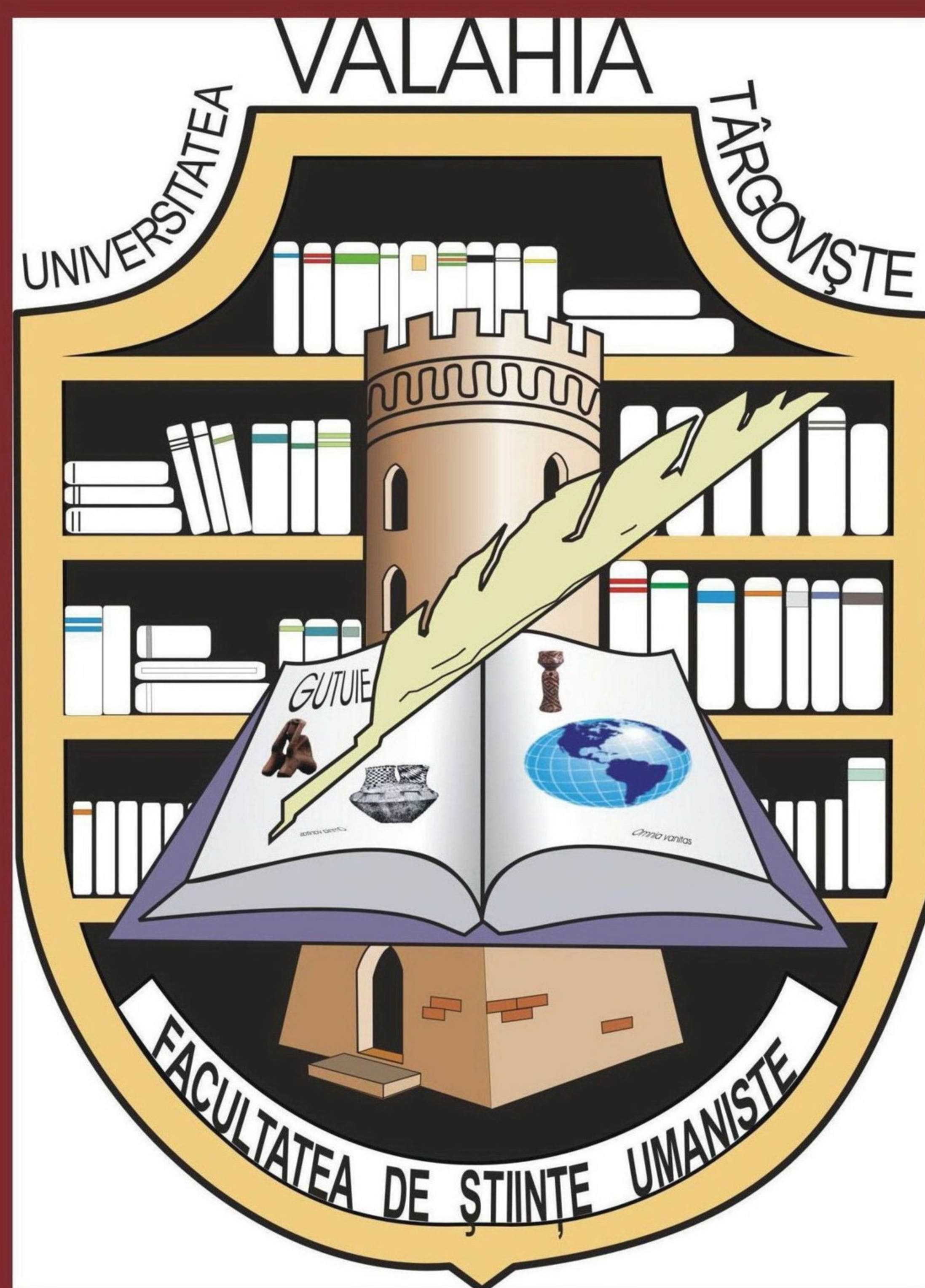


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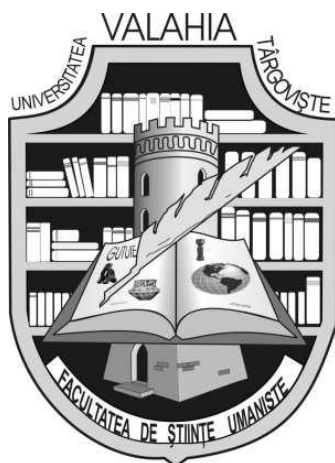
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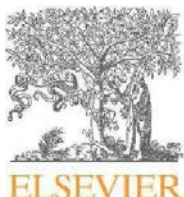
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Virtual Prehistory portable art collection of Siberian Mal'ta-Buret' culture: ways of documenting, classification and representation

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Abstract. Modern research of museum archaeological collections, their attribution and digitizing are relevant questions of science, culture, and education in the world.

The paper presents archaeological materials of the Siberian Upper Paleolithic sites Mal'ta and Buret' and the ways of their systematization and documentation in a form of an information system on the internet. The system has a full-fledged item attribution, scientific description and extensive multimedia support including 3D models and macro photographs.

The collections were obtained during the excavations under the direction of M. M. Gerasimov and A. P. Okladnikov, carried out in the early to mid-20th century; the unique artifacts from the collections are kept in the funds of various museums in different cities of Russia (Moscow, St. Petersburg, Irkutsk) in a scattered and unsystematic form. Our project is aimed to the developing of the documentation of unique items from the collection of the Upper Paleolithic Mal'ta-Buret' archaeological culture and presenting the results in a systematic way with visual materials. The collection includes a number of anthropomorphic, zoomorphic, ornithomorphic figurines, ornamented discs and plates, as well as items of personal ornamentation, and other unique artefacts. As part of the project, we took photographs and macro photographs of the objects, their 3D models using the photogrammetry method, made a detailed description and collected all available publications on them, both modern and the earliest. The art objects of the fragmented collection are systematized and presented in the form of a single virtual collection on the Internet – Information System of Mal'ta and Buret' Mobile Art. Descriptions, photographic images and three-dimensional models of objects, the results of microscopic studies and trace analysis have been published.

Keywords: Mal'ta-Buret' Archaeological Culture, Upper Paleolithic, Prehistory Art, Information System, 3D Modeling

Introduction

Modern research of museum archaeological collections, their attribution and digitizing are relevant questions of science, culture, and education in Russia. We have treated the collection of the unique ivory, bone, antler, and soft stone items that made up the "golden fund" of the Ice Age art of the Mal'ta-Buret' culture.

Mal'ta settlement is a multilayer archaeological site in Siberia with cultural deposits belonging to the chronological range from 43,000 to 12,000 years BP. The main collection of finds was obtained during the excavations directed by M. Gerasimov in 1928-1958.

According to the investigations of M. Gerasimov, the "classical" Mal'ta layer contained a "Gravette-like" lithic industry, stone and ivory objects (near 13,000 items) and 15 dwelling structures, dated from 19,000 to 23,000 uncal. BP (M. M. Gerasimov, 1958; E. A. Lipnina, 2012; L. V. Lbova, 2014; The Paleolithic of Siberia, 1998; *etc.*). In addition, the Mal'ta collection contains over eight hundred ivory, soft stone, and bone artifacts including anthropomorphic and zoomorphic sculptures, numerous pendants, objects with ornamental decoration, bracelets, perforated discs, beads, an ivory plaque engraved with an image of a mammoth, and nail-like pins in the same archaeological

context.

Recent excavations by the Irkutsk archaeologists have brought the problem of dating, microstratigraphy, and cultural differentiation of the assemblage to the forefront of research. The “classical” component from Gerasimov’s excavation characterized by ivory artifacts, anthropomorphic sculptures, and habitation features dates between 21,000 and 23,000 years ¹⁴C BP. This corresponds to layer 8 and 9 of lithological sedimentation according to the modern section made in current excavation by G. I. Medvedev as initial stage of LGM (Y. V. Kuzmin *et al.*, 2011; E. A. Lipnina, 2012).

During the excavations of 1934–1958, M. Gerasimov noted spots of red, blue, green, white, and violet colors in the structure of the cultural layer with dwellings (M. Gerasimov, 1958). Unfortunately, most of the field records of the 1930–50-s are lost, and no other data on the spatial proximity of sculpture findings to these spots has been found. Before us (L. Lbova, P. Volkov, 2017), N. D. Praslov (1992) and A. K. Filippov (2004) remarked spots of ocher on some ivory objects.

We attempted to place the painted objects on the site’s plan, which was made by G.I. Medvedev (2001). Thus, we found that all the objects with paint detected – by means of a microscope – concentrated at unusual dwelling, elongated construction located at the west part of excavation zone (*Stone age...*, 2001; E. A. Lipnina, 2012; L. Lbova, P. Volkov, 2017).

In the present paper we demonstrate the results from both collection, Mal’ta and Buret’ (Mal’ta collection was previously published; L. Lbova, P. Volkov, 2016; 2017; L. Lbova *et al.*, 2017; L. Lbova, A. I. Pankina, 2018; *etc.*), and new samples, to provide a more complete picture and comprehensive understanding of the creativity and technological capabilities of the Paleolithic population of the Baikal region.

The Buret’ site (as the “double” of Mal’ta) is 12 km north from Mal’ta site and was discovered in 1936–1940; it was excavated under the direction of A.P. Okladnikov. General stratigraphic situation at Buret’ site is analogous to the Mal’ta site (we mean 8 and 9 lithological layers according to the contemporary results), but it has different geomorphological situation. The Buret’ collection contains about 500 stone and bone artifacts. Four dwellings of various configurations were excavated; they had a unique construction of reindeer horns, supports made of mammoth femurs, and wall fastenings made of limestone blocks and rhino skulls. The stone inventory is close in technological characteristics to the Mal’ta complex, and consists of a

few artifacts: points, endscrapers, scrapers, burins, prismatic cores and blades, including those with retouching, choppers (quartzite, and Cambrian flint). Anthropomorphic and ornithomorphic sculptural images, as well as objects of personal ornaments (pendants, piercings, beads, and discs with holes) became popular in scientific publications (A. P. Okladnikov, 1960; V. E. Larichev, 1972; *The Paleolithic of Siberia*, 1998).

Mal’ta and Buret’ are type-sites of the classical stage of Siberia’s Upper Paleolithic, and they are perceived as single-layer objects that have a number of similar features in the manufacturing of stone and bone tools, as well as stylistically homogeneous anthropomorphic and ornithomorphic figurines. They were defined as short-term hunting camps of the same culture, or even one reindeer’s hunter’s population (M. M. Gerasimov, 1958; A. P. Okladnikov, 1960; *The Paleolithic of Siberia*, 1998). Mal’ta and Buret’ collection contains over 850 ivory, stone and bone artifacts including 40 anthropomorphic and 27 zoomorphic sculptures and blanks, and a lot of personal ornament objects with decoration. Unfortunately, historically, the entire collection was divided and stored in various museums of Moscow, St. Petersburg and Irkutsk. Therefore, the representation of the most comprehensive artefact’s collection as whole is relevant for researchers of Paleolithic art.

Methods

Experimental data as well as detailed morphological, techno-typological, and microscopic analysis were conducted with most of the collection. Mal’ta parts are now kept in the State Hermitage Museum and Museum of Anthropology and Ethnography in St. Petersburg, and in the State Historical Museum in Moscow. Buret’s parts of the collection are stored at the State Historical Museum in Moscow and at the Regional Art Museum in Irkutsk. Our microscopic examination and identification of traces using low and high power Altami microscopes with digital camera revealed the presence of ornamental decoration and pigments on the surface of the sculptures (L. Lbova, P. Volkov, 2016; L. Lbova *et al.*, 2017). All the ivory artifacts were examined using bright field reflected light microscopy at magnifications ranging from 20 to 100 diameters using an Olympus BX-30 microscope for the presence of residues or wear related to use, also ALTAMI microscope and digital camera. Complete technology, use-wear and residue analysis have the potential to provide a reliable basis for reconstructing and evaluating the nature of prehistoric

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tasks, resource utilization, and hunting's settlement technology history (L. Lbova, P. Volkov, 2016).

To publish materials of the consolidated collection in a systematic way including integration of 3D models via NSU 3D gallery, an Information Web System of Mal'ta Mobile Art (malta.artemiris.org) was created with interfaces for both viewing and filling data (Fig. 1). The collection was systematized in groups:

“Figurines” (Anthropomorphic; Ornithomorphic; Zoomorphic; Androgynies), “Prestige items” (Ornamented discs, discoids and plates; Rods) (Fig. 2), “Personal ornamentation” (Diadems and bracelets; Pendants and beads). The information system gives the opportunity to publish not only text descriptions and photographs, but also interactive three-dimensional models.



Fig 1 - The items of the Mal'ta-Buret' archaeological collection (Zoomorphic group).

As a part of documenting the Paleolithic art of Mal'ta collection, the research of the museum collections items was done. It included the analysis of published data, the preparation of its description and technological definition. As a part of the work, photographing of the items was done. Also, we used the SfM photogrammetry method (M. Westoby *et al.*, 2012) to create digital three-dimensional models of the items. For photogrammetry, a Canon 550D camera, a turntable and a controller from the Cognisys Stackshot 3x virtual

object creation kit were used. Near 100 photographs were used for making every single three-dimensional model (Fig. 3).

When making a series of shots, the item was fixed on the automatic turntable with a help of plastic mass UHU Patafix. The turntable was put in the light-box rounded by LED spotlights for the even illumination of the item. A step of the turntable was 5 degrees, which corresponds to 72 shots per full rotation of the item around its axis. Since when the object is turned around

its axis, its poles do not fall into any of the frames, a second series of photographs was additionally taken on the turntable. In this case, the item was rotated 90 degrees along the vertical axis relative to the first series

of images. Thus, the number of shots for one item was 144 units, which corresponds to two rotations of 72 shots.

Based on the obtained series of photographs, an

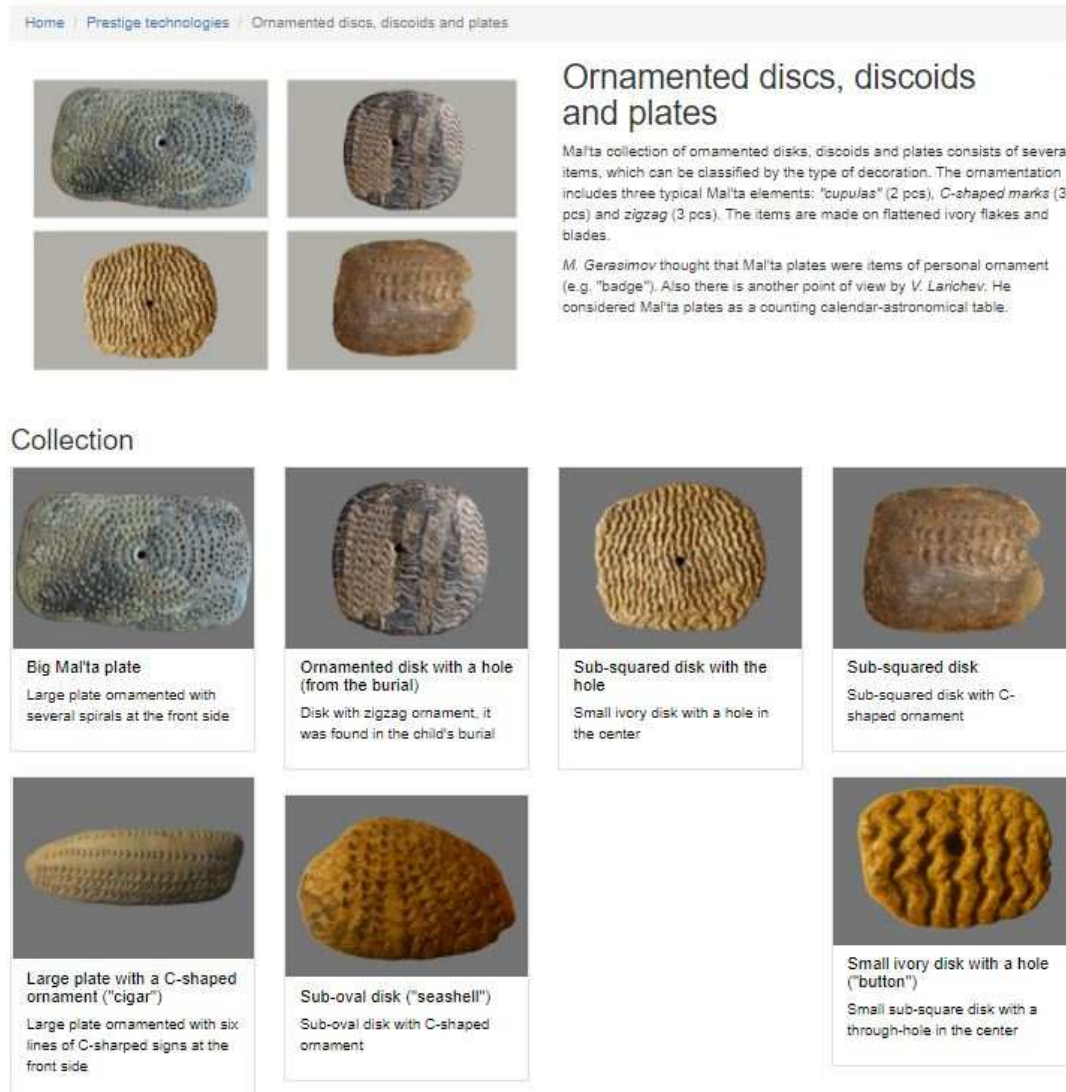


Fig. 2 - Information system "Mal'ta Portable Art" interface (discs and plates).

automated construction of three-dimensional models was performed using the Agisoft Metashape application. The average resolution of the resulting models was 120 polygons per square millimeter. Texture resolution was 50 pixels per inch (DPI). Total average was 2.3 million polygons and 64 megapixels per model. At the same time, to be able to publish on the web with a small file size, the resolution of the models was reduced to an average of 50 polygons per square millimeter (1 million in total per model); the texture

resolution was not changed. The resolution of the models, both original and prepared for the web, is sufficient for identifying microrelief and technological analysis (Fig. 4).

The resulting models were processed in the Meshlab application: the model was centered at the center point of the scene's coordinate grid, the orientation of the model relative to the coordinate axes was set, the item's scale was corrected, and the number of polygons was reduced to decrease the size and

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complexity of the model. For some models, post-processing was performed: smoothing of ripples (an artifact of photogrammetry on monochromatic areas of the model, or insufficient coverage with photographs), filling the "holes".

The processed models were uploaded to the

specialized archaeological 3D gallery hosted by Novosibirsk State University in the standard OBJ format (file size ~ 100 MB), where they were automatically converted to DRACO format (file size ~ 2MB), and textures from JPG format (file size ~ 4MB) were converted to WEBP format (~2MB).

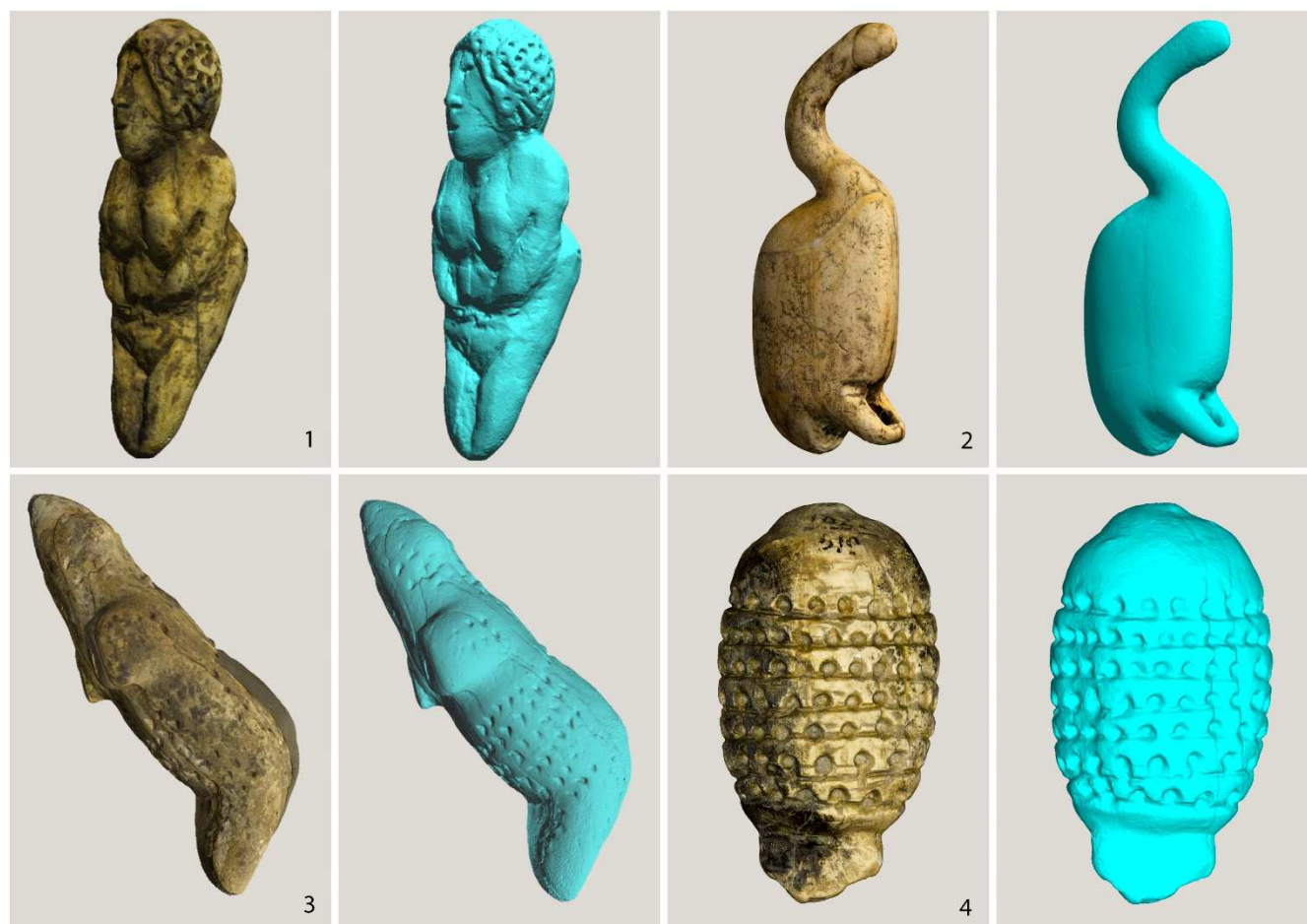


Fig. 3 - Three-dimensional models from State Historical Museum, Moscow: 1 – anthropomorphic figurine, 2 - ornithomorphic figurine «grazing swan», 3 - zoomorphic figurine «gopher», or «marmot», 4 - ornamented anthropomorphic head.

In the 3D NSU Gallery information system each model was supplied with a description and attribution: "Material", "Dimensions", "Region", "Archaeological culture", "Site", "Storage location", "Inventory number". The models were then integrated into the Information system of Mal'ta Mobile Art (malta.artemiris.org).

Materials and main results

Authors propose that the ornamented ivory artifacts manufacture at the Mal'ta and Buret' sites were stable

and serial. For each of the item's types, their own production processes and a special technology were applied, each involving specific sets of tools (L. Lbova, P. Volkov, 2016). One of our tasks of documentation process is to find continuity to understand if there is a retention of elements, techniques, and composition.

Anthropomorphic figurines (40 figurines, fragments, blanks – whole collection) comprise these categories according to technological stages:

1. Profiled type with well-expressed modeling of the

head and the body. Microscopic analysis has shown that every single item had some elements of clothing and accessories. This argues for invalidity of dividing the sculptures into few types.

2. Weakly profiled type; the head is modeled in relief; the body is rod-shaped with holes in the feet (as a rule with ornaments and details).

3. Contoured flat objects with engraving and ornamental decoration.

4. Only heads.

5. Objects with the initial stage of executing the details.

6. Blanks for the future figurines (L. Lbova *et al.*, 2017).

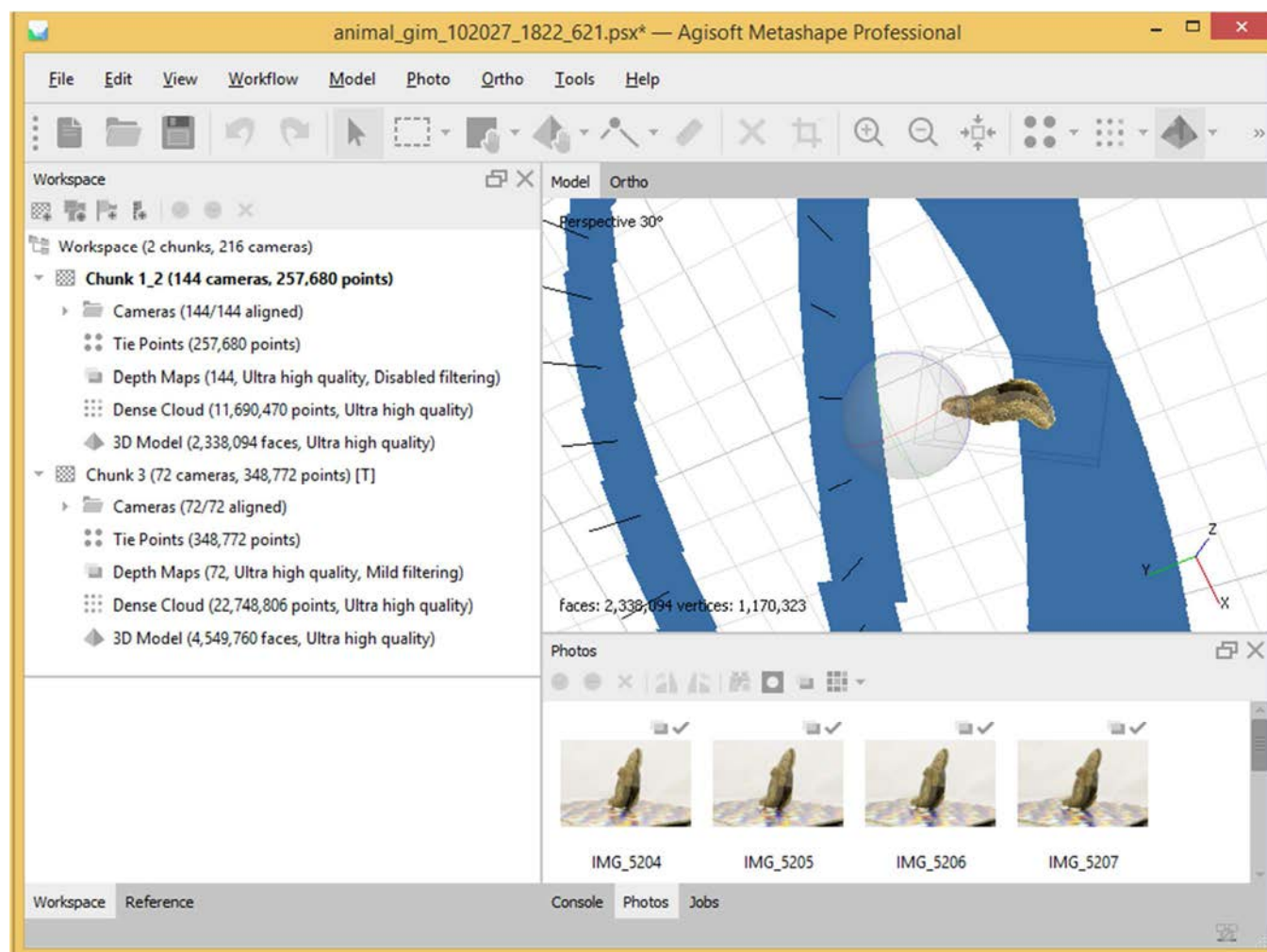


Fig. 4 - The process of zoomorphic figurine 3D model creating using SfM photogrammetry in Agisoft Metashape application.

Elongated ivory fragments (rods, bars) were used as blanks in the collection. According to several blanks, the way of making upper and lower elements of the figurines, we can assume that, initially, a longitudinally split piece of ivory was fragmented into blanks of a particular length with a planning knife, which was used as a saw in several cases. The sides of the items or their details were treated with two tools in general – a

planning knife and a burin. Finishing the surface to the desired configuration was made with a wide working edge burin and a push-plane. Ornamentation and detailing of the items were made with a burin, a knife, or a cutting tool. A burin treated the surface which imitated fur, cloth elements, hair or adornment. In some cases, when details were made as lines in the form of relatively deep grooves (arms, legs, chest, womb), they

were cut with a knife and finished with a burin. Drilling was made with a reamer (drill).

In most cases, only heads of the figures are decorated. Also, there is an additional ornamentation in the form of cloth elements or adornment on three anthropomorphic figures. Various combinations of four basic graphic elements were used for decorating the anthropomorphic figures. These signs are:

1. Simple ornament consists of parallel lines made with a knife. Such ornament can be found on the child anthropomorphic figures in general.
2. Ornament consists of round indentations ("cupules ornament"). These elements are the most complex in their composition and technology: the "cupules" are formed in a circle or a spiral. Such ornamentation consists of two stages. The first one includes a previous markup of the surface in the form of a line. Then, non-deep indentations were made with a drill or a burin. The elements are located on the same distant from each other.
3. C-shaped ornament includes two types. The first one is deep, made with a burin; the second one is non-deep, made with a cutting tool. Such ornament covers the entire surface, but prevails in decorating the heads of the figurines.
4. Zigzag ornament was generally made with a burin. Such ornament is typical for the heads of the figurines.

Some figurines have red, green, and blue pigments in the area of the head, neck, bosom, elbows, knees (L. Lbova, P. Volkov, 2017).

Zoomorphic figurines (the ivory items in the form of birds, fish, snakes, rodents, etc.) presented in the Mal'ta and Buret' collections include 27 items. The collection has a series of waterfowl items (18 pcs) which are similar in morphology and nine items with individual technological characteristics: three birds, two snake images, a fish, a rodent image, and two items with an unknown definition (probably, a mammoth and a cat).

The morphology of the finished items largely depends on the nature of the original blanks (P. Volkov, L. Lbova, 2017). The process of manufacturing a figurine of an ivory begins from the moment the blank of raw materials is obtained. There are several ways to create a blank that determine its shape, which, in turn, can be used to select several types of blanks. The first type is a bar-type blank made with fragmentation of a longitudinally split ivory into pieces up to 10 cm using a planning knife. The second type of blanks are flat flakes or ivory blades made with longitudinal or transverse splitting of raw materials. The third types of

blanks are rods of elongated proportions. These blanks are made with longitudinal splitting of ivory fragments. At the next stage of manufacturing, the artisan made the figurines themselves. For each type of items, a special tool set was used.

Here is a classification of the Siberian portable art collections:

- Heavily profiled items with details highlighted in relief, these items were based on bar-type blanks;
- Poorly profiled items with engraved details, ornamented and not ornamented, they are based on elongated and flattened rod-shaped blanks;
- Flat ornamented and non-ornamented items, they are based on ivory blades and flakes (L. Lbova *et al.*, 2017).

A group of items made on blades is represented with a series of orthomorphic figurines of a "flying" type (18 pcs – whole collection) and ornamented rod-shaped items ("snakes", 2 pcs). There is a single image of a fish made on a flake (there are no more items made on a flake). Bars as blanks were used for individual items: non-series birds, a rodent, a mammoth, a cat.

On the first stage of treating the flattened blanks, a planning knife was used. It forms the main elements of the figurines: a head, a neck, a body, and birds wings. Then the roughness was smoothed out with a push-plane. After that, the details were made with a burin. At the final stage, double-sided drilling was made with a drill for, probably, hanging the items. At the very end, the surface of the item was grinded and, in some cases polished (L. V. Lbova, A. I. Pankina, 2018).

Decorated discs and plates as a group (7 items – whole collection) express the greatest variability of ornamental types. Decorated discs and plates include seven items made on ivory flakes and blades. They can be classified according to the type of blank, the shape, and the way of decorating. According to the type of blanks, the items can be divided into three groups: blades, flakes, and bars. In the collection, there are three forms of discs and plates: sub-rectangular with smoothed corners, sub-square, sub-oval. Also, the collection represents all of Mal'ta's typical patterns — pits (cupules), spiral and circular patterns, deep wavy grooves and zigzags, and C-shaped marks. Plates decorated with C-shaped marks do not have central holes, so they could be used and kept in special devices (bags, bundles, frames, etc.). The items surface has traces of contacting with soft elastic materials (Lbova, Volkov, 2016). At the moment, there are four reasonable interpretations of these Mal'ta artefacts. M. Gerasimov (1931, 1935) thought that Mal'ta plates and discs were adornment items (i.e. plaque, button). V. Larichev

(1986, 1999) claimed that Big Mal'ta plate was a counting calendar-astronomical table. G. Medvedev thought that Big Mal'ta plate was a topographic plan of the area. We assume that Mal'ta decorated discs and plates were prestige items due to their types of ornamentation, sizes, shapes, and uniqueness (L. Lbova, T. Rostyazhenko, 2019).

It should be noted that ivory, bone, and antler were used in manufacturing *decorated rods*. We divided rods into groups with carved spiral lines, ringed relief, C-shaped elements, horizontal lines, anthropomorphic (?) masks, and undecorated items.

The Mal'ta collection contains all known examples of Siberian Upper Paleolithic *personal adornment* including beads, pendants, bracelets, and tiaras with

devices for securing the items on clothing or on the body (near 235 items and fragments). Beads and pendants have both simple and complex shapes. We identified traces of sewing and light polishing from contact with hide or fur on some of their surfaces. Beads, recycled from elements of clothing décor with evidence of sewing, were on a buried child's necklace. The bracelets and tiaras are divided by form and size. For example, a narrow bracelet was identified with pit and cupule patterns made by high-speed drilling with special tools such as a bow and drilling stone; or the tiara was made on a much wider ivory blank with an engraving of a mammoth, and also pits and cupules made by speed drilling (Fig. 5).



Fig. 5 - Diadem with mammoth image (top) and a bracelet with “cupules” ornament (bottom).

Until recent, Mal'ta-Buret' culture materials published in paper or digital form were incomplete in one or several aspects - accessibility, complexity,

systematization. Therefore, Complex Automatic Museum Information System (CAMIS), which is mandatory to fill for all Russian museums, does not give

an open access to archaeological data. As for print publications, they are not able to represent the variety of all multimedia materials existed. The materials posted so far on the Internet often do not differ from print publications and show simple text with images, not providing a systematic and comprehensive representation of the collection.

Thus, it is an urgent task to develop specialized Internet Information System for presenting Mal'ta collection of primitive art in an integrated and structured form on a regularly updated resource that displays the results of the latest site research in the open access.

Discussion

One of the most important tasks of archeology is documenting and systematizing objects of historical and cultural heritage. Over the past decades, quite large volumes of archaeological data have been recorded and described, presented in a monographic or cataloged form. In recent years, technological advances have significantly influenced the tools and capabilities of documenting archaeological sites. At the same time, despite the significant opportunities that have opened up, the task of documenting and systematizing archaeological knowledge still has unsolved problems.

First, scientific and socially significant knowledge about cultural heritage: objects of archaeological heritage, individual archaeological finds, lands and territories of historical and cultural significance are presented generally in a fragmented form. Many scientific groups today have their own databases that are not published or made available to colleagues. The exchange of such data is currently rather difficult or impossible at all. Secondly, at the moment there is no uniform approach to the description and attribution of archaeological objects. Despite the existing attempts to develop a common standard (for example, the ISO standard for cultural heritage data ontologies CIDOC CRM, M. Doerr, 2003), today each scientific group usually uses its own standard.

Thirdly, one can state a certain lag of the existing Russian archaeological practice from international experience and technical progress in the field of methods for documenting archaeological objects. For example, there are quite effective ways to build digital three-dimensional models - copies of cultural heritage objects, but this is rarely used in world archeology. Also, despite the development of information technologies in the field of storing, cataloging and publishing information and multimedia on the Internet, including three-dimensional visualization, interactive GIS, etc., there are practically no Internet resources

devoted to the publication of information about cultural heritage objects in a full and systematized way.

Development of a pilot information system that provides the possibility of a full and systematic documentation of archaeological finds, with the publication of the entire range of scientific data about the object, including description, attribution, 3D models of objects, macro photography, etc. is, in fact, a necessary and timely step towards solving the identified problems.

The main task of such information systems is the preservation of the cultural values and providing access to cultural heritage (V. Kazakov *et al.*, 2014). All the existing information systems can be relatively divided into two groups: global and local. The first group includes integrated automated museum information system "CAMIS". It is intended for computerization of accounting, scientific, restoration, publishing and administrative activities of museum employees and is a set of Automated Workstations (AWS) (Yu. M. Loshak, Ye. L. Kosheyeva, 2001). CAMIS provides the user with such opportunities as:

- Processing, storage and publication of information about museum items and collections;
- Registration of accounting documentation in accordance with applicable requirements;
- Definition of search conditions, selection and retrieval of data on collections by request in the form of card files, catalogs, lists, etc.;
- Systematization, storage and publication of images, audio and video materials;
- Creation of multimedia systems for visitors, etc. (O. A. Petrova, 2011).

In addition to CAMIS, the network contains local information systems that do not have the official museum status, but also include artifacts. However, such systems also preserve cultural values and provide access to exhibits for everyone (V. Kazakov *et al.*, 2014).

Nowadays, in Russia, there are several sources containing information about ancient culture and built on the principle of a database and virtual museums.

Among the Russian virtual collections in 3D, we can note the Tula State Museum of Weapons (<http://www.museum-arms.ru/>), the Archaeological Society of the Pskov Region (<http://arheologpskov.ru/>), Gnezdovsky archaeological complex (<http://gnezdovo.com/>), museums of Perm University (<http://museum.psu.ru/>), virtual museum "Artifact" of Tomsk State University (<http://www.artefact.tsu.ru/virtualmuseum>).

Also, there is several resources developed at

Laboratory of Multidisciplinary Research on Prehistoric Art in Eurasia (Novosibirsk State University). The first source is 3D Gallery of Novosibirsk State University (<https://3d.nsu.ru/ru>) (A. I. Pankina *et al.*, 2019). The site contains a collection of 3D models of archaeological artefacts and petroglyphs related to different epochs and locations. Every model has a short description (information context) and links to publications connected with a find. The models are divided into several categories on the site, but a structure of the categories is quite primitive. The resource has functions of viewing and adding models, description of the items, the control of light sources, background selection, changing textures, and customizable overlaying of tracings. The research techniques for users are also available: measuring the distance between arbitral points on an object, enabling (disabling) auto scrolling, etc. (L. Lbova, Zh. M. Zhenest, 2017).

Another specialized archaeological Internet resource is Siberian Rock Art Information System (<http://rockart.artemiris.org>). The resource contains petroglyphs grouped into several sections (sites). The page of each petroglyph has its name, one or several high-resolution photos. A description is attached to the petroglyph, which, in addition to the main block, contains a technical description, a publications section, information about the era, method and style. Most of the petroglyph pages contains 3D models. Painted petroglyphs also represented with a DStretch enhanced images (J. Harman, 2005), recently added petroglyphs contains tracings, created in a digital form.

There is also two of Information Systems created in the laboratory for an ancient portable art. One of them is Information system of Prehistoric mobile art of Siberia and Far East (<http://mobileart.artemiris.org>) (L. Lbova *et al.*, 2019). The information system contains sites, primarily Initial and Early Upper Paleolithic of Siberia, representing a mosaic combination of technologies for splitting stone, processing bone and horn, as well as an amazing variety of fossil anthropological materials representing various species and subspecies of the genus Homo. Later, the chronological scope of the presented collections was extended up to the Bronze Age. Each object in the system is attributed and represented by the fields “annotation”, “description”, “manufacturing technique”, “traces of use-wear”, “storage location”, “inventory number”, “museum CAMIS”, “dimensions”, “material”, “dating”, “culture”, “author of excavations”, “year of excavation”, “publications”, “photography”, “materials of macro photography”, 3D-model of an object.

Finally, standalone Information system of Mal'ta Portable Art (<http://malta.artemiris.org>) was developed for Mal'ta-Buret' archaeological culture collection as it represents the most comprehensive artefact's collection of the unique ivory, bone, antler, and soft stone items that made up the "golden fund" of the art of the ice age that is highly relevant for researchers of Paleolithic art. The website represents objects of this primitive art collection classified according to typological method with full attribution, textual and technological descriptions, photos, 3D models and macro photos of represented items. Today the system is the most complete and structured representing of the Mal'ta Art collection. Still, against the background of the described developments, the task of presenting objects of Eurasian primitive art remains relevant.

Conclusion

Siberian Upper Paleolithic assemblages display cultural traits similar to European Upper Paleolithic assemblages. However, this superficial similarity does not provide ground either for the correspondence of the European to the northeast Asian Paleolithic record, or for speculations about long-distance migration of prehistoric European populations. The period is, like in other parts of the Old World, rich in artifacts, such as superb portable art.

A complete Information System of Mal'ta-Buret' Siberian Upper Paleolithic archaeological culture developed and contains not only photographs and textual and technological descriptions of the items, but also three-dimensional models, which can be viewed via browser. In total, 90 objects with photographs, macro photographs (obtained with a microscope), and descriptions, 35 three-dimensional models were published.

Generally, the Mal'ta-Buret' collection of portable art can be considered as a full-fledged archaeological source for the study, education, and individual issues. Most of the collection, previously fragmented through several museums now can be seen on the recently published website <http://malta.artemiris.org/>.

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Data about the vessels decorated with painting in the discoveries of the Early Neolithic from Cristian I, Sibiu County, Romania ...and some "Mesolithic legacies and traditions" on the Danube line and north of it

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Abstract: Archaeological material of the very Early Neolithic (and „Mesolithic traditions”) discovered in the archaeological site of Cristian I still presents surprising evidence of the behaviour of communities at that time. In this study, we have new data about painting ornamentation of the Early Neolithic pottery from here.

Keywords: Early Neolithic, „Mesolithic traditions”, Starčevo-Criș culture, oldest painting, radiocarbon data, phase I, Transylvania, Romania.

The *in situ* discoveries from Cristian I, Sibiu County, are unique – at least in Romania (S. A. Luca, 2015) – and falls into an early chronological and cultural phase of the Early Neolithic pottery culture that we call Starčevo-Criș (Gh. Lazarovici, 1979; S. A. Luca *et al.*, 2012). Unique character of the archaeological site from this point made us to interpret the discoveries of the pit field containing, in particular, whole vessels, as a **Sanctuary** dedicated to the consecration of the oldest colonization belonging to the first bearers of the Neolithic pottery in southern Transylvania (S. A. Luca *et al.*, 2013; S. A. Luca *et al.*, 2013a). Idea of the existence of such sanctuaries is not new (V. Nikolov, 2009; V. Nikolov, 2011 – in a later Neolithic period), but the Mesolithic traditions that appear, more and more frequently, in main stratigraphic positions and supported by clear radiocarbon data, pose new problems, which we mention on the present occasion.

Elements of consecration and abandonment of the ritual pit sanctuary (phase I) (S. A. Luca 2015; Fig. 1).

Ritual consecration of the place (phase IA)

The dialogue between the civilizations of the moment. We notice that this consecration, the initial one, called by us phase IA, has a primordial role in the beginning of the effective mastery of the area (at this chronological and cultural moment, as a mental state, following the physical one, direct) of a used space – in fact – by the Mesolithic (hunters, fishermen, gatherers) in constant motion. It also leads to the preservation of the unity and faith of the Neolithic in a region that has, at this time – or will it have? - , several phase I sites of the Starčevo-Criș culture (Neolithic colonization with pottery) and – we will see further – many “Mesolithic traditions”. Among the existing settlements we mention Ocna Sibiului-*Triguri* (I. Paul, 1989; I. Paul, 1995; I. Paul, 1995a), Miercurea Sibiului-*Petriș* (S. A. Luca *et al.*, 2006; S. A. Luca *et al.*, 2007; S. A. Luca *et al.*, 2008; S. A. Luca *et al.*, 2008a; S. A. Luca *et al.*, 2008b; S. A. Luca *et al.*, 2009; S. A. Luca *et al.*, 2011; S. A. Luca, 2015), Miercurea Sibiului II-*Valea Gârbovei* (S. A. Luca *et al.*, 2013; S. A. Luca *et al.*, 2013d; S. A. Luca *et al.*, 2013e), Cristian I (S. A. Luca *et al.*, 2012), but also other discoveries on the Mureș valley, in the immediate vicinity, at Șeușa-*La cărarea*

morii (M. M. Ciută, 1998; M. M. Ciută, 2000; M. M. Ciută, 2005; M. M. Ciută, 2009), Limba-Oarda de Jos (we thank to M. M. Ciută for information), Săliște (Cioara) (S. A. Luca, A. Tudorie, 2012; S. A. Luca *et al.*, 2013g), Sebeș-Casa Jampa (Fl. Drașovean, 1981), or more distant settlements from Turdaș-Luncă (S. A. Luca *et al.*, 2012a; S. A. Luca *et al.*, 2012b), Cerișor-

Peștera Cauce (S. A. Luca *et al.*, 2004), Tărtăria-Gura Luncii (S. A. Luca *et al.*, 2020 – photo 8, fig. 15, Tab. I, RoAMS 1392.75), Gura Baciului (N. Vlassa, 1965; N. Vlassa, 1968; N. Vlassa, 1972; N. Vlassa, 1972a; Gh. Lazarovici, Z. Maxim, 1995), or Iosaș-Anele (S. A. Luca, M. Barbu, 1992-1994) (Fig. 2).

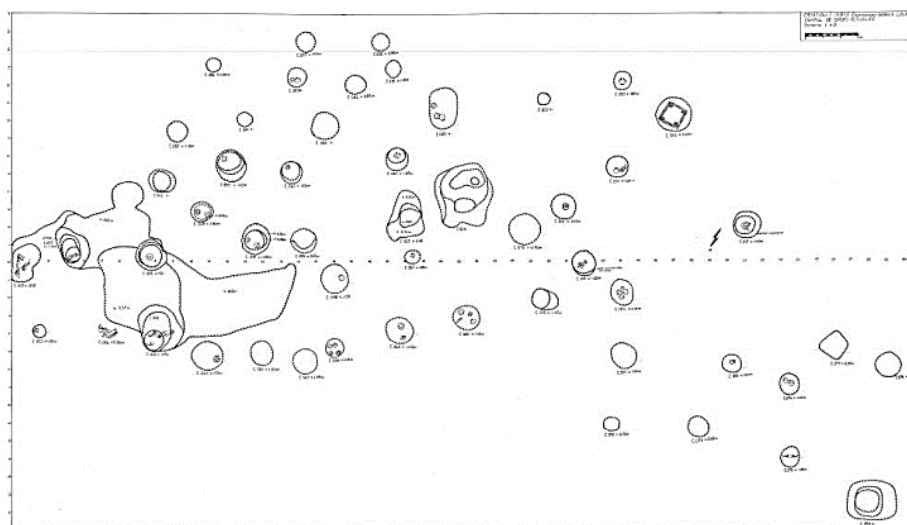


Fig. 1 - Cristian I. General plan of the sanctuary pits.

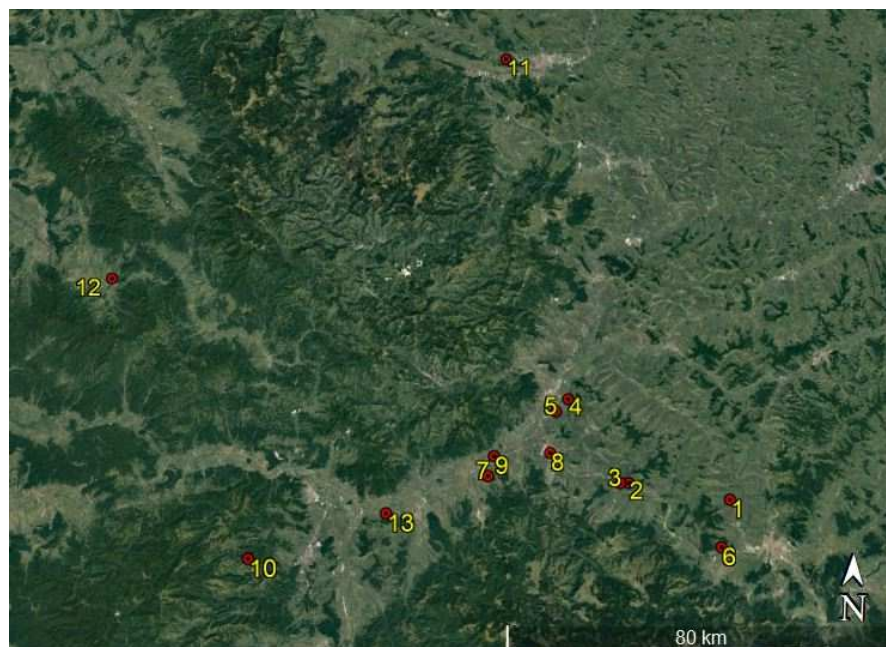


Fig. 2 - Early Neolithic settlements from the ancient horizon in western and southwestern Transylvania. 1. Ocna Sibiului-Triguri; 2. Miercurea Sibiului-Petriș; 3. Miercurea Sibiului II-Valea Gârbovei; 4. Șeușa-La cărarea morii; 5. Limba-Oarda de Jos; 6. Cristian I; 7. Săliște (Cioara); 8. Sebeș-Casa Jampa; 9. Tărtăria-Gura Luncii; 10. Cerișor-Peștera Cauce; 11. Gura Baciului; 12. Iosaș-Anele; 13. Turdaș-Luncă.

The Neolithic people from Cristian I made, in the two phases of operation of this sanctuary, some specific types of pits (Fig. 1). Based on the way of filling of the researched pits, we found that there are two phases of building the sanctuary, depending on their filling. In the first phase, pits have only ritual inventory in the filling (ceramic vessels or, in one case, an unburned vessel) and in the second phase, besides the ritual inventory, there are also remains of archaeological materials, not ritual components, coming from a layer of culture that sprouts after the first phase of use of the site, which means that already, the surrounding space was inhabited and there are archaeological materials, remains, which can be entrained inside the archaeological feature when they digging new pits. Therefore, in the first phase, the Neolithic peoples had just arrived here (S. A. Luca, 2015).

The sacred place represents both a moment of initial consecration (a new "religious model", put by Neolithic communities in front of the old "religious model", of the Mesolithic – or "mesolithic traditions"), and a "leson" addressed to them (Mesolithic), a behavior that shows the superiority (?) of new populations, by methods other than those already established – including architectural, but not only – a new "coverage" of geographical and mental space, in addition to the already known warrior methods, valid for both civilizations (S. A. Luca, 2015).

27 pillar pits (Pits: C₈₋₉, 12-13, 15, 22, 23a, 25, 39, 42, 59, 61-63, 65, 75-76, 79-88) are part of a construction (?) with a light superstructure, made of wood and covered with reeds. We "observe" two phases of its use, but not necessarily needing two phases of construction for the sanctuary (the space covered or only surrounded by pillars can be used in both phases). In our opinion, the sanctuary is the first and oldest construction of the communities belonging to Neolithic pottery here, the sacred place founds the spiritual dominion of the place (the "place" occupied by the peoples of Neolithic pottery – the group that depends on the shamans who found the sanctuary/sanctuaries – having geographical dimensions hard to know today in its entirety) (S. A. Luca, 2015).

The pits with archaeological material deposited as a gift to the deities of the time/sixteen have as an offering/inventory one vessel each (Pits: C₂₅, 36-37, 42, 45, 60-61, 63-65, 67, 72-73, 76, 80, 85), five have two vessels each (Pits: C₄₃, 59, 68, 74, 83), eight have three vessels each (Pits: C₉, 11, 17, 35, 37-38, 68-69), one has four vessels (Pit: C₆₆) and

the other five vessels (Pit: C₁₄) (S. A. Luca, 2015 – Plan 5). The number of ritual pits that make up the archaeological feature is 47 (S. A. Luca *et al.*, 2012). Compared to previous publications (when I claimed the existence of a number of 48 pits; S. A. Luca *et al.*, 2013; S. A. Luca *et al.*, 2013a), a pit was relocated, analyzing once again the contexts, it being framed at the time of leaving the site (Pit: C₁₀ S. A. Luca, Fl. Marțiș, 2016).

Seven pits have "lids" at the top (Pits: C₁₄, 17, 66, 75, 86-87), two pits at the middle (Pits: C₁₃, 37), another three pits at the top and bottom (Pits: C₈₀, 82-83) and four pits at the bottom (Pits: C₂₂, 78, 81, 85, 88). Their "lids" are made either of medium sized river stone or from river stone mixed with archaeological materials (ceramics and bones, or only ceramics). 16 pits have "lids", so about 30% of their total (S. A. Luca *et al.*, 2012). Some pits with "lids" have no other archaeological remains in the filling (Pits: C₈₁₋₈₂, 86, 88), and others have a filling made by anthropogenetic procedures (Pits: C₁₃₋₁₄, 17, 23, 37, 41, 66, 72, 75, 80, 83, 85, 87).

Totem pits with animal bone offerings

If pit C₁₃ presents a deer horn (S. A. Luca, 2015) as an offering, the one with number C₃₇ (S. A. Luca, 2015) has a bovine horn offering, and pit C₇₅ (G. El Susi, 2014; S. A. Luca, 2015) a female *Bos primigenius* pediment. Last pit is considered by us as the foundation of a totemic pillar, the pediment of the animal that was caught on a wooden pillar, being whole and falling once, from the support (Fig. 3, 4).

If we study the remains of such a totemic pillar from Hallan Çemi (Fig. 4) (M. Rosenberg, 1999)), from Turkey, we see similarities with our piece, but for the one from Anatolia it seems that the pillar was made of stone – as was to be expected there –, and to the north of the Danube it is made of wood. The "Mesolithic traditions" of this practice are obvious, being specific to hunters.

Following these observations, we can conclude with another idea, regarding the shape and usefulness of the pit sanctuary. It seems that the existence of the roof is extremely difficult to sustain, so rather, in the pits, defined by us as "pillars" (especially in those that do not have ritual inventory), were planted tree trunks that outlined the sacred area and, especially, they signaled it. This idea is much easier to support, even practical.

Pottery of the ritual pit sanctuary (S. A. Luca, 2015)

Even if in the stages of the ancient Neolithic in the east, vessels are made, sometimes of stone (L. Dietrich



Fig. 3 - Cristian I. Pit C75. The horns and the upper part of the pediment of *Boss primigenius*.



Fig. 4 - Hallan Çemi. The horns and the upper part of the pediment.

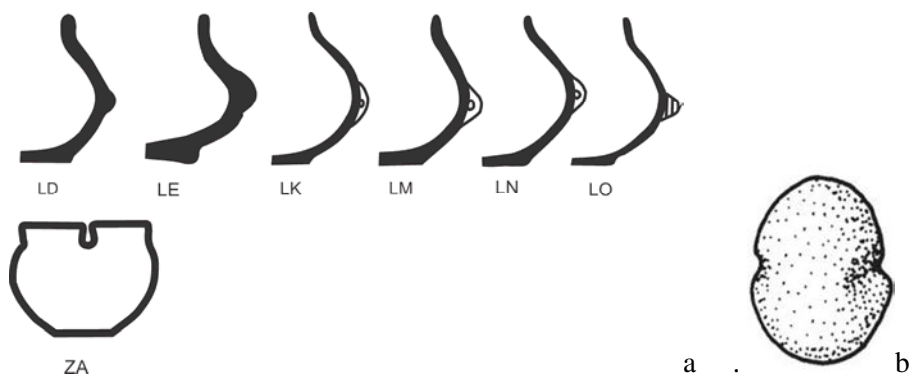


Fig. 5 – a. Shapes of vessels identified in the area of ritual deposits from Cristian I; b. Stone weight, Eynan – after H. Todorova, I. Vaisov, 1993 – chapter 1.

et al., 2020 – this site is just one of the possible and existing examples), sometime of unburned clay, there is – all the time – a question mark on these procedures.

To the north of the Danube - perhaps under this influence, the oriental one - fossilized, petrified wooden vessels are also made. The examples have become more and more in the Neolithic researches. After fossilized wooden vessel from Grădinile (M. Nica, 1981), another was discovered at Cristian III (S. A. Luca *et al.*, 2017). Careful research of the site from Cristian I led us to discover many fragments of fossilized wood brought here by the Neolithic people for more difficult to define uses (S. A. Luca, 2015).

The shapes of the pottery from the pit of the sanctuary show a typological "poverty" signaling – perhaps – the great antiquity of the manufacturing technology used by these Neolithic people and its initial mastery. The vessels are quasi-identical, with very rare deviations (in terms of ceramic paste mixture, firing or shapes) and are – as shapes – amphorae with short, cylindrical neck, domed belly and four perforated handles, arranged as close as possible to the belly of the vessel (Fig. 5). Sometimes, the handles are horizontally perforated (most of the time), other times vertically. The vessels were created separately, for each burial – in our opinion. This explains the small differences, however existing, but insignificant typologically – stylistically, between vessels (neck, verticality of the vessel, arrangement of perforations from the handles, composition of the paste or firing). The analysis of vessel manufacturing technology indicates specific elements of Early Neolithic pottery: presence of organic material as degreaser, with differences for each case (of course in combination with other elements) and the light color of the pottery, an aspect closely related to good firing, but – still – to the weak, for the whole lot submitted to our attention. The colors range from whitish brown (most common) or brown to light brown, reddish brown, and brown with firing marks. Most vessels have a paste mixture made of chaff and sand, but are some exceptions. Thus, we find sand, in larger quantities, followed only by chaff (one case), chaff and large grain sand (four cases), chaff, sand and crushed shards (two cases) and large chopped chaff and sand (one case). Regarding the treatment of the surface of the vessels by careful smoothing or polishing, there is very good smoothing, and on some of them the presence of the slip could also be noticed (S. A. Luca, 2015).

To observe the differences between the forms of the pottery from Hacilar IX – for example – and the

vessels from this ritual pit sanctuary, see the illustration used by H. Todorova in the synthesis made in collaboration with I. Vaisov (H. Todorova, 1993).

All from above were also published in English version in the volume dedicated to Cristian I discoveries (S. A. Luca, 2015).

The painting

The subject of early ceramic Neolithic and "Mesolithic traditions" was avoided by us when publishing the monographic book (S. A. Luca, 2015). It is, first of all, about painting on vessels, but also other ancient technological manifestations, "Mesolithic traditions" (such as certain technologies of knapped or polished stone, vessels that do not respect the technologies of pottery or the use of stone transposition of effigies of deities or instruments related to activities specific to the Neolithic, but also found in Mesolithic populations).

Although the ornamentation procedure by painting is frequent at the level of the first ceramic Neolithic colonization at north of the Danube (defined as ceramic Neolithic), we were very surprised that this process of "symbolization", rather than ornamentation, was not used almost anywhere at Cristian I, with except for a single ceramic fragment (at the time of general publication) from C₆₄ (S. A. Luca, 2015). Being, at the time, a single ceramic vessel, we did not have much to say, even if the painted motif was unique in its kind, as a representation (S. A. Luca, 2015).

Next we will analyze a few archaeological features (3) in which were discovered, in the laboratory, painted vessels (two vessels in pits 58 and 64 from first phase of operation of the sanctuary) and one (pit 23) representing the horizon of ritual abandonment of the cult complex.

For first phase, we will also analyze pit 38, an archaeological feature in which an entire vessel was discovered that does not seem to have been burned according to the rules of the time, and may represent the pre – or aceramic Neolithic horizon or the morning of the ceramic Neolithic horizon.

Feature 58

In the pit C₅₈ (S. A. Luca, 2015), having a very special content and belonging to the oldest horizon of the sanctuary, were discovered two totally atypical vessels, series heads: one whole, with two mouths, with paint remains inside (S. A. Luca, 2015) and another one, also complete, possibly mortar for the paint preparation (S. A. Luca, 2015 - analysis 1 – thanks to Professor M. Cărciumaru from Târgoviște for his help in analyzing the composition of the substance

used in painting). Perhaps it is the vessel with which the powders in the paint mixture were made. Pottery was handmade. In the pit was also found a stone weight, polished (S. A. Luca 2015 – these weights are extremely numerous in the area of the sanctuary house) – as, in Cristian I, there are many dozens of pieces (S. A. Luca, 2015) – , with analogies to Balta Sărată (Gh. Lazarovici, 2020 – for comments on the use of stone pieces as fishing weights, we remain in our view, especially since not all comments in a footnote are

based on our observations, which are correct – not speculative as in footnote 595) or Eynan (Fig. 5b), as well unburned animal bones (remains of a funeral banquet?).

The special character of the discoveries from this pit, but – first of all – the vessel with two feeding mouths (Fig. 6-9) made us to carry out categorical and typological studies in the Neolithic and Eneolithic, one published later (S. A. Luca, 2018).



Fig. 6 - Cristian I. Sanctuary with ritual pits. Feature 58. Vessel with two feed mouths. Reconstruction of the painting.

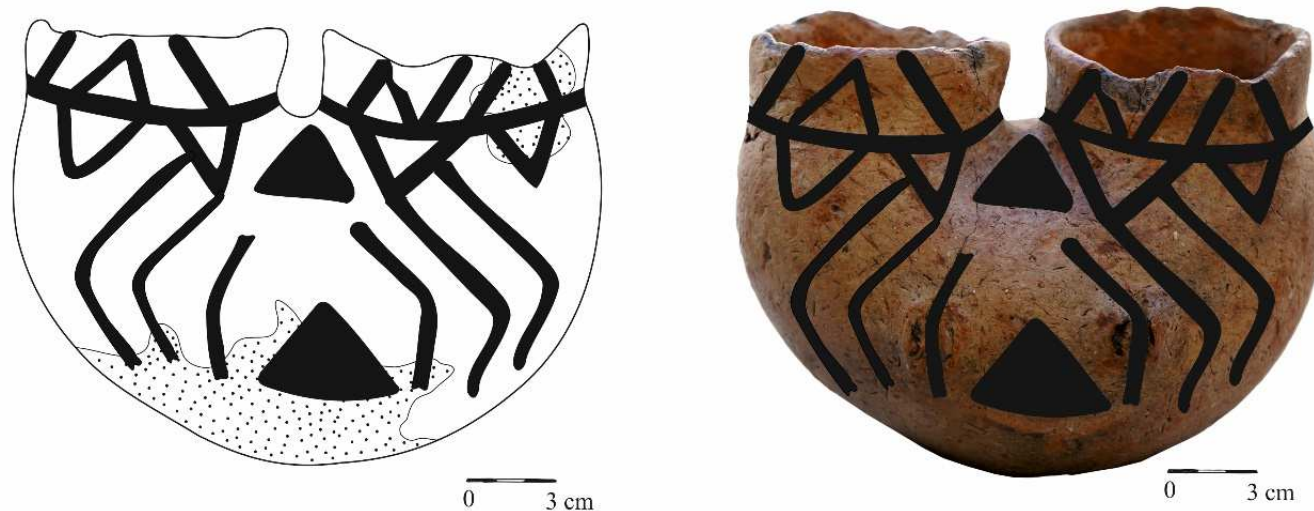


Fig. 7 - Cristian I. Sanctuary with ritual pits. Feature 58. Vessel with two feed mouths. Reconstruction of the painting.

Almost ten years after removing the two-mouthed vessel from the pit, on the occasion of some filming (Fig. 9), I found – full of surprise – that its surface was painted with linear motifs, arranged in angles, with black color (the same color has the inner imprint of the paint in the vessel!). It seems that the constant microclimate from the warehouse and the progressive drying of the pottery made it possible to "read" the ornament only after such a long time (Fig. 6-8).

You can see the painted ornament, but we draw attention to the fact that the painting is made with black, **the imprint between the dark lines remaining that of the background of the vessel**, the light fields are – in fact – images of the background of the vessel, the slip, obviously eroded over time elapsed from burial. On one side of the vessel, slip is much better

preserved than on the opposite side and the lateral ones (Fig. 6, 7).

Lines painted black can be seen on the necks, forming angles with the tip oriented towards the twinning between the neck and the shoulder of the vessel (a human face?). On the belly of the vessel, the same triangles and lines forming angles may be another anatomical essentialization. You can also see solid triangles, "jags, teeth saw", with the base on the edge of the vessel. The thick line separating the neck from the shoulder and the ornament from the shoulder, belly and the lower part of the vessel being visible (Fig. 6-9). Analogies to what we observed on the two mouthed vessel also have closer correspondences with us, in Greece, at Odžaki Magoula (H. Todorova, I. Vaisov, 1993 – chapter 1).



Fig. 8 - Cristian I. Sanctuary with ritual pits. Feature 58. Vessel with two feed mouths. Reconstruction of the painting.



Fig. 9 – Cristian I. The sanctuary with ritual pits. Feature 58. Vessel with two feed mouths. Traces of black paint on the upper and middle of the belly.

Also in Turkey (and from here we use the terminology used in this country), in Kuruçay (Fig. 10a - R. Duru, 1999) – illustrated by us), levels 13-11 belonging to the old Neolithic, but also levels 10-7, belonging to the old Chalcolithic from the same region (L. Clare *et al.*, 2008). At Hacilar (Fig. 10 b-g), Chalcolithic cultures from here (levels I-V) and late Neolithic ones from the same region (levels VI-IX) (L. Clare *et al.*, 2008) were researched. In Höyücek (Fig. 10 h - R. Duru, 1999), the shape of the vessel from the old horizon is extremely similar to that of our vessel; but have only one neck and mouth. The stratigraphy is largely Chalcolithic and the old phase (Shrine Phase) is late Neolithic) (L. Clare *et al.*, 2008).

In other sites, as Hoca Çeşme (Fig. 10 i) or Aşağı Pinar (Fig. 10 j), these motifs are painted with black and – less often – with white, and in the second site painting is made with white (M. Özdoğan, 1999).

In Bulgaria, paint of angular motifs also begins with black, as in Turkey, but not with so many examples (R. Krauß *et al.*, 2014). At Džuljunica-Smărdeş we have the same pottery category as at Cristian I – the sanctuary of ritual pits (Džuljunica I) (R. Krauß *et al.*, 2014 – Fig. 6, except the vessel from position 12), and the painting on vessels is identical in some cases (Džuljunica II) (R. Krauß *et al.*, 2014), but also similarities of contemporary motifs with the first ritual consecration of the pit sanctuary (R. Krauß *et al.*, 2014), as well as with the "house of the dead" – the ritual abandonment of the pit sanctuary (Džuljunica II) (R. Krauß *et al.*, 2014). We see other analogies, in plastic ornaments – for example (R. Krauß *et al.*, 2014) – with Cristian I, the final ritual of leaving (S. A. Luca, 2015).

In Romania we have correspondences regarding the typology of angular painting, with white – this time – at Gura Baciului (Fig. 11a). The ornament painted in white starts from the lip of the vessel towards their circular area. Also at Gura Baciului, in another work of synthesis, we see other typological approaches, not chronological (Fig. 11b, c).

The synthesis work of I. Paul, part of which was dedicated to the early Neolithic settlement of Ocna Sibiului, also includes some of the analogies used by us (Fig. 11d), to exemplify this motif also made with white color.

Unfortunately, the long time and the conditions of keeping it in the ground made it impossible for us to firmly reconstruct the ornament of our vessel – not would be a very scientific approach – but we believe that the micro-photographs clearly confirm the painting of the vessel with two necks (Fig. 6-9).

We mention, from the very beginning, that these analogies are only typological-stylistic. Their real antiquity is extremely difficult to sustain, because very few features and contexts have been dated in very old sites in Romania.

It can be seen that the ornament made of parallel lines that form angles or rhombuses is extremely common in the early Neolithic, so its appearance on the two-mouthed vessel is not, however, a surprise.

In order not to "interpret" the prehistoric drawing, we did not further emphasize, in any way, the painted ornament. We could be wrong, because the color was kept much erased and our subjective intervention could be interpreted negatively.

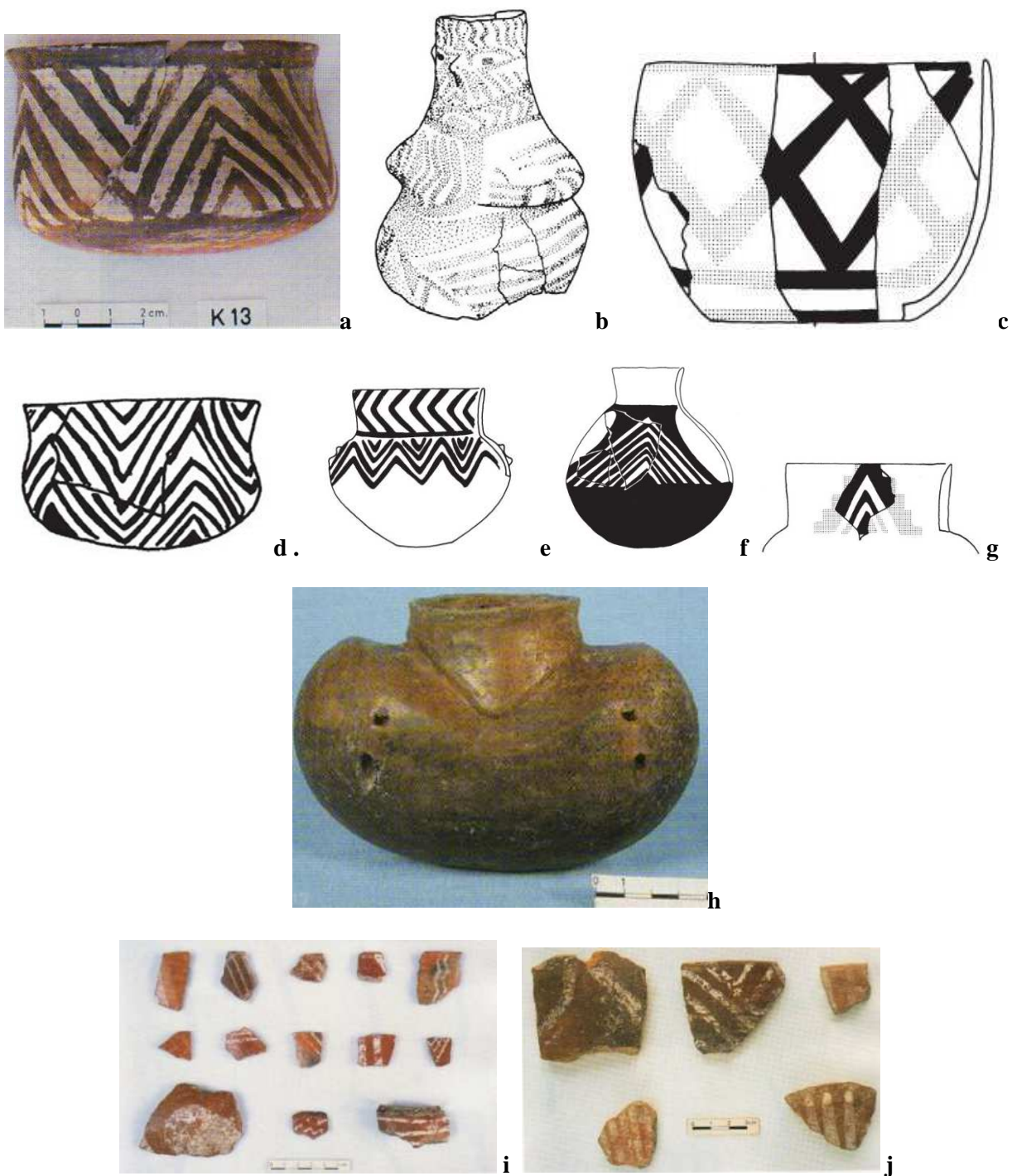


Fig. 10 - Analogies: a. Kuruçay, level 13 (Turkey); b. Hacilar I. Anthropomorphic vessel decorated with parallel lines, painted and parallel aligned; c. Hacilar VII; d. Hacilar VII, monochrome; e, f, g. Hacilar V; h. Höyücek. Shrine Phase; i. Hoca Çeşme II; j. Aşağı Pinar (b-g after H. Todorova, I. Vaisov, 1993 – chapter 1; a, h after R. Duru, 1999; i, j after M. Özdoğan, 1999).

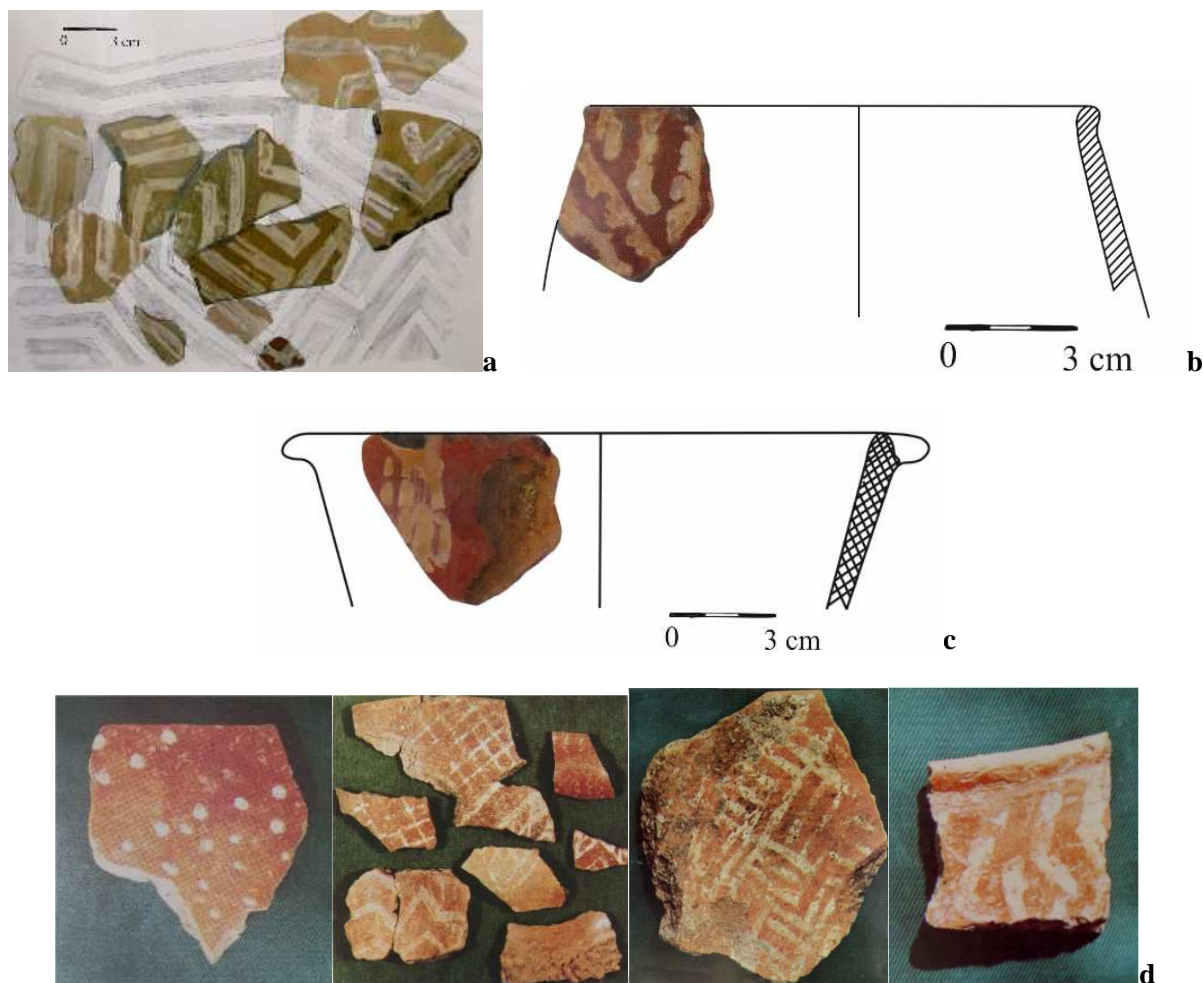


Fig. 11 - Analogies: a, b, c Gura Baciului (a. after Gh. Lazarovici, Z. Maxim, 1995 ; b, c. after Z. Maxim, 1999); d. Ocna Sibiului (after I. Paul, 1995)

Feature 64

In the pit C₆₄ (S. A. Luca, 2015) was discovered, as stated above, a painted ceramic fragment and a fragment of fossil shell, unprocessed (unique discovery type at Cristian I – the pit sanctuary) (Fig. 12).

”From the feature was taken, from a depth of 1,60 m, a river shell, which does not seem to have use-wear, processing marks. A beef metatarsal bone and two (bone) splinters from a large animal were recovered from the bottom of the pit” (G. El Susi, 2014, p. 32, Fig. 4).

The archaeological feature is part of the first horizon of the sanctuary.

In Fig. 13 we see the shoulder of the painted vessel, already published (S. A. Luca, 2015). The vessel is large and seems to be a vessel with already well-known shape: vessel with a not very high neck (non-existent in the pit), with a very bulging belly and

a straight bottom, painted with white triangles, with the base oriented towards its bottom (Fig. 14). Triangles painted with white color, arranged with the tip down, this time, very poorly contoured can be observed also in Fig. 13, towards the lip (which, unfortunately, is no longer preserved at all).

As we can see, the painted ornamental register is arranged under the neck, at the base of its starting towards the maximum part of the belly, on the upper part of the shoulder. At least two (if not three, but not clearly visible in the drawing from Fig. 12a) were made with white, ”birds” reaching the tips of their wings (Fig. 12).

As we can see, the bird from the central area is intersected by three plastic applications, parallel, oblique, arranged on its neck (Fig. 12b). In Fig. 12a, we expected to distinguish another bird, as seen in Fig. 12c, but we can not do it for fear of making mistakes.

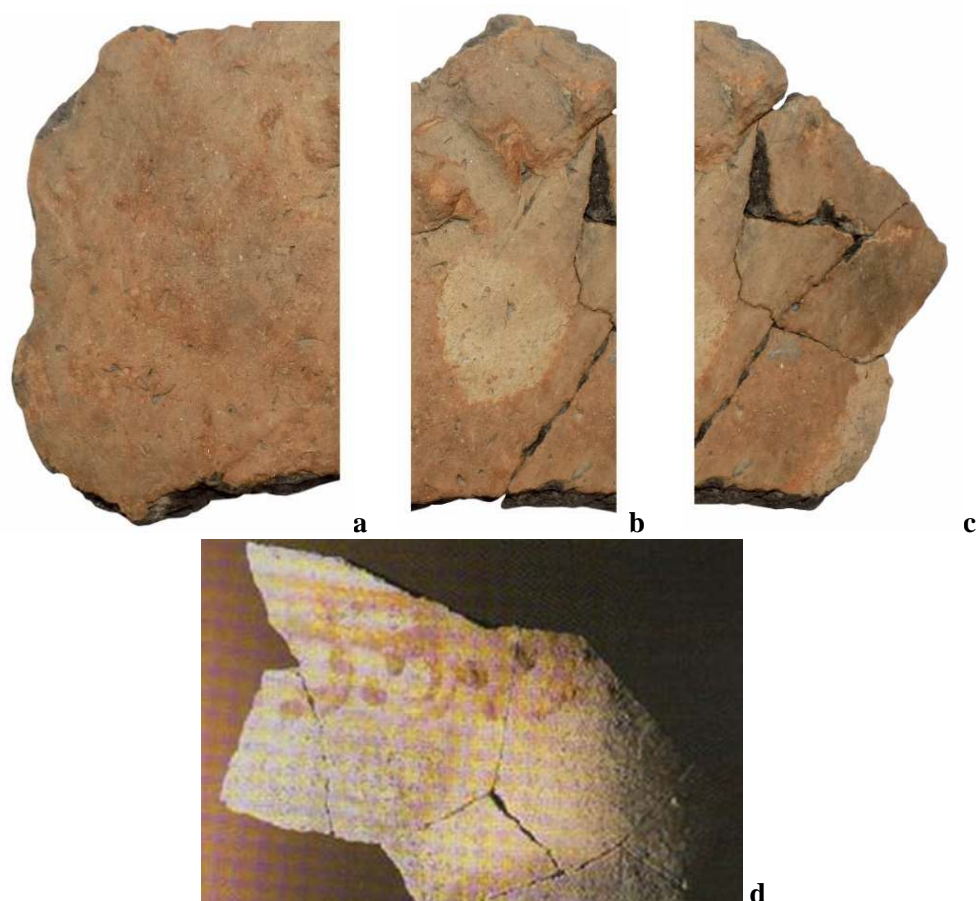


Fig. 12 - Cristian I. The sanctuary with ritual pits. Feature 64: a. micro-photo 1 (left side); b. micro-photo 2 (central part); micro-photo 3 (right side); d. Yumuktepe, Late Neolithic.



Fig. 13 - Cristian I. The sanctuary with ritual pits. Feature 64. Vessel painted with white birds on the shoulder. Upper part.

We found no direct analogies to this painted vessel, but there are such ritual dance scenes (?) on a vessel from Odžaki Magoula (H. Todorova, I. Vaisov,

1993 – chapter 1). In the east we have a vessel on which is painted a horse/donkey?, with red color, at Yumuktepe – Fig. 12 d (I. Caneva, 1999).

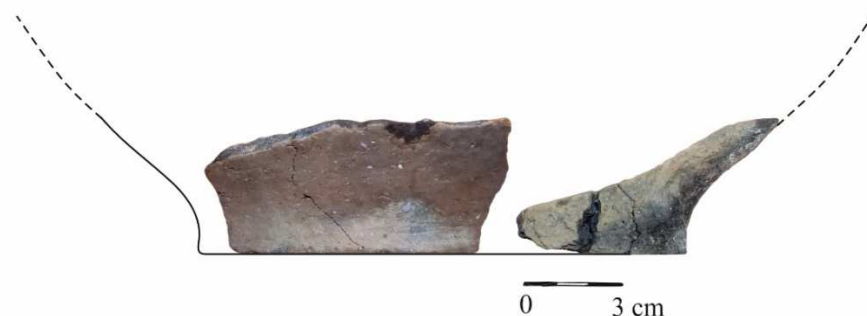


Fig. 14 - Cristian I. The sanctuary with ritual pits. Feature 64. Vessel painted with white birds on the shoulder. Bottom ornamented with white paint.

Pre-ceramic neolithic traditions?

Feature 38

Pit C₃₈ is part of the first operating horizon of the sanctuary (S. A. Luca, 2015).

At -1,40 m from the contouring, a flattened globular vessel was discovered, deposited in the pit with its mouth upwards. Two other vessels were discovered near him (S. A. Luca, 2015).

The globular vessel is semi-fine and unburned (Fig. 15)!? The general texture is floury, the degreaser used is silt and very little sand. It was kept in the warehouse of the Brukenthal Museum as it was discovered for analysis, in the near future, in a specialized laboratory. Another reason for this decision is the very poor condition of the vessel (S. A. Luca, 2015). A weight of polished stone ("mesolithic tradition"?) was also discovered in the same pit, as in the case of the pit C₅₈ (S. A. Luca, 2015).

We draw attention to the fact that the firing, similar to that applied to the other vessels discovered in the pits of the sanctuary, was also applied to the vessel that we describe now. Rather, an attempt was made to apply this procedure to the vessel and the idea was abandoned. Can be seen very well that the vessel has the clay color (yellow) and has a black, sandy core, without secondary traces of firing (red color, brick-like or greyish, as in the case of other vessels). Is the manufacturing technology, rather, that of the aceramism from the Orient (of course, adapted to the conditions)? Hard to say!

However, we do not think we are too wrong when we notice that the first horizon for burying the offerings from Cristian I is extremely close to the traditions of

the pre-ceramic Neolithic from the east (an interpretation of time; a shared use of a space). We will notice this even further when we observe the clear approaches of the technologies of processing the knapped and polished stone, as a "mesolithic traditions".

Some stage conclusions for the foundation of the sanctuary, phase IA

We must note that – at least in first phase of making the field of ritual pits – the pottery is, overwhelmingly, in number and quality, monochrome. The shapes are extremely little varied and the manufacturing technologies are primary, little evolved. Moreover, we discovered a vessel that is unfired or only touched by the heat of the fire, not by direct flame (C₃₈).

In this initial level, there are also unique vessels (in form and use) in the era (such as the two vessels from C₅₈), and painting with black on the two-necked vessel from C₅₈ and in white on the vessel(s) from the C₆₄ (ritual dance scene). Both ornamental achievements represent the *only ornaments* of the vessels discovered in the sanctuary pits, first horizon of use.

Another very important detail is represented by the fact that in the three pits of the first horizon of use, very rare pieces were also discovered in the sanctuary with ritual pits. The polished wights from river stone (C₅₈ and C₆₄) used – in our opinion – for tightening and fixing roofs made of lightweight materials, otherwise they can be easily taken by the wind, especially on the shore of the river (Not "pebble-idols" or weights for fishing nets, as Gh. Lazarovici calls them: Gh.

Lazarovici, 2020) and a valve river shell was discovered (the only such discovery in the pits of the two phases of the pit sanctuary (C₃₈)).

We mention that there is also a pit with many such weights polished river stone (C₇₉) (S. A. Luca, 2015), but this will be discussed in the next moment, that of abandoning the pit sanctuary. In the late chronological

horizon, of the school-house (S. A. Luca, 2015), the number of weights made of river stone, polished, becomes impressive, but we also discover unique stone carving technologies, raw materials and ways to address to the specific divinity of the Neolithic world, sometimes pre-ceramic.

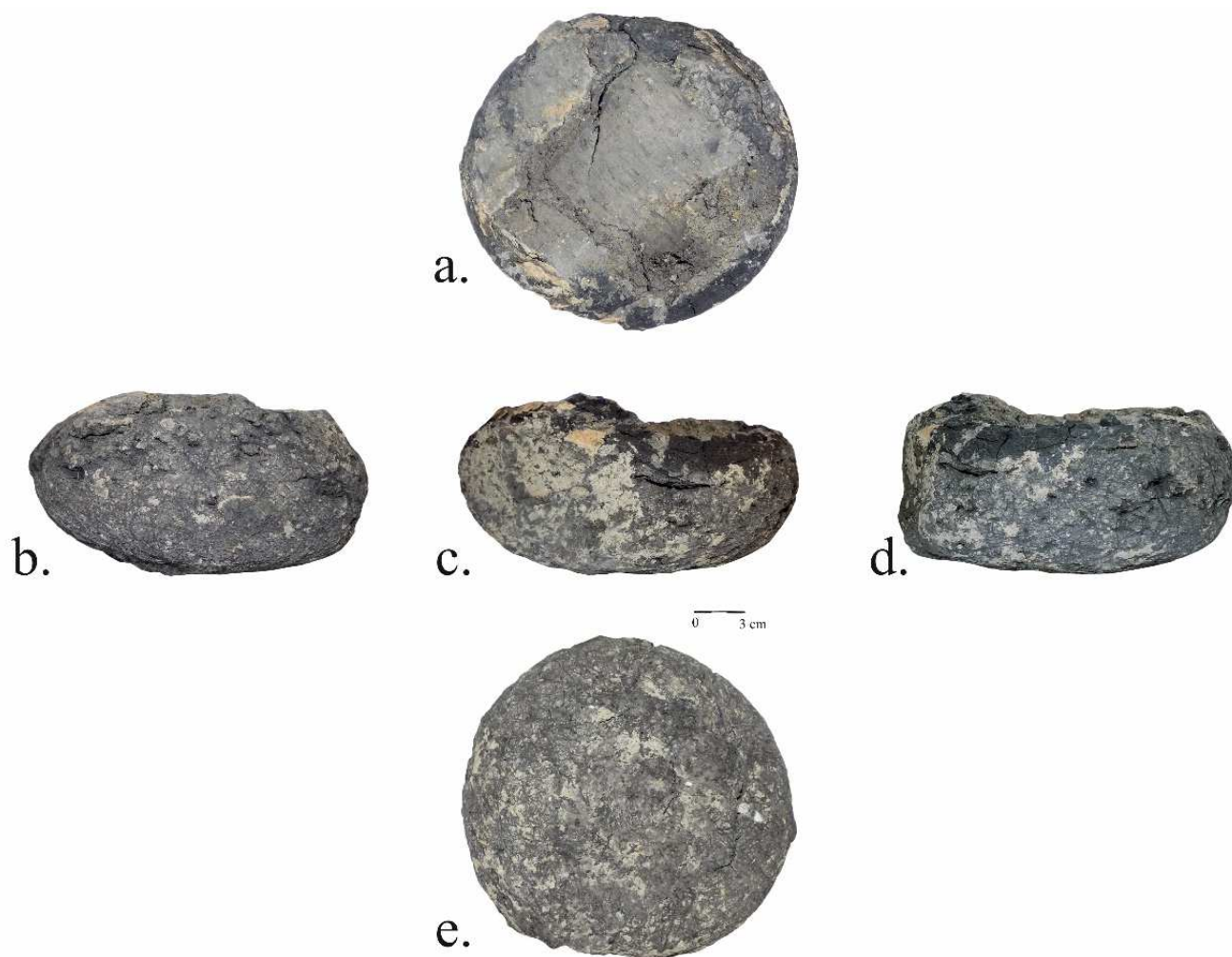


Fig. 15 - Cristian I. The sanctuary with ritual pits. Feature 38. Vessel 2.

Abandonment of the pit sanctuary consecration (phase IB)

Abandonment of the sanctuary formed by ritual pits was amply described in the synthesis work on the site of Cristian I (S. A. Luca, 2015 – chapter IV). We must specify that the introduction of the topic to Chapter III, made it clear - by some readers - that the abandonment process is valid for the whole site, in at least two stages. We believe at this time – but also when we wrote the book and the component articles – and

more firmly, that the abandonment and burial in the "house of dead" refers expressly to the sanctuary of ritual pits (S. A. Luca, 2015), not to the great home-school (sanctuary for learning the general technologies used by the communities of the time, community life – from the manufacture of goods - manufacture of carved and polished stone tools, to behavior by sex and age groups - hunting, fishing, architecture elements, or to addressing to the pantheon of deities) (S. A. Luca, 2015 – chapter III).

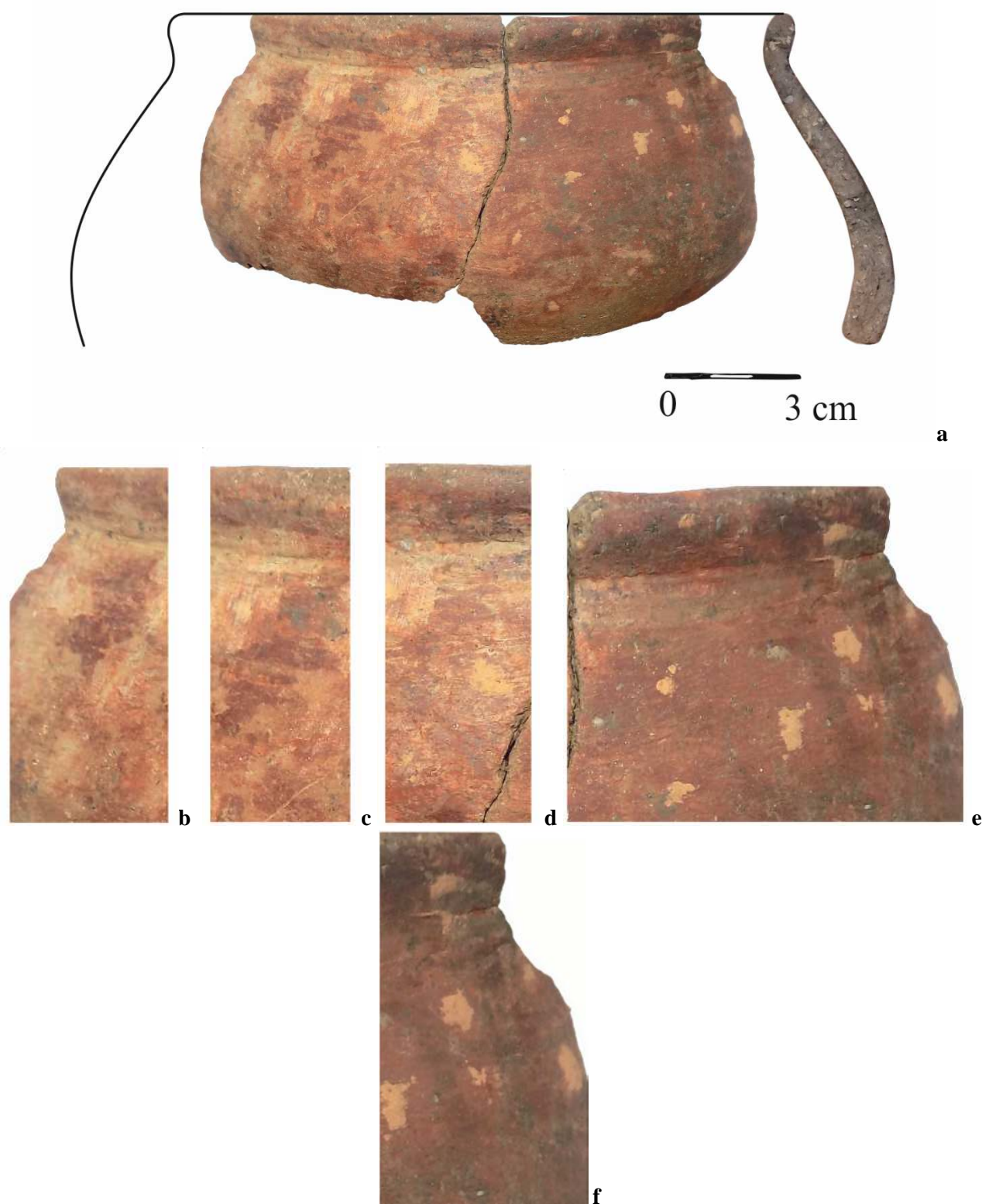


Fig. 16 - Cristian I. „House of the dead”. Feature 23: a. broken vessel on the level of the cult complex, decorated with white paint; b. micro-photo 1 (left side of the left fragment); c. micro-photo 2 (central part of the left fragment); d. micro-photo 3 (right side of the left fragment); e. micro-photo 4 (right fragment); f. micro-photo 4 (right fragment, right extremity).

Feature 23

One of the basic pieces of the abandonment ritual is a vessel, from which two conjoined ceramic fragments have been preserved (Fig. 16 a). It is clear that this was intentionally broken and thrown away in different parts of the "house of dead", we finding only a part of it. First impression is given by the obvious difference of this vessel, more precisely of its painting, the motives. It is obvious both the typological difference, but also the technological one, even the shape and the details of making the paste.

This archaeological feature belongs to the ritual house with dead couples buried (6) or alone (1), "House of dead" (S. A. Luca, 2015).

Pit C_{23a} is filled with a mixture of river stones mixed with osteological and ceramic fragments (S. A. Luca, 2015). It was essentially affected by the pit C₂₃ (S. A. Luca, 2015), newer and belonging to the construction that we call "House of dead", which consecrates the ritual abandonment of the pit sanctuary.

Pit C_{23a} is cut by pit C₂₃ (numbered as such because it was first detected by contouring, it is newer). It covered and partially destroyed C_{23a} (S. A. Luca, 2015). It can be said that C₂₃ is the most advanced part of the territory of the pit sanctuary, located in the middle of it, of the "House of dead" (S. A. Luca, 2015).

At the time of the pit researching, we discovered a mass of archaeological materials (ceramic fragments, animal bones fragments, stone carved tool and other archaeological remains specific to an archaeological layer). In the last years, we researched all these remains, more carefully, because we made the connection with the inventory of the "House of dead", including the remains of the funeral banquet to leave the pit sanctuary (S. A. Luca, 2015) and other remains, as is well-known clay mask placed over these food scraps (S. A. Luca, 2015).

Among the remains "discovered" in the laboratory, a part of a vessel was highlighted, intentionally broken, with white paint, of which there were only two fragments, destroyed from antiquity (Fig. 16a) obviously. We also see this from the fact that the painting itself is kept differently on the two fragments, an obvious part of the same vessel, but "attacked" differently by the destructive factors in the soil, a sign that they stood on top of each other, one "defending" the second by covering the painted part and keeping it much better (Fig. 16).

The fragment from the left (Fig. 16 b, c) has an

analogy, possible – even if the complex painting is made with red – in Turkey (for the lines bordered/accentuated by dots: Yumuktepe – Fig. 12 d, I. Caneva, 1999), and the ceramic fragment on the right (Fig. 16 e, f) has analogies to Ocna Sibiului (Fig. 11, I. Paul, 1995)).

Consecration and ritual abandonment of the school home (phase IIA-B)

"Consecration", the need to substantiate the Neolithic way of life through strong rituals is the reason why dwelling 1 (S. A. Luca, 2015) was necessary in the context of entering – in a slow and difficult rhythm – a world ruled by others (locals), not very different as behavior, but clearly different as a way of looking at life and behavior towards the mastered habitat. The will of the two way of mastering the world is from a common purpose, *survival*, but has different ways of implementing life behavior.

The image that is created by studying the sites discovered in recent years, in southern and southwestern Transylvania, shows – obviously – several undoubted realities.

Phase IIA

The intention to colonize a new area of subsistence already known is clear and obvious. The new space was carefully prospected, in time, and its migration was made with an obvious intention, directed to certain areas (north of the Danube: Danube Gorge and Timiș-Cerna corridor, Oltenia, western half of Muntenia, southern and southwestern Transylvania, and the salt mine corridor in western Transylvania) (S. A. Luca, C. I. Suci, 2011).

In my opinion, the Danube Gorge area and Banat were partially avoided – at least by this first wave of colonization (Starčevo-Criș IA) – by the populations of pottery Neolithic, due to the existence of strong Mesolithic communities in the area (M. Gurova, C. Bonsall, 2014).

This assumption (regarding the geographical path of penetration to the north of the Danube of the first Neolithic communities) is proposed by H. Todorova, but also by us (S. A. Luca, 2005; S. A. Luca, 2015a; S. A. Luca, C. I. Suci, 2004; S. A. Luca, C. I. Suci, 2007; S. A. Luca, C. I. Suci, 2011; S. A. Luca *et al.*, 2014c), as well as by many other authors – in various ways.

The "world" from the area is new for the Neolithic people (in the Danube area), unexplored enough but also hostile to initiation and spirituality. This fact gave rise to zonal centers of worship, accommodation for the Neolithic people (Cristian I),

which served several settlements proper (in this case at least Miercurea Sibiului-*Petriș* - S. A. Luca *et al.*, 2008; S. A. Luca *et al.*, 2008a, Miercurea Sibiului II-*Valea Gârbovei* - S. A. Luca, Fl. Martiș, 2016, Ocna Sibiului-*Triguri* - I. Paul, 1989; I. Paul, 1995; I. Paul, 1995a, and – maybe – others more distant such as Șeușa-*La cărarea morii* - M. M. Ciută, 1998; M. M. Ciută, 2000; M. M. Ciută, 2009, Limba-Oarda de Jos, Sebeș-*Casa Jampa* - Fl. Drașovean, 1981, Tărtăria-*Gura Luncii* - General stratigraphy: N. Vlassa, 1976; S. A. Luca, 2016, and Săliște - Cioara, S. A. Luca, A. Tudorie, 2012; S. A. Luca *et al.*, 2013b).

These zonal centers of whorship (Cristian I - S. A. Luca, 2015; S. A. Luca, 2018; S. A. Luca *et al.*, 2012; S. A. Luca *et al.*, 2013; S. A. Luca *et al.*, 2013a; S. A. Luca *et al.*, 2013c; S. A. Luca *et al.*, 2013d; S. A. Luca *et al.*, 2014; S. A. Luca *et al.*, 2014b; S. A. Luca *et al.*, 2015), Gura Baciului I - N. Vlassa, 1965; N. Vlassa, 1968; N. Vlassa, 1970; N. Vlassa, 1972; N. Vlassa, 1972a; N. Vlassa 1976; Gh. Lazarovici, Z. Kalmar, 1995) have a principal sanctuary of whorship and other sanctuaries, true "schools" (the ritual character of learning is well known - E. B. Banning, 2011; S. A. Luca, 2015 – chapter III). Thus, the knowledge accumulated by the community (but also by the previous ones – in this case of pre-ceramic communities) or those inherited, as a spirit (sanctuaries from the north of Danube also have attributes transmitted orally, but also technologically "borrowed" from the Mesolithic).

Worship centers are located in key places, with special significance for communities (in my opinion, at Cristian I, as well as at Gura Baciului I, ancestors from abandoned areas are worshiped, e.g. Orient, Turkey, Aegean area, Balkan area), consecrating the coming and the knowledge accumulated by the group, in the middle of some realities in which only the old inhabitants cause problems, but the living conditions are superior to those of the places of departure (in the Orient, climate conditions were – as today - different).

The idea of continuity, community regeneration and stable mastery of the occupied territory is important. This requires sophisticated rituals with strong significance for the collective mind (J. Kuijt, 2008). This is how the fortifications appear – in a newer stage – as well as – not even 1,5 km away – the one from Cristian III, in the third stage of the culture Starčevo-Criș (S. A. Luca *et al.*, 2017).

The ritual organization of the space is observed – in addition to Cristian I – in Blagotin, for example (H. Greenfield, T. Jonsgma, 2006). Many other

possibilities of reporting between the civilizations that meet in the area and the time discussed are also analysed by M. Özdoğan (2011).

The continuation of religious life through burned clay (pottery, plastic, mask) is a present tradition along with the ceramic Neolithic (J. Kuijt 2008).

We cannot fail to notice many similarities – at least in relation to certain raw materials or the archaeozoological structure of the exploited species – with areas more or less distant in space. The connections are obvious and mentality does not seem at all different from the micro-oriental area.

For example, following the "domestication" of certain economically important animal species, we also see a specific development of minor plastics – mostly in clay here, mostly in stone in the east – in certain places south of the Danube or in the east (H. Todorova, I. Vaisov, 1993 – chapter VII) by using ovicaprin "model" – clearly superior to the local climate (in Palestine, for example, where local climatic conditions are completely different that on the Danube line), but also in Çatalhöyük (L. Martin, L. Meskell, 2012), for example, to the detriment of large animals, which "receive" – this time – in the Danube area, specific embodiment, even essentialized (bovines seem to have an ascendant on the scale of economic exploitation in front of ovicaprines, even at the level of plastic representations) (S. A. Luca, 2002a; S. A. Luca, 2004; Gh. Lazarovici, 2006; M. Budja, 2010; Al. Kapuran *et al.*, 2014).

Observation that many large cattle are slaughtered late (as a biological age) (S. A. Luca, 2015; G. El Susi, 2014) also shows a "shortage" of animals, food resources likely to be presumed which force them to give birth several times (breeding planning), even if this reality decreases the quality of the meat and the mass/quantity of food obtained. From here, the necessity to "protect" them through rituals or magic (labrets; S. A. Luca, 2004), miniature reproductions in this case, or on a natural scale, using natural skulls or clay sculptures on a natural scale (Gh. Lazarovici *et al.*, 2001) for major worship.

We also notice the fact that the imitation of the forms of massive plastic representations, in stone at Lepenski Vir or of the pre-ceramic ones from the origin areas (origin area is Anatolia and south of it) has a specificity at the north of the Danube, that of Neolithic specific smoothing, being polished (S. A. Luca *et al.*, 2014a; S. A. Luca, 2015; S. A. Luca *et al.*, 2015a; S. A. Luca, Fl. Martiș, 2016; S. A. Luca *et al.*, 2016; S. A. Luca *et al.*, 2017) and – maybe – painted (which

was obviously not preserved; Traces of red (ochre?) paint are preserved on polishers in very old Neolithic sites - see on the above note).

I notice, however, and it is very difficult for me to explain more at this moment, the fact that some flint or obsidian functional tools are obviously brought from great distances. Character of the use of raw materials in the new areas from the north of the Danube, especially at Cristian I (E.-C. Nițu *et al.*, 2015; E.-C. Nițu *et al.*, 2015a; S. A. Luca, 2015) seems – rather – didactic, of "accommodation" with the new materials, local, clearly inferior in quality to that from the Balkans (the Balkan flint) or from the Aegean Sea (the obsidian) (P. Biagi, M. Starnini, 2013; M. Gurova, C. Bonsall, 2014;).

Ritual leaving of the dwelling/sanctuary/school (phase IIB)

This ritual is similar to the retreat – through the "house of dead" and the deposit of the *clay mask* on the remains from the ritual feast (S. A. Luca, 2015), but also with throwing over them, after leaving, some special ceramic materials. This time, an oval *stone head* with fish face and ornamental decorative elements, carved and *polished*, is thrown over the remains of the feast (S. A. Luca, 2015).

The "relationship" with Mesolithic communities is very evident in Cristian I, but also in southern and southwestern Transylvania. At the level of worship there are some similarities with Lepenski Vir worship center or others on the Danube, but only through some elements (massive heads made of river stone) and traditions (physical and obvious reference, for us, to the sacred mountain (S. A. Luca, 2015)). Obviously, the communities of the two survival technologies know each other very well. The Neolithic communities may also "carry" similar traditions, dating back to the Mesolithic and from Anatolia or other neighboring parts (pre-ceramic).

In addition, we could put the conflicts traces from the bones of the dead on conflicts between the two civilizations, but these can also be the traces of personal or hunting conflicts.

Otherwise, the Mesolithic are not very visible in Transylvania. Maybe that is why the Neolithic people are attracted in such large numbers and come in consistent waves of colonization.

On the Danube, however, there are many burials that take place during the period (D. Borić, 2011; A. Boroneanț, C. Bonsall, 2013; C. Bonsall *et al.*, 2015). If we analyze their chronology, we find that a large part of the burials on the Danube are practiced until the

period we are analyzing and end – at the latest – at 7.000 BP (C. Bonsall *et al.*, 2015). Is this related to the arrival of the first Neolithic communities? Arguments for demonstrating some "connections" can be found in settlements considered "only" Starčevo-Criș, Pojejena-Nucet (S. A. Luca, I. Dragomir, 1995), Gornea-Locurile Lungi (S. A. Luca, I. Dragomir, 1995), and in north, at Caransebeș (Gh. Lazarovici, 2020).

The stone pieces (heads and other types of cultural goods) are associated – so far – with Mesolithic civilizations on the Danube Gorge (Lepenski Vir-Schela Cladovei). We can find analogies, in the way of making the alveolations arranged in the central area of our pieces (pseudo-grinders, with alveoli on both sides) at Lepenski Vir (D. Srejić, 1972; D. Srejić, 1983; A. Boroneanț, 2012), Cuina Turcului (C.-M. Lazarovici, Gh. Lazarovici, 2006; A. Boroneanț, 2012), Velesnica (D. Antonović, 2006; A. Boroneanț, 2012), Padina II (B. Jovanović, 2008; A. Boroneanț, 2012), Alibeg (A. Boroneanț, 2012), Schela Cladovei (A. Boroneanț, 2012), Răzvrata (A. Boroneanț, 2012), Veterani-Terasă (C.-M. Lazarovici, Gh. Lazarovici, 2006) and Ostrovul Banului (A. Boroneanț, 2012), but also in some sites from Danube Gorge mentioned above (Pojejena-Nucet, Gornea-Locurile Lungi). We mention, however, the fact that some parts can be even grinders, their alveolations being much more obvious than the menhir parts from Cristian III (S. A. Luca *et al.*, 2017) or the one from the A10 Highway, site 2, Alba Iulia (S. A. Luca, 2020).

From the older signals (Al. Păunescu, 1978) to the synthesis already mentioned so many times (A. Boroneanț, 2012), it is observed in the caves from the north side of the Danube, researched over time (the shelter under Cuina Turcului rock - A. Boroneanț, 2012, Climente I and Climente II caves - A. Boroneanț, 2012, the Veterani cave - A. Boroneanț, 2012), but also surface sites (Alibeg - A. Boroneanț, 2012, Veterani - A. Boroneanț, 2012, Răzvrata - A. Boroneanț, 2012, Icoana - A. Boroneanț, 2012, Ostrovul Banului -A. Boroneanț, 2012, Schela Cladovei -A. Boroneanț, 2012, Ostrovul Corbului -A. Boroneanț, 2012) the fact that archaeologists consider the two era totally different as time and cultural perspective, even if the stratigraphic observations are – often – formal. Moreover, there are – as the author states in the catalog of early Neolithic sites (A. Boroneanț, 2012) – similarities and links between Mesolithic and early Neolithic people that show that *they are known*.

The ¹⁴C data, taken after C. Bonsall (A. Boroneanț, 2012), show that the population of the

Starčevo-Criș culture are contemporary with the Mesolithic people, at least along phases I-III of the culture, at Lepenski Vir (A. Boroneanț, 2012) or Schela Cladovei (A. Boroneanț, 2012).

Such pieces were discovered in the Neolithic settlement from Gura Baciului (N. Vlăsa, 1976), which raised questions about the relative chronology of pieces from this type (Mesolithic or Neolithic?). The same question marks can no longer be asked, after, in clear stratigraphic and cultural conditions, the stone pieces (menhir) from Cristian III are Starčevo-Criș and not very early – phase IIIB!

Recently, two other sites with such discoveries have been identified in the Mureș Valley, in layers included in phase III of the Starčevo-Criș culture.

At Limba, during preventive excavations, a sanctuary/dwelling appeared with two stone pieces similar to those discussed. They were mentioned in a recent article (we thank to M. M. Ciută for the context and discovered pieces).

At Tărtăria-Gura Luncii, an *in situ* layer was discovered that could be included in the third phase of the Starčevo-Criș culture (S. A. Luca, 2016 – layer V) and a stone piece of this type – in a secondary position, it is right (S. A. Luca *et al.*, 2016).

The stratigraphic data of the sanctuary from Cristian I (S. A. Luca, 2015) or the one from Gura Baciului (?) clearly show that this mixture starts at the latest in Starčevo-Criș IB and that it lasts, attenuating more and more until the horizon Starčevo-Criș III, as shown by the sanctuaries from Cristian III, Tărtăria-Gura Luncii and Limba. We believe that with the Vinča A culture, the first wave, this symbiosis disappears permanently, the new Neolithic communities imposing their own way of life.

In Moldova, a stone piece was discovered – a mask – with good analogies in the Orient (O. Dietrich *et al.*, 2018). It has more to do with a piece – made of clay, this time – from Zăuan and reflects the traditions of ritual masking.

Neolithization (B. Weninger *et al.*, 2014) is the first stage of the arrival of the Neolithic communities (a stage with pre-ceramic survival technologies?) that knows ceramic (Starčevo-Criș IA in the chronological system of Gh. Lazarovici, 1979) and initiates the neolithization that lasts until the arrival of the vincian communities (around 5.500 cal BC (R. W. Yerkes *et al.*, 2009)) as evidenced by the solid, polished stone plastic, discovered at Cristian III (S. A. Luca *et al.*, 2017) or Alba Iulia, lot 1, settlement 2 (S. A. Luca, 2020). The moment is characterized by well-polished

and well-fired monochrome pottery (in the second stage of Neolithic colonization), the forms being similar to those of Cristian I (in the stage of the formed by ritual pits and the related construction – its first horizon; S. A. Luca, 2015). Such a horizon is presumed at Gura Baciului I, but not from safe features (Gh. Lazarovici, 1977; Gh. Lazarovici, 1984; Gh. Lazarovici, 2005). The characteristics of this horizon could not be well specified due to the lack of certain data about the earliest features from Gura Baciului, Ocna Sibiului or Cârcea (Gh. Lazarovici, 1984), but also Miercurea Sibiului-Petriș (based on ¹⁴C data and ceramic manufacturing technology) and Cristian I – first horizon of the sanctuary consisting in ritual pits and afferent construction.

In the stage of neolithization consolidation (Starčevo-Criș IB in the Gh. Lazarovici chronological system; S. A. Luca *et al.*, 2011), the pottery is Protosklo type, and the shapes are as in *Frühkeramik*. Ceramic is good and have the metallic polish, the degreaser is chaff and sand, the color is red, black, yellow and the firing temperature is not too high. The appearance of unpainted pottery is monochrome. The shapes of vessel are globular. The painting is in white, the motifs are simple, dots, lines and parallel lines arranged in angles (Gh. Lazarovici, 1977; Gh. Lazarovici, 1979; Gh. Lazarovici, 1984). The findings from Gura Baciului can be attributed to this phase: B_{2A}, B₁ (Gh. Lazarovici, Z. Maxim, 1995); Cârcea I (Gh. Lazarovici, 1977; Gh. Lazarovici, 1979; Gh. Lazarovici, 2005); Ocna Sibiului Ia (I. Paul, 1989), Miercurea Sibiului-Petriș, layer Ia: B₁₀; B₁₉ and G₂₆ (S. A. Luca *et al.*, 2008). At Cristian I, the second horizon of the sanctuary formed by ritual pits and the beginning of the ritual habitation are contemporary with this stage as well.

Consolidation continues in the Starčevo-Criș IC stage (S. A. Luca *et al.*, 2011). From the point of view of shapes, we see an increase in the number of wide open vessels, while the number of globular vessels decreases, the vessels becomes flatter and has a cylindrical neck, and the cup has slightly bitronconic walls. The nail ornamentation is more and more often used, in the so-called *impresso* style, the degreaser for the usual pottery is chaff, and for the fine or semi-fine species is fine sand. The white painting is maintained, the dots are arranged in triangles, rhombuses, line combinations and dots. Characteristic of this period is the painting technique called solid style (dots on lines), dots painted in dark colors or wavy lines (Gh. Lazarovici, 1984). The stratigraphic parts of the

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settlements from Cârcea Hanuri (M. Nica, 1976), Ocna Sibiului (I. Paul, 1989; I. Paul, 1995; I. Paul, 1995a), Grădinile I (M. Nica, 1981), Gura Baciului B₈ (Gh. Lazarovici, 1977; Gh. Lazarovici, 1979; Gh. Lazarovici, 1984); Foeni-Sălaș (Fl. Drașovean, 2007); Miercurea Sibiului-Petriș, levels Ib, B₁₇; B₂₀; B₁ (S. A. Luca *et al.*, 2008) also correspond to this phase.

At Cristian I, the second horizon of the sanctuary formed by ritual pits continues its ritual life and habitation. Sometime, at this moment – or maybe sooner – the sanctuary is abandoned, as is the ritual dwelling. Even if there are no stratigraphic intersections between the ritual dwelling and the sanctuary, and their abandonment is not identical (in the case of the pit sanctuary, the ritual abandonment is much more complex than in the case of the school dwelling). Only thing that is identical, in terms of content and significance, is the offering that "closes" both features, the deposition of a "mixed" consisting of human and animal bones, disparate, maybe even passed through fire – at least those of animals. We believe that these abandonments happened in very close

chronological times (we also draw this conclusion from the published radiocarbon data in S. A. Luca, 2015).

Phase III. Individualized rituals. Pit C₁₀

The discovery from the ritual pit mentioned, a perforated stone scepter, broke in two exact parts (S. A. Luca, 2015; S. A. Luca, Fl. Marțiș, 2016) is associated with several polished weights for fixing roofs, many in our findings from here (S. A. Luca, 2015). As analogies to our piece, we can cite similarities to Hallan Çemi (M. Rosenberg, 1999, vol. 2) and Cafer Höyük (J. Cauvin *et al.*, 1999). The analogies from Turkey are framed in the aceramic neolithic.

In addition to the scepter fragment, the different axes, carvers and polishers were discovered at Cristian I (S. A. Luca, Fl. Marțiș, 2016), Miercurea Sibiului II (S. A. Luca, Fl. Marțiș, 2016) and Cristian III (S. A. Luca, Fl. Marțiș, 2016).

These returns with isolated rituals, a cult of local ancestors (?), is also radiocarbon dated: Beta 405701 – Tab. 1 – positions 2.

	BP	2 sigma: cal BC	cal BP	Archaeological feature
Beta 407717	6.890±40	5.845 - 5.725	7.795 - 7.660	pit C ₂₁ , animal bone
Beta 405701	6.910±30	5.845 - 5.725	7.795 - 7.675	pit C ₁₀ , animal bone
Beta 407716	7.080±30	5.955 - 5.900 6.010-5.965	7.905 - 7.850 7.960 - 7.915	dwelling L ₁ , school-sanctuary, room C ₄ , animal bone

Table 1 - Cristian I. Radiocarbon data from the Transylvanian site (S. A. Luca, 2015).

Ideas about a lesser known historical period

All these rituals took place at a time that includes – in all probability – IA-C phases of the culture mentioned so many times, Starčevo-Criș (but with many pre-ceramic and "mesolithic" elements as we have shown so far, so many times), or even more, as time (until Starčevo-Criș III) (Gh. Lazarovici, 2006; S. A. Luca, C. I. Suciu, 2011).

At 10-15 km to the north is the rock salt from Ocna Sibiului-Triguri (I. Paul, 1989; I. Paul, 1995; I. Paul, 1995a), exploited by the people of the old Neolithic (existing situation – in all probability – at Gura Baciului - N. Vlassa, 1965; N. Vlassa, 1968; N. Vlassa, 1972; N. Vlassa, 1972a; Gh. Lazarovici, Z. Maxim, 1995; Z. Maxim, 1999). Another 20 km to the west, on the Secaș Valley, is a chain of old Neolithic settlements, including Miercurea Sibiului-Petriș (S. A. Luca *et al.*, 2006; S. A. Luca *et al.*, 2007; S. A. Luca *et al.*, 2008; S. A. Luca *et al.*, 2008a; S. A. Luca *et al.*, 2008b; S. A. Luca *et al.*, 2009; S. A. Luca *et al.*, 2011) or Miercurea Sibiului II-Valea Gârbovei (S. A. Luca *et al.*, 2013; S. A. Luca *et al.*, 2013d; S. A. Luca *et al.*, 2013e), in an area where salty springs abound. Further, to the west, at another 15 km, is the Mureș river, on which – most of the time – in areas with salty springs are settlements such as Șeușa-La cărarea morii (M. M. Ciută, 1998; M. M. Ciută, 2000; M. M. Ciută, 2005; M. M. Ciută, 2009), Săliștea (Cioara) (S. A. Luca, A. Tudorie, 2012), Turdaș-Luncă (S. A. Luca *et al.*, 2012a; S. A. Luca *et al.*, 2012b), Cerișor-Peștera Cauce (S. A. Luca *et al.*, 2004) or towards Criș rivers – settlement from Iosaș-Anele (S. A. Luca, M. Barbu, 1992-1994).

Mesolithic, pre-ceramic Neolithic or "Mesolithic traditions"?

Another approach, if we refer to Lepenski Vir (C.-

M. Lazarovici, Gh. Lazarovici, 2010), is to view/expose the sacred site to a sacred/totemic mountain. If at Lepenski Vir the sacred mountain is - according to some opinions - Trescavăț (located on the opposite bank, to the north, near the settlement), at Cristian I this is the Cibin Mountains complex where, in our opinion, the early Neolithic communities came. In front of them (the early Neolithic complexes from Cristian I and III) is a pyramidal mountain, which rises in the middle of the valley. Perhaps, in the mentality of the sacred Neolithic communities from here is the "flag" from which the path of coming and returning to the mother community starts (S. A. Luca, 2015).

Gh. Lazarovici (2006) shows very suggestively the connection between the oldest Neolithic from south-eastern Europe and the Mesolithic (or pre-ceramic?) populations. One such tradition is to use the human mask for consecration/remembrance or other rituals. We have such examples at Göbeli Tepe (O. Dietrich *et al.*, 2018; L. Dietrich *et al.*, 2020). The tradition is also present at Cristian I, both by using the polished and incised stone head (S. A. Luca, 2015), and by using the clay mask, placed face up, on the pile of bones (S. A. Luca, 2015) resulting from a ritual feast organized with the leaving of the pit sanctuary, by building the "House of dead" (S. A. Luca, 2015).

Gura Baciului (Gh. Lazarovici, 2006)	Miercurea Sibiului-Petriș (P. Biagi, 2011; S. A. Luca <i>et al.</i> , 2006; S. A. Luca <i>et al.</i> , 2007; S. A. Luca <i>et al.</i> , 2008; S. A. Luca <i>et al.</i> , 2008a; S. A. Luca <i>et al.</i> , 2008b; S. A. Luca <i>et al.</i> , 2009; S. A. Luca <i>et al.</i> , 2011)	Ocna Sibiului (Gh. Lazarovici, 2006)	Șeușa-La cărarea morii (M. M. Ciută, 2009)	Tărtăria-Gura Luncii (S. A. Luca <i>et al.</i> , 2020)	Alba Iulia-Lumea Nouă (M. Gligor, 2009)	Cristian I (S. A. Luca, 2015)	Foeni-Gaz (Gh. Lazarovici, 2006)	Măgura-Boldul lui Moș Ivănuș (A. Bălășescu, 2014)
7.140±45 BP	6920±70 BP 7050±33 BP 7050±70 BP 7131±34 BP	7.120±60 BP	7.070±60 BP	7007±38 BP	6.850±40	6.890±40 BP 6.910±30 BP 7.080±30 BP	7.080±50 BP	7.031±29 BP 7.110±40 BP

Table 2 - Radiocarbon data for sites from the north of the Danube (Transylvania, Muntenia and Banat). First Neolithic colonization with pottery.

Absolute chronology. Micro-study

Some ideas about the chronology of the period are welcome. We must note today, that there are more and more sites absolutely dated in the area of Danube line, south or north of it. We were not a little surprised when we noticed that there are several situations in which appear – in sites belonging to the first wave of ceramic neolitization (Tab. 2) – absolute data that would suggest the inhabitation, *in the same place*, of more ancient Mesolithic communities (Tab. 3)? But what do we do that where more extensive researches has been

done, or *in situ* strange situations have been discovered (the remains dated at Tărtăria as being Mesolithic (Tab. 3) were taken out of an oven built directly on the geological loess - S. A. Luca, 2020), occupation so early being directly unknown until 2019. A red ceramic fragment, painted with large white dots (S. A. Luca, Al. Aldea, 2019) was discovered. Due to the stratigraphic position (-0,40 m) we could not frame it in the very early Neolithic, having no other information. Now, connecting with the large and deep Petrești pits in the area (they reach diameters of 3 m

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and depths of over 3 m) we can conclude that it comes from the oldest ceramic horizon, especially since we now have – also at Tărtăria – a radiocarbon date that show a contemporary habitation on the site (7007±38 BP; S. A. Luca *et al.*, 2020, Ro AMS 1392.75). The oven from which the sample was extracted is a small one, made for heating/baking. On this type of oven, discovered – usually – in the early Neolithic (as models, in fact, often miniature), I wrote an article regarding the discoveries from the north of the Danube Gorge (S. A. Luca, 1993). As a curiosity, these ovens are still found today in Romania and are used to bake bread without yeast, "pita" in rural language.

From the kind informations of M. M. Ciută, we found out that in the new discoveries from Limba-Oarda de Jos, there is also a layer of neolitization, with early pottery and associated discoveries, with

traditional Lepenski Vir stone plastic, but also other elements (we thank to M. M. Ciută for informations).

Moreover, in the site from Alba Iulia-Lumea Nouă we have a "Mesolithic" date (or Neolithic – pre-ceramic?) (M. Gligor, 2009) but also a date that shows an early Neolithic habitation (M. Gligor, 2009). This site, hiding many "secrets", in the vision of a group of ideas that we will not discuss until after the cultural realities will be published with appropriate scientific responsibility (current synthesis publication -M. Gligor, 2009, does not seem to us to include the stratigraphy and cultural realities of the site only through a subjective attitude and unrelated to what happened in the Neolithic and Eneolithic of Transylvania, but – more – in a place "imaginary furnished").

In fact, these data from Tab. 1-3 can be compared

Foeni (B. Weninger <i>et al.</i>, 2014)	Tărtăria-Gura Luncii (S. A. Luca <i>et al.</i>, 2020 – RoAMS 1386.75 and RoAMS 1380.75)	Alba Iulia-Lumea Nouă (M. Gligor, 2009)
7.510±60 BP	7502±112 BP 7633±96 BP	7420±50 BP

Table 3 - Mesolithic (pre-ceramic Neolithic?). Absolute data from sites where are also remains of the Early Neolithic layer (first Neolithic settlement with pottery)

to those from the Balkans (D. Borić, 2011; B. Weninger *et al.*, 2014; R. Krauß *et al.*, 2014; C. Bonsall *et al.*, 2015) or the Orient (L. Clare *et al.*, 2008). Thus, we will have an opinion as correct as possible and close to reality compared to a period of time that is increasingly complicated to explain, along with the evolution of field and laboratory research.

According to radiocarbon data from the Orient, those from Cristian I fall into the ancient Chalcolithic (L. Clare *et al.*, 2008).

Stratigraphy of the settlement from Lepenski Vir which has a phase of transformation towards the early neolithic, I-II (6300-5900 cal BC) (D. Borić, 2011). In dwelling 54 from Lepenski Vir (D. Borić, 2011) – for example – is good quality Starčevo-Criș pottery (D. Borić, 2011).

A piece of this kind, similar to the menhirs from Cristian III (it may be – but – also a grinder), was found at Lepenski Vir, in the dwelling 24 (D. Srejović, 1983). It dates, relatively, in the layer Ie and absolutely at 5100-4690 BC, so very late (D. Srejović, 1981, C.-M. Lazarovici, Gh. Lazarovici, 2006). The complex

with this number is considered a sanctuary. More recently, several absolute data from features that belonging to level Ie have been published, as follows (C. Bonsall, 2008).

These data show – as expected – that there is a strong migration at the end of Lepenski Vir II. This happens around 6000 BC when level II was still operating. It is also seen in Lepenski Vir that the arrival of the neolithic communities did not lead to the disappearance of the previous era, the Mesolithic one. More over, some Mesolithic traditions – such as menhirs – survive until the arrival of the bearers of the Vinča culture.

All these observations show a very interesting thing – at this moment – that there is a cooperation, if not – even – a coexistence, between the elements of older civilization, the mesolithic and the new neolithic communities, which seems that have problems with environment. Perhaps this explains the fact that in the rituals – but also in the sanctuaries – from phases I-III of the Starčevo-Criș culture they are assimilated, between the cult elements and the statues/menhirs of

Mesolithic traditions.

These – the statues/menhirs – are concentrated in the Danube Gorge, where the beautiful and enigmatic Lepenski Vir culture (D. Srejović, 1972; D. Srejović, 1983) (also called Schela Cladovei in Romania (Researches of V. Boroneanț. The discoveries synthesis from the Danube Gorge was made by A. Boroneanț; A. Boroneanț, 2012)) develops.

Existence of a pre-Neolithic (pre-ceramic?) at the line of the Danube, more precisely in south of it, was argued by a recent article (M. Gurova, C. Bonsall, 2014). The authors of another article (P. Biagi, M. Starnini, 2013), unfortunately, even if they had all the necessary information (S. A. Luca, 1995; S. A. Luca, C. I. Suci, 2007; S. A. Luca, Fl. Marțiș, 2016; S. A. Luca, Fl. Marțiș, 2016a; E.-C. Nițu *et al.*, 2015; E.-C. Nițu *et al.* 2015a), introduced in this reporting system only two early neolithic settlements from Transylvania (Miercurea Sibiului-Petriș și Peștera Cauce – researches made by groups coordinated by S. A. Luca. (S. A. Luca *et al.*, 2004; S. A. Luca *et al.*, 2008; S. A. Luca *et al.*, 2008a;)). In fact, these links with the Balkan platform have been revealed by us and other authors on several occasion, referring to Transylvania, Banat, Oltenia, Muntenia or the Danube Gorge in terms of southern flint in general (S. A. Luca, 1995; S. A. Luca, I. Dragomir, 1985; S. A. Luca, C. I. Suci, 2007; E.-C. Nițu *et al.*, 2015; E.-C. Nițu *et al.* 2015a). Moreover, in an unpublished work dedicated to the archaeological site from Liubcova-Ornița, I analyzed the neolithic flint and came to the conclusion – together with the geologist – that it comes from the south of the Danube, in the Bor area, at a distance of over 200 km (S. A. Luca, 1998).

Table 3 shows us at least 3 sites where radiocarbon data show ancient ceramic neolithic dwellings close in time to which a pair of technologies are identical or almost identical, at the north of the Danube. Moreover, in south of the Danube, these two distinct waves can be seen at Karanovo I (B. Weninger, 1992) or Džuljunica-Smărdeș (R. Krauß *et al.*, 2014).

If we do not have satisfactory radiocarbon data, as a dialogue, for others, we have, however, common technologies with the previous era for carved tools, raw material sources and the "dialogue" of hunting and harvesting. Not to mention the plastic made in stone.

But, most beautiful approximation we have when we compare the radiocarbon data from Džuljunica with Transylvania and the appearance of dating for the first neolithic wave with ceramics (R. Krauß *et al.*, 2014)

(both at Džuljunica and at Cristian I – Tab. 1 – and at the north of the Danube and Transylvania – Tab. 2) and the possible wave pre-ceramic – mesolithic from Transylvania (Tab. 3). We see a similar relationship in Karanovo I where the ceramic Neolithic is contemporary with Džuljunica I-II (B. Weninger, 1992 – Tab. 2), but there are also older data (pre-ceramic?, Mesolithic (B. Weninger, 1992 – Tab. 2)). Contemporary data with the beginning of Džuljunica I-II are published at Čavdar (B. Weninger, 1992 – Tab. 2).

The further east the analyzed phenomenon changes, the characteristics of the analyzed moment change – at least in terms of the neolithic but also the absolute stratigraphic and chronological characteristics (A. Mazurkevich, E. Dolbunova, 2015). Even if some observations are tenuous, I think that the contexts of ceramics/technologies and older occupations need to be reviewed.

Conclusions

We tried, several times, to see the last two stages of human evolution (as occupations) up to 4.5 cal ka BP (R. Pinhasi *et al.*, 2012);

With the year 8.200 cal BP climate undergoes changes as a result of which the communities from the eastern Mediterranean develop in the mesolithic or a transition to the neolithic in western, north-western, central and south-eastern Europe (L. Clare *et al.*, 2008);

From the point of view of architecture in the sites are sanctuaries (as in Cristian I or III, but also fortifications (as in Cristian III)) (L. Clare *et al.*, 2008);

Regarding to the few "mesolithic" data in correlation of overlap or previous use of the habitat we notice that in the east they are in correlation with ancient neolithic (pre-ceramic)/chalcolithic phases (L. Clare *et al.*, 2008);

We reevaluated, through long-term research, the sites from Tărtăria-Gura Luncii (S. A. Luca, 2016) and Turdaș-Luncă (S. A. Luca, 2001; S. A. Luca, 2018a; S. A. Luca, 2019; S. A. Luca, 2019a; S. A. Luca, 2020; S. A. Luca, 2020a); also through volumes, we evaluated sites such as Peștera Cauce (S. A. Luca *et al.*, 2004; S. A. Luca *et al.*, 2005) or Orăștie-Dealul Pemilor X₂ (S. A. Luca, 1997);

In recent years we have sought to create a database for radiocarbon samples from Transylvania to align ourselves with the path taken by the research around us (S. A. Luca, C. I. Suci, 2007a; S. A. Luca, C. I. Suci, 2007b; S. A. Luca *et al.*, 2016a; S. A. Luca *et al.*, 2016b; S. A. Luca *et al.*, 2020).

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For all this I have to thank to all my colleagues (from Romania or around the world), but also to all those who dared to grow with me (students, masteral, doctoral, post-doctoral students, habilitated and other categories of researchers).

I hope that our future researches from the south of the Carpathians will confirm everything that we have said about the north of these mountains, especially from Transylvania.

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Le site antique de Djemila (Algérie). Entre découverte et approche de valorisation

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Résumé: Cette démarche met en évidence deux aspects, en premier lieu celui d'un retour chronologique sur les découvertes et travaux effectués sur le site de Djemila, antique "*Cuicul*", depuis sa découverte, afin de cerner et comprendre la « réhabilitation » de la ville et la réappropriation du lieu mais c'est aussi le moyen de révéler à travers ce processus de découverte, le formidable potentiel qu'il nous est donné d'exploiter et de réadapter aux besoins et exigences actuelles. La ville de Djemila n'a pas connu de réévaluation conséquente depuis des décennies, la mise à niveau et l'interprétation des données scientifiques répertoriées ainsi que les approches relatives à la découverte progressive du site, sont autant d'arguments à réinterpréter, pour une réflexion appropriée de valorisation. Ce voyage initiatique d'une découverte qui aura révélé une entité urbaine décrite dans ses moindres recoins, se veut comme amorce à une réintégration de la ville dans tous ses aspects, face aux impératifs actuels de mise en valeur et de revitalisation du patrimoine archéologique du Maghreb. La mise à niveau du mode de la conservation et de sauvegarde du patrimoine archéologique a ouvert le champ du débat. En ce sens Djemila patrimoine mondial de l'humanité depuis 1982, est appelée à s'actualiser, les données de son passé encore inexploitées, pourraient alors redéfinir son avenir en matière de revitalisation et ouvrir le champ d'une réévaluation.

Mots clés: Djemila, ruines, fouilles, découvertes, identification, interprétation.

Abstract: *The ancient site of Djemila (Algeria). Between discovery and valorisation approach.* This article highlights two aspects of the Djémila (also known as *Cuicul*) UNESCO World Heritage Site. First, it reviews the chronological sequence of excavations and work carried out since the site's discovery, in order to identify and understand its rehabilitation and re-appropriation. Second, it highlights that site has been neglected in recent decades. There has been no significant reassessment of the scientific data it has provided and, at the same time, historical approaches can be reinterpreted. It is time to take a new look at opportunities to exploit the town and adapt the site to current needs and requirements. Our journey of discovery describes every nook and cranny of this urban entity. It aims to stimulate interest in all aspects of the town, in the context of current initiatives to enhance and revitalize the archaeological heritage of the Maghreb. At the same time, new conservation methods have opened up new debates. It is time for Djémila, which has been a World Heritage Site since 1982, to update itself. Its untapped data could provide the foundations for a new life.

Keywords: Djémila, ruins, excavations, discoveries, identification, interpretation.

Introduction

Le site de Djemila pourrait continuer à susciter la curiosité et ce malgré toutes les découvertes et les recherches menées sur cette ville particulière de la colonie romaine africaine. Il faut certes pour

comprendre le fonctionnement de *Cuicul*, comprendre les effets qui ont induit à positionner cette ville dans cet espace du territoire, en dehors de toute interprétation liée essentiellement à un contrôle militaire de la région. Au vue des données nous

sommes amenés à percevoir Djemila peut être, selon une autre dimension. Djemila est étroitement liée à son territoire et sa topographie. C'est pour ainsi dire la topographie qui a fait Djemila car ce qui frappe, c'est bien cette intrigante symbiose de la ville avec son site.

Elle s'est muée dans un espace qui aujourd'hui paraît intemporel tant elle est actuelle, ce ne sont pas un ensemble de vestiges que l'on découvre en la visitant mais ce sont des ruines parlantes dont le son devient audible à chaque rapprochement. Lors de sa découverte elle est sous terre protégée depuis des siècles sous une couche de terre, faite parfois de ses propres débris. Les nouveaux explorateurs seront alors séduits par ces vestiges d'un temps passé qui leur procurent le sentiment de cette appartenance à cette

grande civilisation à laquelle ils se rattachent, ce monde gréco-romain. Les quelques vestiges apparents ne sont que le reflet d'eux même. Presque indéchiffrables, ils suscitent la curiosité que font-ils ici? Ces explorateurs d'un autre continent, vont révéler tous leurs talents de dessinateur et de technicien, ils établiront des relevés, des croquis en même temps que des fouilles non encore planifiées. Tout sera répertorié, notamment les inscriptions tumulaires, qui vont livrer bien des informations sur la ville et sur ceux qui y habitaient. La pierre parle, elle révèle les circonstances, les événements, les actions, la vie des citoyens. Ce sont alors des travaux plus méthodiques qui s'organisent sur ce site et au gré des exhumations, la ville se révèle et se découvre.



Figure 1 - Localisation du site de Djemila.

Le site

Djemila se situe dans un territoire occupé par l'homme depuis longtemps, la localisation de sites préhistoriques dans cette région atteste une occupation anthropologique déjà bien ancienne. Les découvertes ont mis à jour la présence de population capsienne et les traces d'escargotière entre Djemila et Tiniet Rachegue et dans la région de Fedj m'zala (P. A. Février, 1978). Une des plus ancienne civilisation lithique, Djemila fondée vers 96 ap JC, se localise au Nord-Est de la wilaya de Sétif, à environ 45 km de cette dernière dans une région montagneuse (Fig. 1). La ville antique est située entre deux oueds, qui finissent par s'unir, l'oued Guergour appelé également oued Djemila à l'Ouest et l'oued Betame à l'Est. Elle s'étale sur une superficie de 30,6 hectares, composée de deux parties essentielles, l'ancienne ville et son

extension au-delà de son enceinte d'origine au Sud, le quartier chrétien (Fig. 2). Elle est au croisement des voies romaines de cette région et à la limite de la frontière de Numidie mais c'est aussi toutes les conditions d'implantation d'une ville qui y préfigure, eau, terres fertiles, présence de carrière, pour reprendre les écrits d'Yvonne Allais (Y. Allais, 1938) Djemila fondée sous l'empereur Nerva est une colonie formée de vétérans de diverses origines, Cirta, Carthage, Danube, Bône etc.

Les récentes découvertes archéologiques sur les campagnes environnantes ont démontré que *Cuicul* étendait son influence bien au-delà de ce qu'on imaginait, *Cuicul* est une ville prospère et riche et ce grâce au rural et à l'agriculture (Y. Aibeche, 2016). Les prospections de son arrière-pays fournissent de nouvelles données et amènent à reconsidérer le statut



Figure 2 - Vue actuelle du site (Logiciel plan; D - Oued; E - Musée; F - Quartier chrétien; G - Ancien noyau).

de Cuicul dans cette contrée (Y. Aibeche, 2016).

Djemila antique *Cuicul*

Djemila fut réellement décrite lors de l'expédition (*des portes de fer*) suite au passage du corps expéditionnaire, de la colonie dirigée par le duc d'Orléans en 1839. Charles Nodier écrivain romancier et chargé de rédiger le journal de l'expédition (C. Nodier, 1844), note la présence d'un temple, des thermes et plusieurs tombeaux ainsi que l'arc de triomphe alors à moitié effondré.

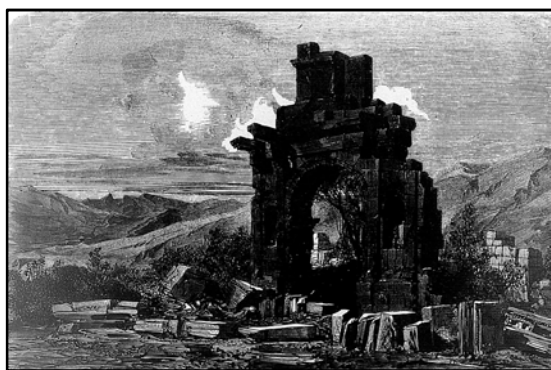


Figure 3 - Première Illustration de l'arc de triomphe réalisée par A. Dauzats (C. Nodier, 1844).

Adrien Dauzats, jeune peintre orientaliste, va réaliser les premières représentations de Djemila, ses

illustrations se limiteront à l'arc de triomphe et des reprises de quelques gravures sur pierre. L'élément emblématique et curieux est bien cet arc de triomphe en hommage à l'empereur *Caracalla* (Fig. 3).

La collecte scientifique

Au commencement ce sont des noms comme Ravoisié et Delamare qui seront évoqués. On leur doit de nombreux travaux exécutés sur le site, ainsi que la plupart des relevés des monuments, découverts, encore debout. Les expéditions dites scientifiques pour cette partie de l'Afrique, qui débutent en 1840, vont se révéler une véritable collecte de données et d'informations (A. Ravoisié, architecte, fera partie de la *mission exploration scientifique de l'Algérie* pendant les années 1840, 1841, 1842).

Parmi les premières interventions de Ravoisié, la délimitation du forum sévérien (place des sévères). Parmi les bâtiments relevés il y a le théâtre qu'il mesure et reconstitue la forme dans sa totalité, peut-être est-ce alors l'élément le mieux conservé dans sa lecture et dont les gradins sont adossés à la colline, procédé utilisé dans l'antiquité pour construire les théâtres en se servant de l'inclinaison du terrain.

Suite à des sondages, il peut dresser un premier plan de la ville mais qui demeure encore bien incomplet (A. M. Leydier Barell, 2006) (au vue de ce plan, Fig. 4, on distingue les différents éléments qui composent les ruines, le grand temple, le temple

prostyle dédié à Septime Sévère, l'arc et des portions de muraille en A et I. A. Ravoisié (exploration scientifique 1840, 1841, 1842) mentionne que la cour d'eau traversant le site est une déviation provenant de l'oued de gauche pour alimenter un lavoir et constituer une réserve d'eau).

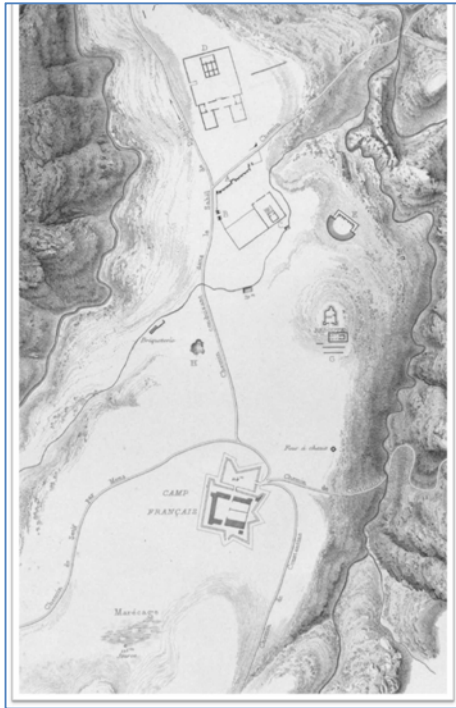


Figure 4 - Premier plan de Djemila réalisé par A. Ravoisié (explorations scientifiques 1840, 1841, 1842, vol 1, pl. 29).



Fig 5 - Vue du temple séptimien dessin de A. Ravoisié 1840 (exploration scientifique pl. 28).

Il est important de (*décrire minutieusement*) les ruines selon A. Ravoisié (1940, 1841, 1842) afin de sauver de l'oubli celles qui seront détruites ou démontées pour les nécessités de l'armée. Les premiers éléments reportés sont principalement ceux encore visibles mais à l'état de ruine. Ravoisié effectue des dégagements, entre autre une partie d'une basilique chrétienne et sa mosaïque. Cette église fait partie d'un ensemble plus important qui sera exhumé plus tard, et que mentionnera Paul Monceau dans son article de 1922 à l'académie des inscriptions et belles lettres. Sur le plan dessiné par Ravoisié on distingue la position de la ville prise entre les deux formations géologiques distinctes que sont les montagnes environnantes à travers lesquelles serpentent les deux oueds. Le confluent qui réunit les deux oueds au Nord est pris comme point de référence de niveau zéro. Les différentes sources ont été captées et ont alimenté la ville et ses infrastructures comme le démontreront les futures découvertes archéologiques sur les réseaux hydrauliques de la cité. Une fortification du type Vauban est construite pour les nécessités de l'armée, elle se situe au croisement des voies antiques sur le site à 113m d'altitude. La présence d'une briqueterie à l'Est près de l'oued et d'un four à chaux laisserait à penser qu'ils furent installés à cet endroit pour servir la construction du camp français. Aujourd'hui il ne persiste plus rien de ces installations.

Ravoisié effectue également une consolidation de l'arc de *Caracalla* en y construisant un contrefort fait d'assises de pierres romaines trouvées sur place. Il reproduit les plans du temple Séptimien, dédié à la gente de septime sévère (Fig. 5), qui montrent clairement l'état de ruine et réalise une planche détaillée du chapiteau du fronton. Le dessin académique de l'essai de restitution du temple Séptimien rappelle la typologie des temples antiques. Ravoisié réalisera de nombreux dessins des vestiges retrouvés sur les lieux.

A la même période et pour les mêmes objectifs Adolphe Delamare, chef d'escadron, dessinateur et archéologue amateur, membre de la commission scientifique de 1839 à 1845, va exécuter des croquis et des relevés. Ce dernier dépeint le site, en le découvrant, d'une toute autre appréciation (*un lieu à la fois si triste et si peu favorable.... on ne peut expliquer l'accumulation de tant d'édifices dans un lieu ou jamais une population nombreuses a pu s'établir*) (A. Delamare, 1849, p. 190).

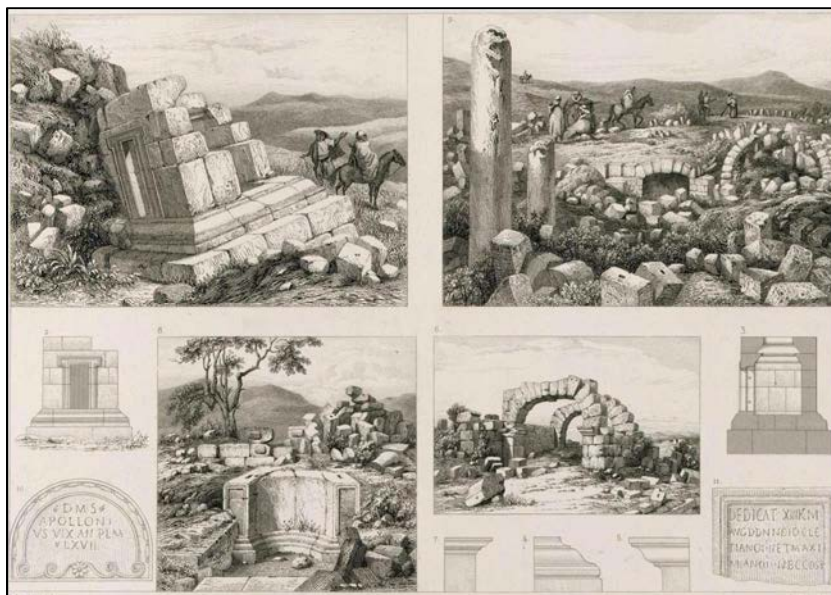


Figure 6 - Dessins de vues de Djemila (A. Delamare, *explorations scientifique* 1841....1845, pl. 103).



Figure 7 - Arc de triomphe avant les fouilles (R Cagnat, 1912, pl. VI).

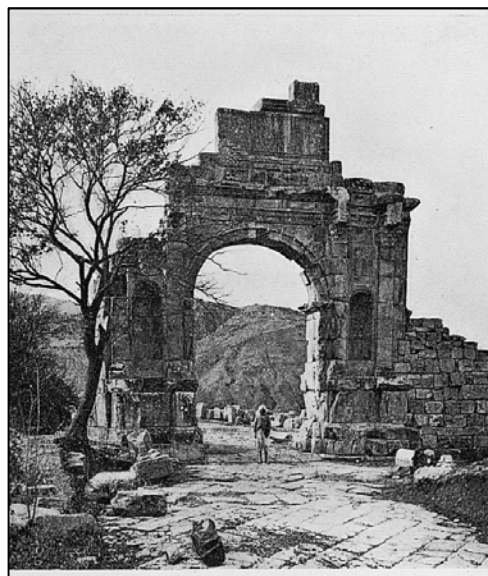


Figure 8 - Arc de triomphe avant restauration (R. Cagnat, 1912, pl. VII).

A. Delamare présente des planches très explicites et détaillées, il nous fournit des informations sur les différentes pièces relevées sur le site, sculptures, inscriptions (Fig. 6). Une foisonnante vie pariétale de personnages, redonne vie dans l'espace d'une gravure à *Cuicul*, associée à cela des dessins de différentes vues du site. On peut aisément avoir une visibilité de ce que pouvait représenter Djemila dans son ensemble et l'aspect que revêt le paysage à l'époque (Fig. 6).

Certains croquis reprendront des thèmes déjà représentés avec des variantes dans le paysage. Ce dernier va reprendre le plan de la ville, établi par Ravoisié, il sera identique à quelques indications prêt, comme le rajout de légendes. On remarquera que dans la partie ouest il est mentionné une casbah à proximité de l'église découverte, cette casbah est en fait l'appellation de la redoute du plan de Ravoisié. Vers 1838, un bataillon de l'infanterie légère d'Afrique et

une section d'artillerie sont laissés à Djemila pour l'occupation des lieux, pour se protéger des attaques des autochtones de la région les soldats construisent à la hâte un rempart avec les pierres les plus rapprochées d'où l'existence de cette casbah selon Delamare (A. Delamare, 1849, p. 195).

La ville se présente de manière très fragmentaire ne sont réellement identifiables que les monuments apparents, tel le théâtre, l'arc de triomphe, un grand temple, le temple dédié à septime sévère, les restes d'une basilique chrétienne, le grand forum qui va articuler les principales voies et une portion de la muraille. Un autre architecte, Louis Duthoit, qui fait partie de la mission organisée par l'administration des beaux arts en 1878, effectue de rapides fouilles notamment au niveau du théâtre et afin de prévenir

l'écroulement de l'arc de triomphe il préconise d'obstruer ce dernier (N. Oulebsir, 2004) en y construisant un mur avec contrefort à l'intérieur comme solution provisoire (R. Cagnat, 1912) (Fig. 7, 8).

Ces différentes interventions même ponctuelles se font un peu dans l'urgence et le souci de sauvegarder les éléments découverts. Les divers relevés sont autant d'informations et de raisons de s'intéresser à l'antique *Cuicul*, qui au regard des explorateurs a encore beaucoup de choses à livrer. On devine bien l'ampleur et la valeur de cette partie de territoire dont les documents épigraphiques attestent bien la présence d'une entité urbaine importante et révélatrice d'une période particulière de l'histoire du Maghreb.

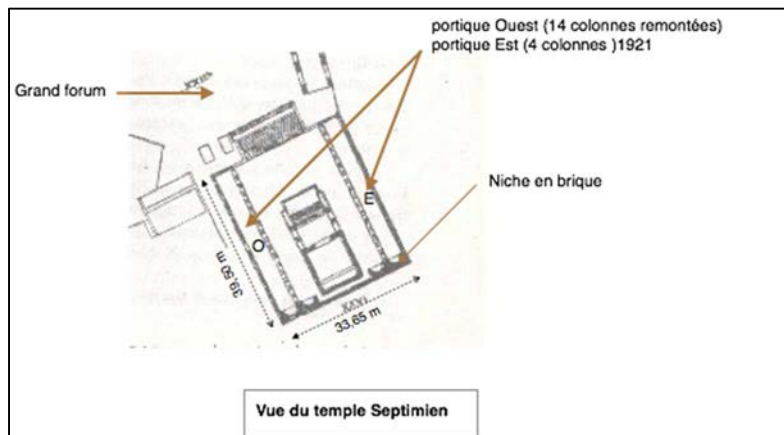


Figure 9 - Colonnes remontées du temple sévérien (A. Ballu, 1921).

La ville exhumée

Albert Ballu désigné comme architecte en chef des monuments historiques de l'Algérie et qui succèdera à Duthoit, occupera la poste durant trente années, de 1895 à 1926. C'est vers les années 1909 que débutent réellement les fouilles sur le site de Djemila. Le chantier s'organise et c'est notamment Ballu qui va superviser ce dernier, comme ce sera le cas dans la majorité des sites découverts du Nord de l'Algérie. Des opérations de consolidations et de restaurations sont ainsi effectuées. Beaucoup de monuments sont dégradés d'autres démembrés et certains sont à peine visibles, d'où une lisibilité et une compréhension restreinte et incomplète de la ville tel qu'on peut le distinguer dans les premiers plans. Un grand nombre d'édifices vont voir le jour durant cette période, comme la découverte de l'ensemble épiscopal (1921) parmi les plus (*considérables de l'antiquité chrétienne*)

(P. Monceaux, 1922, p. 381) dont un baptistère circulaire, considéré comme (*l'un des baptistères les plus complets et des plus intéressants que l'on ait trouvés en Afrique*) (P. Monceaux, 1922, p. 399). Ballu va également reconstituer l'arc de *Caracalla*, resté longtemps provisoirement consolidé (A. M. Leydier Bareil, 2006), ainsi que celui du *cardo maximus*. En effet l'arc de triomphe qui a suscité tant d'intérêt, restait fragile depuis sa découverte car à tour de rôle les principaux intéressés opéraient des consolidations ou des reconstitutions qui au demeurant ne pouvaient être sans conséquences. Le temple sévérien, considéré comme remarquablement bien conservé, sera remonté, avec 14 colonnes du portique Ouest et 4 de celui de l'Est (Fig. 9). Le département de Constantine archéologie et tourisme de 1927 révèle qu'en 1909 de nombreux jardins indigènes couvraient le sol, toujours arrosés par les sources antiques, des terrains furent

rachetés à leurs propriétaires pour procéder aux fouilles (E. Thepenier, 1927). René Cagnat parle également de la destruction de constructions arabes à proximité du capitole. Djemila deviendra au début du XX siècle l'un des plus grand chantier de fouille de l'Afrique du Nord (N. Oulebsir, 2004).

Stéphane Gsell publie dans son Atlas archéologique un plan de la ville de Cuicul élaboré par Ballu dans lequel, on distingue une partie des ruines relevées. Ce plan effectué en 1910 est encore incomplet, bien des monuments sont absents (S. Gsell, 1911) (Fig. 10). La zone mentionnée sur ce relevé fait partie de l'ancien noyau étant considéré comme la

Cuicul originelle. Il est fait mention d'un mausolée cité par Gsell non loin du théâtre. Dans son Atlas archéologique, cet édifice serait détruit (S. Gsell, 1911). Il aurait été bien visible lors du passage de Ravoisié et Delamare qui l'auraient reproduit selon Gsell, il serait daté de 196 de notre ère selon une dédicace (S. Gsell, 1911). Ballu dans sa description de Djemila mentionne la présence d'un fort non loin des thermes et confirme l'origine byzantine de ce fortin par le model et l'appareillage du système constructif qui daterait bien de cette période (A. Ballu, 1921). Actuellement il ne reste pas grand chose de ce fort.

L'identification et la nomination de monuments,

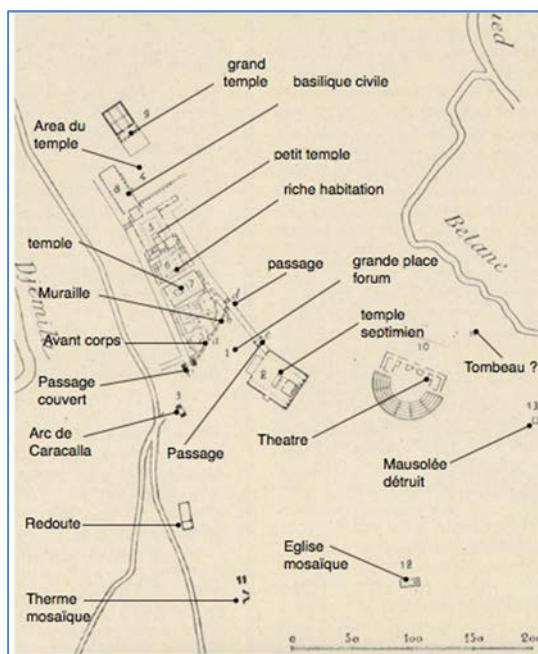


Figure 10 - Plan de Ballu avec rajout de légende (d'après S. Gsell, 1911).



Figure 11 - Temple Genetrix vue du Nord 1910 (M. Blanchard-Lemée, 1975).



Figure 12 - Vue du temple septimien (famille des Sévères) avant restauration (A. Balu, 1926).

sont possibles grâce aux inscriptions découvertes ainsi qu'aux mosaïques. Cet ancien quartier se verra subir des modifications et ses demeures réaménagées grâce à la prospérité que va connaître la ville à la fin du II^e siècle, comme l'attesteront les prochaines découvertes. C'est aussi à cette période que la ville va s'étendre au-delà de son enceinte originelle.

Il faut savoir que le renforcement du réseau routier va grandement contribuer à l'avancement des travaux sur le site et à sa logistique. La région n'étant pas bien desservie, une étude est élaborée en 1911 pour l'ouverture d'un chemin reliant Djemila (Délégations financières, 1911). Huit ans plus tard la nouvelle route de Saint Arnaud (El Eulma) à Fredj m'Zala avec

embranchement sur Djemila, est ouverte. Au vue des différentes découvertes et dans le souci de protéger et de sauvegarder les divers éléments retrouvés sur site notamment les impressionnantes mosaïques, la construction d'un musée s'impose (plutôt considéré comme un dépôt par certains). Ce dernier initié par Ballu, abrite alors deux salles l'une construite en 1910 l'autre en 1915 (A. Ballu, 1921), ces dernières seront conçues en fonction de la dimension des mosaïques habillant les murs (M. Blanchard Lemée, 1996) (le musée possède un jardin lapidaire où sont entreposés les éléments issus de fouille, des stèles, les inscriptions tumulaires et des éléments architectoniques décorés).

En 1921 la majorité des édifices de l'ancien

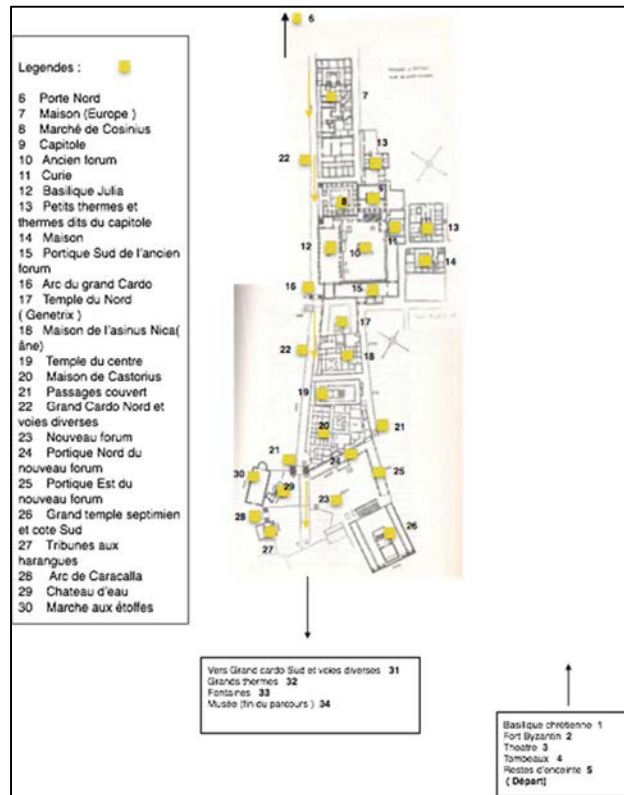


Figure 13 - Itinéraire de visite des ruines (élaboré sur fond de plan Ballu, 1921).

quartier sont identifiés et reproduits ainsi que certains monuments du quartier Sud. La basilique chrétienne, les grands thermes, les restes d'enceinte au Nord-Est et Nord-Ouest du capitole, la maison d'Europe appellation due à la mosaïque retrouvée dans une des pièces, la maison d'Amphitrite découverte entre 1912 et 1916, le marché de *Cosinii* offert à la ville par les frères *Cosinii* dont l'un deux était partagé entre

Djemila et Carthage où il exerçait la fonction de magistrat et prêtre (R. Cagnat, 1915), ce qui démontre les relations qu'entretenait Djemila avec les autres cités. Les étals sont encore sur place ainsi que le *thalos* qui occupe le centre du marché. Le capitole, la curie, les restes de la basilique civile ainsi que les petits thermes et les thermes du capitole, non encore identifiés comme tels, le temple *genetrix* et le temple

du centre, la maison de l'âne qui a fourni les célèbres mosaïques, *l'anisus nica*, considérée unique en Afrique, pavement découvert au niveau de ses thermes et celle de la toilette de Venus, la plus vaste mosaïque entièrement figurée et qui pavait le grand salon (M. Blanchard Lemée, 1975) actuellement exposées au musée, la maison de *Castorius*, la basilique *vestiare* (étoffes), la tribune aux harangues non loin de l'arc de *Caracalla*, selon Ballu ce (*bâtiment semblait avoir une double destination*) (A. Ballu, p. 250) au vu de la présence d'un petit temple derrière ce dernier. On note également, la restauration de l'arc du *cardo maximus*. Cet enchaînement de découvertes et naturel au vue de la proximité de nombreux monuments. Il est donné d'apprécier la configuration des grandes maisons du quartier ancien qui sont d'un intérêt certain pour la connaissance typologique de ces maisons africaines.

Les fouilles de Djemila prendront des années, c'est une progression continue de découvertes et de consolidations, de relevés et de restitutions de monuments, qui par la suite seront parfois remis en cause quant à l'authenticité et l'emplacement de certains éléments (en effet, le comparatif de photos du temple prises à des années différentes, montre bien

l'importance et l'ampleur de restitutions faites) (Fig. 11, 12) (éléments architectoniques en autre), Paul Albert Fevrier parle de différences stylistiques dans le remontage du temple *genetrix* (P. A. Fevrier, 1978). La découverte et la mise à jour de ces édifices va permettre une restitution d'un plan quelque peu détaillé même si beaucoup d'aspects de la ville restent encore méconnus.

Le plan du quartier Nord est assez explicite, on déchiffre alors nettement la configuration des édifices présents ainsi que l'organisation des bâtiments publiques autour de l'ancien forum, situé au centre, une publication de ces plans exécutés sous Ballu, est présentée dans la revue africaines de 1921 (p. 207 et p. 243). C'est pratiquement le plan le plus complet exécuté pour cette période et qui servira de référence. La même année sera publié le premier guide de Ballu (*ruines de Djemila, antique Cuicul*) (Fig. 13). Le plan de Djemila laisse entrevoir un noyau urbain s'étirant vers le Nord et structuré par un axe principal le *cardo*. La ville possède deux principales portes, celle du Sud et la porte Nord en direction de Djidjel (Fig. 14) et des passages marqués par des arcs, le théâtre est en contre bas en dehors du noyau initial.

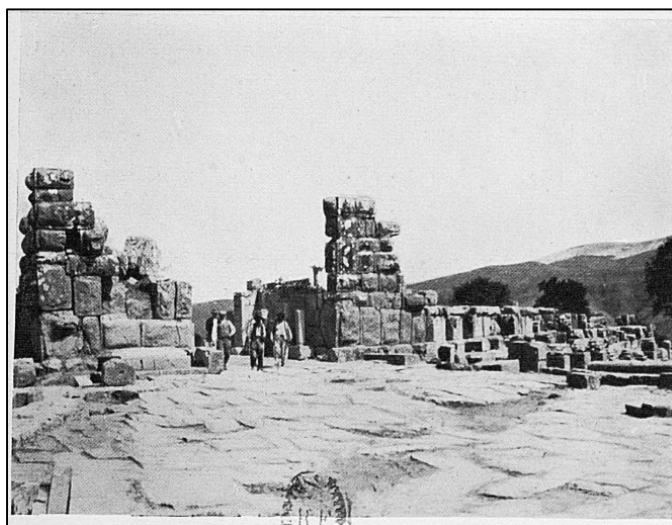


Figure 14 - Photo ancienne montrant le forum septimien ainsi que la porte de la ville, porte Sud (R. Cagnat, 1912).

Ouverture du site

La représentation des édifices étant plus claire et compréhensible, on peut alors envisager une découverte de la ville par les visiteurs et les curieux, a ce titre Ballu publiera en 1926, un deuxième guide, *Le guide illustré de Djemila...*, dans lequel on retrouve un

itinéraire de visite des ruines, un livret descriptif ou chaque monument y compris les mosaïques trouvent explicatif, accompagné de photographies qui laissent deviner la configuration des monuments en cette période et le contexte paysager existant alors. Il faut dire que le climat est à la promotion du tourisme la

destination Algérie est mise en avant et les arguments ne manquent pas (*Ainsi cristallisée dans les premières années du XX siècle ce que l'on pourrait appeler une conscience touristique : le constat d'un capital patrimonial considérable, l'envie de le connaître et de le faire connaître.....*, C. Zytnecki, 2013a); (*En 1919 un congrès général du tourisme d'Afrique du nord réuni à Alger promut l'activité à l'échelle de tout le Maghreb*, C. Zytnecki, 2013a).

L'aventure Djemila porte ses fruits et le gouvernement français s'attèle à débloquent des budgets pour les recherches sur site, pour exemple dans le compte rendu de la délégation financière algérienne de 1914, il est rapporté dans la séance du 27 mai 1913, qu'une relève de budget soit octroyée pour les fouilles de Djemila (Délégations financières, 1914, p. 549). Les raisons évoquées alors par Mr. Desmares, commissaire de gouvernement (*des fouilles qui sont peut être les plus intéressantes de l'Algérie*) et par conséquent créer à Djemila un centre intéressant pour les touristes justifierait entre autre cette relève. A voir dans cela les prémices d'un essor touristique dans la région. Il n'est pas sans savoir qu'un tel développement était principalement pensé dans un contexte précis. Une manière de glorifier l'œuvre coloniale (C. Zytnecki 2013b). En même temps, le tourisme se démocratise. On compte entre 1926 et 1927 plus de 50 000 touristes (C. Zytnecki, 2013b). Les sites archéologiques qui deviennent populaires entrent dans cette logique de promotion touristique. Pour l'année 1926, le site reçoit 7690 touristes (M. Violette, 1926). Des circuits touristiques proposent Djemila dans leurs itinéraires comme celui allant vers Biskra par autobus, ou celui de Touggourt. Une période prometteuse pour la découverte de l'archéologie algérienne, le tourisme d'excursion où l'on peut visiter les grands sites Djemila, Timgad ou Lambèse.

La diffusion de l'état des connaissances du site grâce aux publications et notamment les comptes rendus et bulletins archéologiques sera prolifique et on va susciter un intérêt particulier pour la découverte et la médiatisation de la ville.

C'est l'occasion alors de se réapproprier les lieux et de célébrer des cérémonies, comme ce fut le cas le 5 juillet 1922 où l'évêque de Constantine en présence d'une foule impressionnante, présida une cérémonie à l'endroit même où St Augustin officia en 418 lors de son passage à *Cuicul* (Afrique du nord illustrée, 1922).

Le 11 octobre 1925 les ruines de Djemila ont été ouvertes au publics (Revue archéologique, 1926). Une lettre insérée dans le Times vante la beauté du site (*et*

prédit aux ruines de Djemila une notoriété comparable à celle de Timgad) (Revue archéologique, 1926, p. 136). On retrouvera même des photographies dans les grandes gares alsaciennes sur les forêts de cèdres, Djemila, le forum, etc. (Délégation financière, 1924).

En 1924, *Le guide pratique illustré...* élaboré par E Vallet, A Albertini et Mr Hutter, propose un parcours de visite des ruines, la page de garde montrant un jeune berger jouant de la flûte avec en arrière fond les ruines, image invoquant une sorte de terre paisible et nostalgique.

L'écho de Bougie de 1925 mentionne que sous le haut patronage du ministre de l'instruction publique et des beaux arts et du gouverneur générale de l'Algérie, des fêtes officielles se dérouleront à Djemila. En effet, l'association les amis de Carthage et la compagnie générale transatlantique organise alors une grande fête à Djemila et des artistes de la comédie française, donnent une représentation de la pièce Polyphème. Cette représentation a permis la réouverture du théâtre après 15 siècles de silence, pour reprendre les écrits de Gabriel Alphonse qui rédigea un article des plus éloquent sur le site de Djemila dans le journal *La Comoedie* de 1925. *Le chantier de fouilles le plus important de l'Algérie est en ce moment celui de Djemila, Cuicul* (E. Albertini, 1927, p. 293) délaient sur les caveaux du capitole, thermes voisins du temple, maisons particulières et citernes accolée aux grands thermes. F. P. Johnson publia un article sur *Cuicul* dans *American journal of archeology* 1925 (E. Albertini, 1927).

Le département de Constantine archéologie et tourisme de 1927, par son vice président, propose un itinéraire de visite considérant la ville en trois parties. Dans la partie Sud il est fait la mention de l'hôtel transatlantique à proximité du musée.

La meilleure façon de visiter les ruines selon E. Albertini est de suivre sur le terrain le développement chronologique de *Cuicul* du Nord vers le Sud. La ville réhabilitée devient un objet touristique soutenu par les divers outils d'interprétation que sont les guides richement documentés et illustrés.

Vestiges et questionnements

Néanmoins de nombreux endroits de la ville restent méconnus et c'est un travail de longue haleine qui va mettre à jour des aspects alors encore insoupçonnés de la ville. Il faut savoir que le travail d'exhumation se prolonge dans le temps et que les édifices découverts ne sont pas totalement identifiés matériellement parlant. Ce sont des fouilles continues, qui vont alors révéler les structures définitives et

redonner à la ville son envergure. Des fouilles liées notamment au fonctionnement de la ville, aux infrastructures, vont être entreprises, aqueduc, réseaux hydrauliques, la compréhension de certaines stratifications, le réaménagement des grandes

demeures, le rayonnement ecclésiastique de la ville. Les édifices religieux construits dans la première partie du V^e siècle à *Cuicul* attestent l'existence d'un centre de pèlerinage du christianisme important (E. Albertini, 1924).

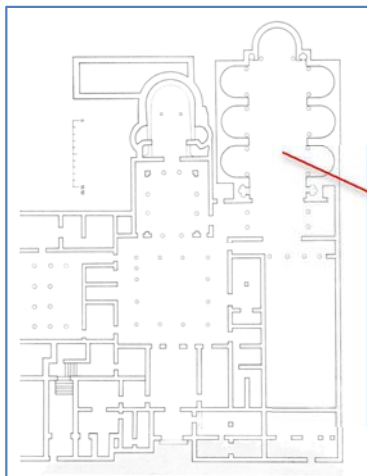


Figure 15 - Salle aux absides (J. Lassus, 1971)



Figure 16 - Les grands thermes du Sud (Photo auteur)

Deux archéologues émérites vont s'intéresser au site et effectuer des fouilles qui vont durer des années, la directrice des fouilles Mme Cresolles et Melle Yvonne Allais qui lui succèdera de 1942 à 1956. On va alors découvrir une configuration de la ville révélant une morphologie des plus intéressante mais en même temps quelque peu énigmatique du fait des découvertes aux réponses hypothétiques. Les quartiers semblent vivre et se développer au rythme des évolutions sociales et politiques de l'époque. Il se dessine une structure plus élargie de la ville antique et un aperçu de son fonctionnement et des mutations subies. En 1926 les travaux sont poussées à l'Est de la grande rue, une *horrea* (grenier public) est découverte, une inscription attestant son existence, fut trouvée auparavant par Ballu en 1910. Ce sont des magasins municipaux édifiés aux frais de la colonie mais qui servaient aussi aux impôts pour le service de l'annone (Y. Allais, 1933). En 1930 c'est en procédant à l'aménagement des voies d'accès aux ruines de Djemila au Sud des grands thermes, que Mme Cresolles fait la découverte d'un ensemble important, une habitation dont la particularité est une salle à sept absides, un vaste édifice possédant une entrée donnant sur la voie et ornée de colonnes (Fig. 15, 16). Cet ensemble est richement décoré de belles mosaïques, la maison de *Bacchus* en référence à la mosaïque dionysiaque

retrouvée sur place. En 1928 Cresolles évoque la possibilité d'ajouter une troisième salle de musée, cette dernière sera construite en 1930 par l'architecte Leon Claro. Faute de place toutes les découvertes de mosaïques effectuées après 1934 resteront sur site. On peut encore aujourd'hui en voir certaines qui hélas subissent les aléas du temps et parfois les indécidables des visiteurs. Il n'en demeure pas moins que les plus remarquables trouvent place dans le musée. Les murs du musée sont dans leur totalité recouverts de mosaïques, un assemblage de fresques qui rendent ce dernier atypique et particulier, cet agencement s'est fait parfois au détriment de mosaïques que l'on a tronquées ou ajustées, voir même adaptées à la forme de pente engendrée par la toiture en charpente, un aspect très remarqué. En 1939 la totalité des parois du musée sont tapissées de mosaïques y compris les sols des deux premières salles. En 1941 la colline mitoyenne au temple septimien est dégagée, d'autre part un nouveau chantier hors de la ville à l'Est sur les hauteurs dominants le quartier chrétien est ouvert, une église entourée d'un cimetière sont explorés, ce qui atteste que les faubourgs de Djemila s'étendaient au delà des ruines actuelles (L. Leschi, 1942). On peut encore aujourd'hui observer cela, la construction récente d'une voie pour les riverains, laisse entrevoir encore

des restes.

La continuité du chantier de fouille des ruines de *Djemila* va permettre l'identification précise des fonctions des bâtiments exhumés de leur rôle ainsi que la configuration des différents espaces qui les composent, qu'ils soient demeures ou édifices publics. On procède également à des réfections et des consolidations jugées indispensables au maintien des structures. Une mise à jour des plans sera effectuée.

Les années suivantes vont être fructueuses et les travaux de Mlle Allais vont révéler l'aspect quelque peu complexe de *Djemila*, notamment celui lié aux réaménagements de certains espaces et aux remaniements effectués, durant les périodes successives de la vie de *Cuicul*, l'élargissement de la ville, son extension au-delà de l'enceinte initiale, la construction de nouveaux édifices. Yvonne Allais à travers ses recherches sera amenée à comprendre les aspects liés à ces transformations. La maison d'Europe pour exemple est passée par trois étapes successives d'évolution, une demeure qui possède un important péristyle de type hellénistique avec une entrée en

chicane, une maison luxueuse selon Melle Allais d'après les objets retrouvés (Y. Allais, 1939). De 1943 à 1949 ont entrepris des fouilles en contre bas à l'Est du forum sévérien, tout un quartier est mis à jour. On retrouve les vestiges d'une grande *schola*, un édifice municipal datant de 235 ap JC, ainsi que des constructions comprenant des logements et des boutiques.

Yvonne Allais s'est particulièrement intéressée aux aspects liés à l'alimentation en eau, de l'aménagement des greniers, de la vaisselle d'usage quotidien pour tenter de comprendre comment les anciens essayaient de trouver des solutions aux problèmes quotidiens (J. Lassus, M. Clay, 1982). Les fouilles sur plus de 85 m ont mis à jour l'égout collecteur principal. Le réseau en eau de *Djemila* revêt un intérêt particulier car il pourrait amener des réponses à l'évacuation des eaux afin de protéger la ville du ruissellement causé par les pluies torrentielles périodiques, qui causent des dégâts au site, le grand collecteur de la ville est encore visible et en bon état.

Le travail de Mlle Allais aura grandement contribué à « déchiffrer » *Djemila* dans toute sa



Figure 17 - Quartier occidental, vue côte Ouest, restes de ruines de maisons.
Enceinte primitive en contre bas et oued Guergour (Photo auteur).

dimension et nous laisse un fond documentaire important. Ayant travaillé sur le site durant quinze années et connaissant parfaitement le sujet, on lui doit les fouilles des quartiers Est et Ouest de la ville, ces dernières dureront jusqu'en 1957. Une grande partie du

quartier occidental (quartier Ouest) va être exhumée (Fig. 17). Cette partie de la ville en contre bas sur un plateau étroit, révèle une configuration de la ville assez particulière entre ruelles et édifices dont un basilique cimétériale construite sur les restes d'anciennes

maisons. Ce quartier qui a subi de multiples remaniements était à l'origine quadrillé d'une série d'*insula* (Y. Allais, 1971). On trouve des maisons à étage avec des accès sur deux niveaux de rues, des petits ateliers dont un teinturier, des boutiques. La plus

belle maison est la maison aux stucs qui possède un atrium tétrastyle unique à Djemila. Une portion du mur d'enceinte (rempart primitif) Ouest est visible. Un plan détaillé de cette partie de la ville sera exécuté (Fig. 18).

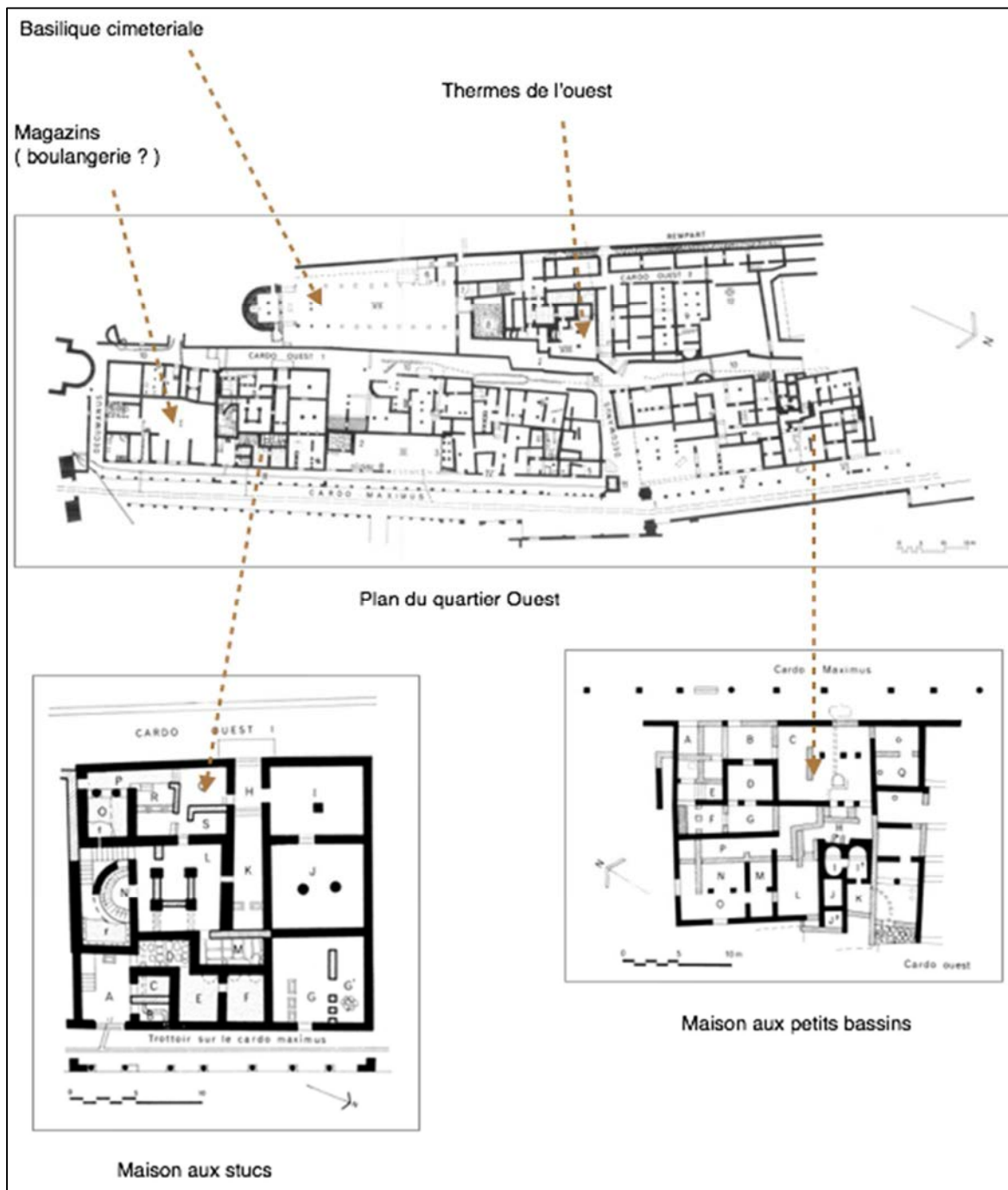


Figure 18 - Plan du quartier occidental avec repérages (d'après plans Yvonne Allais, 1971, fig. 7, 9, 23)

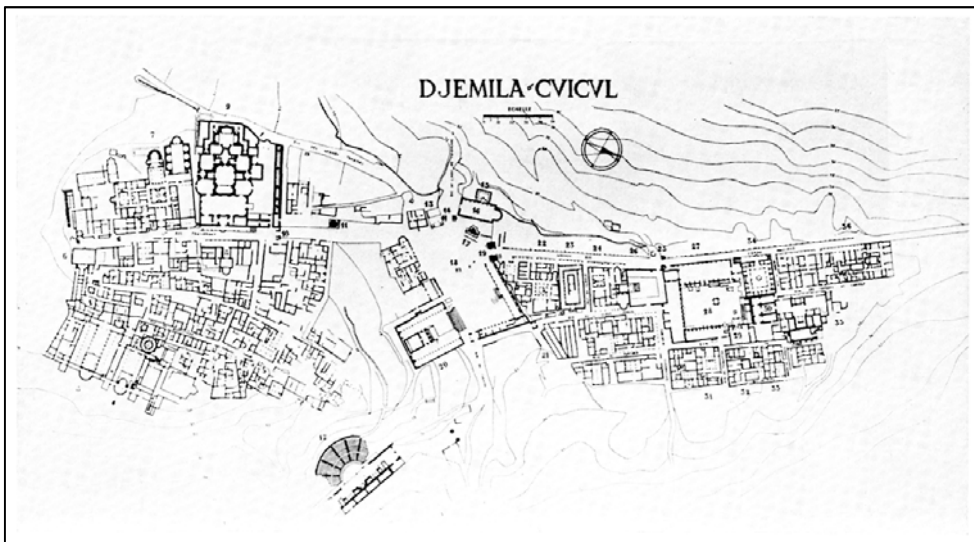


Figure 19 - Plan de Djemila d'après Yvonne Allais, 1938

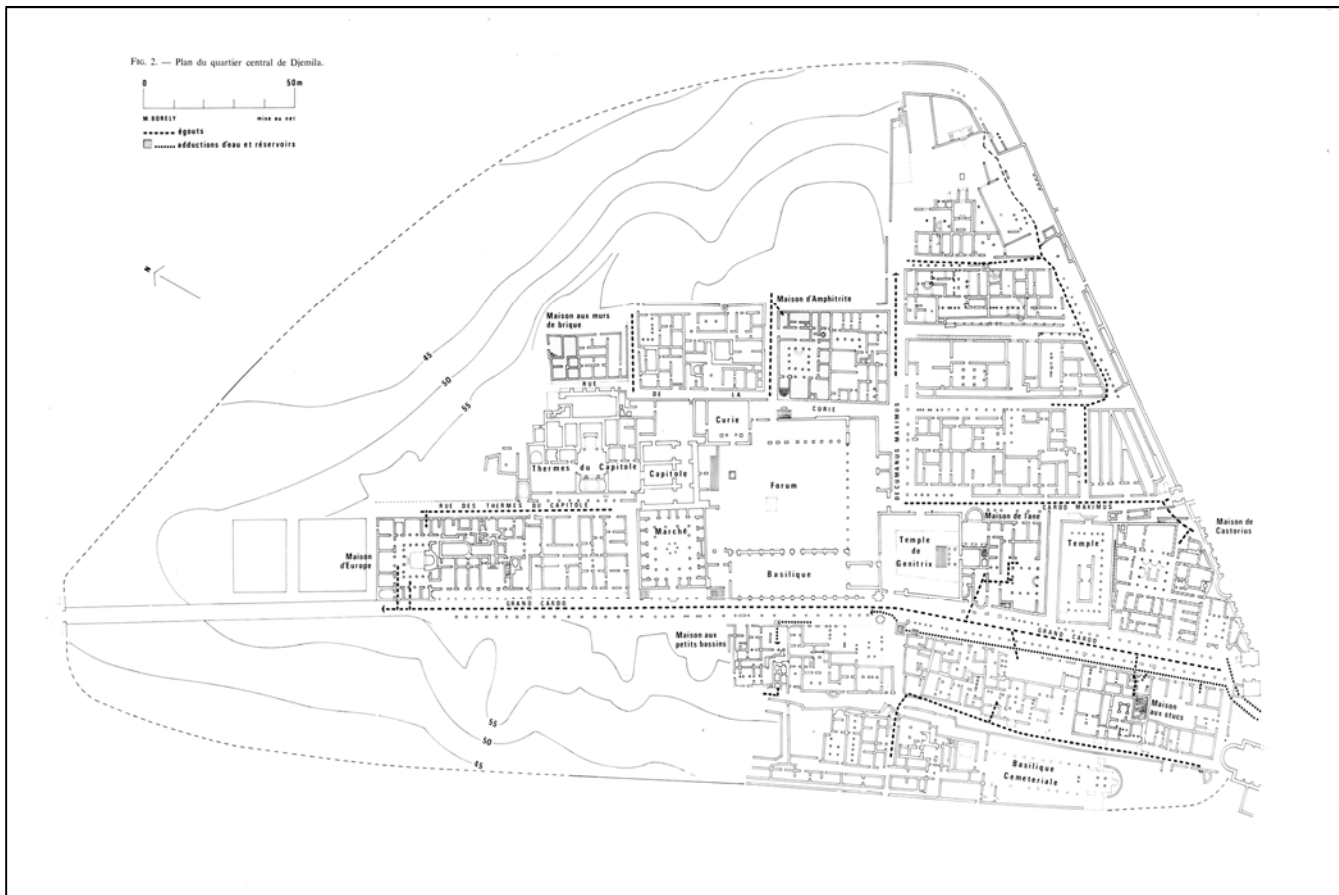


Figure 20 - Plan général du noyau initial de la ville (M. Blanchard Lemée, 1975)

On redessine les divers contours de la ville antique qui réapparaît, révélant son ampleur et ses particularités. Djemila s'annonce alors pleine de promesse, elle illustre une période de cette partie de territoire ou l'urbanisme romain empreint de cette singularité africaine a pu réunir une population diverse, qui durant un espace de temps s'est épanouie et a prospéré sur ces terres. Ces différentes découvertes pour ainsi dire n'ont pratiquement plus été exploitées pourtant elles ouvrent le champ de l'investigation sur le fonctionnement de la ville, les strates archéologiques, nous renseignent sur les faits mais encore plus sur les transformations de la ville et son mode d'organisation. L'investigation pourrait nous renseigner sur les divers aspects qui ont produit l'espace et son usage à l'échelle du monument et de la ville.

Le plan de la ville dressé en 1938 (Fig. 19), complète les représentations précédentes. Le tracé des voies, les principaux monuments y sont représentés, le quartier Nord à l'Est du cardo mentionne le tracé tel celui de Ballu quelques années auparavant, les monuments clairement identifiés et préalablement fouillés y figurent, une grande partie du quartier chrétien Sud est à l'état de traces. La partie Est de la ville à proximité du théâtre, fouillée par Allais est très schématique, quand à la zone Ouest qui fut fouillée tardivement par Allais ne figure aucunement, cela est compréhensible au vue de la date d'édition de ce plan. Yvonne Allais aura réactualisé ainsi les données graphiques et les relevés.

Ce plan offre une lecture de Djemila plus cohérente et actualisée les principaux édifices y sont répertoriés, on devine les accès et les voies de connections. Si les monuments d'envergure sont clairement repérés, les multiples ruines occupant les espaces intermédiaires sont par contre illisibles et indéchiffrables, on devine bien les éléments de la ville qui reste à découvrir et à identifier. L'utilisation des photos aériennes aura grandement contribué à étayer les recherches et les prospections sur terrain. Il faut savoir que les premières photos aériennes débutent vers les années trente, elles seront d'un apport considérable à la compréhension et l'identification du territoire et de l'empreinte urbanistique des villes antiques. Ce plan sert encore d'unique référence pour l'étude de Djemila.

Mais la poursuite des fouilles va achever le travail et livrer la morphologie presque définitive de la structure de la ville sans oublier la consolidation des parties fragiles. Djemila se profile elle devient lisible et

raconte à travers ses édifices une partie de son histoire le *plan général de Djemila* produit par Allais montre le noyau ancien dans toute sa configuration (Fig. 20).

Les prémices d'une médiatisation que connaît Djemila à ses début s'estompe durant la période de la guerre de libération mais on retrouve la ville dans le guide Michelin des années 1956 où il est proposé un itinéraire de visite des ruines, avec la possibilité d'un circuit rapide de durée d'une heure, en commençant par le baptistère pour finir au musée (Fig. 21). Cet itinéraire rappelle quelque peu celui de Ballu des années plus tôt. Ce sera pour ainsi dire l'unique circuit conventionnel qui va perdurer et sur lequel vont s'appuyer les visites.

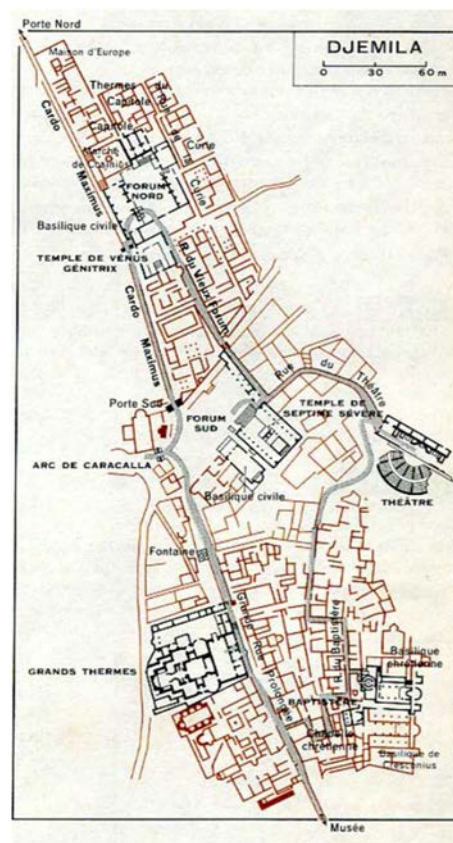


Figure 21 - Circuit de visite de Djemila (Guide Michelin 1956)

Chargé de missions par le directeur de l'Antiquité de l'Algérie, à partir de juin 1962, Paul Albert Février, archiviste paléographe, consacra des études sur Djemila, ses recherches ouvriront le champ d'investigation sur l'urbanisme et la nature des monuments de cette dernière. Paul Albert Février

portera un regard de controverse sur l'état des monuments et surtout sur les actions qui furent menées sur les éléments clefs du site. Il est certes complexe d'avoir une visibilité réellement objective sur tout ce qui fut entrepris à Djemila, la lecture pourrait en être autrement selon ce qui aurait pu se faire ou pas. Février parle de *la masse de découvertes faites depuis lors est telle que personne n'a pu, sauf à l'occasion de brèves monographies, dominer le sujet et nous faire connaître, je ne dis pas l'histoire de la ville mais même celle des monuments* (P. A. Février, 1996, p. 651). Les documents relatifs aux monuments sont difficilement exploitables selon lui, plan de la maison de *Bacchus*, *un croquis qui induit en erreur* (P. A. Février, 1996, p. 651), soucis de datation des bâtiments. Les importantes restaurations ont défiguré les monuments et auraient modifié leur apparence d'origine, parfois sans même savoir quel fut l'aspect physique de l'édifice lors de sa découverte. Il émet un doute quant à l'origine des chapiteaux du temple de *genetrix* (*un parti de restauration arbitraire*) (P. A. Février, 1978, p. 33) de l'aspect de l'arc du *cardo maximus* ou le remontage de l'arc de *Caracalla* (P. A. Février, 1996). Des analyses avancées et des études approfondies pourraient apporter des éclaircissements.

Albert Février s'intéresse aux demeures de Djemila, grâce à sa collecte de toute la documentation, il établira une étude archéologique détaillée de la maison de *Bacchus* qui sera reprise par Blanchard Lemée. On note également l'indication rapportée par Février, qu'au début du siècle, il existait un marabout et un grand cimetière qui ont disparus suite aux fouilles. La nécropole arabe près de l'ancien forum et qui fut détruite lors de fouille, aurait été située sur l'emplacement du quartier Ouest. Il va s'en dire que nous ne savons pas grand chose de la période médiévale ou celle précédant la colonisation. En revanche les remarques apportées par Hutter indique que la période byzantine n'aura apporté aucun changement réel ni laisser de traces conséquentes à Djemila.

A. Février, sous l'égide du ministère de l'information et de la culture, publie un document intitulé *Djemila* en 1968, réédité en 1978, on y retrouve un descriptif de la ville et un itinéraire de visite qui offre la possibilité d'accéder de deux endroits à la ville, entre autre par le chemin de l'ancienne route de Sétif passant par le site, pour démarrer de la porte Sud (ancien noyau) et terminer par le groupe épiscopal. Le circuit de visite actuel se base encore sur celui de Février comme model d'itinéraire, mais la plupart des

visites débutent par la partie chrétienne c'est à dire le groupe épiscopal.

L'évolution des découvertes de Djemila soulève des interrogations, après avoir été un réservoir de découvertes et d'exhumations, la ville devient un objet de réflexion au regard des interrogations auxquelles se heurteront les chercheurs. *Cuicul* devient un terrain d'investigations tout comme le sont les documents établis lors des découvertes. On s'interroge sur les démarches suivies par les prédécesseurs et leurs interprétations, des découvertes et des actions menées, Djemila est un laboratoire à ciel ouvert. On réévalue certaines données et on en exploite d'autres. Tenter de comprendre la ville et les monuments qui la composent, comprendre l'habitat et ses transformation, l'évolution de la ville, sa formation ses strates (en effet, certains édifices ont été construits sur ou en remplacement d'autres, tel la basilique sur le supposé ancien temple frugifère près du temple septimien ou la maison de *Bacchus* sur d'anciennes thermes) dans un espace qui n'avait rien de commun et dans un contexte tout aussi particulier.

L'archéologue Blanchard Lemée, qui étudiera la ville et dont les premiers déplacements dateront de 1965, aura un regard critique sur les interventions faites. Son étude et analyse des monuments de Djemila et notamment sur le fonctionnement et l'aspect des grandes demeures sera considérable. En opérant des comparatifs et des analyses de ces mêmes édifices elle contribuera à élargir encore plus le champ d'investigation du lieu. Dans son étude faite sur les maisons à mosaïque du quartier central, il nous est donné d'apprécier la méthodologie et l'approche de cette dernière. Ses observations et son analyse des édifices emblématiques de la ville vont révéler toute la nature et la vocation de ces demeures. Toutes les demeures importantes découvertes à *Djemila* possèdent des ornements du type mosaïque ces dernières ont été largement étudiées. Ce sont des mosaïques inspirées de la mythologie, mais dans leur facture elle révèle le savoir faire d'une époque et par la même la vision d'un monde celui des cuiculitains en cette période. La qualité de ces mosaïques sera relative au vue de l'habileté du travail effectué, certaines vont révéler une grande maîtrise de cet art d'autres seront moins précises ou de moins bonne facture, néanmoins elles confirment d'une volonté à exprimer un attachement à des valeurs existentielles. Son ouvrage consacré aux jardins de Djemila est une approche méthodique sur l'existence de jardins au sein des demeures cuiculitaines. Ses rapports attesteront de

l'origine de certaines dispositions spatiales et la configuration des espaces verts au sein même des habitations, qualifié de *vividarium*, tout espace à l'intérieur d'un péristyle ne possédant ni dallage ni mosaïque. Ce sont pratiquement les derniers travaux conséquents menés sur *Djemila* antique *Cuicul*. La ville fera l'objet d'un classement patrimoine mondial en 1982 sous les critères III (*Apport d'un témoignage unique ou du moins exceptionnel sur une tradition ou une civilisation vivante ou disparue.*) et critère IV (*Offrir un exemple éminent d'un type de construction ou d'ensemble architectural ou de paysage illustrant une ou des périodes significatives de l'histoire humaine*). Le rapport de l'Icomos qui recommande le classement de Djemila mentionne que *c'est un des plus bel ensemble de ruine romaine au monde* et sa protection devient alors impérative.

Certes les monuments de Djemila seront étudiés dans des phases ultérieures mais sur des aspects liés à la typologie des édifices, aux caractères de ces bâtiments à leur histoire mais rarement sur la complexité de la ville ou de l'aspect urbain dans son ensemble voir sur d'autres aspects, contextuel, territorial. Nous n'avons pas d'étude d'envergures récentes concernant le site.

Réflexions et débat

Les exhumations successives, opérées au début du siècle, nous plongent dans une découverte matérielle et une identification des objets exhumés, induisant à comprendre l'histoire et la raison d'être de ces édifices et donc de la ville. Les découvertes sont autant de champs d'investigation et les publications relatives à la ville se feront nombreuses, s'agissant des monuments, des inscriptions ou des mosaïques elles suscitent grand l'intérêt. On diagnostique on interprète. La ville désertée et abandonnée depuis des siècles, voit ses édifices remontés consolidés et quelque part réhabilitée par leur présence conséquente. Ces édifices racontent une époque, un savoir faire et une exaltation de la ville dans cette contrée de l'Afrique. L'heure est à la découverte et aux prémices du tourisme culturel. Plus tard et avec la poursuite des découvertes qui seront nombreuses, la ville se dévoile encore plus, c'est la découverte de Djemila dans ce qu'elle peut révéler de plus énigmatique. On interroge et questionne les édifices l'observation et l'investigation vont être de mise, quels ont été les processus de transformation de Djemila ? Que peut elle révéler de la vie de ses citoyens, de leurs pratiques, de leur vie au quotidien de leur demeure ? *Djemila* sera explorée sous un aspect autre que celui d'un réservoir de vestiges. On a trouvé

à Djemila des tables de mesures –étalons conformes à un système métrique non romain, des stèles funéraires ou votives qui sont décorées de sujets très particuliers *des représentations, étrangères aux usages des vainqueurs* (R. Cagnat, 1912, p. 73). Les fouilles et les déblais ont fait disparaître certaines traces comme le cas de la maison disparue en contre bas de la maison d'Europe (M. Blanchard Lemeé, 1975).

Au regard de l'évolution des découvertes, Djemila s'est vue « réhabilitée » mais il nous est donné de comprendre la ville romaine, dont l'impact sur ce territoire s'est progressivement atténué jusqu'à disparaître. L'investigation est à même de fournir des éléments. Il est certain que les facteurs géopolitiques et culturels dans un contexte qui a vu affluer courants idéologiques et autres ne peuvent qu'impacter sur l'évolution d'une ville. Une ville qu'on sait habitée au départ par des vétérans mais qui se peuple d'autochtones, qui est soumise à un environnement fait de conflits, de colonisation sur une terre peuplée aussi de tribus locales revendiquant à juste titre cette contrée. La ville s'est forgée une identité peut-être hors du commun, les phases d'évolutions successives vont démonter une ville prospère, dont les demeures deviennent luxueuses mais aussi une ville qui se voit s'appauvrir à cause de mauvaises récoltes (M. M. Hutter, Cabouat, 1961). Le tremblement de terre de juillet 365 (R. Rebuffat, 1980) qui a causé et endommagé bon nombre d'édifices, engendrant des transformations et des remaniements dans le bâti. Mais Djemila a ses énigmes également, un urbanisme atypique, des structures qui n'ont pas révélé toutes leurs significations, une lecture de strates non encore claire. Qu'est-elle devenue au moyen âge ? N'a-t-on pas retrouvé des lampes identiques à celle de la dynastie hammadide (kalaa des Béni Hammad) à Djemila ? (P. A. Février, 1996, p. 676). Comment les autochtones se sont-ils appropriés les lieux, l'existence de nécropoles arabes et d'un mausolée à proximité du forum et qui furent détruits qu'en est-il de cette mémoire ? Nous n'avons pas de réelle visibilité sur les différents monuments qui furent découverts, les actions menées sur le site incitent à la réflexion car ce qui a été entrepris comme travaux de remontage ou de fouilles ne sont pas sans conséquences. Que peut nous apprendre encore la ville de son vécu, des habitants, des relations à l'espace de son économie ? *les sources écrites sont rares pour les périodes antique, médiévale. Ces sources sont avares de renseignements quand il s'agit de décrire les transformations urbaines et dans la mesure où elles ne renseignent pas sur les*

aspects de la vie quotidienne et de l'activité économique (A. Khelifa, 2010). Il est donné également de comprendre l'interaction et la relation de la ville avec son environnement régional voir territorial. Ce sont la autant de questions qui n'ont pas trouvé encore réponse.

Presque soixante années après les ruines sont silencieuses. Tout laisse à penser que Djemila a épuisé son potentiel lié à la connaissance du lieu et que nous conservons depuis l'indépendance un lègue devenu inerte. Héritage des engagements et des choix de nos prédécesseurs nous gardons la ville dans son « écrin » au regard des impératifs actuels, telle la réintégration de ce patrimoine dans sa dimension scientifique, culturelle et sociale avec tous ce que cela implique. La configuration est restée inchangée, le mode de visite et les itinéraires n'ont pas évolué et manquent cruellement d'informations, le musée est aujourd'hui vétuste et inadapté, aucun équipement ne soutient la compréhension du site et de ses monuments. Le site s'apparente à un immense parc lapidaire dont on admire la beauté mais au-delà aucune évolution concrète. Le message narratif culturel fait défaut.

Malgré son classement qui a relativement maintenu les valeurs du site, ce dernier n'est actuellement pas à l'abri des mutations qui s'opèrent dans son environnement et qui peuvent affecter son intégrité. Le projet de valorisation tel préconisé par les politiques patrimoniales pour la sauvegarde des sites archéologiques peine à trouver une amorce tangible.

Les campagnes de fouilles n'existent plus et on ne peut tabler sur cet aspect de reviviscence du site pour la promotion de Djemila même si on estime qu'il reste un potentiel de 40% de zones de fouille. Pourtant la plupart des sites se « revigorent » par la continuité des fouilles, des programmes liés aux recherches sur site, documentation, relevés, diagnostiques, interprétation, voir reconsidérer et réévaluer la documentation concernant le site. Que peut ce potentiel nous apporter de plus, quelles perspectives il ouvre en option d'axe de recherche ? Nous n'avons à ce jour pas actualisé les relevés et les plans que ce soit du site ou des monuments. L'article 7 de la convention européenne pour la protection du patrimoine archéologique, recommande l'actualisation des enquêtes des inventaires et de la cartographie des sites classés. Toutes les démarches de recherches se réfèrent aux premières documentations qui font office d'archives. *Si les usages politiques des savoirs archéologiques au Maghreb durant la période coloniale ont fait l'objet d'un certain nombre de travaux, peu de choses*

s'écrivent sur leurs reconfigurations plus contemporaines (F. Fauvelle et al., 2017).

Une relecture pourrait permettre une approche critique et ouvrir le champ à de nouvelles interprétations, voir combler certaines lacunes. La recherche pourrait insuffler une nouvelle vie à des idées devenues obsolètes (J. Brik, 1994). Les données recueillies sont elles même sujettes à étude (*Les savoirs archéologiques sont aussi, potentiellement, des objets d'étude*; F. Fauvelle et al., 2017). Même pour un site dont on a assuré la préservation, la recherche permet de relever le défi de voir les vieilles idées introduire de nouvelles, elles peuvent infirmer ou confirmer les hypothèses et changer notre façon de voir le passé (J. Brik, 1994), d'étayer les arguments en faveur de la nécessité de préservation pour assurer un renouvellement de connaissances. La recherche introduit l'élément de changement de nouveauté de l'évolution de la pensée et de l'avancement des connaissances humaines (J. Brik, 1994) et permet entre autre de justifier les financements et les fonds. L'exploitation des données historiques issues de sa découverte sont un potentiel dont l'apport en matière d'identification et de connaissance, peuvent être mis à profit pour une première compréhension et la mise en place d'un système interprétatif du site et des monuments qui fait défaut (favoriser un parcours pédagogique), il constitue également un corpus de bases de données nécessaires à la réactivation de la recherche. Tout projet de fouille et notamment pour des sites de cette importance, doit se solder par un projet de conservation et de valorisation, l'apport de données permet d'oeuvrer à cet aboutissement et prévient l'évolution du site pour assurer sa sauvegarde (*On prend alors conscience que la gestion « courante » des sites, une fois assurée leur étude, leur préservation et leur mise en valeur, ne saurait se passer de la mobilisation régulière des scientifiques*; É. F. Boucharlat, 2010).

La pratique de l'archéologie a évolué, elle s'est dotée de méthodes nouvelles et d'outils innovants en collaboration avec des disciplines diverses et permet d'élargir le domaine de l'interprétation du bien. La valorisation du site est par ce fait assurée par le statut d'objet de recherche qu'il acquière et par celui que lui confèrera sa diffusion et son interprétation auprès du public. La documentation produite par les recherches sur site sont le fruit d'un processus lié à la découverte de ce dernier dans un contexte et une période définie. La conjoncture qui s'en est suivie a provoqué un arrêt des fouilles. Même si certains aspects de Djemila ont

constitué des sujets d'exploration (monuments ou autres *) cela n'a pas permis de réactiver ou de réintégrer un véritable processus d'étude qui puisse redonner un rôle significatif au site et entraîner un intérêt majeur pour cette entité patrimoniale importante.

Si l'on se penche sur les axes d'études qui priment actuellement les sites antiques classés ne constituent pas du point de vue de l'investissement en étude archéologique une priorité actuelle. La nécessité de se réapproprié un héritage identitaire occulté durant la colonisation a vu naître des thématiques de recherche et s'ouvrir des chantiers plus en réponse à cette préoccupation identitaire. Le centre national de recherche en archéologie *(doit produire des programmes de recherche qui rétablissent la hiérarchie identitaire nationale dans ses domaines d'intervention; F. Fauvelle et al., 2017)*. Les prérogatives du Centre national de recherches préhistoriques, anthropologiques et historiques sont d'avantages intéressées par l'archéologie libyque et

punique (F. Fauvelle *et al.*, 2017). En même temps la formation d'archéologues se heurte à la conciliation entre théorie et pratique *(le choix du terrain qui, en l'absence de définition des priorités et surtout en raison d'un manque de moyens, ne peut traduire et développer facilement les contenus théoriques; S. Ouahib, 2015)*

Les orientations en matière de politiques patrimoniales qu'impliquent les modèles de gestion, tablent sur l'implication du patrimoine comme potentiel pouvant appuyer le développement des régions voir des territoires. Le site étant sous gestion de l'office des biens culturels et dont la mission principale *(est l'extraction d'une valeur ajoutée strictement économique du patrimoine archéologique par sa mise en valeur touristique; F. Fauvelle et al., 2017)* est amené à s'adapter à cette nouvelle optique. Le patrimoine comme acteur de promotion des régions implique une gestion appropriée dans ce sens. C'est alors aux collectivités et aux instances qui sont en charge de sa promotion de trouver assise à cette



Figure 22 - Vue vers le Nord d'une partie des ruines de Djemila (photo auteur)

démarche en favorisant un contexte d'échanges et de concertation, par la mise en place de mécanismes qui pourraient répondre à cette préoccupation, des mécanismes pour tenter de trouver une amorce par différents programmes, programme d'appui à la valorisation du patrimoine culturel, programme de

renforcement des capacités des acteurs locaux ... or toute la difficulté vient d'une mise en pratique qui n'est pas évidente au vue des conditions, des contraintes et des contextes dans lesquels se trouvent ces sites. Mais il s'agit surtout de trouver l'attitude qui puisse mettre en exergue la véritable vocation du site, qui est avant

tout avant tout un héritage avec tout ce que cela implique et un objet scientifique mis à la disposition du public par un système de diffusion adéquat. La réactivation d'un tel site sur son potentiel d'exploration et d'étude avec une approche contemporaine de procédés et d'attitudes, pourrait définir un véritable projet de valorisation tant espéré pour le site. Aujourd'hui le chercheur est amené à partager son espace avec les communautés de proximité qui sont elles directement concernées par le sort de son bien, l'intégration d'une manière ou de l'autre du facteur humain de proximité dans cette vision de valorisation engendre l'appropriation du patrimoine gage de sa protection et peut favoriser l'émergence de potentialité pour la région.

Djemila souffre d'un manque de visibilité sur sa destination, redonner une consistance notamment scientifique au site, va implicitement assurer sa promotion et surtout sa réappropriation légitime par une nouvelle génération (Fig. 22).

* En 2003, une étude intitulée *Atlas des pierres ornementales de construction du site antique de Djemila (Algérie)* est réalisée dans le cadre du projet Medistone, programme de recherche avec le soutien de la commission européenne. Son objectif scientifique était d'identifier les pierres ornementales et de construction du site et de déterminer leur provenance en termes de zones géographiques.

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Bohai population remaining in the Khitan Empire Liao in period 926-1029 (on the basis of Russian and Korean materials)

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Abstract: The issue of Bohai people in the Liao Empire after the destruction of their state in 926 CE is a very complicated and important one in understanding the fate of ethnic groups in East Asia in the medieval period.

As is known, after 926 many Bohai people remained in the Liao Empire, because they did not want to emigrate to other regions (such as the Koryo kingdom, Japanese Empire or the lands of the Jurchen tribes). Over two centuries the policy of Khitan rulers towards the Bohai population changed several times.

This article considers the specifics of the situation of the population from the former Bohai state in Liao and analyzes the roles of Bohai people in the Khitan state.

The time period of my research in this work is limited to 1029, which saw the biggest rebellion of the Bohai people in the East Capital of Liao. This event demonstrated the altered position of the Bohai population remaining in the Liao Empire.

Keywords: Bohai people, Liao, East Asia, Khitans, history, China.

The state of Bohai (until 713 had another name - Jen, in Russian: Бохай, in Korean: Parhae 발해, in Chinese: Bohai 渤海, in Japanese - Bokkai) existed in what is now the Russian Maritime Region (Primorskij kraj/ Приморский край, in the south part of Russian Far East), North Korea and Northeastern China from the late seventh to the early tenth centuries CE (*Istoriia stran zarubeznoj Azii v srednie veka*, 1970; A. P. Okladnikov, 1959; A. P. Okladnikov, A. P. Derevianko, 1973). According to Japanese annals "Ruiju-kokushi" (類聚国史), the Bohai state was founded in 698 CE. This state played a major role in relations between China, Japan and the Korean state, Silla. Few written records of the state survive and modern scholars do not know where the border of the Bohai state lay. This state was destroyed by Khitans.

The Liao Empire (dating from 907— as an Empire from 916 — to 1125, in Chinese: 遼朝, in

Russian: Ляо, Korean: 요나라) was the biggest Khitan state, situated in the areas of modern North-eastern China and the south part of Mongolia. Khitans established a dual system of government for the nomadic groups and Chinese population (N. N. Kradin, I. A. Ivliev, 2014). The Liao Empire was destroyed by Jurchen in 1125 (M. V. Vorob`ev, 1975).

The Khitans started a war with the Bohai state at the beginning of the 10th C. For 20 years, the Bohai and Khitans were embroiled in a fierce battle, but due to their effective nomadic cavalry, the Khitans eventually overcame the Bohai in 926 (Ye Longli, 1979; J. Reckel 1995).

Part of the Bohai population emigrated to other regions, such as the Koryo kingdom, but the number of Bohai people who remained in the areas of their state was considerable. They stayed in the areas of the former Bohai state for different reasons: 1) some wanted to stay in their motherland and form a

resistance against the Khitan army; 2) others had an interest in a peaceful life and believed that the Liao Empire could provide it; 3) Bohai officers and other elements in the population hoped to benefit from living under the Khitan state.

Therefore, within one month of the destruction of the Bohai state, some Bohai officers living in the districts near the South Sea, visited the Khitan leader and paid homage to him (*Istoriia Zheleznoj imperii...* 2007, p. 56). As result, in 926 Khitan was able to occupy vast areas with 103 towns and settlements (A. Kim 2011; K.A. Wittfogel, C. Feng, 1949, p. 59). In these important lands they established the Dongdan kingdom (926 - 982, in Chinese: 東丹國, in Korean – 동란, in Khitan language – Dan Gur) (A. L. Ivliev, 2018; P. Crossley, 2016), which was a Khitan puppet state to control the Bohai population. The head of this kingdom was the son of the Khitan ruler, and part of the administrative structure of Dongdan included Bohai officials. However, this proved insufficient to eliminate completely the resistance of many Bohai people against the Liao army.

Khitan leaders, though, understood that the Bohai population in the future might resist in greater numbers and create problems for the Liao state. For example, in the 3rd month of 926, three administration centers started to rebel against Khitan, in the 5th month – two (N. N. Kradin, A. L. Ivliev 2014, p. 36) and in the 7th month – one administrative center (K. A. Wittfogel, C. Feng 1949, p. 404, 416; *Istoriia Zheleznoj imperii...* 2007, p. 57). However, all these rebellions were quickly put down by Liao military contingents and their leaders executed (Yu 2000: 95) with the situation in the Bohai lands becoming unstable. After three months, coastal districts rebelled again and Khitan needed to deploy the army for further battles (*Istoriia Zheleznoj imperii...* 2007, p. 57). The Khitans were unable to send military contingents to the eastern areas of the former Bohai state every year to control local population, as they did not have the material and human resources to do so. In 930 the Khitan Emperor said: “These areas are closed by the sea coast are... we could not stay here a long time” (A. L. Ivliev, 2018, p. 180). As a result, the eastern areas of the former Bohai kingdom were freed from Liao administration (A. Kim 2011).

At the same time, Khitan wanted to conduct military operations against China, hoping thereby to gain profits and prestige. The establishment of a strong Chinese state could pose more serious problems for the

Liao Empire than did the Bohai rebellions. In such a case, Khitans would have to take military action in China. Therefore, they needed a strong defensive rear in the east if they were to pursue war in the west. Some Bohai districts had already started rebellions after the war with Khitans, but these were not a serious threat to the Liao Empire and were put down quickly. Clearly, the Khitan nobles did not want to face the problem of a major rebellion by the Bohai people.

The problem of the Bohai population was discussed by Liao officials. As a result, in 928 they reached a final decision. In their concluding discussions Khitan leaders noted: “... when our Khan took control of the Eastern state (Bohai – comment from L.T.), he appointed good supporters and reassured people... in ancient times the Bohai state¹ was a source of worry to the Chinese and took shelter (in the mountains– from L.T.) behind narrow aisles and, for protection, lived in Huhanchen. This city (is located– from L.T.) far from our Upper Capital. At present, these lands are not useful (for us - from L.T.). If we move our border military units from this area, what will we gain? The last Khan (of Khitan – from A.K.) seized the opportunity – conflicts among people in the Bohai state in (his – from L.T.) free time - and attacked (Bohai - – from L.T.), therefore gained victory without fighting ... If at this time we allow the Bohai people to remain in the same lands they will multiply and when they get rich, we might face a threat! The lands near Lianshui (name of river - from L.T.) are the former areas of Bohai people, the soil is fertile. It (This territory- from L.T.) has wood, iron, salt and fish stocks. Now these persons (the Bohai population) are weak and if we now relocate them to Lianshui lands, it will be a wise move which should prove valuable for the next 10 thousands generations. When the Bohai population regain their former lands and exploit the salt, iron, wood and fish resources, they will live in prosperity. In the future we will find among them good warriors to defend our eastern borders...”

As result of this discussion, the Khitan started to deport the Bohai people in the Dunping district (in the future this would be the southern capital of the Liao Empire). However, part of the Bohai population did not have the material resources for this, and rebelled or moved to the lands of the Silla kingdom and Jurchen tribes. Later a Khitan Emperor introduced new rules for this deportation: “If poor persons (from the Bohai deported population – from A.K.) don’t have the means for migration, then rich people will have to give them food (for the period during of deportation – from A.K.).

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Afterwards they (the rich people – from A.K.) will be the leaders to those in poverty” (*Istoriia Zheleznoj imperii...* 2007, p. 59).

This information is very important in understanding the situation with the deported Bohai population in the Liao Empire. As we can see, the Khitans did not want to use the material resources of their state for the deportation of the Bohai people. Rather they believed that rich people from deported nations should support the poor during the journey with food. It is likely that at that time the Khitans did not produce enough food or did not have the time to gather it. The Liao army consisted of nomadic military troops (almost entirely cavalry) and had no system for long term food provision. Alternatively, the Khitan rulers underestimated role of the Bohai people in their Empire at that time. The Liao administration considered that this support would allow rich Bohai people to become the leaders of the deported population. In such a case, rich people would form the administration for the Bohai people in the Khitan state. Of course, this situation would suit the Liao leaders, because they could manage the Bohai people through rich families within their society.

The fates of groups in the Bohai population after the destruction of their state were very varied, depending on their relations with the Khitan Empire and their places of residence. Different groups among the Bohai people occupied different ranks within Liao society, and their activities were wide ranging, but Chinese, Koryo and Khitan written sources do not document these in detail. The problem is complicated as in these annals the Bohai population was referred to by different names.

As a result, examining data about the Bohai population after 926 is a complicated task. Chinese officials did not have accurate information about the Bohai people in the Liao Empire and the Bohai population to the east of the Khitan state. The result was that Chinese states did not have exact information and communication with these regions over the great distance from the eastern part of the former Bohai state was difficult. Moreover, at that time Chinese leaders were facing problems with the Liao Empire and consequently took little interest in the furthest reaches of their country.

In Khitan manuscripts there is information about the Bohai people, but these materials show strong political bias, as reflected in information about the condition of the Bohai population and in other ways. Written sources from the Koryo kingdom viewed all

events and processes according to the prevailing political orthodoxy of the state at that time, with the Korean state pursuing political isolation. As result, the Koryo people did not have information about the Bohai population living in the Khitan state, and wrote instead about the Bohai people living in Koryo or otherwise connected with it (such as refugees from Liao or the Korean peninsula).

In modern time scholars from the Republic of Korea (and some historians from DPRK) (S. Park, 1995) are very actively studying the issue of the Bohai population after 926. This arises from their view of the Bohai kingdom as part of the Korean state and the relation of the Bohai population to the processes of ethno-genesis in the areas of the Korean peninsula in medieval periods (G. Han, 1999; J. Jung, 1999). South Korean scholars have looked at five groups of the Bohai people after 926 according to their places of residence and activity.

Bohai people in the first group were those who had migrated to other states. Many of them moved to Koryo with some officials ending up in China and even Japan. Among them were many civil officials and military officers, with some of them emigrating before the destruction of the Bohai state.

The second group was the Bohai aristocracy, which became part of Liao society. This Bohai group played an important role in the relations between the Khitan and other states. They were commanders of the Liao military contingents in wars against Koryo and China and were representatives of Liao officials. Some of these lived and served not only in the Khitan state, but also in the Dongdan areas. They were mediators between the Khitan rulers and the Bohai population (those who remained and those deported). After the liquidation of this puppet kingdom, Bohai officials switched to the Liao Empire. However sometimes they took part in rebellions against the Khitans in different periods of the Empire. In spite of these problems, this Bohai group had an important role for the Liao Empire. They gave support to the bureaucratic apparatus of the Khitan state and taught Liao officials methods of government for the Chinese and Bohai populations. Moreover, they help the Bohai population adapt to Khitan power. This was to have significant consequences in the 11-12th C.

In the opinion of Alexander Ivliev (2018, p. 179), the establishment of Dongdan state was an important measure by the Khitans for the Bohai aristocracy as some of its members received high-level positions. We believe that this action must have reduced support for

resistance by those Bohai people that wanted to fight the Khitans.

The third group consisted of those Bohai inhabitants that were deported to the different regions of the Liao Empire. They resented this decision by the Khitans as they wanted to live in the areas of their former state. This group was distinct from the second but still referred to as “Khitans”. As a result, identification of this group in the Liao Empire is not easy in many cases.

The fourth group comprised descendants of Heishui Mohe – Jurchen (in Korean reading – yojin/ 여진/ 녀진). Some South Korean scholars consider them as belonging to the remaining Bohai population (G. Han, 1994) but this question is still under discussion.

In the fifth group of Bohai people were those who wanted to fight for the re-establishment of their state (*Parhaesa*, 1996, p. 82-83). They tried to create states not only in the eastern areas of the former Bohai kingdom (such as Dingan 定安 state), but also in the Liao Empire (that is, the Sin Liao Empire and elsewhere) (*Parhaesa*, 1996, p. 87-90; K. Song, 1999, p. 68). Their activity is outside the scope of this work.

It should be stated that these five categories could not be considered as precisely defined groups within the Bohai population. Individuals might easily switch between the groups. Some Bohai migrants, for example, who escaped to the Koryo kingdom, afterwards moved to the Liao Empire and cooperated with the Khitans. The most famous example was Gao Mou Han, a Bohai aristocrat, a high-ranking official in the Liao Empire and close to Khitan Emperor (A. Kim 2018). Many Bohai people deported to the Liao Empire for different reasons later on became identified with other groups of the Bohai population.

Khitans sent Bohai artisans famous for their industrial products to areas of the Liao Empire (A. L. Ivliev, 1988; K.A. Wittfogel, C. Feng 1949, p. 195). In total, according to the Russian scholar Alexander Ivliev, Khitan deported 94 thousand Bohai families, approximately 470 thousand people (A. L. Ivliev, 1988). Some South Korean scholars hold that after deportation by the Khitan army, large numbers of Bohai people, with nearly 20,000 Bohai families from areas of the former Bohai state, lived in the Liao Empire (G. Han, 2001, p. 67).

As a result of this, Bohai people played a major role in the agriculture and industry of the Liao Empire. In terms of the number of inhabitants, they were

second (after Chinese) in the Khitan state (K. A. Wittfogel, C. Feng 1949, p. 46; A. L. Ivliev, 1988). Part of the Bohai population worked as herders. 40 thousand families lived in Shanjin and Chunjin, and in the territory of former Bohai lands, there were registered 41400 adult men as members of the militia, mobilized from nearly 60 thousand families (K. A. Wittfogel, C. Feng 1949, p. 54).

Khitan administration passed some discriminatory laws aimed at the Bohai people. For example, the Bohai were not allowed to play polo to prevent the possibility that they might form a cavalry (K. A. Wittfogel, C. Feng 1949, p. 404). Only after 1038 was this law repealed.

The number of Bohai people in the Liao Empire increased in 10 - 12th C. This happened not only as a result of deportations but also for demographic reasons. Moreover, some of the Bohai people were in the structure of the Khitan Hordes. These people were not registered in the list of population in Liao Empire and considered differently (A. L. Ivliev 1988; K. A. Wittfogel, C. Feng 1949, p. 58).

If in the first half of 10th C. the number of Bohai representatives in Khitan administration was small (as already mentioned by Gao Mou Han), some 20 - 30 years after the destruction of their state the number of Bohai officials increased. One part of the Bohai population assimilated with the Chinese (*Parhaesa*, 1996, p. 9-10). Khitans moved the Bohai population in small groups to many places throughout the Empire. Because of this the Bohai people could not organize resistance and had instead to concern themselves with survival. Some Bohai people lived in the western part of the Liao Empire, in the territory of modern Mongolia (N. N. Kradin, A. L. Ivliev, 2008).

Some Bohai families were registered as prisoners of war, but others as members of the Khitan Hordes (K. A. Wittfogel; C. Feng, 1949, p. 510-511). Probably, how they were designated depended on the degree of resistance by the Bohai population. Moreover, members of the Hordes took part in military expeditions of the Liao. The Bohai population, however, did not always stay in the same Horde, depending on the policy of the Khitan state, and so some Bohai people were able to move from one Horde to another (K. A. Wittfogel, C. Feng, 1949, p. 78).

We believe that this depended not on the loyalty of the Bohai population to the Khitans, but rather on the policy of the Liao Empire, or on the increasing power of some Khitan Hordes at different periods of the Liao Empire. Bohai people were good artisans,

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peasants and soldiers and so they were important to the Horde and could increase profits in different areas for the Khitan aristocracy.

Up to the beginning of the 11th C. a major part of Bohai people come to terms with Khitan power in the Liao Empire. From 921 (before the destruction of the Bohai state) Khitan officials registered Bohai people as Chinese (the most disenfranchised ethnic group in the Liao Empire) but later on the status of Bohai people improved (A. Kim 2011; K. A. Wittfogel, C. Feng 1949, p. 195). We believe that it was Khitan policy that allowed the Bohai to pursue careers in the Liao Empire.

Resistance by the Bohai population in the Khitan state became weaker with every year. Of course, some Bohai people rebelled and fought against the Liao Empire. For example, in 975 Bohai general Yan-po rebelled against the Khitan administration, but his army was destroyed and he escaped to the east, outside the Liao Empire (A. L. Ivliev 2018; K. A. Wittfogel, C. Feng 1949, p. 130, 405). In 995 Yan-po with military contingents from Wure tribe² attacked Te-li (the name of a tribe, under the rule of the Liao Empire) (A. L. Ivliev 2018, p. 180). In 983 five Bohai commanders, who were heads of the military troops of Xia (the name of a nomadic tribe that lived in the Liao Empire), moved from Khitan to the Chinese side. Their families who remained in the Liao Empire were punished and became slaves (*Istoriia Zheleznoj imperii...* 2007, p. 87).

The Bohai population was divided into several groups in the Liao Empire. Those who lived near the Yalu river were called Bohai. The Bohai population deported to the modern Heilongjiang had another name – North-western Bohai people (K. A. Wittfogel, C. Feng 1949, p. 96). We have no information about their relation with the Khitans, and it is likely they were independent. Some Bohai groups lived in border towns in the north-western part of the Liao Empire, served in military groups and had to defend the Khitan state from the west.

As we can see, the relationship of the Khitan leaders with the Bohai people changed. After the destruction of Bohai, the Liao officials considered Bohai people as enemies. However, during wars with China this position was revised. For the Liao Empire the most important enemy became the Chinese states. During several military conflicts Khitans occupied many districts with a Chinese population. They could not manage local populations though, because they had adapted to a nomadic style of life. The Liao Empire, on the other hand, needed industry to grow and the

economy to expand not only to support the taxable population but for the benefit of Khitans too.

As result, they had to recruit experienced officials to control and govern these inhabitants. Khitans had to choose between Bohai and Chinese administrative staff in this area. They noted that the Bohai state was already destroyed, and their population had no sense of nationhood, while Chinese states still existed. Because of this, Liao rulers could not trust Chinese officials who might very easily switch their allegiance to the Chinese. The work done by Bohai officials in this field was more effective than by Khitan specialists; they were familiar with the administrative system of towns, industry and other fields not only in the Bohai state, but in the Dongdan kingdom and other states too. As a result, the Khitan government started to use Bohai people in administrative posts in the western areas. Of course, this policy represented an improvement for the Bohai population in the Liao Empire.

Bohai soldiers were members of three military contingents of the Liao Empire – militia, Khitan tribal groups and troops of Khitan Hordes. The Bohai served as operators of catapults, and among archers and swordsmen. Moreover, some Bohai soldiers worked in the palace service of the Khitan state (K. A. Wittfogel, C. Feng 1949, 546).

As result of the internal policy and crisis of the Khitan state in 12th C. the Bohai military contingents were dominant in the Liao army. Khitans sent them as the vanguard in wars and other conflicts, as was demonstrated in military activity with Jurchen tribes in period 1114-1125³.

Liao officials wanted to support the material position of the Bohai people in the empire. For example, they issued an order that “poor people” need not pay land tax (K. A. Wittfogel, C. Feng 1949, p. 195). This fact highlights the material differences present among the Bohai population in the Liao Empire and shows the attempts of the Khitan administration to support the Bohai taxable population in the state.

The policy of the Liao officials had an important effect not only on internal policy, but on international relations too. In 10th to the first half of the 11th C. In the struggle with Khitans, the Bohai pursued a policy of military support of the Koryo and reestablishment of the Bohai state, but later this tendency disappeared among the Bohai population in the Liao Empire. Koryo had hopes of acquiring some lands of the Khitan state, but did not have the material and military resources for conflict with Khitans (A. Kim, 2018). Moreover, Bohai

people lived in the Korean Peninsula in poor conditions, unlike the situation with the Bohai people in the Liao Empire.

The Khitan state accepted Bohai people from Koryo kingdom and these migrants could expect to advance their careers in their Empire (as in 1010 when a Bohai official Yu Chung Jong, who held high rank in Koryo, fled to the Liao Empire (K. So, 2000)). Bohai officials from Koryo were considered by the Khitans as skilled specialists in state management too. Many of them worked in the administrative apparatus over a long time and Khitan leaders considered them as an important part of the Liao official system.

Bohai officials were members of the Khitan ambassadorial missions in Japan, despite the fact these Bohai did not like Khitans and openly said so (Z. N. Matveev, 1929).

Furthermore, the Bohai supplied representatives to many Khitan ambassadorial missions, and there were also Bohai officials working in the Liao Empire as heads of diplomatic groups in the Koryo.

For example, according to medieval Korean annals "Koryo sa", five Bohai from the Liao Empire arrived in Koryo as heads of the Khitan ambassadorial missions. These facts demonstrate a high degree of the loyalty by Bohai to the Liao state and evidence that Khitan trusted Bohai officials at that time.

In 1039, an official from the Eastern capital of Liao, Dae Gyong Jae (in Korean 대경제), arrived as head of mission in Koryo, in 1073 - the governor of Injou (name of city in the Liao Empire), Dae Thaek (대택), in 1093 - an official from Injou, Dae Kwi In (대귀인), in 1109 - Dae Young Sin (대영신) and in 1111 - Dae Jung Song (대중선) arrived in the state of Korean Peninsula (K. So, 2000, p. 206). As we can see, two of the five Bohai representatives appointed as ambassadors of the Khitan state were from Injou, as probably, this city was home to a community of Bohai and Injou had trade interests with Koryo. In such a situation, Bohai leaders supported not only the position of the Liao Empire in international relations, but also the interests of the local population (including the Bohai).

Over a long time, Khitans had no fleet and so the Liao Empire used Bohai sailors and ships for attacks in China and for ambassadorial missions. Only in 11th C. did the Khitan state start to build a fleet of their own (K. A. Wittfogel, C. Feng, 1949, p. 161).

In 983 the old Khitan Emperor died and a Bohai official in the Liao Empire, Se-li, asked to be buried with him (*Istoriia Zheleznoj imperii...* 2007, p. 84). Clearly, this Bohai individual was prepared to make a sacrifice of himself, and although the new Liao ruler refused Se-li his request, he rewarded him with money and silk for his loyalty to the dead Emperor.

Another famous Bohai representative in the Khitan state in this period was Gao Tan In (in another reading - Gao Yan In). In 937, he was translator from Chinese to the Liao Emperor. We can reasonably assume that he had a good knowledge of the Khitan language too, because the Liao Emperor did not know the Bohai language. Moreover Gao Tan In was a specialist in Chinese traditions in Liao society (L. Ye, 1979, p. 68, 253). Khitan leaders regarded him positively in spite of some lapses. Gao Tan In was a valuable official, and so in 947 he participated in the military activity of the Liao against the Chinese (L. Ye, 1979, p. 92-93). He was made head of Syanjou- city, which was sacked by the Khitan army during the conflict, and he played an important role in deciding strategy.

Bohai soldiers took an active part in the wars of the Liao Empire against Koryo. We must note that at this time some Bohai migrants served in the Koryo army, therefore Bohai people fought against each other on both sides. Khitan fought several wars with the Koryo kingdom (J. An, 2003). In 1018 Liao military troops attacked Koryo again; the leader of one these contingents was a Bohai general, Go Yong Myong (in Korean 고영명). In one battle, however, the Khitan army was defeated and this Bohai general killed by Koryo soldiers. When the Liao Emperor learnt of this battle, he announced.

In manuscripts we can see name of the another key Bohai individual - general Da Gang I, who was commander of the garrison Huanlun in the Khitan state. This city controlled tribes, located in the eastern parts of the region. This general was active in the period 1016-1020, and was successful with the Yulidinaí tribes (K. A. Wittfogel, C. Feng, 1949, p. 100).

As we can see, the Bohai people were able to attain the rank of general in the Liao Empire and Khitan rulers clearly regarded them very highly.

It is clear that the number of Bohai leaders in the Liao Empire was very significant: other periods in the history of the Khitan state will be considered in another work.

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Khitans made some concessions to the Bohai people in the Liao Empire, and accepted their methods of work in the state, public management and other areas.

Moreover, elements of Bohai culture had an impact in Khitan society, even within the imperial court of the Liao. For example, during banquets of the top Khitan aristocracy, famous Bohai pastries were served (K. A. Wittfogel, C. Feng, 1949, p. 270).

It is evident then that almost the entire Bohai population in the Liao Empire recognized Khitan power. In spite of some rebellions, Bohai people served in the civil and military administration of the Liao Empire and had prospects of a successful career. This was the result of Khitan policy towards the Bohai population, as Liao officials relied on the expertise of Bohai officials.

Bohai soldiers fought for the Liao Empire, especially against Chinese states. It is likely that Khitans used anti-Chinese sentiments among the Bohai population in these cases. We can observe similar phenomena in the 12th C. when Jurchen leaders destroyed the Liao Empire, exploiting the ill-feelings of the Khitans against the North Song Empire (M. V. Vorob'ev, 1975).

Of course, the Bohai population still had conflicts with the Liao administration and policy on many occasions. But up to the 11th C. the triggers for confrontation were not political, but economic. While political considerations might naturally have played some part in the rebellions of the Bohai too, it was the economy that was of primary importance, as clearly demonstrated by the rebellion by Da Yan-lin in 1029 - 1030.

Notes:

1. This was the situation in the 690s-700s., the earliest period of the Bohai state. At that time, Bohai had hostile relations with Tang Empire.

2. Liao officials did not recognize the Dingan state and wrote about it as wure tribes. Therefore, in Khitan materials we see only name of wure. South Korean scholars are divided about this state – some specialists from the Republic of Korea believe that it same with Hou Parhae (Later Bohai/ 후 발해/ 後渤海), others think that it was two different states. We shall consider this problem in another work.

3. We consider this question in the work “Bohai population in the Liao Empire in period 1031-1115”.

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Historiographic Restitutions. Radu Gioglovan and His Studies on the Mediaeval City of Târgoviște

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Abstract: Radu Gioglovan is an example of how local history should have evolved during the communist regime. His studies combine archaeology and history in a fortunate manner and, for this reason, revisiting some of his hypotheses, placing them within the progress made in the field of research may provide answers regarding important aspects in the evolution of mediaeval Târgoviște city. Radu Gioglovan's preoccupations covered important stages and moments in the development of the seat of Wallachia, whether one refers to the occupation of Târgoviște by Grand Vizier Sinan Pasha, during the 1595 military campaign, to the fortifications of the city or of the princely court, to the Chindia Tower or the Metropolitan Church.

Key words: The Middle Ages, Târgoviște city, fortification, monument, princely court.

Radu Gioglovan outlines what might be defined as the study of local history during the communist regime. Freed from the ideological layer, which was highly intense particularly in the foreground, the part of history that Radu Gioglovan dealt with finds its special place in the analysis of the Romanian Middle Ages, as it focused on Târgoviște, the heart of the Wallachian Principalities for so many centuries.

We have deemed it necessary to do justice to a researcher whose concerns combined, as it rarely happens, archaeology and history, by highlighting his contributions and analysing his views, often regarded as inconvenient or fanciful.

Although his activity cannot be labelled as prolific, we may certainly consider it underestimated; this has prompted us to revisit a number of hypotheses which may, in light of the progress made by modern research, be reinterpreted in order to clarify some important aspects in the evolution of mediaeval Târgoviște and the transition of the former capital to modernity.

Radu Gioglovan was born on 3 August 1912 in Ialomița, in the village of Gura Ialomița and attended secondary school in Galați; for his higher education, he

chose Bukovina, a deeply troubled land, where he attended the Faculty of History in Cernăuți.

His job as a teacher would bring him close to Ialomița, more precisely to Târgoviște, a city full of history, where he would instil the passion for this science into his students and where he quickly found affirmation, as he became a county school inspector in 1948 (M. T. Georgescu, 1978-1979).

His scientific activity is undoubtedly related to the Dâmbovița County History Museum. Here, he continued the activity carried out by professor Alexandru Vasilescu, the first director of the museum, a linguist and a historian with important studies in the interwar period.

For almost two decades, Radu Gioglovan was in charge of the museum activity in Târgoviște and supervised the first excavations at the Princely Court after World War II, coordinated by Vlad Zira (1954) and Nicolae Constantinescu (1961-1968). The extensive restoration activity which started in the early 1960s, completed by the systematic archaeological excavations, led to the inauguration, under his direction, of the Princely Court Museum Complex in Târgoviște

(R. Gioglovan, G. Mihăescu, 1969).

The mediaeval studies were thus an extension of his preoccupations, of his activity carried out on important archaeological sites and of coordinating rescue excavations which brought about surprising results.

Leaving the first stage of his directorship meant not only the return to writing, but also to the controversial aspects of mediaeval history. Noted, until then, only for his modern history studies, highly praised for their extensive documentation and sharp logic (R. Gioglovan, 1957; R. Gioglovan, 1966), Radu Gioglovan would choose to direct his attention to a more complex stage of local development, namely that in which Târgoviște had been the capital of Wallachia.

The reason behind his gesture is evident in the conclusion of his first study which analysed the lapidary of the Târgoviște museum, containing items that came mainly from the Metropolitan Church built by Neagoe Basarab: *“Târgoviște preserves numerous traces of mediaeval structures hidden in the ground and it is the duty of our museum to gather all accidental finds or results of scientific research”* (R. Gioglovan, 1969).

A good connoisseur of Slavonic, Radu Gioglovan would manage, in the first research, to make rectifications to the inscriptions already published by Virgil Drăghiceanu. We should mention the correction brought to the inscription of Matei Basarab from the Metropolitan Church. In Virgil Drăghiceanu's study, the text started with: *“Fiind acesta vechi și în peat...”* (V. Drăghiceanu, 1933), but it was rectified as follows: *“Fiind această Mitropolie veche și în părăsire...”* (which roughly translates as ‘This Metropolitan Church being old and deserted’) (R. Gioglovan, 1969). Two Transylvanian Saxons, brought by Prince Neagoe Basarab to build the place, were identified; however, only one of them, Georgius Zigelerus, is mentioned in Virgil Drăghiceanu's work about the Metropolitan Church of Târgoviște (V. Drăghiceanu, 1933), which Gioglovan rectified, by adding the second stone sculptor, Iohanes (R. Gioglovan, 1969).

His concern for inscriptions also arises from another study which focused on the epigraphic sources preserved at Dealu Monastery, one of the symbols of Târgoviște. Witness to so many intense events, the place of worship continues to hide several aspects that people have been trying to explain.

Radu Gioglovan was aware he was following a beaten path so, at the beginning of his study, he would emphasise the merits of such historians as Aurelian Sacerdoțeanu (A. Sacerdoțeanu, 1958), Nicolae

Stoicescu (N. Stoicescu, 1966) or Constantin Bălan (C. Bălan, 1965).

One could note the year 7251 from the creation of the world on the inscription copied during the modern restorations conducted at the monastery under the supervision of Prince Gheorghe Bibescu; the year would correspond to 1743, when the country was ruled by Prince Mihail Racoviță (1741-1744). But this date is inconsistent with the mention, in the text of the same inscription, of Prince Constantin Brâncoveanu's team of painters led by Constantinos, who had finished the painting of the Great Princely Church of Târgoviște in 1698. Radu Greceanu's chronicle would also point to the year 1713 when: *“domnul îndemnatu-s-au și au învălit mănăstirea Dealului paste tot cu table de aramă și o au înfrumusețat pereum pre dinlăuntru cu zugrăvele și cu alte odoară așa și pă dinafară. Plinitu-se-au în anul 25 al domniei lui Constantin Vodă, la octombrie 25 dni, leat 7222.”** (‘the prince had Dealu Monastery coated with copper sheets and adorned with paintings inside and other such decorations on the outside as well. All was done in the 25th year of the reign of Constantin Vodă, 25 October of the year 7222’).

Having these documentary arguments, Radu Gioglovan thought the chronological indication in the inscription was based on a wrong transcription, which was not so uncommon in the modern period. Thus, 7251, 1743 would be explained by taking the digit of tens K (20) and I (10) as N (50) and M (40) (R. Gioglovan, 1970).

The comparison between the inscription on the altar apse, which mentions the Transylvanian Prince Gabriel Bathory's attack on Wallachia, in the late 1610, and the writing of Matei al Mirelor, the hegumen of Dealu Monastery, which describes these events in great detail (N. Iorga, 1899), is, in our opinion, extremely original.

Radu Gioglovan believed that the note on the monastery wall had been written with the consent of the hegumen Matei al Mirelor, as it had some descriptive elements that were similar to those in his work, such as the unexpected arrival of the Transylvanian army, the plunders of places of worship or the torture of the population. One should also add the exact recording, in both sources, of the date of Gabriel Bathory's entry into Wallachia, on 24 December 1610, on the Eve of Nativity (R. Gioglovan, 1970).

Radu Gioglovan would make some additions to the views expressed by Nicolae Iorga in the early 20th century in his study *Clopotul Bisericii Domnești din Târgoviște* (R. Gioglovan, 1970). Commenting on the

origin of the bells of Cetățuia Monastery in Iași, the great historian would state that, in addition to the two, another one had been moulded at the Polish foundry of Gdansk-Danzig in 1669 as well and had been delivered to the Princely Court of Târgoviște. Nicolae Iorga's conclusion was that the then prince, Antonie Vodă of Popești, had also ordered one that was similar to those in Moldavia (N. Iorga, 1905).

Radu Gioglovan analysed the inscriptions on the three bells and confirmed they had come from the same Polish foundry, as the duct and the size of letters were identical, all recording the year 1669.

The three bells also have a votive inscription in Greek, but the translation of the one on the bell from Târgoviște was omitted by Nicolae Iorga. With its help, Radu Gioglovan formulated a valuable judgement regarding the moment the item had been brought at the Princely Court of Wallachia. The inscription translation reveals this bell had also been moulded for a monastery in Moldavia: "*S-a construit acest clopot și s-a dăruit la Sfânta Treime, Popii Păun, Saul și ctitori ai sfintei mănăstiri. Cu care mănăstire frumoasă ei te proslăvesc, țară voievodală, în Moldova aproape de Iași. În anii 1669.*" (i.e. 'This bell was made and given to Păun and Saul, the founders of the holy monastery on Holy Trinity Day, in Moldavia, near Iași, in 1669').

The identified founders were Păun Vameșul, who had received the estate around the monastery and the village of Buciumi from Prince Gheorghe Duca in 1672, and the priest Saulia "*vel cămănar*", a boyar in the Princely Council in 1660.

The monastery they founded, Clatea, is known to have been demolished in 1700 and was never built again, so Radu Gioglovan opines that the bell must have ended up in Wallachia in those difficult times that place of worship had gone through.

The most plausible hypothesis is related to the marriage of Constantin Brâncoveanu's daughter Maria to the prince of Moldavia Constantin Duca, in 1693. It is also the year in which the Princely Court of Târgoviște was being restored, a work which was to be finished by the end of the summer of 1694.

Radu Gioglovan's conclusion is that in 1694-1695 Prince Constantin Duca gave this bell to the Wallachian voivode (R. Gioglovan, 1970), especially since Clatea monastery could have been completely destroyed during the fights between the Turks, the Poles and the Tatars that were taking place in Moldavia at the time**.

Radu Gioglovan's studies are greatly supported by the article *Cetatea Târgoviștei* (R. Gioglovan, 1973). First delivered at the Scientific Communications

Session organised by the Museum Council in 1966, it was extensively enriched and documented in the years to come.

The topic is a historiographical novelty, a first attempt to carry out a study about the fortification system of the city of Târgoviște. The research begins naturally with the foreign travellers' mentions and the author notes that there are two 16th-century accounts belonging to Felix Pentaciș and Francesco dela Valle. Radu Gioglovan does not dwell on the differences between the two descriptions, which were written two decades apart. Whereas the former suggests a fortification system with moat and bulwark, the latter indicates the presence of walls in some parts of the city***. It is an issue that the author attributes to the lack of information, suggesting that the enclosure with walls of the city and with wooden poles of the Princely Court defies any law of urbanistic aesthetics (R. Gioglovan, 1973).

Radu Gioglovan points out the open nature of the princely residence and the existence of fortifications only around the Princely Court in the second half of the 16th century, resorting to the writings of Anton Verancsics****, Franco Sivori****, Filippo Pigafetta**** or Balthasar Walther (Al. Papiu Ilarian, 1862).

A widely debated episode is related to the organisation of Târgoviște by Grand Vizier Sinan Pasha, after the withdrawal of Michael the Brave to Transylvania, in the second half of the year 1595. About 1,000 Turks remained at the princely residence, far fewer than the Christian manpower that, in the autumn of 1595, would enter Târgoviște through the Rucăr pass. The defence was organised in the main points of the city: the Princely Court, the Metropolitan Church and Dealu Monastery. Combining the information from the participants in the battles for the recapture of Târgoviște, Filippo Pigafetta****, Giuseppe Piscullo**** and Petru Pelerdi****, Radu Gioglovan recomposes the fortification made by Sinan Pasha at the Princely Court, concluding that there is only one fortification around the Princely Court, whereas the city preserved the same open nature. It is actually a wooden palisade which surrounds the former premises in certain parts, with a defence tower placed next to or even using the spire of Sf. Vineri Church, whence a ditch started, reaching the northern side, defended by a small bastion.

The little information dating from the first decades of the 17th century confirms the absence of fortifications in Târgoviște, the bishop Bogdan Petru Bakiș's 1640 account being most conclusive: "... la citta di

Targoviscte, senza mura...”*****.

The historian's contributions are particularly evident in the discussion about the fortification erected at the order of Prince Neagoe Basarab in 1645*****, in the form of bulwark and palisade, which surrounded the city of Târgoviște.

It had five gates, mentioned in an epistle sent by the metropolitan Ștefan (1648-1653; 1658-1668) to all priests, recommending the model of this procession for rain held at Târgoviște (M. B. Ionescu, 1929).

Refuted by Nicolae Iorga based on the archaic style of the text and on the mention regarding the existence of Genoese or Venetian colonies in Târgoviște, it is strongly supported by Radu Gioglovan, who uses Pierre Lescaplier's writing to prove the presence, in the last quarter of the 16th century, of a small colony of Genoese who had fled from Chios*****.

According to Radu Gioglovan, what reinforces the authenticity of the epistle is precisely the identification, following archaeological excavations, of the Poarta Bucureștilor ('The Bucharest Gate') and of the Poarta Dolgopolului ('The Dalgopol Gate').

The foundation of the Poarta Bucureștilor was revealed when Bulevardul Gării was inaugurated in 1897. Relying on data provided by the members of his family, the archaeologist Virgil Drăghiceanu would consider that it was Poarta Argeșului, viewed as having the same plan as Poarta Vânătorilor, near Sf. Vineri Church, the only one left standing (V. Drăghiceanu, 1915). During some sewerage works carried out in the city of Târgoviște, along the present-day Carol I Boulevard, Radu Gioglovan would identify, following archaeological excavations, a defence moat, about 3-m high and 3-m wide, doubled on the inside by a bulwark of gravel and earth from the moat. It is here that he confirms the existence of a Gate, although all controversies related to the placement of the Poarta Bucureștilor or of the Poarta Argeșului still continue (A. Erich, M. Oproiu, 2012).

Radu Gioglovan's contribution to the study of the gates of Târgoviște City is best defined at Poarta Dolgopolului (Câmpulungului). During urbanistic excavations conducted in 1966, along Calea Câmpulung, he would identify the Gate which had its axis on Pârvan Popescu Street, probably the former mediaeval road that led directly to the Princely Court.

Although the plan is the same as Poarta Vânătorilor, its dimensions are much larger, and: *“Resturile care se păstrează nu au nimic din caracteristicile constructive ale secolelor XV-XVI: nu există alternări de fâșii de cărămizi aparente cu*

bolovani de piatră și nici de dreptunghiuri tencuite încadrate de cărămizi aparente. Dimensiunile cărămizilor și tehnica de construcție documentează epoca domnitorului Matei Basarab cu o intervenție de restaurare pe vremea domnitorului Constantin Brâncoveanu.” (R. Gioglovan, 1973) ('The remains that are preserved have none of the structural features of the 15th and 16th centuries: there are neither alternations of strips of apparent bricks and stone boulders nor of plastered rectangles framed by apparent bricks. The brick sizes and the building technique document the age of Prince Matei Basarab, with a restoration intervention during the reign of Prince Constantin Brâncoveanu').

As regards the moat and the bulwark of the city of Târgoviște, the author would note the process of increasing degradation in the 19th and 20th centuries. Based on archive collections, he presents how city dwellers seized them despite the frail opposition of the authorities that tried to preserve their historical value. That is why all city plans at the end of the modern age render the moat without certain parts such as that starting from the present-day Calea Domnească towards the Ialomița and that in the area where the Teiș railway flag station and flagman's cabin were to be later built. The seven bastions destroyed mainly due to the industrialisation process during the communist period would meet the same fate (R. Gioglovan, 1973).

The following year, in 1974, Radu Gioglovan would resume an ever-present issue, the history of the Princely Court of Târgoviște (R. Gioglovan, 1974). Although he would admit the beginning of a stage of a *peaceful crystallisation of the various opinions*, he was still aware of the documentary and archaeological deficiencies. Therefore, he felt the need to review the archaeological excavations conducted in this area, before proceeding to the actual analysis.

The study deals, first of all, with perhaps the most controversial monument inside the Princely Court: Sf. Vineri Church. The author discards, from the very beginning, the assumption, not supported by documents, put forward by Virgil Drăghiceanu, according to which the place of worship was founded by a certain Lady Sultana towards the mid-15th century.

The author believes this is a late fabrication, which emerged in the 19th century, meant to justify the rank of princely church (R. Gioglovan, 1974). In analysing the age of the church, Radu Gioglovan considers the existence of three places of worship dedicated to Sfânta Vineri or St. Paraskeva in Târgoviște, which gave rise to many location problems, especially as two of them ceased to exist only in the mid-19th century. In terms of

documents, this fact is still difficult to refute given that the first mention dates to the 17th century and it is not possible to establish which place of worship it refers to*****.

The only epigraphic source, the inscription dated 13 July 1517, found in 1940 on the southern wall of the church, which places the church in time (“*Rugăciunea robului lui Dumnezeu jupan Manea Clucer și a jupânei Vlădăe. Veșnica lor pomenire, la anul 7025, luna iulie 13 zile*”) (V. Brătulescu, 1940), does not convince Radu Gioglovan, who would remark that the text does not mention the founder or the date of construction but rather some changes undergone during the abovementioned period. Moreover, in his opinion, this portal, which included the inscription, may have been taken from the church of the same name nearby, demolished the same year, and laid by its restorer, the boyar Nicolae Brătulescu, during the 1850 restoration.

However tempting this hypothesis seemed, it was hard to accept without reservations, having no archaeological confirmation, which was to come almost half a century later (M. Cărciumaru, Gh. Olteanu, 2019). As regards the church founder, the solution provided by the historian is also far from a historiographic unity. Surprisingly, Radu Gioglovan believed the seneschal Grama to be the founder; the seneschal had come to Moldavia with Prince Radu Mihnea, settled down here and in 1630 had decided to do away with his possessions in Wallachia, which is when he had left the small place of worship to Radu Vodă monastery in Bucharest (R. Gioglovan, 1974). Documentary evidence, which is rather weak, keeps the demonstration at the level of a working hypothesis.

The inside walls of the Princely Court are another sensitive matter on which Radu Gioglovan does not refrain from elaborating. The analysis also relies on the archaeological excavations capable of identifying the route of the palisade erected in 1595 at the order of Grand Vizier Sinan Pasha. According to the information given to Filippo Pigafetta by one of the prisoners, the Turks used the inside wall of the princely residence, reinforced and extended it upwards by means of wooden fences. Thus, the historian thinks, it no longer appeared as a brick or stone wall, but as a temporary fortification, as seen by the foreign travellers passing through Târgoviște at the end of the 16th century.

Radu Gioglovan does not exclude the hypothesis that the wall caved in in some parts following the construction of the Turkish fortification, which is explained by the lack of interest of such princes as Mihnea Turcitul, Ștefan Surdul, Alexandru cel Rău,

who chose to be in the good graces of the High Porte, residing in Bucharest, thus neglecting the fortification of the former capital (R. Gioglovan, 1974).

According to him, the enclosure of the Princely Court was carried out during the reign of Prince Petru Cercel; to support his theory, Radu Gioglovan mentions the 1962 archaeological excavation conducted in the two pavements outside the Princely Court, which revealed the existence of a graveyard that was stretching as far as the inside walls, dated to the 16th century based on a coin minted by King Louis II of Hungary, hence after 1516. Starting from the natural observation that at least one alley must have existed between the graveyard and the Court, one may admit that the enclosure walls were not there in the first half of the 16th century (R. Gioglovan, 1974).

The removal of Sinan Pasha's palisade allowed Prince Michael the Brave to have the entire area occupied by the Ottoman fortification included within the boundaries of the princely court. Michael the Brave had such an enclosure wall built on the side facing the city as far as Poarta Vânătorilor; further works here included Sf. Vineri Church, which was due, according to the same study, to Prince Matei Basarab. Unfortunately, only future archaeological excavations will be able to convince us of the accuracy of his statements.

As regards the most famous monument inside the Princely Court of Târgoviște, the Chindia Tower, we should mention the demonstration in the restoration stages of the modern age, under the supervision of Prince Gheorghe Bibescu. The two projects belonging to the architect Iohann Schlatter and to Gustav Fraivald are presented in detail, insisting upon the solutions regarding the tower restoration. The two reports of the architect Schlatter (P. Chihaia, 1968), drawn up a few years after the interruption of the works, serve as a conclusion. They made several references to the need to demolish the monument: “*din cauza cuptorîrilor din veche zidărie care nu mai asigurau o suprastructură nouă*” (i.e. because the former brickwork would not ensure a new superstructure). Radu Gioglovan is the first historian who does not shies away from stating, based on a note in the report mentioning that reconstruction started from the ground level upwards, that the demolition of a part of the tower is a hypothesis worth considering (R. Gioglovan, 1974).

The last monument of the Court of Târgoviște analysed in this study is the Great Princely Church. Although historiography has concluded that it was founded by Prince Petru Cercel, Radu Gioglovan has

reservations about the dating and his demonstration deserves at least to be mentioned. The accounts of Franco Sivori****, Jaques Bongars****, Anonimul Cantacuzinesc***** are unquestionable and point to the construction of the church by Prince Petru. However, important 17th-century sources no longer mention the founder of this place of worship and the description made by Paul of Aleppo***** in 1653 is particularly analysed.

Art historians have questioned the assumption that the present-day church and the one founded by Petru Cercel are one and the same. Thus, instead of the triconch plan typical of late 16th-century churches, this one has a Greek-cross plan. Stylistically, there are elements that are not characteristic of the age of Petru Cercel. The external parament has no alternations of apparent bricks with plastered rectangles but is entirely plastered. The typically 17th-century decoration arrangement and other investigations seem to point out that the foundation and the masonry of the porch (thought to be an addition made during the reign of Constantin Brâncoveanu) form an organic whole with the rest of the church (R. Gioglovan, 1974).

Besides, Radu Gioglovan believes that archaeological surveys avoided confronting the mentions in chronicles and inscriptions. Thus, the hole upon which the Princely Church was built is supposed to be a segment of the moat erected by Sinan Pasha in 1595.

The conclusion is self-evident; this is actually a foundation of Prince Matei Basarab built over the former church of Petru Cercel. The absence of the prince in the Brancovenesque inscription is explained by the fact that it was written after the ruler's tragic end, between 1714 and 1716, by the chronicler Radu Popescu, the *vornic* of Târgoviște. Thus the data about the two princely churches merged: "*pisania păstra numele ctitorului de la biserica veche și pe acela al ultimului restaurator, fără a mai aminti pe ceilalți ctitori și mai ales pe Matei Basarab, adevăratul ctitor al bisericii domnești cea mare*." (R. Gioglovan, 1974) ('the inscription preserved the name of the founder of the old church and that of the last restorer, without mentioning the other founders, particularly Matei Basarab, the real founder of the great princely church').

According to Radu Gioglovan, this hypothesis is confirmed by the votive painting, a Brancovenesque creation, in which Matei Basarab is represented the first on the narthex wall, being followed, as far as the entrance door, by the rulers that had founded places of

worship inside the princely court (Neagoe Basarab, Petru Cercel, Constantin Brâncoveanu).

The study *Iazuri și mori la Târgoviște* (R. Gioglovan, 1976) focuses on a topic that had not been extensively researched and is the last one dedicated to the seat of Wallachia. Among the mediaeval vestiges of Târgoviște, there is a moat known as Iazul Morilor, lying to the north-west and north-east, which channelled the waters derived from the Ialomița River. Its age remains unknown in the absence of any documentary source that should suggest its existence. However, there is a document, which is dated back to the time of Mircea the Elder, sent by his son Mihail I to Cozia and Cotmeana monasteries, mentioning the existence of a princely mill; some years later, during the reign of Radu Praznaglava, two other princely mills, dedicated to the mentioned monasteries, appeared*****.

The first mention of such a work on the Ialomița River appeared in 1595, in the description of the 100 Tuscans sent to fight in the campaign against the Turks; it says that there was a river, to the left of Târgoviște, which had a large dike reinforced with dense tree trunks****. Corroborating this information with that of the Ragusan Felix Pentaciș, provided almost a century earlier (1502)***, which mentioned that Târgoviște was located among swamps that enclosed it, Radu Gioglovan suggests that this dike also existed at the end of the 15th century and the beginning of the 16th century.

The terminology of the water mills seems to be the same in Târgoviște as in the rest of the Wallachian state and the Romanian space in general. Therefore, *iaz*, a word of Slavic origin, would designate the reservoir formed by damming the water course by means of a dike and the channel flowing under the city terrace, which directed the mills (R. Gioglovan, 1976).

Radu Gioglovan identifies three types of mills according to their owners. The princely mills continued to appear in documents during such voivodes as Dan II, Vladislav II, Basarab Țepeluș or Alexandru II Mircea. In the 16th-17th centuries, documents also mentioned monastery mills, those belonging to the monasteries of Gorgota, Viforâta, Dealu and Cobia. Finally, in the Brancovenesque age, the mills began to be owned mainly by boyars, such as the *vornic* Pascale or, towards the end of the 18th century, by local boyar families, as the Fussea family (R. Gioglovan, 1976).

As a conclusion, the author considers that, beyond any political influence, the importance of the Ialomița for Târgoviște was economic, sanitary and aesthetic and that this system, created at Iazul Morilor as early as the

emergence of the mediaeval state, was the pillar of development of the city.

Radu Gioglovan's unexpected death, in the summer of 1979, put an end to his creative force. We believe that what remains in the historical consciousness are the uncomfortable questions that are still expecting an answer. If we think that in the midst of the communist regime the idea of a complete restoration of Chindia Tower in the 19th century was taken into account or that the present-day Great Princely Church may not be the foundation of Petru Cercel but one rebuilt by prince Matei Basarab, then we may realise how courageous he was, despite that fact that the answers provided were not always scientifically proven.

A historian continues to live through his writings, through his contribution and, from this perspective, one may conclude that Radu Gioglovan has gained his eternity and this endeavour is meant to confirm, once more, this fact.

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L'organisation militaire en Valachie durant l'époque des Princes Phanariotes (1716-1821)

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Abstract: *Military organization in Wallachia during the time of the Phanariot princes (1716-1821).* The communist historiography period (1946-1989) had credited the idea that one of the negative consequences of the establishment of the Phanariot rulers in Wallachia and Moldavia was the abolition of the earthly armies. Today we can state as clearly as possible the fact that the Phanariot rulers significantly reduced the military numbers of the armies from the two romanian countries. The Ottoman Empire never requested this, on the contrary, it allowed, in time of war, the Phanariot lords to increase their troops. Throughout the Phanariot era, Romanian military troops played the role of "auxiliary troops" for the ottoman army.

Key-words: Wallachian military troops, mercenaries, arnaoutes, beșli, seymens, pandours.

Au XVIII^e siècle, les effectifs des armées des Principautés Roumaines furent réduits numériquement, celle-ci étant surtout pour la garde des frontières, pour garder l'ordre public et pour ramasser les taxes. Selon les relats de Friedrich Wilhelm von Bauer, un important commandant militaire de la tsarine Ecathérine II de Russie, Nicolae Mavrocordat, le premier prince phanariote de la Valachie (1715-1716), aurait renvoyé la plupart des troupes militaires*. On apprend de Mihai Cantacuzino, haut gouverneur (*biv vel ban*) de Valachie dans la seconde moitié du XVIII^e siècle, que Mavrocordat avait radicalement réduit les effectifs militaires de la Valachie durant son deuxième règne (1719-1730). Ainsi, une partie considérable des 18 000 soldats ou servants princiers trouvés dans le pays par Nicolae Mavrocordat furent transformés en catégories fiscales** ou, autrement dit, ils furent transformés en payants d'impôts (= *birnici*). Plus tard, entre 1739-1740, Constantin Mavrocordat aurait renoncé presque à tous, gardant, selon les informations de Friedrich Wilhelm von Bauer, seulement « un petit nombre pour l'administration et pour la poste »*. Concernant l'organisation de la Valachie en 1777, des relats de l'abbé Lionardo Panzini, précepteur et

professeur d'italien des fils du prince Alexandru Ipsilanti, Dimitrie et Constantin, on apprend que: « dans chaque département, à part le gouverneur civil (*ispravnic*), il y avait aussi un gouverneur militaire, appelé capitaine, qui avait sous sa commande un certain nombre d'hommes à qualités militaires et enrôlés, dont il disposait sans encore dépendre des gouverneurs civils, selon les ordres qu'il recevait directement du prince ou du connétable, qui était le commandant général de toute la cavalerie de l'Etat [...] »*.

On connaît cependant des cas où des princes phanariotes levèrent des armées à effectifs considérables, d'habitude à la requête de la Porte Ottomane. Voilà, par exemple, entre 1716 et 1717, Ioan Mavrocordat, prince de Valachie, leva une armée de quelque 8000 mercenaires des Balkans ou des Turcs (C. Neagoe, M. Toma, 2018, p. 114). En 1727, comme on l'apprend de *Cronica Ghiculeștilor*, le prince de Moldavie, Grigore Ghica II leva une armée de 7000 soldats payés (servants courtisans, des *darabants*, des *pașiri* (= *mercenaires d'un corps de cavalerie, chargé surtout de la garde des frontières, de transmettre des messages et de faire connaître les ordres princiers aux*

confins du royaume; n. trad.), des chasseurs, de petits boyards, des servants, des *armășei* (= *employé chargé de la garde des prisons*, n. trad.), des *mazili* (= *petits boyards ayant perdu leurs fonctions*, n. trad.) etc.)***, avec lesquels celui-ci participa à la campagne ottomane organisée contre les Tatars de Crimée. Mais, selon les relats du noble magyar Kelemen Mikeș, le même prince disposait, en 1739, de seulement 1500 soldats (*slujitori*)****.

A partir du second règne de Constantin Mavrocordat (1731-1733), en Valachie apparaissent mentionnés les capitaines de département (D. Fotino, 2008, p. 607). Même s'ils étaient nommés par le haut connétable (*spatharius*), ceux-ci furent mis dans la subordination des gouverneurs / préfets de départements (= *ispravnici*). Le capitaine de département était juge sur un nombre de villages, celui-ci ayant comme principale attribution de poursuivre et d'attraper les malfaiteurs*. Ceux qui étaient arrêtés ne pouvaient être tenus plus d'un jour en prison, étant portés devant les intendants pour être recherchés, pendant trois jours, pour leurs actions. Ensuite, ceux-ci étaient envoyés, avec un rapport des intendants, à Bucarest, où ils étaient jetés dans les prisons du haut connétable (*spatharius*). Le lendemain, les prisonniers étaient portés devant ce haut fonctionnaire militaire. S'il s'agissait seulement d'infliger des punitions légères, telle la raclée ou l'exile temporaire, le connétable (*spatharius*) envoyait un rapport au prince, mais après la sentence, mais si le délit réclamait la peine de mort ou une condamnation à perpétuité du coupable, le connétable en faisait un rapport au prince, et ce dernier envoyait le cas devant des fonctionnaires judiciaires*. A partir du règne de Alexandru Ipsilanti, en Valachie commencèrent à fonctionner les « départements pour des crimes » de Bucarest et de Craiova (L. Livadă-Cadeschi, L. Vlad, 2002, p. 23-25).

En 1775, en Valachie il y avait 78 capitaines de département et trois capitaines de ville ou de bourg (Bucarest, Târgoviște, Craiova), auxquels il s'ajoutait 17-18 intendants (*vătafi*, *vătafi de plaiuri*). Ces derniers, avec les *plăieși* (habitant de la frontière, chargé de la garde des frontières dans les régions montagneuses ; n. trad.) et les *potecași* (= personne armée faisant partie d'une *poteră* = groupe armé ayant la mission d'attraper les malfaiteurs et les haïdouks ; n. trad.) étaient chargés de surveiller les régions frontalières et les défilés, jour et nuit (C. Neagoe, 2009, p. 192).

A partir de 1779, à part les capitaines de département, furent désignés des « *polcovnici* (=

colonel, n. trad.), pour « la garde des endroits restés sans garde ». Ceux-ci recevaient comme solde 20 écus et avaient en subordination 20-30 subalternes, recrutés parmi les étrangers (Serbes, Bulgares, Albanais, Grecs). Les *polcovnici* et leurs servants étaient subordonnés au haut connétable (*spatharius*) (V. A. Urechia, 1891, tom. I, p. 43).

D'ordinaire, les princes phanariotes avaient cherché à transformer les corps militaires autochtones en catégories fiscales, continuant à s'appuyer surtout sur les corps de mercenaires étrangers, des Albanais (*arnăuți*), des Turcs (*beșlii*) et des Serbes (*esclavons*, *seymens*) (C. Neagoe, 2009, p. 14-16).

A côté de certains corps de servants militaires autochtones, ces catégories de mercenaires étrangers assuraient la garde des Cours Princières de Bucarest et de Iași. Des relats de Friedrich Wilhelm von Bauer on apprend que, après la « réforme militaire » adoptée en Valachie par le prince Constantin Mavrocordat, durant son troisième règne (1735-1741), 150 huissiers, conduits par un intendant (*vătaf*), assuraient la garde à l'intérieur du palais princier, et 100 autres servants, ayant à leur tête un *ceavuș* (= capitaine), surveillaient les entrées dans le palais princier*. Selon une note du 1^{er} septembre 1739, la garde de l'intérieur de la Cour Princière fut confiée au *baş-bulc-bași* des seymens, qui avait en sa subordination 449 seymens, organisés en 9 *steaguri*. A ceux-ci s'ajoutaient deux *steaguri* de *arnăuți*, à savoir 96 mercenaires, qui faisaient partie de la garde princière (D. C. Giurescu, 1962, p. 480). La grande porte de la Cour Princière était surveillée par la compagnie (*steagul*) des mercenaires dragons (allemands) (C. Neagoe, 2017, p. 78).

Dans le « siècle phanariote », les Valaques et les Moldaves, à côté des Tatars, ont formé les « troupes auxiliaires » des Ottomans****. La politique des princes phanariotes dans la première moitié du XVIII^e siècle a été durement critiquée, du point de vue militaire, dans un « mémoire » des boyards envoyé en Russie, en 1769, dans lequel on sollicitait la reconstruction de l'armée autochtone avec des unités de cavalerie, de pédestres et d'artillerie (12000 soldats) (V. Georgescu, 1972, p. 155).

Durant la guerre russo-turque de 1768-1774, en Valachie on a constitué un corps de plus de 4000 volontaires (« *volintiri* »), sous la commande du haut connétable Pârvu Cantacuzino (V. I. Mocanu, 2004, vol. 1, p. 418). Ce corps militaire devait constituer le fondement d'une future armée permanente de la Valachie. D'un *mémoire* soumis à l'administration russe des Principautés par le Divan des boyards de

Bucarest, appelé « *Despre starea Țării Românești în perioada stăpânirii turcești* (= Sur l'état de la Valachie durant la domination ottomane) » (1770) on apprend que, à cette époque-là, il y avait quelque 6000 soldats, auxquels s'ajoutaient 1500 pandours en Olténie, tous ceux-ci étant utilisés « non pas pour la défense, mais pour les besoins du pays et pour la fonction de courriers » (C. Șerban, 1959, p. 380).

Les boyards valaques allaient demander, en 1774, par un « mémoire » adressé aux représentants des grands pouvoirs réunis lors des pourparlers de Küciük-Kainardji, la reconstruction de l'armée autochtone (20000 soldats) (A. D. Xenopol, 2020, vol. V, p. 168).

Vers 1780, sous le règne de Alexandru Ipsilanti (1774-1782), celle-ci comptait 110 capitaines et 5024 soldats : 32 capitaines et 1880 soldats à Bucarest, les soi-disant « servants de l'intérieur », à savoir 78 capitaines et 3144 servants dispersés dans les départements du pays, les soi-disant « servants de l'extérieur »*. Ces derniers recevaient une solde de 3 piastres par mois, une certaine ration de riz et de pain, tout comme des vêtements une fois par an. Les autres servants, qui étaient divisés dans les départements, au service des intendants et des capitaines de limite, ils étaient exempts de taxes et ils avaient deux semaines par mois libres afin de pouvoir travailler leurs terres, et durant les deux autres semaines ils étaient au service, « à l'ordre de leur capitaine » (C. Neagoe, 2009, p. 192).

La plus nombreuse armée, quelque 11000 mercenaires, c'est Nicolae Mavrogheni qui allait l'organiser, entre 1787-1788 (I. I. Nistor, 1939-1940, tom. XXII, p. 22-23), dans le contexte de la guerre austro-russe-turque (1787-1791).

Dès les premières années de leur domination sur les deux principautés roumaines, les Russes essayèrent d'organiser, à base de volontariat, une armée autochtone. Ainsi, en 1807, le duc de Richelieu, gouverneur d'Odessa et général dans l'armée du tzar, forma 6 régiments de volontaires, 3 de pédestres et 3 de cavalerie, chaque régiment étant formé de 500 soldats, donc quelque 3000 soldats, tous mis sous la commande du prince Ioan Cantacuzino (1756-1828), colonel de l'armée du tzar en 1791****. Ces volontaires étaient en réalité un amas de Russes, Grecs et Moldaves. La même année, le prince Prozorovski organisa, à l'européenne, avec l'appui de Constantin Ipsilanti, une « milice » autochtone formée de quelque 3000 pandours, une partie des pédestres, une autre partie à cheval, ayant à leur tête d'abord le capitaine Kurt, ensuite le major Rogacev du régiment

Oloneț****.

Une nouvelle tentative de mettre en place une armée autochtone a lieu le 10 juillet 1812, lorsque le commandant gouverneur Cicearov soumit aux deux Divans un « projet » à cet égard. En Valachie, par exemple, il fallait former des « milices » (pandours et *cătane* (= soldats)) et des « gardes citoyennes » (plus de 15000 soldats) (D. N. Ursu, 1978, p. 244). En 1821, au point XIII, *Cererile norodului românesc* (= *Les requêtes du peuple roumain ; n. trad*) stipulait la mise en place d'une armée autochtone de 4000 pandours et 200 *arnăuți*, exempts de taxes et payés des revenus des monastères*****.

Les Albanais (*arnăuți*). Ces mercenaires avaient formé la garde personnelle des princes phanariotes. Si, au début du XVIII^e siècle, le nom eut un sens ethnique, signifiant albanais (chrétien renégat), vers la fin du même siècle il sera synonyme de mercenaire (C. Neagoe, 2010, p. 29-30; A. Pogăciaș, 2016, p. 40).

Les premiers mercenaires albanais furent mentionnés pour la première fois en Moldavie, sous le règne de Antioh Cantemir (1695-1700)***** et ensuite sous le règne du premier prince phanariote Nicolae Mavrocordat (1709-1710) (D. Cantemir, 1973, p. 265).

En Valachie, les *albanais* (*arnăuți*) apparaissent mentionnés pour la première fois sous le règne de Ioan Mavrocordat (1717-1719) (Radu Popescu vornicul, 1963, p. 237-238).

Les effectifs de ces mercenaires furent assez réduits au début. En 1695, par exemple, Antioh Cantemir disposait de quelques dizaines d'Albanais, et Nicolae Mavrocordat eut en son service, en 1709, 150 mercenaires albanais*****. Sous le règne du prince Constantin Mavrocordat, à savoir en 1739, à la Cour Princière de Bucarest il y avait une compagnie (*steag*) de 96 mercenaires albanais (*arnăuți*) (D. C. Giurescu, 1962, p. 480).

Le nombre des *arnăuți* allait augmenter dans la seconde moitié du XVIII^e siècle, surtout durant les années de guerre. Grigore Callimachi, prince de Moldavie (1761-1764), disposa de 500 *arnăuți*****. En 1770-1771, Pârva Cantacuzino le grand connétable prit sous sa commande quelque 2000 *arnăuți* (D. I. Georgescu, 1928, p. 85). En 1788, Nicolae Mavrogheni, prince de Valachie (1786-1790), disposait d'une garde de 800 *arnăuți*, et Alexandru Ipsilanti, prince de Moldavie (1787-1788) avait quelque 1000 *arnăuți* (C. Neagoe, 2010, p. 41 et 46). Vers 1821, en Valachie il y avait 800 *arnăuți*, et en Moldavie 300 (C. Neagoe, 2005, p. 429 et 432).

En Valachie, les *arnăuți* étaient sous la commande

d'un grand capitaine (*vel căpitan, baş bulucbaş*), qui était subordonné au grand connétable (*vel spătar*), mais certains princes, tels Alexandru Ipsilanti, Nicolae Mavrogheni et Ioan Gheorghe Caragea, les mirent sous leur directe commande (C. Neagoe, 2010, p. 43-45). Depuis la fin du XVIII^e siècle, deux autres hauts fonctionnaires valaques eurent sous leur commande un certain nombre de *arnăuți* : le grand aga (*vel aga*) et *kârk-serdar* (C. Neagoe, 2010, p. 51-52). En Moldavie les *arnăuți* furent, durant toute l'époque phanariote, sous la commande du grand *generalus equitum et peditum* (*vel hatman*) (C. Neagoe, 2010, p. 39).

Les *arnăuți* étaient armés d'épées courtes à pointe courbée, de pistolets et un long fusil. Leurs vêtements furent, au début, spécifiquement albanais. Mais, à partir de la moitié du XVIII^e siècle, chaque groupe ethnique faisant partie du corps militaire des *arnăuți* avait ses vêtements spécifiques: durant le règne de Nicolae Mavrogheni, par exemple, les Albanais et les Serbes avaient des vêtements verts, et les Grecs rouge-bleu*.

Durant toute l'époque phanariote (1709/1716-1822), les *arnăuți* ont été utilisés pour la garde personnelle des princes et des hauts dignitaires phanariotes, mais aussi celle des consuls étrangers, ensuite pour attraper les haïdouks et des brigands, pour étouffer les éventuelles révoltes et pour attraper les Turcs qui cambriolaient à travers les deux Principautés du Danube (C. Neagoe, 2010, p. 30-32).

Les Turcs *beșlii* (*Beșlii*). Certains de ces mercenaires furent recrutés parmi les troupes de janissaires situées dans la région des *kaza* du Danube ottomanes, mais la plupart furent des chrétiens renégats surtout des Bosniaques et des Serbes. Parfois, les sources historiques attestent aussi la présence des autochtones dans ce corps de mercenaires (C. Neagoe, 2017, p. 11).

Dans les deux principautés roumaines, les *beșlii* furent sous la commande d'un capitaine turc, appelé *baş beșliagă* (*baş beșli-ağa*). Très probablement, comme dans les siècles précédents, ce *beșliagă* était nommé, avec un certain nombre de soldats (*neferi*) auprès du nouveau prince investi par la Porte, par le *aga* des janissaires (*yeniçeri ağası*) (C. Neagoe, 2006, p. 78-79; C. Neagoe, 2013, p. 242). C'est à peine le 16/25 septembre 1756, sur l'ordre du sultan Osmân III (1754-1757), que la nomination des *beșlii* (*beșlii ve beșlii ağası*) de Valachie sera laissée à la charge de Constantin Mavrocordat (1756-1758) (V. Veliman, 1984, p. 342-345, nr. 130).

La plupart des mercenaires *beșlii* étaient des

musulmans ou des chrétiens renégats. Le prince phanariote Nicolae Mavrocordat vint en Valachie, en 1716, avec 500 Turcs et 500 Tatars mercenaires (D. Russo, 1939, vol. II, p. 444), et Constantin Mavrocordat avait une garde de 30 *beșlii* (D. C. Giurescu, 1962, p. 481). En 1787-1788, Nicolae Mavrogheni avait 600 mercenaires (M. Holban, 1988, p. 172), et Alexandru Ipsilanti de Moldavie quelque 1000 *beșlii******.

Durant l'époque de Nicolae Mavrogheni (1786-1790), le *beșlii* furent mis sous l'autorité du grand *aga* (V. Veliman, 1984, p. 565-567, nr. 198). Quant à la Moldavie, le *aga* des *beșlii* et ses lieutenants furent nommés par « firman de l'Empereur » et mis en fonction par « carte princière »*****.

Les *beșlii* étaient présents, avant tout, dans la garde princière. Les *beșlii* pouvaient être vus durant l'époque phanariote lors de tous les cortèges et cérémonies importantes de la Cour Princière. D'autre part, les *beșlii* constituaient un instrument de force utilisé contre les Ottomans qui créaient des ennuis aux autochtones à diverses occasions. Selon les relats du grand érudit Dimitrie Cantemir, en Moldavie les *beșlii* étaient utilisés par les princes « pour empêcher des dégâts les troupes turques et pour punir les Turcs, s'ils allaient se porter effrontément parce que, parmi les Ottomans, on considère un péché capital qu'un musulman soit puni ou fouetté par un non-croyant, comme ils appellent d'habitude les chrétiens » (D. Cantemir, 1973, p. 221).

Une autre attribution du *beșliaga*, en Moldavie, était de percevoir *cunița* ou *conița*, une dîme payée par tous les assujettis ottomans (Turcs et Serbes) pour les chevaux achetés ou pour le grand bétail acheté et élevé en Moldavie. Cette dîme était perçue deux fois par an (en été et en automne) (C. Neagoe, 2017, p. 15).

Pour leurs services rendus à certains moments, les *beșlii* qui étaient au service du prince de la Valachie recevaient de celui-ci une solde, des dons d'argent et des vêtements. Tous portaient des épées courtes à pointe courbée (*kilindj*), des pistolets et des poignards, et au dos de longs fusils (*fitili tüfenk*) (C. Vlădescu, C. König, D. Popa, 1973, p. 44-45).

Durant les dernières décennies de l'« époque phanariote » (1801-1821) on enregistra de nouveau une hausse considérable des soldes des *beșlii* de Moldavie. Ainsi, sous le règne de Scarlat Callimachi (27 août/ 8 septembre 1812 – 12/24 juin 1819), le salaire mensuel des *beșliaga* de Moldavie, noté dans *Sama visteriei* (= Le registre de la trésorerie; n. trad.)(1817-1818) était de 1890 lei, pendant que *Ali aga Karasângi baş*

beşliagasi recevait chaque mois 300 lei salaire, auquel il s'ajoutait 300 lei, reçu comme don de la part du prince (V. A. Urechia, 1902, tom. X, p. 472-473, 493). En revanche, le prince de la Valachie, Alexandru Şuţu (5/7 novembre – 19/31 janvier 1821) payait chaque année à ses *beşlii* le montant de 84280 lei (respectivement 7023 et 33 centimes chaque mois)****.

L'année révolutionnaire 1821 allait mettre fin à la présence des *beşlii* en Moldavie et en Valachie.

Les Serbes (Seymens). Depuis leur apparition (1636) et jusqu'à la moitié du XVIII^e siècle, les seymens ont été sous la commande des capitaines (*bulucbaşi*) et d'un grand capitaine (*baş-bulucbaşi*). Les seymens avaient leurs « chambres » à l'intérieur de la Cour Princièr**** et ils recevaient chaque jour une ration de viande et de pain de la part du grand écuyer et du grand boulanger (C. Neagoe, 2015, vol. II, p. 247). Souvent, l'une des « chambres » des seymens était aussi utilisée comme prison princièr (C. Neagoe, 2017, p. 105).

Les seymens assuraient la garde de la Cour Princièr et ils faisaient partie de la garde personnelle des princes. Ils étaient souvent présents aux cortèges princiers et aux cérémonies qui se déroulaient, à diverses occasions, à la Cour Princièr. Dans certaines situations, les seymens ont aussi joué le rôle d'exécuteurs des ordres et des punitions princières, dirigées contre les hauts boyards, qui étaient en conflit avec le prince. On les trouve faisant partie, à côté des autres mercenaires, des milices envoyées attraper les haïdouks et les brigands. A d'autres occasions, on les trouve les seymens accompagnant des messagers et des voyageurs étrangers ou accomplissant diverses tâches: porter les cadeaux destinés aux hauts dignitaires ottomans ou aux khans tatars, ou porter les sommes restantes de la trésorerie du pays (C. Neagoe, 2017, p. 104-105, 108-109, 111-112).

Les seymens qui formaient la garde des princes phanariotes, sous la commande du *baş-bulucbaşa*, étaient à cheval et, en temps de guerre, tous les seymens étaient obligés de se présenter à l'appel du prince « avec leurs chevaux, pour toute besogne du pays ou pour la garde de la Cour Princièr » (V. A. Urechia, 1892, tom. III, p. 119).

Les autres seymens étaient armés d'arquebuses, de fusils (*sâneţe*), et à la ceinture ils portaient une épée, un poignard et deux pistolets. Les armes des seymens, d'ailleurs comme toutes les armes des servants princiers de la Cour, étaient apportées soit de Transylvanie ou du Leipzig (*Lipsca*), soit du sud du

Danube, des ateliers ottomans (C. Neagoe, 2017, p. 98-99).

Selon la chronique de Radu Popescu l'intendant, vers la moitié du XVII^e siècle les seymens de Valachie portaient des vêtements violacés (violet) (Radu Popescu vornicul, 1963, p. 116) mais, au début du XVIII^e siècle, Anton Maria del Chiaro allait noter le fait que les seymens du prince Constantin Brâncoveanu portaient des « uniformes rouges » (A. Maria del Chiaro, 1929, p. 66).

Jusqu'en 1775, les seymens et les capitaines (*bulucbaşi*) des seymens de Valachie se trouvèrent sous l'autorité du grand *aga*, pour que, plus tard, ils soient subordonnés au haut connétable. A la tête de chaque *steag* de seymens, qui comptait d'habitude entre 30 et 60 hommes (très rarement 100 hommes), il y avait un capitaine ou *bulucbaş*, et leur supérieur était le grand capitaine ou *baş-bulucbaş*. Chaque capitaine (*bulucbaş*) de seymens avait comme subordonnés un porte-drapeau (*stegar*, *bayractor*), un *odobaş* et un *ceauş* (= commandant d'un groupe de seymens; n. trad.) (C. Neagoe, 2006, p. 280).

Les seymens de Moldavie ont été partagés, pendant l'époque de Nicolae Mavrocordat, en trois catégories: les seymens de la Cour Princièr, les seymens du grand *hatman* (= colonel; n. trad.) et les seymens du grand *aga* (N. Costin, 1990, 352 et 354). A l'exception de ceux qui étaient au service de la Cour Princièr, tous les autres avaient été logés sur les domaines du monastère Socola (1739)*****.

En Valachie, les Seymens (à l'exceptions de ceux de la Cour Princièr) devaient à la trésorerie les taxes suivantes: pour les bistrots et pour les boissons vendues aux foires (*cămănărit*) et pour la fabrication et la vente du savon (*săpunărit*) (D. C. Giurescu, 1962, p. 373-374, nr. 11 et p. 388, nr. 33). A partir de 1739, les seymens offraient comme don (« *plocon* ») au haut connétable 3 lei par mois*****. En Moldavie, durant la seconde moitié du XVII^e siècle, certains seymens contribuaient à la taxe appelée *darul mucarerului******. Plus tard, durant le règne de Grigore Ghica III, en 1776, les seymens offraient un *plocon* (= don, cadeau) au grand *hatman* (= général) (M. M. Busuioc, 2002, p. 183).

Les Pandours. Apparaissent mentionnés pour la première fois durant le règne de Alexandru Coconul en Valachie (1623-1627), avec le sens de haïdouks, soldats des troupes temporaires de l'armée des Habsbourg, venus en incursions de pillage (2 septembre 1626)*****.

Durant l'administration autrichienne sur l'Olténie (1718-1739), les *pandours* ont été des mercenaires recrutés parmi les autochtones et utilisés contre les haïdouks et les brigands (V. Mărculeț, 2013, p. 174). En 1770, l'administration russe de Valachie utilisait, pour la sécurité des départements d'Olténie, approximativement 1500 pandours (C. Șerban, 1959, p. 380). En 1776, Alexandru Ipsilanti organisa un *steag* (= bataillon) de pandours, formé de 15 hommes, mis sous la commande directe du haut connétable, et deux autres compagnies, contenant 20-30 hommes chacune, celles-ci ayant comme tâche la sécurité du département d'Argeș et de la région Loviște (au nord du département de Vâlcea) *****.

En 1807, les Russes organisèrent un corps de quelque 2000 pandours, pour que plus tard, en 1811, leur nombre augmente à 6000 hommes (I. Neacșu, 2017, p. 18). En 1812, lorsqu'il est venu au trône de Bucarest, le prince Ioan Gheorghe Caragea garda seulement 2 575 pandours, pour qu'en 1814 il réduise leur nombre à 500 hommes (100 au département de Vâlcea, 150 dans le département Jiul de Sus et 250 en Mehedinți), le reste furent transformés en payeurs d'impôts (E. Vârtosu, 1941, p. 57).

En 1819, Alexandru Șuțu avait seulement 408 pandours, conduits par 8 capitaines et 8 commandants (*ceauși*). Un capitaine recevait une solde mensuelle de 40 écus et 11 sous pour la nourriture (*tain*), un commandant (*ceauș*) recevait 25 écus par mois et 11 sous pour la ration (*tain*), et un pandour recevait 10 écus par mois et 11 sous pour la ration (V. A. Urechia, 1898, tom. XII, p. 268-269). Les pandours ont constitué, en 1821, le pilier militaire de la révolte de Tudor Vladimirescu contre le régime phanariote (V. Osiac, 1995).

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The caves' genesis from Sihla Skete area (Neamț County, Romania)

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Abstract: We propose a possible model of genesis of the cluttered boulders and pseudokarstic caves, of which one is the famous St. Teodora's cave, in the area of Sihla Skete, an important spot of tourism and Ortodox pilgrimage. Our model takes into consideration the entire geologic history of the area, beginning with the deposition of the sedimentary rocks on which the peculiar relief of the area is sculpted to present day.

Key words: Kliwa Sandstone, cluttered boulders, pseudokarst, a model of caves' genesis

Introduction

The pilgrims and visitors who arrive daily at Sihla Skete (Neamț County) are astonished by the unique local landscape that can be described as a field of “cluttered boulders”. The area is mentioned as an ascesis place since XIIth century, while the first written document is a serbian one from 1326, mentioning that the wilderness belongs to the White Church of the Neamț Monastery

(<http://monumenteneamt.ro/ansamblul-schitului-sihla>; http://www.sihla.ro/ari_istoric.php). Hidden among these boulders, is one important spot of Ortodox pilgrimage in the area, namely the so-called Saint Teodora's Cave. Saint Teodora is one of the known hermit of the XVIIth century. Another document attests that the existing few steps long church was built by a single log in 1763 by Aga Ioniță Cantacuzino (G. Davidescu *et al.*, 2005).

The genesis of the above mentioned features remains an enigma not only for the laymen but also for professionals. The first to try to explain them was I. Ichim (1979) in his PhD thesis on the geomorphology of the Stânișoara Mountains (belonging to central mountain group of Eastern Carpathians). According to the author, the rocky field between Agapia and Secu

Brooks, to which the studied area belongs, was carved by wind, consisting of eolgyptoliths (I. Ichim, 1979, p. 95).

The genesis of this peculiar landscape, however, was much more complex, first favored by certain geological conditions to which only later the processes suspected by the mentioned author were added.

Geographical and Geological Setting

Geographically, the Sihla Skete area is located in the Stânișoara Mountains which exceed the altitude of 1500 m (1530 in Hălăuca Peak), 75% of their relief being between 800 and 1000 m; as a result, they fall to the limit between low-mountains and middle-high mountains (I. Ichim, 1979).

As for the skete area, it is bounded by the headwater of Cracău River (Chitele Brook), Agapia Nouă (Sihla), and Secului (Negru Brook), with the highest altitudes (1178 and 1184 m respectively) in the Dealul Mare Sihlea (Fig. 1). From the Dealul Mare Sihlea to the north and northeast, as the topographic map (1: 25000 scale) shows, the relief decreases in altitude, so that the skete estate stands at an altitude of 946 m, while the watershed hosting the cave of Saint Theodora reaches 980-990 m altitude. The cave is

located at 955 m altitude on the north-northwest slope of the hill.

From a geological point of view, the Stânișoara Mountains, stretching from the northwest to the southeast, overlap the Eastern Carpathian Flysch area, namely all its tectonic units, starting with the Ceahlău Nappe, the Teleajen and Audia Nappes from the west, and ending with Tarcău and Vrancea Nappes to the east, to contact with the Subcarpathian Molasse.

Sihla area covers the Tarcău Nappe, more precisely its external area or the so-called Kliwa Lithofacies, near its contact with the Vrancea Nappe. The topographic relief is controlled by the geological structure, characterized in the area by a syncline known as Crucea Tomii-Mănăstirea Sihla (Th. Joja, 1952, 1958), renamed by C. Grasu (1978, 1980) as Dobreanu-Mănăstirea Sihla, after the geological and cartographic revisions.

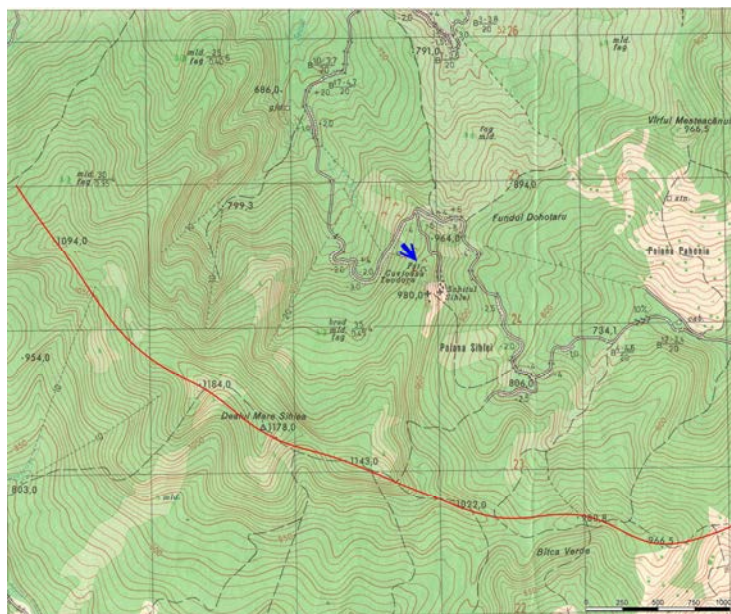


Fig. 1 - The Saint Theodora's Cave location on the topographic map 1:25000 scale, sheet L35-29-Da. The red line marks the rim of the Dobreanu- Mănăstirea Sihla Syncline.

This syncline stretches from north to south on a distance of about 26 km, from the Râșcuța stream through the drainage basin of the Dobreanu brook and the confluence of Dumesnicu with Ozana to the Sihla Peak. Here it forms a perisyncline end (Fig. 2) where the Dysodiles and Kliwa Sandstone (Oligocene in age, about 33-23 Ma) of the Tarcău Nappes are brought to the surface.

In the area to which we refer, the Tarcău Nappe consists of Cretaceous-Oligocene deposits, as follows: Hangu Formation (Late Cretaceous), Izvor, Straja, Sucevița, Doamna, and Bisericiani Formations (Paleocene-Eocene-?Oligocene), lower menilite, bituminous marls, dysodilic shale formations, and Kliwa Sandstone Formation (Oligocene). The older deposits are preserved in anticlines, while the younger ones in synclines (Fig. 2). The geological structure, which we discuss in this paper belong to the synclines (C. Grasu *et al.*, 1988, 2007).

In the genesis of the peculiar relief from the Sihla Skete area, which can be described as „rough-and-tumble rockiness”, only the upper formations of Oligocene age (cca 33-23 Ma) are involved, namely the lower dysodilic shales and the Kliwa Sandstone.

The informal lower dysodilic shale formation consists of finely laminated carbonaceous shales of brown to dark brown color containing some shiny black interlayers extremely rich in total organic matter especially in Vrancea Nappe (TOC=17.62% according to Amadori *et al.*, 2012). They are former organic rich muds sedimented in anoxic conditions, preserving a fossil assemblage, containing: fish fossils (impressions and skeletons), some of them having peculiar luminescent organs (photophores; D.S. Baciuc, B. Chanut, 2002), bivalves such as *Nuculana gracilis*, *N. perovalis*, *N. capillacea*, *Leda striata*, gastropods such as *Velates schmidelianus*, *Acmaea cf. simplex*, *Turritella sp.*, *Balantium meleniticum*, arachnids such as

Oligopilionus aquaticus (M. Ciobanu, 1977), and even insects such as dragonflies and coleopteres. A large number of fossils, especially fishes, from dysodilic shales is hosted by the paleontological

collection of the Museum of Natural Sciences in Piatra Neamț. This Museum owe the largest fish fossil collection from Romania and one of the largest in Europe.

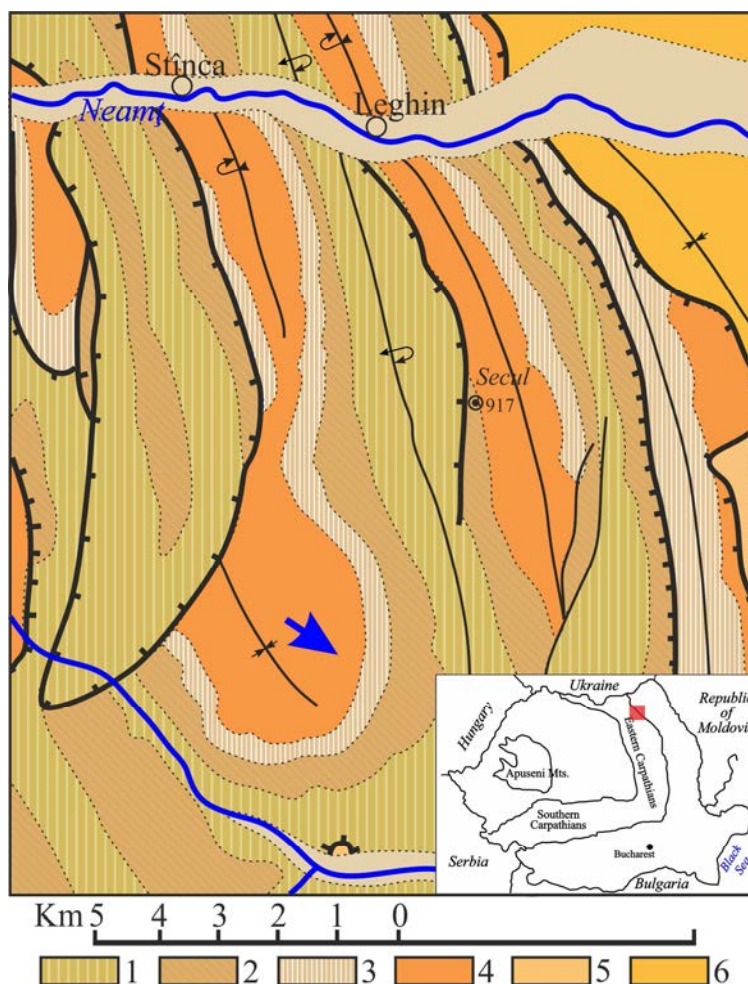


Fig. 2 - Geological map of Sihla Skete (blue arrow) area (from Geological Map of Romania 1:200 000, sheet 13 Piatra Neamț, G. Murgeanu, O. Mirăuță, 1968):

1 – undifferentiated Hangu and Izvor Formations (Late Cretaceous-Paleocene); 2 – undifferentiated Straja, Sucevița, and Doamna Formations (Paleocene-Middle Eocene); 3 – Bisericani Formation (Late Eocene); 4 – menilites, bituminous marls, lower dysodiles and Kliwa Sandstone where St. Teodora Cave is hosted; 5 – lower salt formation (Earliest Miocene); 6 – grey mudstone formation (Early-Middle Miocene) of Pericarpathian Nappe.

The Kliwa Sandstone Formation (up to 200-250 m thick) consists of meters (2-4 to 4-6 m) to decimeters thick layers of white, gray-to-yellow, even red-brick quartzose sandstone (quartzarenite-type) with carbonate or siliceous cements with thin interlayers of black shales. The colors come from the limonitization of glauconite, which can reach several percent in this sandstone. The cement or matrix may lack, the sand grains being kept together only due to compaction

during burial diagenesis. In such situations, the sandstone is soft and disintegrates easily, looking as corn flour, from which some topicals, such is Mălăiului Brook (*mălăi* means corn flour in Romanian language) a tributary of Suha Mare River.

Both dysodilic shales and sandstones, as well as the entire sedimentary succession characterizing the Outer Carpathians, were sedimented in the Carpathian Embayment (sensu Z. Balla, 1986) in the so-called

Moldavidian Basin or Carpathians' Flysch Basin, a few hundred (thousands after others) meters deep basin, and hundreds kilometers wide.

Genesis of the “Cluttered boulders” and caves – a possible model

The Sihla Skete area has a peculiar relief due to the “cluttered boulders” which, thanks to some bouldering enthusiasts, were mapped in detail (Fig. 3).

We consider that the situation in Sihla area is the result of the evolution of the Dobreanu-Sihla Monastery Syncline that took place in four stages

(Fig. 4A, B, C, D) described below. The stages can be correlated with those of North-Central Eastern Carpathians proposed by C.A.E. Sanders *et al.* (1999) based on apatite fission track thermochronology

Stage I – sedimentation. During the first stage (Fig. 4A), the Cretaceous-Lower Miocene (cca 130-20 Ma) sedimentary succession was deposited and continuous buried in the Tarcău Nappe area of Moldavidian Basin (M. Săndulescu, 1984; C. Grasu *et al.*, 1988).

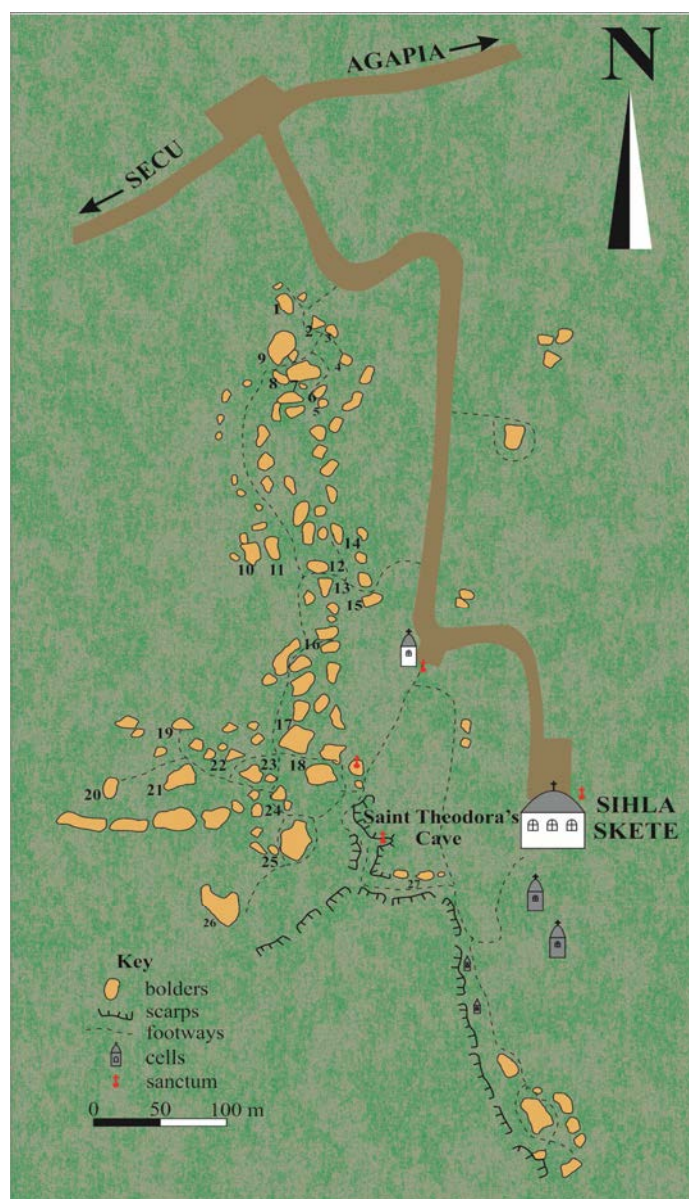


Fig. 3 - Map sketch with the distribution of the largest sandstone blocks fallen from the scarp on the Kliwa Sandstone (after the boulders map of F. Mastacan, 2011 <http://www.sihla.info>).

Stage II – syn-sedimentary folding. On continuing sedimentation (20-15 Ma), the sedimentary succession of the area was folded as synclines and anticlines (Fig. 4B) during the Old Styrian tectogenetic event (M. Săndulescu, 1984; F. Guerrera *et al.*, 2012). Because of folding, in Kliwa Sandstone, in addition of the primary bedding surfaces (S_0), a system of extensional joints (S_1), perpendicular on S_0 , and possible strike joints was developed (photos 1 and 2). No erosion was recorded in this time interval, meaning the folded wedge remained under the sea level (C.A.E. Sanders *et al.*, 1999).

Stage III – folding, thrusting, uplifting, and erosion. The sedimentary succession is continuous folded and thrust (15-11Ma) onto the external area

(Vrancea Nappe, Pericarpathian Nappe, and foreland) in the New Styrian and Moldavian tectogeneses, the latter one being the most intensive. As a consequence, the structures were uplifted above the local base level and exposed to erosion as it is proved by the onset of cooling from 130 to 120°C in late Badenian-Sarmatian time (15-11 Ma) that constantly continue until today. The erosion rate was 0.5 ± 0.1 mm/yr, older and older deposits being exposed (C.A.E. Sanders *et al.*, 1999). In the case of the Dobreanu-Mănăstirea Sihla Syncline, the erosion exposed the Kliwa Sandstone (Fig. 4C) while the previously formed joints opened. As such, the sandstones were prepared for the next physical and chemical weathering processes.

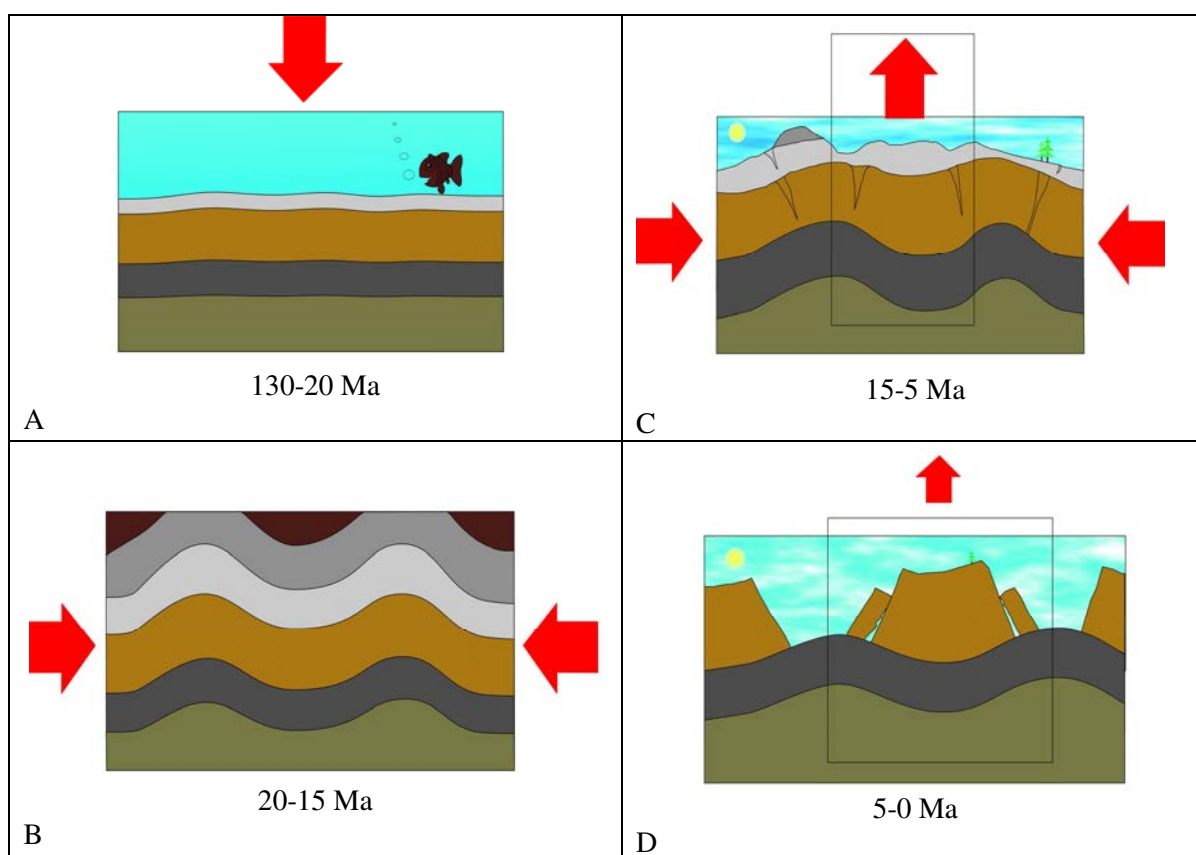


Fig. 4 - Evolution of the relief on the Sihla-Dobreanu Syncline:

A – sediment deposition and burial in Moldavidian Basin (130-20 Ma); B – deep-seated sedimentary succession folding during Old Styrian tectogenesis (20-15 Ma); C – folding associated with uplifting and subaerial erosion during New Styrian and Moldavian tectogeneses (15-5 Ma); D – weathering and erosion enhanced during Pleistocene Glacial-Interglacial Cycles (5-0 Ma). The detailed situation in rectangle is given in Fig. 5.

Stage IV – erosion. In this ongoing final stage (5-0 Ma) mostly erosion processes manifest, their rate remaining the same as C.A.E. Sanders *et al.* (1999) calculated. This period also includes the Pleistocene glaciation (roughly 0.74-0.014 Ma). The Stânișoara Mountains were at the periphery of the continental glacial cap (Oka and Dnieper, Elsterian and Saalian in age, respectively), located more or less along the north border of Ukraine (A.V. Matoshko, 2011). At the same time, the glaciation in South and East Carpathians onset in Middle-Late Pleistocene (references in I. Armaș *et al.*, 2019). The studied area conditions of at least Last Glacial Maximum (culminated 21 000 years ago) were those specific to today's tundra areas beyond the 60 degrees North latitude (W.F. Ruddiman, 2013). It is a climate with temperatures below zero degrees Celsius for about 8 to 9 months a year, with poor vegetation that favors processes of gelifraction

(fragmentation of rocks by frost thawing of cracks) and harsh and heavy winds loaded with ice crystals and/or sand eroding the bare rocks. The presence of the tundra at that time is also proved by recent archaeozoological discoveries. Near Piatra Neamț, at Poiana Cireșului Palaeolithic site, from the Gravettian I layer (23 240 years) were recovered 16 000 osteological pieces of which 97% belong to reindeer (*Rangifer tarandus*), while the remaining to *Bos*, *Cervus*, *Equus*, *Rupicapra*, and *Vulpes* (M. Cărciumaru *et al.*, 2016, 2018). All of these mammals are a common presence in the today tundra, corresponding more or less with periglacial environment. This environment is characterized by frost-action processes (including gelifraction and frost wedging), which produce angular fragments of various sizes and formation of blockfields, followed by mass movements and talus screes formation (A. Prick, 2004; A. Trenhaile, 2006).



Photo 1 - Bedding planes (S_0 in red), associated with some thin conglomerate lenticular beds, and fractures (S_1 in blue).

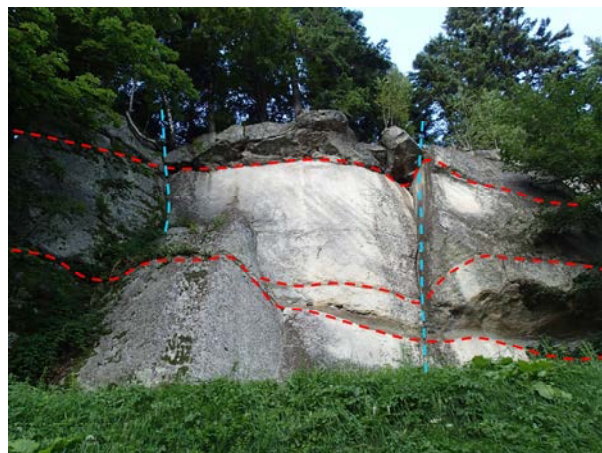


Photo 2 - Bedding planes (S_0 in red), associated with thin shale beds, and fractures (S_1 in blue).

We suggest that gelifraction and eolization during glaciation periods contributed to opening up and enhancing the fractures and bounding surfaces in Kliwa Sandstone, consequently producing blocks of different sizes ready to be transported by gravity on slopes (Fig. 4D).

The interglacial periods, as well as the Holocene, although with some peculiarities due to human actions, were similar or warmer than today and covered about 20% of Quaternary (H.J.B. Birks, K.J. Willis, 2008; PIWG, 2016). We suggest that the dysodilic shales, underlying the Kliwa Sandstone, were eroded in such conditions, leaving the hanging sandstones on both limbs of the Dobreanu-Sihla Monastery Syncline

(Photo 6). Being already weakened by the above-described processes, the thick sandstone unit continued to fall apart, different sized blocks gliding or toppling downslope under the influence of gravity (Fig. 4D; Fig. 5).

In the process of dismantling and repositioning of the tower-shaped blocks, for example, some rectangular void spaces and narrow-corridors were created in the interstices between them (Photo 3). These voids are a kind of special karst, known as pseudokarst (C. Holler, 2019), which are not formed by the dissolution of some limestones. One type of pseudokarst is formed through mechanical processes, the resulting features being known as slope caves

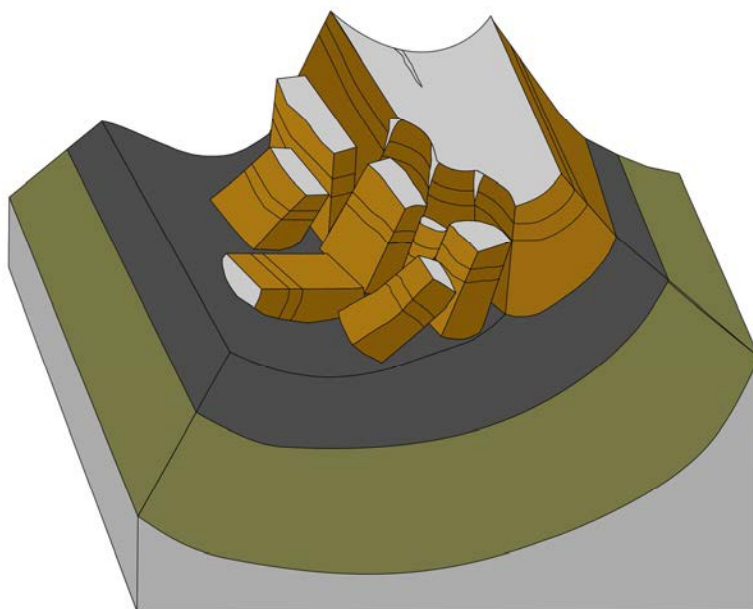


Fig. 5 - The present-day situation in the studied area (the vegetation is absent from the model for a better view of the geological structure. Notice the big blocks of Kliwa sandstones detached from a syncline limb that created the talus caves.



Photo 3 - The entrance in St. Teodora's Cave. Notice the flat and smooth walls representing fractures perpendicular on primary bedding.



Photo 4 - The roof of the corridor to St. Teodora's Cave. The roof surface represents a primary bedding plane.

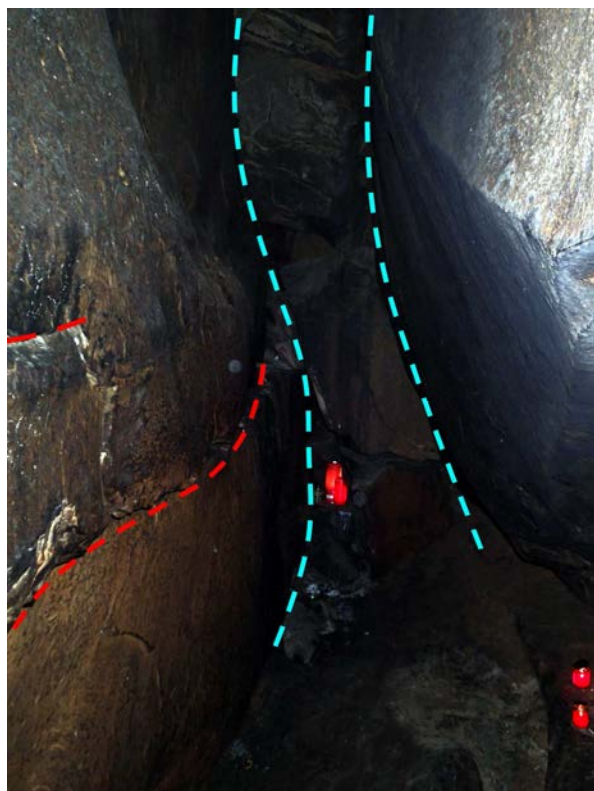


Photo 5 - The interior of the St. Teodora's Cave. Notice on the left wall the bedding surfaces (in red), the walls themselves being fracture surfaces (in blue)

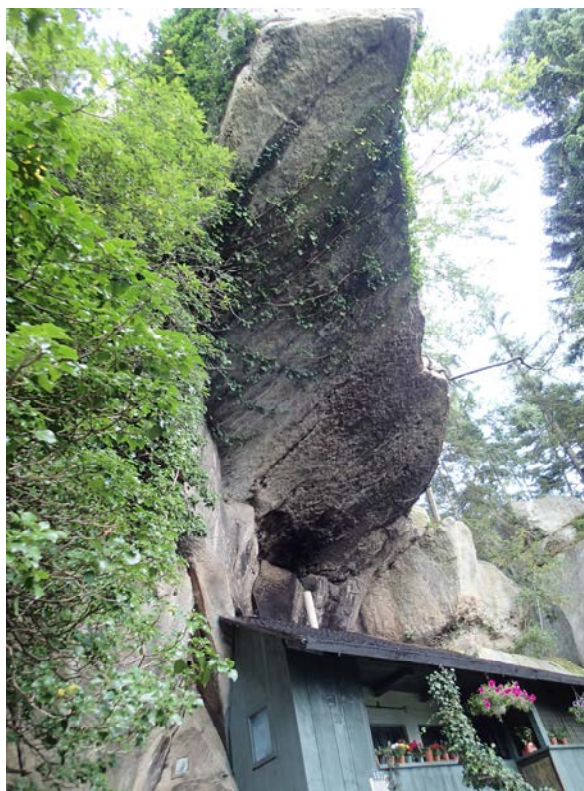


Photo 6 - A balcony of sandstone overhanging above a monk's cell. The balcony resulted after the gravity driven detachment of the underlying sandstone beds across a bedding surface.

(B.W. White, D. C. Culver, 2005) or boulder caves (C. Holler, 2019). This is the case of the Saint Theodora's cave. In caves of this type, the flat walls are nothing more than former bedding planes and/or primary fractures (Photos 3, 4, 5) activated after the exhumation, enhanced by gelifraction, and polished by winds.

The dislocation of the blocks by undermining and their gravitational sedimentation are clear, but the Vrancea earthquakes cannot be excluded from the causes of this phenomenon. Under their action, the repositioning of the blocks is done by slow drag or even collapse. The collapsed blocks can be easily detected based on the abnormal position of the primary sedimentary structures (bedding surfaces) which show that they have been displaced from the normal position on the flanks of the syncline.

Naturally, the morphological chaos from Sihla continues to increase. Nowadays, on both sides of the syncline limbs, both the west and the east ones, there are massive beds of sandstones overhanging like giant balconies (Photo 6) that seem ready to crush the

monk's cells sheltered beneath them. However, when they will fail cannot be anticipated.

It is obvious that the phenomenon is ongoing and can be accelerated, especially under the current conditions of major climatic changes when the summer rains became heavier, with large amounts of precipitation for short periods. Consequently, the erosion rate of underlying dysodilic shale increases due to the action of waters that percolate through vertical fractures and the corridors formed among the displaced blocks.

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Investigating fauna of Bronze Age (3000-1500 BC) according to archaeological evidence at northwestern Iran

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Abstract. Present research attempts to investigate fauna of northwestern Iran during Bronze Age, when regional subsistence strategy is recognizable at agricultural and nomadic societies. Each enjoyed animals such as sheep, goat, cow, and gazelle, considering treating their demands. The research involves in archaeological evidence to achieve fauna of northwestern Iran during Bronze Age. The data include various motifs of metal and pottery vessels, clay figures, and animal bone remains. The animals are closely related to Iranian northwestern environment. Accordingly, investigating these archaeological findings can help to better understanding of the history of animal exploitation during Bronze Age. Bibliographically, the authors collected data from archaeological reports. The results indicate that human exploited fauna from northwestern Iran during Bronze Age, depicted as zoid motifs, for meat, wool, and milk.

Keywords: environment, zoid motif, Bronze Age, northwestern Iran

Introduction

There have been excavations and survey in northwestern Iran that introduce settlement patterns, subsistence, and environment of local societies. The region witnessed formation of human sedentary life style after Neolithic period, while foundations of earliest villages emerged. The natural context properly provided conditions to raise varieties of local fauna and flora, therefore, local residents domesticated them exploiting complete awareness of environmental conditions. Investigating bone and plant findings of excavated sites reveal regional environmental landscape.

Studies on archaeological data, including pottery findings, play significant role in understanding prehistoric regional fauna. Climatic, historical, economic, and artistic conditions of local people generally are influential factors on pottery motifs. The most rudimentary designs are geometrical ones, then floral, zoid, and anthropomorphic motifs. Zoid motifs are of the most common motifs through Iranian prehistoric societies. Categorizing prehistoric potteries present varieties of zoid motifs including goat, sheep,

cow, horse, lion, and birds. The designs generally closely related to the subsistence regional societies. Zoid motifs of goat, sheep, and cow are more common in the societies that subsistently relied on agricultural and husbandry activities, such as findings of Dinkhah Tepe (O. W. Muscarella, 1968), Haftvan Tepe (C. Burney, 1975), Yaniq Tepe (C. Burney, 1961). Furthermore, in the societies with supplementary hunting strategy, there are motifs of wild fauna including gazelle, panther, and antelope in addition to motifs of domestic animals. For example, there are rock arts at Qara daq, northwestern Iran, with varieties of designs depicting hunter and nomadic societies, while present varieties of hunting scenes. Investigating zoid designs of prehistoric potteries from northwestern Iran can help more recognition of exploitation of regional fauna by local people. On the other hand, it depicts fauna adaptability to regional environment during prehistory. Present paper, for the first time, involves in study of regional fauna of northwestern Iran during Bronze Age, then uses the conclusions for general

understanding human symbiotic conditions to other living species at the same period.

Methodology

Bibliographically, present paper collected data of archaeological excavations and surveys of the region during Bronze Age, and then studied designs of archaeological findings from the sites. Chronologically, the paper relates to Bronze Age at northwestern Iran. The case studies are 6 sites and 10 archaeological findings including clay and metal vessels, figures, and bone remnants.

History of research

Information from northwestern Iran, generally, relies on Iranian or foreign expeditions' archaeological activities during recent decades. There have been excavations in regional cemeteries, from different periods, where few dates to Iron Age including Hasanlu (H. Robert, Jr. Dyson, 1989), Dinkhah Tepe (O. W. Muscarella, 1968), Kordlar Tepe (A. Lippert, 1976), Haftvan Tepe (C. Burney, 1975), Yaniq tepe (C. Burney, 1961), several cemeteries of Namin, and Shahryeri (V. Ebtehaj, 2004), Masjid-e-Kabood of Tabriz (A. Hozhabri Nobari, 2004), Qaleh Khosro and Khanqah-e-Khalkhal (R. Rezaloo, 2007), megalithic

burials of Ardebil province. There have been fewer researches on fauna of northwestern Iran; therefore, present research, for the first time, involves in investigation of northwestern fauna during Bronze Age, considering archaeological data from surveys and excavations.

Geographical situation of northwestern Iran

Geographically, northwestern Iran consists of Eastern and Western Azerbaijan, and Ardebil Provinces, where cover 122635.137 Km² at 35-39.8 latitude, and 44.12-49.9 longitude (Fig. 1). Armenia and Azerbaijan locate at northern borders, from geographical-political point of view, and Turkey and Iraq are western neighbors. Southwardly, the region is neighbor of Kurdistan Province, whereas Hamedan, Qazvin, and Gilan Provinces locate at southeast and east (M. Mirzaei *et al.*, 2014, p. 87). Northwestern Iran, with more than 110000 Km², is positioned at 39.46 to 35.58 latitude the northern moderate climate. In addition to latitude, relative distance to the Mediterranean and Caspian Sea, altitude, and orientation of the mountains include factors effective on the regional climatic condition, and caused us call the region cold and humid. However, one can recognize Mediterranean climate within the region.

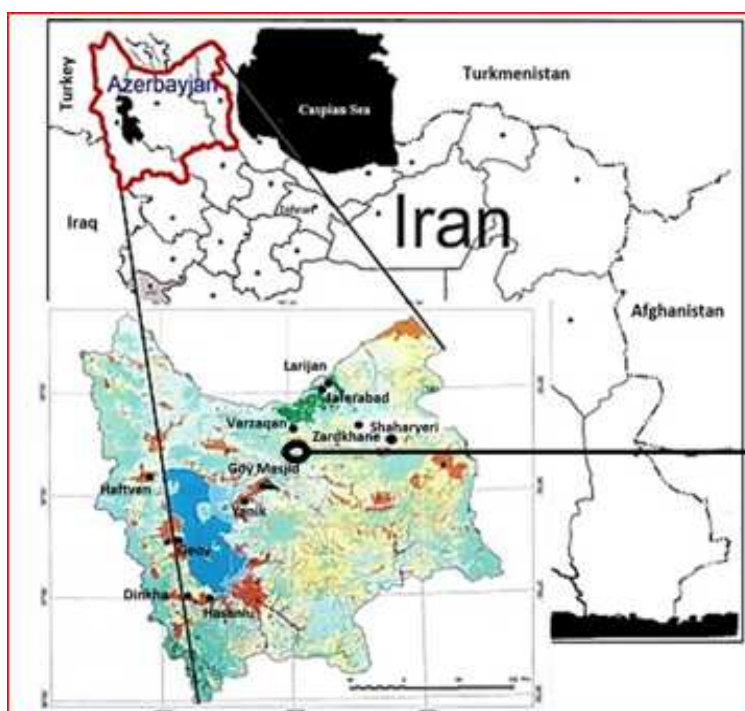


Fig 1 - Geographical position of the region

Northwestern Iran during Bronze Age

Northwestern Iran underwent social, economic, and cultural fundamental changes during Bronze Age. Emergence of tribes with new pottery and metallurgic traditions caused fundamental changes in regional social structure. Considering vast distribution of the Bronze Age sites, there have been few rare excavations in Yanıq Tepe and few sites at eastern regions of Urmia Lake (B. Omrani, 2005). There were excavations at the region of Kool Tepe, Hadi Shahr, which revealed valuable information about Bronze Age; however, there have remained ambiguities about Bronze Age at Trans-Caucasia, especially northwestern Iran. Regarding cultural and pottery differences, Bronze Age divides to three periods of Early, Middle, and Late Bronze Ages (K. Niknami, M. Kazimpoor, 2010). The Bronze Age of 3rd and middle 2nd cultures dates to 3000 to 1500 BC

(H. Talaei, 2011).

Undoubtedly, bronze, as an alloy, was the most significant technological advances during Bronze Age, which characteristically, include pottery production, emergence of black and grey wares within a vast area. Archaeological findings marked advanced civilizations, while other regions witnessed small rural communities, and pastoralists. There were intra and inter commercial exchanges during Bronze Age. Earlier traditional burials in a residential floor transformed to new burials at special production and environmental localities. Surrounding and influential areas caused regional changes during Bronze Age, such as Caucasia, Central Asia, and Eastern Anatolia (H. Talaei, 2011, p. 59). There are Bronze cultural strata in sites such as Hasanlu, Dinkhah Tepe, Haftvan, Yanıq, Kool Tepe, Qara Quzlu (Fig. 2).

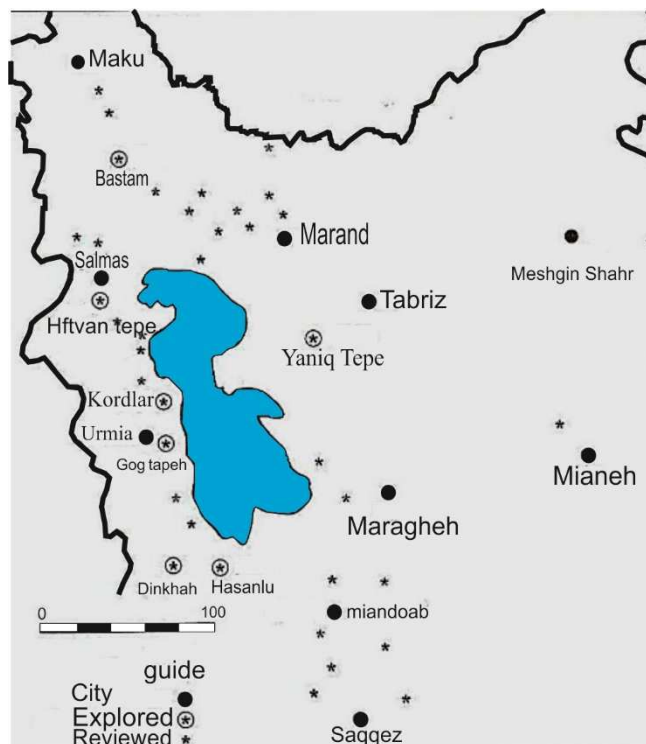


Fig. 2 - Bronze Age sites, northwestern Iran (M. R. Edwards, 1981)

Findings

There have been many documented findings, related to environmental issues, from archaeological excavations of northwestern Iranian sites and neighboring areas including Hasanlu, Dinkhah Tepe, Haftvan, Arsalan, and Sos Hoyuk. Archaeological reports and evidences suggest fauna and flora presence at ancient societies. Regional archaeological excavations revealed zoid motifs on pottery findings,

each counted as regional fauna. However, there are few case studies of potsherds in present research, but they reveal information depicting drawing style and every given characteristic, what suggest regional economy and environment during Bronze Age.

Goat is one of the most common motifs at the sites from northwestern Iran including Sheikhmedi, Doh Darasi, Duzdagi, and Shahryeri (S. Sattarnejad *et al.*, 2020). Although the chronology of many of these motifs

is not known, apparently it shows economic significance of the animal for local people. Today, regional pastoralists, generally breed goat for milk and lambs. Design of goats played significant role in farming societies during Bronze Age. Dinkhah Tepe is one of the most important sites in western Azerbaijan province during Bronze Age. Zoological analysis of the site opens new horizons in description of climate of western

Azerbaijan during 2nd and 1st millennia. There have been documented some 6043 bone fragments, which remained of sheep, goat, cow, mule, turtle, deer, and rabbit. Few tool findings are made of the same bones. Zoid motifs including goat, and local birds drew on painted potteries of Dinkhah Tepe, from IV phase (Fig. 3).

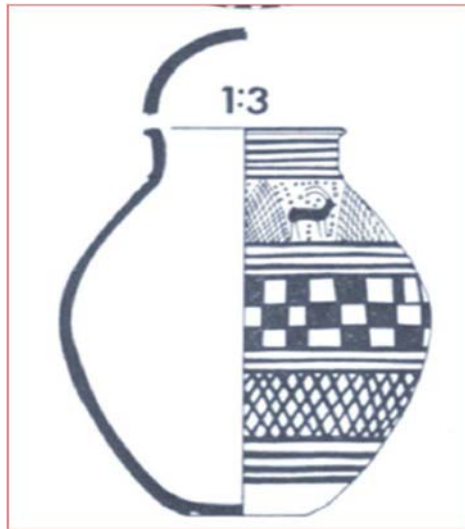


Fig. 3 - Motif of goat at the Bronze Age sites of northwestern Iran (C. Hamlin, 1974, p. 144).

Haftvan Tepe locates at Salmas, northeast of Lake Urmia. Dimensionally, it is 550 m long and 400 m wide, with 27 m height from surrounding area. There is a spring next to the mound that is used as fresh water source (C. Burney, 1975). Floral findings were found at the site, including wheat, barley, pear, and grape. In

addition, were recovered an object of cow horn and sheep bone from level IV (T. Azizipour, 2005, p. 89) and drawings of birds on clay vessels, including ducks, goose, and crane. The birds are directly related to the regional water sources; designs indicate regional human exploitation of the birds during Bronze Age (Fig. 4).

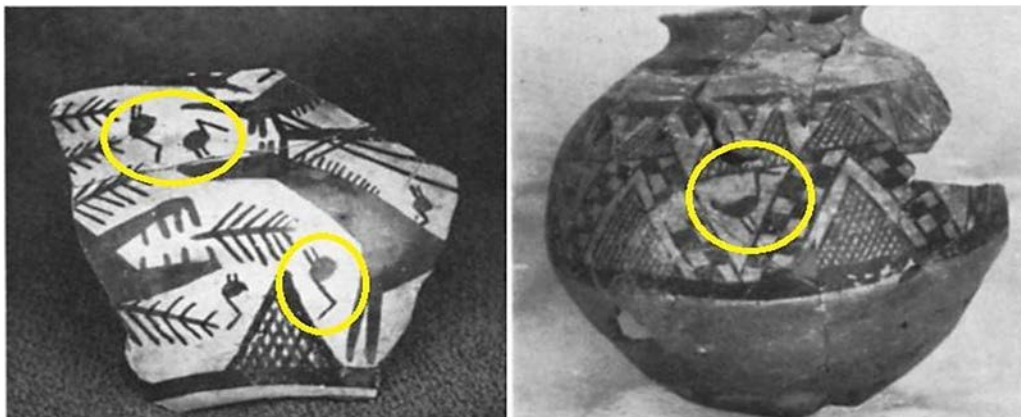


Fig. 4 - Motifs of birds on vessels from Haftvan Tepe (C. Burney, 1975)

Qara Gozlu Tepe is another Bronze site of northwestern Iran, located next to Miandoab. There

have been recovered zoid figures, floral seeds, and animal bone fragments through archaeological

excavations at the site (E. Kharazi, 2010, p. 197). Similar findings were identified from other regional Bronze sites, including Kool Tepe, Jolfa, (A. Abedi, 2013, p. 148), Tepe Zarnagh, Haris (A. Hejebri Nobari *et al.*, 2017).

Yaniq Tepe is located at 31 Km southwest of Tabriz, 6 km west of Khosroshahr, eastern part of Tazekand village. It covers around 80 thousand km area, with near 16.5 m height from surrounding lands. Considering area of the site, it is the biggest prehistoric regional mound among the other sites at northeast of

Lake Urmia. Yaniq culture is highly significant in relation to western Asian geography. It is referred to as Kura Aras culture, Shengavit culture, Caucasian Bronze Age culture, Early Trans-Caucasian culture, northwestern Anatolian culture, Kharbat Krak culture, Godin IV culture, in the archaeological literature of the Old Land. Varieties of titles indicate significance and expansion of any given culture (C. Burney, 1961). Zoid motifs including gazelles and deer's as decoration of clay vessels have been discovered in sites belonging to this culture (Tab. 1).


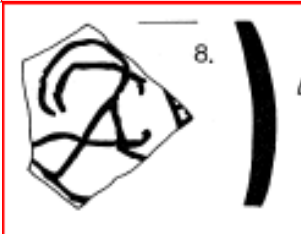

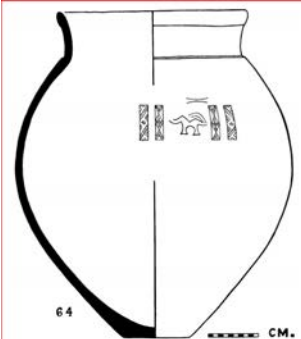
Site	Figure	Bibliography
Dinkha tepe		(Hamlin, 1974, p. 144).
Haftvan tepe		(M. R. Edwards, 1981, fig 21)
Qara Gozlu Tepe		(E. Kharazi, 2010, p. 196)
Yanik Tepe		(C. Burney, 1961)

Table 1- Samples of animal representation dated to Bronze Age from northwestern Iran

Hasanlu is the other biggest sites of Solduz Plain, being located at southwest of Lake Urmia, 9 km

northeast of Naqade. This settlement is mainly known for its cultural strata that begins from prehistory to

Ilkhanid era, the earliest dates to 6th millennium. Because of fertile soil, the region has been an appropriate place of farming and herding. It was also strategically significant for passage of ancient routes. There have been recovered various depictions of animals including horse, ram, cow, with bone fragments of goat, donkey, and gazelle from excavation of the site. Findings of fruits include apple, pear, pistachio, and almond. Notably, gardening and fruit productions demand organized gardens. Considering findings, there

was an advance farming during IV and V periods, not so different to modern methods. Recognizing various types of fruit including pear, apple, and almond indicate numerous types of consumable fruits during Iron Age at northwestern Iran. In addition, the types of regional animals suggest that local people consumed more ram and sheep than local pastoralists of the region, which implies sedentary life style relying on farming and herding activities (Tab. 2).

Site	Animal data	Pottery motifs	Other data
Hasanlu	ram, horse, donkey, sheep, cow, goat	---	Zooid motifs on metal vessels
Dinkhah Tepe	sheep, goat, cow, pig, turtle, bird, deer	goat, birds	Ram form stamps
Haftvan Tepe	Sheep, goat, cow, horse	birds	---
Kool Tepe	yeonling, ram, sheep	---	Cow and ram clay figurines
Qara Gozlu Tepe	animal bone?	---	Kilned clay animal figurine
Yaniq Tepe	goat, cow, buffalo, sheep	bird form vessels, male deer	---

Table 2 - Investigated Bronze sites and animal data

Discussion

Bronze Age culture of the region was part of a vast cultural area that covered large extensions of eastern Anatolia, northern Iraq, southern regions of Caucasia, and northwest of Iran (K. Kh. Kushnareva, 1997, p. 47). Residents were generally pastoralists who knew cultivation. Regarding archaeological evidences of the period, exploitation of domesticated animals such as sheep and goat increased more than previous times. Investigating motifs shows that goats consist more than 80% of the depictions, which suggest goat as the prevailing animal among regional nomadic societies. According studies on the composition of the herd of two groups of nomadic tribes, one can suggest higher number of goats in comparison to sheep, when the tribes are in migratory condition (F. Kafilzadeh et al., 2002, p. 202). The valuable characteristics of goat is more agility and resilience than sheep, multifunctional (producing milk, meat, and fibers), high resistance toward hard environmental condition, low consuming (R. Badiei, 1999, p. 256). Feeding on twigs and shrubs, which are not so pleasant for other animals, and finally low cost of keeping in comparison to other domestic animals,

caused human raise it as a useful and productive species (N. Papi, 2019, p. 1). Therefore, the economy of nomadic societies relied on grazing pastures, and farming byproducts such as stubble and straw, which made them move between summer and winter residences (F. Kafilzadeh et al., 2002, p. 202). Accordingly, raising goats were the most economic option at northwestern Iran.

Design of deer is another motif that is visible in rock arts of Dov Daresi. It appears that geographical condition of Qarasu region, generally, northwestern Iran provided appropriate context for varieties of gazelle and antelope. There have been recovered evidences of motifs of deer from archaeological excavations at northwestern Iranian sites such as Yaniq Tepe (C. Burney, 1961), Dinkhah Tepe (O. W. Muscarella, 1968), Shah Takhti of Azerbaijan (T. Halilov, 2013, p. 209), Getashen of Armenia (K. KH. Kushnareva, 1997, p. 100). On the other hand, it seems ancient regional residents (horse riders) hunted the local animals.

The ancient people subsisted aquatic animals and birds as nutritional supplements in addition to domestic animals. The location next to Zarnaqchai River, which

was fuller than present times, may be an explanation. Also, various archaeological zood osteological data including cow, goat, sheep, and pig indicate that subsistence strategy of northwestern Iranian societies during Bronze Age mostly relied on husbandry and farming.

Conclusion

Appropriate environmental condition of the region, with gradual increase of temperature, provided suitable environmental context of fauna and flora. Regional residents adhered environmental condition to manipulate their own subsistence strategy, therefore, nomadic and pastoralist life style spread at mountain regions and led to form numerous fortifications; on the contrary, it formed sedentary lifestyle in the plains that relied on farming activities. Every one of the societies, subsistently, relied on regional fauna and flora, and planned domestication and raising their own supplies. Today, archaeobotanical and zooarchaeological studies reveal information about settlement pattern and subsistence strategies of local people. Different types of animals including goat, sheep, and cow were present at peasant societies of Dinkhah Tepe, Hasanlu, Haftvan Tepe, and Kool Tepe; however, there are motifs of wild animals, including ram and antelope, in rock arts of hunter societies such as Qaradaq. The archaeological evidence indicates environmental potential of northwestern Iran in raising animals since, at least, Bronze Age.

Note: Present paper is an extraction of Master thesis of Shima Azizi "Environmental investigation of northwestern Iran during Chalcolithic, Bronze, and Iron Ages".

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A brief history of Ialomița Cave (Dâmbovița County, Romania)

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Abstract: In this paper, we try to present a chronological sequence of the most important stages in the history of discovery and knowing the Ialomița cave from Bucegi Mountains (Southern Carpathians, Romania). The most important documents, articles, books and studies related to this karst phenomenon are also mentioned.

Key-words: Southern Carpathians, Ialomița cave, speleology, biospeleology, speleotourism.

Introduction

Since the beginning of civilisation, caves have exerted a particular influence on humankind, marking their existence, helping them to survive and especially preserving the earliest history of the world in their sediments as in a giant library. In addition to the remarkable material treasure, caves have sometimes conserved, through traditions or legends, an immaterial, spiritual treasure of long-gone cultures and events.

About 10,000 caves are known in Romania today (T. Orghidan *et al.*, 1984). 82% of these are less than 100-metre long whereas those that are over 1 km in length represent only 2% of the total (C. Goran, 1982). It is in this latter category that the Cadastre of Romanian Caves includes the Ialomița Cave, which is the subject of this historical study.

The Ialomița Cave has an explored and mapped length of 1128 metres and a positive unevenness of 62 metres (S. Grigore, 1989), with 450 metres arranged for sightseeing, thus being one of the most famous and visited caves in Romania.

Geographic location

The Ialomița Cave is located in Dâmbovița County, on the territory of the locality of Moroieni. The GPS coordinates of the entrance are 45.392972° N, 25.436796° E and 1550 metres absolute altitude.

Geographically, the cave is in the Bucegi Massif (Southern Carpathians), Mount Bătrâna, whereas hydrologically, it lies in the Ialomița River basin, one of the most important tributaries of the Danube.

In the *Systematic Catalogue of the Romanian Caves*, it was assigned the code number 1241/1, being the first and most important cave in the Upper Ialomița Basin. The only accurate name from this point of view is *Peștera Ialomiței* ‘the Ialomița Cave’, a term used for more than two centuries in all significant bibliographical sources (J. G. Kleinkauf, 1793; J. Paget, 1839; C. J. Andrae, 1855; F. Fronius, 1855; M. J. Salzer, 1860; C. Boner, 1868; C. Bolliac, 1870; E. Bielz, 1884; I. P. Licherdopol, 1894; J. Romer, 1899; A. Vlahuță, 1901; C. Ionescu, 1913; M. Haret, 1924; M. Șerban, 1961; C. Manoliu, 1969; L. Gruia, 1979; T. Orghidan, 1984; A. Prox, 1986; D. Frunzescu, 1988; S. Grigore, 1989). However, it is also referred to, completely inexplicably, as the Ialomicioara Cave (M. Bleahu, 1956), which is a fallacy because the Ialomicioara is a tributary of the Ialomița downstream, over 20 km away from the cave. Since then, this name has often been used, with no scientific grounds, particularly online or in the tourist or fiction literature.

Chronology of knowledge

The earliest evidence of occupation in the upper

valley of the Ialomița River has been identified in the caves located in the area of the Tătaru Gorges; several lithic tools and hearths belonging to the Mousterian and the Gravettian have been found, but there is no absolute dating of the Palaeolithic levels (Al. Păunescu, 2000). The first investigations in these caves were conducted in 1957, but due to their interruption, the knowledge about the supposed Palaeolithic settlements was not improved; to this day, they have remained the highest Palaeolithic sites in Romania, located at an altitude of 1548 m (P. Samson, C. Rădulescu, 1963).

Although there are many unconfirmed legends about the cave and the small monastic skete located at its entrance, presumably built under its vault as early as the 16th century, the first written document is dated to the mid-18th century, on 27 October 1752. It refers to the monastery status of the abovementioned monachal

settlement under the pastorate of the Archimandrite Iacov, the abbot of the Ialomița Monastery, according to the manuscript in Slavonic in the National Archives of Romania, no. 127, fasc. 372, v. (M. Vlasie, 2005; M. Petcu *et al.*, 2011).

The following written mention dates to the end of the 18th century and is a short description of the cave written in German, on page 106 of the quarterly *Siebenburgen Quartalschrift* printed in Sibiu (J. G. Kleinkauf, 1793).

The first more comprehensive description of the cave, of the cells and of the small monastery church dates to the first half of the 19th century and was printed in London, in English, by the famous British traveller John Paget, who was put up for the night by the very Hieromonach Paisie under the cave vault in the summer of 1883 (J. Paget, 1839).



Fig. 1 - Engraving made in 1860 by Karl Danielis

In the second half of the 19th century, the Ialomița Cave began to draw personalities of the age from various fields (geographers, geologists, botanists, zoologists, historians, writers, painters and photographers), who either made special discoveries or left unique testimonies of their passage under the impressive arch of this singular karstic phenomenon (C. J. Andrae, 1855; F. F. Fronius, 1855; M. J. Salzer, 1860; C. Boner, 1868; C. Bolliac, 1870; D. Brândză, 1881; E. Bielz, 1884; I. P. Licherdopol, 1894; V. Popovici-

Hatzeg, I. Sângeorzan, 1898). An 1860 engraving of the painter Karl Danielis (Fig. 1), which is the first representation of the cave, stands out through the accuracy of details; the first picture of the small church and monks, taken by the famous photographer Carol Popp de Szathmary in 1866 (Fig. 2), is also worth mentioning.

The most spectacular expedition in the cave took place between 12 July and 13 August 1870 and was organised by Cezar Bolliac, a member of the

Archaeological Committee founded in 1864 within the National Museum of Antiquities. Until then, a 100-m long portion of the cave had been known, at the end of which an underground stream gushed from under the low vault of a passage; it is where C. Bolliac started to dig a deep ditch in the wet gravel in order to drain the

water to the Ialomița River. It took 6-7 hours and 15 men to do it. His remarkable intuition, of a true pioneer of Romanian speleology, led to the full success of the first unclogging in the history of underground investigations, resulting in the first exploration of about 400 metres of galleries and new chambers (S. Grigore, 1988).



Fig. 2 - Photograph taken in 1866 by Carol Popp of Szathmary

The Sala Urșilor ('Bear Hall') was also explored on this occasion and dozens of intact skeletons of *Ursus spelaeus*, the waterfall and underground lakes were found and then described in an extensive report submitted to the Ministry of Public Instruction, but to no avail (C. Bolliac, 1870). Unfortunately, the indifference of authorities made people forget about this event for a quarter of a century.

On 14 October 1897, the members of the 'Sinaia' Carpathian Society widened the 13-m-long passage through which C. Bolliac and his team had crawled and began the arrangements for tourists' visits. The geological engineer Valeriu Popovici-Hațeg and the forest engineer Iosif Sângeorzan were employed to draw up the topographic plan of the galleries, which was published the following year in the Bulletin of the Society of Mining Engineers and Industrialists in Romania (V. Popovici-Hatzeg, I. Sângeorzan, 1898), resulting the first map of a cave in the Kingdom of

Romania, with the Ialomița Cave being officially acknowledged as the longest cave in the country (V. Giurgiu, 2019).

On 19 April 1898, at the meeting of the Committee of the 'Sinaia' Carpathian Society, chaired by the Archimandrite Nifon Popescu, the Regulation for cave visitation was laid down. Thus, it became the first cave in Romania to be touristically arranged and economically exploited by charging a fee of 1 leu/person (N. Baticu, R. Țițeica, 1984). It became so popular in the press of the age that the author Alexandru Vlahuță himself would come to investigate the cave and later write one of the most emotional descriptions in his monumental work *România Pitorească* (A. Vlahuță, 1901).

The beginning of the 20th century brought along a particular emulation among researchers from various fields, the civil society and those passionate about tourism, climbing and speleology. Nevertheless, it is

very important to note that until then, those interested in the cave and the surrounding area had been mostly foreigners (Germans, Hungarians, Austrians, English, Greeks) whereas now almost all those drawn to unravelling the mysteries hidden in the heart of Mount Bătrâna were Romanian. Thus, the geologist Valeriu Popovici-Hațeg would continue the investigations in the Bucegi Massif and inside the cave, making connections between the karstification phenomenon and the glacial period, gathering samples of minerals and fossils for something he had long desired, namely a National Geological Society, which only the great powers of Europe could boast of. It is he who, in 1902, would submit a documented memoir to the authorities, backed by a thorough Report on the need for research and supervision of the geological structure with a view to streamlining the management of Romanian natural resources. His endeavour was successful and on 1 April 1906 King Carol I would establish, by Royal Decree, the Geological Institute of Romania, which soon became a prestigious institution in Europe.

The worldwide recognition of the great scholar Emil Racoviță and the foundation of Biospeleology as a new science in 1907 would stimulate the biologist Constantin N. Ionescu from the University of Iași to thoroughly research the hidden life in the caves of the Southern Carpathians and the first one to be investigated was the Ialomița Cave. The results of his work are presented in his study *Biospeology of the Southern Carpathians* (C. N. Ionescu, 1913), uncovering new species for science, particularly Collembola and arachnids. He would note that, in the migration process of troglofaunal Coleoptera, the Olt Gorges had been an insurmountable barrier, as this bioindicator fauna was missing in the caves in the eastern half of the Southern Carpathians (V. Decu, R. Ginet, 1971).

After World War I, Emil Racoviță returned from the Sorbonne and founded the first Institute of Speleology in the world at Cluj, by Royal Decree signed by King Ferdinand on 26 April 1920; it became the national centre for cave inventory and the world centre of research in biospeleology (M. Bleahu, 1978). Moreover, the civil society organised more efficiently and contributed to the development of access and accommodation infrastructure for the visitation and investigation of the Ialomița Cave. The ‘Hanul Drumeților’ Association built the first mountainous shelter in the area, known as Casa Peștera (‘Cave House’), inaugurated on 21 September 1923 (M. Haret,

1924). The soul of this achievement was Mihai Haret who, the following year, would publish the guide ‘Peștera Ialomiței și Casa Peștera’ (Ialomița Cave and Peștera ‘House’), a reference book that would establish him as the founder of modern tourist literature in Romania (N. Baticu, R. Țițeica, 1984).

Unfortunately, in 1940, by a strange coincidence, both the Ialomița Monastery and Peștera House burnt to the ground. In fact, over the years, these wooden constructions would regularly catch fire and their restoration was sometimes achieved with great difficulty, sometimes several decades later.

Following World War II, the Ialomița Cave was back in the spotlight when the climber Emilian Cristea found new galleries beyond the La Altar point in 1952 (E. Cristea, 1961). His collaboration with the Cluj team of speleologists, which had started at Cetățile Ponorului, was fruitful here as well. Thus, in December 1953, the team led by Iosif Viehmann and Mihai Șerban surveyed all known galleries, including the active gallery at the end of the cave, and the result was 804 metres of halls and galleries as well as a positive unevenness of 62 metres (Fig. 3) (M. Șerban, I. Viehmann, 1974). At the same time, there was also a concern for the protection of nature, for the declaration of areas as nature monuments and natural reserves, a successful activity that in 1948 culminated in declaring the Bucegi Massif as a Natural Reserve (A. Beldie, 1956). The brochure entitled ‘Pitorescul Regiunilor Carstice din R.P.R.’ (The picturesque Karst Regions of the Romanian People's Republic) (M. Bleahu, 1956), written for the public at large and published the same year, may also be considered a further argument in this respect. One may also add here the appearance of the first photo album, ‘Peșteri din România’ (Caves in Romania) (M. Șerban *et al.*, 1961), and the strictly scientific approach to the subject in the article ‘Harta Regiunilor Carstice din România’ (Map of Karst Regions in Romania) (T. Orghidan *et al.*, 1965). All these publications include significant images and generous pages on the Ialomița Cave and the need to protect it against destruction. Furthermore, two doctoral theses, awarded by the Romanian Academy, one in the field of geomorphology and the other in the field of geology, deal with issues related to the Ialomița Cave in the broad context of the study of the Bucegi Massif (V. Micalevich-Velcea, 1961; D. Patrulius, 1969); these issues were solved by proposing new geomorphological and tectonic methods regarding the origin of this cave.

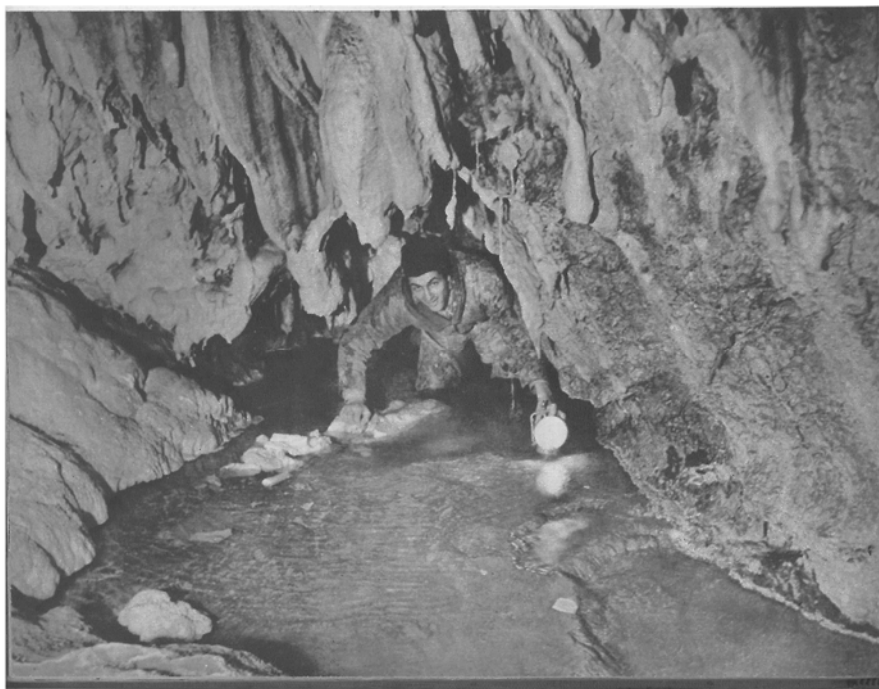


Fig. 3 - Photo from 1953 taken by Iosif Viehmann at the end of the cave.

During this prolific decade, the first in-depth studies on algae in Romanian caves were also conducted. In a paper published in *Revue Algologique* in Paris, dr. Lucian Gruia, the Director of the Biological Research Station in Sinaia, would impart the discovery in the Ialomița Cave, namely a new genus and a new unique species, to the entire scientific world (L. Gruia, 1964, 1966).

The cave was electrified in 1967 and, after the territorial reorganisation of Romania; tourist exploitation came under the management of the Tourism Office of Dâmbovița County. The influx of tourists would increase, but the arrangement of the site remained precarious, with the same old wooden footbridges, which made the cave visitation a real adventure (T. Orghidan *et al.*, 1984).

The first National Meeting of speleological explorers in Romania took place in Sinaia, on 20-23 December 1973. Thus, the Ialomița Cave became, for a few days, the focus of interest of the most passionate underground explorers in the country (V. Giurgiu, 1977, 2019).

Starting with 1976, Mount Bătrâna drew the interest of the speleologists of the HADES Club, Ploiești, who would find a huge new hall, 55-metre long, 15-metre wide, 30-metre high, on 27 December 1978. Certain inconsistencies of old maps with the newfound

reality, noted during the explorations, convinced Stelian Grigore, the Hades Club President, to remap the entire cave as well as the adjacent karstic area as far as Valea Horoabei. The result was a unique synthesis, which included the new official length of the cave, 1228 metres, presented at the National Speleology Meeting in Costinești in 1981. Numerous other studies were also conducted on the chemism of underground and surface waters, on *Ursus spelaeus* fossils, on ice formations and underground climate (T. Orghidan *et al.*, 1984; D. Frunzescu *et al.*, 1988; A. Nicolau, 1988; S. Grigore *et al.*, 1989).

In 1991, the Pestera Ialomiței Skete, previously subordinated to the Sinaia Monastery, would go under the Archdiocese of Târgoviște, which would commence the restoration of the old monastery under the cave vault in 1993. The new church was consecrated on 29 June 1996 by His Holiness TEOCTIST, Patriarch of the Romanian Orthodox Church.

In July 2014, Dâmbovița County Council included the tourist arrangement of the Ialomița Cave in an extensive project of rehabilitation of 1.3 million Euros and the new sight was inaugurated on 25 July 2015. Thus, a century and a half after C. Bolliac's great discovery, the vast couloirs and halls of the Ialomița Cave have finally acquired the status they deserve - a pearl of speleotourism in Romania, under the

administration of the Princely Court National Museum Complex of Târgoviște (Fig. 4).

Conclusions

The Ialomița Cave is an exquisite karstic phenomenon, with a geologically, tectonically, hydrologically and geomorphologically complex speleogenesis. From the biospeleological point of view, the cave is of interest due to the existence of an alga species, which is unique in the world, *Ialomitzia cavernicola* Gruia 1964.

Its speleotouristic value is inestimable due to its location in the most visited mountainous area of Romania, which is part of the Bucegi National Park. In terms of spirituality and faith, the Ialomița Cave is a special landmark of Romanian Orthodox monachism. The historical events and the stages of knowing this natural monument are a singular material and immaterial treasure, which should be studied and valorized in the future.

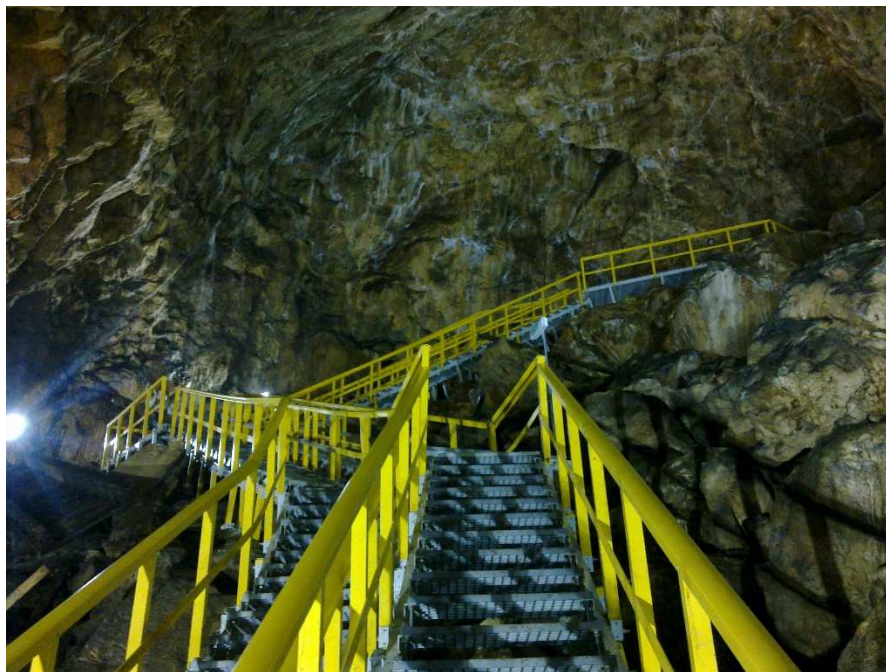


Fig. 4 - The modern arrangement of the cave in the Bear Hall (photo Lidia Dragomir).

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