appeared during the Late Neolithic II in Northern Greece (4800 / 4700 - 3900 / 3800 B.C.). Pottery of this kind is found at settlements in Northern Greece (Thessaly, Macedonia and Thrace). It is one of the most characteristic Neolithic ceramic categories, especially in Eastern Macedonia. This impressive pottery, with a vivid dark-on-light contrast and elaborate decorative motifs, shows a high technical quality, witnessed by its fine fabric, the uniformity of the surface colours, the regularity of shapes, the density and hardness of the vessels' walls. In spite of its early recognition as a diagnostic ware, no previous attempt was made for a systematic classification and very little concern was shown about its production and distribution patterns.

In this paper, we summarise the main results of a study for the techniques and methods for the fabrication of this kind of pottery as well as the production organisation in relation with the place they had within the Neolithic households. Thanks to a multidisciplinary research program, comprising a thorough typological (stylistic) study and a combination of

analytical methods (petrography, *NAA*, *SEM*), we are able to answer questions about the degree of standardisation in the production, localisation of production centres, scale of production, raw material management, and differentiation of ceramic recipes that reflect techno-stylistic micro-traditions within this specific ceramic group.

Furthermore, by examining the spatial and chronological distribution of these ceramics, we discuss matters of provenance and diffusion of these ceramic products as well as some aspects of function and use of decorated pots in the Neolithic socio-economic context. The symbolic and social meaning of these pots for constructing identities is a subject that continues to feed scientific discussions. Using the results of our case study we explore the widely suggested idea that decorated pots had an important role as value objects within the contact and exchange networks between individuals and / or social groups during the Neolithic / Eneolithic period in south-eastern Europe.



Black-on-red vessel

**NOUVELLES DONNEES CONCERNANT L'OBTENTION
DU SEL DE SAUMURE DURANT L'ENEOLITHIQUE:
BRIQUETAGES DECOUVERTS
DANS L'HABITAT CUCUTENI A-B₁
DE ADÂNCATA - DEALUL LIPOVANULUI**

**Ion Mareş
Constantin Aparaschivei**

Mots-clés: *énéolithique, Cucuteni A-B₁, Adâncata, briquetages, recristallisation du sel.*

En 2013 on effectua des fouilles archéologiques d'évaluation le point *Dealul Lipovanului*, la commune Adâncata. A la suite des fouilles archéologiques, on investiga partiellement deux habitations (L.1 et L.2) et on y découvrit de divers matériaux archéologiques: différents types de vaisseaux (amphores, verres, vaisseaux binoculaires, vaisseaux de cuisine etc.), des lames et des échardes en silex, des haches en pierre, des meuleuses, des percuteurs, des frotteurs de pierre, des noyaux en silex, des pics de flèches en silex, des statuettes anthropomorphes et zoomorphes. On récolta une grande quantité de fragments céramiques de différents vaisseaux, certains pouvant être reconstitués. La peinture résista sur quelques fragments céramiques, spécialement sur ceux brûlés secondairement.

Une découverte tout à fait particulière de Adâncata-*Dealul Lipovanului* est un fossé de fondation, surpris en S. I et S. II, C 26, placée à 15 m du bord de la colline, sur la direction SE-NO, à presque 2 m distance du bout des habitations. Le fossé avait une forme elliptique, étant creusé de - 0,30 m, de la base de la couche Cucuteni A-B₁ et dans la terre jaune (stérile archéologique), ayant une profondeur maximale de - 1,05 m.

Une autre découverte significative de Adâncata-*Dealul Lipovanului* consiste dans la présence des fragments de briquetages trouvés dans les deux habitations, dans les espaces et un fossé de fondation. Les fragments de briquetages sont des fonds de vaisseaux avec une petite surface de la zone inférieure du mur. On considéra ces types de vases en terre cuite comme ayant une destination spéciale; on les utilisa pour obtenir le sel de la

saumure, par l'ébullition de l'eau salée; on fit ces découvertes spécialement dans les endroits où se trouvent des sources salinières. On ne trouve pas dans la zone de la commune Adâncata des sources salées, ni des sols salés. Les plus proches points de sel se trouvent à Cacica (à environ 40 km) et à Solca (à presque 50 km). De nos jours, il est certain que les porteurs de la culture Cucuteni inventèrent et utilisèrent les briquetages; on en trouva, d'ailleurs, dans toutes les phases de cette culture. On trouva des briquetages dans un site situé à grande distance des ressources avec eau salée exploitées dès l'énéolithique, dans les dépôts Ariuşd-Cucuteni A de Păuleni-Ciuc, département de Harghita (station archéologique placée à quelques kilomètres de la source de Troţuş, au point *Vârdomb / Dâmbul Cetăţii*, sur une des routes de communication entre la Moldavie et la Transylvanie, entre la Dépression de Ciuc, la Dépression Comăneşti et Moineşti, où il y en a de nombreuses sources salées). On apporta les briquetages, ensemble au sel, de la zone salinière de la Moldavie, probablement, comme on supposa, à la suite de l'échange avec cuivre de la zone Bălan.

Nous avons pris en discussion deux variantes concernant la découverte de tels vaisseaux, qu'on considéra destinés à un but précis, c'est à dire à l'obtention du sel par l'ébullition de l'eau salée et la cristallisation du sel, dans le dépôt Cucuteni A-B1 de Adâncata.

La première serait qu'on apporta les briquetages dans le site de Adâncata d'un endroit où se trouve une source de sel et que ceux-ci furent les vases où on transporta le sel cristallisé; ils en avaient, aussi, une autre qualité: des unités de mesure. On élaborait les briquetages pour un but précis, étant des mesures pour le produit fini (le sel cristallisé). Tous les briquetages découverts dans les points avec des sources de sel sont cassés et leurs fonds ont résisté avec une petite partie du profil des murs. Il est sur que la destination de ces vases était dirigée vers l'utilisation dans les procès d'obtention du sel par la cristallisation de l'eau salée. En ce qui concerne les briquetages de Adâncata, on pense qu'on les obtint à la suite d'un échange économique (troc).

La seconde variante prise en calcul, consiste dans la supposition qu'on apporta l'eau salée dans le site de Adâncata et on y cristallisa une certaine quantité. En ce cas, on aurait pu élaborer les briquetages sur place, comme des unités de mesure pour le sel. Mais le nombre réduit de fragments de tels vases découverts jusqu'à ce moment à Adâncata ne soutiennent pas cette hypothèse. Par conséquent, l'unique explication serait qu'on apporta les briquetages découverts à Adâncata-*Dealul Lipovanului* dans le site Cucuteni A-B1 à la suite de l'échange économique. Les fragments de briquetages ont des dimensions différentes, ce qui suppose qu'on a affaire avec des unités de mesure pour de différentes quantités de sel.

On a documenté le symbolisme du sel et l'utilisation rituelle des briquetages par la découverte de quelques fonds cassés de briquetages dans un fossé de fondation de Adâncata-*Dealul Lipovanului*. La découverte est

unique jusqu'à ce moment par les matériaux découverts dans le fossé de fondation (Fosse 1 / 2013), surpris en S. I et S. II, C. 26, situé à 15 m du bord de la colline, sur la direction SE-NO, à environ 2 m distance du bout des habitations. Le fossé eut une forme elliptique, étant creusé de - 0,40 m de la base de la couche Cucuteni A-B1 et dans la terre jaune (stérile archéologique), ayant la profondeur maximale de - 1,05 m. Pour dévoiler complètement le fossé, on ouvrit la cassette 1 (de m 37,60 à m 39, longue de 1,30 m, large de 1 m). On a découvert dans le fossé des fragments de statuettes anthropomorphes (cassées rituellement, quelques unes ayant des caryopses de céréales et des traces de ceux-ci dans la pâte; après la restauration, on identifia 21 statuettes, certaines étant reconstituées), un idole conique, deux statuettes zoomorphes (têtes de bovidés), sept pics de flèches en silex, trois pics de javelots en silex, sept grattoirs en silex, des lames et des échardees en silex, des pièces rondes en terre cuite avec des signes incisés, des vases différents (certains pouvant être reconstitués), un vaisseau binoculaire fragmentaire, un vaisseau en miniature, un fragment de hache et un provenant d'un petit burin en pierre, une plaque en terre cuite avec une trace d'ongle imprimée dans la pâte, des boules en terre cuite, des noyaux et des percuteurs en silex, un frotteur en pierre, un petit dépôt d'oxyde de cuivre, probablement d'un objet détruit, deux boules en oxyde de fer. Dans le fossé de fondation, on déposa les plus significatives pièces rituelles, parmi lesquels des fragments de briquetages, aussi. On peut mettre les fragments de briquetages en relation avec la pratique de l'ensemble rituel de consécration du site, mais aussi, symboliquement, de la valeur du sel, le vaisseau étant le porteur du précieux ingrédient nécessaire, vital, pour la communauté.

Le site Cucuteni A-B1 de Adâncata-Dealul Lipovanului est situé au bord ouest du groupe de stations archéologiques attribuées à l'aspect régional Drăgușeni-Jura, étant la plus proche des ressources d'eau salée de Cacica et Solca. Il est possible que le site soit placé sur un tracé commercial du sel, sur une route directe, par Cacica-Solca-Dragomirna et ensuite vers les habitats contemporains de la zone Dorohoi et ceux d'au delà du Prut.

En ce qui concerne la céramique de Adâncata-Dealul Lipovanului, certains fragments gardent la peinture avec noir brun sur fond blanc β_1 et δ_1 . Ainsi qu'un vaisseau qu'on peut reconstituer de Lutărie. L'habitat Cucuteni A-B1 (l'aspect Drăgușeni-Jura) de Adâncata-Dealul Lipovanului est l'unique de ce type recherché du point de vue archéologique jusqu'à ce moment dans le département de Suceava. Chronologiquement, celui-ci est contemporain avec les stations de Drăgușeni-Ostrov, Drăgușeni-În Deal la Lutărie, Jura, Krutoborodincy, Duruitoarea Veche, Brînzești IV, Putinești III etc., les découvertes s'encadrant aux alentours des années 3850-3750 av. J.-C.

CUCUTENI - TRYPILLIAN CERAMICS OF THE CI AND CII STAGES IN THE MIDDLE DNEIPER REGION AS THE MAJOR CULTURAL AND CHRONOLOGICAL MARKER

Oleksandr Kyrylenko

Keywords: *Eneolithic; Cucuteni-Trypillia, CI and CII stages, Middle Dnieper Region, ceramic.*

Middle Dnieper as a region inhabited by Late Trypillian tribes. In the west it has a boundary with the cultural and historic region of Eastern Volhynia, which passes along Teteriv River. In the east it connects to the Novgorod-Seversky Polissya, bordered by the lower flow of Desna River and left tributary – Oster River, outlining the contact zone with the tribes of pit-comb ceramics culture. In the North region enters the upper Dnieper at the confluence of Pripyat, where the Neolithic settlement of Pustynka 5 with Trypillian influences is known. Southern border is, probably, connected to the extreme southern limit of distribution of sites of the Kanivska group that are located along the river Ros.

The sites are dated in the range from 3800 / 3600 to 3100 / 2900 BC. Mainly based on ceramic seriation this time was divided into two stages CI and CII, and intermediate phase CI-II. About 150 Trypillian sites are known in this region. Cultural and chronological division allowed the distinguishing of sites of the Kolomyishchyna group that consists of types Kolomyishchyna I, Rzhishchev, Chapaivka and, possibly, Hryhorivka. In the end of CI, during the phase CI-II, there was a bulk Lukashi monuments that disappeared in step CII, perhaps being a base for the formation of the Sophievka local group. This cultural division reflects the main directions of genetic lines, but is conditional and requires more precise local-chronological division.

The changes in the ceramic styles, starting from Kolomyishchyna I and ending at the latest Sophiia complexes, were caused by several processes. The beginning of the stage CI is characterized by continuation of traditions of the East Trypillian culture. Mainly this could be seen in technology of the ceramics production. Along with the use of festons and hemispherical arcs,

that form a multi-ornament tradition in Kolomyishchyna, a simplification of mortise ornaments observed, spiral gradually decomposes, the motives of „world tree”, metope and solar signs appear. This is noticeable in later Chapaivka sites. Along with the traditional ceramics, black and burnished vessels appear, gradually increasing in quantity, which probably indicates the influence of cultural traditions of Culture of the Volyno-Lublin painted ceramics, Malitsa and Funnel Beaker Culture. At the same time the percentage of kitchen ceramics increases. Local painted dishes, traditionally being in the small quantity, were complemented by more qualitative West Trypillian ceramics, which entered the region with the populations of Kanivska local group that influenced Rzhishchev and earliest Lukashi population (Рижов, 2007).

In Lukashi sites of the phase CI-II that mark the transition from the tradition of developed Trypillya to the late one, the incised ornamentation on the „table” pottery with additives is finally simplified, East Trypillian technology is almost completely replaced by black and burnished ceramics, in conditions of significant increase in quantity of kitchen pottery. Taking into consideration the territorial and chronological differentiation and other cultural pulses increasing, experts identified particular types within the entire group as Pidgirtsi II (Видейко, 2002).

Sophievka group that has been earlier recognized as a homogeneous cultural phenomenon, obviously had a more complex structure, conditioned by long existence and mixture of various cultural traditions. Ceramics of earliest sites such as Kurulivski Vusotu heights are different from late Lukashi, and obviously associated with Brynzeno-Zhvanetskiy traditions which came in Kiev Dnieper region in transit through Volhynia and Podolia. This is indicated by red painting on the „kitchen” ceramics, shape and incised ornamentation. Later sites that are mostly spread in the Eastern bank of Dnieper received a significant cultural influence from the populations of Pyvyha type.

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VASE AUX REPRESENTATIONS SACREES PEINTES LIE DU SANCTUAIRE A ETAGE DANS L'ETAPE CUCUTENI B1 DE PODURI-DEALUL GHINDARU

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Constantin Preoteasa
Ciprian - Dorin Nicola

Mots-clés: *Chalcolithique, Cucuteni B1, Poduri-„Dealul Ghindaru”, sanctuaire à étage, vase aux représentations sacrées peintes, „arbre de la vie”, représentations zoomorphes, bovins, félidés.*

Au cours de 2006, suite aux recherches archéologiques systématiques, effectuées sur le tell chalcolithique de Poduri-Dealul Ghindaru, dans la cassette C (Cas. C) ont été découverts les vestiges d'une sanctuaire à étage daté Cucuteni B1 et présentant un inventaire particulier, qui a été utilisé probablement vers les années 3800 / 3775 B.C.

Parmi les restes incendiés de cette construction, à côté d'autres artefacts, on a également identifié en état fragmentaire le vase grand faisant l'objet de l'étude en question (fig. 1).

Travaillé en pâte semifine, brûlée oxydant, de couleur rouge-brique, celui-ci présente des traces d'une seconde combustion. Il a les bords évasés, le corps bitronconique et le fond légèrement concave. L'épaule en présente quatre proéminences coniques symétriques et le long du diamètre maximal deux proéminences, également coniques, ainsi que deux anses verticalement perforées. Le décor du vase est constitué des motifs peints en blanc ou brun sur un fond blanc-jaunâtre. A part les motifs géométriques (lignes, bandes, spirales, oves, triangles) spécifiques à l'art décoratif cucuténien, on remarque en surface autres cinq représentations stylisées particulières, qu'on pourrait considérer comme sacrées, soit deux bovins, deux félidés (représenté en attaque) et un „arbre de la vie” ramifié (fig. 1; 2/1-4).

Il est bon à savoir que „l'arbre de la vie” représente „un axe du monde”, réunissant les trois niveaux de l'univers, c'est-à-dire le ciel, la terre et le monde souterrain, alors que les bovins et les félidés sont considérés comme des animaux sacrés, symbolisant la force, la puissance, tout comme la fécondité ou la fertilité.

Vu cette association des symboles, nous avons demandé si le potier cucuténien n'a pas eu l'intention de rendre ainsi une scène rituelle de chasse.



Fig. 1. *Vase aux représentations sacrées peintes*



Fig. 2. Représentations sacrées peintes:
 1 – bovins; 2, 4 – félidés; 3 – „arbre de la vie”

CLAY FIGURINES IN MORTUARY CONTEXT IN THE NEOLITHIC AND COPPER AGE OF THE WESTERN, NORTH-WESTERN AND NORTHERN BLACK SEA REGIONS: DISPARATE PHENOMENA OR CONSEQUENT EPISODES ?

Stanislav Terna

Keywords: Neolithic, Copper Age, Black Sea region, clay figurines, mortuary context.

Necessary explanation

This paper deals only with clay miniature figurines in mortuary context. Anthropomorphic pendants of bone (Varna, Ruse, Sultana), *Spondylus* (Durankulak) or gold (Rákóczfalva - *Bagi-föld*, Magyarhomorog, Vel'ké Raškovce, Durankulak, Varna, Vărăști) build a separate group of anthropomorphized personal adornments and therefore bear a distinct function. The analysis of this function would represent the scope of another study and goes beyond the limits of the actual presentation.

Introduction

Since the very moment of their first discovery and publication, the outstanding anthropomorphic figurines of the Neolithic and Copper Age communities of South-Eastern Europe have been an archaeological enigma. Despite of more than a century of research and hundreds of scientific studies, archaeologists still do not have a common and unanimously accepted answer to the main questions beyond these miniature objects – which was their function, how and why they were used? One main archaeological tool that could help us in getting somehow closer to solving this intriguing mystery is the study of the context of their deposition or discard. Contextual studies actually represent a very positive trend developed in European archaeology over the last few decades, with some interesting results. However, researchers have been focused mainly on settlement context. At the same time, figurines occur also in funeral setting and the study of the figurines associated with graves can produce some specific and interesting observations on the use of statuettes in a separate, mortuary domain.

In the Neolithic and Copper Age mosaic of South-Eastern Europe, it is possible to outline two main geographical and chronological clusters, reflecting the distribution of graves with figurines.

Cluster one: the Western Black sea region

This cluster is represented by funerary sites, belonging to three main cultural units: the Late Neolithic Hamangia culture, Early Copper Age Varna culture and Kodjadermen - Karanovo VI - Gumelnița complex. Only in Cernavoda and Durankulak necropolises placing of figurines in graves seems to be a repetitive practice. The full publication of the Cernavoda necropolis is still missing; on the other hand, a detailed and comprehensive publication of Durankulak has made possible carrying out an analysis of the distribution of figurines within the site and a study of different aspects, bound with their presence in the graves of the necropolis. It has been determined, that figurines served as an exponent of the status of an individual, and their diversified use accompanied the substantial social transformations on the transition from Neolithic to Copper Age. Hamangia complexes are represented by graves of adults (predominantly females) with figurines and cenotaphs with figurines, while the Varna complexes are represented exclusively by cenotaphs with figurines. Both in Hamangia and Varna phases, the average quantities of ceramic vessels and different adornments per grave for complexes with figurines is considerably higher than for the rest of the graves of the necropolis, with no figurines. Also, some rare and unique artefacts (eq. *Zauber Knochen*, horn „sceptre”) have been found in association with figurines. In spatial terms, both in Hamangia and Varna phases, graves with figurines were concentrated in the „richest” sectors of the necropolis. It seems that the persons buried with figurines were belonging to a high class of Durankulak society. Another interesting phenomenon both at Hamangia and Varna stages is the presence of cenotaphs, with figurines playing different roles: part of funeral inventory (Hamangia) and „substitute” of the human skeleton (Varna).

Cluster two: the North-Western and Northern Black Sea regions

The second cluster includes flat and barrow burial complexes of Hadžider - Cernavoda I, Tripolie C2 (Vâhvatini, Sofievka), Usatovo and steppe „Serezlievka” cultural units. Here, with some exceptions, figurines are usually associated with inhumations of children, but cenotaphs are also known. The differences in inventory between the graves with and without figurines are not as high as in Durankulak. A slightly higher concentration of adornments in complexes with figurines from Vychvatincy burial ground and a concentration of copper pins in the graves with figurines from Maiaki necropolis are to be mentioned, but these associations could well be the result of an insufficient state of research. In the Usatovo cultural unit, strong differences between the ornamentation of figurines from Usatovo and Maiaki are to be noticed, which could reflect not just different chronological

positions, but also appurtenance to separate social units (tribes ?), with the stylistic parameter of figurines playing a role in the identity reproduction and display. Another striking component of the second cluster is built by the steppe burials with figurines, marking a new level of interaction between the steppe population and the forest-steppe late Tripolie groups.

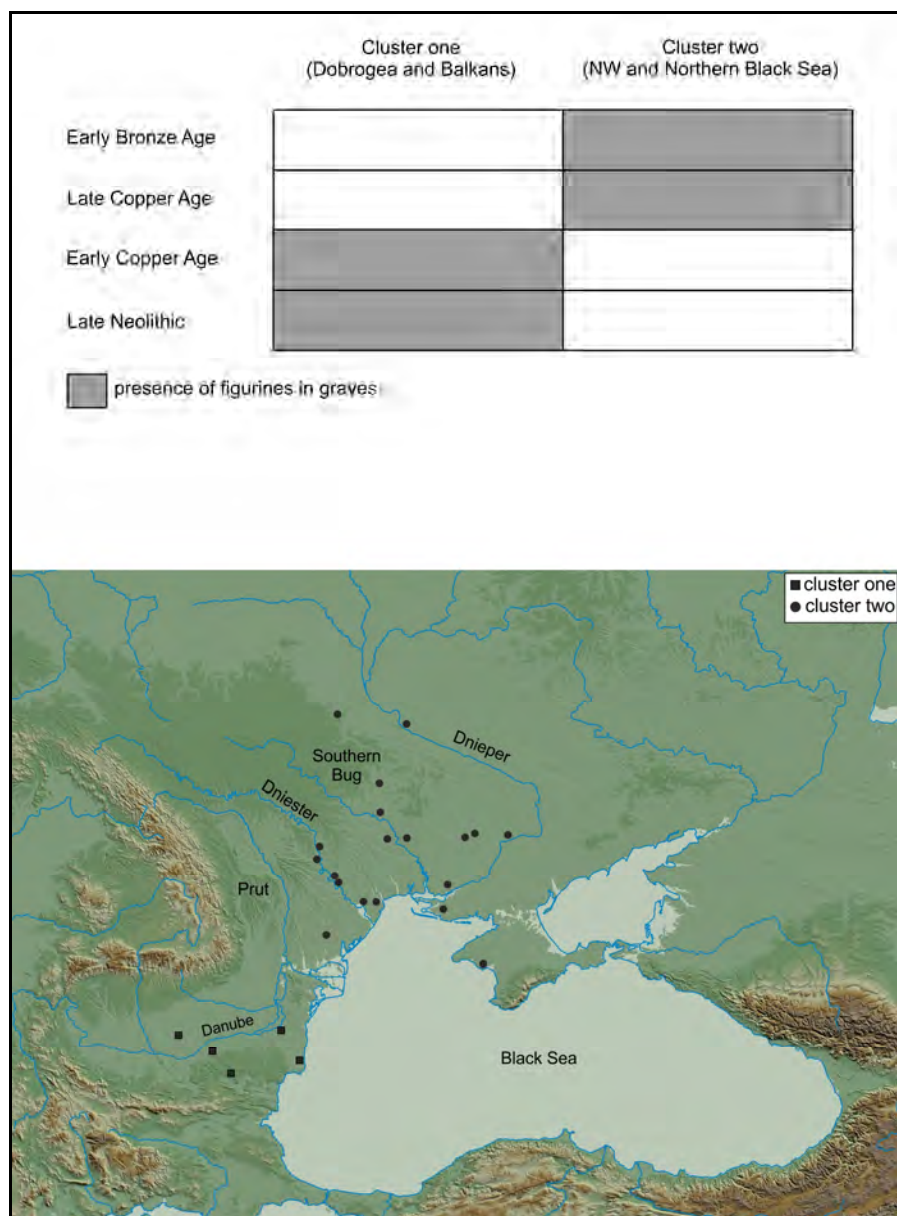
Disparate clusters or consequent episodes ?

The main questions for the two clusters defined and presented above are the relationships between both components of a cluster and the clusters themselves. Within each cluster, the situation is quite clear: the Hamangia-Varna and Hadžider-Usatovo-Tripolie C2-„Serezlievka” relations are quite well researched and underlined in archaeological studies (in my opinion, the local continuity would represent a reason behind the ongoing tradition of placing clay figurines in Varna stage of Durankulak necropolis). The problems start at the stage of identifying possible relations between the two clusters. In other words, the question would be: is the presence of figurines in the mortuary domain of Western and North-Western / Northern Black Sea regions a single developing tradition or we are dealing with two separate and individual phenomena? Here, one could bring arguments both pro and contra such hypothesis.

The pros would be provided by the chronological and geographical distribution (see illustration), with the earliest complexes with figurines located in the Western Black Sea region and latest ones spread in the Northern Black Sea region, building up a common geographical (towards north-east) and chronological vector and thus reflecting a possible tradition, starting from Durankulak and finishing in the steppes. The arguments contra are supported by noticeable differences between the two clusters, both in age / gender of deceased and the inventory types and „richness”. There are no „figurine burials” in the second cluster; on the other hand, in the first cluster they are limited only to Varna burials.

The discussion remains open. A possible candidate for providing the link between the two clusters would be the Cernavoda I culture, taking into account its possible Balkan origins (Igor Manzura, Lolita Nikolova). The opposition between the classical farmers of KGK VI and the former farmers that stood behind the formation Cernavoda I could be a reason that provoked the inversion of the tradition, manifested in the above-listed differences between the characteristics of two clusters. At the same time, we still do not have graves with figurines in the „classical” Dobrogean Cernavoda I setting. Also, the chronological relation between Cernavoda I and Usatovo cultural units is now being reconsidered, basing on new radiocarbon dates and stratigraphical evaluations.

I am pretty sure that future research, including new excavations, publication and reassessment of older material will help us to better understand, define and interpret the phenomena of placing figurines in mortuary context in the South-Eastern European Neolithic and Copper Age.



Presence of figurines in graves

STONE IDOLS BELONGING TO THE PRECUCUTENI CULTURE, DISCOVERED AT OLTENI - *THE SAND QUARRY*, COVASNA COUNTY

**Dan Lucian Buzea
Adela Kovacs**

Keywords: *Eneolithic, Precucuteni, Transylvania, Olteni, idols, stone.*

During 2001 and 2010 National Museum of the Eastern Carpathians coordinated preventive archaeological researches at Olteni site, Bodoc commune, Covasna County. From this site a considerable lot of artefacts belonging to the plastic representations were recovered, like anthropomorphic and zoomorphic idols, statuettes, small altar tables. The objects were made from different materials: clay, stone and come from different contexts, as pits, dwellings, ditches.

This presentation is about five stone objects, considered as idols „*en violon*” discovered in precucutenian contexts.

In Precucuteni and Cucuteni cultures area such idols, with „*en violon*” shape, discovered so far, were made of clay, metal (copper and gold), antler and very rare of stone. The stone idols discovered at Olteni-„*The Sand Quarry*”, Covasna County, can be assigned to stylised idols of „*en violon*” type or to masculine (?) type, filling the repertory of this kind of idols in the precucutenian area.

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Olteni-„The Sand Quarry”. Stone idol (Precucuteni culture)

ON THE PROBLEM OF INTERPRETATION OF THE NEOLITHIC ANTHROPOMORPHIC CLAY SCULPTURE: FIGURINE SETS – THEIR STRUCTURE, FUNCTIONS AND ANALOGIES

Ilya Palaguta

Keywords: *Neolithic, Cucuteni-Tripolye, anthropomorphic representations, art, interpretation.*

The problem of an anthropomorphic statuettes interpretation is the most actual in the studies on the *European Neolithic Art* (7000-3000 BC). Over the XX century the interpretation of such pieces of art was mainly based on antecedent concept of ties between statuettes and fertility cults and also perceptions about primordial *Great Goddess*. The failure of speculative hypotheses initiated the search for new areas of research, particularly, in the studies on the figurines iconography and on their place in the social and cultural context.

From this perspective, the most informative are 'closed' assemblages, which represents by sets of figurines. There were two of such sets analyzed, that were found in the settlements of the early period of Cucuteni-Tripolye culture: Poduri and Isaiia in Romania. Both sets were found in vessels, and included 21 seated statuettes, differing in size, shape and decorations, and 13 miniature chairs. The analysis of the statuettes iconography shows that the kits includes 6 male and 7 female figurines, seated on 13 chairs, and 8 figures without chairs (female and of uncertain sex).

Analysis of finds series shows that from 5-6 to more than 30 the same figurines with small chairs included in the same sets were used in other Tripolye A - Precucuteni settlements: Aleksandrovka, Timkovo, Bernashivka in the Ukraine, Aleksandrovka I, Isacova II, Putinești I in Republic of Moldova, Târpești and Traian-Dealul Fântânilor in Romania etc. It is possible that sets were recoverable things and have some exact specific functions. According to mouth image of big figurines, they should communicate with each other and with viewer in process of using.

These sets might designate one group of personages that organized on the hierarchical principle, similar to the hierarchy of social groups. Such sets were used in other settlements of this period. Such figurine sets were regularly reproduced during about 400 years when bearers of Tripolye-Cucuteni tradition settled on a large area to the east of the Carpathians.

In conditions of differentiation of groups and development of new territories, figurines sets might represent the group of ancestors, common to the whole population. Functions of the sets can be defined in the field of ancestor worship and their application in the initiations and / or in mantic practices is also possible. Discontinuation of such sets associated with changes in ideology on the next stage of culture development.

The cult of ancestors and ancestor's images in various forms are represented in the world anthropology and they are important part of spiritual culture of traditional societies. An analysis of antique, particularly Roman material gives close structural analogies to the European statuettes of the Neolithic Age. In extant texts is mentioned the whole group of gods associated with house and family: *Genii Familiae*, *Lares Familiares et Compitales*, *Penates*. They are mentioned in a lot of surviving texts of Roman and Greco-Roman authors: Marcus Porcius Cato, Marcus Terentius Varro, Dionysius of Halicarnassus, Titus Livius, Publius Vergilius Maro, Marcus Tullius Cicero, Petronius Arbiter, Plutarch, Publius Ovidius Naso, Sextus Pompeius Festus, Arnobius of Sicca, Ambrosius Theodosius Macrobius and others. Historiography of researches devoted to such cults is also numerous.

Considering that fact that all of these sources came from the latest periods of Classical Antiquity (from II-I centuries B.C. and to the IV-V centuries A.D.) as the main figural material (from the period of I century B.C. to I century A.D.) no wonder that concepts of *Lares* and *Penates* are „multilayer“, refracted through the prism of time, through changes in beliefs in accordance with the development of society, and would also include those representations that have developed in the framework of other, non-Roman cultures. As suppose the number of researchers, cults of such gods date back to honour of family or community ancestors.

The iconography's research of "household" gods shows tie between *Lares* and house. Figurines and images of *Lares* are usual placed on *Lararium* (hovel, often framed by a portico) a kind of house model. Some features of *Lares* and *Penates* cult and it's iconography give base to draw a parallel between *Lares* and *Penates* and certain groups of the early-agriculturalist statuettes, which can be interpreted as character's images connected with ancestor's cult — either a direct ancestors or general mythology ancestors of ethnic group.

Consequently there is a whole range of parallels between abovementioned materials of different epochs. First of all — analogies of expression form, mostly in figurines or in compact images used for interior

demonstration. Secondly it is very important to mentioned domestic context of images, which linked with household, family and lineage. And one more: „sociality” of personages, anthropomorphic figure, composing of organized groups. All these facts show ties between personages and concrete items of human communities.

Of course it is futureless to notice here direct parallels: too far apart distances between cultures which don't have obvious connections, both in terms of belonging to single language families, and from the standpoint of cultural continuity. But here it is possible to speak about one semantic area. This semantic area includes concepts about real and mythological ancestors and genius-spirits protected houses and territories. This field is relevant and reflected in different ways, sometimes when there is no any direct links between cultures. It is in this broad field, in our opinion, should pay attention to the further development of interpretation of *European Prehistoric Art*.

MASK IN THE CULTURAL COMPLEX CUCUTENI - TRIPOLYE. SIMILARITIES AND DIFFERENCES WITH OTHER CULTURES

**Gheorghe Lazarovici
Cornelia - Magda Lazarovici**

Keywords: *Chalcolithic, Cucuteni-Tripolye, Vinča, Gumelnița, mask.*

Analyzing various aspects of the spiritual life of prehistoric communities in the Romanian space we naturally were interested by the mask. Mask (artifact of different materials or figurative representation), *was performing magical or cultic functions during ceremonies or rituals in primitive societies (DEX on line).*

Until now we have only partially addressed this problem, given the large number of existing pieces or representations. This required creating a typology, which may be incomplete at this time, because we did not yet, investigated all the literature, but offers some very interesting information. For the cultural complex Cucuteni-Tripolye we have used the book published by Dan Monah related to the anthropomorphic plastic art. On the future we should bring more data related to Tripolye area (published after the printing of Dan Monah book) and update those for Cucuteni area too (we have in mind the more recently publications). Since the head and face are often full stylized, some types dominate, others occur rarely in small series, or just those are the most varied.

From the thousands of idols studied by D. Monah, for more than 470 (representing ca. 10%) (Monah, 1997) the head was preserved; for 436 of these could be established a kind of mask: on 279 are marked eyes, mouth for 25, and for 68 the ears (in our database we have over 2300 registrations related with different cultures and for over 950 was codified the head and the mask). There are differences between the shape of the head and mask, but the study should be done on one or more sites to have detailed information about the conditions of discovery, to find the cultural series that must be compare with chronological series (we have in mind the analyze of Scânteia

anthropomorphic idols (over 800) and Ruginoasa (circa 200) for which we have direct access, materials being published or very close to be published).

We will present in this paper the types of idols mask but also other representations of masks. We must point out that the coding work has not ended yet and at the moment we insisted especially on the main types. It was necessary an initial analysis. Based on this we have found the need to diversify coding principles, their meanings, and a growing number of realistic variants or small series. Also are needed other criteria such as gender analysis, influences of surrounding areas in advanced stages, mutual contacts with Gumelnița culture, Vinča influences, requiring the extension of our study in other cultural areas.

The analysis conducted so far have established some correlations with neighboring cultures, especially with Gumelnița, common or different elements compared to different phases of Vinča, and other civilizations of Transylvanian space or Old Europe.

Reference:

Monah, D., 1997, *Plastica antropomorfă a culturii Cucuteni-Tripolie*, ed. I, *Bibliotheca Memoriae Antiquitatis*, III, Editura „Constantin Matasă”, Piatra-Neamț.

**LES STATUETTES ANTHROPOMORPHES –
REPRESENTATIONS ARTISTIQUES, OBJETS DE CULTE
OU BIEN REQUISITES RITUELLES ?
QUELQUES REMARQUES RELATIVES
A LA PLASTIQUE ANTHROPOMORPHE DECOUVERTE
DANS L'ETABLISSEMENT DE MALNAȘ BĂI**

Attila László

Mots-clés: *Enéolithique, Ariușd-Cucuteni, Malnaș Băi, statuettes anthropomorphes, fonctionnalité.*

Cette communication nous présente des statuettes anthropomorphes – encore inédites – découvertes dans l'établissement appartenant à la culture Ariușd-Cucuteni depuis la commune Malnaș Băi (dép. de Covasna). Il est question notamment des principaux types dans la restitution du corps humain, la technique de modelage et de finissage des statuettes, l'état de leur conservation, les circonstances d'enterrement et de découverte, ainsi que la signification de la plastique anthropomorphe. On s'accorde que les statuettes témoignent généralement d'une part le sens esthétique présent chez l'homme préhistorique (les plus belles pièces étant de vrais chefs d'oeuvres) et de l'autre tout un univers de croyances et de rituels auquel elles sont reliées d'une manière plus ou moins précise. Ainsi, certaines statuettes auraient pu accomplir à long terme la fonction d'objet-symbole des forces vénérées dites *idole*, alors que d'autres auraient servi plutôt comme des *réquisits* destinées à l'usage unique au cadre des rituels. Une approche particulière repose sur l'abandon des statuettes et leur état au moment de l'enterrement. Nos remarques concernant la technique de fabrication, l'état de conservation ainsi que les circonstances de découverte des statuettes anthropomorphes depuis Malnaș Băi nous a fait conclure que, avant même de leur placement, une partie en a été soumise à un processus de fragmentation expresse et que certaines en ont été construites et assemblées de telle manière à être ultérieurement facile à se casser suivant un modèle établi à l'avance.

**METAL INSERTS
IN THE CUCUTENI - TRIPOLYE PLASTIC ART.
CASE STUDY: THE ANTHROPOMORPHIC STATUETTE
OF CUCUTENI - CETĂȚUIE**

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Maria Geba
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Keywords: *Eneolithic, Cucuteni-Tripolie, Cucuteni-„Cetățuie”, anthropomorphic plastic art, metal inserts, XRF analyses.*

The main objective of the paper is the presentation of a special type of ornamentation of the anthropomorphic plastic art belonging to the cultural complex Cucuteni-Tripolye, the metal inserts. The item which allowed this remark belongs to the habitation assigned to phase A of the pluristratified site on Cetățuie Hill of Cucuteni. It was published in the monograph of the settlement without pointing out this unusual method of ornamentation.

Macroscopic observations were confirmed by chemical analyses achieved through XRF (X ray fluorescence) analyses. The analyses of the elements (composition) allowed pointing out an insert with a high amount of copper.

The purpose of this method of ornamentation was first of all an aesthetic one, the metal insert representing the central part (the pendant) of a particular type of neck ornamenting item, belonging to the category of those previously defined by us as implicit representations. The association with incised spiral ornamentation and the role of metal in the cultural and social processes during of the epoch the elaboration of this item allow us to consider that the symbolic valences attached to the respective ornamenting item and, consequently to the anthropomorphic statuette which was decorated in this way were absolutely special.

Pointing out certain directions of interpretation of the unique artefact as well as the identification of analogies or symbolic similarities form the other objectives of our presentation.

**THE ANTHROPOMORPHIC AND ZOOMORPHIC
PLASTIC ART DISCOVERED
IN THE CUCUTENIAN SITES
GIURGEȘTI - *DEALUL MĂNĂSTIRII*
AND COSTEȘTI - *CIER***

**Sergiu - Constantin Enea
Dumitru Boghian**

Keywords: *Eneolithic, Cucuteni, Costești, Giurgești, anthropomorphic and zoomorphic plastic art, cult accessories, social indicator.*

The category of anthropomorphic, zoomorphic plastic art representations from Eneolithic in the Danube-Carpathian area represent the most discussed sides of the creations of the human communities, after the painted ceramics, with connotations insufficiently deciphered, despite the numerous studies of the specialists. In the present work, we are going to analyze the plastic representations discovered in the Cucutenian sites from Giurgești-*Dealul Mănăstirii* and Costești-*Cier*, in the older research campaigns (1937-1942), through surface research and the new investigations (2012-2014).

We are dealing with three batches of anthropomorphic and zoomorphic statues and other artefacts with plastic representations of this type (protomes, anthropomorphic and zoomorphic pots, plastic applications), unequal in number, two Cucuteni A3 (Giurgești and Costești) and one Cucuteni A-B2 / B1 (Costești; it is a unitary living level, which starts at the end of Cucuteni A-B2 phase and continues with the beginning of Cucuteni B phase), which were analyzed and presented according to the general criteria which are specific for the technological, functional chains as well as for the research chains (*chaîne opératoire*) of this type of artefacts: finding conditions, typological classification, primary morphological analysis – raw materials and modelling, wood selection and shaping, decoration; elements of functioning and abandon; semantics / significance, establishing the cultural-chronological framing and the analogies which can be drawn from the present level of research.

We specify that the materials coming from the previous research and can be found disseminated at different institutions, while others were published in different works. Their integrated reunion and rehash, together with the pieces obtained from the new research, coming from well determined archaeological situations, contribute to a better understanding of these creations with powerful magical-religious connotations.

From a typological perspective, the authors have adopted a system based on the reunion / association of the criteria met in literature closest to the concerned domain (mostly Romanian, Russian and Ukrainian), giving punctual explanations to the particular representations. At the same time, reanalyzing the batches coming from older discoveries through the archaeological observations made within the recent research, the rehash of the typological and cultural framing of some artefacts was possible.

As for the manufacturing technology, detailed observations related to the used raw materials were made, ways of modelling, finishing and decorating, for each Cucutenian dwelling site and phase. A special place was set aside to discuss the ways of manufacturing the artefacts by different craftsmen, in special phases being probably caused by the demand during the rites as well as by the intended / accidental cult fragmentation of these types of pieces.

Highlighting some technological details and particularities of these Cucutenian artefacts, an emphasize on the explanations and the interpretation of some more or less accurate technological gestures was expected, which might have been related to the type of production (unique, small series, big series) to the place and the importance of different categories of artefacts, based on different functions of the statuettes.

Where it was possible, the problems related to the function of the plastic representations, their „abandonment” and their post-depositional (taphonomic) track for a thoroughly understanding of the artefacts’ biography were discussed. The big number of the anthropomorphic and zoomorphic statues which have been discovered until present, in the two sites, but especially at Costești, for the dwelling Cucuteni A-B2 / B1, seems to be related to the specific of this site, which probably functioned as microzone pottery centres from where the nearest Cucuteni people used to get their cult objects (*paraphernalia*).

Based on the archaeological situations, we consider that all the Precucutenian and Cucutenian, anthropomorphic and zoomorphic plastic representations were used as *paraphernalia* / accessories in the domestic and / or community sanctuaries, in a multitude of situations the more so as such artefacts were discovered associated, within some well-known cult complexes. Others, especially *en violon* idols, had the role of some ward off evil amulets, to protect the Eneolithic individuals while facing the destiny. In the context of the conceptions about the existence of a sacred world or the

so-called „world division”, the plastic art had a certain cult role, with social reflexes, talking about the communities which created it.

The cult destination / function of these artefacts, especially of the anthropomorphic ones speaks clearly enough about the decoration of the statues, having elaborate systems of signs and motifs, among which elements of clothing and footwear are suggested to complete the divine / ritual nudity, and occupy a special place in the complex cultural and communication codes within the Eneolithic world. Furthermore, the representation of clothing, with all its complementary elements: attitude, hair style, ornaments, appropriate body paintings have represented an important social indicator, both in the prehistorical and traditional societies and in the contemporary ones, suggesting collective identities and individualities, with a complex social and cult resonance.

Taking into consideration the very tight relationships and the interaction between kingdoms, the human-animal solidarity, met with the Neolithic and Eneolithic mentality, we consider that the zoomorphic Cucutenian plastic representations, as well as the zoo-anthropomorphic ones, can also be framed in the category of cult artefacts, used in different magic and religious practices, domestic and community, of passing and according to the calendar.

The discoveries from Costești-*Cier* and Giurgești-*Dealul Mănăstirii* contribute to the casuistic, fact and hermeneutic enrichment of the Cucutenian plastic representations and not only. For the Cucuteni A3 phase materials, the closest analogies are found in the proximity contemporary sites, from Cucuteni-Băiceni - *Cetățuie*, Ruginoasa-*Colina (Dealul) Drăghici*, Hăbășești-*Holm*, Fedeleșeni-*Dealul Cânepăriei*, or within a larger space of the Cucutenian East-Carpathian sites. As for the artefacts Cucuteni A-B2 / B1, the analogies for the discoveries from Costești are found in the sites Cucuteni-Băiceni - *Cetățuie* (the level of dwelling Cucuteni A-B2 / B1), Buznea-*Siliște / După Grădini*, Ghelăiești-*Nedeia*, as well as in other sites dating from the same period.

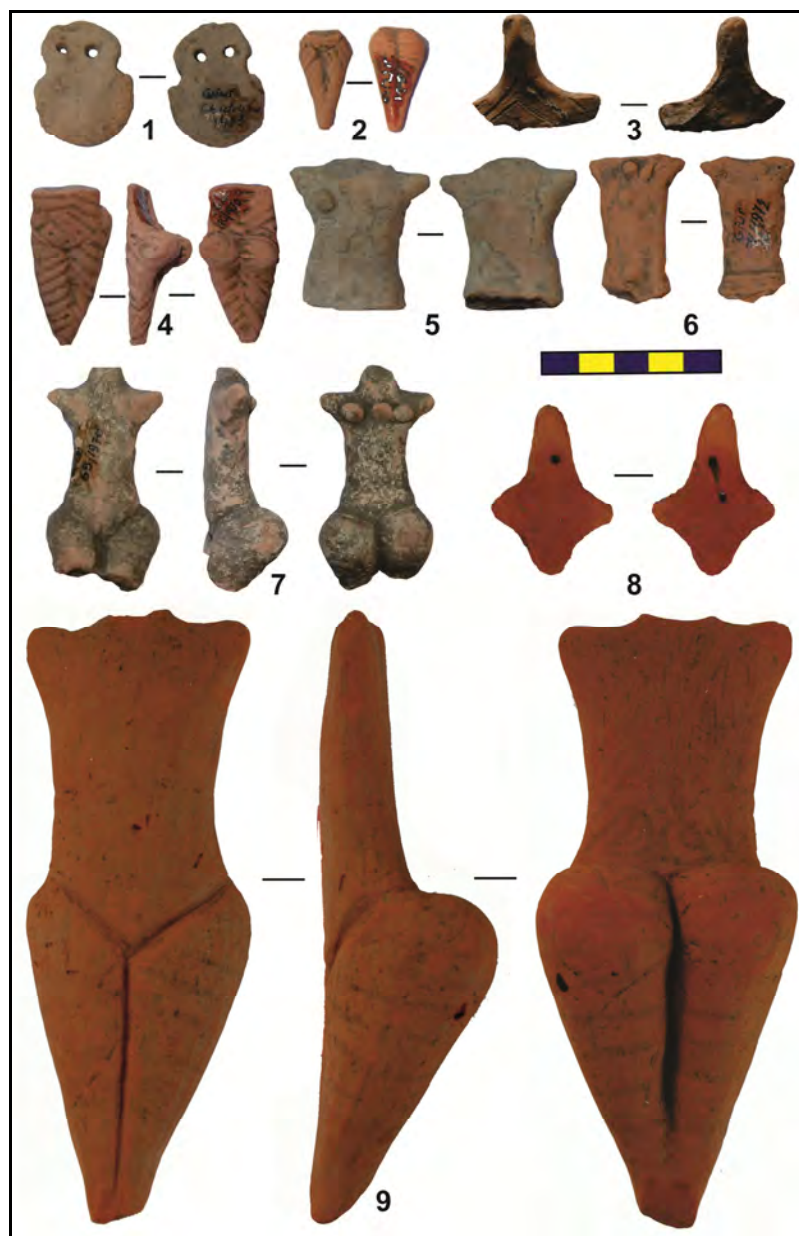


Fig. 1. *Anthropomorphic figurines Cucuteni A3:*
 1, 2, 4-7 – Giurgești; 3, 8, 9 – Costești

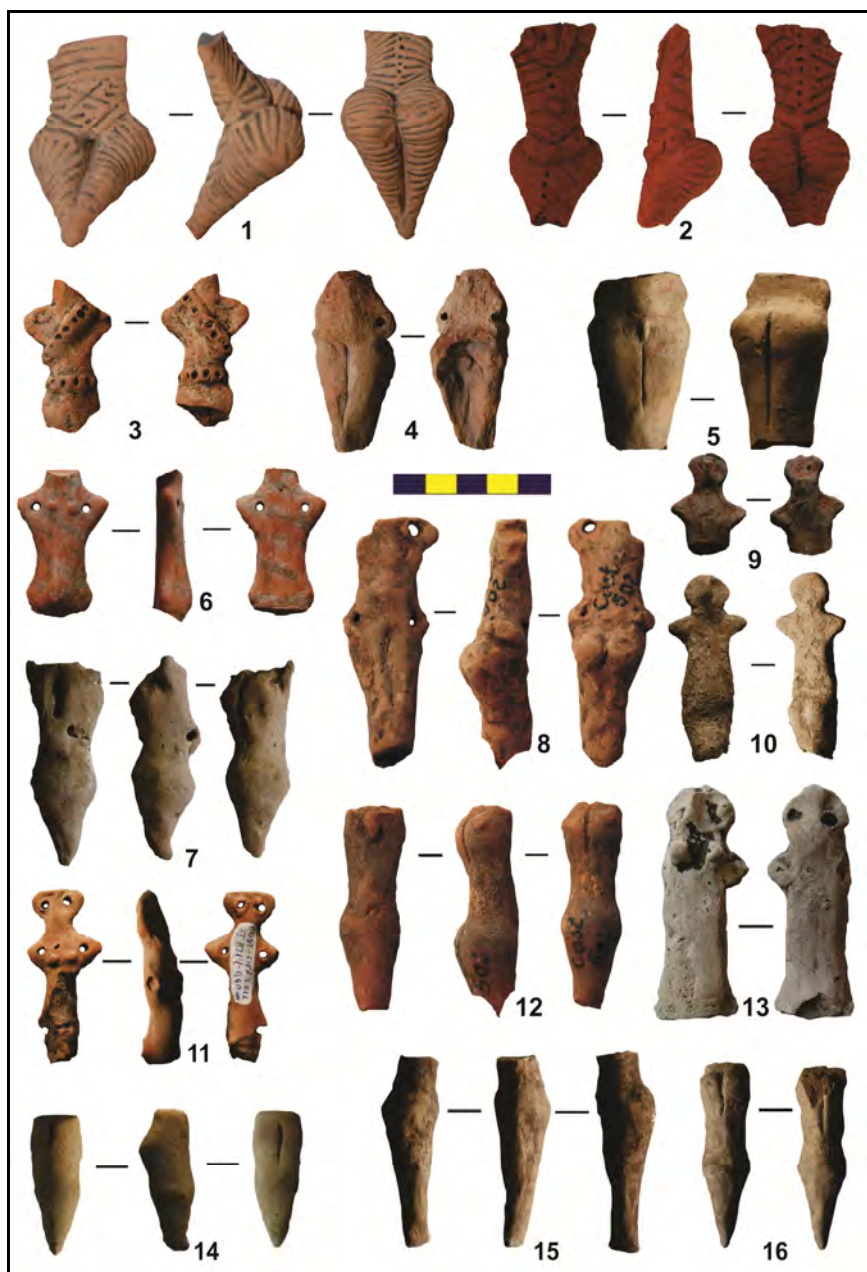


Fig. 2. Anthropomorphic figurines – Cucuteni A3: 1 – Giurgești; 2, 3 – Costești; Cucuteni A-B2 / B1: 4-16 – Costești

**ARCHEOLOGIE DU DELTA DU DANUBE.
LE *TELL* SUBMERGE CHALCOLITHIQUE
DE TARASCHINA**

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François Lévêque, Erwan Messenger,
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Mots-clés: *Delta du Danube, Taraschina, Chalcolithique, Gumelnița, géo-archéologie, changements environnementaux.*

La mission archéologique „Delta du Danube” a pour objet de questionner les données archéologiques et géo-archéologiques, de manière à formuler de nouveaux paradigmes sur les relations entre les sociétés et leurs environnements. Notre objectif est d’étudier la nature du peuplement et les modalités d’évolution des communautés humaines de la Dobroudja (Roumanie).

Depuis 2010, la mission archéologique a engagé des travaux de terrain en réalisant fouilles et sondages sur plusieurs sites archéologiques datés du chalcolithique (5ème millénaire avant notre ère). Parallèlement, nous avons développé une approche géo-archéologique dans des zones clé pour la compréhension de l’évolution du milieu.

La fouille et l’étude de l’habitat chalcolithique de Taraschina (commune de Crişan, département de Tulcea) constitue le point d’orgue de la mission. La particularité de cet habitat pluristratifié – de type *tell* – réside dans sa position, tout à fait originale, au coeur du Delta du Danube. Daté de la seconde moitié du 5ème millénaire avant notre ère, ce site constitue le plus ancien témoignage de peuplement du delta.

Le caractère exceptionnel du site, sis dans la Réserve Biosphère Delta du Danube – UNESCO, est reconnu comme tel par les autorités roumaines qui l'ont inscrit sur la liste du patrimoine culturel protégé. Mais l'ensemble de cette zone recèle potentiellement un patrimoine archéologique riche, aujourd'hui submergé en raison de l'aggradation des cordons littoraux. A cet endroit en effet, la particularité de la topographie de la plateforme continentale amplifie les phénomènes liés aux oscillations du niveau marin et à la déformation du trait de côte.

L'objet de la fouille du site de Taraschina réside dans l'évaluation de la part des contraintes environnementales et des stratégies d'adaptation mises en oeuvre par les communautés chalcolithiques, dans un contexte de changements rapides. Cette notion d'adaptation est au coeur de notre projet et elle guide la problématique de l'opération de fouille.

A NEW CULTURE IN SOUTHERN TRANSYLVANIA ?

Sabin Adrian Luca

Keywords: *Eneolithic, Transylvania, Geiger, new cultural aspect.*

The rescue archaeological excavations made in the *Geiger* quarry, located near the Orlat village (Sibiu County), allow us to discover a new eneolithic site with important characteristics related to the cultural entities from southern and eastern Carpathian area. We believe that it is a new cultural aspect, based on elements from the Boian, Precucuteni and Petrești cultures.

L'ACTIVITE DU CENTRE INTERNATIONAL DE RECHERCHE DE LA CULTURE CUCUTENI (2005 - 2014)

Gheorghe Dumitroaia

Après la fin du colloque international tenu (à Piatra Neamț, le 21-24 octobre 2004) à l'occasion de l'anniversaire de 120 ans depuis la découverte de l'établissement éponyme de la Culture Cucuteni, l'activité du CCCCC a été d'autant plus laborieuse, sa préoccupation centrale étant l'investigation et la mise en valeur de cette civilisation, en même temps qu'ont été remplies d'autres tâches issues de la part de l'institution coordonnatrice (**Le Complexe Muséal du Département de Neamț**).

Les activités communes durant toute la période en vue:

- travail sur le matériel obtenu suite aux fouilles archéologiques systématiques, de prévention, de sauvegarde et des recherches archéologiques de surface;
- l'inventaire des objets archéologiques;
- les visites guidées pour les visiteurs du **Musée d'Art Enéolithique Cucuteni de Piatra-Neamț**;
- la conservation et les restaurations des matériaux en provenant des exhibitions ou des dépôts;
- le classement des biens inclus dans les catégories *Fond* et *Trésor* du patrimoine culturel national;
- la création de la bibliothèque du **Musée d'Art Enéolithique Cucuteni** et l'inventaire des livres.

En 2005 on a réalisé:

- l'ouverture au public du **Musée d'Art Enéolithique Cucuteni**;
- la rédaction et la publication du volume *Primul muzeu Cucuteni din România* (par Gheorghe Dumitroaia, Constantin Preoteasa, Roxana Munteanu et Dorin Nicola), *Bibliotheca Memoriae Antiquitatis*, XV, 176 p.;
- la participation avec *Soborul Zeițelor / Le Conseille des Déesses* de Poduri-Dealul Ghindaru, durant les mois de mai - novembre, à l'organisation de l'exposition internationale *Geheimnisvolle Kreiss Graben* sous la coordination de l'Office du Gouvernement Provincial de Sankt Pölten (Autriche);

- la rédaction et la publication du volume *Cucuteni – 120 ans des recherches. Le temps du bilan / 120 Years of Research. Time to sum up* (édité par Gh. Dumitroaia, J. Chapman, O. Weller, C. Preoteasa, R. Munteanu, D. Nicola, D. Monah), *Bibliotheca Memoriae Antiquitatis*, XVI, 408 p.;
- des fouilles archéologiques systématiques à Poduri-Dealul Ghindaru.

En 2006 on a réalisé:

- l'organisation du colloque international *Le Complexe Culturel Cucuteni-Tripolie. Unité et diversité*;
- la publication du volume *Amintirile unui arheolog*, par M. Petrescu-Dîmbovița, *Bibliotheca Memoriae Antiquitatis*, XVII, 268 p.;
- l'organisation d'une exposition temporaire *Les chefs-d'oeuvre cucuténiennes de l'établissement de Scânteia*;
- des fouilles systématiques à Poduri-Dealul Ghindaru, dans la casette C du tell.

En 2007 on a réalisé:

- la rédaction et la publication du volume *L'exploitation du sel à travers le temps* (édité par D. Monah, Gh. Dumitroaia, O. Weller, J. Chapman), *Bibliotheca Memoriae Antiquitatis*, XVIII, 328 p.;
- la rédaction et la publication de l'annuaire *Memoria Antiquitatis*, XXIV, 600 p., dans lequel les membres du CCCCC ont publié 11 articles;
- des fouilles archéologiques systématiques à Poduri-Dealul Ghindaru et Țolici-Hălăbutoaia;
- des fouilles de prévention à la Forteresse de Neamț.

En 2008 on a réalisé:

- l'organisation du secteur préhistoire de l'exposition permanente du **Musée d'Histoire et Archéologie de Piatra-Neamț**;
- la collaboration à l'organisation de l'exposition *Steinzeitkunst Fruhe Kulturen aus Rumänien* de Olten (Suisse);
- la collaboration à l'organisation des expositions *Cucuteni-Tripillia. A Great Civilization of Old Europe* ouverte à Vatican (septembre - octobre) et *Cucuteni Culture – Art and Religion / Kultura Cucuteni – Sztuka i Religia*, ouverte à Varsovie (novembre - décembre);
- les fouilles de Piatra-Neamț - *Terasa Gospodinelor*;
- l'organisation de la session scientifique tenue à l'occasion de la réouverture du **Musée d'Histoire et d'Archéologie de Piatra-Neamț**;
- la rédaction et la publication du volume *Cercetări arheobotanice în tell-ul calcolitic de la Poduri-Dealul Ghindaru* (par F. Monah et D. Monah), *Bibliotheca Memoriae Antiquitatis*, XIX, 214 p.;
- la rédaction et la publication du volume *Sarea de la prezent la trecut* (édité par D. Monah, Gh. Dumitroaia, D. Garvăn), *Bibliotheca Memoriae Antiquitatis*, XX, 228 p.

En 2009 on a réalisé:

- l'exhibition temporaire *Le Musée d'Histoire et d'Archéologie – 75 ans*;
- des recherches systématiques à Poduri-Dealul Ghindaru;
- l'organisation des exhibitions *Poduri-Dealul Ghindaru. Les recherches archéologiques dans la Casette C (2005-2009)* et *Precucuteni – l'origine d'une grande civilisation*;
- la publication des catalogues *Poduri-Dealul Ghindaru. Cercetările arheologice din Caseta C. 2005-2009* (par Gh. Dumitroaia, R. Munteanu, C. Preoteasa, D. Garvăn), *Bibliotheca Memoriae Antiquitatis*, XXII, et *Precucuteni. Originea unei mari civilizații*, XXIII;
- l'organisation de la session scientifique dédiée à l'anniversaire de 75 ans de muséographie, durant laquelle ont été soutenues 23 communications regardant des sujets du domaine néo-énéolithique;
- la collaboration à l'organisation de l'exhibition *The Lost World of the Old Europe*, ouverte à New York durant novembre 2009 - avril 2010.

En 2010 on a réalisé:

- la collaboration à l'organisation de l'exhibition *The Lost World of the Old Europe*, re-ouverte à **Ashmolean Museum** de l'Université de Oxford durant les mois de mai - août 2010 et au **Musée des Cyclades** d'Athènes durant octobre - décembre 2010;
- l'organisation du colloque *Cucuteni – Religion et art*, durant lequel ont été soutenues 21 de communications;
- la rédaction et la publication de l'annuaire *Memoria Antiquitatis*, XXV-XXVI (2008-2009), 580 p., dans lequel les membres de CCCCC ont publié 5 articles;
- des fouilles systématiques à Țolici-Hălăbutoaia;
- des fouilles de prévention à Piatra-Neamț - *Curtea Domnească*, Podoleni-*Conacul Crupenschi* et Ștefan cel Mare-*Conac*;
- la collaboration à la réalisation des grants: *Recherches pluridisciplinaires concernant l'épanouissement et l'évolution du mode de vie agricole au néolithique (les VI-IV millénaires av. J.-C.)*, à l'est des Carpates Orientales et *L'exploitation du sel dans la préhistoire de la Roumanie*;
- la collaboration à la mission archéologique roumain-française *L'exploitation préhistorique des sources d'eau salée dans la Moldavie*.

En 2011 on a réalisé:

- des investigations géophysiques dans le tell de Poduri-Dealul Ghindaru;
- des recherches systématiques à Bodești-Cetățuia Frumușica et Gârcina;
- des recherches de prévention à Piatra-Neamț - *Curtea Domnească* et Brășăuți-La Școală et la rue de Crizantemelor;
- la rédaction et la publication de l'annuaire *Memoria Antiquitatis*, XXVII (2010), 540 p., dans lequel les membres de CCCCC ont publié 3 articles;
- la réédition du volume *Primul muzeu Cucuteni din România*, *Bibliotheca Memoriae Antiquitatis*, XXVI, 176 p.

En 2012 on a réalisé:

- l'organisation du colloque international *L'impacte anthropique sur l'environnement durant le néo-énéolithique du sud-est de l'Europe*;
- l'organisation de l'exhibition temporaire *La céramique cucuténienne entre métier et art*;
- l'organisation du symposium *Constantin Matasă – 40 ans depuis la mort*;
- des fouilles systématiques à Bodești-Cetățuia Frumușica;
- la rédaction et la publication de l'annuaire *Memoria Antiquitatis*, XXVIII, dans lequel ont été inclus 10 articles des membres de CCCCC;
- la réédition du volume de référence *Plastica antropomorfă a culturii Cucuteni-Tripolie* (par Dan Monah), *Bibliotheca Memoriae Antiquitatis*, XXVII, 554 p.

En 2013 on a réalisé:

- l'organisation du colloque *La céramique Cucuteni C*, à l'occasion de la session scientifique annuelle du **Musée d'Histoire et d'Archéologie de Piatra-Neamț**;
- la rédaction et la publication du volume *Contribuții la cunoașterea culturii Precucuteni* (par Daniel Garvăn), *Bibliotheca Memoriae Antiquitatis*, XXX, 264 p.;
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- l'organisation du colloque international *Cucuteni - 130*;
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