While writing the texts collected in this volume, the authors have been living through an extraordinary experience, coping with everyday tasks made more complex by the crisis we have been facing, and creating new habits necessary to navigate the new environment. Although exceptional from our point of view, our present experience is far from unique, and the human history is replete with turbulent periods of crisis, profoundly disrupting the habitual order.
The aim of this collection is therefore to investigate some of the situations of crisis in the past from the archaeological perspective, in a search for insights that may help us to better understand and cope with the present one. At the same time, the papers demonstrate some of the vast possibilities of archaeological investigation to contribute to our understanding of the world we live in, as well as of the past societies whose material traces we study.

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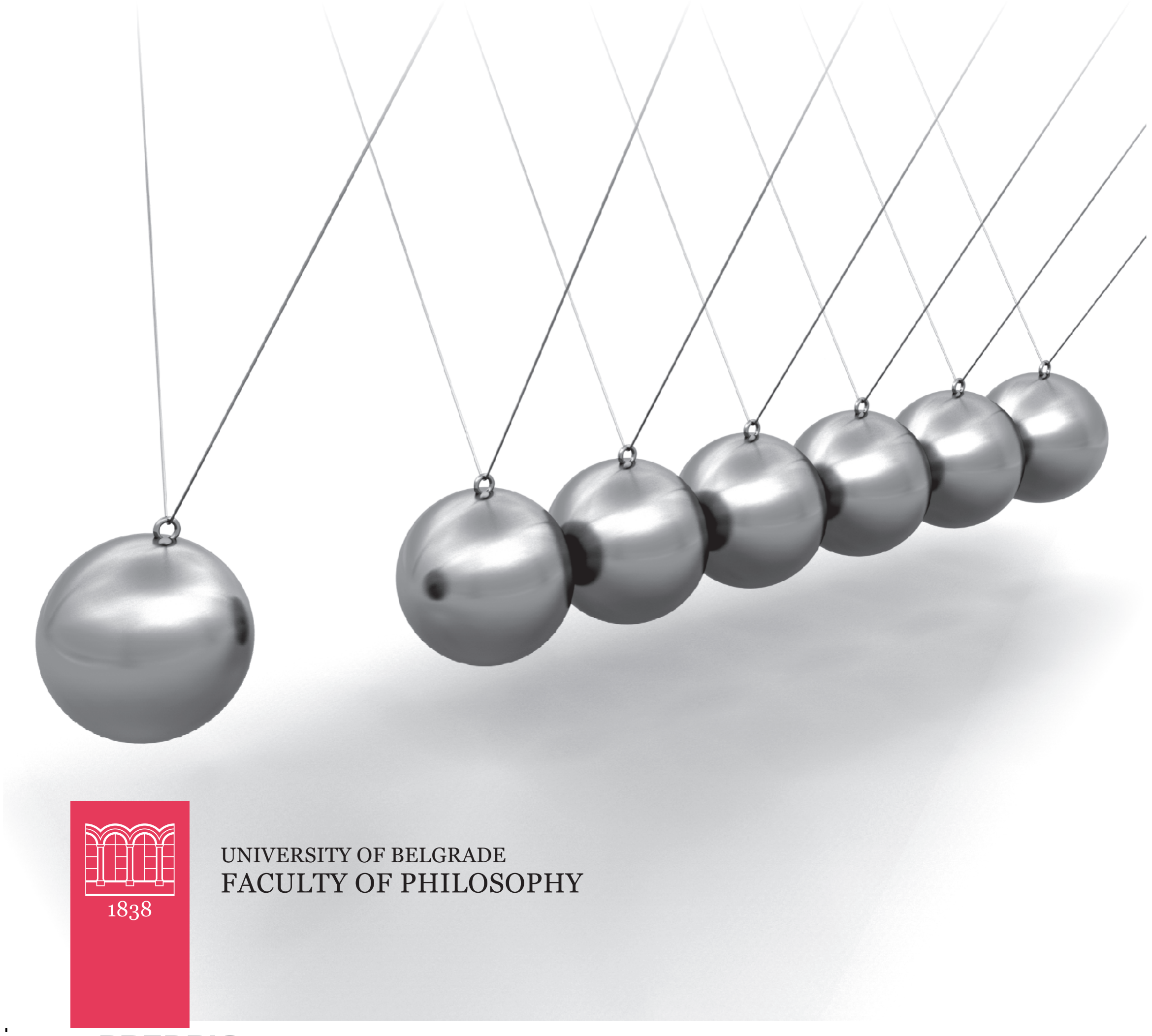
Staša Babić / Archaeology of Crisis

HUMANS AND SOCIETY IN TIMES OF CRISIS

Archaeology of Crisis

Edited by Staša Babić



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Edited by Staša Babić

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Anđa Petrović*

DAILY STRUGGLES OF PREHISTORIC COMMUNITIES IN THE IRON GATES REGION DURING THE LATE MESOLITHIC AND EARLY NEOLITHIC

Abstract: The main objective of this study is to provide a micro-level observation of everyday activities in the Iron Gates region, in the period between the end of the 7th and mid-6th millennium BC. The principal methodological tool is the application of use-wear analysis on chipped stone assemblages from the Lepenski Vir, Padina and Vlasac sites, where the Late Mesolithic and Early Neolithic sequence is noted. Besides the general results of the utilization of lithic artefacts, like their employment in various undertakings such as scraping wood and hides, or engraving stone or bones, use-wear analysis can reveal the exact processes behind the activities. The obtained data can indicate the struggles of shaping the available raw materials and the way prehistoric people confronted these quotidian difficulties. The discovered results are crucial for understanding human cognition, but are also proof of the ability of ancient individuals to approach and overcome small-scale crises in everyday life.

Keywords: use-wear analysis, chipped stone tools, Iron Gates, Late Mesolithic, Early Neolithic

Introduction

The crisis is, usually, explained as a time of intense difficulty or danger. It is a deviation from accustomed life, a peculiar situation that urges for new solutions and ways out of the unsustainable present.

This paper aims to observe the crisis in prehistoric communities on a micro-level based on the analysis of chipped stone assemblages. Technological and typological analyses are well-developed, and their achieve-

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ments are known together with their limits. The need for new approaches that would analyse the function was obvious and use-wear analyses were established in the fifties by the Russian archaeologist S. Semenov (1957). His pioneer work, the book *Prehistoric Technology* (Первобытная техника), was translated and disseminated in the West during the sixties (Semenov, 1964). Interestingly, this publication coincided with the global rise of New Archaeology (e.g. Binford, 1962). There was a crucial similarity in Semenov's work and the New Archaeology, as the New Archaeology emerged from the American anthropological school that highlighted the use of the artefact as a result of human activities and processes in correlation with the environmental and cultural influences (Hayden & Kamminga, 1979; Schiffer, 1975; 1976). Hence, the functional analyses were and still are crucial for the interpretation of archaeological data and for analysing human behavior in the past. With the emergence of the high-power approach (HPA) introduced by L. Keeley (1980) the methodology was further developed in the eighties (e.g. Andreson-Gefraud, 1981; Jensen, 1988; Van Gijn, 1989; Vaughan, 1981; 1985). In the following decades, the use-wear analysis was enriched with various new techniques, microscopic systems, and software for quantifications (e.g. Borel et al., 2014; Evans & Donahue, 2008; González & Ibáñez, 2003; Verges & Morales, 2014). The most important area of traseology was the implementation and development of the residue analysis (e.g. Cristiani et al., 2009; Jahren et al., 1997; Lemorini & Nunziante Cesaro, 2014; Monnier et al., 2018; Nunziante Cesaro & Lemorini, 2009).

This research aims to focus on two types of phenomena noted in the general results of use-wear analysis of chipped stone assemblages from the Iron Gates region. The first one is the processing of hard animal materials that were previously modified and softened with diverse methods, and the second one concerns the use and identification of additives with animal-based materials. These two occurrences are very indicative for the understanding human cognitive abilities and perceiving the daily struggles people were faced with. Furthermore, these phenomena are the only ones among the gathered use-wear results that can testify about human resourcefulness, as they offer insight into the process, and by which means was the activity executed.

The remaining results (non-animal based) are focused on general information, as working vegetables (tubers, herbaceous, silicious plants, or cereals) or mineral-based materials (e.g. engraving soft stone, limestone). These results provide another type of data and different insights, as exact worked material, the position of the tool during the use (e.g. on the ground), time of use or efficiency of the tool, but not the phase of the contact material.

Geographical and Chronological Background of the Study

Many sites were recovered in the region of Iron Gates during the excavations which took place in the sixties and seventies of the last century (Srejović, 1969). The sites discussed in the study, Lepenski Vir, Padina, and Vlasac (Fig. 1), belong to the group of settlements that date back to the Late Glacial and Early Holocene period (Bonsall et al., 2008; Borić, 2011).

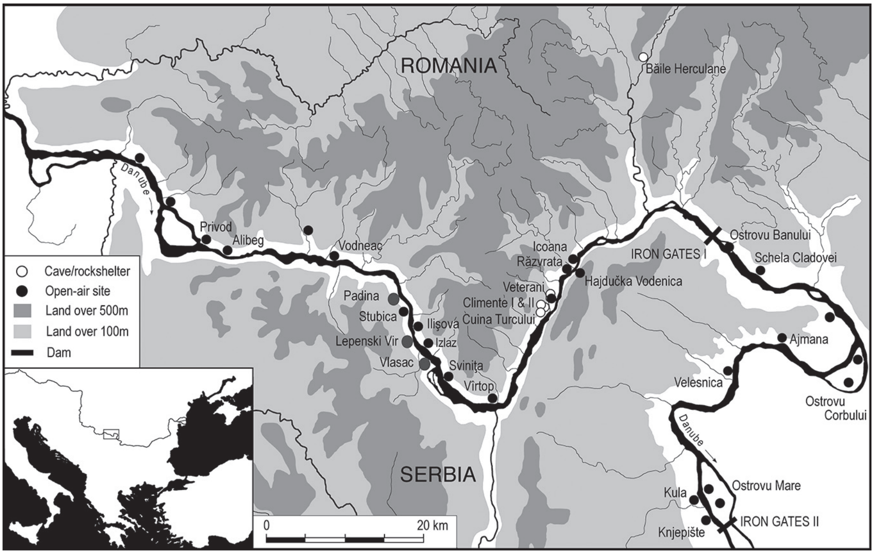

Figure 1. Map of the Iron Gates region, map courtesy of C. Bonsall (after Bonsall et al., 2008)

Various studies focused on the dating of the sites, their architecture, analysis of human remains, archaeozoological and faunal remains, analysis of chipped stone and ground stone tools (e.g. Antonović, 2006; Borić, 2016; Borić et al., 2018; Borić & Dimitrijević, 2007; Dimitrijević et al., 2016; Cristiani et al., 2016; Filipović et al., 2010; Jovanović et al., 2019; Kozłowski & Kozłowski, 1984; Mihailović, 2004; Radovanović, 1996; Radović & Stefanović, 2015). However, the immense archaeological material and its preservation have left numerous possibilities for further exploration of the life of the communities that inhabited the Danube bank in prehistory.

The chronological frame of the occupation of the open-air settlements in the Iron Gates is very wide, spanning from around 9600 cal BC to the Late Eneolithic-Early Iron Age (Borić, 2011; Radovanović, 1996). The chronological scope of this study is the end of the 7th to mid-6th millennium BC, or the Transitional period of the Iron Gates (c. 6170–5940 cal BC, Borić et al., 2018).

Sample, Hypothesis, and Methods

Sample

In total, 753 samples of chipped stone tools from Lepenski Vir, Padina, and Vlasac were analysed for the purposes of a broader study[1]. Sampling was based on the availability of absolute dates (cf. Borić et al., 2004; Borić & Mirackle, 2004; Borić & Dimitrijević, 2007; Bonsall et al., 2008; Borić et al., 2018). The sampled tools (46 specimens) are from various contexts such as houses, the area under the house floors, ash places, pits, burials, and dwelling features, labelled as Late Mesolithic and Early Neolithic (Tab. 1).

Hypothesis

The initial idea was that human behavior and the problem-solving patterns of prehistoric communities from the Iron Gates can be inferred by tracking the exact activities performed using chipped stone tools.

The first assumption was that hard animal materials, like bones or antlers, needed certain previous alterations to become more suitable for shaping. Such an observation derived from the fact that working with dense materials like bone or antler and trying to cut or shape them without previous modification is hard, if not impossible, depending on the animal species and age. Many ways of softening the antler or bone are known in ethnographic parallels and archaeological experiments, such as immersing in water, boiling, softening in sorrel, sour milk, formic acid, ash, or lye (e.g. Newcomer, 1976). The results of previous studies supported differentiation between the tools employed in the activities with softened and unsoftened materials in the Late Palaeolithic, Mesolithic, and Neolithic communities in Poland (Osipowicz, 2007). Some more recent studies show that soaking antler for longer periods, as one week, improves its workability (Langley & Wisher, 2019). Accordingly, it should be noted that the process of softening is challenging since the materials should not lose durability or elasticity, which contributes to the difficulty of processing the mentioned materials.

The second hypothesis is the possibility of the use of specific additives, in the tanning procedures or for the preservation of animal-based materials. The use of additives was not required or needed in the processing of all the materials available in prehistory, but their application was necessary, for example, in hide tanning procedures. Hence, it should be questioned if the communities in the Iron Gates were acquainted with the

1 The PhD thesis *Mesolithic-Neolithic Transition in Iron Gates (Serbia): Human Activities from Use-Wear Perspective*, Anđa Petrović, Sapienza University of Rome and University of Belgrade.

benefits of ash, ochre, or other additives and knew how to use them. The main aim of tanning is to permanently alter the protein structure of the skin, making it more durable and less susceptible to decomposition (Brown & Taylor, 2003; Deferrari, 2001) transforming it into a hide practical for the making of clothes and other leather goods. The starting assumption was that diverse polish properties, such as brightness and striation found on chipped stone tools, can be connected to the use of additives, which has been proven at other prehistoric sites (Lemorini et al., 2020). Ochre, similar to ash, has both antibacterial properties and preservative effects (e.g. Mandl, 1961; Rifkin, 2011). Considering all of the above mentioned, it is important to investigate if the communities in the Iron Gates were aware of the named characteristic of additives and whether they possessed the knowledge and skill to use them on a regular basis.

Methods

The use-wear analysis is based on the recognition of the macro (edge-damage) and micro (micro-wear) variables, their observation, and the final interpretation. Based on the micro interpretation we can determine what elements of micro-polish are associated with each contact material. In this way, it is possible to distinguish the use of softening techniques or additives with materials, or their absence.

The use-wear analysis included both low and high-power approaches. The analyses were done with Stereomicroscope Nikon SMZ-U with reflected light (x0.5 objective, x10 oculars, range of magnifications from 0.75x to 7.5x), Metallographic microscope Nikon Eclipse ME 600 (x5, x10, x20, x50 objectives, x10 oculars), and Digital Microscope Hirox RH 2000 at Laboratory of Technological and Functional Analysis of Prehistoric Artefacts (LTFAPA) at Sapienza University of Rome. The photos were processed with Helicon Focus software.

A standard cleaning procedure, used at the LTFAPA Laboratory, was applied to the sample. The protocol consists of 15 minutes of cleaning in an ultrasonic tank with a mixture of demineralized water and Derquim® soap, and a second wash with only demineralized water for 10 minutes.

Results

Around 6% (46 artefacts) of the total sample shows traces of worked animal materials in diverse phases of processing and refinement with additives (Tab. 1). It should be noted that hide processing in general, without any implications of a specific technique or use of supplementary powders or materials, is excluded from the analysis. For example, fresh hide is withdrawn from the discussion, since it only indicates the initial phase of skin processing. The second group that was not considered were polishes indicating fresh hide mixed with other materials (e.g. bone, tendons, or ligaments), suggesting butchering, another activity that does not require previous adjustments.

Table 1. Tools used for working the pre-modified hard animal materials and materials with additives

Sample #	*Context*	*Typology*	*Activity*	*Worked Material*
Sample 1	House 8, Lepenski Vir	Flake	Cutting	Antler
Sample 2	House 8, Lepenski Vir	Blade	Cutting, Sawing	Antler
Sample 3	House XXXIII, Lepenski Vir	Blade	Cutting, Scraping	Hide, first phase of hide processing
Sample 4	House 41, Lepenski Vir	Flake	Cutting, Scraping	Semi-dry hide + ash, angular movement and finishing process of small hide portion
Sample 5	House 41, Lepenski Vir	Flake		Soft hide, dry hide, finishing process
Sample 6	House 37, under the floor, Lepenski Vir	Flake	Scraping	Drying Hide
Sample 7	Midden C/II, Lepenski Vir	Scraper	General working	Fresh bone
Sample 8	House 36, Lepenski Vir	Flake	Cutting	Hide, (finishing the product)
Sample 9	House 36, Lepenski Vir	Flake	Cutting, General working	Towards fresh hide
Sample 10	House 36, Lepenski Vir	Flake		Semi-dry hide
Sample 11	House 32, ash place, Lepenski Vir	Scraper	General working	Bone + ash

Sample #	*Context*	*Typology*	*Activity*	*Worked Material*
Sample 12	House 32, Lepenski Vir	Flake	General working	Hide in processing
Sample 13	House 26, Lepenski Vir	Blade	Cutting	Hide + ash
Sample 14	House 26, Lepenski Vir	Trapeze	Cutting, Scraping	Soft animal material + ochre
Sample 15	House 35, Lepenski Vir	Blade	Mixed, cutting, scraping	Antler
Sample 16	House 35, Lepenski Vir	Blade	Mixed, cutting, scraping	Antler
Sample 17	House 35, Lepenski Vir	Blade	Cutting	Hard animal material + hide
Sample 18	Under the floor of house 47, Lepenski Vir	Flake	Indeterminable	Hide + ochre
Sample 19	Sector I, Trench 1, Padina	Blade	Cutting	Antler
Sample 20	Sector I, block 1b, Padina	Blade	Cutting, Scraping	Dry hide
Sample 21	Sector II, block 2a, Padina	Flake	Cutting	(Almost) Dry hide
Sample 22	Sector II, block 2a, Padina	Flake	Cutting	Bone mixed with ash
Sample 23	Sector II, block 2a, Padina	Flake	Cutting	Hide cleaning of bigger animal
Sample 24	Sector II, block 2a, Padina	Flake	Cutting	Hide and meat (skinning)
Sample 25	Sector II, block 2a, Padina	Flake	Cutting	Semi-dry hide
Sample 26	Sector II, block 2a, Padina	Flake	Cutting	Hide + additive
Sample 27	Sector II, block 2a, Padina	Flake	Cutting	Dry hide
Sample 28	Sector II, block 2a, Padina	Flake	Indeterminable	Fresh antler (+ something greasy)

Sample #	*Context*	*Typology*	*Activity*	*Worked Material*
Sample 29	Sector II, block 2a, Padina	Flake	Cutting, Scraping	Antler + non diagnostic material (beneath), hide + mineral (above)
Sample 30	Sector II, block 2a, Padina	Flake	Cutting	Hide mixed with additives previously
Sample 31	Sector II, block 2a, Padina	Flake	Incision	Hide + mineral
Sample 32	Sector II, block 2a, Padina	Flake	Indeterminable	Hide + additive and bone
Sample 33	Sector III, profile 3, segment 1, Padina	Flake	Scraping, Cutting	Hide in processing
Sample 34	Sector III, profile 3, segment 1, Padina	Flake	Indeterminable	Dry hide
Sample 35	Sector III, profile 3, segment 2, Padina	Flake	Scraping	Humid bone
Sample 36	Sector III, profile 3, segment 2, Padina	Flake	Cutting	Dry hide
Sample 37	Sector III, trench 5, Padina	Flake	Cutting, Scraping	Dry hide
Sample 38	Sector III, trench 3, Padina	Flake	Cutting	Antler
Sample 39	Sector III, trench 3, Padina	Blade	Cutting	Bone
Sample 40	Sector III, trench 3, Padina	Blade	Indeterminable	Antler
Sample 41	S.A. I. II, Vlasac	Flake	Scraping	Dry hide with less dry parts
Sample 42	Burial 40, Vlasac	Flake	Indeterminable	Hide + additive

Sample #	*Context*	*Typology*	*Activity*	*Worked Material*
Sample 43	House 5, Vlasac	Flake	Cutting	Hide + ash
Sample 44	a/18, floor, house 2, Vlasac	Splinter	General working	Dry hide
Sample 45	Burial 14, Vlasac	Flake	Sawing	Hide + additive
Sample 46	Burial 14, Vlasac	Flake	Cutting	Dry hide + hard material

Lepenski Vir Results

Around 5% (18 artefacts) of the total sample of the Lepenski Vir assemblage exhibit traces of utilization with adapted bone, antler, and hide, or additives. Seven tools have polish attributed to the working of hard animal materials that were processed before the use. The conclusion is based on the characteristics of the micro polish variables commonly used in the use-wear analysis. For example, one of them is topography, which describes the morphology of the polish, and in the case of processing hard animal materials, as in these cases, the topography is flat. Linkage, which describes the connectivity of diverse polish features is tight to covered, and texture is smooth.

Three blades (sample 2, 15, and 16) and one flake (sample 1) were used for working the antler, according to the melting type of topography – a very distinctive attribute only connected to this type of material. Two scrapers (sample 7 and 11) were used for bone working, and one blade (sample 17) for cutting the unidentified hard animal material mixed with hide. The scraper from house 32 (sample 11), found in the ash place, has traces of ash mixed with bone wear. Very high brightness of the polish, abrasion near the working edge, and the formation of the striation are the main characteristics for the presence of ash. Additionally, the scraper (sample 7) found in the midden was used for the general working of fresh bone, confirmed by flat topography and smooth texture (Fig. 2a).

A high quantity of tools used during the final phases of skin processing was noted at Lepenski Vir. Three flakes, found in three different contexts (in houses 41 [sample 4, Fig. 2b], 36, and under the floor of house 37), have the same polish characteristic – granular topography and a very rough texture. The hide, worked in the final phases of tanning, is very dry but easy to manipulate. It should be highlighted that dry hide can provide more developed edge rounding, creating a deceptive image, and macro characterization in these cases can be interpreted incorrectly as hard material.

Only two tools, a flake (sample 4) and a blade (sample 13), have traces that indicate the use of ash mixed with skin. The specific characteristics of ash are visible as there is a light layer of polish on the working edge on the macro-scale (Fig. 2c). The highest amount of brightness is prominent, together with the striation, near the outer edge (Fig. 2d).

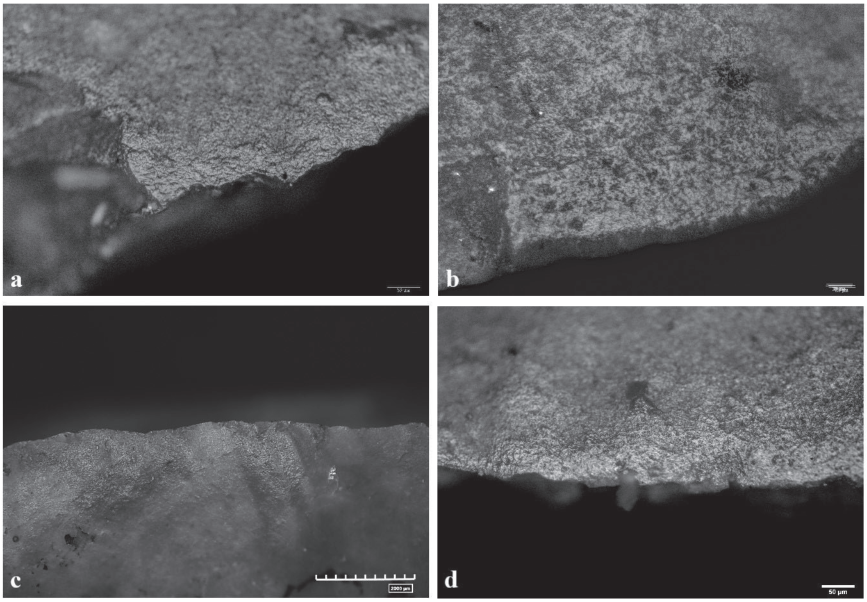

Figure 2. Macro and micro traces found on tools from the Lepenski Vir assemblage: a) micro-wear, sample 7, scraper, pit, general working of fresh bone; b) micro-wear, sample 4, flake, house 41, cutting and scraping of semi-dry hide in finishing phase of work; c) edge-damage, sample 13, blade, house 26, cutting hide with ash; d) micro-wear, sample 13, blade, house 26, cutting hide with ash.

A trapeze from house 26 and a flake found under the floor of house 47 have morphological indications for residues of ochre, distinguished as small red to orange conglomerations. Trapeze (sample 14) was used for processing soft animal materials, which refer to meat and animal tissues and ligaments in general, detected by feather and step scar termination. The identification of the material, in this case, was done solely based on the macro traces, since micro traces did not divulge enough information about the exact contact material. The flake (sample 18) worked the hide mixed with ochre, resulting in a smooth texture and compact linkage, which can be connected both to the time of use and to the fact that the additive created a more abraded surface.

Two tools were used for working semi-fresh hide (sample 3 and 9), and the polish is interpreted as working the hide towards the fresh state. These results indicate the processing of skin that was refined in some period after it was taken off the animal, not immediately after the skinning.

Padina Results

From the total of the sampled artefacts from Padina, 10% (22 artefacts) have traces that imply the use of additives or working pre-processed materials. Regarding hard animal materials, seven tools were used for processing antler and bone in diverse phases of their modification and combined with various additives. Macro traces connected to the bone working are represented by larger snap and step scars, forming a couple of rows that are overlapping, as detected on sample 35 and 20 (Fig. 3a, c). Micro traces of bone polish are defined by flat to domed topography, smooth texture and tight to covered linkage (Fig. 3b). The localization depends on the movement angle, type and size of the bone, and it is usually localized on the edge and surface area. In cases when the additives are present and mixed with the main contact material, the polish brightness is high, as on sample 22 (Fig. 3d).

Antler processing is not always distinguishable from the bone working or hard animal materials in general. What is important to observe is the topography, both on lower and higher areas of polish, and the linkage dispersal. As it was mentioned before, the antler is associated with the melted topography, which is flat in some parts and has covered linkage (Fig. 3e).

Polish indicating use of tools for refining hide in various phases and the use of additives was found on all three sectors of Padina. The diversity of the hide processing stages is very important for understanding the everyday dynamics of the Padina settlement in the Transitional period, and these data complement the overall high percentage of hide treatment detected in the Iron Gates. Processing of hide is observed, identified based on the developed granular topography present on the outer edge or edge, depending on the hide dimensions. The texture of the traces is connected to the exact state of the hide, varying from smooth to rougher on semi-dry hide, to rough polish on dry hide, as visible on sample 27 (Fig. 3f). Besides the hard animal materials and dry hide processing, tools with traces of semi-fresh to fresh hide working are present at Padina, and they are characterized by smooth texture.

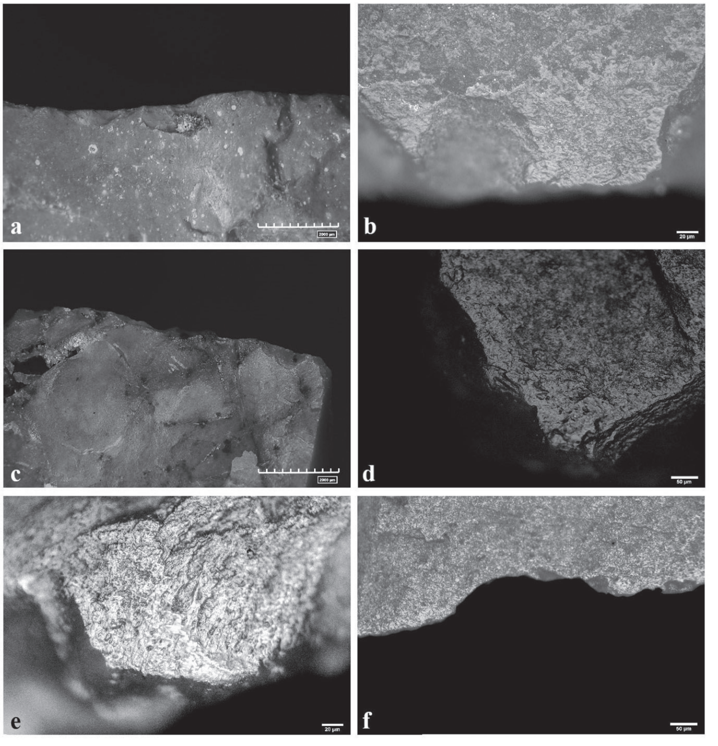

Figure 3. Macro and micro traces found on the tools from Padina, assemblage:
a) edge-damage, sample 35, flake, Sector III, scraping of humid bone;
b) micro-wear, sample 35, flake, Sector III, scraping of humid bone;
c) edge-damage, sample 20, flake, Sector II, cutting of bone with ash;
d) micro-wear, sample 22, flake, Sector II, cutting of bone with ash;
e) micro-wear, sample 28, flake, Sector II, working of fresh antler and greasy material; f) micro-wear, sample 27, Sector II, cutting of dry hide.

Vlasac Results

The tools used for complex activities are represented in a lower quantity at Vlasac (4% or 6 artefacts) in comparison to the other sites in the Iron Gates. Two artefacts have polish with granular topography and rough texture, which is specifically connected to dry hide. Sample 44 (Fig. 4a-b) is unique, as the traces are positioned beyond the outer edge and edge, and the linkage is open to half-tight. These variables are important because they indicate the larger dimensions of skin that was refined. The topography of sample 41 shows that the flake was used for scraping dry, semi-dry to semi-fresh hide (Fig. 4c-d), and there are no data related to the superposition of the traces. These conclusions imply that the flake was used simultaneously for all the diverse surfaces of the hide (both dry and semi-dry). One flake (sample 43) was used for working the hide mixed with ash, based on the half-tight linkage and granular texture (Fig. 4e-f).

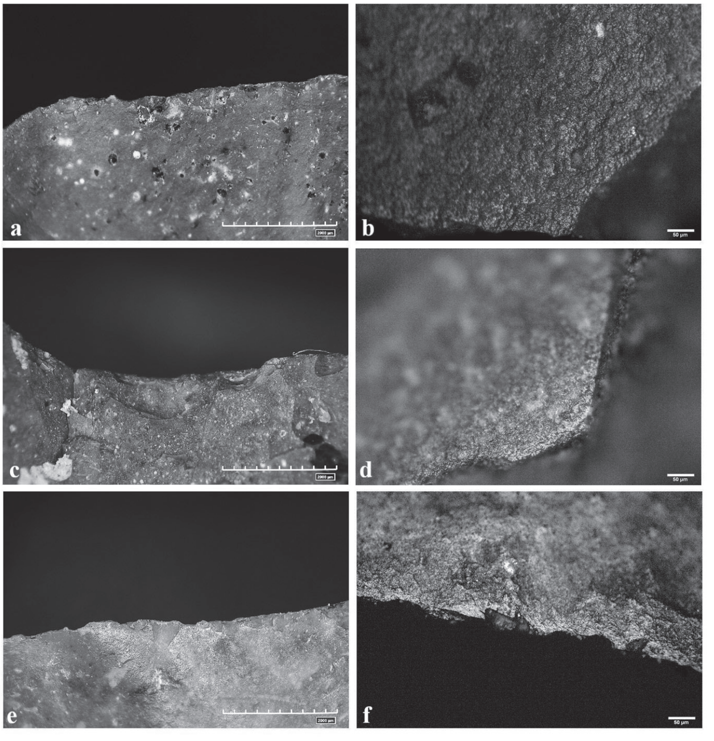

Figure 4. Macro and micro traces found on the tools from Vlasac assemblage: a) edge-damage, sample 44, splinter, house 2, general working of dry hide; b) micro-wear, sample 44, house 2, general working of dry hide; c) edge-damage, sample 41, flake scraping dry hide with less dry parts; d) micro-wear, sample 41, flake scraping of dry hide with less dry parts; e) edge-damage, sample 43, flake, house 2, cutting of hide and ash; f) micro-wear, sample 43, flake, house 2, cutting of hide and ash.

Discussion

The analysed sample of 46 artefacts shows a variety of complex activities that were conducted on an everyday basis in the Iron Gates settlements during the Transitional period. Although the results are based on archaeological evidence it should be mentioned that the data is additionally backed by a detailed experimental program (Petrović, 2021, in preparation)[2].

The three most important activities should be emphasized. The first one is the modification and preparation of hard animal materials for easier processing in the future, which corresponds well with the osseous material found in the region. Soaking of the antler as part of the *chaîne opératoire* is still to be explored in detail, but previous studies (e.g. Newcomer, 1976; Osipowicz, 2007; Langley & Wisher, 2019), together with the results presented in this paper, have shown that prehistoric people possessed the knowledge to process hard animal materials.

The second observed activity is the use of additives in the processing of hide and bone. It was confirmed that ash was used for roasting or preserving vegetal foods for delayed consumption, as for treating and conserving fresh hide, in the case of the Late Lower Paleolithic population at the Qesem cave (Lemorini et al., 2020). At the sites of the Iron Gates, we are dealing with an extensive use of ash and ochre, both for the preservation and processing of hide and bone. This shows that the population that inhabited Lepenski Vir, Padina, and Vlasac was aware of the specific advantages of the additives, and they were able to utilize them for overcoming the problems of storage or to postpone the processing of large amounts of hides. Additionally, it should be noted that two flakes from burial 14 and 40 from Vlasac have traces of hide processing with unknown additives, which does not mean that the supplement is unknown, but that the micro traces were not diagnostic enough to identify the exact additive type.

The scraper found in the ash place of house 32 from Lepenski Vir with traces indicating both bone and ash give rise to a question. Are the traces of ash result of a contact with bone that was previously mixed with ash, or are we dealing with environmental contamination? Supplementary data shows that other tools from the same context do not have traces of ash (Petrović et al., 2021), which should be the case if all of tools from the area were contaminated. Thus, the traces of ash found on the scraper are strictly connected to the activity. This case shows intentional use of ash for the preservation of bone, and the same procedure is used nowadays for storing animal bones for archaeological experiments at the LTFAPA Laboratory.

The third process is working dry hide. Dry hide traces are correlated to the final step after tanning is applied. This activity improves the hide structure and creates elasticity, which makes it suitable for the manufacturing of clothes, containers, and other leather objects. The high percentage of tools used for working dry hide at the Padina site indicates that

2 Because of the limited format of the publication, the experimental data could not be added, and these results will be published in another publication.

the inhabitants of this settlement knew of tanning procedures. These results are complementary to the number of tools used for the refinement of small leather goods found at Lepenski Vir, demonstrating that the patterns of dealing with the daily struggles circulated in the entire region.

Conclusion

According to the presented data, the application of use-wear analysis in prehistoric studies can serve as a tool for advancing our understanding of the possibilities and limits of human cognition in the past. Based on the use-wear analysis, a simple process as *scraping hide* is observed, the tool is being placed in a broader perspective, and we are certain about its role in the household. However, some small additional information as *scraping dry hide* completely changes the perspective, and the exact phase of the contact material affects the amount of information we have about the habits and practices of these ancient communities. The knowledge of prehistoric communities to use additives in hide tanning or softening techniques for antler shaping testifies to the fact that the population of the Iron Gates was acquainted with the techniques which helped them overcome small-scale crises in everyday life. Without this expertise, many products needed for everyday use could have not been made, like bone tools, antler harpoons, or leather garments. Additionally, these results show the ability of the communities of Lepenski Vir, Padina, and Vlasac to fully exploit animal resources and to produce secondary products. The derivative skin products are not preserved in the archaeological record, and accordingly, these results represent an important opportunity to gain insight into their manufacture and are proof of their existence. The ability to overcome these small-scale difficulties testify about some of the minor milestones for people during the Late Glacial and the Early Holocene, but it also reminds us that some of the tasks that are today considered easily achievable were once extremely challenging.

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Анђа Петровић*

СВАКОДНЕВНИ ПРОБЛЕМИ ПРАИСТОРИЈСКИХ ЗАЈЕДНИЦА У РЕГИОНУ ЂЕРДАПА ТОКОМ КАСНОГ МЕЗОЛИТА И РАНОГ НЕОЛИТА

Апстракт: Главни циљ ове студије је микро перцепција свакодневних активности праисторијских заједница с краја 7. до средине 6. миленијума пре нове ере у региону Ђердапа. Основни методолошки приступ ослоњен је на примену функционалних анализа артефаката од окресаног камена са локалитета Лепенски Вир, Падина и Власац, где је потврђена фаза насељавања током касног мезолита и раног неолита. Трасеолошком анализом добија се увид у прецизне информације до којих се не може доћи уобичајеним методама технолошких и морфометријских анализа. Поред општих резултата употребе окресаних артефаката, попут стругања дрвета, коже или гравирање камена или кости, функционалне анализе откривају и процес који стоји иза самих активности. Добијени подаци указују на проблеме приликом обликовања доступних сировина и начине на који су се заједнице у клисури суочавале са потешкоћама, попут овде изложеног примера обраде коже. Резултати наведени у овом раду дају увиде о људским когнитивним способностима у прошлости, које неупитно указују на људску склоност и вештину да се инвенцијом и применом превазиђу свакодневне кризне ситуације.

Кључне речи: трасеолошке анализе, окресано камено оруђе, Ђердап, касни мезолит, рани неолит

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