



Book review: Ivan Gatsov and Petranka Nedelcheva. Pietrele 2: Lithic industry. Finds from the Upper Occupation Layers. Bonn: Habelt-Verlag, 2019, ISBN 978-3-7749-4164-9

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Books on chipped-stone assemblages are not a frequent event in the scientific discourse of the Balkans. This is the first reason this luxury book cannot be omitted. Another is the fact that the book presents part of the exceptionally rich lithic inventory of the well-known multilayer settlement of Măgura Gorgana Tell.

The most recent achievement of the Pietrele project is the publication of the chipped-stone assemblages from the Chalcolithic layers. The book summarizes the results of a long and continuous study of these assemblages, thus compiling and completing the regular reports of its authors to the *Eurasia Antiqua* periodical.

The text is structured in 12 parts – not necessarily chapters (incl. Introduction, Discussion, Conclusions and a chapter written by Ch. Nachev) consisting, in total, of 68 pages of text. An abstract, bibliography and 85 plates of drawings are presented after the main text. There are high quality colour photographs providing adequate visibility of features such as morphology and raw material of the artefacts, as well as numerous graphs and tables with statistical data aiming to facilitate the reading and comprehension of the text (fig. 1)

The Introduction defines the book as an “interdisciplinary study of the techno-typological and functional characteristics and examination of the raw material system of procurement and supply of the blade technology in the Lower Danube area...” (p. 1). This statement (omitting the ambiguous use of ‘procurement and supply’ which should refer to the raw material and not to the blade technology) provokes big expectations in the readers. Moreover, it is asserted that the assemblages are analyzed in synchronic and diachronic aspects i.e.: i) in comparison with Chalcolithic assemblages from parts of Bulgaria and ii) as correlation between Neolithic and Chalcolithic inventories within the Tell itself (p. 1). Last but not least, the authors affirm a re-examination of the entire lithic material (i.e. re-assessment of their previous (!) study) with the invaluable help of J. Pelegrin, who worked on the site for a couple of seasons (p. 2).

The introduction offers a comparative chronological table of four Balkan countries and Turkey but unfortunately does not contain a map of the site in its regional context, or any planigraphic or stratigraphic scheme which would be very useful (if not obligatory!) for the concrete study.

Chapter 2 provides the methods of research with a short description of six categories of artefacts, which had been recorded, analyzed and interpreted. The list starts with a newly distinct cat-

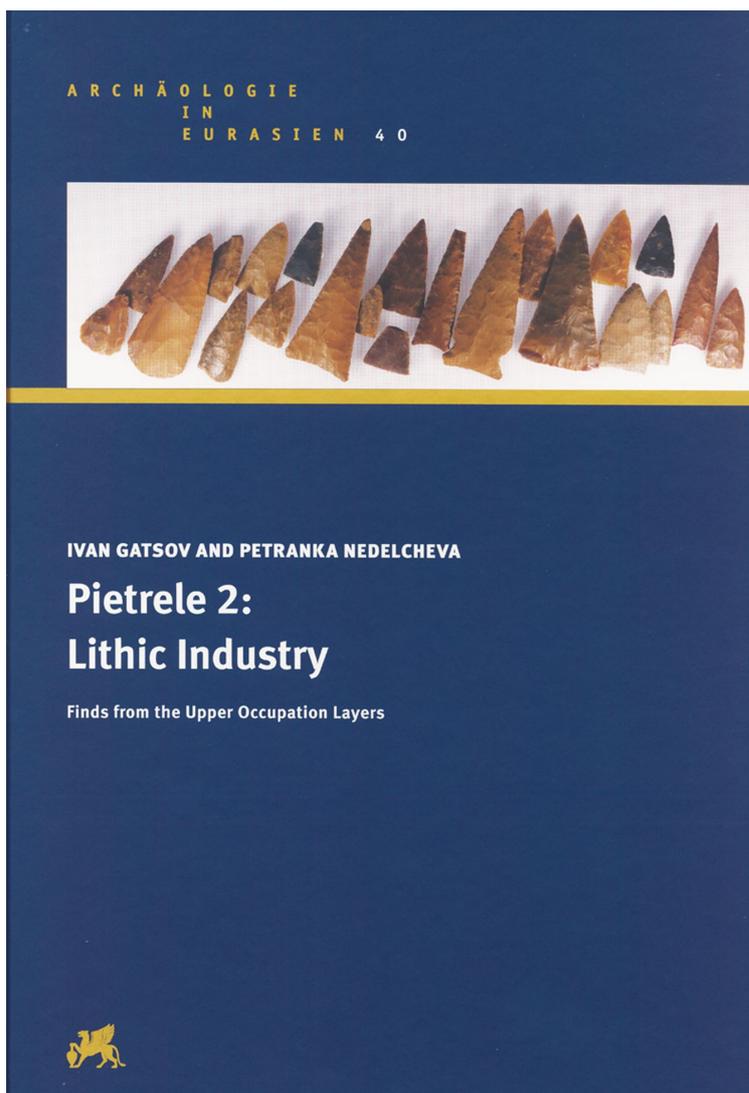


Fig. 1. Cover of the book
Обр. 1. Корица на книгата

egory of ‘bladelets’ and ends with the routine retouched tools, with cores, blades, debris and flakes between them. It is noteworthy that the tool spectrum consists of eight types of endscrapers (some of them being in fact combined tools) multiple types of burins and a peculiar ‘new’ definition of the splintered pieces, formulated by J. Pelegrin, which is suspiciously similar to the traditional one from 1956, but focusing on the hammer and percussion technique (p. 5-6). Another ‘novelty’ is the introduction of the term ‘foliates’ to describe bifacial points with pressure flaking. Lastly ‘thermal debris’ are called pieces with heating alterations, but the term is very confusing since ‘thermal’ refers to the process of heating while here the discussion revolves around altered artefacts.

Chapter 3 contains short information about the excavated areas of the site and two informative tables that show the number of artefacts from all trenches. The studied assemblages reach the respectable number of 13 658 artefacts. In the second table half of the artefacts are presented by chronological periods. It is clearly stated that the book contains only artefacts from defined structures and six houses are listed; unfortunately, there is no additional summary of the number of pieces analyzed and presented in this volume.

Chapter 4 deals with the raw material supply system in the Chalcolithic occupations of the Tell. The distribution of blade fragments by length is summarized in three graphs, while the variety of raw materials used for 1047 artefacts is presented in three tables. In the context of raw mate-

rial supply and preferential use, the ratio between blade fragments is instructive but should not be the only criterion and argument for consideration. Based on the graphs, a conclusion is drawn that Nikopol flint was below the ‘requirements and needs’ of the Tell population during the Early and the Late Chalcolithic. This statement contradicts the data in Tables 4–6 where the quantity of Nikopol flint increases significantly from Early to Late Gumelnița and this increase is much higher than the increase in the proportions of Ravno and Kriva Reka flints.

In total, there are seven categories of distinct raw material and apart from Ravno and Kriva Reka types of Ludogorie flint, a Nikopol type of Moesian flint is also identified. Presumably, it could/should be Balkan Flint, but neither recent relevant publications on this type of flint and its Nikopol sources are cited, nor are simple photographs provided to visualise the various flint/raw material types. All studies cited in the chapter are old publications, hence the important revisions and new database of raw materials in north Bulgaria (Andreeva et al. 2014; Gurova et al. 2016b) are omitted without justification. Although, ultimately, the raw material types are neither comprehensibly presented nor illustrated, the interested reader may look at fig. 80 in this volume (Nachev’s study) where the main raw material types are presented as samples for petrographic analysis. In my view, sample 2 of fig. 80 is an unambiguous example of Balkan Flint with known outcrops in the Pleven–Nikopol area (see fig. 80 in this volume and compare with fig. 13 in Gurova (2012); fig. 13 in Gurova, Bonsall (2014) and fig. 5 in Gurova et al. (2016b).

In Chapter 5 the assemblages from Early and Late Chalcolithic contexts from different trenches and structures are presented. They are described in chronological order and by trenches and houses for both the tell site and the flat settlement nearby. Obviously, the material is very interesting and the attribution of part of it to ‘closed features’ within and/or outside houses offers theoretically great potential for comparison on synchronic and diachronic levels and also for informative spatial observations. This potential is reinforced by the abundant statistical data presented in tables and graphs. Unfortunately, there are no serious observations and conclusions on any of the above-mentioned interpretative levels. Neither is there any consistency in presenting (incl. in tables) and discussing the artefact categories from different structures. There is, however, a short comment that none of the artefact categories allows the recognition of “any definite trend in artefact clustering in the individual structures” (p. 12). At the same time, some unclear descriptions, anecdotal statements and long citations with no authors’ comments are present. As for the ‘functional characteristics’ of the artefacts – they are purely speculative without any supporting analysis, often based on ‘personal communications’¹. For example:

- The distinction between the so-called ‘snap’ pieces, all drawn as burins in the plates, but interpreted as resulting from *ad hoc* activity (household activity, not knapping one) and the rare examples of dihedral or truncation burins is far from convincing and well argued (p. 15 and all cited drawings). For some of the assemblages burins on snap are distinguished, while other burins are grouped together (compare tables 11, 12 and 20).

- One short paragraph is sufficient to illustrate the numerous logical and terminological misunderstandings and confusions: “The prevalence of thermic debris is linked with the burnt structures in house B1 and B2. The appearance of this category should, therefore, be attributed to tool curation such as: use, re-sharpening chipping etc, but not to blade core reduction” (p. 17) ... This is a deeply enigmatic statement with confusing terminology and meaning!

- Some of the very few data evoking functional connotations for some artefacts are presented on p. 24 as a personal communication by M. Kay. In house F2 a fragment of an antler sickle handle and several flint inserts were found, and were interpreted in terms of the “possibility of some farming

1 A hallmark of Gatsov’s writings is the significant number of comments cited as ‘personal communication’.

activities in this house”. It is well known (or evidently not!) that sickles are farming implements used primarily for harvesting in the field. Sickles could be used for grass cutting between houses in an on-site context, but it is barely plausible to use sickles (as grinding stones for example) in ‘farming activity’ in a house, where they simply could be stored. On the other hand, if the antler handle came from a certain stratigraphic context, that is a very important observation because (again!?) it is well known that in Bulgaria with a highly developed agricultural system in the Chalcolithic NO antler handles of sickles are found and wooden hafts are assumed to have been used (Todorova 1986, 138; Gurova 2018, 197). If this interesting issue had been raised by the authors, it might have triggered a very interesting discussion about the palaeoeconomy in the area and neighbouring regions.

- Another potentially very interesting but somehow overlooked line of evidence comes from Trench G of the flat settlements belonging to the Early Chalcolithic. A series of micro endscrapers is illustrated, but not adequately discussed. The endscrapers with shortened proportions and the micro endscrapers could be interpreted as a legacy from the Late Neolithic technological tradition (valid for Bulgarian industries as well) and this is an important feature of the transition between the Late Neolithic and Early Chalcolithic. The fact that this layer offers recognizable features for both periods deserves greater attention and conceptualization.

- The bifacial points from Trench F (n=6) and Trench B (n=5) according to tables 11 and 20 are illustrated on pp. 22-23 and it is obvious that the term foliates is not appropriate. Curiously, the drawings have more ‘foliates’ and the correlation between the statistical data and the illustrations is somewhat broken, the text does not tell anything on this point.

Chapter 6 is undoubtedly the ‘peak’ of the analytical and interpretive fabric of the book. Based on J. Pelegrin’s direct contribution to the re-assessment of blades and in his numerous instructive publications, the chapter contains short descriptions of the five attested removal techniques: lever and long crutch pressure, indirect (punch) percussion and two direct percussion techniques. In the case of direct percussion with a soft hammer it is accurately mentioned that the technique was used for resharpening of already fashioned tools. Graphs comparing width and thickness of the blades removed by different techniques are provided alongside the nice colour photos of artefacts. Unsurprisingly, anecdotal descriptions appear, such as “end scrapers detached by punch percussion” (p. 33, caption of fig. 56). The obvious meaning is that this technique was applied to the blanks/ blades submitted to secondary retouching (fashioning) and thus transformed into endscrapers.

The stigmata defined and used by J. Pelegrin for the identification of removal techniques contain parameters with different discriminatory significance. Based on the illustrations, there are not many complete blades. In the case of blade fragmentation, the most instructive are the proximal fragments with the butt and bulb area. This chapter, unfortunately, does not contain any basic information of blade number, fragmentation and dimensions in order to consider adequately the application of stigmata on the available blades. Graphs can only complete the information, not to replace it.

What is also missing, but would have been very helpful here in my opinion, is: i) to provide data on the absolute number of blades referred to distinct removal techniques; ii) to introduce the discourse of blade production and technology (largely discussed in chapters 10 and 11) by short comment on Manolakakis’s studies, at least that on the Kamenovo workshop (Manolakakis 2011); iii) to provide an informative and well-illustrated synopsis of technological stigmata – thus reinforcing J. Pelegrin’s contribution, as it was done in some cases in his previous studies (see Pelegrin 2002).

Chapter 7 is, in my view, the most interesting, best presented (incl. illustrated) and argued section of the book. It is devoted to seven of the caches found on the Tell, all coming from domestic contexts and consisting of 5 to 18 pieces. Interesting data on dimensions, secondary fashioning and refitting of blades is provided. Several functional features of some artefacts are mentioned (cited, of course, as personal communications). Detailed reasoning about the way the artefacts were supplied

from the workshops, their deposition and the dichotomy of their functional connotations (sacred vs profane) is presented. The possibility that the Kamenovo workshop is the unique and only known place where the blades could originate and be brought to the site for subsequent use is not mentioned.

The authors' attempt to extend the theoretical discourse about the functional meaning of hoards is, however, a little far-fetched. They are seeking for arguments of profane vs. sacred as interpretive proxy of the hoards in PPNB contexts of Syria and Cyprus, in contexts that preceding the ones from Pietrele by millennia. Had they been willing to relevantly and reliably enlarge their contextual/regional knowledge of caches, the authors would have found informative descriptions of several hoards from Smiadovo Tell in Bulgaria in L. Manolakakis' book (Manolakakis 2005). They would also have found a detailed study of a spectacular hoard of superblades with multi-aspect detailed analysis and interpretation from Sushina Tell in northeastern Bulgaria (Gurova et al. 2016a). The latter contains a blade longer than 30 cm and two very close to this length, a fact contradicting their affirmation that such blades came exceptionally from the Varna cemetery (p. 43). The Sushina hoard interpretation would give the authors' arguments for some of their functional dilemmas in relation to the Pietrele caches. However, they prefer to stay in their comfort zone, neglecting obvious and published data stating that: "As for the Pietrele caches some inadequate information comes from Bulgaria based on varying quality of archaeological sources" (p. 39) and referring to many and various publications without any clarification what specifically they consider as 'inadequate' vis-à-vis the Pietrele caches!

Chapter 8 focuses on a mixture of periods (from the Palaeolithic to the Copper Age) and research areas (Balkans, northwest Pontic Region, Turkish Black Sea shore and northwest Anatolia) with the intention to argue whether or not there is a Mesolithic tradition in the formation of the Neolithic and Chalcolithic chipped-stone industries (those of Pietrele in particular). In the context of a series of erratic geometric microliths, coming from the above-mentioned areas, and a rhetoric 'debate' with N. Sirakov (based on published and personal communication of NS), a conclusion is reached that Chalcolithic Pietrele cannot be rooted in the Epigravettian and Mesolithic techno-complexes. This is a somewhat redundant conclusion since, to my knowledge, no one has ever suggested any continuity between the microblade Mesolithic tradition and the origin of big to (super)blade specialized production in the Balkan Chalcolithic ?!

Chapter 9 is a short appendix with generalized information on the Neolithic assemblages from two trenches. The general trends of development of the Neolithic chipped-stone industries from Bulgaria are listed as a background. As for Pietrele, the difference between the Neolithic and Chalcolithic industries is affirmed to be in the raw material supply system, debitage techniques and typological repertoire, but the real archaeological arguments are anticipated to appear in a forthcoming volume on the Neolithic materials.

Chapters 10 and 11 (respectively, Discussion and Conclusions) focus on the blade technology and, in particular, on pressure debitage technique in the Lower Danube basin and eastern Bulgaria during the 5th mill. BC. A retrospective analysis of lever technique emergence and distribution is made on a broader scale; the different blade removal techniques recorded at Pietrele are discussed and an important conclusion is reached that none of them has been carried out on- or off-site at Pietrele. All blade blanks took part in a well-organized network of procurement and supply for addressing the needs of Pietrele's inhabitants. In this network of manufacture and distribution (more correct terms in my view), of course Ludogorie in Bulgaria was the core area, offering abundant raw materials and a unique known workshop for specialized blade manufacture with application of various techniques.

The Chalcolithic production of Pietrele is compared with two assemblages in south Bulgaria, studied by the authors, and also with published materials from other areas of the Chalcolithic *oikumene*. A conclusion is drawn that there is no connection between Pietrele assemblages and the Anatolian and Pontic Chalcolithic industries on the one hand, and with the preceding Neolithic as-

semblages of Pietrele itself, on the other. An important conclusion is that the lever and long crutch pressure techniques are attested in the Early Chalcolithic strata of Pietrele and that they underwent continuous development till the end of the Late Chalcolithic when those technologies disappeared.

The two concluding parts contain multiple variations and repetitions of previously made statements that hamper the reading and have no real contribution in substance.

Chapter 12 is written by Ch. Nachev and focuses on the identification of the raw materials from the site. Twenty samples of artefacts and raw materials were studied as thin sections using traditional micropetrographic analysis. The results are compared with a database of raw materials from Bulgaria and three types of raw materials are identified: both types of Ludogorie flint – Ravno and Kriva Reka, as well as Upper Cretaceous flint defined as Moesian flint from Nikopol area. The prevailing types are of Ludogorie flint, and particularly – the Ravno type. The basic sedimentological aspects of the study repeat two publications from 2008 and 2009 (Gurova, Nachev 2008; Nachev 2009)². For this reason the Balkan Flint (a term with unambiguous archaeological meanings, geological attribution and identified outcrops, including in and near Nikopol) is mentioned and criticized as a ‘confusing’ term and a ‘scientific mystification’ (p. 61). These comments would have been acceptable prior to 2009 but show neglect of current updates. In the following decade leading up to the publication of this book in 2019, research has advanced significantly, and particularly on the Balkan Flint issue, including the following points: i) its distinct macro-petrographic characteristics, archaeological meaning, significance and challenges referring to its identification and provenance (Gurova 2012); ii) an integral archaeometric study with reliably recorded outcrops of Balkan Flint, its precise geological attribution to the Upper Cretaceous Mezdra Formation and the results of detailed specialized analyses (micropetrography and LA-ICP-MS) (Gurova et al. 2016b), and iii) a new level of contextual interpretation of the Balkan flint in the Balkan Neolithization (Gurova, Bonsall 2014). It is scientifically intriguing (and disappointing) that all three contributors to the Pietrele book, seem equally demotivated to overcome the inertia of interpreting problems that have since been resolved.

The real challenge of a geological study of the abundant flint assemblages of Pietrele could be the identification of the flint(s) defined as “unknown” (Chapter 4, Tables 4 and 5); instead, the analyses were focused on three easily and even visually recognisable raw materials.

* * *

After reading these 68 descriptive and ‘analytic-synthetic’ pages, it is somehow unavoidable to turn back to the Introduction and the authors’ self-evaluation of the scientific purposes and achievements of the book. What thoughts has the reading provoked?

- The lithics from the Chalcolithic strata of Pietrele are extremely interesting. Apart from their abundance, they have several features that could, in each case, be characterized as a ‘fossile directeur’ – the bifacial points, the big and super-blades and the hoards. These categories of artefacts deserve much deeper consideration and contextual interpretation. In fact, the best information for them comes from the colour photographs.

- The assertion that synchronic and diachronic analyses of the studied assemblages have been done is far-fetched; there are really no sufficiently consistent observations and conclusions, apart from the generalized repetitive paragraphs in the concluding chapters. No relevant or instructive

² It noteworthy to recall here that the common and frequently used by archaeologists in Bulgaria map of Nachev showing the main flint bearing rocks (fig. 81 in the book) is very helpful for us, but it is not very accurate from geological point of view. The massive Moesian tectonic unit covers the entire north Bulgaria and respectively all type of flints could be called Moesian. However Nachev uses Ludogorie flint to distinguish Lower Cretaceous flint deposits in the geographic region of Ludogorie.

comparisons are made either with abundantly published and very similar materials from Bulgaria or with assemblages from the Lower Danube region in Romania. Considering the fact that this book is only a small part of the complete study carried out by the authors, one might expect better interpretive achievements in the forthcoming books.

- As for the functional characteristics of the assemblages – none is discussed in the proper sense. All functional allusions are based on selected personal communications by someone else whose study is obviously among the forthcoming volumes. On the other hand, the publications of N. Skakun, the main focus of which is the palaeoeconomic aspect of Chalcolithic society, are not sufficiently considered.

- If this book represents a newly conceptualized (i.e. re-assessed) study of the lithics made by authors under the stimulating help of J. Pelegrin (as emphasized in the introduction), I am seriously intrigued how the authors' research would look without the catalysing role of the French scholar?

In the end, this sumptuous book is undoubtedly useful because it presents an impressive part of the rich chipped-stone inventory of the Pietrele site, in spite of the insufficient contextual and conceptual interpretive issues that are offered. But readers should expect a higher standard of conceptualization and historical narrative in the planned forthcoming volumes.

References

- Andreeva, P., Stefanova, E., Gurova, M. 2014. Chert raw materials and artefacts from NE Bulgaria: A combined petrographic and LA-ICP-MS study. *Journal of Lithic Studies* 1.2, 25–45, <http://journals.ed.ac.uk/lithicstudies/>
- Gurova, M., Nachev, Ch. 2008. Formal Early Neolithic flint toolkits: archaeological and sedimentological aspects. In Kostov, R.I., Gaydarska, B., Gurova, M. (eds) *Geoarchaeology and Archaeomineralogy*. Sofia: Sv. Ivan Rilski, 29–35.
- Gurova, M. 2012. 'Balkan Flint' – fiction and/or trajectory to Neolithization: Evidence from Bulgaria. *Bulgarian e-Journal of Archaeology* 2.1, 15–49, <https://be-ja.org>.
- Gurova, M. 2018. Prehistoric agricultural toolkits in diachronic perspective: A case study from Bulgaria. In Ivanova, M., Atanassov, B., Petrova V., Takorova, D., Stockhammer, Ph. (eds) *Social Dimensions of Food in Prehistoric Balkans*. Oxford & Philadelphia: Oxbow books, 190–214.
- Gurova, M., Bonsall, C. 2014. Lithic studies: an alternative approach to Neolithization. *Bulgarian e-journal of Archaeology* 4.2, 107–135, <https://be-ja.org>.
- Gurova, M., Chabot, J., Chohadzhiev, S. 2016a. Chalcolithic superblades from Bulgaria: a case study of a recently found hoard from Sushina. *Bulgarian e-journal of Archaeology* 6.2, 165–190, <https://be-ja.org>.
- Gurova, M., Andreeva, P., Stefanova, E., Stefanov, Y., Kočić, M., Borić, B. 2016b. Flint raw material transfers in the prehistoric Lower Danube Basin: An integrated analytical approach. *Journal of Archaeological Science: Reports* 5, 422–441, <http://dx.doi.org/10.1016/j.jasrep.2015.12.014>
- Manolakakis, L. 2005. *Les industries lithiques énéolithiques de Bulgarie*. Internationale Archäologie, Band 88. Rahden/Westf.: Verlag Marie Leidorf GmbH.
- Manolakakis, L. 2011. A flint deposit, a tell and a shaft: a lithic production complex at Ravno3-Kamenovo? (Early Chalcolithic, North-East Bulgaria). *Studia Preahistorica* 14, 225–244.
- Nachev, Ch. 2009. The main types flints in Bulgaria – raw materials for artefacts. *Interdisciplinary Studies* XX–XXI, 7–21.

- Pelegrin, J. 2002. Principes de la reconnaissance des méthodes et techniques de taille. Annex in Chabot, J. *Tell 'Atij-Tell Gudeda. Industrie lithique. Analyse technologique et fonctionnelle*. Québec : Éditions du Centre interuniversitaire d'études sur les lettres, les arts et les traditions, 215–226.
- Skakun, N. 2006. *Tools and economy of the Eneolithic farmers of South-Eastern Europe (based on the materials of the Varna culture)*. St. Petersburg: Nestor-Istoriya (in Russian with English summary)
- Todorova, H. 1986. *Kammeno-mednata epoha v Balgaria (peto hilyadoletie predi novata era)*. Sofia: Naula i izkustvo.