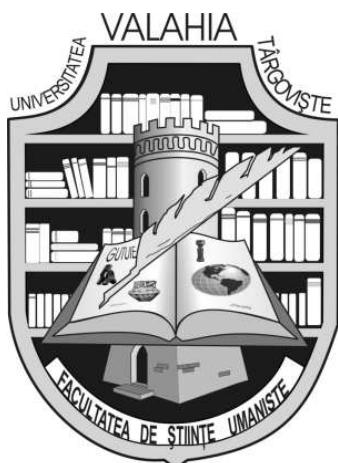


Ministère de l'Education Nationale  
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Faculté de Sciences Humaines

# ANNALES



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## Aeneolithic osseous materials artefacts discovered in Southern Moldova. The DanubiOs Project

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**Abstract: Aeneolithic osseous materials artefacts discovered in Southern Moldova. The Danubios Project.** The Aeneolithic cultures attested in the region of South Moldova do not make an exception 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 History Museum of Galați, resulted from the systematic research carried out during the 5<sup>th</sup> and 8<sup>th</sup> decades of the past century by Professor Mircea Petrescu-Dimbovița at the archaeological site of Stoicani-“Cetățuia” and by Ion T. Dragomir at Berești-“Dealul Bulgarului” and “Dealul Bâzanului” and Suceveni-“Stoborăni”. Firstly, we are dealing with two sites dated from Stoicani-Aldeni cultural horizon (cca 3800-3600 BC) studied in detail by Ion T. Dragomir in his doctoral thesis. In this respect, he used the contributions brought by the two sites from Galați County (Stoicani-“Cetățuia” and especially, Suceveni-“Stoborăni”). The last one was almost entirely excavated, being the most important site dated from the above mentioned cultural horizon up to the present. Other two sites belong to the early phase of Cucuteni-Ariușd culture (phase A3, cca 3500-3300 BC) – Berești-“Dealul Bulgarului” and “Dealul Bâzanului”. These brought an important contribution to the clarification of some aspects regarding the genesis of Cucuteni-Ariușd culture in the South of Moldova. We have to underline the fact that the study of osseous materials industry dated from Cucuteni-Ariușd culture still is at its beginning and the one dated from the Stoicani-Aldeni cultural horizon has never been studied in detail until now, 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 Aeneolithic osseous materials artefacts” (“DanubiOs”) whose editorial product is the catalogue (Beldiman et alii 2012), brings notable contributions regarding the knowledge of these Aeneolithic 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 Aeneolithic 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-Ariușd (phase 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/eneolitic/index.html>).

**Keywords:** Berești -“Dealul Bulgarului”, Berești -“Dealul Bâzanului”, Cucuteni-Ariușd culture, Danubios, History Museum of Galați, Moldova, osseous materials artefacts, Stoicani-“Cetățuia”, Suceveni-“Stoborăni”, technology.

## Introduction. The DanubiOs Project

The artefacts made from osseous materials (bone, deer antler, teeth, shells) represent an important component of the material and spiritual culture of various Prehistoric communities. The assemblage of these pieces, of a high diversity from all points of view, as well as the special elements considered unique, offer to each archaeological culture a certain specificity that illustrates the complex exploitation of animal resources, both the ones that are taken from the natural environment in various ways (hunting, fishing, gathering) and the ones that result from the continuous process of animal husbandry (cattle, sheep, goats, pigs, horses etc.).

The osseous materials industry has a high importance during the Neo-Aeneolithic because it attests in a suggestive and sometimes, in a unique way, the appliance of some solid technological knowledge, of a high diversity and ingenuity that imply special abilities, the know-how of all the aspects of the raw materials properties and the parameters of the finite product.

The artefacts from osseous materials are directly or indirectly implied in: almost all the subsistence activities; in processing the raw materials necessary in everyday life; in intra- and inter-communities exchanges (often at long distance ones) etc. In the same time, these objects are present in artistic, spiritual or religious activities (production and usage of symbolic elements like the adornments, the anthropomorphic and zoomorphic representations etc.) (C. Beldiman, 2007; C. Beldiman, 2012; C. Beldiman et al., 2012; D.-M. Sztancs, 2011).

The Aeneolithic cultures attested in the region of South Moldova do not make an exception regarding the complex use of osseous materials resources that the natural or the man-made environment abundantly offered to the human communities.

A first version of this article was published in 2012 as a chapter of the catalogue (C. Beldiman et al., 2012, p. 19-22).

We are going to present an assemblage of pieces stored in the collection of the History Museum of Galați, resulted from the systematic research carried out during the 5<sup>th</sup> and 8<sup>th</sup> decades of the past century by Professor Mircea Petrescu-Dîmbovița at the archaeological site of Stoicani-“Cetățuia” and by Ion T. Dragomir at Berești-“Dealul Bulgarului”, “Dealul Bâzanului” and Suceveni-“Stoborăni”.

Firstly, we are dealing with two sites dated from Stoicani-Aldeni cultural horizon (cca 3800-3600 BC) studied in detail by Ion T. Dragomir (1983) in his doctoral thesis. In this respect, he used the contributions brought by the two sites from Galați County (Stoicani-“Cetățuia” and especially, Suceveni-“Stoborăni”).

The last one was almost entirely excavated, being the most important site dated from the above mentioned cultural horizon up to the present. Other two sites belong to the early phase of Cucuteni-Ariușd culture (phase A3, cca 3500-3300 BC) – Berești-“Dealul Bulgarului” and “Dealul Bâzanului”.

These brought an important contribution to the clarification of some aspects regarding the genesis of Cucuteni-Ariușd culture in the South of Moldova (M. Petrescu-Dîmbovița 1940; 1953a; 1953b; I. T. Dragomir, 1996a-h).

We have to underline the fact that the study of osseous materials industry dated from Cucuteni-Ariușd culture still is at its beginning and the one dated from the Stoicani-Aldeni cultural horizon has never been studied in detail until now, 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 Aeneolithic osseous materials artefacts” (“DanubiOs”) whose editorial product is the catalogue (C. Beldiman et al., 2012), brings notable contributions regarding the knowledge of these Aeneolithic manifestations of the communities that lived in the actual space of Romania and in the surrounding areas (<http://www.migl.ro/DanubiOs/eneolitic/index.html>).

At the same time, we have also to underline the constant interest that the former director of the History Museum of Galați, PhD Ion T. Dragomir manifested for the Prehistoric archaeology, for the study of various aspects related to the economy of the Stoicani-Aldeni and Cucuteni-Ariușd communities, as well as the interest manifested for the assemblages of bone and antler artefacts. These materialised in several articles and studies regarding farming tools (ploughs) and the occupations in which osseous materials pieces were mostly used (I. T. Dragomir, 1996d-g).

The interest for the same pieces now manifests itself at a different level of analysis and

we have been using the necessary technique in order to get new information regarding the complex aspects of the human life in the Aeneolithic.

### Repertory. Methodology

The studied assemblage comprises 240 pieces. From these, a number of 187 were selected in order to be included in the catalogue (C. Beldiman et al., 2012). 53 of them were excluded – temporary (from Suceveni-“Stoborăni” assemblage). Those illustrated some identical types of pieces. This solution was imposed by the print characteristic of the catalogue that limited the pages at 230 (with about 130 pages text and 100 plates colour illustrated). The pieces that were not included will be inserted with all their data in the repertory of other scientific papers that will be elaborated in the future.

All the essential, quantifiable data are presented in the tables designed for pieces from every site (tables no. 1-5; chart 1). There is no doubt that the extracted conclusions are limited by the quantitative characteristics of these assemblages. They can only be provisory and they can be subject to review according to new study approaches.

The methodology of study takes into account a detailed analysis and a standard mention of data regarding: raw materials, typology, manufacture techniques (during the stages of debitage, shaping, perforation, shafting, using wires in order to suspend or to sew adornments etc.), use-wear traces, and presumed functionality.

The traceological analysis is constantly used, the macroscopic and microscopic traces of manufacture and use (*tracéologie, use-wear analysis*) are analysed using the modern technique of optical examination (classic microscope - binocular magnifier (zoom x4 – x40) and digital (zoom x10 – x200) – see figs. 47-70).

The data is mentioned in standardised records that also include data of identification of each piece: indicative, type, inventory number and the collection in which the piece is stored, the context of discovery and the culture to which it belongs (C. Beldiman, 2007; C. Beldiman, 2012; D.-M. Sztancs, 2011).

A very important aspect is related to the images, digital photos taken at various scales (general views, details, macro- and micro-

photographs) that illustrate each aspect revealed during the analysis (figs. 1-46). As an important marker of the digitisation, the photographs are included in image banks that allow the examination and the contact with all the aspects of the issues related to the study and to the complex valorisation of the assemblage that was analysed. With the help of these series of images included in general or thematic galleries can be created series of illustrations for various publications and exhibitions (including virtual ones). The Aeneolithic osseous materials artefacts studied in the collection of History Museum of Galați offered the opportunity to create an image bank that comprises more than 5000 various digital images.

The structure of the assemblages is the following: Berești-“Dealul Bulgarului”, N = 79; Berești-“Dealul Bâzanului”, N = 24; Stoicanii-“Cetățuia”, N = 16; Suceveni-“Stoborăni”, N = 68 (chart no. 1).

Pieces were recovered both from complexes (pit-houses, huts, pits) as well as from the archaeological layer. The associations of various artefacts in complexes, especially in structures related to habitation, are very important because they illustrates occupations related to the specific processing of the osseous materials in the domestic environment. In this case, we can quote the hut no. 1 from Berești-“Dealul Bulgarului”, a structure that can be considered a closed complex, with a rich inventory that has been entirely recovered by the archaeologists.

### Raw materials. Typology

The categories of raw materials that were included in the analysed assemblage refer both to domestic species (cattle, sheep, goat, pig) as well as to wild species (red deer, roe deer, wild boar, hare, fish, and freshwater shells) that were procured by hunting, fishing or gathering from the wild. Among the raw materials that are dominant in the assemblage, we have to mention the long bones of large or small-sized domestic herbivore (cattle, sheep, goat) and red deer antlers. Also, some rare pieces, imported in the settlement were identified. These attest the existence of the exchanges. In this case, we have to mention a Fig. made from a Mediterranean shell (*Glycymeris* sp.?) recovered from the site of Suceveni-“Stoborăni”.

The typological categories (defined according

**Aeneolithic osseous materials artefacts discovered in Southern Moldova. The DanubiOs Project**

No.	Site	Assem-blage	Typological Category	Types	Species	Raw materials				Complexes
						Bone	Antler	Teeth	Shells	
1	BRG	79	3	17	6	19	55	5	-	4
2	BRZ	24	2	8	4	8	16	-	-	1
3	STC	16	2	9	5	16	-	-	-	3?
4	SCS	68	5	30	9	59	5	2	2	4
5	Total	187	12	56	24	102	76	7	6	12

Tab. 1- Aeneolithic osseous materials industry from the South of Moldova: general overview.

No.	Site	Complex									Assemblage
		B I	B II	B III	L I	L 1	L 2	L 3	L 4	K Pit	
1	BRG	5	3	2	52	-	-	-	-	-	62
2	BRZ	-	-	-	-	-	-	-	-	24	24
3	STC	-	-	-	-	-	-	-	-	-	-
4	SCS	-	-	-	-	2	1	3	13	-	19

Tab. 2- Aeneolithic osseous materials industry from the South of Moldova: complexes.

No.	Site	Species										Assemblage
		B	OC	S	Crb	Cpr	Ps	P	E	L	Lm	
1	BRG	14	4	4	52	3	-	-	2	-	-	79
2	BRZ	7	-	1	15	1	-	-	-	-	-	24
3	STC	-	7	3	-	-	-	1	4	1	-	16
4	SCS	8	12	16	18	-	5	1	5	2	2	68
Total		4	29	23	24	85	4	5	2	11	3	187

Tab. 3- Aeneolithic osseous materials industry from the South of Moldova: species.

Raw material/ Site	BRG	Total	BRZ	Total	STC	Total	SCS	Total
Bone	1-6, 36-40, 66-73	19	17-24	8	1-16	16	14-40, 42- 58, 65-67	59
Antler	7-31, 33-35, 41-65, 74	55	1-16	9	-	-	13, 41, 59-61	5
Teeth	32, 76-79	5	-	-	-	-	62-63	2
Shells	-	-	-	-	-	-	64, 68	2
Total	79	79	24	24	16	16	68	68

Tab. 4- Aeneolithic osseous materials industry from the South of Moldova: skeletal elements.

Type/Site	BRG	BRZ	STC	SCS	Total
I A	-	-	-	6	6
I A1	4	-	1	3	8
I A3	-	-	-	1	1
I A6	-	-	1	1	2
I A7	-	-	2	-	2
I A9	-	-	2	-	2
I A10	3	-	10	-	13
I A11	-	-	-	1	1
I A15	-	-	-	1	1
I A16	-	2	-	-	2
I A17	-	-	-	1	1
I A18	-	-	-	1	1
I A19	1	-	-	-	1
I A21	-	-	1	-	1
I A23	-	-	4	1	5
I A25	1	1	-	-	2
I A27	-	-	-	1	1
I A28	-	2	3	2	7
I A32	-	-	-	1	1
IB1	3	1	-	-	4
IB3	-	-	-	1	1
IB4	-	-	-	1	1
IB17	2	-	-	19	21
IB18	1	-	-	-	1
IB19	-	-	-	2	2
IB20	1	-	-	1	2
IF	1	-	-	-	1
IG1	16	1	-	6	23
IG2	8	-	-	3	11
IG8	2	-	-	-	2
II E2	-	-	-	3	3
III A2 c	1	-	-	-	1
III B3	1	-	-	1	1
III B5	-	-	-	1	1
III D1	-	-	-	1	1
III D3	-	-	-	2	2
III J1	-	-	-	1	1
III J2	-	-	-	1	1
IV C2	-	-	-	1	1
V A	16	-	-	-	16
V A1	-	2	-	1	3
V A2	15	13	1	1	27
V A3	13	2	-	2	17

Tab. 5- Aeneolithic osseous materials industry from the South of Moldova: types.



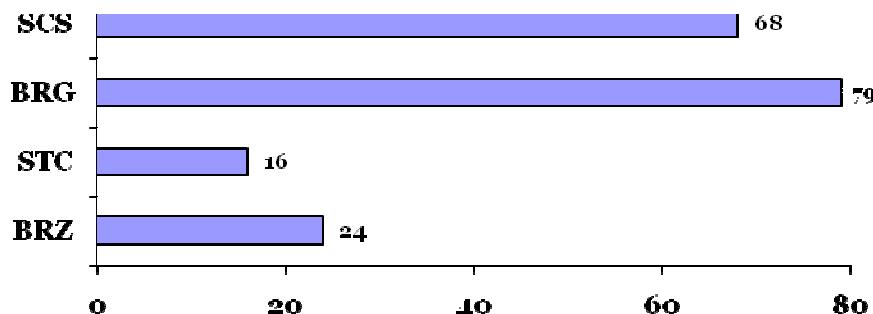


Chart 1- Aeneolithic osseous materials industry from the South of Moldova: sites.

to Beldiman 2007 Typological List) specific for the studied assemblage are: I Tools, II Weapons, III Adornments, IV Hafts; Recipients, V Varia – technical pieces: blanks, raw materials, wastes. The most numerous are tools such as bone awls, scrapers made from caprine and pig ulnas, mattocks perforated or without perforation made from red deer antler. In the specialised Romanian literature, the last mentioned tools are traditionally considered farming tools used by Aeneolithic communities (digging sticks) (figs. 1-46).

The problem of the functionality of massive perforated pieces made of red deer antler (such as I G2) discovered in Aeneolithic sites from Romania still remains un-approached by detailed studies that should take into account large series of artefacts (especially from the same site), with systematic macroscopic and microscopic examination and with well-defined experimental studies. Without a definitive exclusion of their functionality as farming tools, we have to highlight that our observations made in what concerns the pieces included in the assemblage from the History Museum of Galați do not preserve clear traces of use that could be considered as use-wear traces of farming tools (ploughs); they suggest that the active part was used for wood-working (peeling, splitting).

As rare or unique (until now) types, we have to mention the presence in the studied assemblage of awls made from long bones of birds; an awl made of a fish skull bone; scrapers made from pig ulna whose frequency is remarkable in two sites (Berești-“Dealul Bulgarului” and Suceveni-“Stoborăni”); harpoons made of red deer antler that attest a possible manifestation of the Boian culture as a background for the Stoicani-Aldeni cultural horizon; the unfinished pot (small recipient) of

red deer antler; the unique pendant made from a fragment of shell that imitates a red deer residual canine; bone beads that imitates the ones of *Spondylus* and the red deer antler sleeve.

On this occasion, the Typological List Beldiman 2007 was enriched with several new types that were attested for the first time: I A32 (awl made from a scapula fragment); I B17 (scraper made from ulna); I B18 (scraper made from a segment of metapodium); I B19 (scraper made from a segment of radius), I B20 (scraper made from a segment of femur); awls made from long bones of birds; awl made from a skull bone of fish (without a typological code).

#### Technology of manufacture. Aspects and hypotheses related to utilization of artefacts

The manufacture of the artefacts was done by applying some simple technical procedures that were applied in combination (two or four techniques in a stage of manufacture) and that were adapted to the raw materials properties (dimensions, hardness) and to the morpho-dimensional parameters that were taken into account.

The debitage consisted in direct percussion/chopping, fracture and splitting. Quite frequently, the axial grooving was applied. On the other hand, the transversal cutting was pretty rarely used.

The shaping stage consists in procedures such as: axial scrapping, abrasion, drilling, or in the case of massive objects made of red deer antler, by applying a micro-chain of manufacture that contains: chopping, carving the spongy tissue, rotation with a lithic awl, finishing of the piece using the same lithic tool. The succession of procedures that include the oblique cutting and notching are rare. These are present on objects like red deer antler harpoons.

The use-wear traces (fractures, bluntness, polish, striations etc.) preserved on the surfaces of the studied artefacts suggest their use in activities such as: hide-working (skinning, cleaning, perforating, sewing – awls, scrapers); clay working (polishing tools); lithic materials manufacture (*chasse-lame*); manufacture of vegetal and animal fibres (weaving, knitting); wood-working (peeling, splinting – mattocks of red deer antler); cultivating/harvesting plants (digging sticks, some red deer antler oblique points); hunting/fishing (harpoons); symbolic manifestations (adornments); intra- and inter-communities exchanges (some adornments made from “exotic” raw materials).

The production of osseous materials artefacts has predominantly a household characteristic; it does not sustain the idea of craftsmanship. This fact is proved by the un-standardised parameters of the artefacts and by the inventory of some complexes such as the huts and the pits in which raw materials, debris, blanks and wastes can be found.

### Conclusion

The detailed study of the assemblage comprising osseous materials artefacts stored at the History Museum of Galați, coming from important Aeneolithic 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 Stoicanî-Aldeni and Cucuteni-Ariușd (phase 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/eneolitic/index.html>).

### Abbreviations

B – Cattle; Habitation complex (hut) (see the context)

BRG – Berești-“Dealul Bulgarului”

BRZ – Berești-“Dealul Bâzanului”

CIMEC – Institutul de Memorie Culturală, Institutul Național al Patrimoniului, Ministerul Culturii și Patrimoniului Național, București

CrB – Red deer

Cpr – Roe deer

Danubius – Danubius. Anuarul Muzeului de Istorie Galați

E – Herbivore (indetermined)

L – Hare

Lm – Shell

OC – Sheep/goat

P – Fish

Ps – Birds

S – Pig

SCS – Sucoveni-“Stoborăni”

STC – Stoicanî-“Cetățuia”

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Fig. 1 - BRG 1. Awl.



Fig. 2 - BRG 2. Awl made of ulna.



Fig. 3- BRG 9. Antler mattock/axe.



Fig. 4- BRG 10. Antler mattock/axe.



Fig. 5- BRG 15. Antler handle.



Fig. 6 - BRG 16. Antler handle.

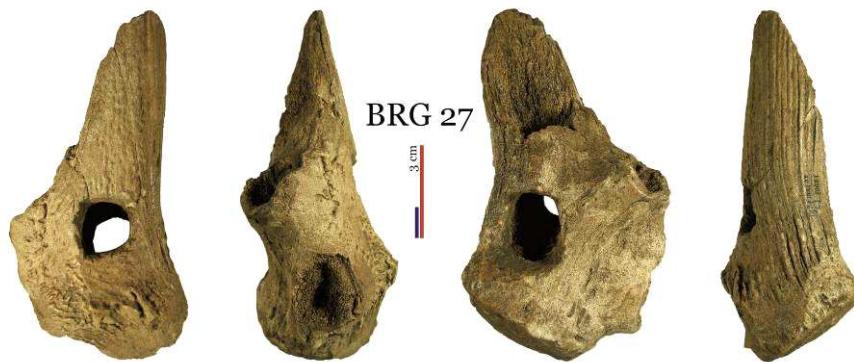


Fig. 7 - BRG 27. Antler mattock/axe.



Fig. 8 - BRG 28. Antler.

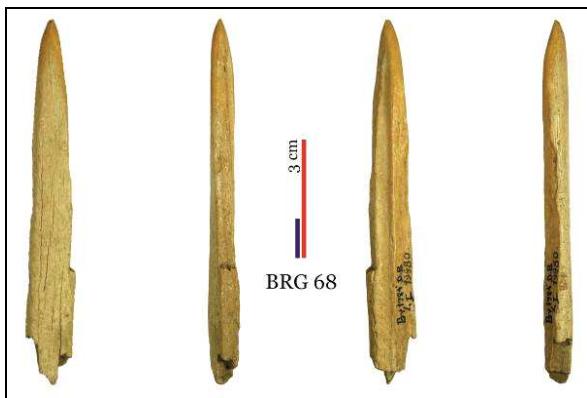


Fig. 9 - BRG 68. Awl.

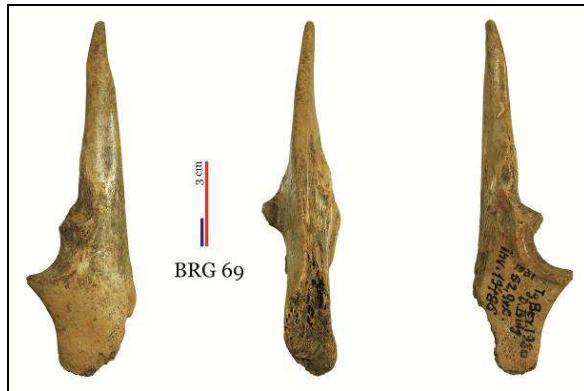


Fig. 10 - BRG 69. Awl made of ulna.



Fig. 11 - BRG 78. Pendant made of wild boar tusk.

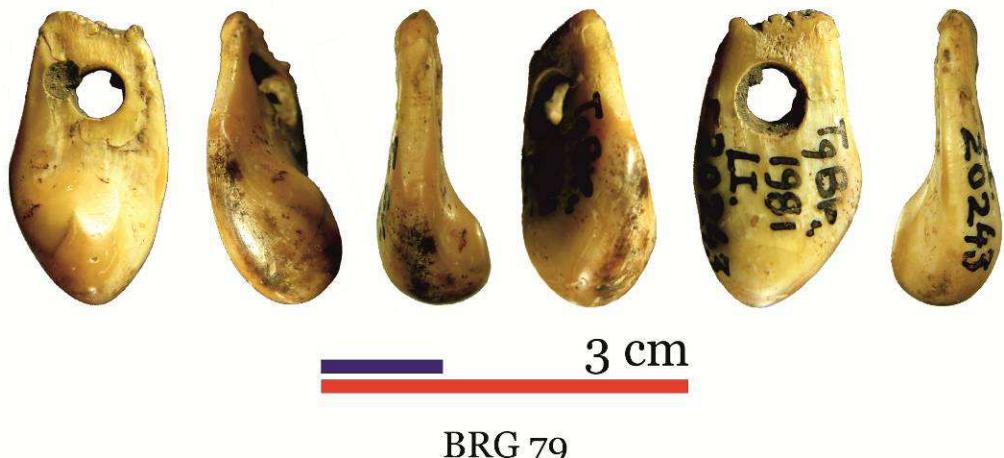


Fig. 12 - BRG 79. Pendant made of red deer residual canine.



Fig. 13 - BRZ 1. Antler / Digging stick.

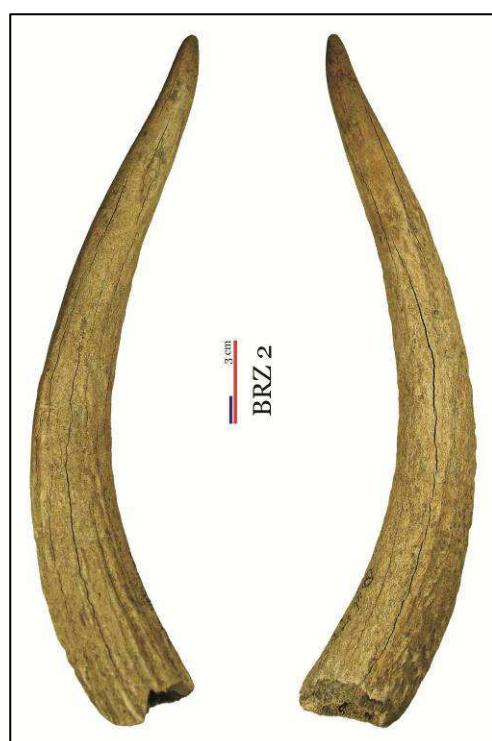


Fig. 14 - BRZ 2. Antler / Digging stick.



Fig. 15 - BRZ 15. Antler.



Fig. 16 - BRZ 16. Antler recipient.



Fig. 17 - BRZ 16. Antler recipient.



Fig. 18 - BRZ 17. Awl.



Fig. 19 - STC 7. Awl.



Fig. 20 - STC 8. Awl.



Fig. 21 - STC 11. Awl.



Fig. 22 - STC 12. Awl.

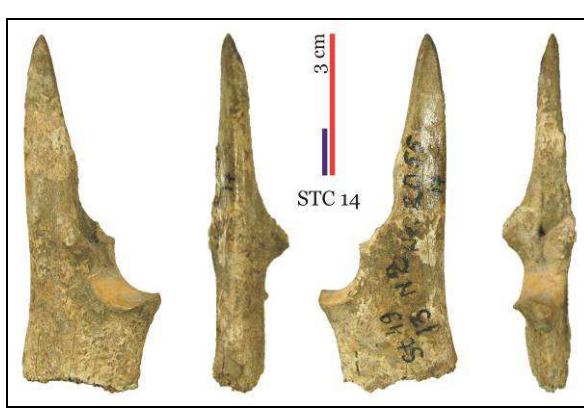


Fig. 23 - STC 14. Awl.



Fig. 24- STC 16. Awl.



Fig. 25- SCS 4. Antler mattock/axe.



Fig. 26 - SCS 10. Antler mattock /axe.

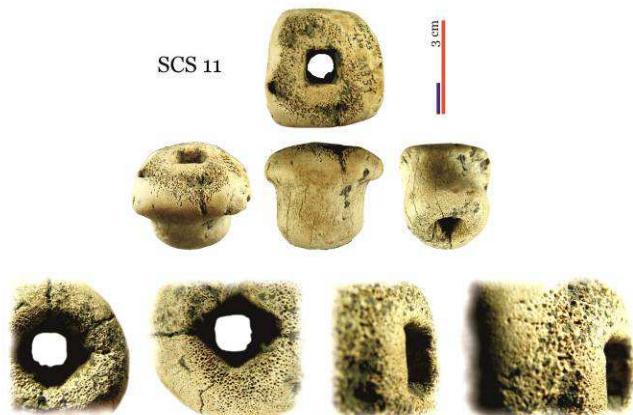


Fig. 27 - SCS 11. Antler sleeve.

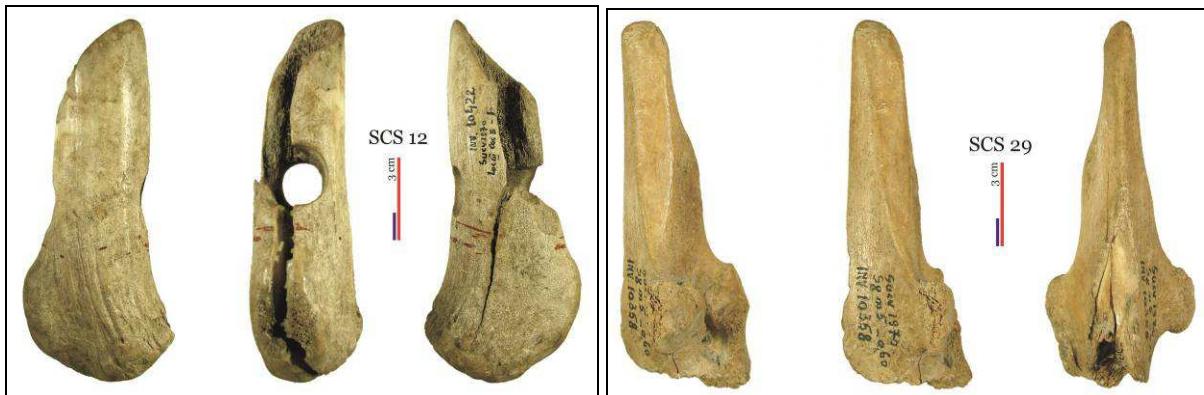


Fig. 28 - SCS 12. Antler mattock/axe.

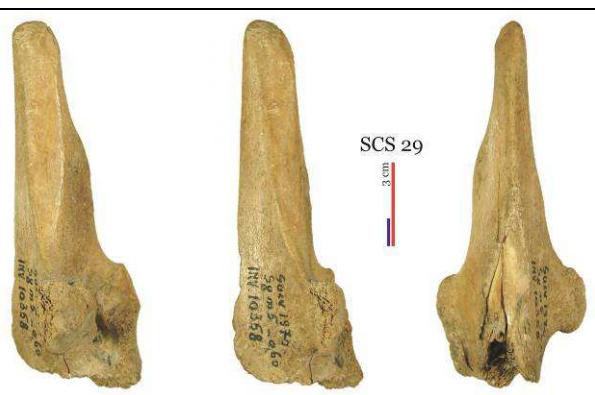


Fig. 29- SCS 29. Awl made of ulna.

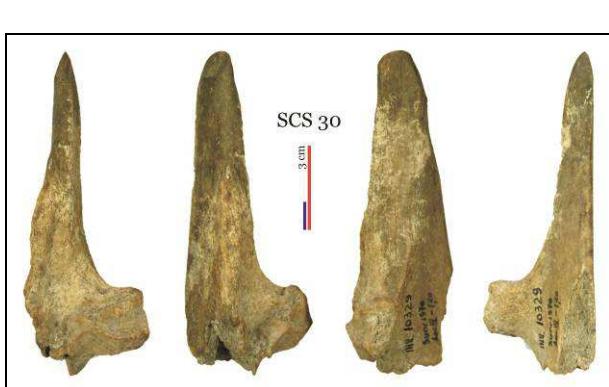


Fig. 30 - SCS 30. Awl made of ulna.



Fig. 31 - SCS 37. Awl.



Fig. 32 - SCS 38. Awl.



Fig. 33- SCS 43. Awl.



Fig. 34- SCS 44. Awl.



Fig. 35- SCS 50. Awl.



Fig. 36- SCS 51. Fish bone awl.



Fig. 37- SCS 59. Antler harpoon.



Fig. 38- SCS 60. Antler harpoon.



Fig. 39- SCS 61. Antler harpoon.



Fig. 40 - SCS 62. Pendant made of wild boar tusk.



Fig. 41 - SCS 63. Plate made of wild boar tusk.



Fig. 42 - SCS 64. Plate made of shell.

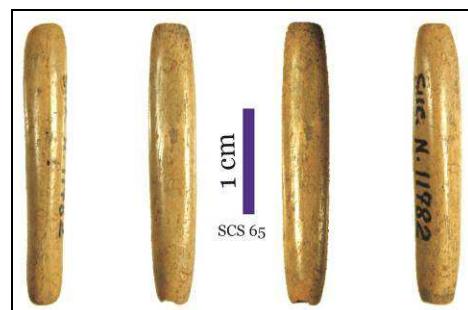


Fig. 43 - SCS 65. Bone bead.



Fig. 44 - SCS 66. Bone bead.



Fig. 45 - SCS 67. Bone bead.



Fig. 46- SCS 68. Pendant made of shell.



Fig. 47 - SCS 50 – detail.



Fig. 48 - SCS 25 – detail.



Fig. 49 - SCS 26 – detail.



Fig. 50 - BRG 1- detail.



Fig. 51 - SCS 4 – detail.

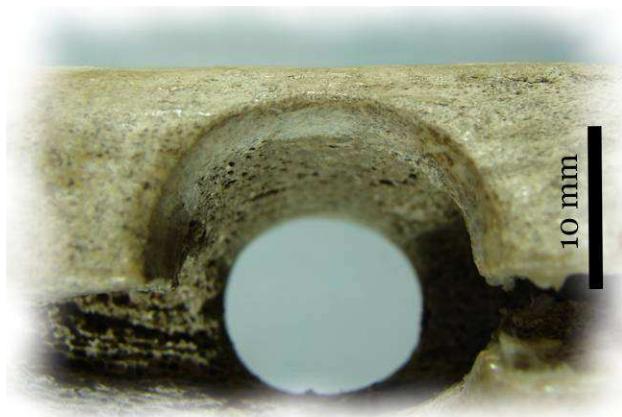


Fig. 52 - SCS 12 – detail.

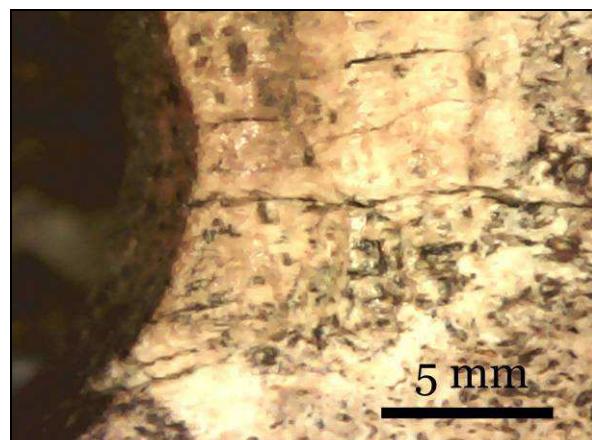


Fig. 53 - SCS 9 – detail.

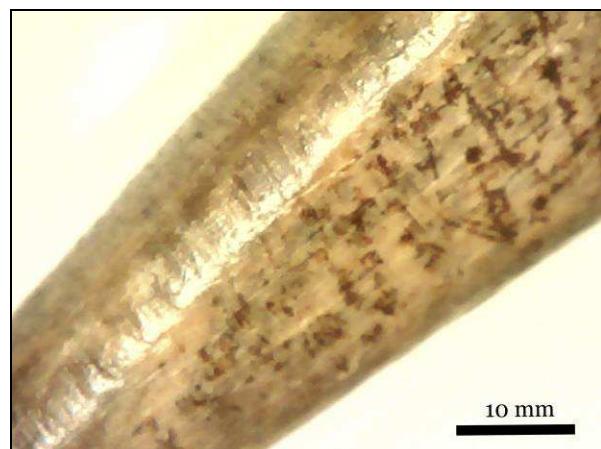


Fig. 54 - STC 5 – detail.



Fig. 55 - STC 5 – detail.

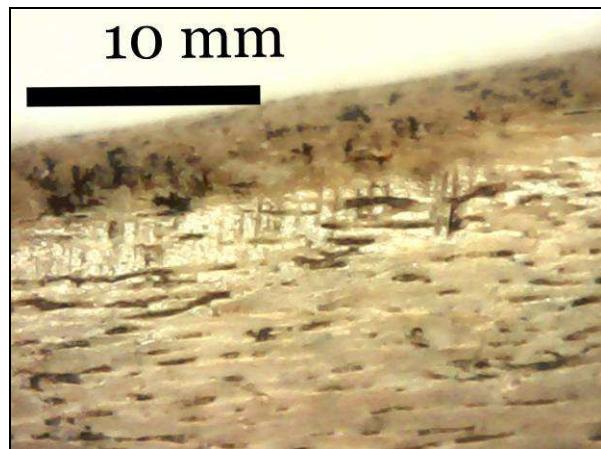


Fig. 56 - STC 5 – detail.

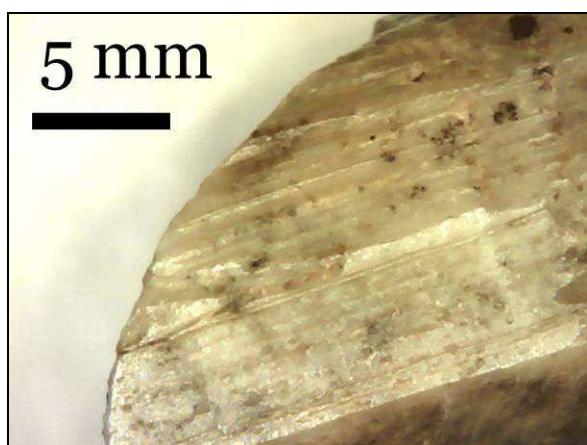


Fig. 57 - BRG 3 – detaliu /detail.

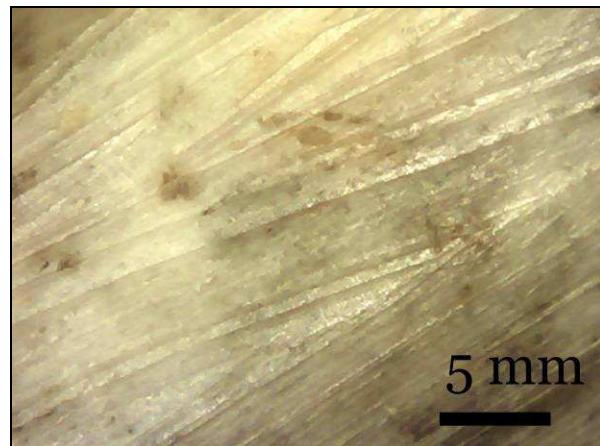


Fig. 58 - BRG 3 – detail.

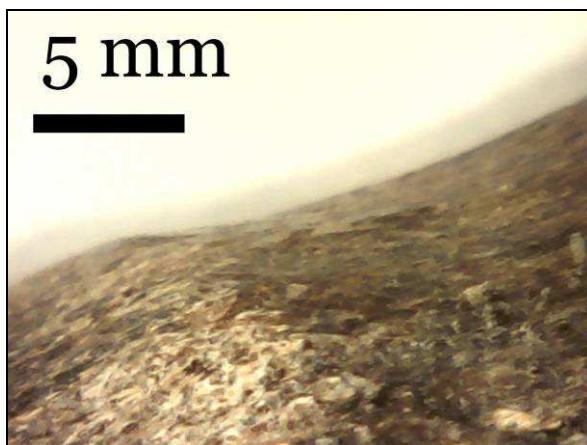


Fig. 59 - BRG 15 – detail.



Fig. 60 - BRG 15 – detail.



Fig. 61 - BRG 17 – detail.

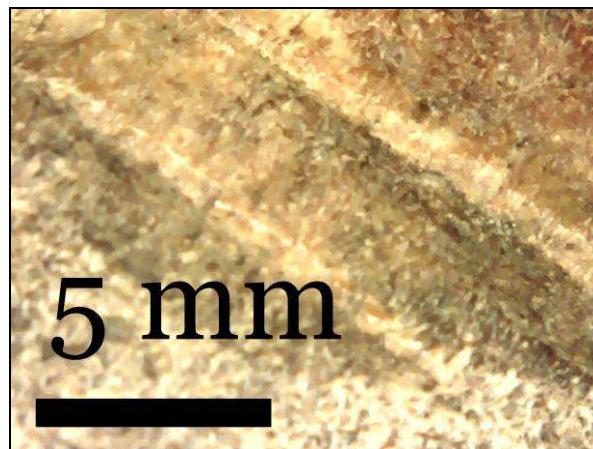


Fig. 62 - BRG 17 – detail.

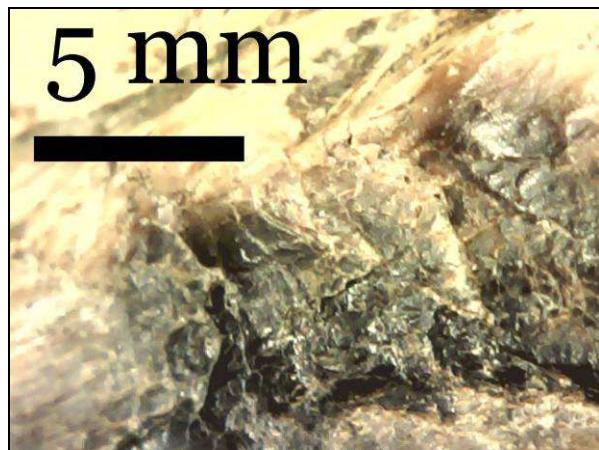


Fig. 63- BRG 44 – detail.

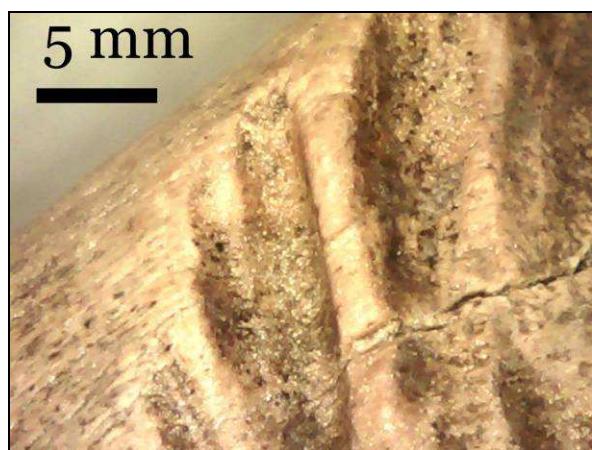


Fig. 64- BRG 42 – detail.

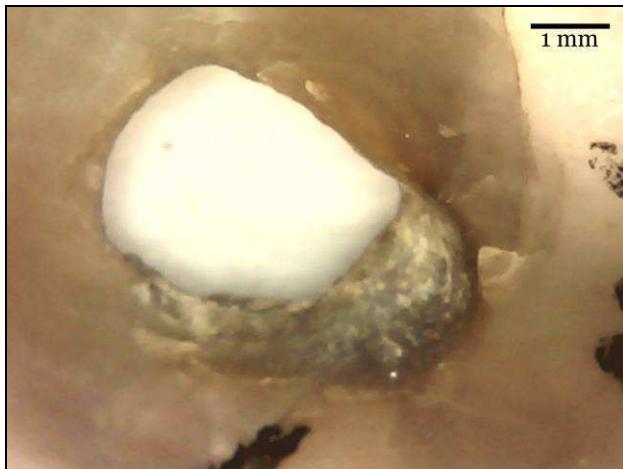


Fig. 65- SCS 68 – detail.

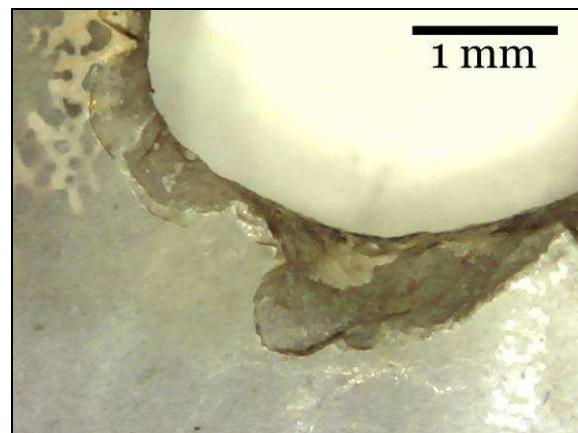


Fig. 66- SCS 68 – detail.

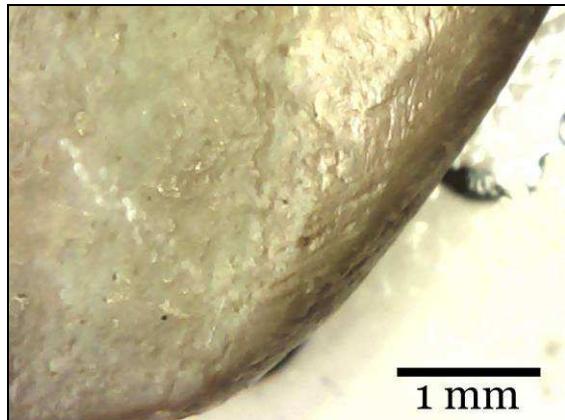


Fig. 67 - SCS 68 – detail.

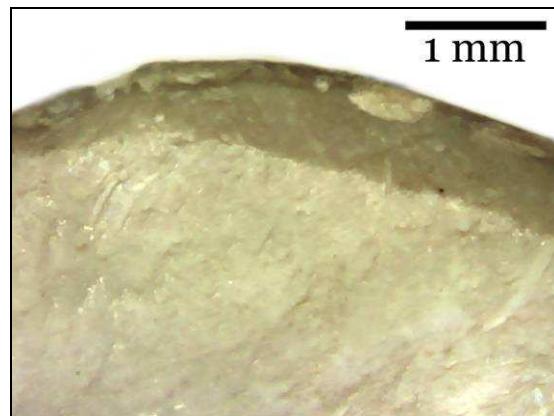


Fig. 68 - SCS 68 – detail.

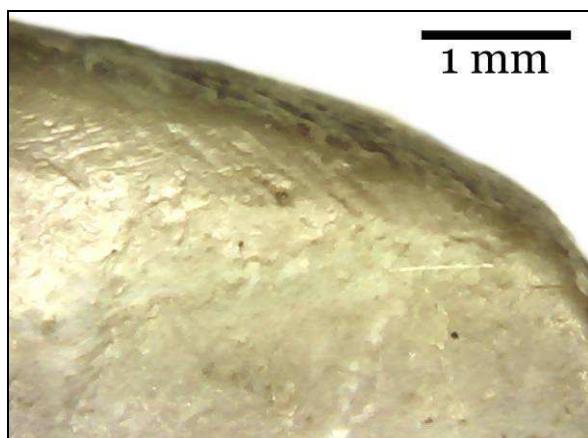


Fig. 69- SCS 68 – detail.

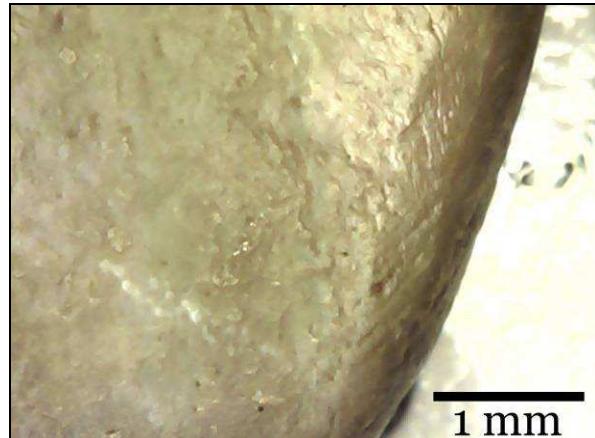


Fig. 70- SCS 68 – detail.

## Gedanken zu den Krummessern der Bronzezeit in Muntenien und Oltenien (Glina-, Tei- und Verbicioara-Kultur)

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**Zusammenfassung:** Die Verfasser analysieren die steinernen Krummessner der bronzezeitlichen Glina-, Tei- und Verbicioara-Kultur aus Muntenien und Oltenien. Es werden ihr Fundort und ihre Fundbedingungen, die Form, der Rohstoff (Steinart) aus dem sie gearbeitet wurden und ihre Funktionalität besprochen.

**Schlüsselwörter:** Muntenien, Bronzezeit, Krummesser, Funde, Verwendung.

**Abstract:** The authors analyze the curved stone knives of the Glina, Tei and Verbicioara cultures from Muntenia and Oltenia. The place and context of discovery, the raw material, shape and function of the artifacts are discussed here.

**Key-words:** Muntenia, Bronze Age, Curved Knives, Discoveries, Functionality.

Die Gattung der steinernen Krummessner sind nicht kulturspezifisch für die „rumänische“ Bronzezeit. Krummesser, halbmondförmig oder schnabelartig, d.h. plan-konvex oder konkav-konvex (N. Boroffka, 1994: ist der Meinung, dass dieser Krummessertyp eher „*eine spätbronzezeitliche Zeitstellung andeutet, wobei jedoch... Vorsicht geboten ist*“), wurden in den verschiedenen Kulturen, im Banat, in Muntenien und Oltenien, in der Dobrogea, in Siebenbürgen und in der Moldau, entdeckt (Schneckenberg, Jigodin, Șoimuș, Livezile, Wietenberg, Otomani, Verbicioara, Năeni, Monteoru, Costișa, Noua) (H. Schroller, 1930; A. Prox, 1941; Gh. Bichir, 1961; Gh. Bichir, 1962; A. Florescu, 1964; A. Florescu, 1991; A. Păunescu, 1970; T. Bader, 1978; A. Vulpe, V. Drămbocianu, 1981; Z. Szekely, 1983; J. Machnik, 1985; B. Kull, 1986; I. Andrițoiu, 1989; I. Andrițoiu, 1992; S. Iacobescu, 1992; N. Boroffka, 1994; H. Ciugudean, 1996; Zs. Szekely, 1997; V. Cavruc, Gh. Dumitroaia, 2001; G. Crăciunescu, 2004; G. Crăciunescu, 2007; D. Costache, 2007; L. Dascălu,

2007; R. Munteanu, 2010; u.a.). Im Schnitt sind die meisten Messer linsenförmig, können aber auch einen runden oder eckigen Rücken besitzen, während die konkave Seite zu einer Schneide geschärft wurde. Auch einigen Kulturen der Übergangszeit vom Äneolithikum zur Bronzezeit waren Krummesser eigen: Coțofeni, Foltești II, Horodiștea-Foltești (M. Florescu, 1964; M. Florescu, 1966; M. Florescu, C. Buzdugan, 1972; P. Roman, 1976a; F. Burtănescu, 2002; u.s.w. H. Ciugudean, 2000, ist der Meinung, dass die Krummesser im Coțofeni-Millieu eher Importstücke sind). Die Messer wurden aus Silex, Plattensilex oder geschliffenem Stein (meistens Sandstein, Felsgestein) angefertigt.

### Zu den Glina-Krummessern

Das Grabungsjahr 2011 in Mironești-Conacul lui Palade, Gemeinde Gogoșari, Bezirk Giurgiu, hatte u.a. in der frühbronzezeitlichen Glina-Siedlung auch die Entdeckung eines steinernen, geschliffenen Krummessers als Forschungsresultat (C. Schuster, T.

Popa, 2012). Es wurde in der Kulturschicht, im *Schnitt Nr. 11, Quadrat 1*, in einer der Tiefe von -0.40-0.60 m gefunden (C. Schuster, T. Popa 2012, S. 19). Das Messer (Abb. 1), aus Sandstein, besitzt eine konkav-konvex gebogene Form (Länge = 16,2 cm, Distalbreite = 1,7 cm, Mittelbreite = 2,7 cm, Proximalbreite = 4,2 cm, Maximaldicke = 1,4 cm, Gewicht = 159 g), hat den Aktivteil, d.h. die Schneide, im inneren Bogen, während das Proximalende eine grössere Dicke aufweist, wahrscheinlich um einer besseren Handlichkeit zu dienen (C. Schuster, T. Popa 2012. Die Analyse des Messers wurde von Laurențiu Mecu durchgeführt.). Am Distalende und auf dem äusseren Bogen sind Abwetzungen, die uns von einer Schleiftätigkeit sprechen lassen, zu erkennen. Interessant ist, dass die Schneide, ausser ihrem Distalende, keine Spuren jedwelcher Benützung aufweist.

Krummesser wurden, ausser Mironești-*Conacul lui Palade*, auch in anderen Glina-Siedlungen entdeckt. Wir erwähnen für Muntenien București-*Ciurel* (hinsichtlich den Forschungen in diesem Grabungsort: C.S. Nicolăescu, 1922; D.V. Rosetti, 1932a; D.V. Rosetti, 1932b; D.V. Rosetti, 1932c; D.V. Rosetti, 1935; S. Morintz, 1959; S. Morintz, 1961; S. Morintz, Gh. Cantacuzino, 1959; S. Morintz, P. Roman, 1962; M. Negru, 1995; M. Negru, 1998; M. Negru, C. Schuster, 1997; C. Schuster, 1997; M. Negru, C. Schuster, L. Ota, A. Morintz, A. Bădescu, 2009) und *Fundeni*, Glina (über die Forschungen in dem Tell, s. I. Nestor, 1933a; M. Petrescu-Dâmbovița, 1944; M. Petrescu-Dâmbovița, 1974; M. Petrescu-Dâmbovița, 1996; C. Schuster, 1997; C. Schuster, C. Fântâneanu, 2005), Odaia Turcului (zu den Grabungen s. E. Tudor, 1982; E. Tudor, 1983; R. Băjenaru, 1996; R. Băjenaru, 2002; R. Băjenaru, 2003; R. Băjenaru, 2006; C. Schuster, 1997; Gh. Olteanu, 2002; C. Schuster, C. Fântâneanu, 2005) und Văcărești (E. Tudor, 1972; C. Schuster, 1997; C. Schuster, C. Fântâneanu, 2007) und für Oltenien Ocnita-Cosota, Râmnicu Vâlcea-Cetățuia und Ocnita-Cetatea I. Das Messerfragment aus *Ciurel* wurde 1994, in einem Grubenhäus, gefunden (M. Negru, C. Schuster, 1997; C. Schuster, 1997; C. Schuster, C. Fântâneanu, 2007). Das erhaltene Bruchstück (Länge = 8,9 cm, Maximalbreite = 4,8 cm, Maximaldicke = 1,5 cm), aus Sandstein gearbeitet, zeugt Abnutzungsspuren und Absplitterungen.

In der Siedlung bei *Fundeni* (zu den Grabungen in der Glina-Siedlung: D.V. Rosetti 1932a; S. Morintz, D.V. Rosetti, 1959; C. Schuster, 1997; C. Tome XV, Numéro 2, 2013

Schuster, C. Fântâneanu, 2005) sind mehrere Krummesser entdeckt worden. Die Informationen bezüglich der Anzahl dieser und ihr Fundplatz sind leider unklar. Es wird zwar von einer grösseren Anzahl von Messer gesprochen, es wurde aber nur eins davon veröffentlicht (S. Morintz, D.V. Rosetti, 1959; C. Schuster, 1997; C. Schuster, C. Fântâneanu, 2007).

Eine neulich durchgeführte Analyse der bronzezeitlichen Steingeräte (Elena Gavrilă und Laurențiu Mecu), die sich im Bukarester Museum befinden, hatte des Entdecken von drei bis jetzt unpublizierten Krummessern (zwei ganze und ein Bruchstück von einem dritten) zum Ergebnis (*Krummesser Nr. 1*, ganz erhalten, Form = fast gerade: Länge = 13 cm, Breite = 3,8 cm, Dicke = 1,1 cm – Abb. 2a; *Messer Nr. 2*, fragmentarisch erhalten: Länge = 7,1 cm, Breite = 5,8 cm, Dicke = 1,1 cm; *Messer Nr. 3*, ganz erhalten, Form = krumm: Länge = 16,3 cm, Breite = 5 cm, Dicke 1,4 cm – Abb. 2b). Diese Exemplare, genau wie das 1959 veröffentlichte, wurden aus Sandstein gearbeitet, haben ihre Schneide im inneren Bogen und weisen Spuren von Benützungen auf (eines der Krummesser wurde sehr wahrscheinlich als Schleifstein verwendet). Elena Gavrilă ist der Meinung, dass diese wiedergefundenen Messer der Tei-Kultur angehören. Es ist wahr, dass in *Fundeni* wichtige Spuren dieser kulturellen Äußerung entdeckt wurden (D.V. Rosetti, 1936; V. Leahu, 1966a; V. Leahu, 2003; C. Schuster, 2005). Aber der, der sich eingehend mit dem archäologischen Material aus diesem Fundort auseinandersetzt hat – Valeriu Leahu (2003), erwähnt für die Tei-Kultur kein Krummesser. So dass die in *Fundeni* entdeckten Exemplare, sehr wahrscheinlich der Glina-Kultur angehören.

In der Siedlung von Glina sind auch steinerne, geschliffene Messer gefunden worden (I. Nestor, 1933a; M. Petrescu-Dâmbovița, 1944; A. Păunescu, 1970; C. Schuster, 1997; C. Schuster, C. Fântâneanu, 2007). Die genau Anzahl dieser ist uns nicht bekannt. Es werden 20 Sandstein- und drei Silexmesser erwähnt (A. Păunescu, 1970). Diese letzteren wurden nach Alexandru Păunescu aus präbalkanischen Silex angefertigt (Abb. 3a-b). Das ausgegrabene archäologische Material ist leider in mehreren Museen verstreut und, trotz unserer Bemühungen, konnten die geschliffenen Messer nicht wiedergefunden werden.

Krummesser wurden desgleichen auch in Glina-Siedlungen im Bezirk Dâmbovița entdeckt.

**Gedanken zu den Krummessern der Bronzezeit in Muntenien und Oltenien  
(Glina-, Tei- und Verbicioara-Kultur)**



Abb. 1. Mironești-Conacul lui Palade. Glina-Kultur, geschliffenes Krummesser.  
Foto Gheorghe Chelmeț.



Abb. 2. București-Fundeni. Glina-Kultur, a-b = geschliffene Krummesser  
(Foto Elena Gavrilă).

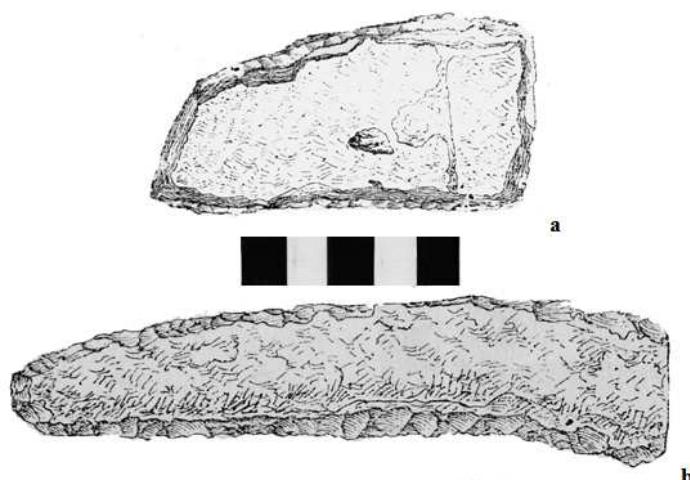


Abb. 3. Glina. Glina-Kultur, a-b = Silexkrummesser  
(nach A. Păunescu, 1970).

In Văcărești wurde ein 7 cm langes, 4,2 cm breites (maximal) und 1,1 cm dickes Bruchstück ans Tageslicht gefördert (E. Tudor, 1972; C. Schuster, 1997a; C. Schuster, C. Fântâneanu, 2007). Fragmentarisch ist auch der Fund von Odaia Turcului (E. Tudor 1982a; E. Tudor, 1983; C. Schuster, 1997a; C. Schuster, C. Fântâneanu, 2007). Beide Messer weisen Absplitterungen und Wetzspuren auf.

Die im Jahr 1978 im nördlichen Teil der Stadt Râmnicu Vâlcea, im Punkt *Cetățuia* (zu den

Forschungen: Gh. Petre-Govora, 1985; Gh. Petre-Govora, 1995; C. Schuster, C. Fântâneanu, 2005), durchgeführte Bauarbeiten, trugen zu der Zerstörung einer frühbronzezeitlichen Glina-Siedlung bei. Rettungsforschungen erlaubten aber das Entdecken eines Krummessers (Länge = 14,9 cm, Proximalbreite = 3,5 cm, Mezialbreite = 4,7 cm, Distalbreite = 2,7 cm, Dicke = 1,1 cm, Gewicht = 170 gr) (Abb. 4). Während die Rückenseite Asplitterungen aufweist, trägt der Aktivteil Schleifspuren.



Abb. 4. Cetățuia. Glina-Kultur, geschliffenes Krummesser (Foto Laurențiu Mecu).

Aus einem Gestein, das Glimmer beinhaltet (Sandstein?), wurde das Distalfragment eines Krummessers aus Ocnița (M. Iosifaru, 2011), Punkt *Cetatea I*, erarbeitet (I. Tuțulescu, Binder, 2009) (Abb. 5). Dieses Exemplar (erhaltene Länge = 11,4 cm, Proximalbreite = 4 cm, Distalbreite = 1,6 cm, Dicke = 1,2 cm, Gewicht = 96 gr) ist im Jahr 1983 in der Glina-Schicht der getischen *Dava* entdeckt worden (zu den Grabungen: D. Berciu, 1981; C. Schuster, C. Fântâneanu, 2005). Seine Aktivfront und die gegenüber liegende Seite tragen Absplitterungsspuren.

### Zu den Tei-Krummessern

Die Forschungen in der Ansiedlung am rechten Dâmbovița-Ufer, im Punkt bekannt unter dem Namen București-*Militari Câmpul Boja* (zu den Tei-Funden: C. Schuster, M. Negru, 1999; C. Schuster,

M. Negru, 2006; C. Schuster, M. Negru, 2008; C. Schuster, M. Negru, 2009; C. Schuster, M. Negru, 2013; C. Schuster, 2000; Negru et al., 2007), erlaubten das Entdecken in der Tei IV-Schicht eines Fragments von einem Krummesser aus Sandstein. Die erhaltene Länge beträgt 8,4 cm, die Distalbreite 3,6 cm, die erhaltene Maximalbreite 4,4 cm und die Dicke 0,8 cm (C. Schuster, M. Negru, 1999; C. Schuster, 2000; C. Schuster, 2007). Wenn die bis jetzt beschriebenen Glina-Krummesser meistens schnabelförmig waren, so ist dieses Exemplar von *Militari-Câmpul Boja* halbmond förmig; d.h. mit einem geraden Rücken, während der konvexe Teil die Schneide bildet.



Abb. 5. Ocnița. Glina-Kultur, geschliffenes Krummesser (Foto Laurențiu Mecu).

Die älteren Grabungen in București-Tei (I. Nestor, 1933b; D.V. Rosetti, 1936; V. Leahu, 1966a; V. Leahu, 2003; C. Schuster, 2005) hatten das Finden mehrerer Krummesser zum Ergebnis. Genauso wie in anderen Fällen, wurde auch hier nur ein Stück (Länge = 11,6 cm, Distalbreite = 2,2 cm, Mittelbreite = 4,2 cm, Proximalbreite = 3,1 cm, Maximaldicke = 2,7 cm) – gearbeitet aus Sandstein (V. Leahu, 1966a; V. Leahu, 2003; C. Schuster, 2007) – veröffentlicht (Abb. 6).

Im Depot des Bukarester Museums gibt es weitere Exemplar aus der Siedlung București-Tei (ganz erhalten: Länge = 11 cm, Breite = 2,5 cm, Dicke = 1 cm) (Abb. 7). So wie festgestellte wurde, zeugt auch dieses Messer (angefertigt aus Protolit) von Verwendungsspuren auf beiden Seiten und auf der Schneide.

Desgleichen im Umfeld der heutigen Stadt București, im Wohnviertel Dămăroaia, Punkt *Băneasa* (zu den Forschungen in den zwei Ansiedlungen von hier, s. V. Leahu, 1965b; V. Leahu, 1966a; V. Leahu, 1966b; V. Leahu, 2003; C. Schuster, 2005) wurden weitere geschliffene Krummesser gefunden (V. Leahu, 1966b; V. Leahu, 2003; C. Schuster, 2007). Der Entdecker, Valeriu

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Leahu, hat keine dieser veröffentlicht. Er teilte uns aber mit, dass in *Băneasa*, in der Tei III-Siedlung, nur Bruchstücke von Sandsteinmesser ans Tageslicht gefördert wurden.



Abb. 6. București-Tei. Tei-Kultur, geschliffenes Krummesser  
(nach S. Morintz, D.V. Rosetti, 1959).



Abb. 7. București-Tei. Tei-Kultur, geschliffenes Krummesser  
(Foto Elena Gavrilă).

In den zwei wichtigen Ansiedlungen am rechten Argeș-Ufer, in Popești-Nucet (zu den Grabungen in Popești: R. Vulpe, 1957; R. Vulpe, 1959; R. Vulpe, 1962; V. Leahu, 1966a; V. Leahu, 2003; N. Palincaș, 1996; N. Palincaș, 1997; A. Vulpe, 1997; C. Schuster, 2005) und Mogoșești (zu den Forschungen: C. Schuster, T. Popa, 1995; C. Schuster, T. Popa, 2000; T. Popa, 1998; T. Popa, C. Schuster, 2002; C. Schuster, 2005; C. Schuster, T. Popa, V. Barbu, 2012), konnten auch Krummessner geortet werden. In der erstgenannten Siedlung (Tei IV-Stufe), wurde ein konkav-konvexes beidseitig geschärftes Silexkrummesser (A. Păunescu, 1970; B. Kull, 1986; V. Leahu, 2003; C. Schuster, 2007) gefunden (Abb. 8). Alexandru Păunescu und Valeriu Leahu sind der Meinung, dass dieses Werkzeug/Waffe (es ist 11,6 cm lang) Analogien mit östlichen bronzezeitlichen Kulturen aufweist und nicht eine lokale Erscheinung darstellt.

In der Tei II-Siedlung von Mogoșești, Gemeinde Adunații-Copăceni, Bezirk Giurgiu, wurden mehrere

Krummesser entdeckt. Alle diese wurden aus Sandstein gearbeitet. Aus dem *Haus Nr. 3* wurde ein ganzes Exemplar ans Tageslicht gefördert (C. Schuster, T. Popa, 1997; C. Schuster, T. Popa, 2000; C. Schuster, T. Popa, 2010; C. Schuster, 2007) (Abb. 9). Es hat eine Länge von 11,4 cm, eine Distalbreite von 3,2 cm, Mittelbreite von 3,7 cm, Proximalbreite von 3,4 m und eine Maximaldicke von 2 cm. Das Distalende und die Schneide weisen Reibungsspuren und kleine Absplitterungen auf. In der Tei-Schicht wurden weitere zwei Krummesser gefunden. Diese sind in Bruchstückform erhalten geblieben, u.z. ein Distalende (Schnabel; erhaltene Länge = 3,4 cm, Breite = 3,3 cm, Maximaldicke = 1,8 cm) und ein größeres Fragment, welches auch das Proximalende besitzt (erhaltene Länge = 6,5 cm, Maximalbreite = 3,2 cm, Maximaldicke = 2,2 cm). Beide diese Exemplare zeugen von Wetzspuren und das Distalende von Absplitterungen und Schnitte/Kratzer (?).



Abb. 8. Popești-Nucet. Tei-Kultur, Silexmesser  
(nach A. Păunescu, 1970).

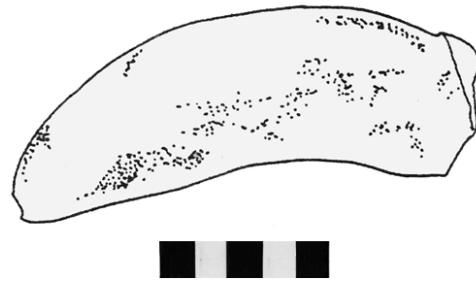


Abb. 9. Mogoșești. Tei-Kultur, geschliffenes Krummesser  
(nach C. Schuster, T. Popa, 2000).

In der Tei IV-Siedlung von Daia (Bezirk Giurgiu) hatten die Forschungen in den zwei „*Zolniki*“ (Aschehügel) (hinsichtlich den Grabungen: V. Leahu, 1981; V. Leahu, 1982; V. Leahu, 2003; C. Schuster, 2005) auch das Finden eines Fragments von einem Sandsteinkrummessers (V. Leahu, 1982; V. Leahu, 2003; C. Schuster, 2007; C. Schuster, T. Popa, 2010) (Abb. 10). Die Schneide weist

Reibspuren und Absplitterungen auf.



Abb. 10. Daia. Tei-Kultur, geschliffenes Krummesser (nach V. Leahu, 1981).

Interessant ist, dass in dieser Siedlung auch eine Bronzesichel, die durch ihre Form die steinernen Krummesser sehr gut nachahmt, gefunden worden ist (Abb. 11). Was, der Meinung nach einiger Archäologen, ein Beweis für eine „genetische“ Verbindungen zwischen den steinernen Krummessern und einigen primitiven Bronzesicheln sein könnte.



Abb. 11. Daia. Tei-Kultur, bronzerne Sichel (nach V. Leahu, 2003).

Zwei interessante Tei-Siedlungen konnten in Chitila (Bezirk Ilfov) erforscht werden (V. Boroneanț, 1978; V. Boroneanț, 1981; V. Leahu, 2003). Im II. Niveau der Siedlung im Punkt *Cărămidărie* wurden ein ganzes Exemplar und Fragment eines zweiten Krummesser entdeckt (V. Boroneanț, 1981; C. Schuster, 2007). Vasile Boroneanț zeigt, dass beide Messer aus Sandstein gearbeitet wurden.

In der Stadt Otopeni (Bezirk Ilfov) (zu den Forschungen: V. Leahu, 1968; V. Leahu, 2003; C. Schuster, 2005) ist desgleichen ein Krummesser gefunden worden (V. Leahu, 1968; C. Schuster, 2005). Leider gab der Entdecker keine andere Details preis.

Am Ufer des Căldărușani Sees, im Punkt *Tatomir* der Ortschaft Greci (zu den Grabungen: A. Ulanici, G. Trohani, 1975; A. Ulanici, 1978; A. Ulanici,

1979; V. Leahu, 2003; C. Schuster, 2005) sind auch drei Sandsteinkrummesser identifiziert worden (A. Ulanici, G. Trohani, 1975; A. Ulanici, 1978; C. Schuster, 2007). Nennenswert ist, dass alle im *Haus Nr. 4* lagen. Zwei davon sind ganz erhalten geblieben und das Dritte nur fragmentarisch.

### Zu den Verbicioara-Krummessern

Unter den Funden in der Verbicioara I-Siedlung von Rogova (Bezirk Mehedinți) (über die Forschungen: G. Crăciunescu, 2000; G. Crăciunescu, 2000a; G. Crăciunescu, 2002b; G. Crăciunescu, 2004; G. Crăciunescu, 2005a; C. Manea, 2003; C. Manea, O. Pădurean, 2005) sind auch drei steinerne Krummesser zu nennen. Die Schneide liegt bei allen Exemplaren im konkaven Teil. Leider sind die Messer nur Bruchstücke (G. Crăciunescu, 2000; G. Crăciunescu, 2003b; G. Crăciunescu, 2004; G. Crăciunescu, 2005a). Eines der Fragmente ist größer, es beträgt eine Länge von 12,9 cm, eine Maximalbreite von 5 cm und eine Maximaldicke von 1,9 cm (Abb. 12).

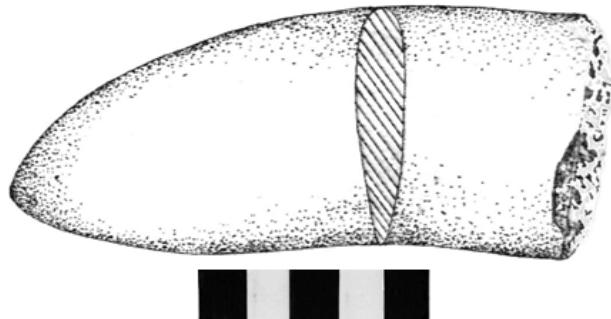


Abb. 12. Rogova. Verbicioara-Kultur, geschliffenes Krummesser (nach G. Crăciunescu, 2000).

Dieses Messer, so wie auch die anderen zwei, weisen Schleif- und Wetzspuren auf. Der Sandstein war der zur Herstellung verwendete Rohstoff.

Im Jahre 2005 wurde ein weiteres fragmentarisches Steinmesser, aber diesmal im Bereich eines Oberflächenbaus, gefunden (C. Manea, O. Pădurean, 2005). Ein zweites steinernes Krummesser ist auch außerhalb des Hauses entdeckt wurden (C. Manea, O. Pădurean, 2005). Beide reihen sich den anderen drei schon besprochenen an. Die Schneiden sind konkav und eines der neugefundenen besitzt eine Durchbohrung und konnte mittels dieser angebunden oder „genietet“ werden (Abb. 13).

In der namengebenden Siedlung der Kultur (zu den Forschungen: D. Berciu, 1961a; D. Berciu,

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1961b; G. Crăciunescu, 2004; G. Crăciunescu, 2005a) wurden gemäß Dumitru Berciu (1961a) zwei steinerne Krummesser gefunden. Das erste Bruchstück eines mondförmiges Messers hat eine erhaltene Länge von 10,1 cm, eine Maximalbreite von 5 cm und eine Maximaldicke von 1 cm (Abb. 14). Die Schneide liegt im konkaven Teil, hier und an der abgerundeten Spitze sind Wetzspuren und Absplitterungen zu erkennen.



Abb. 13. Rogova. Verbicioara-Kultur,  
geschliffenes Krummesser  
(nach C. Manea, O. Pădurean, 2005).

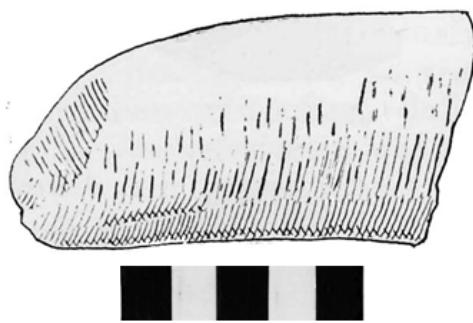


Abb. 14. Verbicioara. Verbicioara-Kultur,  
geschliffenes Krummesser  
(nach D. Berciu, 1961a).

Ein schlechterhaltenes Fragment (Länge = 14,8 cm, Maximalbreite = 7,83 cm) eines zweiten Krummessers, mit dem Aktivteil (Schneide) auf der Rückenpartie, wurde nach seinem Bruch als Schleifstein benutzt (Abb. 15). Dafür sprechen die abgewetzten Seiten und eine tiefe Schleifrinne auf einer der Seiten. Wahrscheinlich diente diese für das Zuspitzen von verschiedenen Knochen- oder Steingeräten (Ein wahrscheinliches Objekt desselben Typs wurde auch in Crivăț, in einer Glina-Siedlung, entdeckt: T. Nica, 2010. Leider war es uns nicht zugänglich).

In der Verbicioara IV-Siedlung bei Vierșani-Jupânești (Bezirk Gorj) entdeckte Gheorghe Tome XV, Numéro 2, 2013

Calotoiu in der 2. Oberflächenwohnung u.a. auch ein steinernes Krummesser (Gh. Calotoiu, 1994; Gh. Calotoiu, 1996; Gh. Calotoiu, 2009; Gh. Calotoiu, 2010). Es wurde nur die erhaltene Länge und die Maximalbreite angegeben (11,3 cm; 5,4 cm).



Abb. 15. Verbicioara. Verbicioara-Kultur,  
geschliffenes Krummesser  
(nach D. Berciu, 1961a).

Bei Secu, in der Verbicioara IV-Siedlung von hier (M. Nica, 1980; M. Nica, 1996; G. Crăciunescu, 2004; G. Crăciunescu, 2005), wurde ein Fragment eines steinernen Messers entdeckt (M. Nica, 1996). Es ist 7,7 cm lang, 2,3 cm breit und eine Maximaldicke von 1 cm. Der Rücken ist konvex, die Schneide aber, erweist sich fast gerade. Sowohl diese, wie auch der Rücken tragen Schleif- und Wetzspuren. Benutzungsabsplitterungen sind nur auf der Schneide zu erkennen. Das Messer wurde aus Sandstein gearbeitet.

\*

### Besprechung

Die steinernen Krummesser wurden entlang der ganzen Entwicklung der drei bronzezeitlichen Kulturen - Glina, Tei und Verbicioara -, so wie unsere Analyse beweist, benutzt. Anfangs dachte Valeriu Leahu, dass solche Werkzeuge nur in den ersten drei Stufen der Tei-Kultur anwesend waren (Leahu 1965a; Leahu 1966a). Die Fund von Daia und București-Militari-Câmpul Boja, in Siedlungen der IV. Stufe, setzte ein Ende dieser Hypothese (V. Leahu, 1982; V. Leahu, 2003; C. Schuster, 2000). Steinerne Krummesser wurden bis in die Spätbronzezeit (in allen Provinzen Rumäniens) und frühen Hallstattzeit (hauptsächlich in der Moldau – z.B. Grănicești und Botoșana, aber auch östlich des Pruth-Flusses) (A. Florescu, 1964; A. László, 1991; L. Dascălu, 2007) benutzt.

Werkzeuge östlicher Abstammung. Über 30 Stück wurden in den Siedlungen und den Gräbern der Noua-Kultur entdeckt (A. Florescu, 1991; L. Dascălu, 2007). Ausgehend von dieser Feststellung, kann der Tei-Fund von Popești-Nucet, genauso wie andere in den Costișa- und Otomani-Siedlungen (A. Păunescu, 1970; T. Bader, 1978), als Importexemplare betrachtet werden. Anderseits ist aber nicht zu vergessen, dass Silexkrummesser auch der Glina-Kultur und anderen frühbronzezeitlichen Erscheinungen (hier ist z.B. die Schneckenberg-Kultur zu nennen: A. Prox, 1941; A. Păunescu, 1970) eigen waren, so dass eine Tradition in der Anfertigung dieser nicht ausgeschlossen ist.

Als Valeriu Leahu über eine bronzerne Sichel der I. Stufe der Tei-Kultur, die in București-Cățelu Nou ausgegraben wurde, sprach, äusserte er die Meinung, dass diese typologisch die geschliffenen steinernen Krummesser kopiert (V. Leahu, 1966a. Für diese Hypothese sprach sich auch M. Petrescu-Dîmbovița, 1978 aus). Diese Hypothese scheint auch durch einen weiteren Fund aus dem Jahr 1979 in Daia bekräftigt zu werden (V. Leahu, 1981). Anderseits, ist aber auch nicht zu vergessen, dass im Glina-Millieu desgleichen metallerne Messer entdeckt wurden, von denen manche, wie das kupferne aus Căzănești (Bezirk Vâlcea) (Gh. Petre, 1970; Gh. Petre-Govora, 1995; I. Mareș, 2002) und zwei andere Exemplare aus Odaia Turcului (Bezirk Dâmbovița) (die Funde in Siedlungen der Glina und Schneckenberg-Kulturen - A. Păunescu, 1970 - sind zwar den Krummessern ähnlich, aber ob sie bei ihrer Erzeugung wirklich als solche gedacht wurden, ist fraglich) als Krummesser (*rebmesserartige Sichel* der Deva-Variante) eingestuft werden können.

Wenn in der Frühbronzezeit das geschliffene, weniger das Silexkrummesser verwendet wurde, so wurden in der Mittel- und hauptsächlich Spätbronzezeit gleichzeitig Stein-, Metall- und Knochenkrummesser benutzt. Diese letzten, auch *tupik* genannt, haben auch östlichen Ursprung, viele wurden im Noua-Sabatinovka-Coslogeni-Millieu entdeckt (S. Moritz, 1978; A. Florescu, 1991; L. Dascălu, 2007).

Obwohl wir die Krummesser der Glina-Kultur als Werkzeuge/Waffen zählten (C. Schuster, 1997), muß gesagt werden, dass sie von den meisten Archäologen als Werkzeuge betrachtet werden. Ihre Rolle als Waffen lag sehr wahrscheinlich im Feld des Zufalls. Möglich, dass die Krummesser nur selten in der Jagd oder in den menschlichen Auseinandersetzungen verwendet wurden. Mögliche Beispiele dafür wären, eventuell, die Messer welche in Gräbern gefunden wurden (z.B. die Noua-Gräber

von Crasnaleuca, Trușești-Tuguieta und die Monteoru-Gräber Nr. 4 und 49 von Sărata Monteoru: D. Costache, 2007. Siehe auch *Grab Nr. 13* von Baldovinești: N. Harătche, F. Anastasiu, 1968) und damit auf einen Status als Jäger oder wichtige Person des Gestorbenen in der Gemeinschaft hindeuten.

Als Werkzeug dienten die Krummesser vielen Funktionen. Wir hegten mit einer anderen Gelegenheit den Gedanken, dass „*Most likely, their common employment was the usage in daily activities, probably at wild plants reaping and also in harvesting*“ (C. Schuster, T. Popa, 2010). Hinsichtlich ihrer landwirtschaftlichen Rolle sprachen sich desgleichen mehrere Wissenschaftler aus (z.B. Zs. Szekely, 1997). Diese Feststellung hat Wurzeln in der ihrer Ähnlichkeit mit den metallernen und knochernen Sicheln (siehe eine eingehende Diskussion bei B. Kull, 1986). Wird aber ihre Verbreitung in den verschiedenen Landteilen des heutigen Rumäniens verfolgt, so ist zu erkennen, dass nicht alle diese die nötigen Eigenschaften für Pflanzenanbau aufweisen (veranschauchlich diesbezüglich sind die Funde in der Monteoru-Kultur: D. Costache, 2007). Der von uns durchgeführte Versuch (sog. „*experimentelle Archäologie*“) mit dem Krummesser aus Mironești-Conacul lui Palade schlichte Grass- oder etwas zähre Getreidehalme abzuschneiden, scheiterte kläglich. Die Halme brachen zwar, liessen sich aber nur selten durchschneiden. Es wurde viel effizienter mit Silexklingen oder zusamengesetzte Knochen & Silexklingen- oder Metallsicheln geerntet (V. Leahu, 2003; G. Crăciunescu, 2003a; G. Crăciunescu, 2004; G. Crăciunescu, 2005a; G. Crăciunescu, 2005b; C. Schuster, 2007).

Die Multifunktionalität der Krummesser ist nach Daniel Costache (2007) durch ihren Fundplatz im Umfeld der Siedlungen – im Hausinneren, in Gruben oder neben den Feuerstellen, bewiesen. Dafür sprechen auch die Benutzungsspuren welche auf einigen der Messer zu erkennen sind. Schleif-, Reib- und Wetzspuren, Absplitterungen, alle zeigen, dass dieses Werkzeug sehr wahrscheinlich in vielen Tätigkeiten mitgewirkt hat: Bearbeitung des Holzes, des Fleisches und Knochen, der Tierhäute und -felle u.s.w. (P. Roman, 1976b: im Falle der Felsgesteinkrummesser, redet er von „*Schaber für Tierhäute*“)

Für eine bessere Verwendung der Krummesser wurden diese mit Griffen aus Holz (oder Knochen?) versehen. Die Befestigung des Griffes geschah sehr wahrscheinlich durch Schäftung des Proximalendes des Messers in den Holzteil (B. Kull, 1986).

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## Arguments concerning the use of bitumen as adhesive for the hafting of some lithic tools from the early Bronze Age in the region of the Curvature Subcarpathians

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**Abstract:** Arguments concerning the use of bitumen as adhesive for the hafting of some lithic tools from the early Bronze Age in the region of the Curvature Subcarpathians. This study brings into question the use of bitumen for hafting lithic tools from the Romanian early Bronze Age. Bitumen samples were mechanically recovered from the surface of two retouched slabs discovered in Adâncă and Gorgota. The source of raw material is local and comes in the shape of thin menilit plates belonging to menilitian and disodilic shale formations within the geological formation of the Pucioasa-Fusaru Facies, a local variety of Subcarpathian Oligocene deposits. Bitumen is present in association with salt deposits near the sites of Adâncă and Gorgota.

**Keywords:** bitumen, plates, Early Bronze, menilit, disodil

### Introduction

The lithic tools that are the subject of our study has been treated in a previous study (M. Cosac et al., 2009), but intrigued by the consistent presence of black dots, both on cortical surfaces and in areas deemed by us as covering areas of these parts (Fig. 1) on retouched slabs from Adâncă and Gorgota, we have started performing a chemical analysis on them to determine the black substance origin. Initially we believed that differences in color and the presence of these black spots may be due to selective action depending on the origin and position of these parts, of chemical/mineral deposits processes, and so on, some of them being even post – depositional (Cosac et al., 2010).

### 1. Determination of bitumen

Analytical techniques such as the Fourier transform infrared spectroscopy (FTIR), is taken into account so as to evaluate samples taken from two lithic tools from the Bronze Age, discovered at "La Pășune" – Adâncă village and at "La

cazan" – Gorgota village (Răzvad town, Dâmbovița County). A crust of black organic matter, located on the surface of artifacts, was separated from the limestone surface thereof. Samples were extracted using chloroform and tetrahydrofuran or ultrasounds for 45 minutes at 45°C

#### 1.1. Apparatus and methods

Standard IR spectra using a Fourier transform (FT-IR) were collected using a Perkin Elmer Spectrum GX, using the KBr pellet technique in the 4000-400 cm<sup>-1</sup>. In the first version, it was possible to use an accessory drift by transforming powder samples scraped from the surface of parts, thereby ensuring that the analysis be carried out with ease. Note that this method of sampling is non destructive and provides for the possibility of a future harvest and other analyses. Samples ( $\leq 10$  mg) were extracted twice, first using 2 ml of acetone to dissolve any resinous fractions that may be present. After washing, the residue was extracted with the same volume of chloroform to dissolve

less polar substances and/or polymerized substances (e.g. wax, bitumen) (Fig. 2). After drying, the two fractions were analyzed by the KBr pellet standard with a Perkin Elmer FTIR spectrometer. Transmittance (%) was measured in the 4000-400 cm<sup>-1</sup> with a resolution of 4 cm<sup>-1</sup>.

The presence of carboxylic acids with a three-cycle structure requires a strong shear vibration due to CH<sub>2</sub> and CH<sub>3</sub> groups at 2928 cm<sup>-1</sup>. O-H shear bands appear at 3431cm-H-1, are either broad or narrow due to the dimerized vibration of carboxyl group in the solid phase. Strong shear vibrations C = O in groups of carboxylic acids or acylglycerols appears at 1795m cm<sup>-1</sup>. Other bands appear at 1620 and 1399 cm<sup>-1</sup> due to shear aromatic cycles, at 1630 cm<sup>-1</sup> the pendulum vibration appears in resin and acids and the band appearing at 1163 cm<sup>-1</sup> is typical of alcohol and ether groups (Fig. 3, 4). All this leads to the conclusion that the analyzed black solid samples belong to bitumen.

The presence of Al or Si is indicated by the peak reaching 466 and 505 cm<sup>-1</sup>. And the peak of 792 cm<sup>-1</sup> is attributed to the frequency of oscillation of the OH of the AH-OH group and the peak at 1035 cm<sup>-1</sup> stems from the Si-O sheer vibration, probably coming from the surfaces where the bitumen sample was extracted (Fig. 5).

## 2. Description of lithic tools and contexts

The lithic tools recovered from the "La Pășune" location, the Adâncă village area (Gura Ocniței town, Dâmbovița County), includes 11 tools of different types of flint and one piece of tuff. The piece examined (Fig. 6/1) is a thin fractured slab, (40 mm long, 29 mm wide, 7 mm thick) of gray flint with a yellowish cortex, displaying detachments of small sizes all throughout the edges, including on the opposite area to the fractured region.

Such detachments can be considered as retouches applied in order to modify the active front of a knife-like piece. It is worth mentioning that the angle in which the bifacial retouches were applied, has different amplitude from one side to the other, as well as a different angle. This allows us to assume that the area where piece displays bifacial retouches of a lesser degree was used to be fixed on a handle. An argument is that the frequency of bitumen spots is greater on the

detachments surface (Fig. 7). In fact, on the opposite side, the retouches bear obvious traces of polishing.



Fig. 1- Detailed images, the tools from Adâncă (a – d) and Gorgota (a – d), under the microscope

At Gorgota (Răzvad town, Dâmbovița County), in the area of "La Cazan", two slabs with bifacial retouche were discovered in the Bronze Age cultural context at the basis of a tumulus and near a cyst in the center of the area. At this stage of research we cannot accept that they were part of the funerary inventory.

Both slabs had black spots, but only one of them allowed for samples collection (Fig. 8). The piece has a relatively rectangular shape (58 mm long, 38 mm wide, 8 mm – maximum values) of layered menilite with gray cream and black strips, bearing isolated visible fossilized spots. Both surfaces are covered with a cortical and neocortical layer of variable thickness (1.45 to 0.70 mm) arranged unevenly having a grayish-

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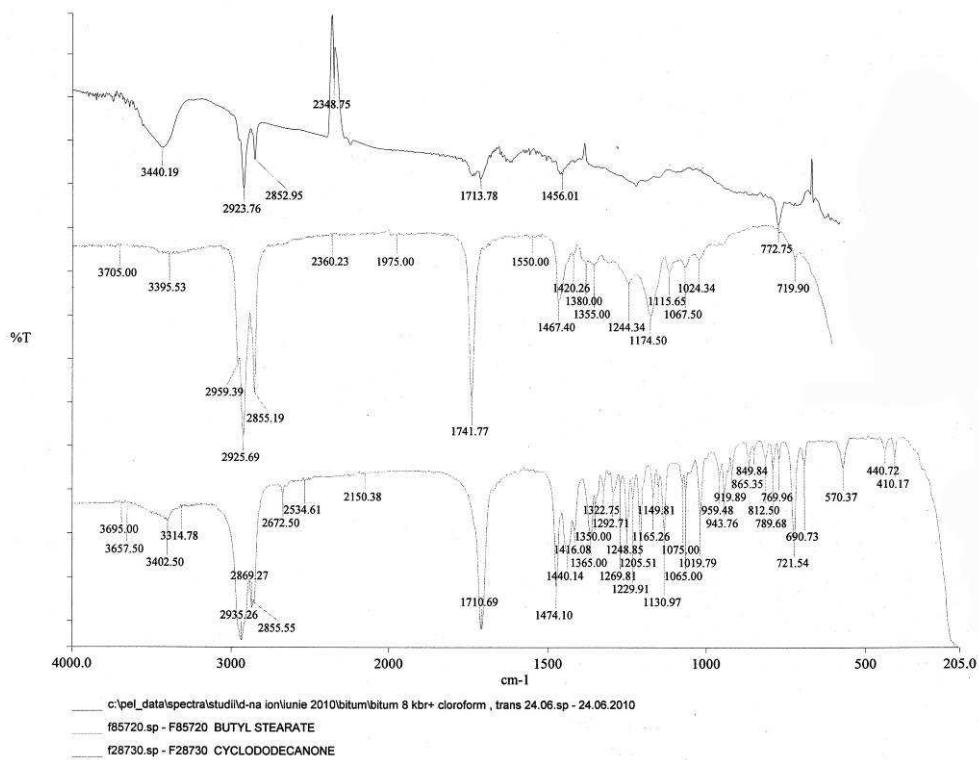


Fig. 2 - Spectrums for identification of the bitumen on the analysed pieces

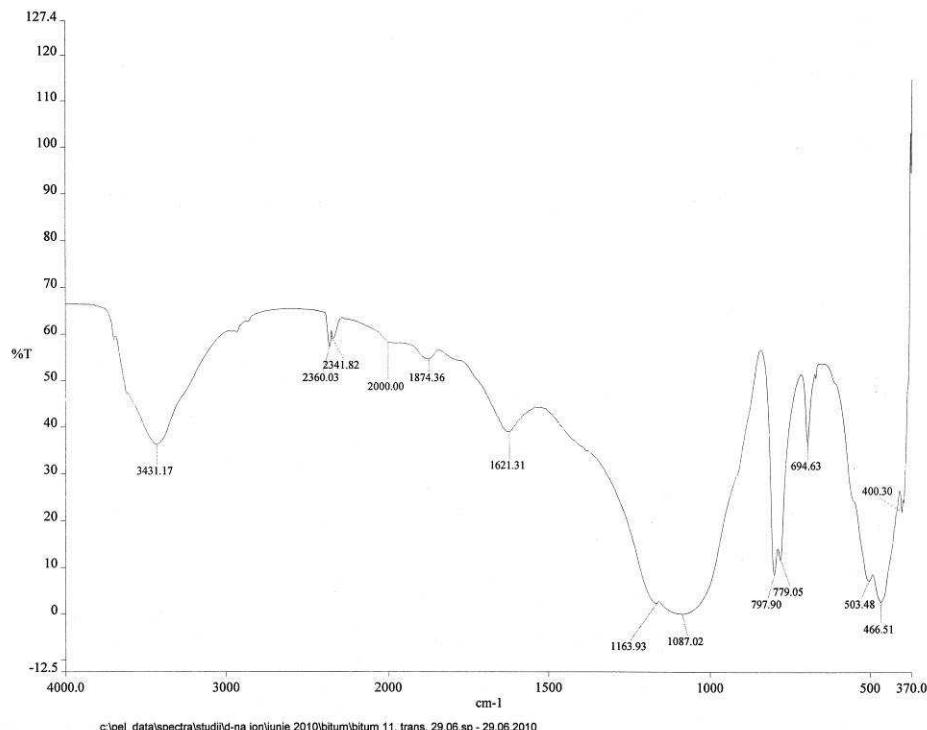


Fig. 3 - Spectrums for identification of the bitumen on the analysed pieces

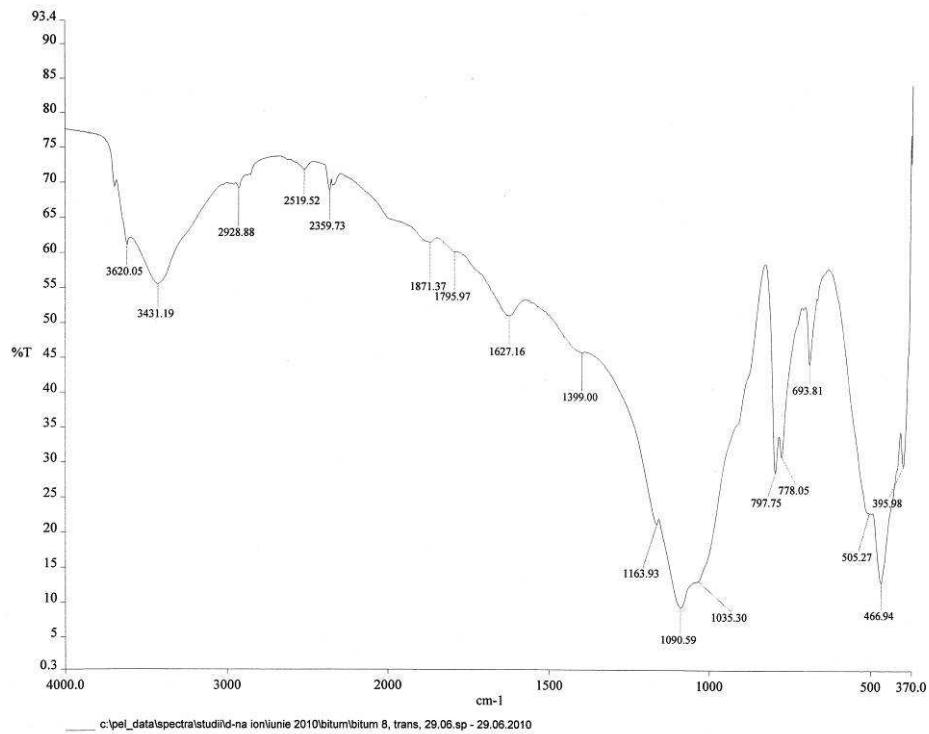


Fig. 4 - Spectrums for identification of the bitumen on the analysed pieces

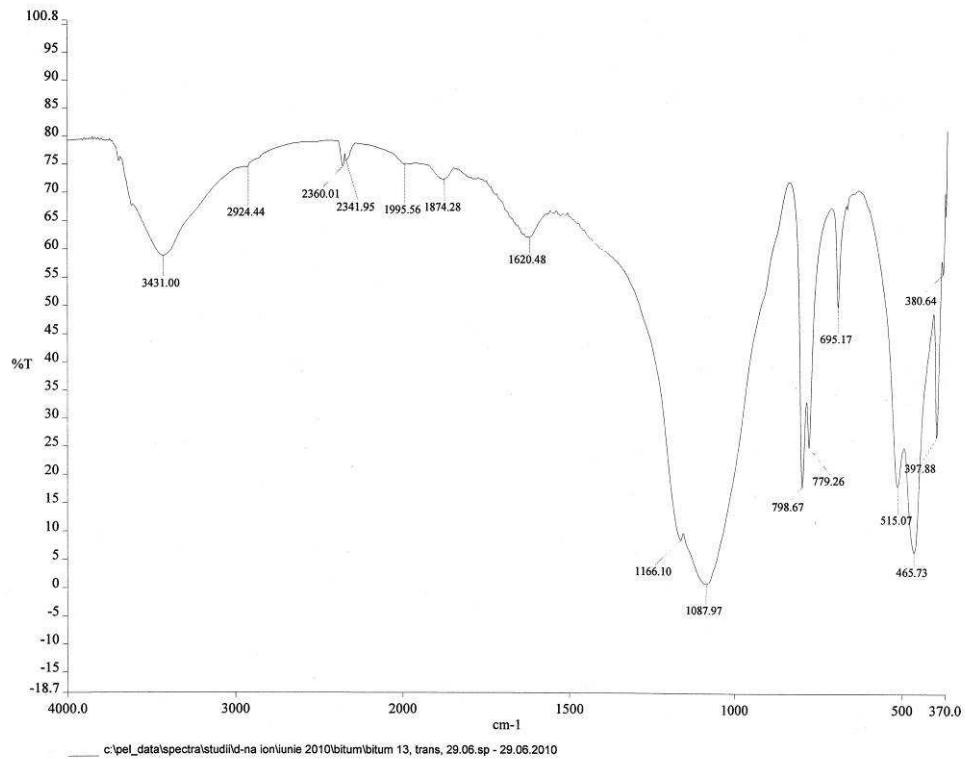


Fig. 5 - Spectrums for identification of the bitumen on the analysed pieces

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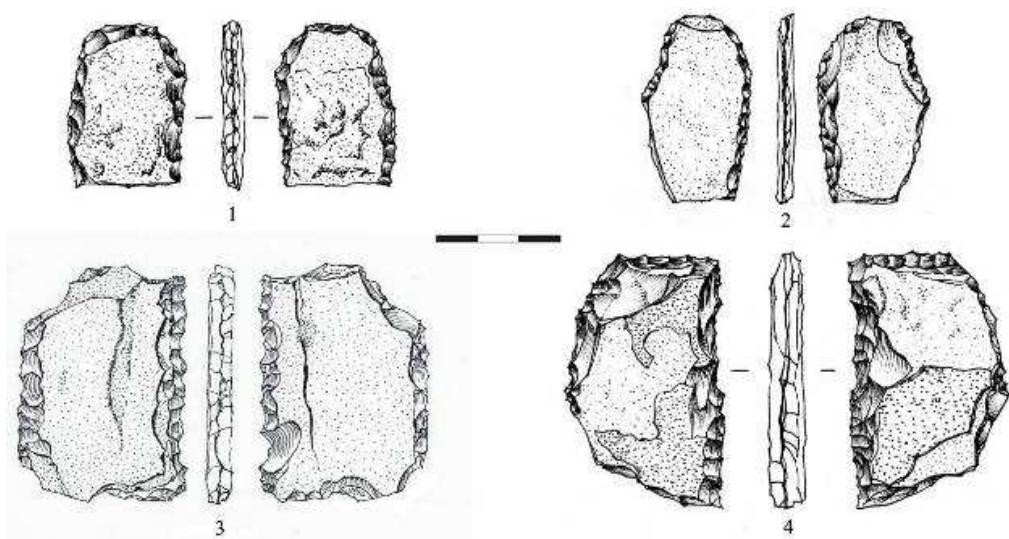


Fig. 6 - 1. Adâncă; 2-4 Gorgota; 3. Băleni (drawn by F. Dumitru)



Fig. 7- Detailed images, the tools from Adâncă, under the microscope

black color on one surface, and a yellowish-white color on one surface, and a yellowish-white tint, with black spots on the other surface. On two sides of the piece (a long one and a short one) there are bifacial retouches in a relatively continuous, regular pattern, affected by the accidental detachments of variable degrees.

On the other two sides of the edges, the detachments are more intense, accompanied by approximately perpendicular fractures on the blank, the surface of which bears attempts to redevelop similar retouches to those described above. From a functional perspective, one cannot say with certainty whether the almost entirely visible retouched surface plays a passive (hafting) or active role. On the one hand, due to the incomplete morphology of the two other sides

and, on the other hand, to the lack of comprehensive information on how the discovery took place, defining the piece functionally and typologically remains uncertain. For both parts, the tool axis is parallel to the active area, as well as to the hafting area.

A piece similar to those described was identified in the lithic complex found in the layer corresponding to the Bronze Age in the multi-layer site at Băleni - "La Plantație" (Băleni town, Dâmbovița county) (Fig. 6/3). This tool displayed black spots, but unfortunately, the author of the archaeological research has only given us the possibility of obtaining images of it and not extracting mechanical evidence for future analysis.

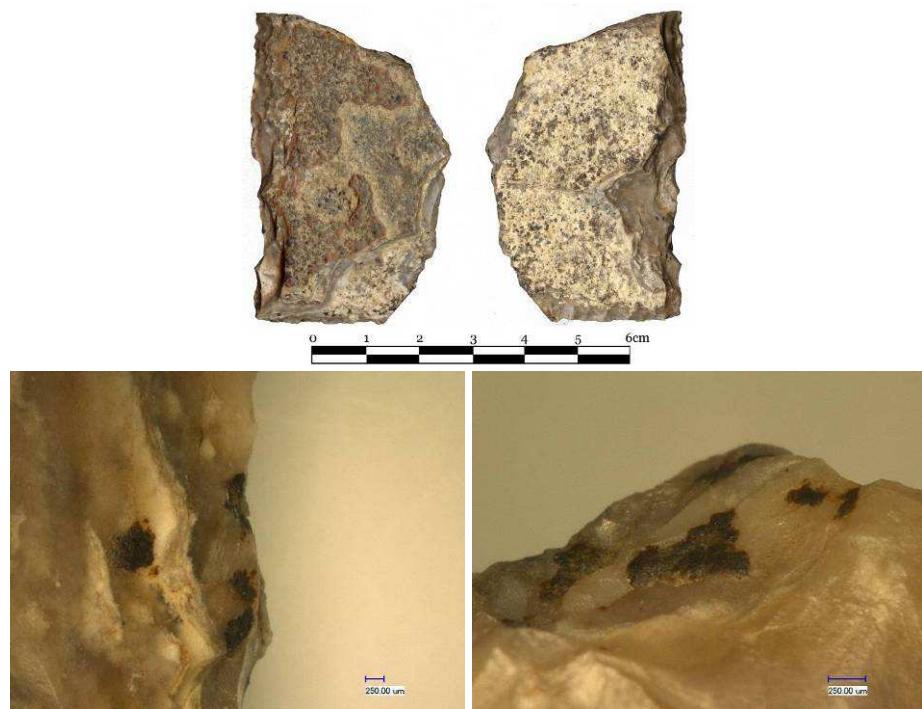


Fig. 8- Detailed images, the tool from Gorgota, under the microscope

### 3. Defining the blank

We are not trying to bring into question an identity in the functioning of these tools on siliceous slabs, especially since we did not have access except to the already mentioned objects. We think that we can talk about only an identity of the type of blank used and of a type of raw material. The only description of this lithic raw material comes from Alexandru Paunescu, who talks about tools made of „plates or larger plates out of glassy shiny flint and a fragile white patina... on the plates or on the flint shards (A.

Păunescu, 1970, 70, 204) in the cultural environment of Glina, in the Early Bronze Age. From our point of view, we are talking about consecutive silica deposits in gray, cream and black layers having isolated fossilized spots separated by thinner or thicker limestone intrusions. From the observation made on the tools that are the topic of this paper we can note the fact that they were chosen to bear the plates that had consistent deposits of silica and minimal deposits of limestones between the silica layers, which did not influence the retouches and

## Arguments concerning the use of bitumen as adhesive for the hafting of some lithic tools from the early bronze age in the region of the Curvature Subcarpathians

therefore the functionality of that particular tool (Fig. 9). In the case of Adâncă we may claim that the repositioning of the blank tool place in the area of the settlement, since we recovered numerous fragile limestone deposits flattened out, some of them interspersed with silica layers ranging in size from several mm to several cm.



Fig. 9- Photo of the tool from Adâncă under the microscope

### 4. THE ORIGIN OF RAW MATERIAL

The raw material that the artefacts at Adâncă, Gorgota and Băleni are made up of is a combination of a series of concentrates of micro-stratified silica made up of brown, reddish-brown opal, pigmented by bitumen or containing linear layers of bitumen known as *menilites* (N. Atanasiu, 1981). In the opal mass there are also calcite inclusions, quartz and clay minerals granules, glauconite and sometimes pyrite.

Fragments of silica organisms can also be found (sponges, radiolarians).

Dark coloured menilites, (brown to black) can be found associated with other shale rocks – disodils. These are pelite sedimentary rocks having a clayish structure, rich in organic substances; in the layers one can always find traces of fish bone structures, sulfur and plaster. Disodil is seen as the „mother-rock” of oil. In Romania, we can find it in flysch assortments from the oligocene in the Oriental Carpathians (N. Athanasiu et. al., 2007).

These rocks were formed in clay and marl with significant concentrations of organic matter. In Romania, these rocks belong mostly to the Oligocene deposits some 37-24 million

years ago (Latorian - Chattian) at the end of the Paleogene era. From a stratigraphic point of view, these deposits belong, at least for this region, to the external flysch of the Oriental Carpathians, as it developed outside the Carpathian Arch from the border between Romania and Ukraine to the Dâmbovița Valley (Fig. 10).

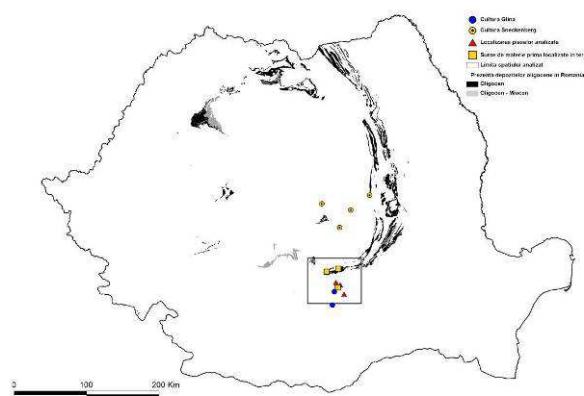


Fig. 10- Placing the analyzed area and comparing it to the Oligocenului deposits in România

In the case of external flysch, the Oligocene displays three main lithic parts: the Fusaru, the Kliwa and the Molodovița kinds (V. Mutihac, 1990). They show striking lithological differences from one region to another (D. Patrulius et. al., 1968), both on a large-scale of the external flysch and within each geographical unit. Thus, in the Curvature Sub-Carpathians we can distinguish between three main facies of the Oligocene (D. Patrulius et. al, 1968, p. 31):

- partly disodiliform shale and marl facies
- facies with disodilic shale, Kliwa sandstone and layers of Podu Morii
- facies with Pucioasa strata, Fusaru sandstone and olistromes.

Pucioasa - Fusaru Facies – has a typical development in the Ialomița basin, a thickness of 1500 - 1700 m and is actually a variety of the Krosno facies, characterized by a thick sequence of massive packets of sandstones, shale deposits with clay and marl characteristics with pelosiderite insertions (Pucioasa layers). Oligocene deposits in this facies succession entails the following terms (D. Patrulius et. al.,

1968, p. 31):

- Disodils and lower menilits ( $\pm 200$  m);
- Pucioasa layers of sandstone interspersed with Fusaru sandstone (1000 - 1200 m);
- Vinețișu layers, represented by flysch with marl and sandstone characteristics with curbicortical sandstone, intercalations of bentonites and associated olistromes, containing blocks and rocks from the Senonian and Eocene

( $\pm 250$  m);

- Menilits and upper disodils.

Out on the field, such raw material sources were identified up until now in three locations in the Ialomita Subcarpathians and in the Târgoviște Plain (Fig. 11).

Urseiu Point is located in the superior basin of the Cricovul Dulce River, on the trail between its tributaries called Costișata (Coclanda) and

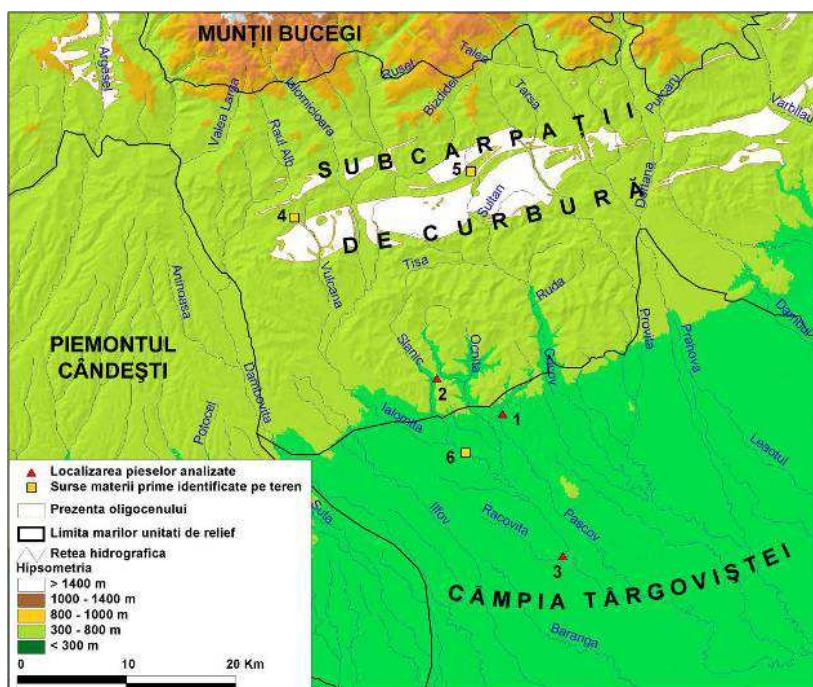


Fig. 11- The main sources of raw materials identified and the place of the analysed pieces: 1. Adâncă, 2. Gorgota, 3. Băleni, 4. Vulcana de Sus, 5. Ursei, 6. Nisipuri

Urseiul, at an average altitude of 550 m, in the administrative territory of Ursei village, Vișinești town.

The raw material in the Vulcana de Sus location was identified on the shores of Vulcănița river, a right-hand side tributary of the Vulcana river, located at an approximate altitude of 420 m, in the area pertaining to the Vulcana de Sus village, a subdivision of the Vulcana–Băi town. The presence of raw material in the Vulcănița riverbed can be explained by the fact that upriver there are oligocene deposits as mentioned above.

The third locations is situated in the Ialomita River riverbed where it flows away from the Subcarpathians, towards the Târgoviște Plain (in the are of Nisipuri village – Ulmi town) and can be also explained by the existance upriver of oligocene deposits. Also, in the case of the Adanca complex we believe that some of the raw material in use are local, coming from the riverbeds. One clue as to this aspect is the presence on certain tools of surfaces indicating a rolling motion.

## **Arguments concerning the use of bitumen as adhesive for the hafting of some lithic tools from the early bronze age in the region of the Curvature Subcarpathians**

### **5. Analogies**

As stated (M. Cosac et al., 2009), a common element between the lithic complex at Adâncă and the archaeological materials recovered from occupational levels assigned to a cultural tradition still undefined from the Early Bronze Age from Gorgota and Băleni, is the use of disodilic slabs as a blank for knife-like tools. On the other hand, we can't overlook the fact that one of the characteristics of the Glina culture is the work with flint slabs. For example, they are present at the Odaia Turcului settlement (Dâmbovița County), in the lower level (E. Tudor, 1983, p. 108), at Văcărești, at the „La Suhat” location, „five fragments of curved flint knives covered in limestone”, „a curved knife and other fragments of curved knives”, at the „pădurea Brăteasca” location (E. Tudor, I. Chicideanu, 1977, p. 144), they appear in combination with Glina clay (E. Tudor, 1972, p. 106).

It is interesting that such slabs were found in another cultural context. A flint slab was recovered from a house assigned to the Brătești "cultural issues" at the "Coasta Bisericii" location in Brătești (Văcărești, Dâmbovița County) by Ersilia Tudor and Ion Chicideanu (1977).

According to Al. Păunescu, similar tools come from the Schneckenberg area as well, in Brasov, the eponymous site, but also from the Sprengi and Steinbruchhügel locations and from the Cuciulata - Pleșita Pietroasă settlement (Hoghiz town). The archaeologist specifies the identity of the flint "plates", having a fragile white patina, with those in the Glina cultural environment (A. Păunescu, 1970). Also, Zs. Szézely noted regarding the lithic complexes recovered from the Schneckenberg cultural environment in the settlements at Sânzieni and Sfântul Gheorghe, the presence of 'curved knives' (Z.

Szézely, 1997).

Unfortunately the description he provides is quite limited, but the illustration shows (pl. XXXVI and XLV) that the blank used is of the type flint slabs. Thus one can accept the fact the working with flint plates is not necessarily a characteristic of the Glina communities, and given the state of the information we have, we may affirm that using them may be viewed as a particularity of pre-historic communities in the Ialomița and Dâmbovița riverbeds, while the lithic material at Adâncă could belong to a prehistoric culture too difficult to pinpoint at the moment.

### **6. Possible implications**

Regarding the use of bitumen as hafting material, it is known that in Romania the oldest discoveries belong to the Paleolithic. In this respect, in Gura Cheii-Râșnov Cave (Brașov County) were found two tools hafted with bitumen, belonging to the Upper and Middle Palaeolithic (M. Cârciumaru et al., 2012).

The presence of bitumen on two lithic tools with different geographical origins, such as Adâncă and Gorgota, but having related cultural contexts and stemming from the early Bronze Age is a unique situation in Romanian prehistoric archeology. This is the first circumstance of this kind, and the implications are not even close to being clarified in this study. Was it been used to fix the pieces on handle? We consider that the hypothesis is acceptable at this point in the study, and the argument is the high level of bitumen in areas used for covering these tools.

Bitumen as raw material accessible to pre-historic communities appears this time as well in association with salt in the area designated by the towns of Gura Ocniței, Ocnița and Moreni city, in close proximity to Adâncă and Gorgota sites.

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## Notes on the Hungarian expansion East of Carpathians in the mid XIV<sup>th</sup> century

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**Abstract:** Notes on the Hungarian expansion East of Carpathians in the mid XIV<sup>th</sup> century. The paper analyzes the historical context of the Hungarian expansion East of Carpathians in the XIV<sup>th</sup> century, as well as the highly disputed chronology of the Angevines' military campaigns against the Golden Horde. The documentary information available today do not allow, in our view, the identification of big scale military actions, able to settle down and bring an end to the Hungarian-Mongolian conflict. On the contrary, it seems that the rather fortuitous accomplishments of the Angevines' in this area owe more to the temporary restriction of the Mongolian presence in the future territory of Moldavia, which took place in quite specific circumstances.

**Key words:** Nogai, Louis I, Hungary, Golden Horde, Mongols

By the end of the XIII<sup>th</sup> century, only several decades after the Great Mongolian Invasion in Eastern Europe, the Golden Horde undertook a series of actions aimed at gaining a strict control on the foreign policy of the Byzantine Empire, but also at maintaining a careful surveillance of Hungary. Among these, one may note the investiture of the all-powerful general Nogai at Isaccea, where from he would manage to impose his domination on the Lower Danube. Moreover, in a short time Nogai will break up from his subordination to the central authority on the Volga (V. Ciocâltan, 1998, p. 230-240; E. Oberländer-Târnoveanu, 2003; Th. Tănase, 2005), strengthening his control on the outer Carpathian territories and getting decisively involved in the political life of the fully vassal Bulgarian state, but also in that of the Arpadian kingdom.

In the last respect, the Mongol interferences were so strong that Hungary almost shared the fate of the Russian Knyazats. Thus, the defeat of the pro-Mongols faction mostly represented by Cumans by the Hungarian royal army (1282) prompted the aggressive intervention of the Golden Horde in 1285. Although the military success of these actions is still debatable (T. Sălăgean, 2008), they

succeeded nevertheless in reorienting to a great extent the politics of the Hungarian king. In fact, the contemporary documents present the king Ladislas IV *the Cuman* as stating amazingly “that he became friend with the Tatars and became himself a Tatar” (DIR, 1952: 299).

The assassination of the king and his replacement with Andrew the III<sup>rd</sup> (1290-1301) will impose, however, a clear switch of the Hungarian kingdom's policy into the direction pointed by Rome. As a predictable reaction in this context, by the end of 1291, Nogai carried a decisive attack ending into an unprecedented enlargement of the Mongol hegemony along the Lower Danube area, reaching to the Iron Gates (S. Papacostea, 1993: 125), but also in the installment of Negru-Vodă as the *great voivod* South of Carpathians (D. Căprăroiu, 2008). In the opposite direction, the elimination of Nogai in 1299 (V. Spinei, 2012, p. 61) by the Khan Tokta (1291-1312), which as a leader of the Golden Horde could no longer tolerate the rebel propensities of his general, caused the diminution of the Mongol control East of Carpathians, leaving room for the reiteration of the Hungarian crown's demands over the area. The immediate consequences were a temporary

reactivation of the *Cuman Diocese* and especially the *founding* of Moldavia.

Subsequently, under the rule of Khan Özbek (1313-1342), the Golden Horde returned in force in the area. In what the Eastern Carpathian space is concerned, the complete control of the Golden Horde even in the early years of Özbek's presence on the Sarai throne is proven by the letter of Pope Clement V, dated to February 1, 1314 and addressed to "Universis Christi fidelibus, per regnum Hungariae constitutes". In fact, the Pontiff was giving his assurance that he would provide absolution of all sins to those who would die as Catholics, given the context in which "Vos et ecclesiae Romanae fideles aliarum partium, regno Hungariae adiacentium, a Schismaticis, Tartaris, paganis aliisque permixtis infidelium nationibus impugnationes, depopulationes, captivitates, servitutes, ac carceres, et alias diversorum generum poenas et cruciatus multiplices patiamini..." (Hurmuzaki, 1887, p. 574-575).

Other strictly contemporary information emphasizes the fact that at the beginning of the third decade of the XIV<sup>th</sup> century the entire outer Carpathian space was under the hegemony of the Golden Horde. Thus, according to an autobiographical note of the Serbian Tzar Stephen Dušan, to be found in the opening part of his *Zakonik*, in the army of Tzar Mikhail III Şişman involved at the Velbujd battle (1330) also participated, aside Bulgarians and Byzantins, "Basaraba Ivanko, the father in law of Tzar Alexander [John Alexander, the future Tzar of Bulgaria, 1331-1371], the Black Tatars, which lived in the neighborhood, the Yassy/Alani reign, and others ruling together with them" (G. Mihăilă, 1972, p. 274).

What is mentioned here is actually the coalition lead by Tatars which acted in the Carpathian-Balkan space in the interest of their local vassals, but especially in that of the Golden Horde (V. Achim, 2008, p. 275). In connection to the exceptional relevance of these historical circumstances, the reputed researcher V. Ciocîltan states: "The most definite proof that the forces in the Carpathian-Balkan space were integrated into a coherent political-military system is provided by the presence of the «Black Tatars» and Alani into this alliance. If the Romanian involvement at Velbujd may be explained as reflecting the specific interests of the Wallachian voivod to take the side of Bulgarians against Serbians, such an argument

cannot be made at all in the case of the other two ethnic groups mentioned: living on the territory of future Moldavia, they simply could not have had their own litigation with the Serbian kingdom. Their involvement in the Balkan conflict, much like the cohesion of the entire aggregate, dominated by the major partners from Argeş and Târnovo, must have been forcefully assured by a superior will, which in the given circumstances could have only been that of the all-powerful Khan Özbek" (V. Ciocîltan, 1998, p. 256).

The very context of the intervention of the Hungarian king, Carol Robert, against Wallachia in the autumn of 1330 provides arguments in favor of such an interpretation. Thus, in his correspondence with the Pontiff, Carol Robert presented his fortuitous success at Severin as "triumphum gloriosum obtentum contra Tartaros" (DRH, 1977, p. 44). In fact, the Mongols, as the true 'holders' of the Iron Gates, already controlled by them through their intermediaries in Argeş from 1291 on, gave the Angevine king a painful reply, devastating the Bârsa Country. In this respect, one may invoke the information provided by a document emitted in Alba Iulia, on December, 28, 1335, in which the *Capitulum* of the Transylvanian Church stressed the loyal service to the king of Magister Nicolae Wass the Young at the Hălchiu fortress "with the shedding of his blood and the death of his close relatives and faithful servants" (DIR, 1954, p. 366). Although the document do not reveal the identity of king's enemies penetrating into Transylvania in the summer of 1335, we do know it from the Sachsen chronicles, which mention in this particular year the plundering of Bârsa Country and the destruction of the Orlenburg fortress by *Tatars* (George Michael Gottlieb von Hermann, 2010, p. 230).

Precisely a decade later, the young and impetuous king, Louis I, the son and follower of Carol Robert, began a Hungarian counter-offensive east of Carpathians, an initiative left to the Székelys on the southern front of the future Moldavia, and to the Maramureş folks of Dragoş in the north-western part. The chronology of the anti-Mongol military actions is, however, deeply controversial (Şt. S. Gorovei, 1997; R. Cârciumaru, 2009, 2010) and requires therefore a careful scrutiny. This is all the more true as the issue at stake is the very understanding of the circumstances leading to the establishment of the Moldavian *reign*, which initially represented a delegated rule on behalf of the Hungarian crown.

## Notes on the Hungarian expansion East of Carpathians in the mid XIV<sup>th</sup> century

From our perspective, the definite transfer of Dragoş east of Carpathians has not been occasioned by the successful military campaign led by Andrei Lackfy in 1345, as previously thought (Şt. S. Gorovei, 1997, p. 89-93). On one hand, the chronicle attribute to monk Ioan, rich in chronological details, mentions the date of the military expedition (2-5 February 1345) and the *exclusive* participation of Székelys, together with “a few Hungarians”/*Siculi cum paucis Hungaris* (*Chronicon Dubnicense*, 1884, p. 151-152). On the other hand, the expedition targeted the territories ruled by Atlamuş, that is, the extreme south of future Moldavia, the crossing of Carpathians taking place most likely through the Oituz pass. In fact, according to the old Hungarian chronicles, the repeated attacks of Székelys forced the Mongols to retreat *ad parte maritimes* (*Chronicon Dubnicense*, 1884, p. 168). It is worth stressing in this context the importance this area gained for the Golden Horde, as Atlamuş, the head of Tatars from the Danube mouths, was the father in law of Khan Geanibek himself (1342-1357). His memory has been preserved in the folk tradition, with Atlamuş becoming the main character of a well-known Romanian ballad mentioning “Alimoş, haiduk from the *Low Country*” (V. Ciocîltan, 1987, p. 351).

Whatever the case, the success of Székelys’ incursions has been purely fortuitous and failed in changing the status of the respective territories or in pushing the Tatars out of them. Only in the next year, when the plague epidemics that would bring the death of no less than 30,000 Mongols started, could king Louis have some peace at his borders, a situation which allowed him to leave for Italy in 1347: “[...] Omibus itaque posthabitis, diligenti cura disposicionis, cepit dominus rex Lodouicus de suo recessu de Hungaria, et de progressu ad Italiam cogitare. Et quod regnum Hungarie taliter post se relinqueret, quatenus in eius absencia queuis hostilitas ipsum regnum inuadere non auderet; maius enim hostilitatis et aduersitatis periculum ipsi regni Hungarie a tartaris et saracenis imminebat. Sed dominus deus eciam cum attemptacione fecit prouentum, quia taliter eos flagellauit, ut ipsorum terrorem timere et formidare non oporteret. Nam anno domini millesimo trecentesimo quadragesimo sexto dominus deus misit pestilenciam in eos, que tantum in eos deseuyt, quod infra paucos menses, ut dicitur, trecentena milia tartarorum prostrauit et consumpsit. Sic igitur domino deo prouidente rex Lodouicus in confinibus regni sui habens pacem

cum hostibus, securitatem cum amicis et cognatis...” (*Chronicon Dubnicense*, 1884, p. 148).

Thus, the anti-Mongol expedition in 1345 has been undertaken exclusively by Székelys, without the king’s or Maramureş folk’s participation, and it was not followed by any other major expedition or penetration into Northern Moldavia. Not only was that expedition an isolated event, but the peace at the borders has actually been brought by the “divine intervention”, which thinned the number of Mongols.

In fact, in the years 1346-1347, as a consequence of some very favorable circumstances – the Mongols’ involvement in the war against Genoa, the concentration of their forces at the Caffa siege and the plague epidemics which spread on that occasion (V. Ciocîltan, 1998: 194-202) –, the territories which escape, temporarily, the Mongol control are those from the Southern extremity of the Carpathian bending. This is proven by Pope’s correspondence from 1347, which made public the decision the Pontiff made to reactivate the *Cuman Diocese*, now transformed into *episcopatus Milcovensis*: “[...] Nuper, siquidem, ad audientiam nostram carissimorum in Christo filiorum nostrorum Ludovici, regis, ac Elizabeth, regine Ungarie, illustrium, relatio fidedigna perduxid quod episcopatul Milchouensis, in regno Ungarie, in finibus videlicet Tartarorum, ex institutione ordinatus antiqua, a tempore, quo dicti Tartari potenter dictum regnum seu partes Ungaras, proh dolor, intraverunt, fuit per eos ferales et sevus omnino destructus et ecclesia ipsius episcopatus funditus extirpata...” (*DRH*, 1977, p. 63-65).

This “accomplishment” of the Hungarian crown, emphatically acclaimed, was nevertheless destined to remain a purely chancellery business. In spite of its repeated presence in documentary sources, the Milcovia Diocese failed in entering in the *de facto* possession of its goods (V. Spinei, 1992, p. 316-318; 2007).

Both Pope Clement VI’s letter of July 15, 1352 (*VMHH*, 1859: 815-816) and Pope Innocent VI’s “collective” letter of November 10, 1354 (*VMHH*, 1860, p. 10-11) represent important sources of information regarding Louis I’s anti-Mongol initiatives. A comprehensive view of the letters as well as other historical data show that there were no fulminant military campaigns capable of extending the Angevin rule east of the Carpathians during this time-span either.

The first document shows that, following Louis I's news of the "faithless Tartars" raids, Clement VI accepted his request of using the Hungarian church income in supporting the fight against infidels. Thus, it represented the first clue to Louis I's decision of ending, once and for all, the Mongolian issue at his eastern border: "[...] Sane nuper per dilectum filium Paulum Electum Gurensem, nuntium tuum ad hoc a te specialiter destinatum, proposito in Consistorio coram nobis, quod perfidi Tartari et infideles alii Regno tuo et terris tibi subiectis confines et contigi Regnum et terras ipsas, necnon habitatores et incolas eorundem invaserunt et invadere moliuntur, pro quorum repulsione magna expansarum profluvia tibi ad hoc necessaria subiisti, et dubitas subire verisimiliter in futurum, pro parte tua per eundem Paulum Electum nobis extitit humiliter suplicatum, ut omnium proventuum ecclesiasticorum Regni et terrarum predictorum ad certum tempus tibi concedere de benignitate apostolica dignarenum..." (VMHH, 1859, p. 815).

A year later, March 28, 1353, Louis I pursued the same purpose when restating the old privileges of the Brașov merchants, conditioned as follows: „[...] si nostram maiestatem ad partes orientales personaliter exercitum ducere contingat, tunc quilibet eorum iuxta suam facultatem equester vel pedestre, propria eorum in pecunia nobiscum proficisci teneantur. Si vero ad partes occidentales personaliter exercitum duxerimus, tunc quinquaginta viros agiles, bene armatos et lanceatos in ipsum exercitum nostrum ex parte communitatis eorum debebunt et tenebuntur destinare.” (DRH, 1977a, p. 193).

The quote clearly reveals not only how important the difficult anti-Tartar campaign was, requiring, unlike the western expeditions, all the combat potential of the Brașov merchants, but also the fact that the same campaign had not taken place.

Another year later, those protracted were confirmed once more: in the November 10 1354 document, the Pope demands the preaching in Poland, Hungary and Bohemia of the crusade against the Tartars, the Lithuanians, and other infidels who "kept raiding" (VMHH, 1860, p. 10) for the past three years. The document raises questions about the information in Matteo Villani's chronicle (RIS, 1729, col. 237) on Louis of Anjou's 1354 campaign "in Tartar land". It is not by chance that the famous Hungarian Middle Age historian

István Vásáry challenged these assumptions (2006, p. 17-30).

Thus, the Mongols' activity of all that time brought the papacy to the position of asking the Christian armies for a vast military opposition which had not taken place, due to the Polish "defection". The latter refers to the 1354/1355 mutual involvement agreement between Cazimir III and Geanibek. Cazimir III dreaded the increasing strength and aggressiveness of the Teutonic Order in the Baltic areas, thus needing strong political relations with both the Lithuanians and the Tartars. He even accepted tribute payments for his possessions in south-western Russia, same as the Halych knyaz did in the past (V. Spinei, 1992: 323). On the other hand, Geanibek needed an ally in the northern areas, in order to pursue his main interest, the conquest of Tabriz, which he accomplished the following year, thus proving the agreement's utility (V. Ciocîltan, 1998, p. 201).

Louis I must have profoundly disliked their agreement, given his involvement of great risks and expenses in his uncle's conflicts with the Lithuanians and the Tartars (1351/1352), not to mention the acknowledgement of Poland's rights over the Halych Russia during the whole rule of Cazimir (V. Spinei, 1992: 322). Besides, Innocent VI himself would write to Cazimir III to tempestuously condemn his decision of paying tribute to the Tartar khan for a petty political advantage (J. Meyendorff, 198, p. 64).

Due to favorable circumstances, the 1356-1357 Angevin interventions east of the Carpathians accomplished their purpose, although not necessarily through vast military confrontation. Consequently, sometime during the summer of 1357, the Pope congratulated Louis I for "narrowing" the Mongolian troops nearby the Hungarian kingdom: "[...] Idolatras Tartaros ab ipsis Regni tui finibus in mano fortis et excelso brachio coangustaus..." (VMHH, 1860, p. 33).

The Hungarian initiative and success benefited from a conjectural restriction of the Mongolian power, due to the mobilization of all Golden Horde combat potential in the Transcaucasian campaign, only because the conquest of Tabriz, one of the main political objectives of the Golden Horde khans, turned into what seemed to be an actual obsession for Geanibek (V. Ciocîltan, 1998, p. 201-203).

The Mongolian withdrawal made the areas far from Bugeac such as north-western Moldavia and

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north-eastern Wallachia vulnerable, allowing the Angevin king to control them to all intents and purposes, especially the area between the Carpathians and the Dobrudja Danube; the latter was mentioned as a direct consequence of the successful endeavor in the 1358 document stating the privileges of Brașov merchants: "[...] Noveritis quod nos vobis et vestre universitati de gratia concessimus speciali, ut vos cum vestris mercimoniis et quibuslibet rebus inter Bozam et Prahow, a loco videlicet ubi fluvius Iloncha vocatus in Danobium usque locum ubi fluvius Zereth nominatus similiter in ipsum Danobium cadunt, transire possitis libere et secure, nec vos aliquis in ipso vestro transitu indebite valeat impedire..." (DRH, 1977, p. 72).

Given the aforementioned circumstances, the relocation of the Maramureș nobleman Dragoș east of the Carpathians makes much more sense, as he was the Hungarian king's delegate for ruling the Moldavian territory. The exact date (1358) of this "transfer", as recorded by Giacomo di Pietro Luccari (1605, p. 105) in the first decade of the XVIIth century, is fully justified, as we intent to argue in a future, more elaborate study regarding the compelling historiographical matter that is the founding of the Moldavian state.

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## Who began the wars between the Jin and Song Empires? (based on materials used in Jurchen studies in Russia)

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**Abstract: Who began the wars between the Jin and Song Empires? (based on materials used in Jurchen studies in Russia).** The Jurchen (on Chinese reading – Ruchen, 女真 / 女眞, Russian - чжурчжэни, Korean – 여진/녀진) tribes inhabited what is now the south and central part of Russian Far East, North Korea and North and Central China in the eleventh to sixteenth centuries. The Jurchen established several states, the most powerful of which was the Jin Empire (Golden Empire) (1115 - 1234), which attained a high cultural level and was the most powerful state in the twelfth century (M. Vorob`ev, 1983; E. Shavkunov, 1990).

The study of the Jurchen in Russia began in the 1820 - 30s. when Nikita Iakovlevich Bichurin (Никита Яковлевич Бичурин), archimandrite Iakinf (архимандрит Иакинф) and Vasili Pavlovich Vasil`ev (Василий Павлович Васильев) translated several Manchurian, Chinese and Korean texts about the Jin Empire (L. Simonovskaia, 1948; V. Nikiforov, 1970; V. Miasnikov 1977, 1979). Later Russian scholars continued conducting Jurchen studies and paid considerable attention to relations between the Jurchen and China.

The wars between the Jurchen and Song dynasties (1125 - 1142) dynasties played a large role in international relations in East Asia. After these wars the Jin Empire became the most powerful state in East Asia. However many scholars have asked the question: who provoked these wars? Russian and Soviet scholars intensively translated and researched ancient Chinese manuscripts in order to understand the situation at this time. But they didn't have one opinion about it.

If we consider only Chinese materials, we can conclude that the Jurchen began hostilities against the Song Empire, but in the process of comparing these with other sources we can see that probably China provoked war with the Jurchen.

Author of work reconsiders and analyses specifics of the relation between both empires before the war, role of leaders between China and Jin in development of the conflict, problem of inner situation in Jurchen state etc.

**Keywords:** Jurchen, East Asia, China, Jin Empire, Song Empire.

In 1125 the Jurchen army finally destroyed the Liao Empire. But after this major victory, Jin attacked the Song Empire and commenced a period of war against both Song Empires (Northern Song 1125 - 1127, Southern Song 1127 - 1142). These wars had a large influence on international relations in the East Asia and established the Jurchen state as the most powerful Empire in this region.

Chinese scholars were the first to begin researching the problem of the wars between the Jurchen and Northern Song. However they considered the problem from subjective positions and believed that the Jurchen began the war to

acquire new land, money and other resources (Ocherki istorii Kitaia, 1959).

Before the 1960s the opinion of Chinese scholars dominated Jurchen studies in the Soviet Union. In this research Soviet scholars partially used materials of Chinese specialists. Therefore we can see the clear influence of Chinese scholars in the works of Soviet historians who wrote in the period 1950 - 1960 about the reasons for Jurchen victories in Jin-Song wars (A. Okladnikov, 1959; N. Kyuner, 1961; Istoria Severo-Vostochnogo Kitaia, 1989). Moreover several Soviet scholars thought that the Jurchen had perfidiously broken the agreement with the Northern Song and attacked

China (Istoriia stran zarubezhnoj Azii v srednie veka, 1970, p. 245).

But the Soviet Union experienced political and military conflict with China (the Damanskij incident) in 1969. This conflict marked the highest point in the hostile relations which had existed between USSR and China for a long time. Tensions between these two powers greatly influenced research in many fields. Due to Chinese territorial claims in regard to large parts of Siberia, the Chinese side tried to find data (spread across Bohai and Jurchen history) which would support such claims. In their turn, Soviet scholars refuted these statements (needless to say, they were also under constant political pressure to do so), and in many cases deliberately played down the connections which once existed between the population of present-day Siberia and China. It is not unusual for archeological material to be used by contending nationalisms, but in this particular case the authoritarian nature of the political regimes in both states made the confrontation particularly bitter and ensured that only “politically useful” findings and conclusions could be made public. Jurchen studies were not left outside these politically driven polemics.

Therefore during the period 1960 – 1980s. Soviet scholars advanced several theories which critically considered Chinese materials about Jurchen.

Soviet scholars researching the Jurchen paid a great deal of attention to this period, translated many Chinese manuscripts (for example, 遼史 *Liao shi*, 宋史 *Song shi*, 金史 *Jin shi* and others), comparing and analyzing them. In 1975 Mikhail Vasil'evich Vorob'ev published the first part of his doctoral dissertation, “The Jurchen and the Jin state (X - 1234)” (M. Vorob'ev, 1975). In this work he used then available Chinese, Korean, Japanese and Western materials dealing with the Jurchen (L. Perelomov, 1977) and researched the Jurchen social system which he compared with the Manchurian *mukun*, the social system of one hundred households of Manchurian tribes. For a long time this work remained the most detailed study of the political, social and cultural history of the Jurchen.

Scholars in the Soviet Union, China and academics elsewhere believed that the Jurchen began these wars. Many Soviet scholars – Alexei Pavlovich Okladnikov (Алексей Павлович Окладников), Anatolii Panteleevich Derevianko

(Анатолий Пантелейевич Деревяко), Mikhail Vasil'evich Vorob'ev (Михаил Васильевич Воробьев), Ernst Vladimirovich Shavkunov (Эрнст Владимирович Шавкунов), Sergei Nikolaevich Goncharov (Сергей Николаевич Гончаров) and others actively studied Jurchen fields. For example, they translated and published materials of many medieval Chinese materials – *Song shi*, *Jin shi*, *Sanchao beimeng huibian* (三朝北盟會編) and other sources. Almost all Soviet specialists considered the problem of Song-Jin wars from the position of the theories of Marx and Lenin about class struggle and thought that class struggle divided and weakened Chinese society before the Jurchen conquest (Istoriia Kitaia, 1959); they wrote that the Jurchen knew about the weakness of the Northern Song army and considered therefore that they were assured of victory in this war (A. Okladnikov, A. Derevianko, 1973; M. Vorob'ev, 1975).

The reason for this confidence was the fact that the Song Empire could not defeat the Khitan army at 1122-1125, in spite of the Khitans fighting on two fronts against the Jurchen and Song Empire and most of the Liao soldiers were concentrated on the northern front, but the Jurchen destroyed the Liao Empire. Moreover the Jurchen had excellent cavalry which had trained in natural conditions (during hunting) and many Jin soldiers had a rich warrior experience from the wars against the Khitan, Koryo, Xi Xia and the conflicts between Jurchen tribes. In the medieval period cavalry played a big role in war and was very effective and fast (E. Kychanov, 1966).

The first period of the Jin-Song wars confirmed this – the Jurchen army destroyed the Chinese military system easily and besieged the main capital of Northern Song.

However M.V. Vorob'ev held the opinion that both sides wanted this war, but Jurchen had been prepared for the war better than their opponents (M. Vorob'ev, 1975, p. 116).

At the end of 1125 two Jurchen armies attacked Northern Song. In 1126 Jin twice besieged the capital of China. For example, from 1125 until February 1130 Chinese soldiers could not win against the Jurchen (S. Goncharov, 1986, p. 113). But in spite of such big victories in the battles against the Chinese Empire, the political activity of the Jurchen in the period 1125 - 1126 demonstrated that they were not assured of final victory and several times they agreed to peace talks with the

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Song Empire (G. Rozov, 1998, p. 116-119; E. Kozhanov, 1980; S. Goncharov, 1986).

However the Chinese government viewed this policy of the Jurchen state as a sign of weakness by the Jin Empire and continued a policy of provocation. Chinese officials, apparently, counted on the Jin to weaken in during a dragged-out war. So after the first peace talks the Jurchen received several districts from China, but the Chinese Emperor sent a security order to military troops located in these districts that they must fight against the Jurchen (S. Goncharov, 1986, p. 33). Moreover, later the Northern Song dynasty several times sent an army to support Chinese garrisons located in these areas which China had given to Jurchen. After peace talks the Chinese Emperor treacherously infringed conditions of the peace and sent an army for a night attack against the Jurchen who were located near the Song capital, but it was unsuccessful. (Ocherki istorii Kitaia, 1959, p. 311 - 312; A. Okladnikov, A. Derevianko, 1973; S. Goncharov, 1986, p. 32). It was only after Chinese leader's attempts to persuade Khitan officers who served in Jurchen administration to come to the Chinese side that Jin leaders decided to refuse of peace talks with the Northern Song Empire and to destroy the Northern Song dynasty (S. Goncharov, 1986, p. 33 -34). Because of all these perfidious acts by the Northern Song government the Jurchen command firmed in its opinion that it was impossible to support diplomatic relations with the Song imperial court. Therefore Jin officials definitively decided to release itself from Zhao (the ruling dynasty of Northern Song), including its too changeable and unreliable partner for peace talks.

However the Chinese government could not resile from a Confucian position in its foreign policy. Even though the Chinese emperor understood the power of the Jurchen army, he had to consider the opinions of the Chinese nobility and officials, who did not want to concede to the Jurchen. This situation can explain a contradiction in China's policy with the Jurchen. A major problem in foreign policy was the Chinese perception of the "eastern barbarians" (Khitan, Jurchen, Mongols and others) among Chinese nobility and officials. According to their perception, the Song Empire could not conclude equal and vassal treaties with the "eastern barbarians". China received vassal status from Khitan after several wars during the tenth and eleventh centuries in which the Khitan Empire

demonstrated its military power and potential. Certainly the Northern Song Empire did not want to accept vassal status from the Jin state and wanted to become senior to the Jurchen. But Jin officials could not understand or accept this position.

Furthermore the Jurchen had achieved their aims – they had taken away part of Central China from Northern Song, captured the Chinese emperor, forced the Chinese state to render tribute and in addition, the change of Song (Northern Song) to Nan Song (Southern Song), who usually tried not to break peace treaties, had taken place. In spite of their superiority in economical, human and technical potential, the Chinese Empire had dramatically lost this war (M. Vorob'ev, 1975).

In our opinion, the long tolerance by the Jurchen of Chinese provocations in the period 1123 - 1126 can only be explained by one thing - Jin leaders were not certain that they would succeed in a fight against Northern Song because Chinese human and material resources were very vast. The Jurchen did not have the same potential and must have been aware of this.

Moreover the Jurchen had problems with nomadic tribes on their northern border (south part of the modern Mongolia) (G. Melihov, 1970; G. Pikov, 1993) and until 1127 relations with Koryo were antagonistic too. Thus the Jurchen had to send military troops to their northern and south-eastern borders. For example, Russian scholars considered information about Jin reports from Koryo's borders. Before the establishment of Jin and war against Liao, the Jurchen had several military conflicts against Koryo which resulted in Jurchen victories (M. Vorob'ev, 1975, J. Reckel, 2001). Therefore Koryo wanted revenge and prepared an army for this purpose. However Koryo could not fight against the Jurchen alone and needed support from other countries.

During the war between Liao and Jin, Koryo soldiers often attacked Jurchen hunters and fishers; they seized two Jin boats, provoked border conflicts, supported Jurchen tribes and people who didn't like the Jin Empire and so forth (A. Okladnikov, 1959, p. 227; M. Vorob'ev, 1975; S. Kozhanov, 1980, p. 41). In spite of this activity by Koryo, the second Jurchen Emperor Wu-chi-mai established order; accordingly the Jurchen could not respond to provocations, but called Koryo "enemies". The Jurchen leader said that their enemies were hypocritical and demanded that

anyone having contact with Koryo was breaking normal conventions. If Koryo warriors were to attack, Jurchen had to reject this pressure. According to the order of the Jurchen ruler, soldiers on Jin's south border had to prepare for this defense. If anyone dared to attack the enemy, even if they had military success, they had to be punished as infringers (G. Rozov, 1998; A. Okladnikov, 1959; A. Okladnikov, A. Derevianko, 1973).

As we can see conflicts with the Koryo were numerous and serious even if no matter how much attention the Jin emperor paid to them. The Jurchen tried to look for a compromise with their neighbor, but Koryo did not accept the Jin ambassador. However the Jurchen did not begin war against Koryo in spite of all provocations by Koryo officials. Koryo was oriented to the Northern Song side and probably therefore provoked Jurchen. Koryo reconsidered relations with Jurchen state and accepted vassal-senior relations only after the first period of war between the Jin and Northern Song empires.

As we can see, the Jurchen had many reasons to begin war against Koryo, but did not fight against this south-eastern neighbor. Moreover the Jurchen Emperor restrained Jin field commanders from attacking the Koryo border in 1125, but the Jurchen had a better army than Koryo. The Korean state did not have the same capability and resources as China, but why did the Jurchen attack Northern Song and continue this war until 1142?

To understanding the positions of the Jurchen and Northern Song before the war we must consider the activities of both sides. At the end of war against the Liao, the Jin and Song Empires had to fight together against a common enemy, but China several times tried to renege on its alliance with the Jurchen. For example, China promised the last Liao Emperor T'en-tsu that it would help and provide him with sanctuary (Ye Lunli, 1979). However the Jurchen general Lo-so arrested the Liao ruler and Jin officials received information about contacts between Khitan Emperor and Northern Song. But the Jurchen were left without consequences from this episode. As we can see, the Jurchen didn't want any conflict with its ally.

In 1123 the Jurchen passed to the Chinese side the important city Yanjing, once the capital of the former Liao Empire (modern Beijing), and return for promised payments from the China side, but Northern Song officials began to delay payments.

According to the alliance between the Song and Jin empires, Chinese officials were required to establish custom points at the border with the Jurchen Empire. However the Northern Song side broke this agreement about trade between both empires and didn't establish a custom system on the border with Jurchen state (S. Kozhanov, 1980). Moreover Song officers accepted refugees from the Jin area, campaigned among Khitan and Chinese who served in the Jurchen administration, and invited them to join the Song side. We can conclude that the antagonistic policy of Koryo to Jurchen 1125 resulted from the influence of Northern Song on the Koryo king's court.

Certainly the Jurchen considered Chinese policy as purely hostile towards the Jin Empire and have adopted retaliatory measures in response. As the next step of hostile relation between both empires would have been war, the Jurchen prepared for this stage.

The beginning of the war between Jurchen and China was the Ping-chou incident. The former Liao official Chang Chue, who governed Ping-chou, had come over to the side of the Jurchen. Chang Chue was Bohai person. As is known, the part of Bohai people fought for China and Liao, but many Bohai officials served in Jurchen state (Ye Lunli, 1979). Moreover, they are played an important role in foreign policy of Jin Empire (S. Goncharov, 1986). Jurchen did not have a big number of administrators and Jin invited Bohai people for work in administrative system. Therefore Jin officials trusted him and gave Chang Chue the right to govern Ing-chou and Luang-chou. However he rebelled against the Jin Empire, executed Jin officials in the Ping-chou district and declared himself and his districts (Ping-chou, Ing-chou and Luang-chou) to be subjects of the Song Empire (Ye Lunli, 1979, H. Franke, 1997, p. 68). Moreover Chang Chue sent Chinese prisoners who been arrested by Jurchen to their houses.

Jurchen mobilized three thousand soldiers and under the command of the Jin general Du Mu tried to attack Chang Chue, but could not take Ing-chou and came back north. After this incident Chang Chue sent false information to China about his victory under the Jurchen army. We should see the information about the three thousand Jurchen soldiers that attacked Ping-chou as evidence that the Jin did not have a big army in the border with China in this period and could not plan war against Northern Song at that time.

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The Jurchen did not suffer defeat in the war against Liao 1115 - 1125, therefore information about incident involving Chang Chue had a very great effect on the Chinese imperial court. Northern Song officials did not like the Jurchen and wanted to support the rebellious general-governor Ping-chou. Therefore the Chinese Emperor rewarded Chang Chue and appointed him to the post of general-governor of the military district Taining and gave him the right of hereditary government of Ping-chou. However one thousand Jurchen soldiers suddenly attacked and occupied Ping-chou. Chang Chue fled to China and sought protection under Northern Song. Jin demanded the execution of the traitor and threatened Song with war. In spite of the Chinese executing Chang Chue and sending his head to Jin (Ye Lunli, 1979; A. Okladnikov, A. Derevianko, 1973), the Jurchen began to regard China as their enemy. Northern Song's treachery of Chang Chue only strengthened opinion among Jurchen that the Chinese empire was an unreliable partner.

Certainly Chang Chue could not rebel against Jin administration alone. In spite of the current problem in one district, Ping-chou, in the Jin Empire, he could not fight against the Jurchen. Therefore we can guess that Northern Song promised him support before the rebellion in Ping-chou. Chang Chue proved to be a good political and administrative leader during the crisis in the Liao Empire. Despite the hostility of the Jurchen he managed to gain their trust (Ye Lunli, 1979). Therefore we can only think that such a good political official could not have been short-sighted when he rebelled against Jurchen. I can guess that Chang Chue had contacts with Go (Gao) Yaoshi – he was Bohai general, who served in Liao army, but from 1120- in Chinese army. At that time he was commander of north border military troops of the Song Empire.

But such a fast destruction of the rebellion by Chang Chue was unexpected for the Chinese Empire because the Northern Song had not prepared for war against the Jurchen and underestimated the mobility of Jurchen military troops. As a developed bureaucratic system, the Northern Song Empire had a diplomatic foreign affairs department but it could not react quickly to changes in other countries and military officials could not mobilize the army swiftly enough. Therefore the Song did not have allies in the war of 1125 - 1142.

We can see the same situation in the later period of Jin to the thirteenth century. During the twelfth century Jin received Chinese cultural influences, absorbed the Chinese style of management (J. Tao, 1977) and became a developed medieval bureaucratic state. Therefore after it began wars against the Southern Song and Mongols, the Jin Empire could not react quickly to attack by its enemies. For example, according to the *Jin shi*, in 1204 the Song Empire attacked Jin territory but only in 1205 was the Jurchen army mobilized (G. Rozov, 1998, p. 186 - 187). In 1210 Mongol troops invaded Jin but the Jurchen underestimated the situation. Therefore the Jin Empire did not have allies in the war against the Mongols and it was only in 1211 that they declared mobilization of the army (M. Vorob'ev, 1975).

Coming back again to the Ping-chou incident, we can guess that probably Chinese decided to wait for an opportunity for war against the Jurchen and executed Chang Chue. In the opinion of M. V. Vorob'ev, China did not prepare for war and didn't want to fight against the Jurchen (M. Vorob'ev, 1975). However Jurchen had their own opinion on the situation. It seems that in the morass of political intrigues, Jurchen clearly realized that the situation with its southern neighbor would worsen. Many of the Khitan and Bohai people who served in the Jurchen administration did not like Northern Song and helped Jurchen against the southern neighbor of the Jin state. They had political and diplomatic experience which were welcomed in Liao administration, knew the situation in China and could give good advice to Jurchen leaders. Some Bohai people were advisors of the Jurchen generals and held high ranks in Jurchen administration (S. Goncharov, 1986; P. So, 2000). Therefore the Jin officials tried to solve problems with its powerful neighbor with one blow – war.

The Jurchen used the Ping-chou incident as a pretext for war against the Northern Song, but, as noted above, they willingly went to peace talks. We can find the reason for this activity by the Jurchen in the position Jin held before that war.

Relations between Jin and Koryo have been described earlier in this paper. A further factor was that the internal situation of the Jurchen state had been not stable. After the Liao defeated the Jurchen they received the vast territories in which Chinese and Khitan population lived. The former subjects of Liao had not adjusted in a friendly way to the Jin Empire. This is reflected in the fact that

many Khitan fled to Xi Liao (the last Khitan state, which was destroyed by Mongols in 1210), to Koryo and to Si Xia; they also organized guerrilla groups which fought against Jurchen and kept in touch with the external enemies of the Jin Empire. Therefore in spite of many Khitans serving in the Jin army and administration, the Jurchen cannot believe them owing to several objective reasons.

The Chinese population of Jurchen state too was restless; the number of robbers which also opposed Jin had increased. Moreover the Song Chinese Empire at that time had large military forces. A large army was at hand for the Song emperor (in the eleventh century number the Song army reached the extraordinary figure of 1,200,000 soldiers (Istoriia Kitaia, 1974, p. 106) and this did not include the national home guard), as well as a wealthy population and a great number of the cities with good fortifications. In the war against the Jurchen, Chinese general mobilized two millions soldiers (S. Goncharov, 1986); this fact demonstrates the vast material and human capability of the Song Empire.

Before the war against the Northern Song, the Jurchen established a military alliance with the Tangut state Xi Xia, exploited anti-Chinese sentiment among the Khitans and mobilized them for war against the Northern Song and tried looking for mercenaries among Mongol tribes to fight against the Chinese (M. Vorob'ev, 1975). These facts demonstrated that the Jurchen could not be assured of victory in war against the Northern Song. Because Si Xia was an ally of Liao in the war against the Jurchen and had several battles with the Jin army and in 1125 Jurchen had destroyed Khitan Empire, we can understand what many Khitan felt towards Jurchen. For example, in the war against Liao, the Jurchen were not looking for allies in the first period of the war.

Certainly many scholars believe that the Jurchen army was strong and powerful, in spite of using Khitan, Bohai and other peoples in wars, but as we can see the Jin military system could not fight against China over a long period and controlled vast territories of the former Liao Empire. The Jurchen took part in the wars from 1114 and eventually tired of war. Moreover in battles against the Chinese Empires, the Jurchen must have fought in uncomfortable geographical and climate conditions in the provinces of Central and South China. These regions were very different from the districts of the North-eastern

China and Manchuria in which the Jurchen had fought against the Khitans.

Based on the example of relations between Jin, Song and the Koryo in 1119 - 1127, we can hypothesize that international relations in the medieval period in East Asia developed when excessively active attempts to weaken a possible opponent and avoid conflict turned into unexpected war and long term opposition. The semi-isolation policy of the Koryo played a positive role for this Korean state – the Jin army was never at war with the Koryo kingdom though the latter was much weaker than China.

Inherently, the conflict between Jin and Song military systems appeared because of mutual fear before a possible collision, when societies almost unknown to each other unexpectedly became neighbors. The blow administered by Jurchen against China in 1125 is more similar to an action dictated by the necessity of having to go to war against a strong opponent for the sake of acquiring new territories and extraction rather than the foolish adventure it appears. Further acts of the Jurchen diplomacy and their attempts to make peace with the Northern Song show that the Jurchen well understood this. And only the unwillingness of Song emperors to advance on the world compelled the Jin state to wage a long war.

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## Fouilles archéologiques préventives à l'église en bois Saint Nicolas du village Angheluști, la commune de Pietrari, département de Vâlcea

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**Abstract:** Preventive archaeological researches in the wooden church *Sfântul Nicolae*, from Angheluști village, commune Pietrari, Vâlcea county. The preventive archaeological researches in this church, from the summer of 2010, were occasioned by the relocation of the church, to be restored and integrated into the architectural and traditional complex from Village Museum of Bujoreni, Vâlcea county, by the approach of The HAR Foundation, in summer and autumn of 2009, when the assessment and technical expertise of the monument was carried out, and its removal, also.

**Keywords:** preventive archaeological researches, middle ages, wooden church, tomb.

**Résumé:** Fouilles archéologiques préventives à l'église en bois Saint Nicolas du village Angheluști , la commune de Pietrari, département de Vâlcea . Les fouilles archéologiques préventives à cette église, lors de l'été 2010, ont été réalisées à l'occasion de la mutation de l'église, en vue de sa restauration et son intégration dans le Complexe d'Architecture et de Technique Traditionnelle de Bujoreni, Rm. Vâlcea, grâce à la démarche entreprise par la fondation HAR, durant l'été-l'automne 2009 lorsqu'on a effectué l'évaluation et l'expertise du monument, de même que son démentèlement.

**Mots clés:** fouilles archéologiques, époque moyenne, pierre, tombe.

Le terrain situé dans le village Angheluști, hameau Cărpinișu, commune de Pietrari, dép. Vâlcea, appartenant à la paroisse Pietrari, a été fouillé archéologiquement entre 23.06.2010 - 25.06.2010. La recherche a été effectuée conformément à l'autorisation de fouille archéologique préventive nr. 100/2010.

Du point de vue archéologique, la commune de Pietrari est connue pour la découverte fortuite sur la propriété d'Ecaterina Gh. Tepus, le 26 avril 1902, à Tobulești (Pietrarii de Sus), lorsqu'on a découvert dans un vase en céramique un trésor de 44 tétradrahmes de tip Aninoasa-Dobrești (B. Mitrea, 1971, p. 121-122; C. Preda, 1973, p. 282).

L'église Saint-Nicolas du village Angheluști est située dans la partie nord-ouest du département de Vâlcea, dans la région haut placée des collines des Sub-Carpates Gète, du côté droit du cours moyen de la rivière Oțăsău, sur la colline Cărpinișu, présentant vers le nord des pentes abruptes formées de torrents.

Le fouilles archéologiques préventives<sup>1</sup> de l'été 2010, ont été réalisées à l'occasion de la mutation de l'église, en vue de sa restauration et

<sup>1</sup> La recherche a été menée durant le mois de Juin 2010, de Musée Aurélien Sacerdoțeanu Vâlcea. L'équipe était composée de: M. Iosifaru (coordinateur de la recherche), Claudiu Tulugea et Ovidiu Părăușanu.

son intégration dans le Complexe d'Architecture et de Technique Traditionnelle de Bujoreni, Rm. Vâlcea, grâce à la démarche entreprise par la fondation HAR, durant l'été - l'automne 2009 lorsqu'on a effectué l'évaluation et l'expertise du monument, de même que son démantèlement. C'est à la même époque qu'on a extraite la fresque figurant sur les deux tympans du monument. L'église va retrouver sa vraie identité avec le début des travaux de restauration qui ont contribué à l'élucidation des nombreux problèmes créés dans le temps concernant la datation: 1737 (Rizea, Ene, 2007, p. 130; Popescu, Mereșescu, 2010, p. 185-186) ou 1810 (Popescu-Cilieni, 1941, p. 32-33). En 1893, C. Alessandrescu (1893, p. 324) mentionne l'existence dans la commune de trois églises, dont Cărpiniș, dont la fondation n'a pas pu être constatée. Les sept inscriptions découvertes suite au processus de restauration, autant à l'intérieur qu'à l'extérieur de l'église, ont définitivement clarifié la datation, l'église en bois Saint-Nicolas étant considérée le plus ancien monument d'architecture attesté jusqu'à présent au nord de l'Olténie (L. Barcan, Al. Nancu, 2010, p. 311-335). On sait à présent, avec certitude que l'église a été refondée dans cet endroit en 7240 (1730-1731) ou 7245 (1736-1737) (L. Barcan, Al. Nancu, 2010, p. 322), par *Ghe(o)rghe, le fils du prêtre Vâlcu*. Initialement, le lieu saint a appartenu à un ermitage, un monastère ou à des boyards (fin du XIV<sup>e</sup> siècle) et n'avait que naos et pronaos de son côté sud. Ses patrons étaient les empereurs Constantin et Elena (Barcan, Nancu, 2010, p. 320-321). Le 8 décembre 1655 (7164), on rajoute le pronaos, dans un village non-identifié de paysans libres, les fondateurs en sont *le prêtre Vasile et le village*. (L. Barcan, Al. Nancu, 2010, p. 319).

Le plan de l'église a la forme d'un navire, avec abside de l'autel hexagonale, symétriquement en retrait d'un côté et de l'autre, sans la table d'offrande ou portes du diacre, avec narthex absidal, hexagonale, mais avec une ouverture plus large que celui de la nef, conçue sans le porche, s'agissant d'un exemplaire unique de ce genre gardé pour la zone sud des Carpates (A. Pănoiu, 1970, p.70-72).

Pour mener à bien les recherches archéologiques, nous avons bénéficié du soutien de la mairie de Pietrari et du prêtre Iorgulescu qui a fourni les travailleurs. Au début des fouilles, il n'y avait rien de l'ancienne église, même la première pierre avait été démantelée. On avait gardé seulement une dalle de ciment placée devant

l'entrée et une allée de marches qui grimpait vers le sanctuaire d'adoration. L'église était située en position dominante, étant entourée par le cimetière, les tombes étant ordonnées d'un côté et de l'autre de celle-ci (Fig. 1/1).

Trois sections ont été dessinées. I à III, disposées comme suit: (I) orientée ouest-Est, avec des dimensions de 13 x 1,00 m (Fig. 1/2); S. II (nef) et III (narthex) avec des dimensions de 6,00 x 1,00 m, orientée nord-sud (Fig. 1/3). La compartmentation qui en résulte a été creusée entièrement. A l'extérieur a été dévoilé, par le biais des sondages, l'allée piétonne (Fig. 1/4) qui entourait l'église, préservée, en particulier sur le sud et l'ouest et en partie au nord et à l'est, où elle fut détruite par les tombeaux placés trop près de l'église. L'allée piétonne, d'une largeur de 0,80 m, a été faite de dalles de pierre locale, couvertes entièrement par de l'herbe. Sur le côté sud, une tombe a été dévoilée, à 0,40 m du sol de l'église et à 3,30 m à l'est de l'angle ouest de l'église, identifiée par l'inscription conservée sur le faisceau de la paroi sud de la nef: et ici (a) Enterrez-moi (u) (p) t (u) <a> (L. Barcan, Al. Nancu, 2010, p. 322). La longueur de la tombe sur le remblai était de 1,70 m, la largeur 0,70 m et la profondeur-0,70 m. La tombe, comme le mentionne l'inscription, a appartenu à un prêtre. Étant disposé juste sous l'avant-toit, le squelette comme son inventaire (Croix de bois et des traces de l'Evangile) ont été lourdement endommagés par les fracassemens. Sur l'endroit où la tombe fut découverte, le prêtre a fixé une croix en pierre. Pour rappeler à la postérité le lieu où a été refondée la plus vieille église en bois de l'Olténie du Nord, une plaque commémorative va être emplacée.

On a pu constater que l'église, dès le départ, avait des sols en brique dans l'auteul et des dalles de pierre de différentes formes et tailles dans le naos et le pronaos, conservées en partie mis sur une mince couche de sable et de mortier mélangé à de la brique cassée. Le sol en briques et les dalles de pierre ont été remplacées au fil du temps, avec un plancher de bois (existant au moment du démantèlement). La table sainte dans l'auteul a été fixée sur une assise en pierres trouvées à une profondeur de -0,65 m par rapport au niveau actuel du passage, élevé au fil du temps de 10 cm.

Après de longues pérégrinations, l'église du hameau de Angheluști a bien trouvé sa place dans le Musée en plein air de Bujoreni (Photo 5), enrichissant le patrimoine architectural avec le seul monument attesté de la fin du XVII<sup>e</sup>.

**Fouilles archéologiques préventives à l'église en bois Saint Nicolas du village Angheluști, la commune de Pietrari, département de Vâlcea**



Fig. 1: 1. L'église en bois „Saint-Nicolas” du village Angheluști, commune Pietrari - avant la réinstallation ; 2. S.I; 3. S. III; 4. Partie de l'allée piétonne; 5. L'église en bois „Saint-Nicolas” du village Angheluști, commune Pietrari - après la réinstallation

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Lucrările trebuie trimise electronic redactorului șef ([mcarciumaru@yahoo.com](mailto:mcarciumaru@yahoo.com)) într-un singur atașament (sau fșsier) în format PDF, incluzând întregul text, tabelele și figurile, aranjate conform normelor revistei. De asemenea, autorii trebuie să transmită textul și tabelele și în format MS Word, iar figurile într-un document separat în format JPG sau TIFF. Autorii sunt responsabili pentru calitatea imaginilor, care trebuie trimise în forma finală la rezoluție de minim 300 dpi.

Documentul trimis trebuie să fie însoțit de: (1) scrisoarea de intenție, (2) lucrarea, (3) titlul figurilor, (4) figurile/planșele, (5) tabele.

Lucrarea nu trebuie să depasească 25 pagini, inclusiv bibliografia și trebuie să fie scrisă în Times New Roman (TNR), 11 justified, dimensiunile paginilor vor fi cele corespunzătoare formatului A4 (21 x 29,7 cm) și se vor lăsa 2,5 cm pentru fiecare margine. Paginile nu vor fi numerotate. Lucrarea trebuie să conțină un rezumat obligatoriu în limba engleză și eventual un al doilea rezumat într-o altă limbă, dar diferita de cea în care este redactat textul lucrării. Rezumatele în limba engleză sau în alte limbi acceptate de revistă trebuie să includă și titlul articolului.

### Prepararea lucrării

Lucrarea trimisă trebuie să fie aranjată după cum urmează: (1) titlul, (2) numele autorului/autorilor, (3) adresa autorului/autorilor, (4) rezumat, (5) cuvinte cheie, (6) lucrarea, (7) bibliografia, (8) explicația figurilor, (9) figurile, (10) tabelele;

**Titlul:** Aceasta trebuie să fie scurt, specific și informativ. Se va scrie în TNR 13, bold, centrat.

**Autorii:** La două rânduri sub titlu, centrat, în TNR 11 italic, se va scrie numele complet al autorului/autorilor (cu asterisc).

**Adresa:** Dupa doua randuri libere, in TNR 10 justified, se va mentiona adresa autorului/autorilor

(cu asteriscurile menționate la autori), inclusiv adresa de e-mail.

**Rezumatul:** urmeaza dupa doua randuri in TNR 10 (bold numai **Rezumat:**), între 300-500 de caractere, care nu trebuie să conțină prescurtări sau citări. Trebuie să reprezinte o sinteză a lucrării incluzind metodele folosite, rezultatele principale și, eventual, scurte concluzii. Rezumatul în limba engleză este indispensabil, precum și traducerea titlului.

**Cuvintele cheie:** După două rânduri, sub rezumatul în limba engleză, cinci sau șase cuvinte cheie; atunci când lucrarea este însoțită de un al doilea rezumat într-o altă limbă, vor fi traduse și cuvintele cheie în limba rezumatului;

### Textul principal:

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Al treilea subtitlu de paragraf - caracter italic, literă mare numai la începutul cuvantului, aliniat la stânga paginii).

2. Caracterul "italic" va fi folosit pentru termeni sau abreviații de genul "et al.", et collab. "etc".

3. Unitățile de măsură trebuie să fie reprezentate prin simboluri aparținând Sistemul Internațional de Măsură.

4. Autorii citati:

a - Sistemul de trimiteri bibliografice este unic, și anume cel britanic, adică note în text, inițiala prenumelui va precede numele autorului, după care se va menționa anul apariției lucrării respective, exemplu – (M. Otte, 1995), iar când în text se utilizează un citat, care se va pune între ghilimele, citarea va cuprinde pagina (M. Otte, 1995, p. 56-57).

b - Dacă numele autorului face parte dintr-o propoziție, numai anul se pune în paranteza, de exemplu "...M. Otte (1995) a demonstrat.....".

c - Pentru cazul a doi autori care trebuie citati, se va pune numele celor doi și anul, (M. Otte, P. Noiret, 2004), iar pentru cazul mai multor autori (mai mulți de trei) se va cita primul autor urmat de "et al", (M. Otte et al., 2006).

d - Autorii trebuie așezati în ordine alfabetica și se va folosi a, b pentru cazul în care un autor trebuie citat și are mai multe lucrări în același an. Se pune virgulă între același autor și punct și virgulă când apare un

## Norme de redactare

alt autor citat (M. Cârciumaru, 2002; M. Carciumaru, 2002b; M. Anghelinu, 2005).

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1 - Titlul **BIBLIOGRAFIE** se va redacta în TNR, 12 bold, centrat, cu majusculă;

2 - Se vor include autorii citați în text, precum și autorii figurilor, tabelelor, planșe etc. citate în text;

3 - Se vor aranja autorii în ordine alfabetică după numele primului autor și apoi după numele celui de-al doilea autor. Dacă unul dintre autori este citat cu mai multe lucrări, se aranjează în ordine cronologică;

4 - Pentru lucrările cu mai mult de doi autori se aranjează după numele primului autor și apoi în ordine alfabetică;

5 - Nu se vor prescurta numele revistelor și ale editurilor citate;

6 - Pentru cele mai multe dintre situații urmează exemplele de mai jos:

a - Lucrări în reviste:

Numele autorului/autorilor, Inițiala prenumelui autorului/autorilor, Anul, Titlul articolului (italic), Numele revistei, Tome/Volum, Număr, Paginile.

Demars P.-Y., 2008, *Paleogeographie de l'Europe dans la première partie du Paleolithique supérieur – Premiers travaux*, Annales d'Université « Valahia » Targoviste, Section d'Archeologie et d'Histoire, Tome X, Nombre 1, p. 29-45.

b - Cărți:

Numele autorului/autorilor, Inițiala prenumelui autorului/autorilor, Anul, Numele cartii (italic, bold), Editura, Orasul în care a fost publicată, Numarul de pagini, figuri, tabele și planse, ISBN;

Carciumaru M., Anghelinu M., Nitu E.-C., Cosac M., Muratoreanu G., 2007, *Geo-Archeologie du Paleolithique moyen, Paleolithique supérieur, Epipaleolithique et Mesolithique en Roumanie*, Editura Cetatea de Scaun, Targoviste, 187 p., 48 fig., ISBN 978-973-8966-38-3.

c - Capitole în cărți:

Numele autorului/autorilor, Inițiala prenumelui autorului/autorilor, Anul, Titlul capitolului (italic), în Numele autorului/autorilor, Inițiala prenumelui autorului/autorilor [ed(s)], Numele cartii (italic, bold), Editura, Orasul unde a fost publicata, Numarul de pagini, figuri, tabele și planse, ISBN, paginile capitolului.

Carciumaru Marin, 1978, *Studiul paleoclimatic și geocronologic asupra unor stațiuni paleolitice din Banat*, în Florea Mogosanu, *Paleoliticul din Banat*,

Editura Academiei Romane, Bucuresti, 152 p., 53 fig., p. 83-101.

d - Lucrări prezentate la congrese

Numele autorului/autorilor, Inițiala prenumelui autorului/autorilor, Anul, Titlul lucrării (Italic), în Numele simpozionului sau a conferinței (Italic, bold), Editura, Orasul unde a avut loc etc., ISBN, Numarul de pagini a comunicării.

Carciumaru Marin, 1994, *Paleoenvironnement et chronostratigraphie du Paéolithique moyen et supérieur en Roumanie, Paleoecologie et geochronologie des industries du Paleolithique supérieur ancien de la Roumanie*, în “*El Cuadro geochronológico del Paleolítico superior inicial*”, Museo y Centro de Investigacion de Altamira. Monografias, No. 13, ISBN 84-8181-024-X, p. 15-23.

e - Teze (doctorat, master, licență) și rapoarte nepublicate:

Numele autorului/autorilor, Inițiala prenumelui autorului/autorilor, Anul, Titlul lucrării (raportului), Universitatea, Institut sau Compania, Orasul, Tipul lucrării, Pagini:

Geneste J.-M., 1985, Analyse lithique d'industries moustériennes du Perigord: une approche technologiques du comportement des groupes humains au Paleolithique Moyen, These presentee a L'Université de Bordeaux I pour l'obtention du titre de Docteur, Université de Bordeaux I, 572 p.

f – Hartă:

Numele autorului/autorilor, Inițiala prenumelui, Anul, Tipul, Titlul și numarul harti, Scara, Editura, Orasul publicarii, Seria harti, Numarul foii:

Patrulius D., Dimitrescu R., Dessila-Codarcea M., Gherasi N., Popescu I., Popa E., Bandrabur T. (redactori coordonatori și redactori), 1968, Harta geologica, Scara 1:200.000, Brașov, Comitetul de Stat al Geologiei, Institutul Geologic, Bucuresti, 68 p.

### Titlurile figurilor

Titlurile figurilor se vor pune pe o pagină (pagini) separate, paginate consecutiv și vor fi incluse după bibliografie.

Titlurile figurilor trebuie să fie însotite de numărul figurii și descrierea acesteia. Descrierea trebuie să fie clară și să conțină explicația tuturor simbolurilor folosite.

**Figurile**

1. Fiecare figură (hartă, grafic, fotografie) trebuie incluse pe pagini separate, fiecare figură fiind însoțită de numarul corespunzător din text și numele primului autor al articolului.
2. Figurile trebuie trimise într-un format cât mai apropiat de formatul final în care vrem să apară editate.
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4. Hărțile trebuie să aibă indicat Nordul geografic, să aibă cel puțin două coordonate pe fiecare axă și să aibă o scară grafică. Localitățile și siturile menționate în text este de preferat să apară pe hartă.
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care il poate suscita). Ele trebuie să prezinte obiectul de interes într-o mărime adecvată.

6. Citarea figurilor în text trebuie să fie facută ca Fig. 1 - de exemplu.

**Tabelele**

Trebuie să fie incluse pe pagini separate, pagini consecutiv paginate.

Marimea tabelelor trebuie să fie aproximativ de 21 X 29 cm.

Citarea tabelelor în text trebuie să apară ca Tab. 1 - de exemplu.

Manuscrisul trebuie trimis spre publicare în forma completă, respectând normele revistei. Editorii își rezervă dreptul de a returna autorilor materiale necorespunzătoare, pentru corectarea greșelilor. Dacă articolul va fi returnat de două ori, va fi publicat eventual într-un număr viitor. A treia respingere face imposibilă publicarea articolului în revistă.

1.

## Printing norms

1. The Annales D'Universite Valahia Targoviste, Section d'Archeologie et d'Histoire, accept contributions in the form of original research papers, review papers written in French, English or German. The accuracy of the translation is the author's responsibility.

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All manuscripts should be submitted electronically to the Chief Editor ([mcarijumaru@yahoo.com](mailto:mcarijumaru@yahoo.com)) in one single attachment in a PDF file, containing the text, the figures and tables and they must fulfill the requirements of the journal. The text and the tables must be submitted in a MS Word format and the figures in a separate JPG or TIFF file.

The authors have to be responsible for the figure quality which have not has more than 300 dpi in size in the final format.

The manuscript should be accompanied by: (1) cover letter, (2) manuscript, (3) figure captions, (4) figures, (5) tables.

The manuscript should not exceed 25 pages, including bibliography, written in Time New Romans (TNR), and font size 11, justify. The pages dimension is A4 (21 x 29.7 cm) with a 2.5 wide margin. The manuscript must contain an abstract in English and preferably a second abstract in a foreign language different from that of the manuscript. The abstract in other languages should include the title too.

### Manuscript preparation

The submitted manuscript should be arranged as follow: (1) title, (2) author's names, (3) author's affiliations, (4) abstract, (5) keywords, (6) manuscript, (7) references, (8) figure captions, (9) figures, (10) tables.

**Title:** This should be short, specific and informative and be written in Time New Roman, size 13, in bold and centered.

**Authors:** Write the full name(s) of author(s) in TNR, size 12, font italic, centred below the title.

**Affiliation:** Write the affiliation(s), complete postal address and e-mail address in TNR, size 10, justify, below the author's name.

**Abstract:** It contains between 300 – 500 words and should not contain abbreviations or reference

citations. The abstract should be brief and objective, and represent a summary of the paper that includes the methods used, the main results and conclusions. It should be written in TNR size 10 and the word "abstract" has to be in bold, as well as the translation of the title.

**Key words:** Five to six keywords should be given below the abstract. When there is a second abstract the key word will be translated also in the language of this abstract.

### Main text:

1. Follow the structure shown below for the headings:

First level (Bold capital and lower case, left)

Second level (Bold capital and lower case, left)

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2. Italics should be used for terms or abbreviations in other languages "et al.", et collab, "etc".

3. Measure units must be represented by their symbol in the International System of Units.

4. Chemical and isotopic analyses as well as radiometric and paleontological dating must be referred to sampling locality and include coordinates.

5. References cited:

a) References are cited in the text by the initial of the author, last name of the author and the year (M. Otte, 1995). In the case of a citation of a paragraph, this will be put in quotation and the page will be cited (M. Otte, 1995, p.56-57)

b) If the authors' name is part of the sentence, only the year is bracketed: "M. Otte (1995) determined...."

c) For references with two authors use the initial followed by their names and the year, (M. Otte,

P. Noiret, 2004) and for those with three or more authors, use the last name of first author followed by "et al" (M. Otte et al., 2006).

d) References cited should be arranged chronologically; use a, b, c, etc. for references to one author in the same year. Separate with coma the references to same author and with semicolon the references to different authors: (M. Carciumparu, 2002 a; M. Carciumparu, 2002 b; M. Anghelinu, 2005).

## References

1. The title “References” will be written in TNR, size 11, bold, centered, upper case.
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3. Arrange the references alphabetically by first author and then alphabetically by second author. If more than one reference of the same author(s) is included, arrange them chronologically.
4. For references with more than two authors, list alphabetically by first author and then chronologically.
5. Do not abbreviate journal titles or publisher names
6. For the most common cases, follow the examples:

### a) Papers in periodical journals

Last name(s), Initial(s), Year, Article title (italic font), Journal title, volume, pages.

Demars P.-Y., 2008, *Paleogeographie de l'Europe dans la premiere partie du Paleolithique superieur – Premiers travaux*, Annales d'Université Valahia, Targoviste, Section d'Archeologie et d'Histoire, Tome X, Numéro 1, p. 29-45.

### b) Books

Last name(s), Initial(s), year, Book title (Italic, bold), Publisher, City of publication, no. of pages, no of figures, tables, ISBN

Carciumaru M., Anghelinu M., Nitu E-C., Cosac M., Muratoreanu G., 2007, *Geo-Archeologie du Paleolithique moyen, Paleolithique superior, Epipaleolitique et Mesolithique en Roumanie*, Editura Cetatea de Scaun, Targoviste, 187 p., 48 fig., ISBN 978-973-8966-38-3

### c) Chapters in books

Last name(s), Initial(s), year, Chapter title (in Italic), in Last name(s), Initial(s) (ed(s)).l. Book title( Italic, bold), Publisher, City of publication, No. pages and figure, ISBN, chapter pages.

Carciumaru M., 1978, *Studiul paleoclimatic si geocronologic asupra unor statiuni paleolitice din Banat*, in Florea Mogosanu, *Paleoliticul din Banat*, Editura Academiei Romane, Bucuresti, 152 p., 53 fig., p. 83-101.

### d) Proceedings from symposia and conferences

Last name(s), Initial(s), Year, Title (Italic), in Symposia/conference name (Italic, bold), Publisher (Italic), City of publication, ISBN, pages.

Carciumaru M., 1994, *Paleoenvironnement et*

*chronostratigraphie du Paleolithique moyen et superior en Roumanie, Paleoecologie et geochronologie des industries du Paleolithique superieur ancien de la Roumanie*, in *El Cuadro geochonologico del Paleolítico superior inicial*, Museo y Centro de Investigacion Altamira. Monografías, No.13, ISBN 84-8181-024-X, p. 15-23.

### e) Unpublished thesis or reports

Last name(s), Initial(s), Year, Title, University, company, etc, City, Type of work, pages.

Geneste J-M., 1985, Analyse lithique d'industrie moustériennes du Perigord: une approche technologiques du comportement des groupes humains au Paleolithque Moyen, These presentee a L'Universite de Bordeaux I pour l'obtention du titre de Docteur, Universite de Bordeaux I, 577 p.

### f) Maps

Author(s), Initial(s), Year, Type, Title and map number, scale, Publisher, City of publication, Map series, number of sheets.

Patrulius D., Dimitrescu R., Dessila-Codarcea M., Gherasi N., Popescu I., Popa E., Bandrabur T., 1968, Harta geologica, Scara1:200.000, Brasov, Comitetul de Stat al Geologiei, Institutul Geologic, Bucuresti, 68p

## Figure captions

A list of figure captions should be supplied on a separate sheet(s), numbered consecutively and included after the list of references.

The captions should include the figure number and a figure description. The description should be precise and contain the explanation of all symbols and abbreviations used.

## Figures

Each figure (maps, graphs, photographs) must be submitted on a separate sheet, be clearly identified with figure number and first author name.

Submit figures as close to the final size as possible.

Lettering should be between 8 and 12 points type size. Use graphic scale and include units of measure.

Maps must indicate the North, have at least two coordinate data on each axis, and have a graphic scale. Localities mentioned in text, should be included in maps.

Good, clear contrast black and white photographs are acceptable. The color

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photographs are accepted with restrictions (ask about this the editor managers). All the photographs should show the object of interest in an adequate size.

References to figures in the text should appear as Figure 1.

### **Tables**

Tables should be submitted on separate sheets, numbered consecutively, and be identified by author's names.

1. Size of the tables should be of 21X29 cm.

2. References to tables in text should appear as Table 1.

The manuscript should be submitted to be published in a complete format and it has to fulfill the format specifications of the journal.

The Editor has the right of returning the manuscripts to the authors for further corrections. If the manuscript will be returned to the authors twice, its publication will be postponed for a further volume of the journal.

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<u>Anil Aggrawal's Internet Journal of Forensic Medicine and Toxicology</u>	0972-8066	End of indexation	Not evaluated in 2010
<u>Animal Biology &amp; Animal Husbandry - International Journal of the Bioflux Society</u>	2066-7612	4.71	Evaluation Pending in 2010
<u>Animal Cognition</u>	1435-9448	End of indexation	Not evaluated in 2010
<u>Animal Husbandry: Scientific Articles [Gyvulininkystė: Mokslo darbai]</u>	1392-6144	3.95	Not evaluated in 2010
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<u>Annales Academiae Medicae Bialostocensis</u>	0067-6489	End of publication	Not evaluated in 2010
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<u>Annales Academiae Medicae Silesiensis</u>	0208-5607	5.28	Not evaluated in 2010
<u>Annales Academiae Medicae Stetinensis</u>	1427-440X	9.00	Not evaluated in 2010
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