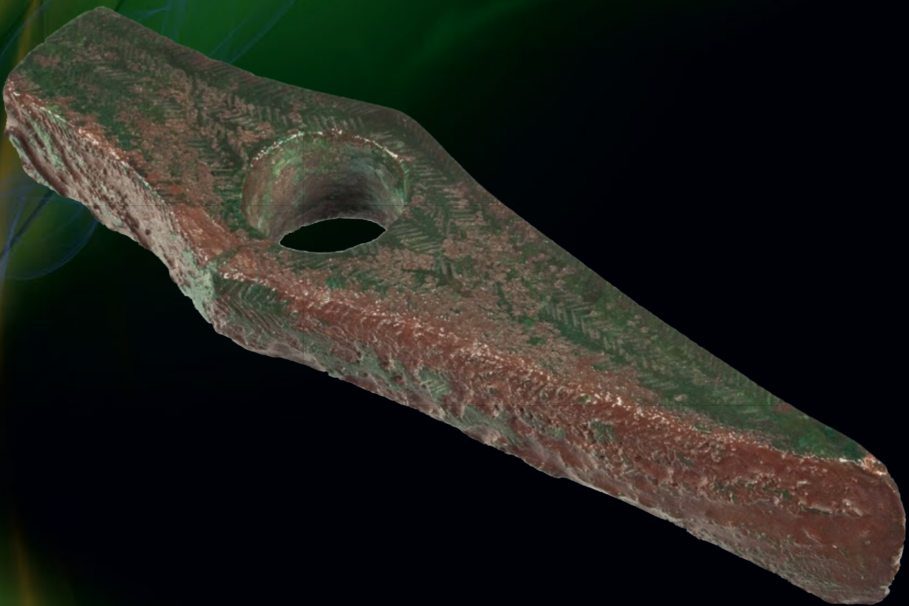
The Rise of Metallurgy in Eurasia

Evolution, Organisation and Consumption of Early Metal in the Balkans



Edited by

Miljana Radivojević, Benjamin W. Roberts, Miroslav Marić, Julka Kuzmanović Cvetković and Thilo Rehren

ARCHAEOPRESS

Miljana Radivojević holds the Archaeomaterials Lectureship at the UCL Institute of Archaeology (UK), where she graduated in Archaeometallurgy. She has spent more than 20 years publishing on early metallurgy in the Balkans and southwest Asia and the role of aesthetics in the invention of novel technologies. She continues to explore the evolution of metallurgy across most of prehistoric Eurasia as a means of uncovering the histories of metalsmiths, and the societies and environments they lived in.

Benjamin Roberts has spent over 20 years researching and publishing on European Copper and Bronze Age archaeology and frequently metallurgy and metal objects across Europe. He co-edited with Chris Thornton *Archaeometallurgy in Global perspective: Methods and Syntheses* (2014) and is currently leading Project Ancient Tin. Prior to joining the Department of Archaeology at Durham University, he was the Curator for the European Bronze Age collections in the British Museum.

Miroslav Marić is a specialist in the Neolithic-Bronze Age of the central Balkans at the Institute for Balkan Studies, Serbian Academy of Sciences and Arts, Serbia. He is the field director of the Gradište Iđoš project. His research interests include settlement archaeology, landscape archaeology, the Neolithic and Bronze Age of the Balkans, and radiocarbon dating.

Julka Kuzmanović-Cvetković was the Senior Custodian (now retired) at the Homeland Museum of Toplica in Prokuplje, Serbia. She spent more than four decades excavating the site of Pločnik, and developed a unique open air archaeo-park on the site that attracts tourists from the region, and across the globe.

Thilo Rehren is the A.G. Leventis Professor for Archaeological Sciences at the Cyprus Institute in Nicosia, Cyprus. In 1999 he was appointed to a Chair in Archaeological Materials at the UCL Institute of Archaeology in London, UK. Following a five-year secondment to establish UCL Qatar as a postgraduate training and research Centre of Excellence in Museology, Conservation and Archaeology he joined the Cyprus Institute in 2017. He places particular emphasis on the integration of archaeological, scientific and historical information, and on investigating the correlation and cross-fertilisation between different crafts and industries in the past.

The Rise of Metallurgy in Eurasia

Evolution, Organisation and Consumption of Early Metal in the Balkans

Edited by

Miljana Radivojević, Benjamin W. Roberts, Miroslav Marić, Julka Kuzmanović Cvetković and Thilo Rehren

Archaeopress Archaeology

Archaeopress Publishing Ltd
Summertown Pavilion
18-24 Middle Way
Summertown
Oxford OX2 7LG

www.archaeopress.com

ISBN 978-1-80327-042-5
ISBN 978-1-80327-043-2 (e-Pdf)

DOI: 10.32028/9781803270425

Cover: Ljiljana Dinić; Copper hammer-axe, type Pločnik, c. 4600 BC
(from Pločnik, Serbia) - Julka Kuzmanović Cvetković.
Inner back cover: Reconstruction of the world's earliest copper smelting. Green flames come from the extraction of metal from malachite. Experiments at Pločnik, Serbia (2013) - Marko Djurica

Copyeditor: Kate Sharpe

This book is available direct from Archaeopress or from our website www.archaeopress.com

To the memory of Borislav Jovanović, our colleague, friend and inspiration

(1930 – 2015)

Contents

Chapter 37

Relative and absolute chronology of Belovode and Pločnik

Miroslav Marić, Miljana Radivojević, Benjamin W. Roberts and David C. Orton

The chronology of the sites of Belovode and Pločnik has been discussed several times in the past two decades since excavations were renewed at each site (Arsenijević and Živković 1998; Šljivar 1996; Šljivar and Jacanović 1996a; Šljivar and Kuzmanović Cvetković 1997a), though not in detail and rarely integrating the relative and the absolute chronological sequences. Chronologies from both sites have been published (Whittle *et al.* 2016), drawing upon eight radiocarbon dates from the two trenches then existing for Belovode (Trenches 7 and 8) and nine radiocarbon dates from three trenches for Pločnik (Trenches 14, 15 and 16). These dates were allegedly focussing on the dating of metallurgical finds, however, the nature of those finds was not known at the time, so the best guess was to date materials from the spits, which only adds to the doubt on the chronological precision achieved.

The seriation and ceramic sequences of both sites resulting from this project are discussed in detail elsewhere in this volume (see Chapters 12, 13, 27 and 28) and in this chapter will be used only to illustrate relative chronology compared to other chronologies used for Vinča culture (see Chapter 4). The identical spit and context excavation methodology employed on both sites enables us to compare chronologically sensitive pottery forms to other relevant sites of the period. This chapter presents 29 new radiocarbon dates from throughout the excavated sequences: 17 from Trench 18 at Belovode and 12 from Trench 24 at Pločnik. The systematic excavations, relative ceramic sequences and the intensity of radiocarbon dating enables a far more precise modelling of dates for the identifiable activity horizons at both sites.

Stratigraphy

A detailed discussion of features and the stratigraphic situation in each excavated trench is provided in Chapters 10 and 25 of this volume; a short summary is given here to facilitate understanding of the chronology. Both sites were excavated using 10 cm spits, with definable features being recorded and excavated separately but within a framework of relative stratigraphy, providing secure units for selecting samples and dating the sites.

Trench 18 at Belovode comprised approximately 2.2 m of cultural deposits starting directly from the modern plough zone just 10 cm bellow the present-day surface. Based on stratigraphic observations of defined contexts, five activity horizons (labelled Horizons 1 to 5 from surface to bottom) were defined within the trench, with four possible sub-horizons (Horizons 1a and 1b, and 4a and 4b). The general thickness of anthropogenic deposits is similar to that of previous partially published trenches, e.g. Trench 2 (2.4 m) and Trench 5 (2.3 m), but the thickness of deposits can reach up to 4 m when pits are present at the bottom of a trench (e.g. Šljivar and Jacanović 1996a: 55). As no detailed analysis of the ceramic forms in their stratigraphic sequence was published by the previous excavator, with only bowls and goblets featuring in Arsenijević and Živković (1998), it is difficult to compare the finds from Trench 18 with other excavated trenches. We can, however, claim with certainty that the site of Belovode contains the whole sequence of the so-called Vinča 'culture'.

Trench 24 at Pločnik yielded somewhat thicker anthropogenic deposits than Belovode, ending in archaeologically sterile soil at about 3.7 m below the present surface in the excavated portion of the trench. It should be noted that approximately 80 cm before the occurrence of the yellow clayish subsoil at the bottom of the trench, an infill of a single feature (F38) was detected, which is most likely an early phase pit-dwelling dug into the natural soil and subsequently re-used as a refuse pit. Since the last feature of Trench 24 at Pločnik belongs to an early habitation phase, the thickness of the cultural deposits in the trenches at both sites can be broadly equated, especially if we acknowledge about 60 cm of archaeologically sterile soil between the modern surface and Feature 1.

The detailed study of the finds from the cultural deposits at both sites shows that they correspond with the established phases of the Vinča culture and its gradual transformation from the Neolithic towards the Chalcolithic, as known from other sites of the central Balkan region (see Garašanin and Garašanin 1979; Jovanović 1994; Stalio 1972). In our limited area of excavations, we were able to gather enough archaeological information to reconstruct the entire Late Neolithic occupation sequences at both Belovode and Pločnik.

Relative and absolute chronology of Vinča culture

The basis for the relative chronology of the Vinča culture is the rich and diverse evidence for the production and consumption of pottery. Ceramic vessel fragments are found in vast numbers as refuse in pits or as *in situ* assemblages within destroyed wattle and daub structures throughout the settlements of the period. The reference assemblage used for the creation of the Vinča culture ceramic chronology sequence is that of Belo Brdo in Vinča, excavated by Miloje Vasić for more than 20 years and published largely in the last of his four-volume 'Prehistoric Vinča' books (Vasić 1936c). However, it was not Vasić but rather the German archaeologist Friedrich Holste who first tried to develop a relative chronology of the Late Neolithic period in the central Balkans based on Vasić's finds from Belo Brdo (Holste 1939). Holste correctly suggested a four-part division of the Vinča culture, a framework that was further supported a decade later by Vladimir Milojčić (1949) and Milutin Garašanin (1951). The latter would become a crucial contributor to the Late Neolithic relative chronology of the central Balkan area, dedicating much of his fruitful scientific career to the matter. He divided the Vinča culture into two major periods, early and late (the so-called Tordoš and Pločnik Phases respectively) and defined a finer sub-division of both the early and late phases (Garašanin 1951). Over the following decades, he further refined the principal chronological divisions with the addition of the transitional Gradac Phase (Garašanin 1979), which marked the end of Neolithic Vinča culture and the beginning of copper processing in the region. Towards the end of his career, he made one more revision to the chronological system (Garašanin 1993) by further sub-dividing the early (Tordoš) phases of the culture.

Influenced by Garašanin's work, other authors established their own relative chronological systems for the period. The best-known examples include the work of Stojan Dimitrijević on the chronology of Late Neolithic Croatia (Dimitrijević 1968) and Berciu and Lazarovici for the Late Neolithic relative chronology of Romania (Berciu 1961; Lazarovici 1979, 1981). An all-encompassing chronology for the whole of the territory of Vinča culture was proposed by Chapman in his seminal work on the southeast European Late Neolithic (Chapman 1981) but was not widely used or accepted by authors in the region. Further schemes were made at the beginning of 1990s, but were more specific site cases, rather than all-encompassing pottery based relative chronology sequences (Bogdanović 1990; Vukmanović and Radojčić 1990). The work of Bora Jovanović on the southern, Pločnik variant of the Vinča culture led to a refinement of the pottery sequence and instigated the notion of the longer lasting Vinča sites in the south of Serbia, indicated by discernible differences in the pottery assemblages of the late phases (Jovanović 1994). Finally, with the broader application of absolute dating based on radiocarbon samples, a new wave of papers on the Vinča culture started to appear from the late 1980s (Breunig 1987; Schier 1996; Tasić *et al.* 2015; Tasić *et al.* 2016b; Whittle *et al.* 2016) further refining existing divisions and periodisation. No radical change has occurred, however, demonstrating that the old periodisation system based on relative chronology devised from pottery sequences remains fundamentally correct despite all the adjustments made over the decades.

Incorporating the relative chronology of two archaeological sites found over a hundred kilometres away from the type site was somewhat challenging. Regional variations (as established by Chapman 1981: 19–31) tend to increase with distance from the type assemblage, necessitating revision of the examined site assemblage, including the comparison and analysis of pottery types common to both. We therefore propose a relative chronological system (Figure 1) adapted to provide both a relative chronology based purely on pottery types and their relative depths (Garašanin 1979) and a second based on pottery seriation and absolute dates (Schier 1996), both based upon the type site of Belo Brdo. The proposed relative chronological framework is an attempt to draw upon the strengths of both research traditions, i.e. the long-established chronological scheme of Garašanin (1979) and the ^{14}C dates underpinning the chronology of Schier (1996) that lacks the analysis of the final four metres of the Belo Brdo pottery. In order to accommodate the slight differences in the phasing of the two systems, we introduce transition boundaries (denoted as blurred white regions in the Belovode/Pločnik column in Figure 1). These boundaries nullify the slight relative depth differences between the Garašanin and Schier phases and represent the short time difference between the appearance of certain types of pots in the reference assemblage based on pure pottery observation and the pottery seriation combined with absolute dating. A note of caution is required here. Although we accept Schier's sub-division of certain phases, we found it difficult to identify such minute differences in the limited assemblage excavated from the trenches of Belovode and Pločnik during just two seasons of excavations. The reference assemblage from Belo Brdo, however, consists of a significantly larger collection of pottery sherds that were collected over 11 excavation campaigns, covering a large area and spanning 20 years of field research.

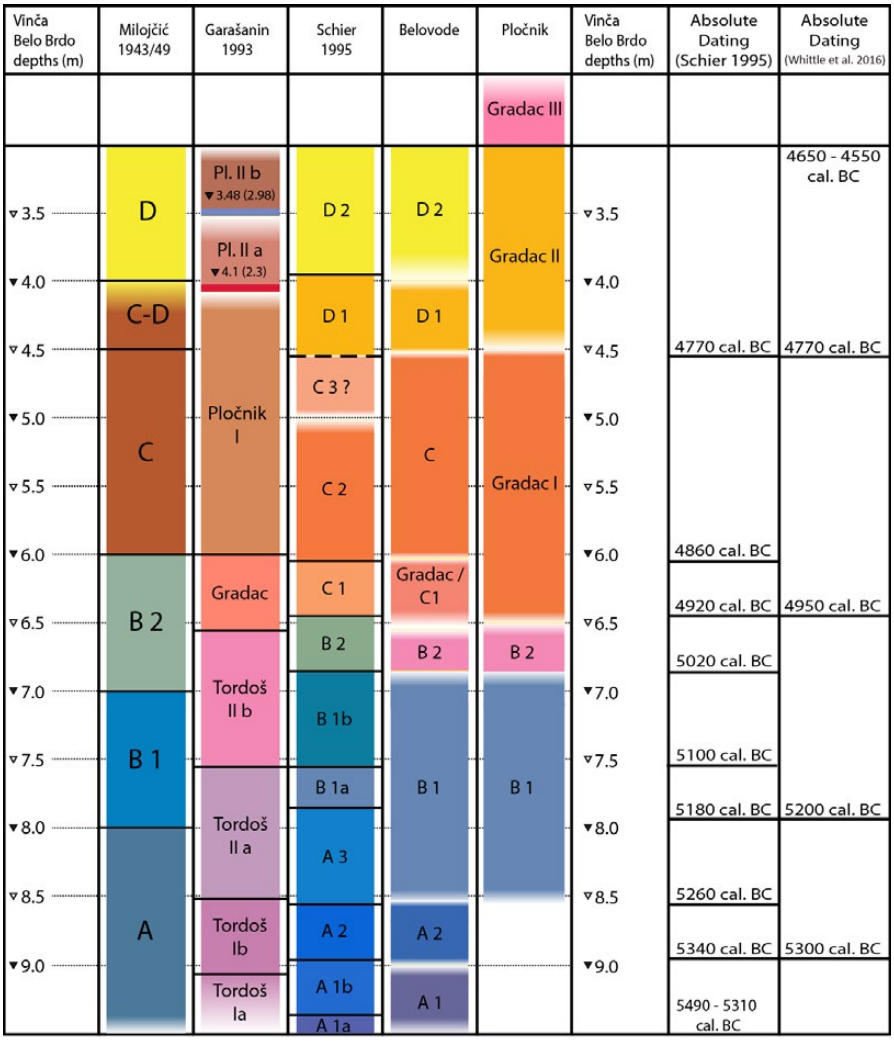


Figure 1. Selected chronological schemes for the Vinča culture based on the Vinča Belo Brdo pottery assemblage (adapted from Schier 1996, Figure 9).

Radiocarbon dates from Belovode and Pločnik

A total of 37 samples taken from trenches at both sites were collected for ^{14}C dating, including 22 from Belovode and 15 from Pločnik (Table 1). In order to minimise the residual effect of samples, a strategy was adopted of selecting short-lived samples such as grains and animal bone where possible, although this proved difficult to achieve in the field. Whenever possible, samples were also taken from secure contexts in order to minimise the risk of residual or intrusive measurements. The samples chosen from spits were associated with confirmed metallurgical finds in order to help date them by proxy. More detailed descriptions of the individual features from Table 1 can be found in Chapters 10 and 25 of this volume.

From the 37 samples chosen, four (MAMS 22072, 22080, 22085 and 22094) were withheld as reserves in case the original samples failed. The extracted collagen from animal bones was purified by ultrafiltration and freeze dried, then combusted in an Elemental Analyzer. The resulting carbon dioxide was converted catalytically to graphite. Sampled charcoal was pre-treated using an Acid-Base-Acid sequence, whilst the seeds were washed in HCl (hydrochloric acid) before analysis. Only two samples of animal bones (out of 19) failed to produce enough collagen for dating.

The dating results were initially calibrated using IntCal13 (Reimer *et al.* 2013) and SwissCal 1.0 by the Manheim Laboratory, whilst the ^{14}C ages were normalised to δ^{13}C=-25 (Stuiver and Pollach 1977). The δ^{13}C value was obtained from the isotope determination in the AMS system with a typical uncertainty of 0.2%.

Discussion

The integration of relative and absolute chronologies was performed after the ^{14}C results were obtained from the Curt-Engelhorn-Centre of Archaeometry in Mannheim. As the archaeological excavations were conducted using a hybrid single context recording, the relative chronology of each excavated site is best illustrated by a diagram showing relationships between individual contexts found within the trenches (Figures 2 and 3). These were supplemented with absolute dates to illustrate the absolute age. The relative phasing based on pottery finds was subsequently compared to the absolute dating in order to establish phasing at both sites.

Belovode

At Belovode, five horizons were established during the excavations, marked 1–5 from the surface down. To obtain absolute chronological ranges for the horizons, several Bayesian models were created from the available dates.

A total of 17 radiocarbon results were available for the whole Belovode sequence (Table 1). This allowed a formal estimation of the site chronology using an explicit statistical method, combining both the radiocarbon dates and the relative stratigraphy recorded during the

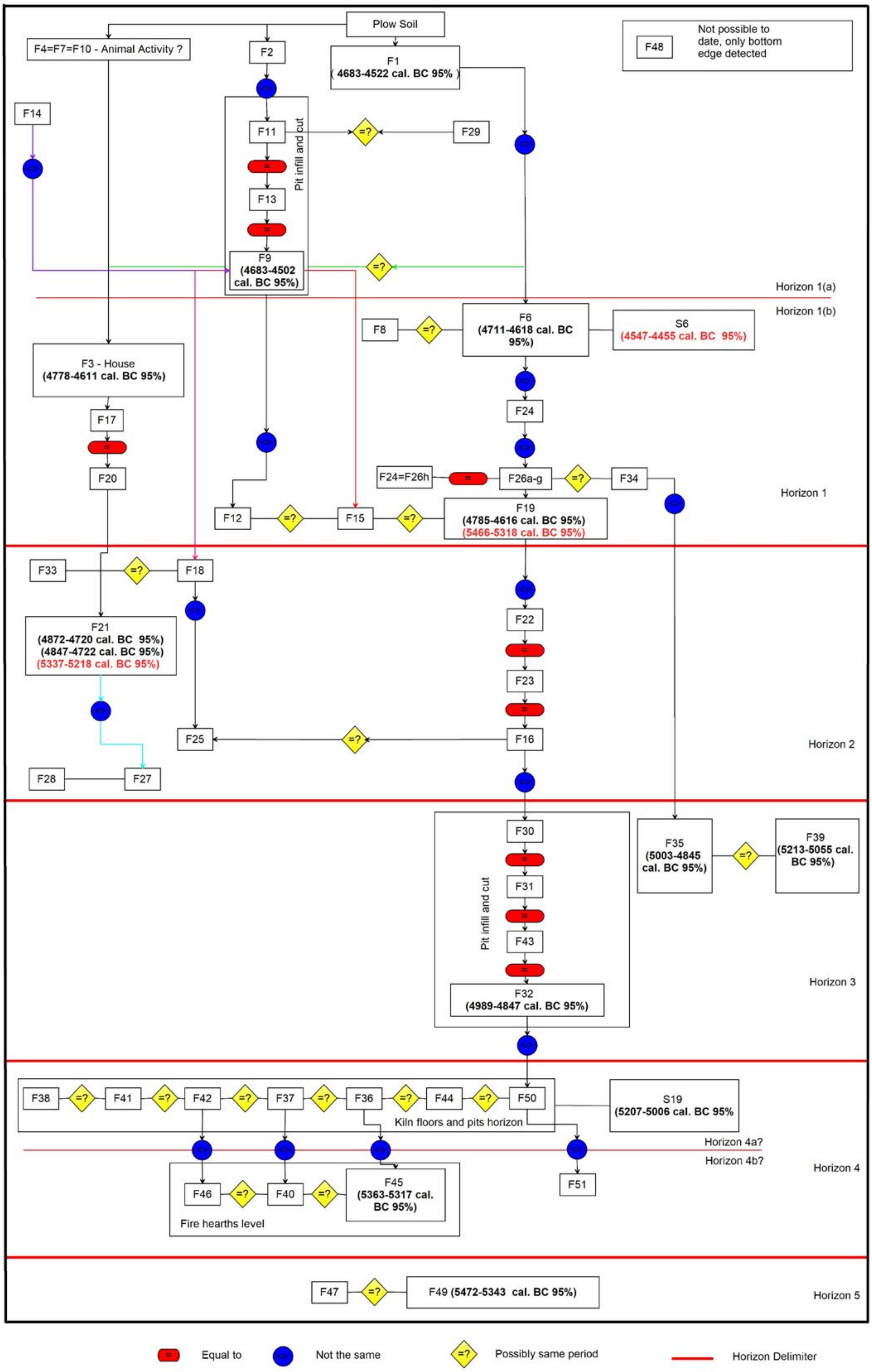


Figure 2. Schematic diagram of stratigraphic relations between features in Belovode Trench 18.

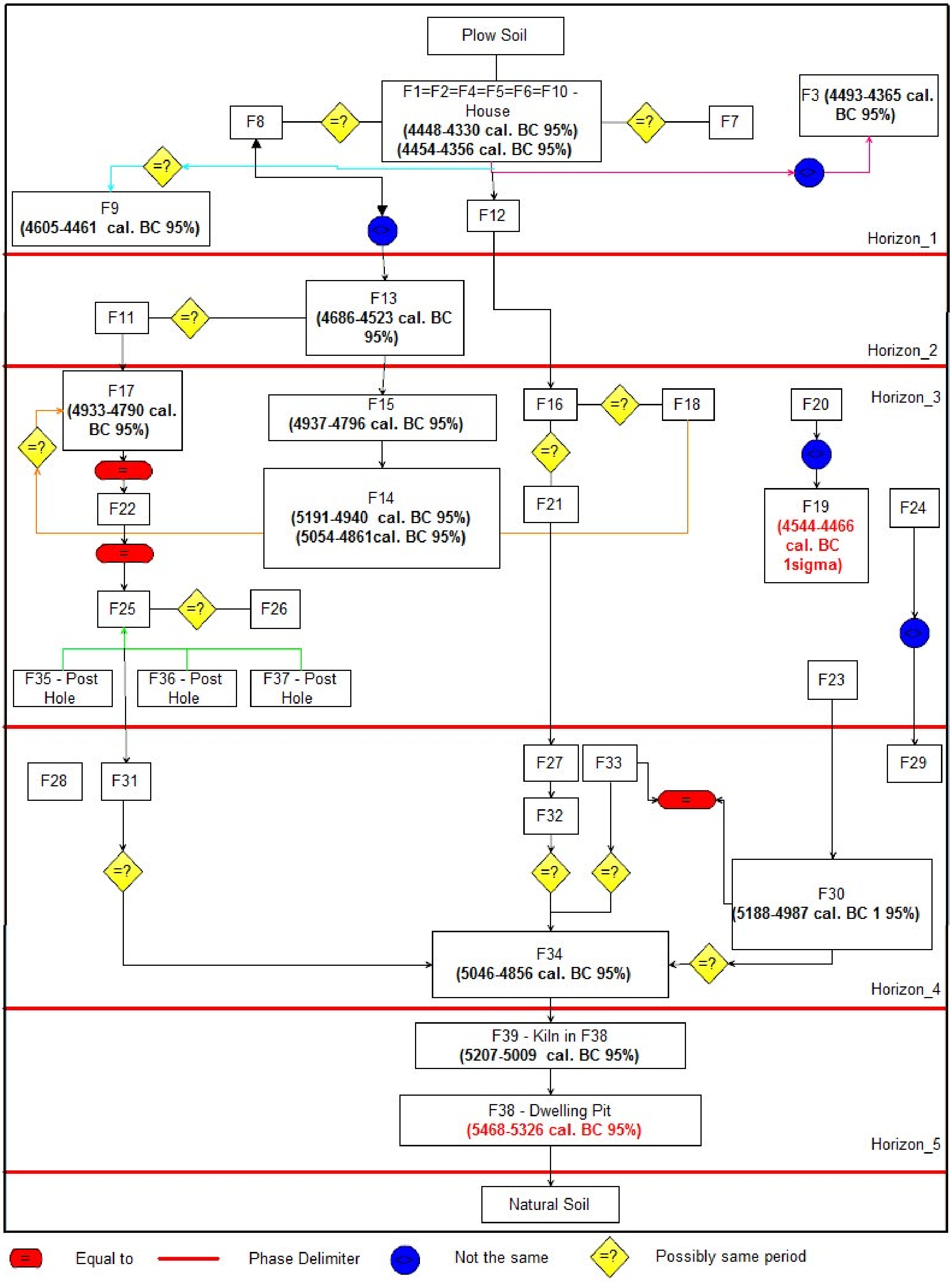


Figure 3. Schematic diagram of stratigraphic relations between features in Pločnik Trench 24.

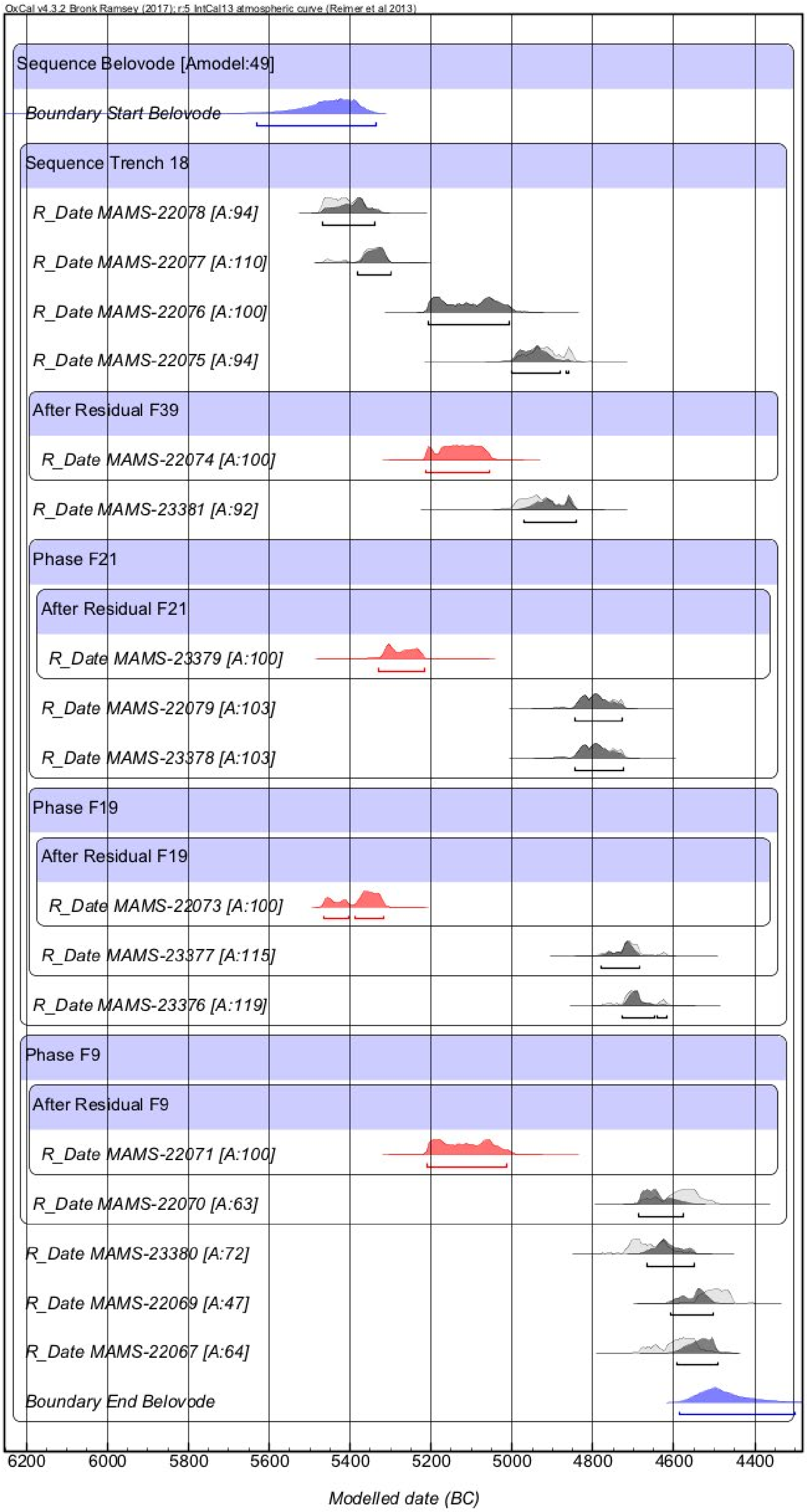


Figure 4. Stratigraphic model with corrected residual samples for Belovode Trench 18.

excavation. Such an approach, combining two types of chronological information, provides date estimates which can be more precise and more robust than the individual chronological data that generates the model.

Modelling was performed in OxCal v4.2 using IntCal13 calibration curve (Bronk Ramsey 2009; Reimer *et al.* 2013). All absolute date measurements were placed into the first model based on their spit numbers (i.e. relative depths). When more than one sample existed from the infill of the same cut feature, the same principle was applied, on the presumption that deeper samples represent earlier deposits. Using such an approach, four dates were identified as statistically inconsistent with the rest of the Trench 18 sequence and were partially removed from the modelling, using the 'After' function of OxCal. These four dates (MAMS-22071, MAMS-22073, MAMS-22074 and MAMS-23379) are assumed to represent residual samples and cannot be included fully in the model. Two of the excluded dates originate from charcoal samples, which could indicate an old wood effect (Ward and Wilson 1978), whilst the others, measured on animal bone samples, could indicate reused or residual bone which was found out of its original context (articulated bone specimens having unfortunately not been available). The final relational model is presented in Figure 4. Upon the removal of these problematic samples the overall agreement of the model was Aoverall: 65.5.

In addition to modelling individual dates, our model contained the dating of the span of each horizon, in an attempt to establish the transitionary periods between relative phases as well as the beginning and the end of the Neolithic occupation of the site (cf. Tasić *et al.* 2015). In order to achieve this, the dates of each horizon were modelled separately and a value for the start and the end of the horizon was obtained (Figure 5).

The start of Horizon 5 can be modelled at 5648–5338 cal. BC (95.4% prob.), which corresponds with the use span of ossuary pit Z on Belo Brdo in Vinča (Tasić *et al.* 2016b: 128, Table 4), i.e. the end of Starčevo burials, which corresponds with the 68% probability modelled at 5491–5375 cal. BC. It must be noted that the sole dating sample from Horizon 5 in Trench 18 originates from a hearth and is a charcoal fragment. This could imply old wood effect, as the ceramic finds in the spit surrounding the feature show trademarks of Vinča A pottery style, but examples with chaff found in inclusions, indicative of Starčevo pottery technology, were also recovered from the same spit (Chapters 12 and 13, this volume). The hearth itself yielded three non-distinct ceramic fragments, which cannot be dated more precisely. It is our belief that the hearth itself is probably linked with the end of Starčevo occupation, whilst the spit immediately above it may be linked with the Vinča A Phase of the settlement. The transition boundary to Horizon 4b is modelled at 5452–5318 cal. BC (95.4% probability), which would correspond to very early Vinča A found in the Pannonian plain (Whittle *et al.* 2016: 12). The ceramic finds from this sub-horizon, although limited in numbers, show clear analogies with Vinča A pottery and the number of pot fragments containing chaff is negligible. At Belo Brdo, this date corresponds to the very end of the Starčevo occupation of the site. Horizon 4a, comprising a series of discarded kiln floors, is dated with one sample from the immediate vicinity of Feature 36 (MAMS-22076). The modelled boundary between Horizons 4b and 4a is at 5366–5054 cal. BC (95.4%) which corresponds with the start of Vinča occupation at Belo Brdo itself, defined by pits at around 9.3 m relative depth (Tasić *et al.* 2016b: 136–7, Table 8). The subsequent boundary between the end of Horizon 4a and Horizon 3 start is modelled at 5139–4860 cal. BC (95.0%) which compares to layers between 7.5 and 6.5 m relative depth at Belo Brdo in Vinča (Tasić *et al.* 2016b: 136–7, Table 8), i.e. the Vinča B1–B2 period (Figure 1). The modelled transition of Horizon 3 to Horizon 2 is 4951–4760 cal. BC (95.4%), corresponding to layers between 6.2 and 5.6 m at Belo Brdo (Figure 1), or the Vinča Gradac–Vinča C period (Tasić *et al.* 2016b: 136–7, Table 8). The end of Horizon 2 and the start of Horizon 1b boundary in Belovode Trench 18 is modelled at 4818–4692 cal. BC (95.4%) and directly corresponds to layers between 4.9 and 4 m, or the Vinča C–D1 period (Figure 1). The transition to the last phase of Neolithic life on the site, and the boundary between Horizon 1b and 1a, is modelled at 4701–4540 cal. BC (95.4%) corresponding to layers below 4.0 m relative depth at Belo Brdo, or the Vinča D2 period. It should be stated that although the sub-division of Horizon 1 was not clearly detectable in the trench while excavating due to the lack of overlapping features, the modelling strongly suggests its existence as visible in Figure 4, when compared to the type site of Belo Brdo in Vinča (Schier 1996). Thus, Horizon 1a would comprise Features 1 and 9 whilst Horizon 1b would contain Features 3, 6 and 19. Finally, the end of Neolithic life in Trench 18 at Belovode is modelled to 4601–4383 cal. BC (95.4% probability) or 4571–4482 cal. BC (68.2%), which corresponds to modelled results from Belo Brdo itself at 4570–4460 cal. BC (Tasić *et al.* 2015: Figure 8; Tasić *et al.* 2016b: 128, Table 4), but also on a wider scale to the majority of the Vinča world (Whittle *et al.* 2016: 38, Figure 35), especially in the Danube-Sava-Tisza region.

The model also clearly illustrates that the whole span of the Late Neolithic Vinča culture is present at Belovode (Table 2), although specific phases may be absent for certain areas of the site that may not have been permanently occupied during all periods of the Late Neolithic settlement. It seems that the Late Neolithic settlement of Belo Brdo (Schier 1996: 160, Figure 11)

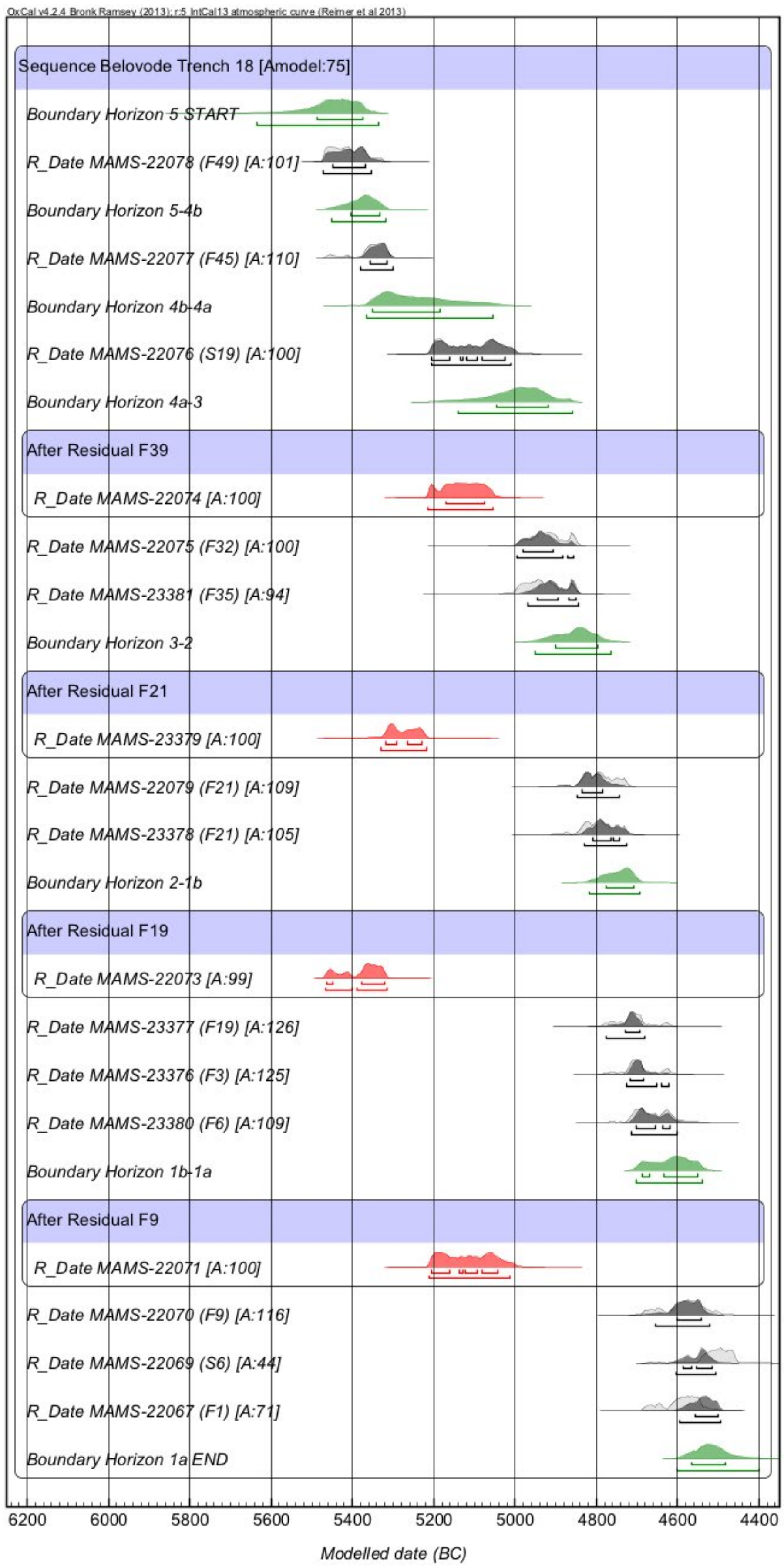


Figure 5. Final Bayesian model for Belovode Trench 18 (green distributions represent horizon boundaries).

in Vinča begins earlier than Belovode but not by very much. The occasional find of Late Starčevo pottery in some of the earlier trenches at Belovode (Šljivar *et al.* 2015) indicates that the location was not unknown in the Early Neolithic, which is typical of many sites occupied by Vinča communities (Belo Brdo being the best known). Based on the absolute dates presented here, but also compared to the pottery typology, the earliest Vinča settlement in Belovode was established early in Vinča A1 Phase (Figure 5). The horizon, defined by a series of small, elliptical hearths and discarded kiln floors in Trench 18, is (like the previous Horizon 5) dated by a single sample, preventing us from undertaking more detailed modelling of this phase, though still providing an insight into continuous occupation of this part of the settlement in the Late Neolithic. The Vinča B Phase at Belovode (Horizon 3) shows evidence of an increase in activity in Trench 18, with numerous pottery fragments recovered, a large refuse pit (Feature 32), a hearth with an ash deposit immediately next to it, indicating economic activity, although it is unclear whether this was connected with food preparation or raw material resource preparation and transformation.

The transitional, traditionally non-metallic to metallic Vinča Gradac Phase at Belovode, and the beginning of the Vinča C period, are contained within Horizon 2, defined by several pits, one of which (Feature 21) shows strong traces of fire use and contains multiple lumps of malachite ore in its infill.

The beginning of the subsequent Vinča D1 Phase at Belovode (Horizon 1b) is defined by the appearance of a wattle and daub structure (Feature 3), surrounded by a pit to the south (Feature 19) and a hearth installation with metallic copper droplets (Feature 6) to the east. Unfortunately, Schier's study, although comprehensive, does not include the last phase of the settlement in Vinča (Schier was forced to leave Serbia in 1992 due to UN sanctions before he could finish his work), but a recent study (Tasić *et al.* 2016b: 136–7, Table 8) fills

Table. 1. Radiocarbon dates from Belovode and Pločnik

Lab No. MAMS	Site	EDM No.	Feature / Spit	Horizon	Sample type	14C age	±	13C	Cal. 1σ (cal BC)	Cal. 2σ (cal BC)
22067	Belovode	38	F1	1(a)	Ch. wood	5741	23	-27.5	4648-4542	4683-4522
22068	Belovode	368	F3	1(b)	Animal bone (Medium ungulate)				No collagen	No collagen
22069	Belovode	272	S6	1(a)	Animal bone (Large mammal)	5669	25	-24.0	4522-4463	4547-4455
22070	Belovode	667	F9	1(a)	Animal bone (Bos Taurus)	5735	26	-23.6	4648-4535	4683-4502
22071	Belovode	790	F9	1(a)	Animal bone (Bos/Cervus sp.)	6151	28	-15.5	5206-5046	5210-2015
22072	Belovode	1212	F18	2	Charcoal				Reserve sample	Reserve sample
22073	Belovode	1379	F19	1(b)	Charcoal	6389	23	-25.7	5461-5322	5466-5318
22074	Belovode	2429/2446	F39	3	Charcoal	6179	23	-24.2	5208-5074	5213-5055
22075	Belovode	2585	F32	3	Charcoal	6026	23	-19.9	4960-4851	4989-4847
22076	Belovode	2639	S19	4	Charcoal	6143	27	-26.4	5206-5024	5207-5006
22077	Belovode	2677	F45	4	Charcoal	6365	25	-33.2	5363-5317	5464-5303
22078	Belovode	2899	F49	5	Charcoal	6422	23	-29.1	5466-5372	5472-5343
22079	Belovode	1694	F21	2	Ch. Grain (Einkorn/Emmer)	5923	25	-20.7	4835-4731	4847-4722
22080	Belovode	1570	F21	2	Ch. Grain (Wheat)				Reserve sample	Reserve sample
22081	Pločnik	587	F3	1	Animal bone (Bos Taurus)	5611	25	-20.9	4481-4372	4493-4365
22082	Pločnik	588	F1	1	Animal bone (Bos Taurus)				No collagen	No collagen
22083	Pločnik	743	F2	1	Animal bone (Bos Taurus)	5573	25	-19.9	4447-4367	4454-4356

Table. 1. Radiocarbon dates from Belovode and Pločnik

Lab No. MAMS	Site	EDM No.	Feature / Spit	Horizon	Sample type	14C age	±	13C	Cal. 1σ (cal BC)	Cal. 2σ (cal BC)
22084	Pločnik	974	F9	1	Animal bone (Bos Taurus)	5701	26	-16.6	4577-4490	4605-4461
22085	Pločnik	974	F9	1	Animal bone (Sus scrofa)				Reserve sample	Reserve sample
22086	Pločnik	1121	F13	2	Animal bone (Medium mammal)	5745	26	-23.0	4666-4544	4686-4523
22087	Pločnik	1240	F14	3	Charcoal	6089	22	-22.2	5038-4964	5191-4940
22088	Pločnik	1385	F19	3	Animal bone (Bos Taurus)	5686	25	-23.5	4544-4466	4583-4457
22089	Pločnik	1440	F17	3	Charcoal	5970	25	-23.5	4897-4801	4933-4790
22090	Pločnik	1462	F15	3	Charcoal	5981	25	-23.4	4908-4808	4937-4796
22091	Pločnik	1683	F14	3	Charcoal	6076	25	-21.8	5016-4946	5054-4861
22092	Pločnik	2453	F38	5	Charcoal	6408	26	-23.3	5466-5359	5468-5326
22093	Pločnik	2663	F39	5	Grain	6145	26	-31.6	5206-5029	5207-5009
22094	Pločnik	2663	F39	5	Grain				Reserve sample	Reserve sample
23373	Pločnik		F1	1	Animal bone (Bos Taurus)	5517	30	-28.9	4438-4336	4448-4330
23374	Pločnik		F30	4	Animal bone (Bos Taurus)	6104	25	-23.3	5188-4987	5205-4943
23375	Pločnik		F34	4	Animal bone (Ovis/Capra sp.)	6064	25	-20.4	5003-4987	5046-4856
23376	Belovode		F3	1(b)	Animal bone (Ovis/Capra sp.)	5829	24	-19.5	4725-4619	4778-4611
23377	Belovode		F19	1(b)	Animal bone (Ovis/Capra sp.)	5839	26	-21.9	4768-4626	4785-4616
23378	Belovode		F21	2	Animal bone (Ovis/Capra sp.)	5922	26	-16.3	4834-4730	4872-4720
23379	Belovode		F21	2	Animal bone	6305	27	-20.4	5317-5228	5337-5218
23380	Belovode		F6	1(b)	Animal bone	5808	26	-15.2	4711-4618	4724-4555
23381	Belovode	2420	F35	3	Grain	6038	27	-27.4	4987-4857	5003-4845

Table 2. Absolute dates of Belovode settlement phases based on final model (Figure 5).

Posterior density interval (2σ)	Posterior density interval (1σ)	Horizon	Relative Chronology (Belo Brdo)
4600-4400 cal BC	4564-4479 cal BC	Horizon 1a end	End Vinča D2
4702-4540 cal BC	4689-4669 cal BC (10.6%) or 4634-4549 cal BC (57.6%)	Horizon 1a start	Start Vinča D2
4817-4692 cal BC	4776-4709 cal BC	Horizon 1b start	Vinča C-D1
4951-4762 cal BC	4899-4797 cal BC	Horizon 2 start	Gradac-Vinča C
5140-4859 cal BC	5139-4859 cal BC	Horizon 3 start	Vinča B1-B2
5366-5054 cal BC	5351-5185 cal BC	Horizon 4a start	Start Vinča A
5452-5318 cal BC	5404-5335 cal BC	Horizon 4b Start	End Starčevo
5648-5338 cal BC	5491-5375 cal BC	Horizon 5 Start	Starčevo

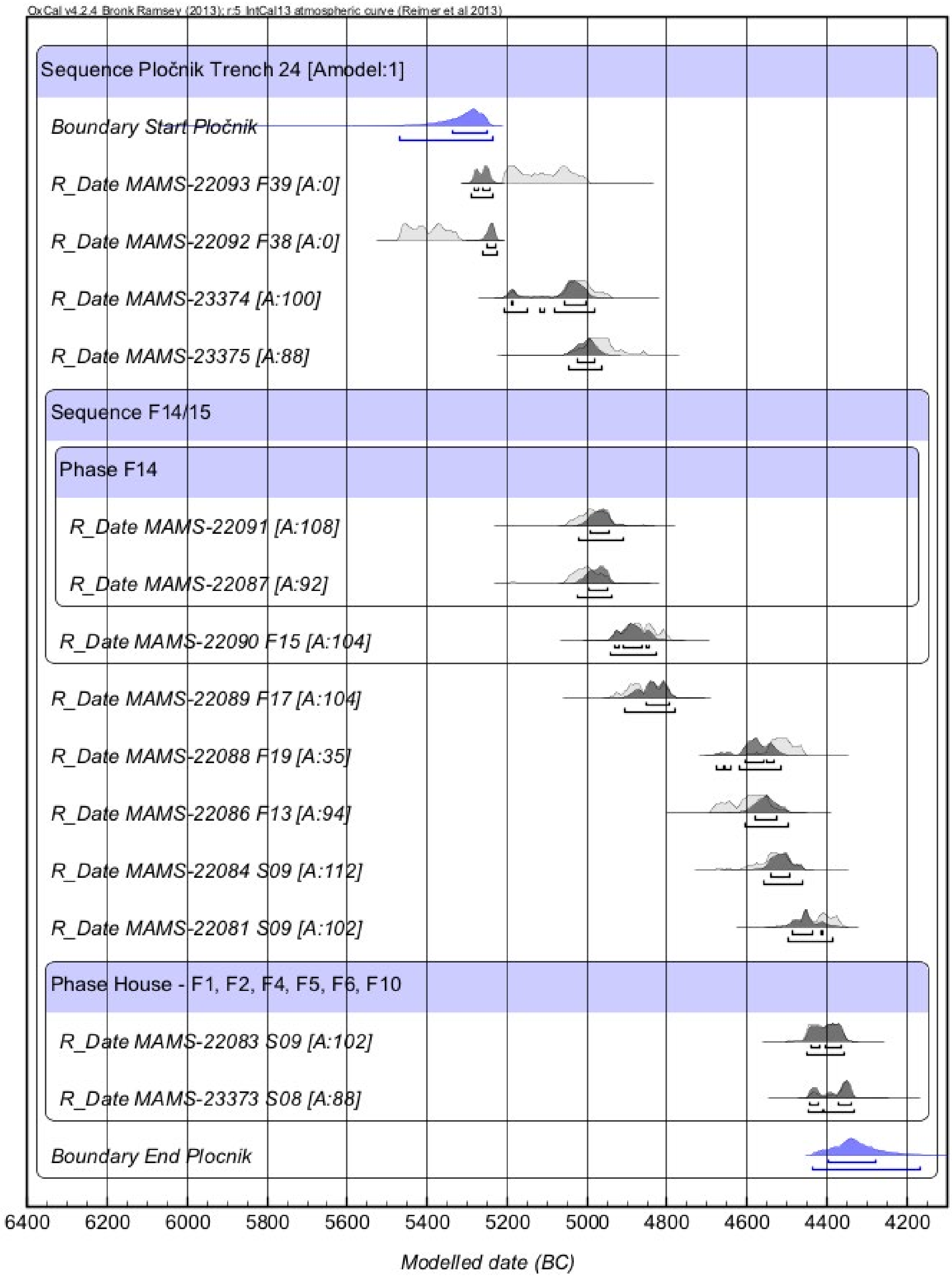


Figure 6. Stratigraphic model without corrected residual or intrusive samples for Pločnik Trench 24.

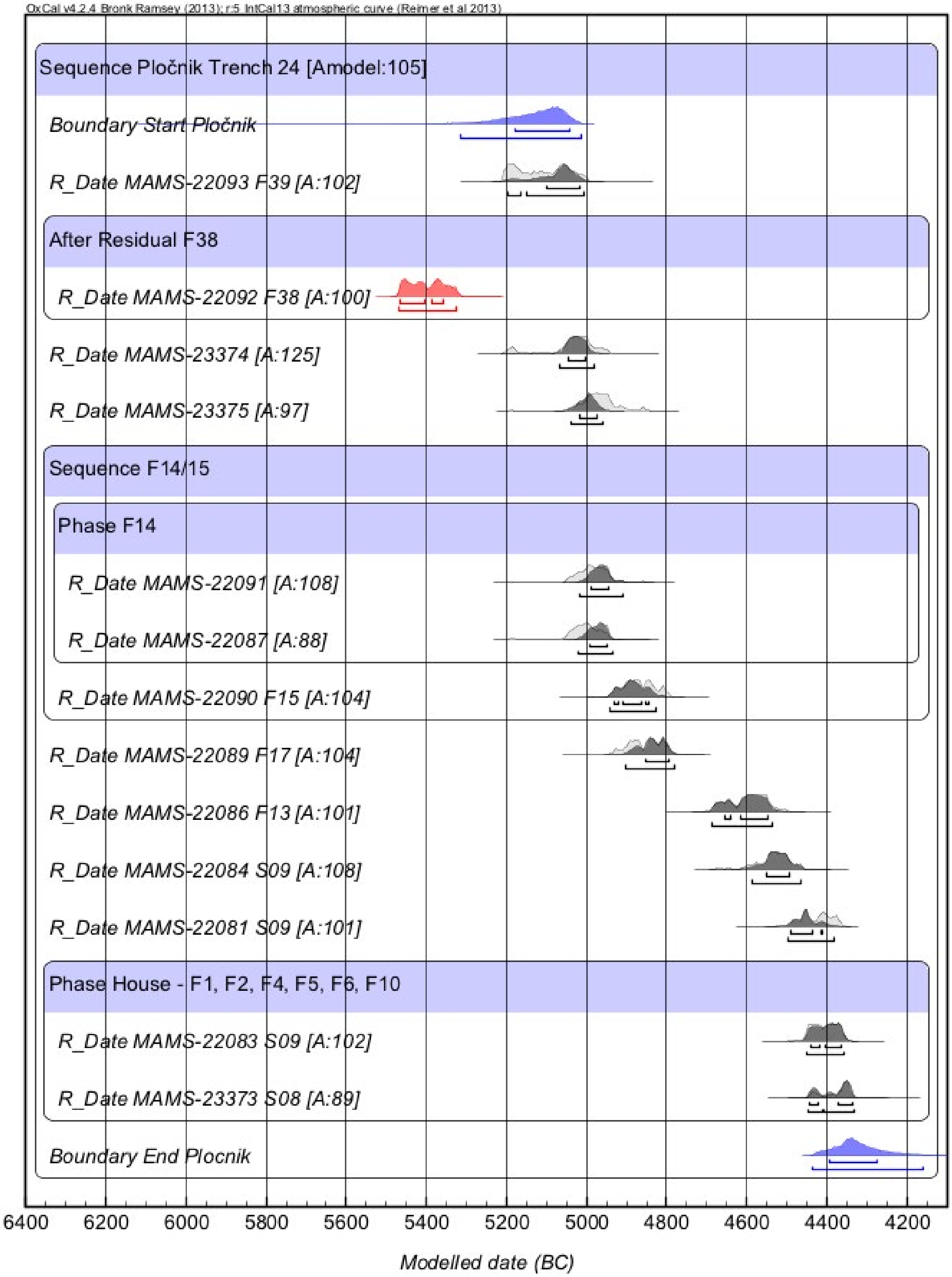


Figure 7. Stratigraphic model with corrected residual or intrusive samples for Pločnik Trench 24.

this gap with new dates. The Vinča D1 Phase at Belo Brdo in this study has absolute dating values similar to those obtained on Belovode samples, which is not surprising due to the proximity of the two sites. Finally, the modelled date for the Vinča D2 period in Belovode is equivalent to that for the Belo Brdo type site in Vinča, as is the end of Neolithic occupation on both sites (Tasić *et al.* 2015: 1077), indicating a larger occurrence that engulfed the whole of the Danubian Vinča at the turn of the 46th century BC, resulting in a complete abandonment of well established, permanently occupied settlements.

Pločnik

Like Trench 18 at Belovode, Trench 24 at Pločnik comprised five activity horizons, numbered 1 to 5 from the topsoil to the bottom of the trench (Figure 3). The sample list contained 17 samples in total, but one (MAMS-22082) did not yield collagen and two additional samples (MAMS-22085 and MAMS-22094) were kept in reserve and were not dated (Table 1). The same method used to model the absolute dates from Trench 18 at Belovode was used for Trench 24 at Pločnik. The 14 samples were first modelled stratigraphically based on their spit number in order to identify residual or contaminated samples. In the process, two samples (MAMS-22088 and MAMS-22092) were identified as intrusive and residual respectively (Figure 6, upper portion). The remaining 12 samples were built into a slightly altered model (Figure 7) using the 'After' and 'Before' functions of OxCal to identify the residual and intrusive samples for further modelling, and to keep them distinct (red coloured). The altered model (Figure 7) with high agreement (Amodel:104), corroborates the relative stratigraphy recorded during the excavations in the trench.

The stratigraphic model was then enhanced by adding boundaries between identified horizons in order to define the start and the end of each horizon, i.e. its duration. The final model (Amodel:90), presented in Figure 8, indicates that the start of Neolithic occupation of the southern part of Pločnik settlement occurred in 5389–5003 cal. BC (95.4% prob.), perhaps in 5180–5028 cal. BC (67.4% prob.) or 5189–5186 cal. BC (0.8% prob.), which corresponds to layers between 9.3 and 7.0 m relative depth in Vinča, or the Vinča A–Vinča B2 period (Tasić *et al.* 2016b: 136–7, Table 8). If the 67.4% probability posterior density estimate is considered, it could narrow the starting period to between 8 and 7 m at Belo Brdo, coinciding with the end of Vinča A and the beginning of the Vinča B1 Phase (Figure 1). The boundary at the end of Horizon 5 and the beginning of Horizon 4 is modelled at 5121–4976 cal. BC (95.4%), which corresponds to the layers between 7.05 and 6.55 metres at Vinča, or the Vinča B2 period in relative chronology (Figure 1). The end of Horizon 4 and beginning of the subsequent Horizon 3 (Figure 8) is modelled at 5036–4951 cal. BC (95.4% prob.). This period corresponds to the Vinča B2–C transition, or the so-called Gradac Phase (Garašanin 1979) at Belo Brdo (Tasić *et al.* 2016b: 136–7, Table 8). A single sample (MAMS-22086) dates the span of Horizon 2. The end of Horizon 3 and the beginning of Horizon 2 in Pločnik is modelled at 4927–4621 (95.4% prob.), which would correspond to the layers between relative depths of 6.0 and 4.0 m at Belo Brdo (Tasić *et al.* 2016b: 136–7, Table 8), or the Vinča C–D1 span in relative chronology (Figure 1). Taking into account the 68.2% probability for the posterior density estimate of this boundary, modelled at 4894–4746 cal. BC, the start of Horizon 2 would fall between 6.05 and 4.95 m relative depth at Belo Brdo (Tasić *et al.* 2016b: 136–7, Table 8), or the Vinča C Phase. The end of the penultimate horizon in Pločnik, and the beginning of Horizon 1 is modelled at 4631–4462 cal. BC (95.4% prob.), corresponding to the layers between 3.4 and 1.3 m at Belo Brdo (Tasić *et al.* 2016b: 136–7, Table 8), or the latter half Vinča D2 Phase and beyond. Although it may seem so, this is not surprising for the southern variant of the Late Vinča (the metallic Vinča) culture, as some authors have hypothesised that it has a prolonged duration compared to the Danubian Vinča (Jovanović 1994) and even direct contact and overlap with the early Bubanj-Salçuta-Krivodol (BSK) communities in the Central and Eastern Balkans area (Tasić 1979; Tasić 1995) which, in its earliest phase, contains pottery types closely resembling those of the Late Vinča. Other authors (Srejović 1984b) have claimed that Vinča communities of the southern variant disintegrated under the influence of the BSK complex, melting into the new societies that started occupying the Balkans area from the 45th century BC. It appears that the new dates presented here, extrapolated from a strict and constrained Bayesian statistical framework can further corroborate the hypotheses of the previous researchers regarding the transition from 'metallic' Vinča to the Middle Chalcolithic proper. They also illustrate that, in Trench 24 at Pločnik, there appears to be no activity linked with the Vinča D1 period, either because this part of the site was temporarily abandoned during that specific period, or because the limited scope of the trench prevented us from detecting such features.

Finally, the end of the Neolithic occupation of Pločnik and the end of Horizon 1 is modelled at 4446–4231 cal. BC (95.4% prob.) or 4430–4326 cal. BC (68.2% prob.). This posterior density interval, obtained on two dates (MAMS-22083 and MAMS-23373) originating from the burnt daub structure discovered *in situ* in Trench 24 has no direct comparison at either Belovode or Belo Brdo in Vinča, as by this period both these sites were long abandoned after a fiery end that occurred towards the end of the 46th and the beginning of the 45th century BC and enveloped a host of Late Neolithic sites in the wider

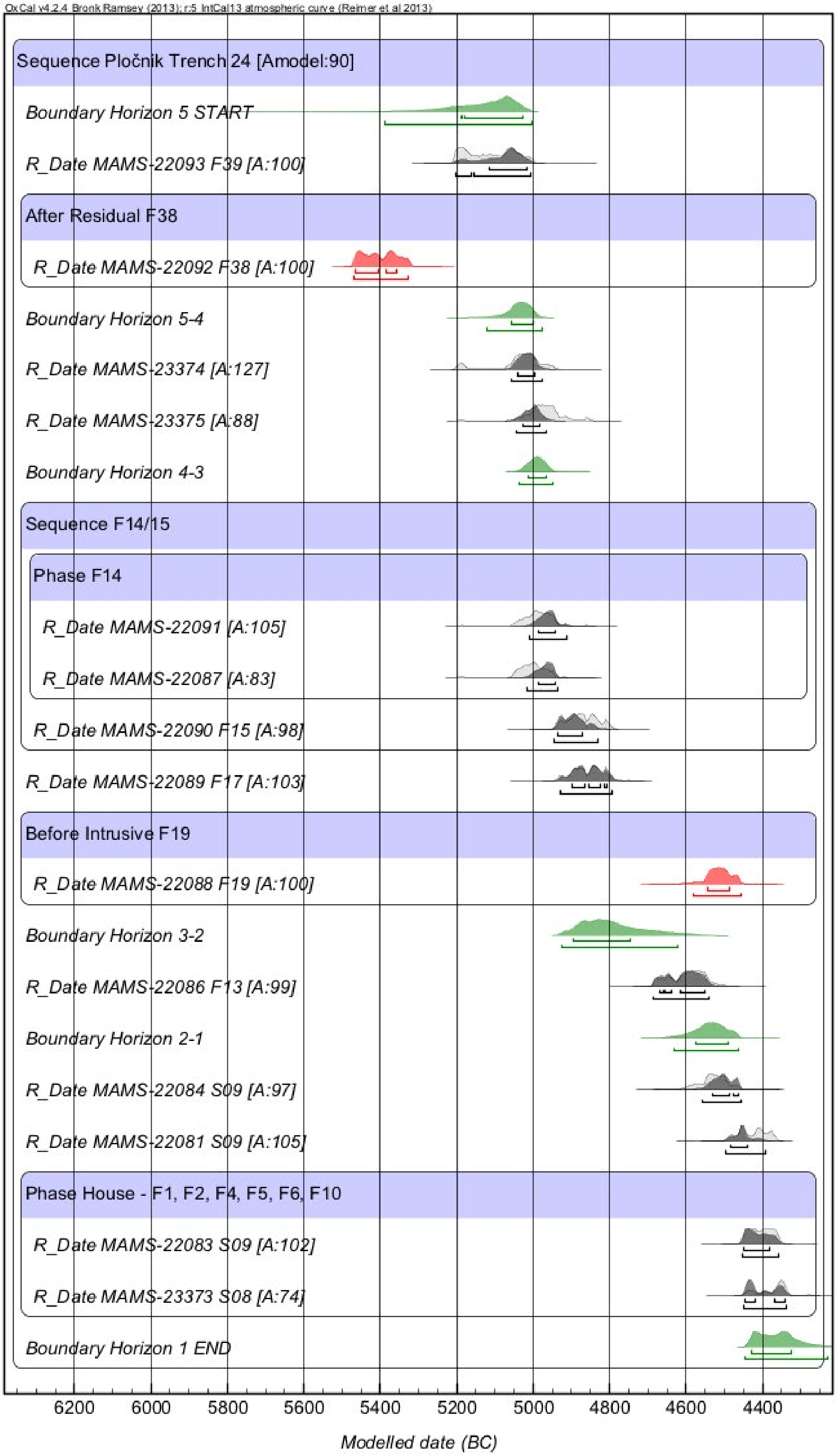


Figure 8. Final Bayesian model for Pločnik Trench 24 (green distributions represent horizon boundaries).

area of the Danube and its tributaries (Tasić *et al.* 2015). However, in Belo Brdo itself, there is evidence for Middle Chalcolithic (or Early Copper Age in the terminology of the original scholarship) occupation, with four burials identified as belonging to Bodrogkeresztúr phase of the Middle Chalcolithic (Jevtić 1986: Figure 2). Of the four burials discovered, two were dated: Burial 1 at 4354–4244 cal. BC (95.4% prob.) and Burial 2 at 4314–4084 cal. BC (95.4% prob.). These postdate the modelled abandonment of Late Neolithic Belo Brdo by about 150–250 years (Tasić *et al.* 2015: 1077) but are significantly less distant when compared to the modelled dates of Trench 24 in Pločnik, where this margin is between 80 and 100 years.

Another, albeit single, AMS date from the Middle Chalcolithic site of Bodnjik, located about 160 km northwest of Pločnik in western Serbia, is a much better illustration of the possibility—and probability—of contemporaneity between late Vinča culture in the south of Serbia and the emerging BSK communities. The site of Bodnjik, located on a hilltop near the town of Koceljeva in western Serbia, was researched over several campaigns in the mid-1990s (Palavestra *et al.* 1993; Palavestra *et al.* 1996), yielding two rectangular burnt daub structures with pottery material typical of early BSK complex in a single layered settlement. Of four samples submitted for AMS dating, only one had sufficient collagen (OxA-26309, 5579BP, +/-35), calibrating to 4466–4347 cal. BC at 95% probability, or 4448–4369 cal. BC at 68.3% probability (Živanović 2013: 54). This value overlaps with the modelled values obtained from dates for the end of Horizon 1 in Trench 24 at Pločnik (Table 3), indicating a strong possibility of contemporaneous life of late Vinča and early BSK communities in the central Balkans.

A similar set of early radiocarbon dates was obtained in northeast Bulgaria, at the site of Lîga (about 180 km northeast of Pločnik). Located 1 km north of the modern village of Telish in the Cherven Briag municipality of Bulgaria (Merkyte 2005: 9), this site has three horizons, two of which (Lîga 2 and 3) are comparable to the Bubanj-Hum Ia phase (Merkyte 2005: 16, Figure I.5) in Serbia (Lîga 1, datable to Vinča D period by the lead author (MM), was heavily damaged by the construction of later settlements). Excavations between 2000 and 2002 yielded six AMS dates, three from the settlement of Lîga 2 and three from the later cemetery established over a part of the settlement denoted as Horizon Lîga 3 (Merkyte 2005: 34, Figure II.12). Modelled together, according to the context descriptions (Merkyte 2005: 33–36), the modelled highest posterior density for the start of Lîga 2 is 4837–4357 cal. BC (95% prob.) or 4566–4386 cal. BC (68% prob.), placing it safely in the very late Vinča D2 period, i.e. the period associated with the conflagration of Danubian late Vinča sites. However, the end of this horizon indicates that it extends well into the 44th century BC, modelled at 4416–3996 cal. BC (95% prob.) or 4387–4176 cal. BC (59.4% prob.) or 4068–4028 cal. BC (5.8% prob.), illustrated in Figure 9. Based on these results, it is clear that the Middle Chalcolithic Lîga 2 settlement existed in parallel to the final phase of Late Neolithic occupation at Pločnik, further corroborating the possibility of contact between the two communities, already established by the ^{14}C date from Bodnjik.

From the final Pločnik Trench 24 model (Figure 8) it is easily discernible that the Late Neolithic occupation begins later than at Belovode and Belo Brdo, midway through the Vinča A2 Phase. Trench 24 was located towards the southern edge of the Late Neolithic settlement, so that this need not be the case for the central part but the contemporary village of Pločnik prevents us from large scale excavation in this area (see Chapter 24). A noticeable increase in activity is present in the following Horizon 4, dated to the Vinča B2 Phase, with several notable features, most distinct being the rectangular ash deposit (Feature 34). The transitional Gradac Phase of Horizon 3 has an abundance of activity, including the edge of a burnt daub structure (Feature 17) opposite a dismantled kiln surrounded by a large ash deposit originating from its use (Features 14/15). The latter two indicate a longer lasting economic activity. Unfortunately, they were

Table 3. Absolute dates of Pločnik settlement phases based on final model (Figure 8).

Posterior density interval (2σ)	**Posterior density interval (1σ)**	**Horizon**	**Relative Chronology (Belo Brdo)**	**Relative Chronology (Jovanović 1994)**
4446-4231 cal BC	4431-4324 cal BC	Horizon 1 end	-	Gradac III
4631-4462 cal BC	4576-4491 cal BC	Horizon 1 start	Vinča D2	Gradac II
4927-4621 cal BC	4894-4747 cal BC	Horizon 2 start	Vinča C-D1	Gradac I
5036-4951 cal BC	5013-4968 cal BC	Horizon 3 start	Gradac phase	
5121-4976 cal BC	5057-5001 cal BC	Horizon 4 start	Vinča B2	Vinča B2
5389-5003 cal BC	5199-5190 cal BC (2.5%) or 5182-5028 cal BC (65.7%)	Horizon 5 start	Start Vinča A2-B1	Start Vinča A2-B1

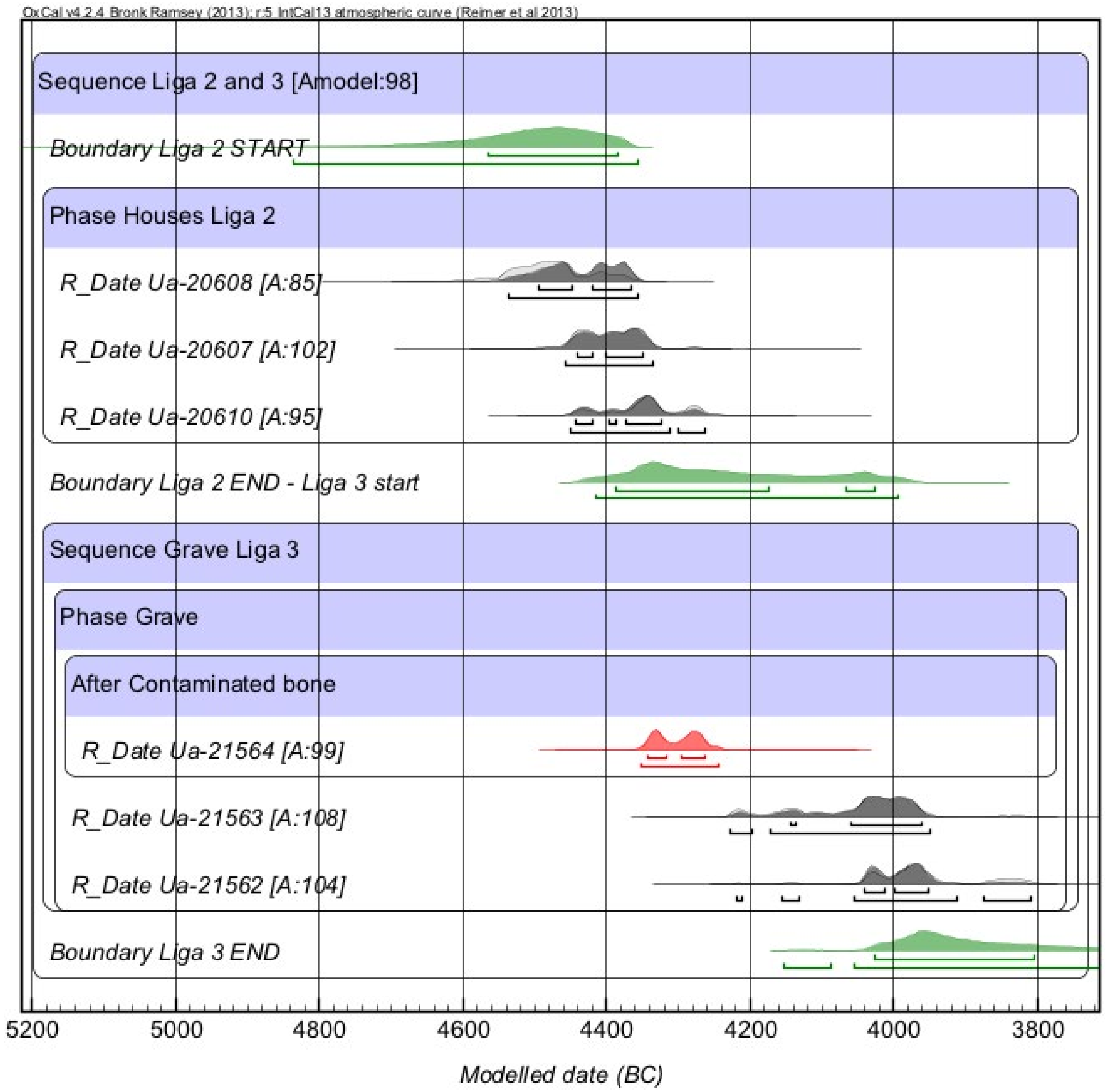


Figure 9. Bayesian model for Lîga 2 and 3 radiocarbon dates (adapted from Merkyte 2005: 33–36).

located next to the eastern profile of the trench, so it was not possible to establish the exact nature of the activity as the kiln was only partially excavated. Horizon 2, defined by another dismantled kiln next to the western profile and a partially excavated pit in the northeast corner of the trench, seems to mimic the economic activity of the previous horizon. The Late Vinča C and Early D1 Phase of Horizon 2 indicates that the area was still not exclusively residential, but rather had a mixed role in the late settlement. In the final horizon of the Neolithic occupation of Pločnik, well past the onset of the Middle Chalcolithic in the rest of the Balkans and Pannonian plain, the residents of the settlement erected a large rectangular daub structure, which was completely burnt at the end of the settlement occupation, well into the second half of the 45th or the first half of the 44th century cal. BC. This abrupt change in the nature of the space may signify a new purpose given to the previously predominantly economic area, but also some other changing aspect, such as an increase in the number of households due to yet unexplained reasons, or similar. However, these questions extend far beyond the limits of both this chapter and this volume.

The bibliographic reference for this chapter is:

Marić, M., Radivojević, M., Roberts, B. W. and Orton, D. C. 2021. Relative and absolute chronology of Belovode and Pločnik, in Radivojević, M., Roberts, B. W., Marić, M., Kuzmanović Cvetković, J., and Rehren, Th. (eds) *The Rise of Metallurgy in Eurasia*: 439–454. Oxford: Archaeopress.

Bibliography

A

Adams, J.L. 1988. Use-wear analyses on manos and hide-processing stones. *Journal of Field Archaeology* 15(3): 307–315.

Adams, J.L. 1989. Experimental replication of the use of ground stone tools. *Kiva* 54 (3): 261–273.

Adams, J.L. 2002. *Ground Stone Analysis: A Technological Approach*. Salt Lake City: The University of Utah Press.

Adams, J., S. Delgado, L. Dubreuil, C. Hamon, H. Plisson and R. Risch. 2009. Functional analysis of macro-lithic artefacts: a focus of working surfaces, in F. Sternke, L. Eigeland and K.-J. Costa (eds) *Non-Flint Raw Material Use in Prehistory: Old Prejudices and New Directions*: 48–50. Proceedings of the XV World Congress of the International Union for Prehistoric and Protohistoric Sciences, Vol. 11, Session C77. (British Archaeological Reports International Series S1939): 43–66. Oxford: Archaeopress.

Albarella, U. 1995. Depressions on sheep horncores. *Journal of Archaeological Science* 22: 699–704.

Alberti, G. 2013a. An R script to facilitate correspondence analysis. A guide to the use and the interpretation of results from an archaeological perspective. *Archaeologia e Calcolatori* 24: 25–53.

Alberti, G. 2013b. Making sense of contingency tables in archaeology: the aid of correspondence analysis to intra-site activity areas research. *Journal of Data Science* 11: 479–499.

Alberti, G. 2014. Modeling group size and scalar stress by logistic regression from an archaeological perspective. *PLoS ONE* 9, e91510.

Alberti, G. 2015. CAinterprTools: An R package to help interpreting Correspondence Analysis results. *Software* X(1–2): 26–31.

Altmaier, A. and C. Kany. 2002. Digital surface model generation from CORONA satellite images. *Journal of Photogrammetry and Remote Sensing* 56: 221–235.

Alimov, K., N. Boroffka, M. Bubnova, J. Burjakov, J. Cierny, J. Jakubov, J. Lutz, H. Parzinger, E. Pernicka, V. Radililovskij, V. Ruzanov, T. Sirinov, D. Starsinin, and G. Weisgerber 1998. Zinnbergbau in Mittelasien. *Eurasia Antiqua* 3: 137-199.

American Society for Metals. 1979. *Source Book on Copper and Copper Alloys: A Comprehensive Collection of Outstanding Articles from the Periodical and Reference Literature*. Metals Park (OH): American Society for Metals.

Amicone, S. 2017. Pottery Technology in the Vinča Culture at the Dawn of Metal Age. A View from Pločnik and Belovode. Unpublished PhD dissertation, University College London.

Amicone, S., P. Quinn, N. Mirković-Marić, M. Marić, and M. Radivojević (eds). 2019. *Tracing Pottery Making Recipes in the Balkans, 6th–4th Millennia BC*. Oxford: Oxbow Books.

Amicone, S., A.R. Mathur, R.D. Pavitra, N. Mirković-Marić, I. Pantović and J. Kuzmanović Cvetković. 2020a. Beneath the surface: Exploring variability in pottery paste recipes within Vinča culture. *Quaternary International* 560–561: 86-101. DOI: https://doi.org/10.1016/j.quaint.2020.04.017.

Amicone, S., M. Radivojević, P.S. Quinn, C. Berthold and Th. Rehren. 2020b. Pyrotechnological connections? Re-investigating the link between pottery firing technology and the origins of metallurgy in the Vinča culture, Serbia. *Journal of Archaeological Science* 118: 105-123. DOI: https://doi.org/10.1016/j.jas.2020.105123.

Ammerman, A.J. and L.L. Cavalli-Sforza. 1971. Measuring the rate of spread of early farming in Europe. *Man* 6: 674–688.

Amov, B.G. 1999. Lead isotope data for ore deposits from Bulgaria and the possibility for their use in archaeometry. *Berliner Beiträge zur Archäometrie* 16: 5–19.

Amov, B.G. and V.N. Văkova. 1994. A summary of lead isotope data for ore deposits in Bulgaria, in H. Todorova and P. Popov (eds) Проблеми на най-ранната металургия. Sofia: Трудове на Минно-геоложкия университе.

Andel, K. 1958. Pohrebisko z doby medenej v Tibave na Vychodnom Slovensku. *Slovenská Archeologia* 6: 39–49.

Antonijević, I. and P. Mijatović. 2014. The copper deposits of Bor, eastern Serbia: Geology and Origin of the Deposits. *Annales Géologiques de la Péninsule Balkanique* 75: 59–74.

Antonović, D. 1992. *Predmeti od glačanog kamena iz Vinče*. Beograd: Filozofski fakultet, Cenar za arheološka istraživanja.

Antonović, D. 1997. Use of light white stone in the Central Balkans Neolithic. *Starinar* 48: 33–40.

Antonović, D. 2000. Predmeti od glačanog kamena sa Belovoda. *Viminacium* 11: 23–34.

Antonović, D. 2002. Copper processing in Vinča: new contributions to the thesis about metallurgical character of the Vinča culture. *Starinar* 52: 27–45.

Antonović, D. 2003. *Neolitska industrija glačanog kamena u Srbiji*. Beograd: Arheološki institute. Posebna izdanja 37.

Antonović, D. 2011. Industrija glačanog kamena na lokalitetu Crkvine: primer sonde 5, in M. Blagojević (ed.) *Kolubara* 5: 195–212. Beograd: Republički zavod za zaštitu spomenika kulture.

Antonović, D. 2013. Predmeti od glačanog kamena sa lokaliteta Livade u Kaleniću, in M. Blagojević (ed.) *Kolubara* 6: 23–36. Beograd: Republički zavod za zaštitu spomenika kulture.

Antonović, D. 2014a. *Kupferzeitlichen Äxte und Beile in Serbien.* (Prähistorische Bronzefunde, Vol 9, Band 27). Mainz: Akademie der Wissenschaften und der Literatur.

Antonović, D. 2014b. Manufacturing of stone axes and adzes in Vinča culture, in S. Vitezović and D. Antonović (eds) *Archaeotechnology: studying technology from prehistory to the Middle Ages*: 77–88. Belgrade: Srpsko arheološko društvo.

Antonović, D. 2014c. Examination methodology for ground stone artefacts, in S. Vitezović and D. Antonović (eds) *Archaeotechnology: studying technology from prehistory to the Middle Ages*: 13–27. Belgrade: Srpsko arheološko društvo.

Antonović, D., K. Resimić-Šarić and V. Cvetković. 2005. Stone raw materials in the Vinča culture: petrographic analysis of assemblage from Vinča and Belovode. *Starinar* 55: 53–66.

Antonović, D. and J. Šarić 2011. Kameno oruđe sa lokaliteta Crkvine u Stublinama, *Starinar* 61: 7–22.

Antonović, D. and M. Vukadinović. 2012. Eneolithic mine Prljuša – Mali Šturac: archaeological and geophysical investigations. *Starinar* 62: 95–106.

Antonović, D., M. Vukadinović and A. Cicović. 2014. Praistorijski rudnik na lokalitetu Prljuša, Mali Šturac istraživanje 2012, in D. Antonović, S. Golubović and V. Bikić (eds) *Arheologija u Srbiji. Projekti Arheološkog Instituta u 2012*: 28–31. Beograd: Arheološki Institut.

Arnold, D.E. 1985. *Ceramic Theory and Cultural Process*. Cambridge: Cambridge University Press.

Arnold, D.E. 1993. *Ecology and Ceramic Production in an Andean Community*. Cambridge: Cambridge University Press.

Arnold, D.E. 2000. Does the standardization of ceramic pastes really mean specialization? *Journal of Archaeological Method and Theory* 7/4: 333–375.

Arnold, E. and H. Greenfield. 2006. *The Origins of Transhumant Pastoralism in Temperate South Eastern Europe: A Zooarchaeological Perspective from the Central Balkans* (British Archaeological Reports International Series 1538). Archaeopress: Oxford.

Arsenijević, M. and J. Živković. 1998. Methodology and the results of statistical-typological analysis of pottery from the Vinča culture settlement of Belovode, near Petrovac-upon-Mlava. *Journal of Serbian Archaeological Society* 14: 281–291.

Arsić, R., J. Miletić and V. Miletić. 2010. Žaštitna istraživanja na lokalitetu Crkvine, Mali Borak. *Kolubara* 5: 55–67.

Averbouh, A. 2000. Technologie de la Matière Osseuse Travaillée et Implications Palethnologiques. Unpublished PhD dissertation, Université de Paris I.

Avramova, M. 2002. Der Schmuck aus den Gräbern von Durankulak, in H. Todorova (ed.) *Durankulak, Band II - Die prähistorischen Gräberfelder von Durankulak, Teil 1*: 191–206. Sofia: Publishing House Anubis Ltd.

B

Babović, Lj. 1986. Zbradila – Korbovo: compte-rendu des fouilles en 1981, Đerdapske Sveske 3: 95–115. Belgrade: Archaeological Institute.

Бабовић, М. 1992. Могућност примене аероархеолошких метода, in Д. Срејовић (ed.) *Археологија и природне науке*: 181–189. Beograd: Srpska akademija nauka i umetnosti

Bachmann, H.-G. 1980. Early copper smelting techniques in Sinai and in the Negev as deduced from slag investigations, in P.T. Craddock (ed.) *Scientific Studies in Early Mining and Extractive Metallurgy*: 103–134. London: The British Museum Press.

Bachmann, H.-G. 1982. *The Identification of Slags from Archaeological Sites* (Institute of Archaeology Occasional Publication 6). London: Institute of Archaeology.

Bačkalov, A. 1979. *Predmeti od kosti i roga u predneolitu i neolitu Srbije*. Beograd: Savez arheoloških društava Jugoslavije.

Bacvarov, K. and S. Vitezović. 2014. Objects of special use from Late Neolithic/Chalcolithic site of Voden, Thrace (SE Bulgaria). Poster presented at 10th Meeting of the Worked Bone Research Group of the ICAZ, Belgrade, Serbia, 25–30 Aug 2014.

Bailey, D.W. 2000. *Balkan Prehistory: Exclusion, Incorporation and Identity*. London, New York: Routledge.

Bailey, D.W. 2005. *Prehistoric Figurines: Representation and Corporeality in the Neolithic*. London: Routledge.

Bailey, D.W. 2014. Touch and cheirotic apprehension of prehistoric figurines, in P. Dent (ed.) *Sculpture and Touch*: 17–43. London: Ashgate.

Bajnóczi, B., G. Schöll-Barna, N. Kalicz, Z. Siklósi, G.H. Hourmouziadis, F. Ifantidis, A. Kyparissi-Apostolika, M. Pappa, R. Veropoulidou and C. Ziota. 2013. Tracing the source of Late Neolithic spondylus shell ornaments by stable isotope geochemistry and cathodoluminescence microscopy. *Journal of Archaeological Science* 40: 874–882.

Baker, P. and F. Worley. 2014. *Animal Bones and Archaeology: Guidelines for Best Practice.* Swindon: English Heritage.

Balasescu, A., D. Moise and V. Radu. 2006. Une utilisation des bovins pour la traction pendant le Chalcolithique en Roumanie? In P. Pétrequin, R.-M. Arbogast, A.-M. Pétrequin, S. van Willigen and M. Bailly (eds) *Premiers chariots, premiers araires. La diffusion de la traction animale en Europe pendant les IVe et IIIe millénaires avant notre* ère. (CRA Monograph 29): 269–273. Paris: CNRS.

Balasse, M., A. Evin, C. Tornero, V. Radu, D. Fiorillo, D. Popovici, R. Andreescu, K. Dobney, T. Cucchi and A. Bălăşescu. 2016. Wild, domestic and feral? Investigating the status of suids in the Romanian Gumelniţa (5th mil. cal BC) with biogeochemistry and geometric morphometrics. *Journal of Anthropological Archaeology* 42: 27–36.

Bánffy, E. and P. Sümegi. 2011. The [environ-]mental contexts of earliest Neolithic settlement and architecture in western Hungary, in A. Hadjikoumis, E. Robinson and S. Viner (eds) *The Dynamics of Neolithisation in Europe*: 231–265. Oxford: Oxbow Books.

Bankoff, H. and F. Winter. 1990. The later Aeneolithic in southeastern Europe. *American Journal of Archaeology* 94: 175–191.

Bartosiewicz, L., V. Boronean, C. Bonsall and S. Stallibrass. 2001. New data on the prehistoric fauna of the Iron Gates: a case study from Schela Cladovei, Romania, in R. Kertesz and J. Makkay (eds) *From the Mesolithic to the Neolithic*: 15–22. Budapest: Archaeolingua.

Bar-Yosef, O. and M.P. Deborah. 2008. ASIA, WEST | Palaeolithic Cultures, in D.M. Pearsall (ed.) *Encyclopedia of Archaeology* : 865–875. New York: Academic Press.

Bar-Yosef, O., D.E. Mayer and N. Porat. 2008. Green stone beads at the dawn of agriculture. *Proceedings of the National Academy of Sciences* 105: 8548–8551.

Bar-Yosef, O. and P. Van Peer. 2009. The chaine opératoire approach in Middle Paleolithic archaeology. *Current Anthropology* 50(1): 103–131. DOI: https://doi.org/10.1086/592234.

Barge-Mahieu, H. and Y. Taborin. 1991. Fiche canines residuelles de cerf (appelées craches), in H. Camps-Fabrer (ed.) *Fiches typologiques de l'industrie osseuse préhistorique.Cahier IV. Objets de parure*. Aix-en-Provence: Université de Provence.

Bartelheim, M. 2007. *Die Rolle der Metallurgie in vorgeschichtlichen Gesellschaften*, Forschungen zur Archäometrie und Altertumswissenschaft 2. Rahden/Westf: Marie Leidorf.

Basalla, G. 1988. *The Evolution of Technology.* Cambridge: Cambridge University Press.

Bastert-Lamprichs, K., N. Benecke, S. Hansen and R. Neef. 2012. *Der Beginn der Landwirtschaftim Sudkaukasus. Die Ausgrabungen in Aruchlo in Georgien*. Berlin: DAI Eurasien Abteilung.

Baxter, M.J. and H.E.M. Cool. 2010. Correspondence analysis in R for archaeologists: an educational account. *Archeologia e Calcolatori* 21: 211–228.

Beck, A.R. and G. Philip. 2012. The archaeological exploitation of declassified satellite photography in semi-arid environments, in W.S. Hanson and I.A. Oltean (eds) *Archaeology from Historical Aerial and Satellite Archives*: 261–278. New York: Springer.

Beeston, R.F., J. Palatinus, C. Beck and E.C. Stout. 2006. Organic residue analysis of pottery sherds from Chrysokamino. *Hesperia Supplements* 36: 413–428.

Behre, K.E. 2008. Collected seeds and fruits from herbs as prehistoric food. *Vegetation History and Archaeobotany* 17: 65–73.

Beijerinck, W. 1947. *Zadenatlas der Nederlandsche flora*. Wageningen: E. Veenman and Zonen.

Beldiman, C. 2007. *Industria materiilor dure animale în preistoria României. Resurse naturale, comunităţi umane şi tehnologie din paleoliticul superior până în neoliticul timpuriu.* Bucureşti: Asociaţia Română de Arheologie, Studii de Preistorie, Supplementum 2, Editura Pro Universitaria.

Beldiman, C., D.-M. Sztancs and C. Ilie. 2012. *Artefacte din materii dure animale în colecţia Muzeului de Istorie Galaţi. Eneolitic (Osseous materials artefacts in the collection of History museum of Galaţi. Aeneolithic).* Cluj Napoca: Editura Mega.

Benac, A. 1961. Neolitski telovi u sjeveroistočnoj Bosni i neki problemi bosanskog neolita. *Glasnik Zemaljskog Muzeja u Sarajevu* 15–16: 39–78.

Bendixen, M. 1995. Compositional perceptual mapping using Chi-squared Tree Analysis and Correspondence Analysis. *Journal of Marketing Management* 11: 571–581.

Benecke, N. 2009. Arheozoološka istraživanja. *Glasnik Zemaljskog Muzeja Bosne i Hercegovine u Sarajevu* 50–51: 124–126.

Benecke, N., S. Hansen, D. Nowacki, A. Reingruber, K. Ritchie and J. Wunderlich. 2013. Pietrele in the lower Danube region: integrating archaeological, faunal and environmental investigations. *Documenta Praehistorica* 40: 175–193.

Bentley, R.A., T.D. Price, J. Lüning, D. Gronenborn, J. Wahl and P.D. Fullagar. 2002. Human migration in early Neolithic Europe. *Current Anthropology* 43: 799–804.

Bentsen, S.E. 2013. Using pyrotechnology: Fire-related features and activities with a focus on the African Middle Stone Age. *Journal of Archaeological Research* 22: 1–35.

Bebber, M.R. 2021. The Role of Functional Efficiency in the Decline of North America's Copper Culture (8000–3000 BP): An Experimental, Ecological, and Evolutionary Approach. *Journal of Archaeological Method and Theory*. DOI: https://doi.org/10.1007/s10816-020-09497-0

Berciu, D. 1961. *Contribuţii la problemele neoliticului în Romînia în lumina noilor cercetări*. Bucureşti: Editura Academiei Republicii Populare Romine.

Berciu, D. 1967. *Romania: Before Burebista*. London: Thames and Hudson.

Berdenov, S. 2008. Kazahstanskie mestorozhdeniya medi i olova i ih razrabotka v bronzovom veke (Kazakh sources of copper and tin and their processing in the Bronze Age, in Russian). *Izvestiya Natsionalnoy Akademii nauk Respubliki Kazahstana. Seriya obschestvennyih nauk* 1: 42-55.

Bibikov, S.N. 1953. Rannetripolskoe poselenie Lukavrublevetskaya na Dnestre. *Materialy i Issledovanija po Arkheologii SSR* 38.

Biehl, P. and A. Marciniak. 2000. The construction of hierarchy: rethinking the Copper Age in Southeastern Europe, in M. Diehl (ed.) *Hierarchies in*

Action: Cui Bono? :181–209. Carbondale (IL): Center for Archaeological Investigations, Southern Illinois University.

Birch, T., Th. Rehren and E. Pernicka. 2013. The metallic finds from Çatalhöyük: a review and preliminary new work, in I. Hodder (ed.) *Substantive Technologies at Çatalhöyük*: 307–316. London, Los Angeles (CA): British Institute at Ankara, Cotsen Institute of Archaeology.

Biró, K.T. 2014. Carpathian obsidians: state of art of Central European obsidian research, in M. Yamada and A. Ono (eds) *Lithic Raw Material Exploitation and Circulation in Préhistory. A Comparative Perspective in Diverse Palaeoenvironment. ERAUL* 138: 45–67.

Bitelli G. and V.A. Girelli. 2009. Metrical use of declassified satellite imagery for an area of archaeological interest in Turkey. *Journal of Cultural Heritage* 10, Supplement 1: 35–40.

Blagojević, M. 2005. Keramičke posude iz ranoeneolitske kuće sa lokaliteta Livade, Kalenić. *Kolubara* 4: 31–78.

Blažić, S. 1985. Prilog poznavanju ostataka faune sa arheološkog lokaliteta 'Golokut'. *Rad Vojvođanskih muzeja* 29: 33–35.

Blažić, S. 1995. Ostaci životinjskih vrsta sa lokaliteta na trasi auto-puta kroz Srem, in Z. Vapa (ed.) *Arheološka istraživanja duž auto-puta kroz Srem*: 331–346. Novi Sad: Pokrajinksi zavod za zaštitu spomenika kulture.

Blažić, S. 2005. The faunal assemblage, in S. Karmanski (ed.) *Donja Branjevina: a Neolithic Settlement near Deronje in the Vojvodina (Serbia)*: 74–76. Trieste: Societa per la Preistoria e Protostoria della Regione Friuli-Venezia Giulia.

Blažić, S., and D. Radmanović. 2011. Fauna kasnovinčanskih staništa Crkvine i Belež. *Kolubara* 5: 239–250.

Bleed, P. 2008. Skill matters. *Journal of Archaeological Method and Theory* 15: 154–166.

Blondel, V.D., J.-L Guillaume, R. Lambiotte and E. Lefebvre. 2008. Fast unfolding of communities in large networks. *Journal of Statistical Mechanics: Theory and Experiment* 10: P10008.

Bloom, R., R. Crippen, C. Elachi, J. Zarins, N. Clapp and G.R. Hedges. 1997. Space technology and the discovery of lost city of Ubar. *IEEE Aerospace Conference Proceedings* 1: 19–28.

Boardman, S. and G. Jones. 1990. Experiments on the effects of charring on cereal plant components. *Journal of Archaeological Science* 17: 1–11.

Bocquet-Appel, J.-P. 2002. Paleoanthropological traces of a Neolithic demographic transition. *Current Anthropology* 43: 637–650.

Boëda, E. 1990. Identification de chaînes opératoires lithiques de paléolithique ancien et moyen. *Paléo* (2): 43–80.

Boessneck, J. 1969. Osteological differences between sheep (*Ovis aries* Linn.) and goat (*Capra hircus* Linn.), in D. Brotwell and E Higgs (eds) *Science in Archaeology*: 331–358. London: Thames and Hudson.

Boessneck, J., H.-H. Müller and M. Teichert. 1964. Osteologische Unterscheidungsmerkmale zwischen Schaf (*Ovis aries* Linné) und Ziege (*Capra hircus* Linné). *Kühn-Archiv* 78: 1–29.

Bogaard, A. 2004. *Neolithic Farming in Central Europe. An Archaeobotanical Study of Crop Husbandry Practices*. London: Routledge.

Bogaard, A., J. Bending and G. Jones. 2007. Archaeobotanical evidence for plant husbandry and use at Ecsegfalva 23, in A. Whittle (ed.) *The Early Neolithic on the Great Hungarian Plain: Investigations of the Körös Culture Site of Ecsegfalva 23, Co. Békés*: 421–445. Budapest: Institute of Archaeology, Hungarian Academy of Sciences.

Bogaard, A. and P. Halstead 2015. Subsistence practices and social routine in Neolithic southern Europe, in C. Fowler, J. Harding and D. Hofmann (eds) *The Oxford Handbook of Neolithic Europe*: 385–410. Oxford: Oxford University Press.

Bogdanov, B. 1982. Bulgaria, in F.W. Dunning, W. Mykura and D. Slater (eds) *Mineral Deposits of Europe. Volume 2: Southeast Europe*: 215–232. London: The Institute of Mining and Metallurgy and the Mineralogical Society.

Bogdanović, M. 1988. Architectural and Structural Features at Divostin, in A. McPherron and D. Srejović (eds) *Divostin and the Neolithic of Central Serbia*: 35–142. Pittsburgh: University of Pittsburgh. Kragujevac: Narodni muzej Kragujevac.

Bogdanović, M. 1990. Die Spätneolithischen Siedlüngen in Divostin, in D. Srejović and N. Tasić (eds) *Vinča and its World*: 99–106. Belgrade: Serbian Academy of Sciences and Arts, Centre for Archaeological Research, Faculty of Philosophy.

Bogdanović, M. 1992. Iskopavanja na neolitskom naselju Gruža u Grivcu. Glasnik Srpskog arheološkog društva 8: 41–45.

Bogdanović, M. 2004. Naselja Vinčanske kulture. Arhitektura, in M. Bogdanović (ed.) *Grivac. Naselje protostarčevačke i vinčanske kulture*: 157–204. Kragujevac: Centar za naučna istraživanja SANU i Univerziteta u Kragujevcu, Narodni Muzej Kragujevac.

Bognár-Kutzián, I. 1963. *The Copper Age Cemetery of Tiszapolgar-Basatanya*. Budapest: Akademiai Kiado.

Bognár-Kutzián, I. 1972. *The Early Copper Age Tiszapolgar Culture in the Carpathian Basin*. Budapest: Akademiai Kiado.

Bognár-Kutzián, I. 1976. On the origins of early copper-processing in Europe, in J.V.S. Megaw (ed.) *To Illustrate the Monuments. Essays on Archaeology Presented to Stuart Piggott*: 6–76. London: Thames and Hudson.

Bogosavljević, V. 1989. Uvod u rudarsku arheologiju na Kopaoniku (oblici starog rudarstva i metalurgije). *Journal of Serbian Archaeological Society* 9: 86–93.

Bogosavljević, V. 1995. Mining hammerstones of Prljuša-Mali Šturac site, in P. Petrović and S.

Đurđekanović (eds) *Ancient Mining and Metallurgy in Southeast Europe*: 37–44. Bor, Belgrade: Archaeological Institute Belgrade, Museum of Mining and Metallurgy Bor.

Bogosavljević, V., K. Penezić, J. Jovanović, and S. Stefanović. 2019. Human jaw bone from the Late Neolithic Pločnik site: A multidisciplinary approach. *Zbornik Narodnog Muzeja* (Belgrade) 24: 9–30.

Bogosavljević, V., D. Mrkobrad and D. Bogosavljević. 1988. Istraživanje srednjovekovnog rudarstva na zapadnom Kopaoniku (okolina Kiževaka). *Naša Prošlost (Kraljevo)* 3: 9–48.

Bogosavljević-Petrović, V. 1992. *Okresana kamena industrija sa neolitskog naselja Divlje Polje: katalog povodom izložbe 'Tehnologija obrade kamena u neolitu'*. Kraljvo: Narodoni muzej Kraljevo.

Bogosavljević-Petrović, V. 1995. Arheometalurški kompleksi na Kopaoniku (Archaeometallurgical complexes in Kopaonik, in Serbian). *Journal of Serbian Archaeological Society* 10: 58–71.

Bogosavljević-Petrović, V. 2011. Redukcija kamenih sirovina na lokalitetu Crkvine – sonda 5 sa arheološkim celinama, in M. Blagojević (ed.) *Kolubara* 5: 213–238. Beograd: Republički zavod za zaštitu spomenika kulture.

Bogosavljević-Petrović, V. and J. Marković. 2012. History and current studies of petroarcheological data from the Neolithic and Chalcolithic in Serbia *Bulgarian e-journal of Archaeology* 2(1): 51–66. http://be-ja.org/article/history-and-current-studies-of-petroarcheological-data-from-the-neolithic-and-eneolithic-in-serbia/

Bogosavljević-Petrović, V. and J. Marković. 2014. Raw material studies of West Central Serbia. *Journal of Lithic Studies* 1(1): 55–71. DOI: https://doi.org/10.2218/jls.v1i1.823.

Bogosavljević-Petrović, V., J. Marković and Lj. Rašković. 2012. Savremeni rudnik magnezita 'Lazac': izvor za arheološka proučavanja. *Naša prošlost* 13: 79–96.

Bogosavljević-Petrović, V. and A. Starović. 2013. Balkanski kremen iz zbirke za stariji neolit Narodnog muzeja u Beogradu. *Zbornik Narodnog muzeja, Serija: Arheologija* 21(1): 77–108.

Bogosavljević-Petrović, V. and M. Tomović. 1993. Kasnoantički rudarsko-metalurški kompleks na zapadnom Kopaoniku. *Journal of Serbian Archaeological Society* 9: 236–240.

Bogucki, P. 1982. *Early Neolithic Subsistence and Settlement in the Polish Lowlands*. (British Archaeological Reports International Series S150). Oxford: Archaeopress.

Boivin, N. and M.-A. Owoc. 2004. *Soil, Stones and Symbols: Cultural Perceptions of the Mineral World.* London: University College London.

Bojadžiev, J. 2002. Die absolute Datierung der neo- und äneolithischen Gräberfelder von Durankulak, in H. Todorova (ed.) *Durankulak, Band II - Die prähistorischen Gräberfelder von Durankulak, Teil 1*: 67–70. Sofia: Publishing House Anubis Ltd.

Bojňanský, V. and A. Fargašová. 2007. *Atlas of Seeds and Fruits of Central and East European Flora: the Carpathian Mountains Region*. Dordrecht: Springer.

Bökönyi, S. 1970. Animal remains from Lepenski Vir. *Science* 167: 1702–1704.

Bökönyi, S. 1974. The vertebrate fauna, in M. Gimbutas (ed.) *Obre I and II: Neolithic Sites in Bosnia*: 55–154. Wissenschaftliche Mitteilungen des Bosnisch-herzegowinischen Landesmuseums, Band 3, Heft B (Archäologie). Sarajevo: Zemaljski Muzej.

Bökönyi, S. 1976. The vertebrate fauna from Anza, in Gimbutas, M. (ed.) *Neolithic Macedonia*: 313–374. Los Angeles: University of California Press.

Bökönyi, S. 1988. The Neolithic fauna of Divostin, in A., McPherron and D. Srejović (eds) *Divostin and the Neolithic of Central Serbia*: 419–445. Pittsburgh: University of Pittsburgh:

Bökönyi, S. 1991. Prehistoric animal remains from Bubanj-Hum at Niš. *Starinar* 40–41: 89–94.

Bökönyi, S. 1992. Animal remains of Mihajlovac-Knjepište: an early Neolithic settlement of the Iron Gate Gorge. *Balcanica* 23: 77–87.

Bolomey, A. and S. Marinescu-Bîlcu. 1988. Industria osului în aşezarea cucuteniana de la Draguşeni-Ostrov. *Studii* şi *cercetari de istorie veche* şi *arheologie* 39/4: 331–353.

Bonga, L. 2013. Late Neolithic Pottery from Mainland Greece, ca., 5,300–4,300 BC. Unpublished PhD dissertation. Temple University, Philadelphia.

Bonnardin, S. 2008. From traces to function of ornaments: some Neolithic, in L. Longo and N. Skakun (eds) *Prehistoric Technology 40 Years Later: Functional Studied and the Russian Legacy*: 297–308. Oxford: Archeopress.

Bonsall, C., M. Gurova, C. Hayward, C. Nachev and N. Pearce. 2010. Characterization of 'Balkan flint' artefacts from Bulgaria and the Iron gates using LA-ICP-MS and EPMA. *Interdisciplinary Studies* 22–23: 9–18.

Borić, D., B. Hanks, D. Šljivar, M. Kočić, J. Bulatović, S. Griffiths, R. Doonan and D. Jacanović. 2018. Enclosing the Neolithic World: A Vinča Culture Enclosed and Fortified Settlement in the Balkans. *Current Anthropology* 59: 336-346.

Borojević, K. 1990. Analiza Paleobotaničkih Makroostataka sa Arheoloških Lokaliteta u Srbiji. Unpublished MA dissertation, Department of Archaeology, University of Belgrade, Serbia.

Borojević, K. 2006. *Terra and Silva in the Pannonian Plain: Opovo Agro-Gathering in the Late Neolithic* (British Archaeological Reports International Series 1563). Oxford: Archaeopress.

Borojević, K. 2013. *New plant evidence from the Middle and Late Neolithic in central Balkans.* Paper presented at the 16th Conference of the International Work

Group for Palaeoethnobotany, Thessaloniki, Greece. Abstract in *Book of Abstracts*: 99.

Borojević, K., D. Antonović, J. Vuković, V. Dimitrijević, D. Filipović, M. Marić, K. Penezić, B. Tripković, V. Bogosavljević-Petrović and N. Tasić. 2020. Use of space in a Late Neolithic/Early Eneolithic building at the site of Vinča-Belo Brdo in the Central Balkans, in N. Tasić, D. Urem-Kotsou and M. Burić (eds) *Making Spaces into Places. The North Aegean, the Balkans and Western Anatolia in the Neolithic.* (British Archaeological Reports International Series S3001): 157–168. Oxford: BAR Publishing.

Boroffka, N., Cierny, J., Lutz, J., Parzinger, H., Pernicka, E. and G. Weisgerber 2002. Bronze Age tin from Central Asia, in K. Boyle, C. Renfrew and M. Levine, M. (eds.) *Ancient Interactions: East and West in* Eurasia, 135-159. Cambridge: McDonald Institute Monographs.

Bourgarit, D. 2007. Chalcolithic copper smelting, in S. La Niece, D. Hook and P. Craddock (eds) *Metals and Mines: Studies in Archaeometallurgy*: 3–14. London: Archetype Publications.

Boyadžiev, Y. 1995. Chronology of prehistoric cultures in Bulgaria, in D.W. Bailey, I. Panayotov and S. Alexandrov (eds) *Prehistoric Bulgaria* (Vol. Monographs in World Archaeology No. 22): 149–192. Madison (WI): Prehistory Press.

Boyadžiev, Y. 2002. Die absolute Chronologie der neo- und äneolithischen Gräberfelder von Durankulak, in H. Todorova (ed.) *Durankulak- Die Prähistorischen Gräberfelder*: 67–70). Sofia: The Bulgarian Academy of Sciences.

Brami, M. 2017. *The diffusion of Neolithic practices from Anatolia to Europe. A contextual study of residential construction, 8,500-5,500 BC cal BC*. (British Archaeological Reports International Series S2838). Oxford: BAR Publishing.

Breunig, P. 1987. *14C-Chronologie des vorderasiatischen, südost- und mitteleuropäischen Neolithikums*. Wien: Fundamenta A/13, Böhlau Verlag, Köln.

Brochier, J.É. 2013. The use and abuse of culling profiles in recent zooarchaeological studies: some methodological comments on 'frequency correction' and its consequences. *Journal of Archaeological Science* 40: 1416–1420.

Bronk Ramsey, C. 2009. Bayesian analysis of radiocarbon dates. *Radiocarbon* 51: 37–60.

Brovkin, V., S. Lorenz, T. Raddatz, T. Ilyina, I. Stemmler, M. Toohey, and M. Claussen 2019. What was the source of the atmospheric CO2 increase during the Holocene? *Biogeosciences* 16: 2543-2555.

Brown, B.M. 1987. Population estimation from floor area: a restudy of 'Naroll's Constant' *Cross-Cultural Research* 21: 1–49.

Brukner, B. 1962. Praistorijsko naselje Beletinci kod Obreža. *Rad Vojvođanskih muzeja* 11: 89–122.

Brukner, B. 1977. Beitrag zur Feststellung des Beginns der Metallurgie und der Aeneolithisierung. *Archaeologia Iugoslavica* 18: 9–12.

Brukner, B. 1980. Naselje vinčanske grupe na Gomolavi (neolitski i ranoeneolitski sloj). Izveštaj sa iskopavanja 1967-1976. *Rad Vojvođanskih Muzeja* 26: 5–55.

Brukner, B. 1988. Die Siedlung der Vinča-Gruppe auf Gomolava (die Wohnschicht des spätneolithikums und frühäneolithikums – Gomolava Ia-b und Gomolava Ib) und der Wohnhorizont des äneolithischen Humus (Gomolava II), in N. Tasić and J. Petrović (eds) *Gomolava – Chronologie und Stratigraphie der vorgeschichtlichen und antiken Kulturen der Donauniederung und Südosteuropas. Internationales Symposium, Ruma, 1986*: 9–38. Novi Sad: Vojvođanski muzej.

Brukner, B. 2002. Die Vinča–Kultur in Raum und Zeit: 61–103. Sarajevo, Frankfurt A/M, Berlin, Heidelberg, Knj. 30: Godišnjak Akademije nauka i umetnosti Bosne i Hercegovine, Centar za balkanološka ispitivanja.

Brukner, B. 2003. Vinčanska kultura u prostoru i vremenu. *Rad Muzeja Vojvodine* 43–45: 7–28.

Brysbaert, A. and A. Gorgues (eds). 2017. *Artisans Versus Nobility? Multiple Identities of Elites and 'Commoners' Viewed through the Lens of Crafting from the Chalcolithic to the Iron Ages in Europe and the Mediterranean.* Leiden: Sidestone Press.

Buckley, M., S. Whitcher Kansa, S. Howard, S. Campbell, J. Thomas-Oates and M. Collins. 2010. Distinguishing between archaeological sheep and goat bones using a single collagen peptide. *Journal of Archaeological Science* 37: 13–20.

Budd, P. 1991. Eneolithic arsenical copper - heat-treatment and the metallographic interpretation of manufacturing processes, in E., Pernicka and G.A. Wagner (eds) *Archaeometry '90: International Symposium on Archaeometry*: 35–44. Heidelberg: Birkhäuser Verlag.

Budd, P. and B.S. Ottaway. 1991. The properties of arsenical copper alloys: implications for the development of eneolithic metallurgy, in P. Budd, B. Chapman, C. Jackson, R. Janaway and C.A. Ottaway (eds) *Archaeological Sciences 1989: Proceedings of a Conference on the Application of Scientific Techniques to Archaeology, Bradford, September 1989*: 132–142. Bradford: Oxbow Books.

Budd, P. and T. Taylor. 1995. The faerie-smith meets the bronze industry - magic versus science in the interpretation of prehistoric metal-making. *World Archaeology* 27: 133–143.

Budden, S. 2008. Skill amongst the sherds: understanding the role of skill in the early to late Middle Bronze Age in Hungary, in I. Berg (ed.) *Breaking the Mould: Challenging the Past through Pottery. Prehistoric Ceramics Research Group Occasional Paper 6* (British Archaeology Reports International Series S1861): 1–18. Oxford: Archaeopress.

Buder, I. 1984. Uticaj vojnih činilaca na razvoj fotogrametrije. *Zbornik radova, Vojnogeografski institut:* 89–99. Beograd.

Бугарски, И. and В. Иванишевић. 2014a. Оживљавање изгубљених крајолика. *Гласник Друштва конзерватора Србије* 38: 252–254. Београд.

Бугарски, И and В. Иванишевић. 2014b. Примена аерофотографије у српској археологији. *Саопштења* XLVI: 251–263. Београд.

Bulatović, A. 2003. *Nalazi vinčanske kulture sa Fafosa i Valača*. Vranje: Narodni Muzej.

Bulatović, A. 2007. Vranje: kulturna stratigrafija praistorijskih lokaliteta u Vranjskoj regiji. Beograd: Arheološki institut, Vranje: Narodni muzej.

Bulatović, A. 2015. The phenomenon of prehistoric ritual pits: several examples from the central Balkans (in Serbian). *Starinar* 65: 7–35. DOI: https://doi.org/10.2298/STA1565007B.

Bulatović, A. and C. Jović. 2009. Leskovac: kulturna stratigrafija praistorijskih lokaliteta u Leskovačkoj regiji. Beograd: Arheološki institut, Leskovac: Narodni muzej.

Bulatović, A. and D. Milanović. 2020. *Bubanj. The Eneolithic and the Early Bronze Age Tell in Southeastern Serbia*. (Mitteilungen der Prähistorischen Kommission, Band 90). Wien: VÖAW.

Bulatović, A., M. Vander Linden and M. Gori. 2018. New AMS dates as a contribution to the absolute chronology of the early Eneolithic in the central Balkans. *Starinar* 68: 19–32.

Bulatović, J. 2010. Ostaci faune iz zatvorenih eneolitskih celina na nalazištu Bubanj kod Niša. Unpublished MA dissertation, University of Belgrade.

Bulatović, J. 2011. Ostaci životinja iz kasnovinčanske jame na nalazištu Vitkovačko polje. *Kruševački Zbornik* 15: 237–272.

Bulatović, J. 2012. Eksploatacija domaćih životinja u kasnom neolitu i eneolitu na području centralnog Balkana. Studije slučaja: Vitkovo i Bubanj. *Glasnik Srpskog arheološkog društva* 28: 279–300.

Bulatović, J. 2018. Arheozoološki aspekti društvenih i kulturnih promena na centralnom Balkanu u petom milenijumu pre nove ere. Unpublished Ph.D. dissertation, University of Belgrade.

Bulatović, J. and S. Milošević. 2015. Životinjski ostaci iz potkapine Mokranjske Stene, in A. Kapuran and A. Bulatović (eds) *Mokranjske Stene: kulturno nasleđe Negotinske Krajine*: 41–55. Negotin: Muzej Krajine.

Bulatović, J. and M. Spasić. 2019. Životinjski ostaci sa neolitskog nalazišta Grabovac – Đurića vinogradi. *Zbornik Narodnog muzeja* 24–1 (arheologija): 63–84.

Bunardžić, R., M. Bunardžić, S. Derikonjić and P. Gavović. 2008. *Topography of Polimlje*. Belgrade: Republic Institute for Heritage Protection.

Burmeister, S., S. Hansen, M. Kunst and N. Müller-Scheeßel (eds). 2013. *Metal Matters. Innovative Technologies and Social Change in Prehistory and Antiquity* (Menschen - Kulturen - Traditionen 12, ForschungsCluster 2), Rahden/Westf: Leidorf.

Burton, J. 1984. Axe Makers of the Wahgi, Pre-Colonial Industrialists of the Papua New Guinea Highlands. Unpublished PhD dissertation, Australian National University.

C

Cameron, C.M. 1990. The effect of varying estimates of pit structure use-life on prehistoric population estimates in the American Southwest. *Kiva* 55: 155–166.

Campbell, G., L. Moffet and V. Straker. 2011. *Environmental Archaeology: A Guide to the Theory and Practice of Method, From Sampling and Recovery to Post-Excavation* (second edition). Swindon: English Heritage.

Camps-Fabrer, H. 1966. *Matière et art mobilier dans la préhistoire nord-africaine et saharienne.* Paris: Mémoires du Centre de recherches anthropologiques préhistoriques et ethnographiques.

Camps-Fabrer, H. 1979. Principes d'une classification de l'industrie osseuse néolithique et de l'âge des métaux dans le Midi méditerranéen, in H. Camps-Fabrer (ed.) *Industrie de l'os et bois de cervidé durant le néolithique et* âge *des métaux. Première réunion du groupe de travail no. 3 sur l'industrie de l'os préhistorique*: 17–26. Paris: Centre national de la recherche scientifique.

Cann, J.R. and C. Renfrew. 1964. The characterisation of obsidian and its application to the Mediterranean region. *Proceedings of the Prehistoric Society* 30: 111–133.

Cantacuzino, G. and S. Morintz. 1963. Die jungsteinzeitlichen Funde in Cernica (Bucureşti) *Dacia* 7.

Cantoro, G. 2012. A free set of tools for automated imagery rectification. *ISAP News* 30: 9–11.

Cantoro, G. 2015. Aerial reconnaissance in archaeology – from archives to digital photogrammetry, in A. Sarris (ed.) *Best Practices of Geoinformatic Technologies for the Mapping of Archaeolandscapes*: 103–114. Oxford: Archaeopress.

Cappers, R.T.J., R.M. Bekker and J.E.A. Jans. 2006. *Digital Seed Atlas of the Netherlands.* (Groningen Archaeological Studies 4). Eelde: Barkhuis Publishing.

Carneiro, R.L. 1986. On the relationship between size of population and complexity of social organization. *Journal of Anthropological Research* 42: 355–364.

Carneiro, R.L. 2000. The transition from quantity to quality: a neglected causal mechanism in accounting for social evolution. *Proceedings of the National Academy of Sciences of the United States of America* 97: 12926–12931.

Carter, T. 2009. L'obsidienne Égéenne: caractérisation, utilisation et culture, in M.-H. Moncel and F. Frohlich (eds) *L'Homme et Le Precieux. Matières Minérales Précieuses de La Préhistoire À Aujourd'hui*

(British Archaeological Reports International Series 1934): 199–212. Oxford: Archaeopress.

Carvajal-Ramírez, F., A.D. Navaro-Ortega and F. Agüera-Vega. 2019. Virtual reconstruction of damaged archaeological sites based on Unmanned Aerial Vehicle Photogrammetry and 3D modelling. Study case of a southeastern Iberia production area in the Bronze Age. *Measurement* 136: 225–236.

Cassana, J. and J. Cothren. 2008. Stereo analysis, DEM extraction and orthorectification of CORONA satellite imagery: archaeological applications from Near East. *Antiquity* 82(317): 732–49.

Cermanović-Kuzmanović, A. and D. Srejović. 1992. *Leksikon religija i mitova drevne Evrope.* Beograd: Savremena administracija.

Cessford, C. 2005. Absolute dating at Çatal Höyük, in I. Hodder (ed.) *Changing Materialities at Çatalhöyük: Reports from the 1995-99 Seasons*: 65–100. Cambridge: McDonald Institute Monographs, British Institute at Ankara.

Cevey, C., D. Günther, V. Hubert, K. Hunger, E. Hildbrand, M.-A. Kaeser, E. Lehmann, N. Müller-Scheessel, M. Wörle-Soares, C. Strahm and S. van Willigen. 2006. Neue archäometallurgische Untersuchungen zum Beginn der Kupferverarbeitung in der Schweiz. *Archäologie der Schweiz* 29: 24–33.

Çevik, Ö. 2018. What follows the Late Neolithic occupation in Central-Western Anatolia? A view from Ulucak, in S. Dietz, F. Mavridis, Ž. Tankosić and T. Takaoğlu (eds) *Communities in Transition: The Circum-Aegean Area in the 5th and 4th Millennia BC*: 506–512. Oxford: Oxbow.

Chapman, J. 1981. *Vinča Culture of South-East Europe: Studies in Chronology, Economy and Society* (British Archaeological Reports International Series S117). Oxford: Archaeopress.

Chapman. J. 1990. The Neolithic in the Morava-Danube confluence area: a regional assessment of settlement pattern, in D. Krstić and R. Tringham (eds) *Selevac. A Neolithic village in Yugoslavia* (Monumenta Archaeologica 15): 13–44. Los Angeles: University of California Press.

Chapman, J. 1991. The creation of social arenas in the Neolithic and Copper Age of South East Europe: the case of Varna, in P. Garwood, P. Jennings, R. Skeates and J.Toms (eds) *Sacred and Profane.* (Oxford Committee for Archaeology Monograph 32): 152–171. Oxford: Oxbow books.

Chapman, J. 1999a. The origins of warfare in the prehistory of central and eastern Europe, in J. Carman and A. Harding (eds) *Ancient Warfare: Archeological Perspectives*:101–142. Stroud: Sutton.

Chapman, J. 1999b. Deliberate house-burning in the prehistory of central and eastern Europe, in A. Gustafson and H. Karlsson (eds) *Glyfer och arkeologiska rum: En vänbok till Jarl Nordbladh*: 113–126. Göteborg: University of Göteborg Press.

Chapman, J. 2000. *Fragmentation in Archaeology. People, Places and Broken Objects in the Prehistory of South-Eastern Europe*. London and New York: Routledge.

Chapman, J. 2006. Dark burnished ware as a sign: ethnicity, aesthetics and categories in the later Neolithic of the central Balkans, in N. Tasić and C. Grozdanov (eds) *Homage to Milutin Garašanin*: 295–308. Belgrade: Serbian Academy of Sciences and Arts.

Chapman, J. 2007. The elaboration of an aesthetic of brilliance and colour in the climax Copper Age, in F. Lang, C. Reinholdt and J. Weilhartner (eds) *Stephanos Aristeios. Archäologische Forschungen zwischen Nil und Istros. Festschrift für Stefan Hiller zum 65. Geburtstag*: 64–74. Wien: Phoibos.

Chapman, J. 2010. Houses, households, villages and proto-cities in southeastern Europe, in D.W. Anthony and J.Y. Chi (eds) *The Lost World of Old Empire: The Danube Valley, 5000–3500 BC*: 74–89. Princeton (NJ): Institute for the Study of the Ancient World.

Chapman, J. 2011. Enchantment and enchainment in later Balkan prehistory: towards an aesthetic of precision and geometric order, in A. Hadjikoumis, E. Robinson and S. Viner (eds) *The Dynamics of Neolithisation in Europe. Studies in Honour of Andrew Sherratt*: 153–176. Oxford: Oxbow Books.

Chapman, J. 2013. From Varna to Brittany via Csõszhalom – Was there a «Varna Effect»? In A. Anders and V. Kulcsár (eds) *Moments in Time. Papers Presented to Pal Raczky on his 60th Birthday*: 323–335. Budapest: L'Harmattan.

Chapman, J. 2020a. *Forging Identities in Balkan Prehistory: Dividuals, Individuals and Communities, 7000–3000 BC*. Leiden: Sidestone.

Chapman, J. 2020b. The Vinča group – (Almost) 40 years on. *Quaternary International* 560–561: 5–19.

Chapman, J. and B. Gaydarska. 2007. *Parts and Wholes: Fragmentation in Prehistoric Context*. Oxford: Oxbow.

Chapman, J. and B. Gaydarska. 2020. The deposition of history in prehistory: copper objects on sites and in the landscape. *Proceedings of the Prehistoric Society* 86: 139–163.

Chapman, J. and E. Richter. 2009. Geometric order and scientific principles: a view from the Mesolithic, Neolithic and Chalcolithic of central and south east Europe, in G. Bodi (ed.) *In Medias Res Praehistorie. Miscellanea in Honorem Annos LXV Peragentis Professoris Dan Monah Oblata*: 21–58. Iaşi: Editura Universităţii 'Alexandru Ioan Cuza'.

Chapman, J. and S. Souvatzi. 2020. The Neolithic of Southeast Europe: recent trends. *Annual Review of Anthropology* 49(1): 123–140.

Chapman, J. and R.F. Tylecote. 1983. Early copper in the Balkans. *Proceedings of the Prehistoric Society* 49: 373–379.

Chapman, J., T. Higham, V. Slavchev, B. Gaydarska and N. Honch. 2006. The social context of the emergence, development and abandonment of the Varna cemetery, Bulgaria. *European Journal of Archaeology* 9: 159–183. DOI: https://doi.org/10.1177/1461957107086121.

Charles, J.A. 1969. Appendix I. A metallurgical examination of south-east European copper axes. *Proceedings of the Prehistoric Society* 35: 40–42.

Chataigner, C. 1998. Sources des artefacts Néolithiques, in M.-C. Cauvin, A. Gourgaud, B. Gratuze, N. Arnaud, P. Poupeau, J.L. Poidevin and C. Chataigner (eds) *L'Obsidienne Au Proche et Moyen Orient: Du Volcan À l'Outil* (British Archaeological Reports International Series 738: 273–324. Oxford: Archaeopress.

Chernykh, E.N. 1966. *Istorija Drevnejsej Metallurgii Vostocnoj Evropy (History of Ancient Metallurgy of Eastern Europe, in Russian)*. Moskva: Akademija Nauk SSSR.

Chernykh, E.N. 1978a. Aibunar - a Balkan copper mine of the fourth millennium BC. *Proceedings of the Prehistoric Society* 44: 203–217. DOI: https://doi.org/10.1017/S0079497X00010136.

Chernykh, E.N. 1978b. *Gornoe Delo i Metallurgiya v Dreivneishei Bolgarii*. Sofia: Bolgarskoi Akademii Nauk.

Chernykh, E.N. 1991. Frühestes Kupfer in der Steppen- und Waldsteppenkulturen Osteuropas, in J. Lichardus (ed.) *Die Kupferzeit als Historische Epoche*: 85–88. Bonn: Habelt.

Chernykh, E.N. 1992. *Ancient Metallurgy in the USSR: The Early Metal Age*. Cambridge: Cambridge University Press.

Chernykh, E.N. 1997. *Kargaly, Zabytyi mir (Kargaly, the Forgotten World, in Russian)*. Moscow: Izdatelstvo 'NOX'.

Chernykh, E.N. 2008a. Formation of the Eurasian 'steppe belt' of stockbreeding cultures: viewed through the prism of archaeometallurgy and radiocarbon dating. *Archaeology, Ethnology and Anthropology of Eurasia* 35: 36–53. DOI: http://dx.doi.org/10.1016/j.aeae.2008.11.003.

Chernykh, E.N. 2008b. The 'steppe belt' of stockbreeding cultures in Eurasia during the Early Metal Age. *Trabajos de Prehistoria* 65: 73–93.

Chernykh, E.N. 2013. *Nomadic Cultures in the Mega-Structure of Eurasian World.* Volume 1 (in Russian). Moscow: Jaziki Slavjanskoi Kulturi. Translation into English by Irina Savinetskaya and Peter N. Hommel and published also as Chernykh, E.N. 2017. Nomadic Cultures in the Mega-Structure of the Eurasian World. Boston, MA: Academic Studies Press with LRC Publishing House.

Chernykh, E.N. and S.V. Kuzminykh. 1989. *Ancient Metallurgy in the Northern Eurasia. Seyma-Turbino Phenomenon (in Russian)*. Moscow: Nauka.

Chernykh, E.N., S.V. Kuzminykh and L.B. Orlovskaya. 2004. Ancient metallurgy in northern Eurasia: from the Urals to the Sayano-Altai, in K.M. Linduff (ed.) *Metallurgy in Ancient Eastern Eurasia from the Urals to the Yellow River*: 15–36. Lewiston (NY): Edwin Mellen.

Chernykh, E. N. 2021. *The Cultures of Homo: Challenging essays about humankind's multi-million years history*. Moscow: TAUS.

Childe, V.G. 1930. *The Bronze Age*. Cambridge: Cambridge University Press.

Childe, V.G. 1929. *The Danube in Prehistory*. Oxford: Oxford University Press.

Childe, V.G. 1936. *Man Makes Himself.* London: Watts and Co.

Childe, V.G. 1936-37. Neolithic black ware in Greece and on the Danube. *The Annual of the British School at Athens* 37: 26–35.

Childe, V.G. 1944. Archaeological ages as technological stages. *Journal of the Royal Anthropological Institute of Great Britain and Ireland* 74: 7–24.

Childe, V.G. 1950. The urban revolution. *The Town Planning Review* 21: 3–17.

Childe, V.G. 1951. *Social Evolution*. London: Collins.

Chirikure, S. 2010. *Indigenous Mining and Metallurgy in Africa.* Cambridge, Cape Town: Cambridge University Press.

Chokhadzhiev, S. 2000. Development of the graphite ornamentation in the Copper Age (in the light of evidence from the Struma cultures), in L. Nikolova (ed.) *Technology, Style and Society. Contributions to the Innovations between the Alps and the Black Sea in Prehistory* (British Archaeological Reports International Series 854): 97–112. Oxford: Archaeopress.

Choyke, A. 1997. The bone tool manufacturing continuum. *Anthropozoologica* 25–26: 65–72.

Choyke, A. 2001. Late Neolithic red deer canine beads and their imitations, in A. Choyke and L. Bartosiewicz (eds) *Crafting Bone: Skeletal Technologies Through Time and Space. Proceedings of the 2nd Meeting of the (ICAZ) Worked Bone Research Group, Budapest, 31 August–5 September 1999*: 251–266. Oxford: Archaeopress.

Choyke, A. 2013. Hidden agendas: ancient raw material choice for worked osseous objects in Central Europe and beyond, in A. Choyke and S. O'Connor (eds) *From These Bare Bones: Raw Materials and the Study of Worked Osseous Objects*: 1–11. Oxford and Oakville: Oxbow Books.

Choyke, A. and J. Schibler. 2007. Prehistoric bone tools and the archaeozoological perspective: research in Central Europe, in C. Gates St-Pierre and R. Walker (eds) *Bones as Tools: Current Methods and Interpretations in Worked Bone Studies*: 51–65. Oxford: Archaeopress.

Christensen, M. 2004. Fiches caractères morphologiques, histologiques et mécaniques des matières dures d´origine animale, in D. Ramseyer (ed.) *Matières et Techniques. Fiches de la Commission de Nomenclature sur l'Industrie de l'Os Préhistorique. Cahier XI*: 17–27. Paris: Centre national de la recherche scientifique.

Christidou, R. 2001. Study of bone tools at three late/final Neolithic sites from Northern Greece, in A. Choyke and L. Bartosiewicz (eds) *Crafting Bone: Skeletal Technologies Through Time and Space – Proceedings of the 2nd Meeting of the (ICAZ) Worked Bone*

Research Group, Budapest, 31 August–5 September 1999: 41–47. Oxford: Archaeopress.

Clason, A. 1979. The farmers of Gomolava in the Vinča and La Tene period. *Palaeohistoria* 21: 42–81.

Clason, A. 1980. Padina and Starčevo: game, fish and cattle. *Palaeohistoria* 22: 142–173.

Collard, M., A. Ruttle, B. Buchananand M.J. O'Brien. 2013. Population size and cultural evolution in nonindustrial food-producing societies. *PLoS ONE* 8, e72628.

Colominas, L. 2013. Specialization or re-utilization? Study of the selection documented in a bone-working refuse. Assemblage from Roman Baetulo (Badalona, Spain), in A. Choyke and S. O'Connor (eds) *From These Bare Bones: Raw Materials and the Study of Worked Osseous Objects*: 88–95. Oxford and Oakville: Oxbow Books.

Comşa, E. 1973. Parures néolithiques en coquillages marins découvertes en territorie roumain. *Dacia* XVII: 61–76.

Comșa, E. 1990. Complexul neolitic de la Radovanu. *Cultură și civilizație la Dunărea de Jos* 8: 7–126.

Comşa, E. 1991. L'utilisation du cuivre en Roumanie pendent le néolithique moyen, in J.-P. Mohen and C. Éluère (eds) *Découverte du Métal*: 77–84. Paris: Picard.

Cook, S.F. 1972. *Prehistoric Demography.* Reading (MA): Addison-Wesley Publishing Company.

Corns, A. and R. Shaw. 2013. Lidar and World Heritage Sites in Ireland: Why was such a rich data source gathered, how is it being utilized, and what lessons have been learned? In R.S. Opitz and D.C. Cowley (eds) *Interpreting Archaeological Topography*: 146–160 Oxford: Oxbow Books.

Costin, C.L. 1991. Craft specialization: issues in defining, documenting and explaining the organization of production. *Archaeological Method and Theory* 3: 1–56.

Courcier, A. 2014. Ancient metallurgy in the Caucasus from the sixth to the third millennium BCE, in B.W. Roberts and C.P. Thornton (eds.) *Archaeometallurgy in Global Perspective*: 579–664. New York: Springer.

Craddock, P.T. 1995. *Early Metal Mining and Production*. Edinburgh: Edinburgh University Press.

Craddock, P.T. 2001. From hearth to furnace: evidences for the earliest metal smelting technologies in the eastern Mediterranean. *Paléorient* 26: 151–156.

Craddock, P.T. and N.D. Meeks. 1987. Iron in ancient copper. *Archaeometry* 29: 187–204.

Crnobrnja, A. 2009. *Neolitsko naselje na Crkvina u Stublinama*. Belgrade: Muzej grada Beograda.

Crnobrnja, A. 2011. Arrangement of Vinča culture figurines: a study of social structure and organisation. *Documenta Praehistorica* 38: 131–147.

Crnobrnja, A. 2012. Group identities in the Central Balkan Late Neolithic. *Documenta Praehistorica* 39: 155–165.

Crnobrnja, A. 2014. The (E)neolithic settlement Crkvine at Stubline, Serbia, in W. Schier and F. Draşovean (eds) *The Neolithic and Eneolithic in Southeast Europe: New Approaches to Dating and Cultural Dynamics in the 6th to 4th Millennium BC*: 173–186. Rahden: Leidorf.

Crnobrnja, A., Z. Simić and M. Janković. 2009. Late Vinča culture settlement at Crkvine in Stubline: household organisation and urbanisation in the late Vinča culture period. *Starinar* 59: 9–25.

Csányi, M., P. Raczky and J. Tárnoki. 2009. Preliminary report on the cemetery of the Bodrogkeresztúr culture excavated at Rákóczifalva-Bagi-föld. *Tisicum* 38: 13–34.

Cuénod, A., Bray, P., and A. Mark Pollard 2015. The "Tin Problem" in the Prehistoric Near East: Further Insights from a Study of Chemical Datasets on Copper Alloys from Iran and Mesopotamia. *Iran* 53: 29-48.

Čuljković, B., S. Stefanović and S. Romac. 2002. Upotreba PCR-a u fizičkoj antropologiji-utvrđivanje pola (The application of PCR in physical anthropology- determination of sex, in Serbian), in *Zbornik radova sa I simpozijuma antropologa Republike Srpske*: 23–31. Banja Luka: Društvo antropologa Republike Srpske.

Cuomo di Caprio, N. 2007. *Ceramica in Archeologia.* Roma: L'Erma Bretschneider.

Custer, J.F., T. Eveleigh, V. Klemas and I. Wells. 1986. Application of LANDSAT data and synoptic remote sensing to predictive models for prehistoric archaeological sites: An example from the Delaware coastal plain. *American Antiquity* 51(3): 572–588.

Cvetković, N. 2004. Motel Slatina – Paraćin Trench: Gasovod II, Analyses of the Neolithic Fauna, in M. Vasić, P. Vučković and B. Cvetković (eds) *The Central Pomoravlje in Neolithization of South East Europe*: 75–82. Belgrade: Archaeological Institute.

Č

Čađenović G., D. Rašković and M. Bugar. 2003. *Vitkovačko polje u praistorijskom periodu. Naselje vinčanske kulture*. Kruševac: Narodni muzej.

Čović, B. 1961. Rezultati sondiranja na preistorijskom naselju u Gornjoj Tuzli. *Glasnik Zemaljskog Muzeja (Sarajevo)* 15/16: 79–139.

D

Dammers, B., A. Franz, R.G. Sobott and K. Bente. 2012. Erste Ergebnisse archäometrischer Untersuchungen zur mittel- und spätneolithischen Keramik von Uivar (Rumänien) unter besonderer Berücksichtigung der 3D-µ-Röntgen-Computertomographie, in B. Ramminger and O. Stilborg (eds) *Naturwissenschaftliche Analysen vor- und frühgeschichtlicher Keramik II*: 33–57. Bonn: Habelt.

Darvill, T. 1987 *Ancient Monuments in the Countryside: An Archaeological Management Overview.* Swindon: English Heritage.

Davenport, W.G., M. King, M. Schlesinger and A.K. Biswas. 2002. *Extractive Metallurgy of Copper (4th Edition)*. Oxford: Pergamon.

Davies, O. 1937. Ancient mining in the central Balkans. *Revue Internationale des Etudes Balkaniques* 1: 405–418.

Deer, W.A., R.A. Howie and J. Zussman. 1992. *An Introduction to the Rock-Forming Minerals*. Harlow, London: Longman.

de Groot, B.G. 2019. A diachronic study of networks of ceramic assemblage similarity in Neolithic Western Anatolia, the Aegean and the Balkans (c. 6600–5500 bc). *Archaeometry* 61: 600–613. DOI: https://doi:10.1111/arcm.12450.

De Pascale, A. 2003. 'Hammerstones from early copper mines': Sintesi dei ritrovamenti nell'Europa e nel Mediterraneo orientale e prime considerazioni sui mazzuoli di Monte Loreto (IV millennio BC - Liguria). *Rivista di Studi Liguri* 69: 5–42.

Derex, M., M.-P. Beugin, B. Godelle and M. Raymond. 2013. Experimental evidence for the influence of group size on cultural complexity. *Nature* 503: 389–391.

Dergachev, V.A. 2004. Karbunskiy klad, in M. Videiko (ed.) *Encyclopedia Trypilskoi tsyvilizatsii. Volume 2.* : 213–214. Kyiv: Ukrpoligraphmedia.

Derikonjić, S. 1996. *Neolitske Zajednice Polimlja*. Proboj: Zavičajni muzej.

Derikonjić, S. 2010. *Tragom jarmovačkih rudara. Catalogue*. Priboj on Lim: Homeland Museum of Priboj.

Derikonjić, S., M. Radivojević, E. Pernicka and Th. Rehren. 2011. The Vinča culture mining complex in Jarmovac, southwest Serbia, in A. Hauptmann, D. Modarressi-Tehrani and M. Prange (eds) *Archaeometallurgy in Europe III: Proceedings of the 3rd International Conference, Deutsches Bergbau-Museum Bochum, June 29 – July 1, 2011*: 39. Bochum: Deutsches Bergbau-Museum.

Deroin, J.P., F. Téreygeol and J. Heckes. 2011. Evaluation of very high to medium resolution multispectral satellite imagery for geoarchaeology in arid regions – case study from Jabali, Yemen. *Journal of Archaeological Science* 38: 101–114.

d'Errico, F. 1993. Identification des traces de manipulation, suspension, polissage sur l'art mobilier en os, bois de cervidés, ivoire, in P. Anderson, S. Beyries, M. Otte and H. Plisson (eds) *Traces et Fonction: Les Gestes Retouvés. Actes du Colloque International de Liège*: 177–188. Liège: ERAUL.

d'Errico, F. and M. Vanhaeren. 2002. Criteria for identifying red deer (*Cervus elaphus*) age and sex from their canines. Application to the study of Upper Palaeolithic and Mesolithic Ornaments. *Journal of Archaeological Science* 29: 211–232.

Дероко, А. 1950. Кулич и Рам каструми на римском Дунавском лимесу. *Старинар* I: 169–173. Београд.

Дероко, А. 1951a. Смедеревски град. *Старинар* II: 59–98. Београд.

Дероко, А. 1951b. Град Голубац. *Старинар* II: 139–149. Београд.

Deschler-Erb, S., E. Marti-Grädel and J. Schibler. 2002. Die Knochen-, Zahn- und Geweihartefakte, in A. de Capitani, S. Deschler-Erb, U. Leuzinger, E. Marti-Grädel and J. Schibler (eds) *Die jungsteinzeitliche Seeufersiedlung Arbon / Bleiche 3: Funde*: 277–366. Archäologie im Thurgau, Band 11. Frauenfeld: Departement für Erziehung und Kultur des Kantons Thurgau.

Dewar, R.E. 1994. Contending with contemporaneity: a reply to Kintigh. *American Antiquity* 59: 149–152.

Diaconescu, D. 2014. New remarks about the typology and the chronology of the Pločnik and Čoka copper hammer-axes, in W. Schier and F. Draşovean (eds) *New Approaches to Dating and Cultural Dynamics in the 6th to 4th Millennium BC.* (Prähistorische Archäologie in Südosteuropa 28): 221–241. Rahden: Leidorf.

Díaz-Andreu, M. 2007. *A World History of Nineteenth-Century Archaeology Nationalism, Colonialism, and the Past.* Oxford: Oxford University Press.

Dimić, V. 2015**.** Traseological markers on ground stone cutting–implements from Lađarište site near Vrnjačka Banja. *Glasnik Srpskog arheološkog društva* 31: 39–73.

Dimić, V. 2013a Analiza glačanog i abrazivnog kamenog oruđa sa lokaliteta Lađarište kod Vrnjačke Banje. *Naša prošlost* 14: 31–56.

Dimić, V. 2013b Petrološka, trasološka i funkcionalno-tipološka studija glačanog i abrazivnog kamenog oruđa sa lokaliteta Lađarište kod Vrnjačke Banje, Odeljenje za arheologiju Filozofskog fakulteta, Univerzitet u Beogadu, Beograd.

Dimitrijević, S. 1968. *Sopotsko-Lenđelska kultura*. Zagreb: Archaeological Institute, Faculty of Philosophy.

Dimitrijević, S. 1974. Problem stupnjevanja starčevačke kulture s posebnim obzirom na doprinos južnopanonskih nalazišta rešavanju ovih problema. *Materijali* X: 59–122.

Dimitrijević, S. 1979. Sjeverna zona, in A. Benac (ed.) *Praistorija Jugoslovenskih Zemalja (Prehistory of Yugoslav Countries)*: 229–362. Sarajevo: Centar za balkanološka istraživanja Akademija nauka i umjetnosti Bosne i Hercegovine.

Dimitrijević, V. 2006. Vertebrate fauna of Vinča Belo Brdo (Excavation Campaigns 1998–2003). *Starinar* 56: 245–269.

Dimitrijević, V. and B. Tripković. 2002. New *Spondylus* findings at Vinča-Belo Brdo 1998–2001 campaigns and the regional approach to problem. *Starinar.* New series. LII: 48–62.

Dimitrijević, V. and B. Tripković. 2006. *Spondylus* and *Glycymeris* bracelets: trade reflections at Neolithic Vinča-Belo Brdo. *Documenta praehistorica* XXXIII: 237–252.

Dimitrov, K. 2002. Die Metallfunde aus den Gräberfeldern von Durankulak, in H. Todorova (ed.) *Durankulak, Band II – Die prähistorischen Gräberfelder von Durankulak, Teil 1*: 127–158. Berlin, Sofia: Publishing House Anubis.

Djurić, N. 1986. Nalazi sa neolitskog lokaliteta Kremen. *Zbornik 2*: 9–15

Dobney, K., and K. Reily. 1988. A method for recording archaeological animal bones: the use of diagnostic zones. *Cicaea* 5: 79–96.

Dobres, M.-A. and R. Hoffman. 1994. Social agency and the dynamics of prehistoric technology. *Journal of Archaeological Method and Theory* 1: 211–258.

Dobres, M.-A. and R. Hoffman (eds). 1999. *The Social Dynamics of Technology: Practice, Politics, and World Views.* Washington DC: Smithsonian Institution Press.

Dolfini, A. 2013. The emergence of metallurgy in the central Mediterranean region: a new model. *European Journal of Archaeology* 16: 21–62. DOI: https://doi.org/10.1179/1461957112Y.0000000023.

Dolfini, A. 2014. Early metallurgy in the central Mediterranean, in B.W. Roberts and C.P. Thornton (eds) *Archaeometallurgy in Global Perspective: Methods and Syntheses*: 473–506. New York: Springer.

Dolfini, A. and R.J. Crellin. 2016. Metalwork wear analysis: the loss of innocence. *Journal of Archaeological Science* 66: 78–87.

Dombay, J. 1939. *A Zengővárkonyi őskori Telep és Temető - The Prehistoric Settlement and Cemetery at Zengővárkony.* (Archaeologica Hungarica 23). Budapest: Magyar Történeti Múzeum.

Dombay, J. 1960. *Die Siedlung und das Graberfeld in Zengővárkony. Beitrage zur Kultur des Aeneolithikums in Ungarn* (Archeologica Hungarica 37). Budapest: Akadémiai Kiadó.

Draşovean, F. 2006. Nordgriechenland und der Mittlere Donauraum zum Ende des 6. und Beginn des 5. Jahrtausends v. Chr, in N. Tasić and C. Grozdanov (eds) *Homage to Milutin Garašanin*: 267–277. Belgrade: Serbian Academy of Sciences and Arts, Macedonian Academy of Sciences and Arts.

Draşovean, F. 2007. The Neolithic tells from Parţa and Uivar. Similarities and differences of the organization of the social space. *Analele Banatului* 15: 19–32.

Draşovean, F., W. Schier, A. Bayliss, B. Gaydarska and A. Whittle. 2017. The lives of houses: duration, context, and history at Neolithic Uivar, Romania. *European Journal of Archaeology* 20: 636–662. DOI: https://doi:10.1017/eaa.2017.37.

Draşovean, F., and W. Schier (eds). 2021. *Uivar "Gomila" A Prehistoric Settlement in the Romanian Banat. Vol. I: Site, Architecture, Stratigraphy and Dating.* (Prähistorische Archäologie in Südosteuropa 32). Rahden: Leidorf.

Dreibrodt, S., R. Hofmann, C. Lubos, S. Dazert, J. Zahrer, M. Fuchs and H.-R. Bork. 2013. Ergebnisse geomorphologisch-geoarchäologischer Begleituntersuchungen an den Siedlungen im Visokobecken (Bosnien-Herzegowina), in J. Müller, K. Rassmann and R . Hofmann (eds) *Okolište 1 - Untersuchungen einer spätneolithischen Siedlungskammer in Zentralbosnien*: 287–310. Bonn: Verlag Rudolf Habelt.

Drennan, R.D. 2009. *Statistics for Archaeologists. A Common Sense Approach*. New York: Springer.

Driehaus, J. 1952–55. Zur Datierung und Herkunft donauländischer Axttypen der frühen Kupferzeit. *Archaeologia Geographica* 2: 3–4: 1–8.

Dubbini, M., L.C. Curzio and A. Campedelli. 2016. Digital elevation models from unmanned aerial vehicle surveys for archaeological interpretation of terrain anomalies: case study of the Roman castrum of Burnum (Croatia). *Journal of Archaeological Science Reports* 8: 121–134.

Dubreuil, L. 2001. Functional studies of prehistoric grindingstones. A methodological research. *Bulletin du Centre de recherche français à Jérusalem* 9: 73–87.

Dumitrescu, H. 1961. Connections between the Cucuteni-Tripolie cultural complex and the neighbouring Eneolithic cultures in the light of the utilization of golden pendants. *Dacia* 5: 69–93.

Dunbar, R.I.M. 1993. Coevolution of neocortical size, group size and language in humans, *Behavioral and Brain Sciences* 16: 681–735.

E

Earle, T.K. 2018 Introduction: Artisans, technologies and consumers - a political economy approach to craft specialization, in I. Miloglav and J. Vuković (eds) *Artisans Rule: Product Standardization and Craft Specialization in Prehistoric Society*: 1–19. Newcastle upon Tyne: Cambridge Scholars Publishing.

Ecsedy, I. 1990. On the early development of prehistoric metallurgy in southern Transdanubia. *Godišnjak Akademije BiH 28. Centar za balkanološka ispitivanja (Sarajevo)* 26: 209–231.

Edwards, K.J., P. Halstead and M. Zvelebil. 1996. The Neolithic transition in the Balkans – archaeological perspectives and palaeoecological evidence: a comment on Willis and Bennet. *The Holocene* 6: 120–122.

Ehrhardt, K.L. 2014. Copper Working Technologies, Contexts of Use, and Social Complexity in the Eastern Woodlands of Native North America, in B.W. Roberts & C.P. Thornton (ed.) *Archaeometallurgy in Global Perspective: Methods and Syntheses*: 303-328. New York: Springer.

Ehrich, R.W. and H.A. Bankoff. 1992. East central and southeastern Europe, in R.W. Ehrich (ed.) *Chronologies in Old World Archaeology*: 31–375. Chicago: University of Chicago Press.

Eichler, A., G. Gramlich, T. Kellerhals, L. Tobler, Th. Rehren, and M. Schwikowski, 2017. Ice-core evidence of earliest extensive copper metallurgy in the Andes 2700 years ago. *Scientific Reports* 7: 41855.

Eliade, M. 1962. *The Forge and The Crucible.* London: Rider.

Elias, N. and N.J. Scotson. 1965. *The Established and the Outsider*. Lomdon: Frank Cass and Company Limited.

Ellenberg H., H.E. Weber, R. Düll, V. Wirth, W. Werner and D. Paulissen. 1992. Zeigerwerte von Pflanzen in Mitteleuropa. *Scripta Geobotanica* 18: 1–258.

Elliott, J.F. 1976. Phase relationships in the pyrometallurgy of copper. *Metallurgical and Materials Transactions B. Process Metallurgy and Materials Processing Science* 7: 17–33.

Elster, E. 2001. Middle Neolithic to Early Bronze Age bone tools from Sitagroi, Greece, in A. Choyke and L. Bartosiewicz (eds) *Crafting Bone: Skeletal Technologies through Time and Space – Proceedings of the 2nd Meeting of the (ICAZ) Worked Bone Research Group, Budapest, 31 August–5 September 1999*: 355–369. Oxford: Archaeopress.

El Susi, G. 2011. The management of livestock in the early Neolithic settlements (Starčevo Criş complex) from Transylvania and Banat, in S. Luca and C. Suciu (eds) *Early Neolithic (Starčevo Criş) Sites on the Territory of Romania*: 47–56. Oxford: Archaeopress.

Éluère, C. and C. J.Raub. 1991. Investigations on the gold coating technology of the great dish from Varna, in J.-P. Mohen and C. Éluère (eds) *Découverte du Métal*: 13–30. Paris: Picard.

Erkul E., D. Wilken, W. Rabbel, T. Yas, R. Hoffmann, N. Müller-Scheessel, K. Rassmann and J. Müller. 2013. Geoelektrische Untersuchugnen auf dem spätneolithischen Siedlungshügel von Okolište, in J. Müller, K. Rassmann and R. Hofmann (eds) *Okolište 1 - Untersuchungen einer spätneolithischen Siedlungskammer in Zentralbosnien. UPA 228*: 103–111. Bonn: Verlag Rudolf Habelt.

Evans, R. 1973. Craft Specialization in the Chalcolithic Period of the Eastern Portion of the Balkans Peninsula. Unpublished PhD dissertation, University of California.

Evin, A., L. Girdland Flink, A. Bălăşescu, D. Popovici, R. Andreescu, D. Bailey, P. Mirea, C. Lazăr, A. Boroneanţ, C. Bonsall, U. Strand Vidarsdottir, S. Brehard, A. Tresset, T. Cucchi, G. Larson and K. Dobney. 2015. Unravelling the complexity of domestication: a case study using morphometrics and ancient DNA analyses of archaeological pigs from Romania. *Philosophical Transactions of the Royal Society B* 370: 20130616.

F

Fagerberg, J. 2004. Innovation: a guide to the literature, in J. Fagerberg, J. Mowery and R. Nelson (eds) *The Oxford Handbook of Innovation*: 1–26. Oxford: Oxford University Press.

Feinman, G.M. 2011. Size, complexity, and organizational variation: a comparative approach. *Cross-Cultural Research* 45: 37–58.

Fewkes, V. 1936. Neolithic sites in the Morava-Danube area. *Bulletin of American School of Prehistoric Research* 12: 5–81.

Filipović, D. 2014. Southwest Asian founder and other crops at Neolithic sites in Serbia. *Bulgarian e-Journal of Archaeology* 4: 195–215.

Filipović, D., D. Challinor and M. Andrič. 2017. Vinča tell in southeast Europe: multi-proxy palaeobotanical evidence from Late Neolithic levels and the implications for the environment and economy. *Quaternary International* 429: 13–23. DOI: https://doi.org/10.1016/j.quaint.2014.09.059.

Filipović, D. and Đ. Obradović. 2013. Archaeobotany at Neolithic sites in Serbia: a critical overview of the methods and results, in N. Miladinović-Radmilović and S. Vitezović (eds) *Bioarheologija na Balkanu: bilans i perspektive*: 25–55. Beograd: Srpsko Arheološko Društvo.

Filipović, D. and N. Tasić. 2012. Vinča-Belo Brdo, a Late Neolithic site in Serbia: consideration of macro-botanical remains as indicators of dietary habits. *Balcanica* 43: 7–27.

Filipović, D., Đ. Obradović and B.Tripković. 2018. Plant storage in Neolithic southeast Europe: synthesis of the archaeological and archaeobotanical evidence from Serbia. *Vegetation History and Archaeobotany* 27: 31–44. DOI: https://doi.org/10.1007/s00334-017-0638-7.

Filipović, D., M. Marić, D. Challinor, J. Bulatović and N. Tasić. 2019. Natural environment and resources, and the long life of the Neolithic settlement at Vinča, southeast Europe. *Archaeological and Anthropological Sciences* 11: 1939-1960.

Filipovitch, L., I. Stefanova, M. Lazarova and M. Petrova. 1998. Holocene Vegetation in Stara Planina (the Balkan Range). *Phytologia Balcanica* 4/1–2: 13–25.

Fleming, L. and O. Sorenson. 2004. Science as a map in technological search. *Strategic Management Journal* 25: 909–928.

Fol, A. and J. Lichardus (eds). 1988. *Macht, Herrschaft und Gold: das Gräberfeld von Varna (Bulgarien) und die Anfänge einer neuen Europäischen Zivilisation.* Saarbrücken: Moderne Galerie des Saarland-Museums.

Food and Agriculture Organization of the UN. The Reference Soil Group of the Cambisols, viewed 05/12/2020, <http://www.fao.org/docrep/003/y1899e/y1899e08.htm>

Forenbaher, S. 1993. Radiocarbon dates and absolute chronology of the central European Early Bronze Age. *Antiquity* 67: 218–256.

Forte, V. 2019. Skilled people or specialists? Knowledge and expertise in Copper Age vessels from central Italy. *Journal of Anthropological Archaeology* 55: 1–20.

Forţiu, S. and A. Cîntar (eds). 2014. *ArheoVest, Nr. II: In Honorem Gheorghe Lazarovici. Interdisciplinaritate în Arheologie, Timișoara, 6 decembrie 2014, Volume 2: Metode Interdisciplinare, Asociația 'ArheoVest' Timișoara*. Szeged: JATEPress Kiadó.

Foster, G. 1965. The sociology of pottery: questions and hypothesis arising from contemporary Mexican work, in F. Matson (ed.) *Ceramics and Man* (Viking Fund Publications in Anthropology 4): 43–61. New York: Wenner-Gren Foundation for Anthropological Research Inc.

Fowler, M.J.F. 2012. Declassified intelligence satellite photographs, in S.W. Hanson and I.A. Oltean (eds) *Archaeology from Historical Aerial and Satellite Archives*: 47–65. New York: Springer.

Frame, L.D. 2012. Reconstructing ancient technologies: Chalcolithic crucible smelting at Tal-i Iblis, Iran, in P. Jett, B. McCarthy and J.G. Douglas (eds) *Scientific Research on Ancient Asian Metallurgy. Proceedings of the Fifth Forbes Symposium at the Freer Gallery of Art*: 183–204. Washington, DC: Archetype Publications in association with the Freer Gallery of Art, Smithsonian Institution.

Freudenberg, M. 2009. Steingerate zur Metallbearbeitung; Einige neue aspekte zum spatneolithichen und fruhbronzezeitlichen metallhanwerk von der hintergrund des Schleswig-Holsteinischen fundmaterials. Archaologisches Koresponedenzblatt 39(3): 341–359.

Frieman, C. 2021. *An archaeology of innovation: approaching social and technological change in human society*. Manchester: Manchester University Press.

Frierman, J. 1969. The Balkan graphite ware (Appendix II). *Proceedings of the Prehistoric Society* 35: 42–44.

Fuller, D.Q. and S.A. Weber. 2005. Formation processes and paleoethnobotanical interpretation in South Asia. *Journal of Interdisciplinary Studies in History and Archaeology* 2: 93–115.

Fuller, D.Q., C. Stevens and M. McClatchie. 2014. Routine activities, tertiary refuse, and labor organization. Social inferences from everyday archaeobotany, in M. Madella, C. Lancelotti and M. Savard (eds) *Ancient Plants and People: Contemporary Trends in Archaeobotany*: 174–217. Tucson: University of Arizona Press.

Fuller, D. Q., J. van Etten, K. Manning, C. Castillo, E. Kingwell-Banham, A. Weisskopf, A., L. Qin, Y-I. Sato and R.J. Hijmans, 2011. The contribution of rice agriculture and livestock pastoralism to prehistoric methane levels: An archaeological assessment. *The Holocene* 21: 743-759.

Furholt, M. 2012. Kundruci: Development of social space in a Late Neolithic tell-settlement in Central Bosnia, in R. Hofmann, F.-K. Moetz, and J. Müller (eds) *Tells: Social and Environmental Space. Proceedings of the International Workshop 'Socio-Environmental Dynamics over the Last 12,000 Years: The Creation of Landscapes II (14th–18th March 2011)' in Kiel, Vol. 3:* 203–219. Bonn: Habelt.

Furholt, M. 2013. Abseits des Weges – Prospektionen und Ausgrabungen in Kundruci, in J. Müller, K. Rassmann and R. Hofmann (eds) *Okolište I - Untersuchungen einer spätneolithischen Siedlungskammer in Zentralbosnien*: 173–206. Bonn: Habelt.

Furholt, M. 2017. *Das Ägäische Neolithikum und Chalkolithikum. Transformationen sozialer Handlungsmuster in Anatolien und Griechenland zwischen 6500 und 4000 v. Chr*, (Universitätsforschungen zur Prähistorischen Archäologie 304). Bonn: Habelt.

Furholt, M., J. Bátora, I. Cheben, H. Kroll, K. Rassmann and P. Tóth. 2014. Vráble – Veľké Lehemby: Eine Siedlungsgruppe der Linearkeramik in der Südwestslowakei. Vorbericht über die Untersuchungen der Jahre 2010 und 2012 und Deutungsansätze. *Slovenska Archaeologia* LXII(2): 227–266.

G

Gaastra, J.S., H.J. Greenfield and M.V. Linden. 2018. Gaining traction on cattle exploitation: zooarchaeological evidence from the Neolithic Western Balkans. *Antiquity* 92: 1462–1477. DOI: https://doi.org/10.15184/aqy.2018.178.

Gaastra, J.S., A. de Vareilles and M. Vander Linden. 2019. Bones and seeds: an integrated approach to understanding the spread of farming across the Western Balkans. *Environmental Archaeology:* 1–17. DOI: https://doi.org/10.1080/14614103.2019.1578016.

Gajić-Kvaščev, M., M.M.,Stojanović, Z. Šmit, V. Kantarelou, A.G. Karydas, D. Šljivar, D. Milovanović and V. Andrić. 2012. New evidence for the use of cinnabar as a colouring pigment in the Vinča culture. *Journal of Archaeological Science* 39: 1025–1033.

Gál, E. 2011. Prehistoric antler and bone tools from Kaposujlak-Vardomb (South-Western Hungary) with special regard to the Early Bronze Age implements, in J. Baron and B. Kufel-Diakowska (eds) *Written in Bones. Studies on Technological and Social Contexts of Past Faunal Skeletal Remains*: 137–164. Wrocław: Uniwersytet Wrocławski, Instytut Archeologii.

Gale, N.H., Z.A. Stos-Gale, P. Lilov, M. Dimitrov and T. Todorov. 1991. Recent studies of Eneolithic copper ores and artefacts in Bulgaria, in J.P. Mohen and C. Éluère (eds) *Découverte du Métal*: 49–76. Paris: Picard.

Gamble, C. 2007. *Origins and Revolutions: Human Identity in Earliest Prehistory*. Cambridge: Cambridge University Press.

Garašanin, D. 1961. Die Siedlung der Starčevokultur in Nosa bei Subotica und das Problem der neolitischen Lehmscheunen, in W. Dehn and G. Bersu (eds) *Bericht Uber Den V. Internationalen Kongress Fur Vor- und Fruhgeschichte Hamburg Vom 24. Bis 30. August*: 303–307. Berlin: Verlag Gebr. Mann.

Garašanin, M. 1951. Hronologija Vinčanske Grupe (Chronology of the Vinča Group, in Serbian). PhD dissertation, Univerza v Ljubljani.

Garašanin, M. 1954. Iz istorije mlađeg neolita u Srbiji i Bosni (History of the late Neolithic in Serbia and Bosnia). *Glasnik Zemaljskog Muzeja, Sarajevo* 9: 5–39.

Garašanin, M. 1973. *Praistorija na tlu Srbije (Prehistory in Serbia, in Serbian)*. Belgrade: Srpska Književna Zadruga.

Garašanin, M. 1979. Centralnobalkanska zona, in A. Benac (ed) *Praistorija jugoslavenskih zemalja* II: 144–212. Sarajevo: Svijetlost – Akademija nauka i umjetnosti Bosne i Hercegovine.

Garašanin, M. 1984. Vinča i vinčanska kultura u neolitu jugoistočne Evrope, in S. Ćelić (ed.) *Vinča u praistoriji i srednjem veku*: 42–57. Beograd: Galerija SANU.

Garašanin, M. 1990. Vinča und seine Stellung im Neolithikum Südosteuropa, in D. Srejović and N. Tasić (eds) *Vinča and Its World*: 11–16. Belgrade:

Serbian Academy of Sciences and Arts and Centre for Archaeological Research, Faculty of Philosophy.

Garašanin, M. 1991. Die Übergang vom Neolithikum zur frühen Bronzezeit auf dem Balkan und an der unteren Donau- ein Rückblick nach dreißig Jahren, in J. Lichardus (ed.) *Die Kupferzeit als Historische Epoche*: 205–216. Bonn: Dr. Rudolf Habelt Gmbh.

Garašanin, M. 1993. Zu den Problemen der Vinča-Gruppe in Rumänien. *Balcanica* 24: 7–20.

Garašanin, M. 1994/1995. Die Gradac-Stufe der Vinča-Gruppe und der Beginn des Aeneolithikums. *Dacia* 38/39: 9–17.

Garašanin, M. 1998 Vinčanska kultura i jadranski uticaji, in N. Tasić (ed.) *Arheološko blago Kosova i Metohije od neolita do ranog srednjeg veka*: 56–88. Beograd: Srpska akademija nauka i umetnosti.

Garašanin, M. and D. Garašanin. 1951. *Arheološki nalazi u Srbiji*. Beograd: Prosveta.

Garašanin, M. and D. Garašanin. 1958. Pavlovac kod Vranja – praistorijsko naselje. *Starinar* 7–8 (1956–1957).

Garašanin, M. and D. Garašanin. 1979. *Supska. 'Stublina' - praistorijsko naselje vinčanske grupe.* Beograd: Narodni muzej.

Gardner, E.J. 2003. Technical analysis of the ceramics / Appendix 7.1. Graphite-painted, in E.S. Elster and C. Renfrew (eds) *Excavations at Sitagroi, a Prehistoric Village in Northeast Greece: Vol. 2, The Final Report*: 283–298. Los Angeles: Cotsen Institute of Archaeology.

Garfinkel, Y., F. Klimscha, S. Shalev and D.Rosenberg. 2014. The beginning of metallurgy in the Southern Levant: a late 6th millennium Cal BC copper awl from Tel Tsaf, Israel. *PLoS ONE* 9: e92591. DOI: https://doi.org/10.1371/journal.pone.0092591.

Gatsov, I. 1993. *Neolithic Chipped Stone Industries in Western Bulgaria*. Krakow: Jagellonian University, Institute of Archaeology.

Gaul, J.H. 1948. The Neolithic period in Bulgaria. *Bulletin of the American Schools of Prehistoric Research* 16. Cambridge (MA).

Gauss, R. 2013. The development of metallurgy on the Iberian Peninsula: technological and social patterns of a long-term innovation process, in S. Burmeister, S. Hansen, M. Kunst and N. Müller-Scheeßel (eds) *Metal Matters. Innovative Technologies and Social Change in Prehistory and Antiquity*: 209–230. Rahden/Westf.: Marie Leidorf.

Găvan, A., 2015. *Metal and Metalworking in the Bronze Age Tell Settlements from the Carpathian Basin*. Cluj-Napoca: Mega Publishing House.

Gaydarska, B. 2017. Introduction: European prehistory and urban studies. *Journal of World Prehistory* 30: 177–188.

Gaydarska, B., M. Nebbia and J. Chapman. 2020. Trypillia megasites in context: independent urban development in Chalcolithic Eastern Europe. *Cambridge Archaeological Journal* 30(1): 97–121.

Georgieva, P. 2012. *The Neolithic and Eneolithic in Southeast Europe*. Sofia.University Press: 'St. Kliment Ohridski'.

Gerritsen, F. 2008. Domestic times: houses and temporalities in late prehistoric Europe, in A. Jones (ed.) *Prehistoric Europe: Theory and Practice*: 143–161. Oxford: Blackwell.

Gillis, R.E., J. Bulatović, K. Penezić, M. Spasić, N.N. Tasić and C.A. Makarewicz. 2020. Herding and hunting at Vinča-Belo Brdo and Stubline during the Late Neolithic, a stable isotopic perspective, in N. Marković and J. Bulatović (eds) *Animal Husbandry and Hunting in the Central and Western Balkans Through Time*: 19–39. Oxford: Archaeopress.

Gillis, R.E., J.S. Gaastra, M. Vander Linden and J.-D. Vigne. 2019. A species specific investigation into sheep and goat husbandry during the early European Neolithic. *Environmental Archaeology* DOI: https://doi.org/10.1080/14614103.2019.1615214.

Gimbutas, M. 1973. Old Europe c. 7000–3500 BC: the earliest European civilization before the infiltration of the Indo-European peoples. *Journal of Indo-European Studies* 1: 1–21.

Gimbutas, M. 1974. *The Goddesses and Gods of Old Europe: 6500-3500 BC. Myths and Cult Images.* London: Thames and Hudson.

Gimbutas, M. (ed.) 1976a. *Neolithic Macedonia as Reflected by Excavations at Anza*. Los Angeles (CA): Insitute of Archaeology, University of California

Gimbutas, M. 1976b. Ideograms and symbolic design on ritual objects of Old Europe (Neolithic and Chalcolithic south-east Europe), in J.V.S. Megaw (ed.) *To Illustrate the Monuments. Essays on Archaeology Presented to Stuart Piggott*: 78–98. London: Thames and Hudson.

Gimbutas, M. 1977. Varna: a sensationally rich cemetery of the Karanovo civilisation, about 4500 BC. *Expedition* 19: 39–47.

Gimbutas, M. (ed.) 1980. *The Transformation of European and Anatolian Culture, 4500-2500 BC and Its Legacy. Proceedings of the Multidisciplinary International Conference in Dubrovnik, 1979* (Vol. 17, Vol. 3). Washington DC: Journal of Indo-European Studies.

Gimbutas, M. 1982. *The Goddesses and Gods of Old Europe: 6500-3500 BC. Myths and Cult Images* (Second edition). London: Thames and Hudson.

Gläser, R. 1996. Zur absoluten Datierung der Vinča-Kultur anhand von 14C-Daten, in F. Draşovean, (ed.) *The Vinča Culture, its Role and Cultural Connections:* 141–162. Timisoara: The Museum of Banat.

Glišić, J. and B. Jovanović. 1960. Eneolitsko naselje na Kormadinu kod Jakova. *Starinar* XI: 113–139.

Glumac, P. 1988. Copper mineral finds from Divostin, in D., Srejović and A. McPherron (eds) *Divostin and the Neolithic of Central Serbia*: 457–462. Pittsburgh, Kragujevac: University of Pittsburgh, Narodni muzej Kragujevac.

Glumac, P. 1991. The Advent of Metallurgy in the Vinča Culture. Unpublished PhD dissertation. University of California.

Glumac, P. and J. Todd. 1987. New evidence for the use of lead in prehistoric south-east Europe. *Archeomaterials* 2: 123–145.

Glumac, P. and J.A.Todd. 1991. Early metallurgy in southeast Europe: the evidence for production, in P. Glumac (ed.) *Recent Trends in Archaeometallurgical Research* (MASCA Research Papers in Science and Archaeology Vol. 8/1): 9–19. Philadelphia (PA): University of Pennsylvania.

Glumac, P. and R.E. Tringham. 1990. The exploitation of copper minerals, in R.E. Tringham and D. Krstić (eds) *Selevac, A Neolithic Village in Yugoslavia*: 549–563. Los Angeles (CA): University of California Press.

Godin, B. 2015. *Innovation Contested: The Idea of Innovation over the Centuries.* London: Routledge.

Golden, J.M. 2010. *Dawn of the Metal Age: Technology and Society During the Levantine Chalcolithic*: London, Oakville (CT): Equinox Publications.

Goleanu, A., A. Marian, M. Gligor, C. Florescu and S. Varvara, S. 2005. Chemical and structural features of the Neolithic ceramics from Vinţa, Lumea Noua and Petresti cultures (Roumania). *Revue Roumaine De Chimie* 50: 939–949.

Goossens, R., A. De Wulf, J. Burgeois, W. Gheyle and T. Willems. 2006. Satellite imagery and archaeology: the example of CORONA in the Altai Mountains. *Journal of Archaeological Science* 33: 745–755.

Gopher, A. and T. Tsuk. 1996. *The Nahal Qanah Cave: Earliest Gold in the Southern Levant.* Tel Aviv: Tel Aviv University.

Gorelick, L. and A.J. Gwinnett. 1990. Innovative lapidary craft techniques in Neolithic Jarmo. *Archeomaterials* 4: 25–32.

Gori, M. and M. Ivanova (eds). 2017. *Balkan Dialogues: Negotiating Identity Between Prehistory and the Present.* New York: Routledge.

Görsdorf, J. and J. Bojadžiev. 1996. Zur absoluten Chronologie der bulgarischen Urgeschichte. *Eurasia Antiqua* 2: 105–173.

Gosselain, O.P. and D. Livingstone Smith. 2005. The source: clay selection and processing practices in Sub-Saharan Africa, in A. Livingstone Smith, D. Bosquet and R. Martineau (eds) *Pottery Manufacturing Process: Reconstruction and Interpretation* (British Archaeological Reports International Series 1349): 33–47. Oxford: Archaeopress.

Govedarica, B. 2001. Zur Typologie und Chronologie der Hammeräxte vom Typ Pločnik, in R.M. Boehmer and J. Maran (eds) *Lux Orientis: Archäologie zwischen Asien und Europa*: 153–164. Rahden: Leidorf.

Govedarica, B. 2016. Das Phänomen der balkanischen Kupferzeit, in V. Nikolov and W. Schier (eds) *Der Schwarzmeerraum vom Neolithikum bis in die Früheisenzeit (6000–600 v. Chr.). Kulturelle Interferenzen in der zirkumpontischen Zone und Kontakte mit ihren Nachbargebieten.* (Prähistorische Archäologie in Südosteuropa 30): 11–22. Rahden/Westf: Verlag Marie Leidorf GmbH.

Grabundžija, A., C. Schoch and A. Ulanowska. 2016. Bones for the loom. Weaving experiment with astragali weights. *Prilozi Instituta za arheologiju u Zagrebu* 33: 287–306.

Graeber, D. and D. Wengrow. 2021. *The Dawn of Everything. A New History of Humanity.* New York: Farrar, Straus and Giroux.

Graf, M. 2013. Industrijski putevi kulture (Industrial culture pathways, in Serbian) *Energija, ekonomija, ekologija,* 15: 328–335.

Grant, A. 1982. The use of tooth wear as a guide to the age of domestic ungulates, in B. Wilson, C. Grigson and S. Payne (eds) *Ageing and Sexing Animal Bones from Archaeological Sites* (British Archaeological Reports British Series 109): 91–108. Oxford: Archaeopress.

Gratuze, B. 1999. Obsidian characterization by laser ablation ICP-MS and its application to prehistoric trade in the Mediterranean and the Near East: sources and distribution of obsidian within the Aegean and Anatolia. *Journal of Archaeological Science* 26(8): 869–881. DOI: https://doi.org/10.1006/jasc.1999.0459.

Grbić, M. 1929. *Pločnik, eine Prähistorische Ansiedlung aus der Kupferzeit*. Belgrade: National Museum Belgrade.

Grbić, M. 1934. Neolitsko naselje u Botošu kod Velikog Bečkereka. *Starinar* 8–9: 40–58.

Грбић, М. 1936. Архитектура у Басијани (Сремски Петровци) I. Реконструкција места према ситуационом плану и авионском снимку. *Гласник Историског друштва* IX/1: 19–31. Нови Сад.

Грбић, М. 1950. Градиште код Кикинде. *Старинар* I: 113–118. Београд.

Грбић, М. 1951. Градиште код Кикинде.Наставак радова у 1948 години. *Старинар* II: 133–138. Београд.

Green, F.J. 1982. Problems of interpreting differentially preserved plant remains from excavations of medieval urban sites, in A.R. Hall and H.K. Kenward (eds) *Environmental Archaeology in the Urban Context* (Council for British Archaeology Research Report 23): 40–46. London: Council for British Archaeology.

Greenacre, M. 1988. Clustering the rows and columns of a contingency table. *Journal of Classification* 5: 39–51.

Greenacre M. 2007. *Correspondence Analysis in Practice.* Boca Raton-London-New York: Chapman and Hall/CRC.

Greenfield, H.J. 1986. *The Paleoeconomy of the Central Balkans (Serbia). A Zooarchaeological Perspective on the Late Neolithic and Bronze Age (ca. 4500–1000 B.C.)* (British Archaeological Reports International Series 304 (i, ii)). Oxford: Archaeopress.

Greenfield, H.J. 1994. Faunal remains from the Early Neolithic Starčevo settlement at Bukovačka Česma. *Starinar* 43–44: 103–113.

Greenfield, H.J. 2005. A reconsideration of the Secondary Products Revolution in south eastern Europe: on the origins and use of domestic animals for milk, wool and traction in the central Balkans, in J. Mulville and A. Outram (eds) *The Zooarchaeology of Fats, Oils, Milk and Dairying*: 14–31. Oxford: Oxford Books.

Greenfield, H.J. 2014. Zooarchaeology of the Late Neolithic, Eneolithic and Middle Bronze Ages at Vinča-Belo Brdo, Serbia: the 1982 excavations, in H.J. Greenfield (ed.) *Animal Secondary Products: Domestic Animal Exploitation in Prehistoric Europe, the Near East and the Far East*: 274–334. Oxford: Oxbow.

Greenfield, H.J. 2017. Hunting and herding in the Middle Neolithic of central Serbia: a zooarchaeological analysis of Stragari-Šljivik, Serbia, in P. Rowley-Conwy, D. Serjeantson and P. Halstead (eds) *Economic Zooarchaeology: Studies in Hunting, Herding and Early Agriculture:* 183–194. Oxford: Oxbow.

Greenfield, H.J. and E. Arnold. 2014. 'Crying over spilt milk': an evaluation of recent models, methods, and techniques on the origins of milking during the Neolithic of the Old World, in H.J. Greenfield (ed.) *Animal Secondary Products: Domestic Animal Exploitation in Prehistoric Europe, the Near East and the Far East*: 130–187. Oxford: Oxbow.

Greenfield, H.J. and E. Arnold. 2015. 'Go(a)t milk?' New perspectives on the zooarchaeological evidence for the earliest intensification of dairying in south eastern Europe. *World Archaeology* 47 (5): 792–818.

Greenfield, H.J. and T. Greenfield. 2014. Subsistence and settlement in the Early Neolithic of temperate SE Europe: a view from Blagotin, Serbia. *Archaeologia Bulgarica* 18(1): 1–33.

Greenfield, H.J. and T. Jongsma. 2008. Sedentary pastoral gatherers in the early Neolithic: architectural, botanical, and zoological evidence for mobile economies from Foeni-Salaş, south-west Romania, in D. Bailey, A. Whittle and D. Hofmann (eds) *Living Well Together? Settlement and Materiality in the Neolithic of South-East and Central Europe*: 108–130. Oxford: Oxbow.

Greenshaw, S.I. 2018. Structure from motion: origins and originality. *The Photogrammetric Record* 33: 7–10.

Grigson, C. 1982. Sex and age determination of some bones and teeth of domestic cattle: a review of the literature, in B. Wilson, C. Grigson and S. Payne (eds) *Ageing and Sexing Animal Bones from Archaeological Sites* (British Archaeological Reports British Series 109): 7–23. Oxford: Archaeopress.

Guerrero, E., S. Naji and J.-P. Bocquet-Appel. 2008. The signal of the Neolithic demographic transition in the Levant, in J.-P. Bocquet-Appel and O. Bar-Yosef (eds) *The Neolithic Demographic Transition and its Consequences*: 57–80. Berlin: Springer.

Gurova, M. 2012. 'Balkan flint'—fiction and/or trajectory to Neolithization: evidence from Bulgaria. *Bulgarian e-journal of Archaeology.*

Gurova, M. 2014. Neolithic flint assemblages from Bulgaria: an overview. *Самарский научный вестник* 3(8): 94–108.

Guthrie, D.R. 1983. Osseus projectile points: biological considerations affecting raw material selection and design among Paleolithic and Paleoindian peoples, in J. Clutton-Brock and C. Grigson (eds) *Animals and Archaeology 1: Hunters and Their Prey*: 273–294. Oxford: Archaeopress.

H

Hahn, H.P. 2012. Segmentary societies as alternatives to hierarchical order: sustainable social structures or organization of predatory violence? In T. Kienlin and A. Zimmermann (eds) *Beyond Elites: Alternatives to Hierarchical Systems in Modelling Social Formations: International Conference at the Ruhr-Universität Bochum, Germany, October 22-24, 2009.* (University Research on Prehistoric Archaeology 215): 33–40. Bonn: Habelt.

Hair J, F., W.C. Black, B.J. Babin and R.E. Anderson. 2009. *Multivariate Data Analysis* (Seventh edition). London: Prentice Hall.

Halstead, P. 1996. Pastoralism or household-herding? Problems of scale and specialization in early Greek animal husbandry. *World Archaeology* 28: 20–42.

Halstead, P. 1985. A study of mandibular teeth from Romano-British contexts at Maxey, in F. Pryor and C. French (eds) *The Fenland Project No. 1: Archaeology and Environment in the Lower Welland Valley* (East Anglian Archaeology 27): 219–24. Cambridge: Cambridgeshire Archaeological Committee.

Halstead, P., P. Collins and V. Isaakidou. 2002. Sorting sheep from goats: morphological distinctions between the mandibles and mandibular teeth of adult *Ovis* and *Capra*. *Journal of Archaeological Science* 29: 545–553.

Hambleton, E. 1999. *Animal Husbandry Regimes in Iron Age Britain.* (British Archaeological Reports British Series 282). Oxford: Archaeopress.

Hampton, O.W. 1999. *Culture of Stone: Sacred and Profane Uses of Stone Among the Dani.* College Station (TX): Texas A and M University Press.

Hansen, S. 2007. Bilder vom Menschen der Steinzeit. Untersuchungen zur anthropomorphen Plastik der Jungsteinzeit und Kupferzeit in Südosteuropa. *Archäologie in Eurasien* 20. Mainz: Deutsches Archäologisches Institut.

Hansen, S. 2009. Kupfer, Gold und Silber im Schwarzmeerraum während des 5. und 4. Jahrtausends v. Chr, in J. Apakidze, B. Govedarica and B. Hänsel (eds) *Der Schwarzmeerraum vom Äneolithikum bis in die Früheisenzeit (5000-500 v.Chr.). Kommunikationsebenen zwischen Kaukasus und Karpaten. Internationale Fachtagung von Humboldtianern für Humboldtianer im Humboldt-Kolleg* *in Tiflis - Georgien 17.- 20. Mai 2007.* (Prähistorische Archäologie in Südosteuropa, Band 25): 11–50. Rahden: Leidorf.

Hansen, S. 2012. The archaeology of power, in T.L. Kienlin and A. Zimmermann (eds) *Beyond Elites. Alternatives to Hierarchical Systems in Modelling Social Formations. International Conference at the Ruhr-Universität Bochum, Germany, October 22–24, 2009* (Universitätsforschungen zur Prähistorischen Archäologie 215): 213–223. Bonn: Habelt.

Hansen, S. 2013a. The birth of the hero. The emergence of a social type in the 4th millennium BC, in E. Starnini (ed.) *Unconformist Archaeology. Papers in Honour of Paolo Biagi* (British Archaeological Reports International Series 2528): 101–112. Oxford: Archaeopress.

Hansen, S. 2013b. Innovative metals: copper, gold and silver in the Black Sea region and the Carpathian Basin during the 5th and 4th Millennium BC, in S. Burmeister, S. Hansen, M. Kunst, and N. Müller-Scheeßel (eds) *Metal Matters. Innovative Technologies and Social Change in Prehistory and Antiquity*: 137–170. Rahden: Leidorf.

Hansen, S. and M. Toderaş 2012. The Copper Age settlement Pietrele on the Lower Danube River (Romania), in R. Hofmann, F.-K. Moetz and J. Müller (eds) *Tells: Social and Environmental Space. Proceedings of the International Workshop 'Socio-Environmental Dynamics over the Last 12,000 Years: The Creation of Landscapes II' in Kiel, 14th –18th March 2011. Volume 3*: 127–138. Bonn: Habelt.

Hansen, S., G. Mirtskhulava, K. Bastert-Lamprichs and M. Ullrich. 2012. Aruchlo– Eine Neolithische Siedlung im Sudkaukasus. *Altertum* 57: 81–106.

Hansen, S., P. Raczky, A. Anders and A. Reingruber (eds). 2015. *Neolithic and Copper Age between the Carpathians and the Aegean Sea: Chronologies and Technologies from the 6th to the 4th Millennium BCE. International Workshop Budapest, 30 March–1 April 2012*. Bonn: Habelt.

Hansen, S., I. Montero-Ruiz, S. Rovira, D. Steiniger and M. Toderaş. 2019. The earliest lead ore processing in Europe. 5th Millennium BC finds from Pietrele on the Lower Danube. *PLoS ONE* 14: e0214218. DOI: https://doi.org/10.1371/journal.pone.0214218.

Harris, E.C. 1989. *Principles of Archaeological Stratigraphy*. London: Academic Press.

Harris, E.C., M.R. Brown and G.J. Brown (eds). 1993. *Practices of Archaeological Stratigraphy.* London: Academic Press.

Hauptmann, A. 2000. *Zur frühen Metallurgie des Kupfers in Fenan/Jordanien, Der Anschnitt, Beiheft 11.* Bochum: Deutsches Bergbau-Museum.

Hauptmann, A. 2007. *The Archaeometallurgy of Copper: Evidence from Faynan, Jordan.* Berlin: Springer.

Hauptmann, A. 2014. The investigation of archaeometallurgical slag, in B.W. Roberts and C.P. Thornton (eds) *Archaeometallurgy in Global Perspective: Methods and Syntheses*: 91–105. New York: Springer.

Hauptmann, A. 2020. *Archaeometallurgy – Materials Science Aspects*. New York: Springer.

Hauptmann, A., J. Lutz, E. Pernicka and Ü.Yalçin. 1993. Zur Technologie der frühesten Kupferverhüttung im östlichen Mittelmeerraum, in M. Frangipane, A. Hauptmann, M. Liverani, P. Matthiae and M. Mellink (eds) *Between the Rivers and over the Mountains: Archaeologica Anatolica et Mesopotamica Alba Palmieri Dedicata*: 541–563. Roma: Dipartimento di Scienze Storiche Archeologiche e Antropologiche dell'Antichità, Università di Roma 'La Sapienza'.

Hauptmann, A., C. Bendall, G. Brey, I. Japariže, I. Gambašiže, S. Klein, M. Prange and T. Stöllner. 2010. Gold in Georgien. Analytische Untersuchungen an Goldartefakten und an Naturgold aus dem Kaukasus und dem Transkaukasus, in S., Hansen, A. Hauptmann, I. Motzenbäcker and E. Pernicka (eds.) *Von Majkop bis Trialeti. Gewinnungund Verbreitungvon Metallen und Obsidian in Kaukasien im 4.–2. Jt. v. Chr. Beiträge des Internationalen Symposiums in Berlin vom 1.–3. Juni 2006. Kolloquien zur Vor- und Frühgeschichte 13*: 139–160. Bonn: Habelt.

Healey J.F. 2013. *The Essentials of Statistics. A Tool for Social Research* (Third edition). Belmont (CA): Wadsworth.

Heeb, J. 2014. *Copper Shaft-Hole Axes and Early Metallurgy in South-Eastern Europe: An Integrated Approach.* Oxford: Archaeopress.

Heeb J., and B. Ottaway 2014. Experimental Archaeometallurgy, in B.W. Roberts and C.P. Thornton (eds) *Archaeometallurgy in Global Perspective: Methods and Syntheses*: 161-192. New York: Springer.

Helmer, D. 2000. Discrimination des genres *Ovis* at *Capra* à l'aide des prémolaires inférieures 3 et 4 et interprétation des âges d'abattage: l'example de Dikili Tash (Greece). *Anthropozoologica* 31: 29–38.

Helwing, B. 2013. Early metallurgy in Iran: An innovative region as seen from the inside, in S. Burmeister, S. Hansen, M. Kunst, and N. Muller-Scheessel (eds.) *Metal Matters: Innovative Technologies and Social Change in Prehistory and Antiquity*: 105–135. Rahden.: Leidorf.

Henrich, J. 2001. Cultural transmission and the diffusion of innovations: adoption dynamics indicate that biased cultural transmission is the predominate force in behavioral change. *American Anthropologist.* 103: 992–1013.

Henrich, J. 2004. Demography and cultural evolution: how adaptive cultural processes can produce maladaptive losses: the Tasmanian case. *American Antiquity* 69: 197–214.

Henrich, J. 2010. The evolution of innovation-enhancing institutions, in M.J. O'Brien and S.J. Shennan (eds) *Innovation in Cultural Systems. Contributions from Evolutionary Anthropology*: 99–120. Cambridge, MA: The MIT Press.

Hervella, M., M. Rotea, N. Izagirre, M. Constantinescu, S. Alonso, M. Ioana, C. Lazăr, F. Ridiche, A.D. Soficaru, M.G. Netea and C. de-la-Rua. 2015. Ancient DNA from South-East Europe reveals different events during Early and Middle Neolithic influencing the European genetic heritage. *Plos ONE* 10(6): e0128810.

Herzog, I. 2012. Aus Punkten werden Flächen: Vorschläge einer Methodik zur Abgrenzung von Gebieten mit hoher Funddichte. *Bericht der Römisch-Germanischen Kommission* 91: 197–215.

Higham, T., J. Chapman, B. Gaydarska, V. Slavchev, N. Honch, Y. Yordanov and B. Dimitrova. 2007. New perspectives on the Varna cemetery (Bulgaria) - AMS dates and social implications. *Antiquity* 81: 640–654.

Higham, T., V. Slavchev, B. Gaydarska and J. Chapman. 2018. AMS dating of the Late Copper Age Varna Cemetery, Bulgaria. *Radiocarbon* 60: 493–516. DOI: https://doi.org/10.1017/RDC.2018.9.

Hillier, B. and J. Hanson. 1984. *The Social Logic of Space.* Cambridge: Cambridge University Press.

Hillman, G.C. 1981. Reconstructing crop husbandry practices from the charred remains of crops, in R. Mercer (ed) *Farming Practice in British Prehistory*: 123–162. Edinburgh: Edinburgh University Press.

Hillman, G.C. 1984a. Interpretation of archaeological plant remains: application of ethnographic models from Turkey, in W.A. Casparie and W. van Zeist (eds) *Plants and Ancient Man: Studies in Palaeoethnobotany*: 1–41. Rotterdam: Balkema.

Hillman G.C. 1984b. Traditional husbandry and processing of archaic cereals in recent times: the operations, products and equipment which might feature in Sumerian Texts. Part I: the glume-wheats. *Bulletin on Sumerian Agriculture* 1: 114–52.

Hillman, G.C. 1985. Traditional husbandry and processing of archaic cereals in modern times. Part II, the free-threshing cereals. *Bulletin on Sumerian Agriculture* 2: 1–31.

Hofmann, R. 2013a. Okolište – Spätneolithische Keramik und Siedlungsentwicklung in Zentralbosnien: Ergebnisse und Interpretationen, *Godišnjak Centra za balkanološka ispitivanja Akademije nauka i umjetnosti Bosne i Hercegovine* 42: 23–44.

Hofmann, R. 2013b. *Okolište 2 – Spätneolithische Keramik und Siedlungsentwicklung in Zentralbosnien. Neolithikum und Chalkolithikum in Zentralnosnien 2.* (Universitätsforschungen zur prähistorischen Archäologie 234). Bonn: Verlag Rudolf Habelt.

Hofmann, R. and N. Müller-Scheeßel. 2013. Der spätneolithische Tell von Okolište im Visoko-Becken in Zentralbosnien: Ergebnisse der Grabungskampagne 2006 und 2007, in J. Müller, K. Rassmann and R. Hofmann (eds) *Okolište I - Untersuchungen einer spätneolithischen Siedlungskammer in Zentralbosnien*: 69–102. Bonn: Habelt.

Hofmann, R., and N. Müller-Scheeßel. 2020. Orientation of Neolithic dwellings in Central and Southeast Europe: Common denominator between the Vinča and Linearbandkeramik worlds. *Quaternary International*: 1–12. DOI: https://doi.org/10.1016/j.quaint.2020.05.006.

Hofmann, R., Z. Kujundzic-Vejzagić, J. Müller, N. Müller-Scheeßel and K. Rassmann. 2007. Prospektionen und Ausgrabungen in Okolište (Bosnien-Herzegowina). Siedlungsarchäologische Studien zum zentralbosnischen Spätneolithikum. *Berichte der Römisch-Germanischen Kommission* 87: 43–212.

Hofmann, R., Z. Kujundžić-Vejzagić, J. Müller, K. Rassmann and N. Müller-Scheessel. 2009. Rekonstrukcija procesa naseljavanja u kasnom neolitu na prostoru centralne Bosne. *Glasnik Zemaljskog Muzeja* 50/51: 11–177.

Holmberg, E.J. 1964. The appearance of Neolithic black burnished ware in mainland Greece. *American Journal of Archaeology* 68: 343–348.

Holste, F. 1939. Zur chronologischen Stellung der Vinča-Keramik, *Wiener prahistorische Zeitschrift XXVI*. Wien.

Hopf, M. 1974. Pflanzenreste aus Siedlungen der Vinča-Kultur in Jugoslawien. *Jahrbuch des Römisch-Germanisches Zentralmuseum* 21: 1–11.

Höppner, B., M. Bartelheim, M. Huijsmans, R. Krauss, K.P. Martinek, E. Pernicka and R. Schwab. 2005. Prehistoric copper production in the Inn Valley (Austria), and the earliest copper in central Europe. *Archaeometry* 47: 293–315.

Horedt, K. 1976. Die ältesten neolithischen Kupferfunde Rumäniens. *Jahresschrift für Mitteldeutsche Vorgeschichte* 60: 175–181.

Hosler, D. 2014. Mesoamerican metallurgy: the perspective from the west, in B.W. Roberts and C.P. Thornton (eds) *Archaeometallurgy in Global Perspective: Methods and Syntheses*: 329-359. New York: Springer.

Huebner, J. 1969. Stability relations of rodochrosite in the system manganese-carbon-oxygen. *American Mineralogist* 54: 457–481.

Humphris, J., M.F. Charlton, J. Keen, L. Sauder and F.Alshishani. 2018. Iron smelting in Sudan: Experimental archaeology at the royal city of Meroe. *Journal of Field Archaeology* 43: 399–416. DOI: https://doi.org/10.1080/00934690.2018.1479085.

Hüser, A. 2005. *Die Knochen- und Geweihartefakte der lieanrbandkeramischen Siedlung Bad Nnauheim-Nieder-Mörlen in der Wetterau*. (Kleine Schriften 55). Marburg: Phillips-Universität Marburg.

I

Ifantidis, F. and M. Nikolaidou (eds). 2011. *Spondylus in Prehistory: New Data and Approaches. Contributions to the Archaeology of Shell Technologies* (British Archaeological Reports International Series 2216). Oxford: Archaeopress.

Игњатовић, М. 2008. Каталог [Katalog], in Дубравка Николић [N. Dubravka] *Винча – праисторијска метропола. Истраживања 1908–2008. [Vinča, praistorijska nekropola. Istraživanja 1908–2008]*: 203–277. Beograd: Filozofski fakultet, Narodni muzej, Muzej grada Beograda, SANU.

Iles, L. 2018. Forging networks and mixing ores: Rethinking the social landscapes of iron metallurgy. *Journal of Anthropological Archaeology* 49: 88–99. DOI: https://doi.org/10.1016/j.jaa.2017.10.001.

Ingold, T. 2007. Materials against materiality. *Archaeological Dialogues* 14: 1–16.

Inizan, M.-L., M. Reduron-Ballinger, H. Roche and J. Féblot-Augustins. 1999. *Technology and Terminology of Knapped Stone.* Nanterre: Cercle de Recherches et d'Etudes Préhistoriques.

Inizan, M.-L., M. Reduron-Ballinger, H. Roche and J. Tixier. 1995. *Technologie de la Pierre Taillée.* Paris: CNRS.

Isaakidou, V. 2006. Ploughing with cows: Knossos and the 'secondary products revolution', in D. Serjeantson and D. Field (eds) *Animals in the Neolithic of Britain and Europe*: 95–112. Oxford: Oxbow Books.

Иванишевић, В. and И. Бугарски. 2015. Дигитална фотограметријска снимања античких и средњевековних локалитета у Србији. *Саопштења* XLVII: 165–180.

Ivanišević, V. and I. Bugarski. 2015. Landscape reconstruction in the Middle Danube Roman Limes: case studies from Lederata and Smorna, in V. Ivanišević, T. Veljanovski, D. Cowely, G. Kiarszys and I. Bugarski (eds) *Recovering Lost Landscapes* (Monographs, Volume 58): 57–65. Belgrade: Institute of Archaeology.

Ivanišević V., I. Bugarski and A. Stameković. 2018. Примена историјско – археолошког географског информационог система у истраживањима Царичиног града и околине. *Саопштења* L: 259–279. Beograd.

Ivanišević, V., T. Veljanovski, D. Cowely, G. Kiarszys and I. Bugarski. 2015. Recovering lost landscapes – introduction to an aerial perspective, in V. Ivanišević, T. Veljanovski, D. Cowely, G. Kiarszys and I. Bugarski (eds) *Recovering Lost Landscapes* (Monographs, Volume 58): 7–10. Belgrade: Institute of Archaeology.

Ivanov, I. 1978a. Rannokhalkolitni grobove do grad Varna. *Izvestiya na Narodniya Muzej Varna* 14: 81–93.

Ivanov, I. 1978b. Les fouilles archéologiques de la nécropole chalcolithique à Varna. *Studia Praehistorica* 1/2: 1–26.

Ivanov, I. 1988a. Das Gräberfelds von Varna: Katalog, in A. Fol and J. Lichardus (eds) *Macht, Herrschaft und Gold: Das Gräberfeld von Varna und die Anfänge einer Neuen Europäischen Zivilisation*: 183–208. Saarbrücken: Moderne Galerie des Saarland-Museums.

Ivanov, I. 1988b. Die Ausgrabungen des Gräberfeldes von Varna, in A. Fol and J. Lichardus (eds) *Macht, Herrschaft und Gold: Das Gräberfeld von Varna und die Anfänge einer Neuen Europäischen Zivilisation*: 49–66. Saarbrücken: Moderne Galerie des Saarland-Museums.

Ivanov, I. and M. Avramova. 2000. *Varna Necropolis. The Dawn of European Civilization. Treasures of Bulgaria 1.* Sofia: Agato.

Ivanova, M. 2007. Tells, invasion theories and warfare in fifth millennium BC north-eastern Bulgaria, in T. Pollard and I. Banks (eds) *War and Sacrifice: Studies in the Archaeology of Conflict*: 33–48. Leiden: Brill.

Ivanova, M. 2012. Perilous waters: Early maritime trade along the western coast of the Black Sea (fifth millennium BC). *Oxford Journal of Archaeology* 31: 339–365. DOI: https://doi.org/10.1111/j.1468-0092.2012.00392.x.

Ivanova, M. 2013. *The Black Sea and the Early Civilizations of Europe, the Near East and Asia*. Cambridge: Cambridge University Press.

Ivanova, M. 2020. Growing societies: An ecological perspective on the spread of crop cultivation and animal herding in Europe, in K. Gron, L. Sørensen and P. Rowley-Conwy P. (eds) *Farmers at the Frontier: A Pan European Perspective on Neolithisation*: 7–44. Oxford: Oxbow.

Ivanova, M., B. Athanassov, V. Petrova, D. Takorova and P.W. Stockhammer (eds). 2018. *Social Dimensions of Food in the Prehistoric Balkans*. Oxford: Oxbow.

J

Jacanović, D. 1985. *Požarevački kraj od najstarijih zemljoradnika do dolaska Rimljana*. Požarevac: Narodni Muzej.

Jacanović, D. 1988. Neolithic sites in the Danubian region from the mouth of the Velika Morava to Golubac, in D. Srejović (ed.) *The Neolithic of Serbia*: 111–119. Belgrade: University of Belgrade.

Jacanović, D. and D. Šljivar. 2001. Nalazi astragala sa neolitskog lokaliteta Belovode. *Zbornik Narodnog muzeja* XVII–1: 31–36.

Jacanović, D. and D. Šljivar. 2003. Preliminary reports on archaeological research from 1998 to 2002, Veliko Laole, Belovode (in Serbian). *Viminacium* 13–14: 297–302.

Jackson, C.M. and J.W. Smedley. 2004. Medieval and post-medieval glass technology: melting characteristics of some glasses melted from vegetable ash and sand mixtures. *Glass Technology* 45: 36–42.

Jacomet, S. and A. Kreuz. 1999. *Archäobotanik*. Stuttgart: Eugen Ulmer.

Jakucs J. and V. Voicsek. 2015. The northernmost distribution of the early Vinča culture in the Danube valley: a preliminary study from Szederkény-Kukorica-dűlő (Baranya County, southern Hungary). *Antaeus 33*: 13–54.

Jakucs J., E. Bánffy, K. Oross, V. Voicsek, C. Bronk Ramsey, E. Dunbar B. Kromer A. Bayliss, D. Hofmann, P.

Marshall and A. Whittle. 2016. Between the Vinča and Linearband-keramik worlds: the diversity of practices and identities in the 54th–53rd centuries cal BC in south-west Hungary and beyond. *Journal of World Prehistory 29*: 267–336.

Janković, S. 1967. *Ležišta Metaličnih Mineralnih Sirovina*. Belgrade: Mining and Geology Faculty, University of Belgrade.

Janković, S. 1977. The copper deposits and geotectonic setting of the Thethyan Eurasian Metallogenic Belt. *Mineralium Deposita* 12: 37–47. DOI: https://doi.org/10.1007/BF00204503.

Janković, S. 1982. Yugoslavia, in F.W. Dunning, W. Mykura and D. Slater (eds) *Mineral Deposits of Europe. Volume 2: Southeast Europe*: 143–202. London: The Institute of Mining and Metallurgy and the Mineralogical Society.

Jelenković, R. 1999. *Ležišta metaličnih mineralnih sirovina (Metallic Mineral Deposits, in Serbian)*. Belgrade: Mining and Geology Faculty, University of Belgrade.

Jevtić, M. 1986. Grobovi bakarnog doba iz Vinče. *Starinar* 37: 135–144.

Jochum, K.P., U. Weis, B. Stoll, D. Kuzmin, Q. Yang, I, Raczek, D.E. Jacob, A. Stracke, K. Birbaum, D.A. Frick, D. Günther and J. Enzweiler. 2011. Determination of reference values for NIST SRM 610-617 glasses following ISO Guidelines. *Geostandards and Geoanalytical Research* 35(4): 397–429. DOI: http://doi.wiley.com/10.1111/j.1751 908X.2011.00120.x

Jockenhövel, A. 2018. Alteuropäische Gräber der Kupferzeit, Bronzezeit und älteren Eisenzeit mit Beigaben aus dem Gießereiwesen (Gießformen, Düsen, Tiegel), in M. Overbeck (ed.) *Die Gießformen in West- und Süddeutschland (Saarland, Rheinland-Pfalz, Hessen, Baden-Württemberg, Bayern*: 213–317. Stuttgart: Franz Steiner.

Johnson, G.A. 1982. Organisational structure and scalar stress, in C. Renfrew, M.J. Rowlands and B. Segraves (eds) *Theory and Explanation in Archaeology*: 389–421. New York: Academic Press.

Jones, A. 2004. Archaeometry and materiality: materials-based analysis in theory and practice. *Archaeometry* 46: 327–338.

Jones, G. 1984. Interpretation of archaeological plant remains: ethnographic models from Greece, in W.A. Casparie and W. van Zeist (eds) *Plants and Ancient Man: Studies in Palaeoethnobotany*: 43–61. Rotterdam: Balkema.

Jones, G. 1987. A statistical approach to the archaeological identification of crop processing. *Journal of Archaeological Science* 14: 311–323.

Jones, G. 1990. The application of present-day cereal processing studies to charred archaeobotanical remains. *Circaea* 6(2): 91–96.

Jones, G. 1992. Weed phytosociology and crop husbandry: identifying a contrast between ancient and modern practice. *Review of Palaeobotany and Palynology* 73: 133–143.

Jones, G. and P. Halstead. 1995. Maslins, mixtures and monocrops: on the interpretation of archaeological crop samples of heterogenous composition. *Journal of Archaeological Science* 22: 103–114.

Jones, G., A. Bogaard, P. Halstead, M. Charles and H. Smith. 1999. Identifying the intensity of crop husbandry on the basis of weed floras. *Annual of the British School at Athens* 94: 167–89.

Jones, G., S. Valamoti and M. Charles. 2000. Early crop diversity: a 'new' glume wheat from northern Greece. *Vegetation History and Archaeobotany* 9: 133–146.

Jones, R.E. 1986. *Greek and Cypriot Pottery: A Review of Scientific Studies*. Athens: British School at Athens.

Jongsma, T. and H. Greenfield. 1996. The vertebrate fauna from middle and late Neolithic Sânandrei, in F. Draşovean (ed.) *The Vinča Culture: Its Role and Cultural Connection*: 295–308. Timişoara: Museum of Banat.

Jovanović, B. 1962. Postanak keramičkih tipova balkansko-podunavskog neolita i eneolita. *Starinar* 13–14: 9–25.

Jovanović, B. 1965. Starija vinčanska grupa u južnom Banatu. Rad vojvođanskih muzeja 14: 15–41.

Jovanović, B. 1971. *Metallurgy in the Eneolithic Period in Yugoslavia.* Belgrade: Archaeological Institute.

Jovanović, B. 1978. The oldest copper metallurgy in the Balkans. *Expedition* 21: 9–17.

Jovanović, B. 1979. Rudarstvo i metalurgija eneolitskog perioda Jugoslavije, in A. Benac (ed.) *Praistorija Jugoslavinskih Zemalja* 3: 27–85. Sarajevo: Svetlost.

Jovanović, B. 1980. The origins of copper mining in Europe. *Scientific American* 242: 152–167.

Jovanović, B. 1982. *Rudna Glava, najstarije rudarstvo bakra na centralnom Balkanu*. Belgrade: Arheološki Institut, Muzej rudarstva i metalurgije.

Jovanović, B. 1983. Mali Šturac, ein neues prähistorisches Kupferbergwerk in Zentralserbien. *Der Anschnitt* 4/5: 177–179.

Jovanović, B. 1993. Archaeological comment to E. Pernicka's et al. 'Eneolithic and Early Bronze Age copper artefacts from the Balkans and their relation to Serbian copper ores'. *Prähistorische Zeitschrift* 68: 55–57.

Jovanović, B. 1994. Gradac Phase in the relative chronology of the late Vinča culture. *Starinar (new series)* 43/44: 1–12.

Jovanović, B. (ed.) 1995. *Ancient Mining and Metallurgy in Southeast Europe.* Donji Milanovac: Archaeological Institute Belgrade and Museum of Mining and Metallurgy Bor.

Jovanović, B. 2006. Gradac Phase of the Vinča culture: origin of a typological innovation, in N. Tasić and C. Grozdanov (eds) *Homage to Milutin Garašanin*: 221–233. Belgrade: Serbian Academy of Sciences and Arts and Macedonian Academy of Sciences and Arts.

Jovanović, B. and B.S. Ottaway. 1976. Copper mining and metallurgy in the Vinča group. *Antiquity* 50: 104–113.

Jovanović, D. 2001. *Zlato i Bakar Istočne Srbije*, Belgrade: Srpsko društvo za istoriju nauke, Arheološki Institut Beograd.

Jovanović, M. 2011. *Gospodari gline i žita*. Novi Sad: Muzej Vojvodine.

Jovanović, S., M. Savić, R. Trailović, Z. Janković and D. Šljivar. 2003. Evaluations of the domestication process in Serbia: palaeozoological remnants at Neolithic settlement of Belovode. *Acta Veterinaria* 53: 427–434.

Jovanović, S., M. Savić, R. Trailović, Ž. Janković and D. Šljivar. 2004. Evaluation of the domestication process in Serbia – domestication of Neolithic cattle. *Acta Veterinaria* 54(5–6): 467–473.

Jović, V. 1996. Mineralogical study of malachite and azurite from the Belovode locality (Veliko Laole). *Préhistorie Européene* 8: 191–196.

Junghans, S., E. Sangmeister and M. Schröder. 1968. *Kupfer und Bronze in der frühen Metallzeit Europas.* (Studien zu den Anfängen der Metallurgie, 1-3). Berlin: Gebr. Mann.

Jurišić, A. 1959. Velika Gradina u Staparima, praistorijsko naselje. *Starinar* 9/10: 367–368.

K

Kaczankowska, M. and J. Kozlowski. 1990. Chipped stone industry of the Vinča culture, in D.Srejović and N. Tasić (eds) *Vinča and its World. International Symposium - The Danubian Region from 6000 to 3000 BC*: 35–47. Belgrade: Serbian Academy of Sciences and Arts and Centre for Archaeological Research.

Kaiser, T. 1984. Vinča Ceramics: Economic and Technological Aspects of Late Neolithic Pottery Production in Southeast Europe. Unpublished PhD dissertation, University of California.

Kaiser, T. 1989. Steatite-tempered pottery from Selevac, Yugoslavia: a Neolithic experiment in ceramic design. *Archeomaterials* 3/1: 1–10.

Kaiser, T. 1990. Ceramic technology, in R.E. Tringham and D. Krstiš (eds) *Selevac: a Neolithic Village in Yugoslavia*: 255–287. Los Angeles: University of California Press.

Kaiser, T. and B. Voytek. 1983. Sedentism and economic change in the Balkan Neolithic. *Journal of Anthropological Archaeology* 2: 323–353.

Kaiser, T., U.M. Franklin and V. Vitali. 1986. Pyrotechnology and pottery in the Late Neolithic of the Balkans, in J.S. Olin and M.J. Blackman (eds) *Proceedings of the 24th International Archaeometry Symposium*: 85–94. Washington DC: Smithsonian Institution.

Kapuran, A. and S. Milošević. 2013. Rockshelter Mokranjske Stene – a new late prehistoric site in eastern Serbia region. *Archaeologia Bulgarica* 17 (2): 17–37.

Kassebaum, T. 2019. Aggregation or Separation: (Re) considering Approaches Used in the Analysis of Sheep (*Ovis aries*) and Goat (*Capra hircus*) Faunal Remains. Unpublished MSc dissertation, University of York.

Kavtaradze, G.L. 1999. The importance of metallurgical data for the formation of Central Transcaucasian chronology, in A. Hauptmann, E. Pernicka, Th. Rehren and Ü. Yalçın (eds) *The Beginnings of Metallurgy* (Der Anschnitt, Beiheft 9): 67–102. Bochum: Deutsches Bergbau-Museum.

Kenoyer, J.M. and M.-L. Miller. 1999. Metal technologies of the Indus Valley tradition in Pakistan and western India, in V.C. Pigott (ed.) *The Archaeometallurgy of the Asian Old World*: 107-152. Philadelphia (PA): University of Pennsylvania Museum.

Kenoyer, J.M., M.Vidale and K.K. Bhan. 1991. Contemporary stone beadmaking in Khambhat, India: patterns of craft specialization and organization of production as reflected in the archaeological record. *World Archaeology* 23: 44–3.

Kienlin, T.L. 2010. *Traditions and Transformations: Approaches to Eneolithic (Copper Age) and Bronze Age Metalworking and Society in Eastern Central Europe and the Carphatian Basin* (British Archaeological Reports International Series 2184). Oxford: Archaeopress.

Kienlin, T.L. 2014. Aspects of metalworking and society from the Black Sea to the Baltic Sea from the fifth to the second millennium BC, in B.W. Roberts and C.P. Thornton (eds) *Archaeometallurgy in Global Perspective: Methods and Syntheses*: 447–472. New York: Springer.

Kienlin, T.L. and A. Zimmermann (eds). 2012. *Beyond Elites. Alternatives to Hierarchical Systems in Modelling Social Formations. International Conference at the Ruhr-Universität Bochum, Germany, October 22–24, 2009* (Universitätsforschungen zur Prähistorischen Archäologie 215): 15–32. Bonn: Habelt.

Kilikoglou, V., Y. Bassiakos, A.P. Grimanis, K. Souvatzis, A. Pilali-Papasteriou and A. Papanthimou-Papaefthimiou. 1996. Carpathian Obsidian in Macedonia, Greece. *Journal of Archaeological Science* 23(3): 343–349.

Killick, D. 2014. From ores to metals, in B.W. Roberts and C.P. Thornton (eds) *Archaeometallurgy in Global Perspective: Methods and Syntheses*: 11–45). New York: Springer.

Killick, D. and T.R. Fenn 2012. Archaeometallurgy: the study of preindustrial mining and metallurgy. *Annual Review of Anthropology* 41: 559-575.

Kingery, W.D. and J.D. Frierman. 1974. The firing temperature of a Karanova sherd and inferences about south-east European Chalcolithic refractory technology. *Proceedings of the Prehistoric Society* 40: 204–205.

Kintigh, K.W. 1984. Measuring archaeological diversity by comparison with simulated assemblages. *American Antiquity* 49: 44–54.

Kintigh, K.W. 1994. Contending with contemporaneity in settlement-pattern studies. *American Antiquity* 59: 143–148.

Kjeld Jensen, C. and K. Høilund Nielsen. 1997. Burial data and correspondence analysis, in C. Kjeld Jensen and K. Høilund Nielsen (eds) *Burials and Society: The Chronological and Social Analysis of Archaeological Burial Data*: 29–61. Aarhus: Aarhus University Press.

Klassen, L. 2000. *Frühes Kupfer im Norden. Untersuchungen zu Chronologie, Herkunft und Bedeutung der Kupferfunde der Nordgruppe der Trichterbecherkultur* (Jutland Archaeological Society 36). Aarhus: Aarhus University Press.

Klimscha, F. 2013. Innovations in Chalcolithic metallurgy in the Southern Levant during the 5th and 4th millennium BC. Copper-production at Tall Hujayrat al-Ghuzlan and Tall al-Magass, Aqaba Area, Jordan, in S. Burmeister, S. Hansen, M. Kunst and N. Müller-Scheeßel (eds) *Metal Matters. Innovative Technologies and Social Change in Prehistory and Antiquity*: 31–64. Rahden/West: Leidorf.

Klimscha, F. 2014. Power and prestige in the Copper Age in the lower Danube, in C.-E. Stefan, M. Florea, S.-C. Ailincăi and C. Micu (eds) *Studii Privind Preistoria Sud-estului Europei: Volum Dedicat Memoriei lui Mihai Şimon. Studies in the prehistory of southeastern Europe: volume dedicated to the memory of Mihai Șimon.* (Biblioteca Istro-Pontica 10): 131–168. Brăila: Muzeul Brăilei, Editura Istros.

Klimscha, F. 2016. *Pietrele 1: Beile und Äxte aus Stein. Distinktion und Kommunikation während der Kupferzeit im östlichen Balkangebiet* (Archäologie in Eurasien 34). Bonn: Habelt.

Klimscha, F. 2020. New research on the ‘Kings of Metal’: Systems of social distinction in the Copper Age of Southeastern Europe. *Journal of Archaeological Research* 28, 99–138 . DOI: https://doi.org/10.1007/s10814-019-09132-x.

Kline, M.A. and R. Boyd. 2010. Population size predicts technological complexity in Oceania. *Proceedings of the Royal Society of London B: Biological Sciences* 277: 2559–2564.

Kogălniceanu, R., A. Ilie, M. Mărgărit, A. Simalcsik and V. Dumitraşcu. 2014. A hoard of astragals discovered in the Copper Age settlement at Iepureşti, Giurgiu County, Romania. *Documenta Praehistorica* XLI: 283–304

Kohl, P.L. 2007. *The Making of Bronze Age Eurasia*. Cambridge: Cambridge University Press.

Kohler-Schneider, M. 2003. Contents of a storage pit from late Bronze Age Stillfried, Austria: another record of the ‘new’ glume wheat. *Vegetation History and Archaeobotany* 12: 105–111.

Kokalj, Ž. and M. Somrak. 2019. Why not a single image? Combining visualizations to facilitate fieldwork and on-screen mapping. *Remote Sensing* 11: 747.

Koryakova, L. and A. Epimakhov. 2007. *The Urals and Western Siberia in the Bronze and Iron Ages*. Cambridge: Cambridge University Press.

Kosse, K. 1990. Group size and societal complexity: thresholds in the long-term memory. *Journal of Anthropological Archaeology* 9: 275–303.

Kostov, R.I. 2013. Nephrite-yielding prehistoric cultures and nephrite occurrences in Europe: Archaeomineralogical Review. *Haemus* 2: 11–30.

Kotsakis, K., A. Papanthimou-Papaefthimiou, A. Pilali-Papasteriou, T. Savopoulou, Y. Maniatis and B. Kromer. 1989. Carbon-14 dates from Mandalo, W. Macedonia, in Y. Maniatis (ed.) *Archaeometry, International Symposium on Archaeometry*: 679–85. Amsterdam: Elsevier.

Koukouli-Chryssanthaki, C., Todorova, H. Aslanis, I. Vajsov, I. and Valla, M. 2007. Promachon – Topolnica. A Greek-Bulgarian archaeological project, in Todorova, H. Stefanovich, M. and Ivanov, G. (eds.) *The Struma / Strymon Valley in Prehistory. Proceedings of the International Symposium ‘Strymon Praehistoricus’. In The Steps of James Harvey Gaul*: Vol. 2: 43-78. Sofia: Gerda Henkel Stiftung.

Knipper, C., A. Mittnik, K. Massy, C. Kociumaka, I. Kucukkalipci, M. Maus, F. Wittenborn, S.E. Metz, A. Staskiewicz, J. Krause and P.W. Stockhammer. 2017. Female exogamy and gene pool diversification at the transition from the Final Neolithic to the Early Bronze Age in central Europe. *Proceedings of the Academy of Sciences* 114(38): 10083–10088.

Krajnović, D. and S. Janković. 1995. Copper mineralisation as potential raw material source of ancient copper metallurgy in Serbia, in B. Jovanović (ed.) *Ancient Mining and Metallurgy in Southeast Europe, 1995 Donji Milanovac, Srbija:* 21–28. Belgrade, Bor: Archaeological Institute, Museum of Mining and Metallurgy.

Krause, R. 1985. *The Clay Sleeps.* Tuscaloosa: University of Alabama Press.

Krause, R. 2003. *Studien zur kupfer- und frühbronzezeitlichen Metallurgie zwischen Karpatenbecken und Ostsee* (Vorgeschichtliche Forschungen 24). Rahden: Leidorf.

Krauss, R. 2008. Karanovo und das südosteuropäische Chronologiesystem aus heutiger Sicht *Eurasia Antiqua* 14: 117–149.

Krauss, R., S. Zäuner and E. Pernicka. 2014. Statistical and anthropological analyses of the Varna necropolis, in H. Meller, R. Risch and E. Pernicka (eds) *Metals of Power - Early Gold and Silver. 6th Archaeological Conference of Central Germany, October 17-19, 2013, Halle*: 371–387. Halle: Landesmuseum für Vorgeschichte.

Krauss, R., C. Schmid, D. Ciobotaru and V. Slavchev. 2016. Varna und die Folgen. Überlegungen zu den Ockergräbern zwischen Karpatenbecken und der nördlichen Ägäis, in M. Bartelheim, B. Horejs and R. Krauss (eds) *Von Baden bis Troja, Resourcennutzung, Metallurgie und Wissenstransfer. Eine Jubiläumsschrift für Ernst Pernicka.* (Oriental and European Archaeology, Volume 3): 273–315. Rahden: Leidorf.

Krauss, R., C. Schmid, D. Kirschenheuter, J. Abele, V. Slavchev and B. Weninger. 2017. Chronology and development of the Chalcolithic necropolis of Varna I. *Documenta Praehistorica* 44: 282–305. DOI: https://doi.org/10.4312/dp.44.17.

Krauss, R., J. Bofinger and B. Weninger. 2020. Formation and Transformation of Early Neolithic Lifestyles in Europe. *Quaternary International* 560–561: 1-286

Kreiter, A., Gy. Szakmány and M. Kázmér. 2009. Ceramic technology and social process in late Neolithic Hungary, in P. Quinn (ed.) *Interpreting Silent Artefacts: Petrographic Approaches to Archaeological Ceramics*: 101–119. Oxford: Archaeopress.

Kreiter, A., I. Azbej Havancsák, P. Sipos, M. Tóth and V. Orsolya. 2011. Maroslele–Panáról származó neolitikus kerámia töredékek petrográfiai, XRF és XRD vizsgálata. (The petrographic, XRF and XRD analyses of the Neolithic pottery from Maroslele-Pana), in T. Paluch (ed.) *Maroslele-Pana. Egy Középső Neolitkus Lelőhely a Kultúrák Határvidékén*: 303–326. Szeged: Móra Ferenc Múzeum.

Kreiter, A., Á. Pető and P. Pánczél. 2013. Materializing tradition: Ceramic production in Early and Middle Neolithic Hungary, in E. Bánffy (ed.) *The Early Neolithic of the Danube-Tisza Interfluve*: 127–140. Oxford: Archaeopress.

Kreiter, A., S. Czifra, Z. Bendő, J.E. Imre, P. Pánczél and G. Váczic. 2014. Shine like metal: an experimental approach to understand prehistoric graphite-coated pottery technology. *Journal of Archaeological Science* 52: 129–142.

Kreiter, A., T. Marton, L. Gomart, K. Oross and P. Pánczél. 2017a. Looking into houses: Analysis of LBK ceramic technological change on a household level, in L. Burnez-Lanotte (ed.) *Matières à Penser. Raw Materials Acquisition and Processing in Early Neolithic Pottery Productions*. Proceedings of the Workshop of Namur (Belgium), 29–30 May 2015: 111–132. Paris: Société Préhistorique Française.

Kreiter, A., N. Kalicz, K. Kovács, Zs. Siklósi and O. Viktorik. 2017b. Entangled traditions: Tisza and Lengyel ceramic technology in a Late Neolithic settlement in northern Hungary. *Journal of Archaeological Science Reports* 16: 285–295.

Kreiter, A., T. Marton, K. Oross and P. Pánczél. 2019. Looking into pots: Understanding Neolithic ceramic technological variability from Western Hungary, in S. Amicone, P.S. Quinn, M. Marić, N. Mirković-Marić and M. Radivojević (eds) *Tracing Pottery Making Recipes in the Balkans 6th-4th Millennia BC*: 65–77. Oxford: Archaeopress.

Kreuz, A. and N. Boenke. 2002. The presence of two-grained einkorn at the time of the Bandkeramik culture. *Vegetation History and Archaeobotany* 11: 233–240.

Kreuz, A., E. Marinova, E. Schäfer and J. Wiethold. 2005. A comparison of Early Neolithic crop and weed assemblages from the Linearbandkeramik and the Bulgarian Neolithic cultures: differences and similarities. *Vegetation History and Archaeobotany* 14: 237–258.

Kroll, H. 2013. Die Wirtschaft des Umfelds von Okolište: Zagrebnice, Kundruci und Donje Moštre, in J. Müller, K. Rassman and R. Hofmann (eds) *Okolište 1 – Untersuchungen einer spätneolithischen Siedlungskammer in Zentralbosnien. Neolithikum und Chalkolithikum in Zentralbosnien 1.* (Universitätsforschungen zur prähistorischen Archäologie 228): 231–238. Bonn: Habelt.

Kristiansen, K., T. Lindkvist, and J. Myrdal. (eds) 2018. *Trade and Civilisation: Economic Networks and Cultural Ties from Prehistory to the Early Modern Era*. Cambridge: Cambridge University Press.

Kuijpers, M.H.G. 2018. *An Archaeology of Skill. Metalworking Skill and Material Specialization in Early Bronze Age Central Europe.* London: Routledge.

Kuijpers M.H.G. and C.N. Popa 2021. The origins of money: Calculation of similarity indexes demonstrates the earliest development of commodity money in prehistoric Central Europe. *PLoS ONE* 16(1): e0240462. https://doi.org/10.1371/journal.pone.0240462

Kulbicki, G. 1958. High-temperature phases in montmorillonites. *Clays and Clay Minerals*: 144–158. National Academy of Sciences – National Research Council Publication 566.

Kuleff, I. and E. Pernicka. 1995. On the instrumental neutron activation analysis of native copper: some methodological considerations. *Journal of Radioanalytical and Nuclear Chemistry* 191: 145–161.

Kuna, M. 1981. Zur Neolithischen und Äneolithischen Kupferverarbeitung im Gebiet Jugoslawiens. *Godišnjak Akademije BiH 17. Centar za balkanološka ispitivanja (Sarajevo)* 19: 13–81.

Kunst, M. 2013. The innovation of copper metallurgy on the Iberian Peninsula: its significance for the development of social complexity in the 3rd millennium BC, in S. Burmeister, S. Hansen, M. Kunst and N. Müller-Scheeßel (eds) *Metal Matters. Innovative Technologies and Social Change in Prehistory and Antiquity*: 181–208. Rahden.: Leidorf.

Kunze, R. and E. Pernicka. 2020. Pre-industrial mining in the Medni Rid, in R. Krauss, E. Pernicka, R. Kunze, K. Dimitrov and P. Leshtakov (eds) *Prehistoric Mining and Metallurgy at the Southeast Bulgarian Black Sea Coast (RessourcenKulturen Band 10)*: 398–425. Tübingen: Tübingen University Press.

Kuzmanović Cvetković, J. 1998. *Prokuplje, grad sv. Prokopija.* Prokuplje: Narodni muzej Toplice.

Kuzmanović Cvetković, J., Z. Cvetković and B. Đevori. 1988. *Arheološka nalazišta opštine Prokuplje - katalog izložbe povodom 40 godina Muzeja Toplice*. Prokuplje: Narodni Muzej Toplice.

Kuzmanović Cvetković, J. and D. Šljivar. 1998. Die Göttin aus Pločnik. *Starinar* 49: 173–178.

Kuzmina, E.E. 2008. *The Prehistory of the Silk Road.* Philadelphia (PA): University of Pennsylvania Press.

L

Lang, F. 2005. Knochen- und Geweihobjekte, in S. Hiller and N. Vassil Nikolov (eds) *Karanovo. Die*

Ausgrabungen im Nordsüd-Schnitt, 1993–1999: 263–340. Sofia, Phoibos Verlag, Wien: Archäologisches Institut der Universität Salzburg, Archäologisches Institut mit Museum der Bulgarischen Akademie der Wissenschaften.

Lankton, J.W., J. Diamanti and J.M. Kenoyer. 2003. *A Bead Timeline: A Resource for Identification, Classification and Dating.* Washington, DC: The Bead Society of Greater Washington.

Larson, G., D.R. Piperno, R.G. Allaby, M.D. Purugganan, L. Andersson, M. Arroyo-Kalin, L. Barton, C. Climer Vigueira, T. Denham, K. Dobney, A.N. Doust, P. Gepts, M.T.P. Gilbert, K.J. Gremillion, L. Lucas, L. Lukens, F.B. Marshall, K.M. Olsen, J.C. Pires, P.J. Richerson, R. Rubio de Casas, O.I. Sanjur, M.G. Thomas and D.Q. Fuller. 2014. Current perspectives and the future of domestication studies. *Proceedings of the National Academy of Sciences* 111: 6139–6146.

Lasaponara, R. and N. Masini. 2011. Satellite remote sensing in archaeology: Past, present and future perspectives. *Journal of Archaeological Science* 38(9): 1995–2002.

Lazarovici, C.-M. 2006. Absolute chronology of the late Vinča culture in Romania and its role in the development of the Early Copper Age, in N. Tasić and C. Grozdanov (eds) *Homage to Milutin Garašanin*: 277–293. Belgrade: Serbian Academy of Sciences and Arts and Macedonian Academy of Sciences and Arts.

Lazarovici, G. 1970. Cultură Vinča A in Banat. *Acta Musei Napocensis (Romania)* 7: 475–488.

Lazarovici, G. 1979. *Naoliticul Banatului. Bibliotheca Musei Napocensis IV*. Cluj-Napoca: Bibliotheca Musei Napocensis.

Lazarovici, G. 1981. Die Periodisierung der Vinča-Kultur in Rumänien. *Prähistorische Zeitschrift* 56: 169–196.

Lazarovici, G. 2014. Beginning of the Copper Age in Transylvania and some data regarding the copper and gold metallurgy, in Schier, W. and F. Draşovean (eds) *New Approaches to Dating and Cultural Dynamics in the 6th to 4th Millennium BC*. (Prähistorische Archäologie in Südosteuropa 28): 243–271. Rahden/Westf: Verlag Marie Leidorf Gmbh.

Lazarovici, Gh., Fl. Draşovean and Z. Maxim. 2001. *Parta.* Timisoara: Museum Banaticum Temesiense.

Lazić, M. 1992. Doprinos arheozoologije u proučavanju ekonomije praistorijskih društvenih zajednica, in D. Srejović (ed.) *Arheologija i prirodne nauke*: 49–60. Beograd: SANU.

Lechtman, H. 1996. Arsenic bronze: dirty copper or chosen alloy? A view from the Americas. *Journal of Field Archaeology* 23: 477–514.

Lechtman, H. 2014. Andean metallurgy in prehistory, in B.W. Roberts and C.P. Thornton (eds) *Archaeometallurgy in Global Perspective: Methods and Syntheses*: 361–422. New York: Springer.

Legge, A. 1990. Animals, economy and environment, in R. Tringham and D. Krstić (eds) *Selevac: a Neolithic village in Yugoslavia*: 215–242. Los Angeles: University of California Press.

Legrand, A. 2007. *Fabrication et utilisation de l'outillage en matières osseuses du Néolithique de Chypre: Khirokitia et Cap Andreas -Kastros.* (British Archaeological Reports International Series 1678). Oxford: Archaeopress.

Lehner, J.W. and K.A. Yener. 2014. Organization and specialization of early mining and metal technologies in Anatolia, in B.W. Roberts and C.P. Thornton (eds) *Archaeometallurgy in Global Perspective. Methods and Syntheses*: 529–558. New York: Springer.

Leković, V. 1988. Zlatara-Ruma, in D. Srejović and V. Kostić (eds) *The Neolithic of Serbia*: 108–109. Belgrade: Centre for Archaeological Research, Faculty of Philosophy, the University of Belgrade.

Leković, V. 1990. The *vinčanization* of Starčevo culture, in D. Srejović and N. Tasić (eds) *Vinča and its World, International Symposium - The Danubian Region from 6000 to 3000 B.C., October 1988*: 67–74. Belgrade: Serbian Academy of Sciences and Arts – Centre for Archaeological research – Faculty of Philosophy.

Lemonnier, P. 1993. Introduction, in P. Lemmonier (ed.) *Technological Choices: Transformation in Material Cultures since the Neolithic*: 1–35. London: Routledge.

Lemonnier, P. 2012. *Mundane Objects: Materiality and Non-verbal Communication.* Walnut Creek, CA: Left Coast Press.

Lenneis, E. and P. Stadler. 1995. Zur Absolutchronologie der Linearbandkeramik aufgrund von ^{14}C-Daten. *Archäologie Österreichs* 6: 4–12.

Leshtakov, P. 2005. The sources and distribution of graphite as a means of decoration in the Bulgarian Chalcolithic, in G. Dumitroaia, J. Chapman, O. Weller, C. Preoteasa, R. Munteanu, D. Nicola and D. Monah (eds) *Cucuteni. 120 Years of Research. Time to Sum Up*: 293–296. Piatra-Neamţ: Constantin Matasă.

Leshtakov, P. 2013. Early copper metallurgy on the west Black Sea coast: archaeological evidence on prehistoric exploitation of the Rosen ore field, in *Where are the sites? Research, Protection and Management of Cultural Heritage, Ahtopol, Bulgaria, 2013*: 35–54. Sozopol: Centre for Underwater Archaeology, Bulgaria.

Letica, Z. 1964. The Neolithic figurines from Vinča. *Archaeology* 17(1): 26–32.

Letsch, J. and W. Noll. 1978. Material und Herstellung antiker C-Schwarz-Keramik, Teil I / Teil II. *Berichte der Deutschen Keramischen Gesellschaft* 55:163–168 and 259–261.

Letsch, J. and W. Noll. 1983. Phasenbildung in einigen keramischen Teilsystemen bei 600- 1000°C in Abhängigkeit von der Sauerstofffugazität. *Ceramic Forum International* 7: 259–267

Leusch, V., E. Pernicka and B. Armbruster. 2014. Chalcolithic gold from Varna – Provenance, circulation, processing, and function, in H. Meller, R. Risch and E. Pernicka (eds) *Metals of Power – Early*

Gold and Silver. 6th Archaeological Conference of Central Germany, October 17-19, 2013, Halle: 165–182. Halle: Landesamt für Denkmalpflege und Archäologie Sachsen-Anhalt/Landesmuseum für Vorgeschichte.

Leusch, V., B. Armbruster, E. Pernicka and V. Slavčev. 2015. On the invention of gold metallurgy: The gold objects from the Varna I cemetery (Bulgaria) – technological consequence and inventive creativity. *Cambridge Archaeological Journal* 25: 353–376. DOI: https://doi.org/10.1017/S0959774314001140.

Leusch, V., M. Brauns and E. Pernicka. 2016. Precise and accurate analysis of gold alloys: Varna, the earliest gold of mankind. A case study, in L. Dussubieux, M. Golitko and B. Gratuze (eds) *Recent Advances in Laser Ablation ICP-MS for Archaeology. Natural Science in Archaeology*: 95–113. Berlin, Heidelberg: Springer.

Leusch, V., S. Zäuner, V. Slavčev, R. Krauß, B. Armbruster and E. Pernicka. 2017. Rich metallurgists' (?) graves from the Varna I cemetery - Rediscussing the social role of the earliest metalworkers, in A. Brysbaert and A. Gorgues (eds) *Artisans versus Nobility? Multiple identities of Elites and 'Commoners' Viewed Through the Lens of Crafting from the Chalcolithic to the Iron Ages in Europe and the Mediterranean*: 101–124. Leiden: Sidestone Press.

Lichardus, J. 1988. Der Westpontische Raum und die Anfänge der kupferzeitlichen Zivilisation, in A. Fol and J. Lichardus (eds) *Macht, Herrschaft und Gold : das Graberfeld von Varna (Bulgarien) und die Anfänge einer neuen europäischen Zivilisation*: 79–130. Saarbrücken: Moderne Galerie des Saarland-Museums.

Lichardus, J. (ed.) 1991a. *Die Kupferzeit als Historische Epoche. Symposium Saarbrücken und Otzenhausen 6.-13.11.1988* (Saarbrücker Beiträge zur Altertumskunde 55). Bonn: Dr. Rudolf Habelt GmbH,

Lichardus, J. 1991b. Das Gräberfeld von Varna im Rahmen des Totenrituals des Kodžadermen-Gumelniţa-Karanovo VI-Komplexes, in J. Lichardus (ed.) *Die Kupferzeit als historische Epoche: Symposium Saarbrücken und Otzenhausen 6.-13.11.1988, Teil 1*: 167–194. Bonn: Habelt.

Lichardus, J. 1991c. Die Kupferzeit als historische Epoche. Versuch einer Deutung, in J. Lichardus (ed.) *Die Kupferzeit als Historische Epoche. Symposium Saarbrücken und Otzenhausen 6.-13.11.1988* (Saarbrücker Beiträge zur Altertumskunde 55) : 763–800). Bonn: Dr. Rudolf Habelt GmbH.

Lichter, C. 1993. Untersuchungen zu den Bauten des südosteuropäischen Neolithikums und Chalkolithikums. *Internationale Archäologie* 18. Leidorf: Buch am Erlbach.

Lichter, C. 2001. *Untersuchungen zu den Bestattungssitten des südosteuropäischen Neolithikums und Chalkolithikums* (Monographien 5). Zabern, Mainz: Heidelberger Akademie der Wissenschaften, Internationale Interakademische Kommission für die Erforschung der Vorgeschichte des Balkans.

Lichter, C. 2014. Temples in the Neolithic and Copper Age in southeast Europe. *Documenta Praehistorica* 41: 119–136.

Lichter, C. 2016. Burning down the house—Fakt oder Fiktion? In K. Bacvarov and R. Gleser (eds) *Southeast Europe and Anatolia in Prehistory: Essays in Honor of Vassil Nikolov on His 65th Anniversary*: 305–317. Bonn: Habelt.

Lienhard, J.H. 2006. *How Invention Begins.* Oxford: Oxford University Press.

Liu, R., G. Dong, M. Ma, and A.M. Pollard 2020a. Introduction to the Special Issue: Correlating changes for environmental, technological and societal transformation in prehistoric eastern Asia. *The Holocene* 31: 165-168.

Liu, X., D. Chen, T. Yang, F. Huang, S. Fu, and L. Li 2020b. Changes in soil labile and recalcitrant carbon pools after land-use change in a semi-arid agro-pastoral ecotone in Central Asia. *Ecological Indicators* 110: 105925.

Liritzis, I. 2008. Assessment of Aegean obsidian sources by a portable ED-XRF analyser: grouping, provenance and accuracy, in Y. Facorellis, N. Zacharias and K. Polikreti (eds) *Proceedings of the 4th Symposium of the Hellenic Society for Archaeometry* (British Archaeological Reports International Series S1746): 399–406. Oxford: Archaeopress.

Longman, J., D. Veres, W. Finsinger, and V. Ersek 2018. Exceptionally high levels of lead pollution in the Balkans from the Early Bronze Age to the Industrial Revolution. *Proceedings of the National Academy of Sciences* 115 (25): E5661-E5668. doi:10.1073/pnas.1721546115.

Lorenzo-Seva, U. 2011. Horn's Parallel Analysis for selecting the number of dimensions in Correspondence Analysis. *Methodology* 7: 96–102.

Lubbock, J. 1872. *Pre-Historic Times, as Illustrated by Ancient Remains, and the Manners and Customs of Modern Savages.* London: D. Appleton and Company.

Luca, S.A. 1999. *Sfârşitul eneoliticului pe teritoriul intracarpatic al României - cultura Bodrogkeresztúr* (Volume 11). Alba Iulia: Bibliotheca Musei Apulensis.

Luik, H. 2007. Dazzling white. Bone artefacts in Bronze Age society – some preliminary thoughts from Estonia, in A. Merkevičius (ed.) *Colours of Archaeology. Material Culture and Society. Papers from the Second Theoretical Seminar of the Baltic Archaeologists (BASE) Held at the University of Vilnius, Lithuania, October 21–22, 2005*: 49–64. Vilnius; Helsinki; Riga; Tartu: University of Vilnius, University of Helsinki, University of Latvia, University of Tartu. (Interarchaeologia; 2).

Lunardi, A. 2008. Experimental testing with polished green stone axes and adzes: technology of use, in L. Longo and N. Skakun (eds) *'Prehistoric Technology' 40 Years Later: Functional Studies and the Russian Legacy: Proceeding of the International Congress Verona (Italy), 20–23 April 2005.* (British Archaeological Reports

International Series S1783): 369–373. Oxford: Archaeopress.

Lyman, C.E. and M.J. O'Brien. 2003. Cultural traits: units of analysis in early twentieth-century anthropology. *Journal of Anthropological Research* 59: 225–250.

Lyneis, M.M. 1988. Antler and bone artifacts from Divostin, in A. McPherron and D. Srejović (eds) *Divostin and the Neolithic of Central Serbia* (Ethnology Monographs 10): 301–319. Pittsburgh: University of Pittsburgh.

M

Madas D. 1988. Ceramic vessels from Divostin II house floors, in A. McPherron and D. Srejović (eds) *Divostin and the Neolithic of Central Serbia*: 143–157. Pittsburgh: University of Pittsburgh.

Maddin, R., J.D. Muhly and T. Stech. 1999. Early metalworking at Çayönü, in A. Hauptmann, E. Pernicka, Th. Rehren and Ü. Yalçın (eds) *The Beginnings of Metallurgy, Der Anschnitt, Beiheft 9*: 37–44. Bochum: Deutsches Bergbau-Museum.

Maggetti, M. 1982. Phase analysis and its significance for technology and origin, in J.S. Olin and A.D. Franklin (eds) *Archaeological Ceramics*: 121–133. Washington DC: Smithsonian Institute Press.

Maggetti, M. 1994. Mineralogical and petrographical methods for the study of ancient pottery, in F. Buragato, O. Grubessi and L. Lazzarini (eds) *1st European Workshop on Archaeological Ceramics*: 23–35. Rome: Università degli Studi La Sapienza.

Maigrot, Y. 2003. Etude Technologique et Fonctionnelle de l'Outillage en Matières Dures Animales. La Station 4 de Chalain (Néolithique Final, Jura, France). Unpublished PhD dissertation, Université de Paris I.

Makkay, J. 1976. Problems concerning Copper Age chronology in the Carpathian Basin. *Acta Archaeologica Hungarica* 28: 251–300.

Makkay, J. 1989. *The Tiszaszőlős Treasure*l. Budapest: Akadémiai Kiadó.

Makkay, J. 1990. The Protovinča problem as seen from the northernmost frontier, in D. Srejović and N. Tasić (eds) *Vinča and Its World*: 113–122. Belgrade: Serbian Academy of Sciences and Arts.

Makkay, J. 1991. The most ancient gold and silver in central and south-east Europe, in J.-P. Mohen and C. Éluère (eds) *Découverte du Métal*: 119–128. Paris: Picard.

Makkay, J. 1995. The rise and fall of gold metallurgy in the Copper Age of the Carpathian Basin: the background of the change, in G. Morteani and J.P. Northover (eds) *Prehistoric Gold in Europe: Mines, Metallurgy and Manufacture*: 65–76. Dordrecht: Kluwer Academic Publishers.

Malafouris, L. 2013. *How Things Shape the Mind: A Theory of Material Engagement.* Cambridge, MA: MIT Press.

Malešević M., M. Vukanović, Z. Obradinović, M. Dimitrijević, T. Brković, M. Stefanović, R. Stanisavljević, O. Jovanović, S. Trifunović, Lj. Karajičić, M. Jovanović and Z. Pavlović. 1980. *Tumač za list Kuršumlija (K 34-31)*. Osnovna geološka karta. Beograd: Savezni geološki zavod.

Mallia, K. 2015. Evaluating Methodological Bias of Identification Rates of *Ovis* and *Capra* on Age-Profiles with the Aid of Zooms, using Çatalhöyük as a Test-Case. Unpublished MSc dissertation, University of York.

Maniatis, Y. and M.S. Tite. 1975. A scanning electron microscope examination of the bloating of fired clays. *Transactions and Journal of the British Ceramic Society* 74/8: 229–232.

Maniatis, Y. and M.S. Tite 1981. Technological examination of Neolithic and Bronze Age pottery from central and southeast Europe and from the Near East. *Journal of Archaeological Science* 8: 59–76.

Mantellini, S. and A.E. Berdimuradov. 2019. Evaluating the human impact on the archaeological landscape of Samarkand (Uzbekistan): a diachronic assessment of the Taylak district by remote sensing, field survey, and local knowledge. *Archaeological Research in Asia* 20: 1–11.

Maran, J. 2000. Das ägäische Chalkolithikum und das erste Silber in Europa, in C. Işık (ed.) *Studien zur Religion und Kultur Kleinasiens und des ägäischen Bereiches. Festschrift für Baki Ögün zum 75. Geburtstag*: 179–193. Bonn: Habelt.

Maran, J. and P.W. Stockhammer (eds). 2017. *Appropriating Innovations: Entangled Knowledge in Eurasia, 5000–1500 BCE*. Oxford: Oxbow.

Mareş, I. 2002. *Metallurgiei aramei în neo-eneoliticul României. The Metallurgy of Copper in the Romanian Neo- Eneolithic*. Suceava: Editura Bucovina Istorică.

Marić, M. 2011. Arhitektura i idealna rekonstrukcija objekata od lepa. *Kolubara* 5, 69–83. Beograd: Republički zavod za zaštitu spomenika kulture.

Marić, M. 2013a. The Vinča culture climate and environment in the Danube region in the 5th and 6th millennium BC, in L.Č. Popović, M. Vidaković and Đ.S. Kostić (eds) *Resources of Danubian Region: The Possibility of Cooperation and Utilization. Proceedings of the Humboldt Kolleg Belgrade 2013* :204-232. Belgrade: Humboldt-Club Serbien.

Marić, M. 2013b. Zaštitna arheološka istraživanja na lokalitetu Jaričište 1, in V. Filipović, R. Arsić and D. Antonović (eds) *Rezultati Novih Arheoloških Istraživanja u Severozapadnoj Srbiji i Susednim Teritorijama*: 17–31. Beograd: Srpsko Arheološkog Društvo. Valjevo: Zavod za zaštitu spomenika kulture.

Marić, M. 2015. Modelling obsidian trade routes during Late Neolithic in the South-East Banat region of Vršac using GIS. *Starinar* 65: 37–52.

Marić, M. 2017. Encircled in water: Modelling watercourses of the late Neolithic – early Copper Age Vinča culture sites in the Danube region (c. 5300 – 4500 BC). *Quaternary International* 429: 54–63. DOI: https://doi.org/10.1016/j.quaint.2014.06.030.

Marić, M. and N. Mirković-Marić. 2011. Obrenovac kod Dimitrovgrada, naselje vinčanske kulture. *Glasnik Društva Konzervatora Srbije* 35: 65–68.

Marić, R. 1951. Iskopavanja na Orašju, prethodni izveštaj o radovima u 1948/49. Godini. *Starinar new series* 2: 113.

Marinković, S. 2010. Arheološki materijal sa lokaliteta Živanićeva Dolja iz zbirke Narodnog muzeja u Zrenjaninu – vinčanska kultura. *Rad Muzeja Vojvodine* 52: 21–36.

Marinova, E. 2007. Archaeobotanical data from the early Neolithic of Bulgaria, in S. Colledge and J. Conolly (eds) *The Origins and Spread of Domestic Plants in Southwest Asia and Europe*: 93–109. London: Left Coast Press.

Marinova, E. and Tz. Popova. 2008. *Cicer arietinum* (chick pea) in the Neolithic and Chalcolithic of Bulgaria: implications for cultural contacts with the neighbouring regions? *Vegetation History and Archaeobotany* 17: 73–80.

Marinova, E. and S. Thiébault. 2008. Anthracological analysis from Kovačevo, southwest Bulgaria: woodland vegetation and its use during the earliest stages of the European Neolithic. *Vegetation History and Archaeobotany* 17: 223–231.

Marinova, E., S. Tonkov, E. Božilova and I. Vajsov. 2012. Holocene anthropogenic landscapes in the Balkans. The palaeobotanical evidence from Southwestern Bulgaria. *Vegetation History and Archaeobotany* 21: 413–427.

Marinova, E., D. Filipović, Đ. Obradović and E. Allué. 2013. Wild plant resources and land use in the Mesolithic and Early Neolithic southeast Europe: archaeobotanical evidence from the Danube catchment of Bulgaria and Serbia. *Offa* 69/70: 467–478.

Maritan, L. 2004. Archaeometric study of Etruscan-Padan type pottery from Veneto region: Petrographic, mineralogical and geochemical-physical characterisation. *European Journal of Mineralogy* 16: 297–307.

Markotić, V. 1984. *The Vinča Culture.* Calgary: Western Publishers.

Marković, N., J. Bulatović, J. Jovanović and V. Katić 2018. Bioarheološka perspektiva ranoneolitskog nalazišta Batačevo, in I. Todorović, G. Jošović, I. Becić and Lj. Vasiljević (eds) *Juhorski zapis – tematski zbornik*: 29–38. Svojnovo – Kruševac: Udruženje za kulturu i umetnost Logos – Istorijski Arhiv.

Martineau, R. 2010. Brussinage, polissage et degrés de séchage. *Les nouvelles de l'archéologie* 119: 13–19.

Martinon, S. 2017. Graphite-treated pottery in the northeastern Mediterranean from the Chalcolithic to the Bronze Age. *Near Eastern Archaeology* 80: 3–13.

Martinón-Torres, M. and Th. Rehren. 2008. *Archaeology, History and Science: Integrating Approaches to Ancient Materials*. Walnut Creek (CA). Left Coast Press.

Martinón-Torres, M. and Th. Rehren. 2014. Technical ceramics, in B.W. Roberts and C.P. Thornton (eds) *Archaeometallurgy in Global Perspective: Methods and Syntheses*: 107–131. New York: Springer.

Mathieson, I., S. Alpaslan-Roodenberg, C. Posth, A. Szécsényi-Nagy, N. Rohland, S. Mallick, I. Olalde, N. Broomandkhoshbacht, F. Candilio, O. Cheronet, D. Fernandes, M. Ferry, B. Gamarra, G.G. Fortes, W. Haak, E. Harney, E. Jones, D. Keating, B. Krause-Kyora, I. Kucukkalipci, M. Michel, A. Mittnik, K. Nägele, M. Novak, J. Oppenheimer, N. Patterson, S. Pfrengle, K. Sirak, K. Stewardson, S. Vai, S. Alexandrov, K.W. Alt, R. Andreescu, D. Antonović, A. Ash, N. Atanassova, K. Bacvarov, M.B. Gusztáv, H. Bocherens, M. Bolus, A. Boroneanţ, Y. Boyadzhiev, A. Budnik, J. Burmaz, S. Chohadzhiev, N.J. Conard, R. Cottiaux, M. Čuka, C. Cupillard, D.G. Drucker, N. Elenski, M. Francken, B. Galabova, G. Ganetsovski, B. Gély, T. Hajdu, V. Handzhyiska, K. Harvati, T. Higham, S. Iliev, I. Janković, I. Karavanić, D.J. Kennett, D. Komšo, A. Kozak, D. Labuda, M. Lari, C. Lazar, M. Leppek, K. Leshtakov, D.L. Vetro, D. Los, I. Lozanov, M. Malina, F. Martini, K. McSweeney, H. Meller, M. Menđušić, P. Mirea, V. Moiseyev, V. Petrova, T.D. Price, A. Simalcsik, L. Sineo, M. Šlaus, V. Slavchev, P. Stanev, A. Starović, T. Szeniczey, S. Talamo, M. Teschler-Nicola, C. Thevenet, I. Valchev, F. Valentin, S. Vasilyev, F. Veljanovska, S. Venelinova, E. Veselovskaya, B. Viola, C. Virag, J. Zaninović, S. Zäuner, P.W. Stockhammer, G. Catalano, R. Krauß, D. Caramelli, G. Zariņa, B. Gaydarska, M. Lillie, A.G. Nikitin, I. Potekhina, A. Papathanasiou, D. Borić, C. Bonsall, J. Krause, R. Pinhasi and D. Reich. 2018. The genomic history of southeastern Europe. *Nature* 555: 197. DOI: https://doi.org/10.1038/nature25778

McCarthy, J. 2014. Multi-image photogrammetry as a practical tool for cultural heritage survey and community engagement. *Journal of Archaeological Science* 43: 175–185.

McDonnell, J.G. 2001. Pyrotechnology, in D.R. Brothwell and M. Pollard (eds) *Handbook of Archaeological Science*: 493–506. London: Wiley.

McGeehan-Liritzis, V. and N.H. Gale. 1988. Chemical and lead isotope analysis of Greek Late Neolithic and Early Bronze Age Metals. *Archaeometry* 30: 199–225.

McLaren, F.S. and R.N.L.B Hubbard. 1990. The archaeobotanical remains, in R. Tringham, D. Krstić (eds) *Selevac, A Neolithic Village in Yugoslavia*: 247–254. Los Angeles: UCLA Institute of Archaeology Press.

McPherron, A. and D. Srejović (eds). 1988. *Divostin and the Neolithic of Central Serbia.* Pittsburgh (PA): University of Pittsburgh.

McPherron A., J. Rasson and B. Galdikas. 1988. Other artefact categories, in A. McPherron and D. Srejović (eds) *Divostin and the Neolithic of Central Serbia*: 325–343. Pittsburgh (PA): University of Pittsburgh.

Medović, A., R. Hofmann, T. Stanković-Pešterac, S. Dreibrodt, I. Medović and R. Pešterac. 2014. The

Late Neolithic settlement mound Borđoš near Novi Bečej, Serbian Banat, in a multiregional context – Preliminary results of geophysical, geoarchaeological and archaeological research. *Rada Muzeja Vojvodine* 56: 53–77.

Mehofer, M. 2014. Metallurgy during the Chalcolithic and the Beginning of the Early Bronze Age in Western Anatolia, in B. Horejs and M. Mehofer (eds) *Western Anatolia before Troy - Proto-Urbanisation in the 4th millennium BC*: 463–490. Vienna: OREA 1.

Meier, J. 2013. More than fun and games? An experimental study of worked bone astragali from two Middle Bronze Age Hungarian sites, in A. Choyke and S. O'Connor (eds) *From These Bare Bones: Raw Materials and the Study of Worked Osseous Objects*: 166–173. Oxford and Oakville: Oxbow Books.

Mellaart, J. 1964. Excavations at Çatalhöyük, 1963: third preliminary report. *Anatolian Studies* 14: 39–119.

Meller, H., R. Risch and E. Pernicka (eds). 2014. *Metalle der Macht - Frühes Gold und Silber. Metals of power - Early gold and silver.* Halle: Landesamt für Denkmalpflege und Archäologie Sachsen-Anhalt - Landesmuseum für Vorgeschichte Halle.

Menghin, O. 1931. *Weltgeschichte der Steinzeit.* Wien: Schroll.

Menze, B.H. and J.A. Ur. 2012. Mapping patterns of long-term settlement in Northern Mesopotamia at a large scale. *Proceedings of the National Academy of Sciences of the United States of America* 109(14): E778–E787.

Merkyte, I. 2005. *Lîga. Copper Age strategies in Bulgaria*. (Acta Archaeologica 76(1). Acta Archaeologica Supplementa VI, Centre of World Archaeology Publications 2). København: Blackwell Munksgaard.

Merlini, M. 2005. Semiotic approach to the features of the Danube script. *Documenta Praehistorica* 32: 233–251.

Merpert, N.J. and R.M. Munchaev. 1972. The early metallurgy in Mesopotamia (Древнейшая металлургия Месопотамии, in Russian), in R.M. Munchaev and N.J. Merpert (eds) *Early Agricultural Settlements in Northern Mesopotamia. The Investigations of Societ Expeditions in Iraq (Раннеземледельческие поселения северной Месопотамии. Иследования советской экспедиции в Ираке, in Russian)*: 307–316. Miami (FL). Field Research Projects.

Merpert, N.Y. and R.M. Muncaev. 1987. The earliest levels at Yarim Tepe I and Yarim Tepe II in northern Iraq. *Iraq* 49: 1–36.

Meskell, L. (ed.) 2005. *Archaeologies of Materiality.* Oxford: Blackwell.

Mesoudi, A. and J.M. O'Brien. 2008. The learning and transmission of hierarchical cultural recipes. *Biological Theory* 3: 63–72.

Michelaki, K. 2008. Making pots and potters in the Bronze Age Maros villages of Kiszombor-Új-Élet and Klárafalva-Hajdova. *Cambridge Archaeological Journal* 18: 355–380.

Michelaki, K.V., G. Braun and G.V. Hancock. 2014. Local clay sources as histories of human–landscape interactions: a ceramic taskscape perspective. *Journal of Archaeological Method and Theory* 22: 783–827.

Miculinić, K. and M. Mihaljević. 2003. Analiza faune prapovijesnog nalazišta Slavča-Nova Gradiška. *Opvscula Archaeologica* 27: 71–80.

Mihaylov, P. 2008. New evidence for the earliest copper yielding and processing in the Upper Struma Valley, in M. Čičikova and D. Gergova (eds) *Phosphorion. Studia in Honorem Mariae Čičikova*: 35–47. Sofia: Prof. Marin Drinov Academic Publishing House.

Milić, M. 2014. PXRF characterisation of obsidian from Central Anatolia, the Aegean and Central Europe. *Journal of Archaeological Science* 41: 285–296.

Milić, M. 2015. Obsidian Exchange and Societies in the Balkans and the Aegean from the Late 7th to 5th Millennia BC. Unpublished PhD dissertation, University College London.

Milić, M., K. Brown and T. Carter. 2013. A visual characterisation of the Çatalhöyük Obsidian (Appendix 21), in I. Hodder (ed.) *Substantive Technologies at Çatalhöyük Reports from the 2000–2008 Seasons*: 417–478. Los Angeles: Monographs of the Cotsen Institute of Archaeology, University of California at Los Angeles.

Milleker, F. 1938. Vorgeschichte des Banats: Neolithikum. *Starinar* 13: 102–166.

Miller, D. (ed). 2005. *Materiality*. Durham (NC): Duke University Press.

Miller, H. 2007. *Archaeological Approaches to Technology*. London, Amsterdam: Elsevier/Academic Press.

Milojčić, V. 1949. *Chronologie der Jungeren Steinzeit Mittel- und Sudosteuropas*. Berlin: Gebr. Mann.

Mineral Deposits of Serbia, n.d., Ore Deposit Database, viewed 18 June 2020, <https://bokisingl.files.wordpress.com/2011/04/serbia-mineral-deposits.pdf>

Mioč, U.B., P. Colomban, G. Sagon, M. Stojanović and A. Rosić. 2004. Ochre decor and cinnabar residues in Neolithic pottery from Vinča, Serbia. *Journal of Raman Spectroscopy* 35: 843–846. DOI: https://doi.org/10.1002/jrs.1221.

Mittnik, A., K. Massy, C. Knipper, F. Wittenborn, R. Friedrich, S. Pfrengle, M. Burri, N. Carlichi-Witjes, H. Deeg, A. Furtwängler, M. Harbeck, K. von Heyking, C. Kociumaka, I. Kucukkalipci, S. Lindauer, S. Metz, A. Staskiewicz, A. Thiel, J. Wahl, W. Haak, E. Pernicka, S. Schiffels, P.W. Stockhammer and J. Krause. 2019. Kinship-based social inequality in Bronze Age Europe. *Science* 366: 731–734.

Montero-Ruiz, I., M. Murillo-Barroso, and M. Ruiz-Taboada 2021. The beginning of the production and use of metal in Iberia: From independent invention to technological innovation. *Eurasia Antiqua* 23: 193–208.

Molloy, B. 2008. Martial arts and materiality: a combat archaeology perspective on Aegean swords of the fifteenth and fourteenth centuries BC. *World Archaeology* 40: 116–134.

Molloy, B. and M. Mödlinger. 2020. The organisation and practice of metal smithing in Later Bronze Age Europe. *Journal of World Prehistory* 33: 169–232.

Monah, D., G. Dumitroaia, F. Monah, C. Preoeasa, R. Munteanu and D. Nicola. 2002. *Poduri-Dealul Ghindaru: o troie în Subcarpații Moldovei* (Bibliotheca Memoriae Antiquitatis 13). Piatra Neamţ: Editura Constantin Matasa.

Montelius, O. 1899. *Der Orient und Europa: Einfluss der orientalischen Cultur auf Europa bis zur Mitte des letzten Jahrtausends v. Chr.* Stockholm: Königliche Akademie der schönen Wissenschaften, Geschichte und Alterthumskunde.

Monthel, J., P. Vadala, J.M. Leistel and F. Cottard. 2002. *Mineral Deposits and Mining Districts of Serbia*. Belgrade: Republic of Serbia Ministry of Mining and Energy, Geoinstitut Belgrade and Mining and Geology Faculty.

Montufo, A.M. 1997. The use of satellite imagery and digital image processing in landscape archaeology. A case study from the island of Mallorca, Spain. *Geoarchaeology: An International Journal* 12(1): 71–85.

Morgan, L.H. 1985 [1877]. *Ancient Society*. Tucson (AZ): University of Arizona Press.

Motolsci, J. 1970. Historische Erforschung der Körpergrösse des Rindes auf Grund von Ungarischem Knochenmaterial. *Zeitchr. f. Tierzüchtg. u. Züchtgsbiol.* 87 (2): 89–137.

Mrkobrad, D. 1989. Istraživanje rudarske topionice u Donjoj Zaplanini. *Glasnik Društva Konzervatora Srbije* 13: 91–92.

Mrkobrad, D., V. Bogosavljević and D. Bogosavljević. 1989. Prilog istraživanju kopaoničkog rudarstva. *Glasnik Društva Konzervatora Srbije* 13: 93–95.

Muhly, J.D. 1989. Çayönü Tepeşi and the beginnings of metallurgy in the Old World, in A. Hauptmann, E. Pernicka and G.A Wagner (eds) *Old World Archaeometallurgy* (Der Anschnitt, Beiheft 7): 1–13. Bochum: Deutsches Bergbau-Museum.

Muhly, J.D. 2002. Early metallurgy in Greece and Cyprus, in Ü. Yalçın (ed.) *Anatolian Metal II,* (Der Anschnitt, Beiheft 15): 77–82. Bochum: Deutsches Bergbau-Museum.

Muhi, B., D. Bugarin and J. Miloradić. 2018. Resursi i perspektive razvoja industrijskog i rudarskog turizma u Srbiji (Resources and perspectives of developing industrial and mining tourism in Serbia, in Serbian). *Business Economics* 23: 141–156.

Müller, J. 2006. Demographische Variablen des Bosnischen Spätneolithikums - zur Frage der Bevölkerungsrekonstruktion im Südosteuropäischen Neolithikum, in N. Tasić and C. Grozdanov (eds) *Homage to Milutin Garašanin:* 367–378. Belgrade: Serbian Academy of Sciences and Arts, Macedonian Academy of Sciences and Arts.

Müller, J. 2007. Demografski varijabiliteti u kasnom neolitu na području Bosne i pitanje gustine naseljenosti u neolitu jugoistočne Evrope, *Godišnjak Centra za balkanološka ispitivanja ANU BiH* 34: 17–33.

Müller, J. 2012. Tells, fire, and copper as social technologies, in R. Hofmann, F.-K. Moetz and J. Müller (eds) *Tells: Social and Environmental Space. Proceedings of the International Workshop 'Socio-Environmental Dynamics Over the Last 12,000 Years: The Creation of Landscapes II' in Kiel, 14th –18th March 2011. Volume 3* (Universitätsforschungen zur Prähistorischen Archäologie 207): 47–52. Bonn: Habelt.

Müller, J. 2017. Inheritance, population and social identities. Southeast Europe 5200-4300 BCE, in M. Gori and M. Ivanova (eds) *Balkan Dialogues. Negotiating Identity between Prehistory and the Present*: 156–168. London: Routledge.

Müller, R., Th. Rehren and S. Rovira. 2004. Almizaraque and the early copper metallurgy of southeast Spain: new data. *Madrider Mitteilungen* 45: 33–56.

Müller, J., K. Rassmann and R. Hofmann (eds). 2013a. *Okolište 1 – Untersuchungen einer spätneolithischen Siedlungskammer in Zentralbosnien* (Universitätsforschungen zur Prähistorischen Archäologie 228). Bonn: Verlag Rudolf Habelt

Müller, J., K., Rassmann and Z. Kujundžić-Vejzagić. 2013b. Okolište – Rekonstruktion spätneolithischer und frühchalkolithischer Siedlungsprozesse des zentralbosnischen Visokobeckens: Fragestellungen, Forschungsstrategien, Ergebnisse, in J. Müller, K. Rassmann, and R. Hofmann (eds) *Okolište 1 – Untersuchungen einer spätneolithischen Siedlungskammer in Zentralbosnien*: 11–68. Bonn: Habelt.

Müller, J., K. Rassmann and M. Videjko (eds). 2016. *Tripolye-Megasites and European Prehistory 4100-3400 BCE. Themes in Contemporary Archaeology*. London: Routledge and CRC Press.

Müller-Scheeßel, N., J. Bátora, S. Reiter, K. Radloff and P. Tóth. 2016. Joint prospections on Early Bronze Age site in the Žitava Valley by the Romano-German Commission, Frankfurt and the Archaeological Institute of the Slovak Academy of Sciences, Nitra and Comenius University, Bratislava. *Študijné Zvesti* 60: 79–96.

Müller-Scheeßel, N., J. Müller, I. Cheben, W. Mainusch, K. Rassmann, W. Rabbel, E. Corradini and M. Furholt. 2020. A new approach to the temporal significance of house orientation in European Early Neolithic settlements. *Plos One* 15(1): 1–18.

Murillo-Barroso, M. and I. Montero Ruiz. 2012. Copper ornaments in the Iberian Chalcolithic: technology versus social demand. *Journal of Mediterranean Archaeology* 25: 53–73.

N

Naumov, G., L. Fidanoski, I. Tolevski and A. Ivkovska. 2009. *Neolithic Communities in the Republic of Macedonia*. Skopje: Dante.

Neff, H. 1992. Ceramics and evolution. *Archaeological Method and Theory* 4: 141–193.

Neff, H. 1996. Ceramics and evolution, in M.J. O' Brian (ed.) *Evolutionary Archaeology: Theory and Application*: 244–269. Salt Lake City: University of Utah Press.

Nelson, R. and S. Winter. 1982. *An Evolutionary Theory of Economic Change.* Cambridge (MA): Belknap.

Nerantzis, N., Y. Bassiakos and S. Papadopoulos. 2016. Copper metallurgy of the Early Bronze Age in Thassos, north Aegean. *Journal of Archaeological Science Reports* 7: 574–580. DOI: http://dx.doi.org/10.1016/j.jasrep.2015.08.008.

Nessel, B. 2012. Metallurgen im Grab: Überlegungen zur sozialen Einstufung handwerklicher Spezialisten, in T.L. Kienlin and A. Zimmerman (eds) *Beyond Elites: Alternatives to Hierarchical Systems in Modelling Social Formations*: 423–432. Bonn: Habelt.

Nessel, B. 2013. The 'absence' of smiths and founders: Why tools are rare in Bronze Age burials, in B. Rezi, R.E. Németh and S. Berecki (eds) *Bronze Age Crafts and Craftsmen in the Carpathian Basin*: 139–148. Târgu Mureș: Editura MEGA.

Neubauer, F. and C. Heinrich. 2003. Late Cretaceous and Tertiary geodynamics and ore deposit evolution of the Alpine-Balkan-Dinaride orogen, in D. Eliopoulos (ed.) *Mineral Exploration and Sustainable Development. Proceedings of the Seventh Biennial SGA Meeting on Mineral Exploration and Sustainable Development, Athens, Greece, August 24-28, 2003*: 1133–1136. Athens: Millpress.

Neuninger, H., R. Pittioni and W. Siegl 1964. Frühkeramikzeitliche Kupfergewinnung in Anatolien. *Archaeologia Austriaca* 35: 98–110.

Nikolić, D. 2004. Keramičko posuđe, in M. Bogdanović (ed.) *Grivac. Naselja protostarčevačke i vinčanske kulture*: 203–315. Kragujevac: Narodni muzej.

Nikolić, D. (ed.). 2008. *Sto godina istraživanja arheološkog lokaliteta Vinča-Belo Brdo* (100 Years of archaeological research at Vinča- Belo Brdo, in Serbian). Belgrade: Faculty of Philosophy University of Belgrade, National Museum Belgrade, City Museum Belgrade, Serbian Academy of Arts and Sciences.

Nikolov, V. 1975. *Bogdan, Zaminec, praistorisko selishte*. Sofia.

Nikolov, V. 1984. *Krivodol-drevni kulturi*. Sofia.

Nodari, L., E. Marcuz, L. Maritan, C. Mazzoli and U. Russo. 2007. Hematite nucleation and growth in the firing of carbonate-rich clay for pottery production. *Journal of the European Ceramic Society* 27: 4665–4673.

Nørgaard, H.W., E. Pernicka and H. Vandkilde. 2019. On the trail of Scandinavia's early metallurgy: Provenance, transfer and mixing. *PLOS ONE* 14: e0219574.

Northover, J.P. 1989. Properties and use of arsenic-copper alloys, in A. Hauptmann, E. Pernicka and G.A. Wagner (eds) *Old World Archaeometallurgy*: 111–118. Bochum: Deutsches Bergbau-Museum.

Novotna, M. 1970. *Die Äxte und Beile in der Slowakei.* (Prähistorische Bronzefunde 9/3). München: Beck.

Novotný, B. 1958. *Die Slowakei in der Jungeren Steinzeit*. Bratislava: Archeologický ústav Slovenskej akadémie vied v Nitre.

O

Obelić, B., M. Krznarić-Škrivanko, B. Marijan and I. Krajcar-Bronić. 2004. Radiocarbon dating of Sopot culture sites (Late Neolithic) in eastern Croatia. *Radiocarbon* 46(1): 245–258.

Obradović, Đ. 2013. *New data on early agriculture in the Central Balkans: Archaeobotanical investigations at early and Late Neolithic sites in the Morava Valley, Serbia*. Poster presented at the 16th conference of the International Work Group for Palaeoethnobotany, Thessaloniki, Greece. Abstract in *Book of Abstracts*: 167.

Obradović, Đ. 2020. Arheobotanička istraživanja u kasnom neolitu Pomoravlja: društveno-ekonomski aspekti proizvodnje i pripreme hrane. Unpublished doctoral dissertation, University of Belgrade.

O'Brien, M.J. and S.J. Shennan (eds). 2010a. *Innovation in Cultural Systems. Contributions from Evolutionary Anthropology.* Cambridge, MA: The MIT Press.

O'Brien, M.J. and S.J. Shennan. 2010b. Issues in anthropological studies of innovation, in M.J. O'Brien and S.J. Shennan (eds) *Innovation in Cultural Systems. Contributions from Evolutionary Anthropology*: 3–17. Cambridge (MA): The MIT Press.

O'Brien, W. 2015. *Prehistoric Copper Mining in Europe: 5000-500 BC.* Oxford: Oxford University Press.

O'Connor, T. 2003. *The Analysis of Urban Animal Bone Assemblages*. York: Council for British Archaeology.

Olausson, D. 1980. Starting from scratch: the history of edge-wear research from 1838 to 1978. *Lithic Technology* 9(2): 48–60.

Olausson, D. 1983a. *Flint and groundstone axes in the Scanian Neolithic. An evaluation of raw materials based on experiment*. Lund: CWK Gleerup.

Olausson, D. 1983b. Tools and Technology: Lithic Technological Analysis of Neolithic Axe Morphology. Unpublished Phd Thesis, Lund University.

Olausson, D. 1990. Edge-wear analysis in archaeology. The current state of research. *Laborativ arkeologi* 4: 5–14.

Olofsson, A. and I. Rodushkin. 2011. Provenancing flint artefacts with ICP-MS using REE signatures and Pb isotopes as discriminants: preliminary results of a case study from Northern Sweden. *Archaeometry* 53: 1142–1170. DOI: https://doi.org/10.1111/j.1475-4754.2011.00605.x.

Orfanou, V. and Th. Rehren. 2015. A (not so) dangerous method: pXRF vs. EPMA-WDS analyses of copper-based artefacts. *Archaeological and Anthropological Sciences* 7: 387–397. DOI: https://doi.org/10.1007/s12520-014-0198-z.

Orton, C. and M. Hughes. 2013 *Pottery in Archaeology*. Cambridge: Cambridge University Press.

Orton, D.C. 2008. Beyond Hunting and Herding: Humans, Animals, and the Political Economy of the Vinča Period. Unpublished Ph.D. dissertation, University of Cambridge.

Orton, D. 2010. Both subject and object: Herding, inalienability and sentient property in prehistory. *World Archaeology* 42: 188–200. DOI: https://doi.org/10.1080/00438241003672773.

Orton, D.C. 2012. Herding, settlement, and chronology in the Balkan Neolithic. *European Journal of Archaeology* 15 (1): 5–40. DOI: https://doi.org/10.1179/1461957112Y.0000000003.

Orton, D.C. 2014. Preliminary report on Neolithic animal bones from Kočićevo, in I. Pandžić and M. Vander Linden (eds) *The Neolithic Site of Kočićevo in the Lower Vrbas Valley (Republika Srpska, Bosnia and Herzegovina): Report of the 2009-2014 Field Seasons*: 97–120. Banja Luka: Philosophy Faculty, University of Banja Luka.

Orton, D., J. Gaastra and M. Vander Linden. 2016. Between the Danube and the deep blue sea: Zooarchaeological meta-analysis reveals variability in the spread and development of Neolithic farming across the Western Balkans. *Open Quaternary* 2: 1–26. DOI: http://doi.org/10.5334/oq.28.

Ottaway, B.S. 1979. Analysis of the earliest metal finds from Gomolava. *Rad Vojvođanskih muzeja* 25: 53–59.

Ottaway, B.S. 1989. Interaction of some of the earliest copper-using cultures in central Europe, in A. Hauptmann, E. Pernicka and G.A. Wagner (eds) *Old World Archaeometallurgy* (Der Anschnitt, Beiheft 7): 19–23. Bochum: Deutsches Bergbau-Museum.

Ottaway, B.S. 1994. *Prähistorische Archäometallurgie*. Espelkamp: Marie Leidorf.

Ottaway, B.S. 2001. Innovation, production and specialisation in early prehistoric copper metallurgy. *European Journal of Archaeology* 4: 87–112.

Ottaway, B.S. and B. Roberts. 2008. The emergence of metalworking, in A. Jones (ed.) *Prehistoric Europe: Theory and Practice*: 193–225. Chichester: Wiley-Blackwell.

Özdoğan, M. 2011 Archaeological evidence on the westward expansion of farming communities from Eastern Anatolia to the Aegean and the Balkans. *Current Anthropology* 52(S4): S415–S430.

Özdoğan, M. and N.O. Dede. 1989. Excavations at Toptepe in Eastern Thrace 1989. *Arkeoloji ve Sanat* 13(46–49): 3–23.

Özdoğan, M. and A. Özdoğan. 1999. Archaeological evidence on the early metallurgy at Çayönü Tepeşi, in A. Hauptmann, E. Pernicka, Th. Rehren and Ü. Yalçın (eds) *The Beginnings of Metallurgy* (Der Anschnitt, Beiheft 9): 13–22. Bochum: Deutsches Bergbau-Museum.

P

Pakkanen, J., A. Brysbaert, D. Turner, D. and Y. Boswinkel. 2020. Efficient three-dimensional field documentation methods for labour cost studies: Case studies from archaeological and heritage contexts. *Digital Applications in Archaeology and Cultural Heritage* 17: 1–10.

Palavestra, A., I. Bogdanović and A. Starović. 1993. Bodnjik-Družetić – eneolitsko gradinsko naselje. *Glasnik Srpskog arheološkog društva* 9: 186–191.

Palavestra A., I. Bogdanović and A. Starović. 1996. Bodnjik-Družetić, kampanja 1994. *Glasnik Srpskog arheološkog društva* 11: 190–197.

Paluch T. 2011. *Maroslele-Pana: egy középső neolitikus lelő hely a kultúrák határvidékén (Maroslele-Pana: A Middle Neolithic site at the frontier of cultures).* (Monographia Archaeologica 2). Szeged: Móra Ferenc Múzeum.

Pantović, I. 2014. *Vinčanski Amulet.* Vršac: Gradski muzej.

Papadopoulos, S. 2008. Silver and copper production practices in the prehistoric settlement at Limenaria, Thasos, in I. Tzachili (ed.) *Aegean Metallurgy in the Bronze Age. Proceedings of an International Symposium held at the University of Crete, Rethymnon, Greece, on November 19-21, 2004*: 59–67. Athens: Ta Pragmata Publications.

Papathanasiou, A., W. Parkinson, D. Pullen, M. Galaty and P. Karkanas (eds). 2018. *Neolithic Alepotrypa Cave in the Mani Greece*. Oxford: Oxbow.

Parcak, S. 2009. *Satellite Remote Sensing for Archaeology.* New York: Routledge.

Pare, C.F.E. 2000. Bronze and the Bronze Age, in C.F.E. Pare (ed.) *Metals Make the World go Round. The Supply and Circulation of Metals in Bronze Age Europe*: 1–38. Oxford: Oxbow Books.

Parkinson, W.A., R.W. Yerkes and A. Gyucha. 2004. The transition from the Neolithic to the Copper Age: excavations at Vésztı-Bikeri, Hungary, 2000–2002. *Journal of Field Archaeology* 29(1/2): 101–121.

Parzinger, H. 1993. *Studien zur Chronologie und Kulturgeschichte der Jungstein-, Kupfer- und Frühbronzezeit zwischen Karpaten und Mittlerem Taurus. Volume 52.* Mainz am Rhein: von Zabern.

Parzinger, H. 2005. Die mittel- und spätneolithische Keramik aus Aşağı Pınar Grabungen 1993–1998, in H. Parzinger and H. Schwarzberg (eds) *Aşağı Pınar II. Die mittel- und spätneolithische Keramik* (Archäologie in Eurasien 18 – Studien im Thrakien-Marmara Raum 2): 1–245. Mainz: Verlag Philipp von Zabern.

Patay, P. 1974. Die hochkupferzeitliche Bodrogkeresztúr-Kultur. *Bericht der Römisch Germanischen Komission* 55: 1–71.

Patay, P. 1984. *Kupferzeitliche Meißel, Beile und Äxte in Ungarn.* (Prähistorische Bronzefunde Volume 9, Band 15). München: C.H. Beck'sche Verlagsbuchhandlung.

Patterson, C.C. 1971. Native copper, silver, and gold accessible to early metallurgists. *American Antiquity* 36: 286–321. DOI: https://doi.org/10.2307/277716.

Park, J.-S., Voyakin, D. and A. Beisenov 2020. The implication of diachronic changes reflected in LBA bronze assemblages of Central Kazakhstan. *Archaeological and Anthropological Sciences,* 12 (7). DOI: https://doi.org/10.1007/s12520-019-00989-z.

Pascual Benito, J.L. 1998. *Utillaje* óseo, *adornos e* ídolos *neolíticos valencianos*. Valencia: Disputación provincial de Valencia. Servicio de investigación prehistórica. Serie de trabajos varios 95.

Pawlik, A.F. 2007. Analysis of two polished stone adzes from Ille Cave at El Nido, Palawan Island, Philippines. *Hukay: Journal of the University of the Philippines Archaeological Studies Program* 10: 38–59.

Payne, S. 1972. Partial recovery and sample bias: the results of some sieving experiments, in E. Higgs (ed.) *Papers in Economic Prehistory*: 49–64. Cambridge: Cambridge University Press.

Payne, S. 1973. Kill-off patterns in sheep and goats: the mandibles from Aşvan Kale. *Anatolian Studies* 23: 281–303.

Payne, S. 1985. Morphological distinctions between mandibular teeth of young sheep, *Ovis*, and goats, *Capra*. *Journal of Archaeological Science* 12: 139–147.

Pearce, M. 2015. The spread of early copper mining and metallurgy in Europe: An assessment of the diffusionist model, in A. Hauptmann, D. Modarressi-Tehrani and M. Prange (eds) *Archaeometallurgy in Europe III: Proceedings of the 3rd International Conference, Deutsches Bergbau-Museum Bochum, June 29 – July 1, 2011* (Der Anschnitt 26): 45–54. Bochum: Deutsches Bergbau-Museum.

Pearce, M. 2019. The 'Copper Age'– a history of the concept. *Journal of World Prehistory* 32: 229–250. DOI: https://doi.org/10.1007/s10963-019-09134-z.

Pearsall, M.D. 2000. *Paleoethnobotany. A Handbook of Procedures*. Orlando: Academic Press.

Pecikoza, V. 2011. Deposits of copper and Vinča sites in the area of Valjevo Mountains, in Blagojević, M. (ed.) *Kolubara 5*: 39–46. Belgrade: Republički zavod za zaštitu spomenika kulture

Pelegrin, J. 1988. Débitage expérimental par pression: du plus petit au plus grand, in *Technologie Préhistorique*. (Notes et Monographies Techniques du CRA 25): 37–53. Paris: Edition du CNRS.

Pelegrin, J. 2006. Long blade technology in the Old World: an experimental approach and some archaeological results, in J. Apel and K. Knutsson (eds) *Skilled Production and Social Reproduction – Aspects of Traditional Stone-Tool Technology*: 37–68. Upsalla: Societas Archeologica Upsaliensis.

Pentedeka, A. 2011. Links of clay in Neolithic Greece: the case of Platia Magoula Zarkou, in A. Brysbaert (ed.) *Tracing Prehistoric Social Networks through Technology: A Diachronic Perspective on the Aegean*: 106–125. London/New York: Routledge.

Perić, S. 2006. The Gradac period in the Neolithic settlements in the Morava valley, in N. Tasić and C. Grozdanov (eds) *Homage to Milutin Garašanin*: 235–250. Belgrade: Serbian Academy of Sciences and Arts.

Perić, S., C. Rummel, G. Schafferer, H. Wendling and D. Winger. 2016. Geomagnetic survey of Neolithic settlements in the Middle Morava Valley – preliminary results, in S. Perić (ed.) *The Neolithic in the Morava Valley. New Insights into Settlement and Economy*: 9–27. Belgrade: Institute of Archaeology.

Perišić, S. 1984. *Predmeti od kosti, roga i kamena iz Odseka za praistoriju Muzeja grada Beograda*. Beograd: Muzej grada Beograda.

Perišić, N., M. Marić-Stojanović, V. Andrić, U.B. Mioč and L. Damjanović. 2016. Physicochemical characterisation of pottery from Vinča culture, Serbia regarding the firing temperature and decoration technique. *Journal of the Serbian Chemical Society* 81/12: 1415–1426.

Pernicheva, L. 2004. Chalcolithic anthropomorphic figurines from Tell Kirilovo, Stara Zagora District, in V. Nikolov, K. Bachvarov, and P. Kalchev (eds) *Praistoričeska Trakija*. Sofia-Stara Zagora: Arheološki institut.

Pernicka, E. 1990. Gewinnung und Verbreitung der Metalle in prähistorischer Zeit. *Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz* 37: 21–129.

Pernicka, E. 1999. Trace element fingerprinting of ancient copper: a guide to technology or provenance? In S.M.M. Young, A.M. Pollard, P. Budd and R.A. Ixer (eds) *Metals in Antiquity*: 163–171. Oxford: Archaeopress.

Pernicka, E. 2020. Development of metallurgy in Eurasia. *Quaternary International* 560–561: 38–44. DOI: https://doi.org/10.1016/j.quaint.2020.03.057.

Pernicka, E., F. Begemann and S. Schmitt-Strecker. 1993. Eneolithic and Early Bronze Age copper artefacts from the Balkans and their relation to Serbian copper ores. *Prähistorische Zeitschrift* 68: 1–54.

Pernicka, E., F. Begemann, S. Schmitt-Strecker, H. Todorova and I. Kuleff. 1997. Prehistoric copper in Bulgaria. Its composition and provenance. *Eurasia Antiqua* 3: 41–180.

Pernicka, E., Lutz, J. and Stöllner, T. 2016. Bronze Age copper produced at Mitterberg, Austria, and its distribution. *Archaeologia Austriaca* 100: 19-55.

Perucchetti, L., Montero-Ruiz, I., and P. Bray 2020. Mapping archaeometallurgical data of the Iberian Copper Age: Different ways to look at a big picture. *Journal of Archaeological Science* 119: 105165. DOI: https://doi.org/10.1016/j.jas.2020.105165

Petrović, J. 1992. Архитектура куће 4 на Гомолави; насеље млађе винчанске културе, *Рад Војвођанских музеја* 34: 19–32.

Pétrequin P. and C. Jeunesse. 1995. La Hache de Pierre. *Carrières Vosgiennes et Éxchanges de Lames Polies pendant le Néolithique (5400-2100 avant J.-C.).* Paris: Editions Errance.

Pétrequin, P., S. Cassen, M. Errera, L. Klassen, A.M. Pétrequin and J.A. Sheridan. 2013. The value of things: the production and circulation of Alpine jade axes during the 5th–4th millennia in a European perspective, in *Economic Archaeology: From Structure to Performance in European Archaeology* (University Research on Prehistoric Archaeology 237): 65–82. Bonn: Habelt.

Petrović, J. 1999/2000. Građevinski objekti u naselju Starčevačke kulture na Golokutu. *Rad Muzeja Vojvodine* 41–42: 7–10.

Picon, M. 1995. Grises et grises: quelques réflexions sur les céramiques cuites en mode B, in Câmara Municipal de Tondela (ed.) *Actas das 1ªJornadas de Cerâmica Medieval e Pós Medieval, métodos e resultados para o seu estudo* (1992): 283–287. Tondela: Porto, Municipal de Tondela.

Pigott, V.C. 1999. The development of metal production on the Iranian Plateau: an archaeometallurgical perspective, in V.C. Pigott (ed.) *The Archaeometallurgy of the Asian World*: 73–106. Philadelphia (PA): University of Pennsylvania Museum.

Pigott, V.C. 2011. Sources of tin and the tin trade in southwest Asia: recent research and its relevance to current understanding, in P.P. Betancourt and S.C. Ferrence (eds) *Metallurgy: Understanding How, Learning Why. Studies in Honor of James D. Muhly*: 273–291. Philadelphia (PA): INSTAP Academic Press.

Pigott, V.C. 2021. The acquisition of tin in Bronze Age southwest Asia, in B. Lyonnet and N.A. Dubova (eds) *The World of the Oxus Civilization.* London: Routledge.

Pitblado, B.L., M.B. Cannon, H. Neff, C.M. Dehler and S.T. Nelson. 2013. LA-ICP-MS analysis of quartzite from the Upper Gunnison Basin, Colorado. *Journal of Archaeological Science* 40(4): 2196–2216. DOI: http://www.sciencedirect.com/science/article/pii/S0305440312005109

Plisson, H. and A. Lompré. 2008. Technician or researcher? A visual answer, in L. Longo and N. Skakun (eds) *'Prehistoric Technology' 40 Years Later: Functional Studies and the Russian Legacy: Proceedings of the International Congress Verona (Italy), 20-23 April 2005* (British Archaeological Reports International Series S1783): 497–501. Oxford: Archaeopress.

Pollard, A.M. and C. Heron. 2008. *Archaeological Chemistry.* Cambridge: The Royal Society of Chemistry.

Poplin F. 2004. Fiche éléments de nomenclature anatomique relative aux matères dures d´origine animale, in D. Ramseyer (ed.) *Matières et techniques. Fiches de la Commission de nomenclature sur l'industrie de l'os préhistorique. Cahier XI*: 11–15. Paris: CNRS.

Popova, Tz. 2014. Agriculture and subsistence economy in the territory of Bulgaria during Neo-Eneolithic, in C. Preoteasa and C.-D. Nicola (eds) *L'impact anthropique sur l'environnement durant le Néo-Énéolithique du Sud-Est de l'Europe: in honorem dr. Gheorghe Dumitroaia*: 37–47. Piatra-Neamţ: Editura 'Constantin Matasă'.

Porčić, M. 2009. Archaeology of Vinča Houses: Theoretical-Methodological Frameworks of Studying Demography and Social Structure. Unpublished PhD dissertation. Belgrade: University of Belgrade.

Porčić, M. 2011. An exercise in archaeological demography: estimating the population size of Late Neolithic settlements in the central Balkans. *Documenta Praehistorica* 38: 323–332.

Porčić, M. 2012a. Social complexity and inequality in the Late Neolithic of the Central Balkans: reviewing the evidence. *Documenta Praehistorica* 39: 167–183.

Porčić, M. 2012b. De facto refuse or structured deposition? House inventories of the Late Neolithic Vinča culture. *Starinar* 62: 19–43.

Porčić, M. 2012c. Effects of residential mobility on the ratio of average house floor area to average household size: implications for demographic reconstructions in archaeology. *Cross-Cultural Research* 46: 72–86.

Porčić, M. 2019a. Evaluating social complexity and inequality in the Balkans between 6500 and 4200 BC. *Journal of Archaeological Research*, doi:10.1007/s10814-018-9126-6.

Porčić, M. 2019b. Society and technology in the Neolithic and the Eneolithic of the Balkans, in J. Müller and S. Kadrow (eds) *Habitus? The Social Dimension of Technology and Transformation*:19–33. Leiden: Sidestone Press.

Porčić, M. 2020. Observations on the origin and demography of the Vinča culture. *Quaternary International* 560–561: 57–64. DOI: https://doi.org/10.1016/j.quaint.2020.04.012.

Porčić, M. and T. Blagojević. 2014. Fragmentation, context and spatial distribution of the Late Neolithic figurines from Divostin, Serbia, in C.E. Ursu and S. Terna (eds) *Anthropomorphism and Symbolic Behaviour in the Neolithic and Copper Age Communities of South-Eastern Europe*: 91–107. Suecedava: Editura karl A. Romstorfer.

Porčić, M., T. Blagojević and S. Stefanović. 2016. Demography of the Early Neolithic population in Central Balkans: Population dynamics reconstruction using summed radiocarbon probability distributions. *PLoS ONE* 11: e0160832. DOI: https://doi.org/10.1371/journal.pone.0160832.

Porčić, M. and M. Nikolić. 2016. The approximate Bayesian computation approach to reconstructing population dynamics and size from settlement data: demography of the Mesolithic-Neolithic transition at Lepenski Vir. *Archaeological and Anthropological Sciences* 8: 169–186.

Pottage, A. and B. Sherman. 2010. *Figures of Invention: A History of Modern Patent Law.* Oxford: Oxford University Press.

Poupeau, G., F.-X. Le Bourdonnec, T. Carter, S. Delerue, M.S. Shackley, J.-A. Barrat, S. Dubernet, P. Moretto, T. Calligaro, M. Milić and K. Kobayashi. 2010. The use of SEM-EDS, PIXE and EDXRF for obsidian provenance studies in the Near East: a case study from Neolithic Çatalhöyük (Central Anatolia). *Journal of Archaeological Science* 37(11): 2705–2720.

Powell, A., S. Shennan and M.G. Thomas. 2009. Late Pleistocene demography and the appearance of modern human behavior. *Science* 324: 1298–1301.

Pritchard-Parker, M.A. and J.A. Torres. 1998. Analysis of experimental debitage from hammerstone use and production: implications for ground stone use. *Lithic Technology* 23 (2): 139–146.

Prummel, W. 1988. Distinguishing features of postcranial skeletal elements of cattle, *Bos primigenius f. taurus*, and red deer, *Cervus elaphus*. *Schriftenaus der Archaologisch-Zoologishen Arbeitsgruppe Schleswig-Kiel* 12: 1–52.

Prummel, W. and H. Frisch, H. 1986. A guide for the distinction of species, sex and body size in bones of sheep and goats. *Journal of Archaeological Science* 13: 567–577.

Q

Quinn, P.S. 2013. *Ceramic Petrography: The Interpretation of Archaeological Pottery and Related Artefacts in Thin Section.* Oxford: Archaeopress.

Quinn, P.S., P. Day, V. Kilikoglou, E. Faber, S. Katsarou-Tzeveleki and A. Sampson. 2010. Keeping an eye on your pots: the provenance of Neolithic ceramics from the Cave of the Cyclops, Youra, Greece. *Journal of Archaeological Science* 37: 1042–1052.

Quitta, H. and G. Kol. 1969. Radiocarbondaten zum Neolithikum und zur frühen Bronzezeit Südosteuropas und der Sowietunion. *Zeitschrift für Archäologie* 3: 223–255.

R

Racimo, F., J. Woodbridge, R.M. Fyfe, M. Sikora, K.-G. Sjögren, K. Kristiansen and M.Vander Linden. 2020. The spatiotemporal spread of human migrations during the European Holocene. *Proceedings of the National Academy of Sciences* 117: 8989. DOI: https://doi.org/10.1073/pnas.1920051117.

Racky, P. and A. Anders. 2006. Social dimensions of the Late Neolithic settlement of Polgár-Csöszhalom (Eastern Hungary). *Acta Antiqua Academiae Scientiarum Hungaricae* 57: 17–3.

Radivojević, M. 1998. Field survey and topography of a Vinča culture settlement in Kremen- Mačina (in Serbian). *Papers from the Petnica Science Centre (Serbia)* 48: 316–340.

Radivojević, M. 2006. A contribution to the typology and distribution of hammer axes of Pločnik type in southeast Europe (in Serbian). *Journal of Serbian Archaeological Society* 22: 211–224.

Radivojević, M. 2007. Evidence for Early Copper Smelting in Belovode, a Vinča Culture Settlement in Eastern Serbia. Unpublished MSc dissertation, University College London.

Radivojević, M. 2012. On the Origins of Metallurgy in Europe: Metal Production in the Vinča Culture. Unpublished PhD dissertation, University College London.

Radivojević, M. 2013. Archaeometallurgy of the Vinča culture: a case study of the site of Belovode in eastern Serbia. *Historical Metallurgy* 47: 13–32.

Radivojević, M. 2015. Inventing metallurgy in western Eurasia: a look through the microscope lens. *Cambridge Archaeological Journal* 25: 321–338.

Radivojević, M., F. Draşovean, B. Gaydarska, J. Chapman and Th. Rehren (in preparation). Chalcolithic copper production at the Foeni-Petreşti culture site of Foeni, Romania. *Journal of Archaeological Science*.

Radivojević, M. and J. Grujić. 2017. Dataset for 'Community structure of copper supply networks in the prehistoric Balkans: An independent evaluation of the archaeological record from the 7th to the 4th millennium BC' (AHRC, Trans.). *Journal of Complex Networks* 6. DOI: https://doi.org/10.17863/CAM.9599.

Radivojević, M. and J. Grujić. 2018. Community structure of copper supply networks in the prehistoric Balkans: An independent evaluation of the archaeological record from the 7th to the 4th millennium BC. *Journal of Complex Networks* 6: 106–124. DOI https://doi.org/10.1093/comnet/cnx013.

Radivojević, M. and J. Kuzmanović Cvetković. 2014. Copper minerals and archaeometallurgical materials from the Vinča culture sites of Belovode and Pločnik: overview of the evidence and new data. *Starinar* 64: 7–30.

Radivojević, M. and Th. Rehren. 2016. Paint it black: the rise of metallurgy in the Balkans. *Journal of Archaeological Method and Theory* 23: 200–237. DOI: https://doi.org/10.1007/s10816-014-9238-3.

Radivojević, M., and Th. Rehren. 2019. *First to the finish line? Metallurgy of lead making in the 6th and 5th millennium BC Balkans.* Paper presented at the Archaeometallurgy in Europe, 5th International Conference, 19th-21st June 2019, Miskolc, Hungary.

Radivojević, M. and B.W. Roberts. 2013. *The Polychrome Beginnings of the Use of Metals and Alloys.* Paper presented at the Eighth International Conference on the Beginnings of the Use of Metals and Alloys, 10-15 September 2013, Nara, Japan.

Radivojević, M., Th. Rehren, E. Pernicka, D. Šljivar and M. Brauns and D. Borić. 2010a. On the origins of extractive metallurgy: new evidence from Europe.

Journal of Archaeological Science 37: 2775–2787: DOI: https://doi.org/10.1016/j.jas.2010.06.012.

Radivojević, M., Th. Rehren and M. Blagojević. 2010b *Arsenical Copper Smelting in Kolubara, western Serbia.* Paper presented at the 38th International Symposium on Archaeometry Abstract Handbook, Tampa, Florida.

Radivojević, M., Th. Rehren, J. Kuzmanović Cvetković, M. Jovanović and J.P. Northover. 2013. Tainted ores and the rise of tin bronze metallurgy, c. 6500 years ago. *Antiquity* 87: 1030–1045. DOI: https://doi.org/10.1017/S0003598X0004984.

Radivojević, M., Th. Rehren, J. Kuzmanović Cvetković and M. Jovanović. 2014a. Context is everything indeed: a response to Šljivar and Borić. *Antiquity* 88: 1315–1319.

Radivojević, M., Th. Rehren, J. Kuzmanović Cvetković and M. Jovanović. 2014b. Why are there tin bronzes in the 5th millennium BC Balkans? In S. Vitezović and D. Antonović (eds) *Archaeotechnology: Studying Technology from Prehistory to the Middle Ages*: 235–256). Belgrade: Srpsko Arheološko Društvo.

Radivojević, M., Th. Rehren, S. Farid, E. Pernicka and D.S. Camurcuoğlu. 2017. Repealing the Çatalhöyük extractive metallurgy: the green, the fire and the 'slag'. *Journal of Archaeological Science* 86: 101–122. DOI: https://doi.org/10.1016/j.jas.2017.07.001.

Radivojević, M., J. Pendić, A. Srejić, M. Korać, C. Davey, A. Benzonelli, M. Martinón-Torres, N. Jovanović and Ž. Kamberović. 2018. Experimental design of the Cu-As-Sn ternary colour diagram. *Journal of Archaeological Science* 90: 106–119. DOI: https://doi.org/10.1016/j.jas.2017.12.001.

Radivojević, M., B.W. Roberts, E. Pernicka, Z.A. Stos-Gale, M. Martinón-Torres, H. Vandkilde, J. Ling, D. Brandherm, P. Bray, J. Mei, K. Kristiansen, Th. Rehren, S. Shennan and C. Broodbank. 2019. The provenance, use and circulation of metals in the European Bronze Age: The state of debate. *Journal of Archaeological Research* 27: 131–185. DOI: https://doi.org/10.1007/s10814-018-9123-9.

Radimsky, W. and M. Hoernes. 1895. *Die neolithische Station von Butmir bei Sarajevo in Bosnien*. Wien: Holzhausen.

Radmanović, D., D. Kostić, J. Lujić and S. Blažić. 2014. Vertebrate fauna at the Neolithic and Eneolithic sites in Vojvodina (Serbia). *Zbornik Matice Srpske za prirodne nauke* 126: 75–86.

Radovanović, I. 1996. *The Iron Gates Mesolithic* (International Monographs in Prehistory. Archaeological Series 11). Ann Arbor (MI): Berghahn Books.

Radovanović, I., M. Kaczanowska, J.K. Kozlowski, M. Pawlikowski and B. Voytek. 1984. *The Chipped Stone Industry from Vinča*. Belgrade: Centar za arheološka istraživanja, Filozofski Fakultet.

Rahmstorf, L., 2011. Re-integrating 'diffusion': the spread of innovations among the Neolithic and Bronze Age societies of Europe and the Near East in T.C. Wilkinson, S. Sherratt and J. Bennet (eds) *Interweaving worlds: systemic interactions in Eurasia, 7th to the 1st millennia BC: 100-119. Oxford: Oxbow.*

Rahmstorf, L., 2019. Scales, weights and weight-regulated artefacts in Middle and Late Bronze Age Britain. *Antiquity* 93: 1197-1210.

Rahmstorf, L., G. Barjamović and N. Ialongo (eds) 2021. *Merchants, Measures and Money. Understanding Technologies of Early Trade in a Comparative Perspective*. Kiel/Hamburg: Wachholtz Verlag.

Rahmsdorf, L. and E.P. Stratford (eds) 2019. *Weights and Marketplaces from the Bronze Age to the Early Modern Period*. Kiel/Hamburg: Wachholtz Verlag.

Rapp, G. 2009. *Archaeomineralogy* (Second edition). Natural Science in Archaeology. Berlin, Heidelberg: Springer.

Rassmann, K., J. Ohlrau, C. Mischka, N.B. Burdo, M. Videjko and J. Müller. 2014. High precision Tripolye settlement plans, demographic estimations and settlement organization. *Journal of Neolithic Archaeology* 6: 63–95.

Rassmann, K., C. Mischka, M. Furholt, J. Ohlrau, K. Radloff, K. Winkelmann, G. Serlegi, T. Marton, A. Osztás, K. Oross and E. Bánffy. 2015. Large scale geomagnetic prospections on Neolithic sites in Hungary II. *Hungarian Archaeology Online* http://files.archaeolingua.hu/2015NY/eng_Rassmann_15S.pdf

Raub, C.J. 1995. The metallurgy of gold and silver in prehistoric times, in G. Morteani and J.P. Northover (eds) *Prehistoric Gold in Europe: Mines, Metallurgy and Manufacture*: 243–259. Dordrecht: Kluwer Academic Publishers.

Reddy, S.N. 2003. *Discerning Palates of the Past: An Ethnoarchaeological Study of Crop Cultivation and Plant Usage in India*. (International Monographs in Prehistory. Ethnoarchaeological Series 5). Ann Arbor (MI): Berghahn Books.

Reed, K. 2013. Farmers in Transition: The Archaeobotanical Analysis of the Carpathian Basin from the Late Neolithic to the Late Bronze Age (5000-900 BC). Unpublished PhD dissertation, University of Leicester.

Reed, K. 2015. From the field to the hearth: plant remains from Neolithic Croatia (ca. 6000–4000 cal BC). *Vegetation History and Archaeobotany* 24: 601–619.

Reed, W.P. 1992. Certificate of Analysis, Standard Reference Materials 612 and 613. Technical Report, National Institute of Standards and Technology.

Rehder, J.E. 1994. Blowpipes versus bellows in ancient metallurgy. *Journal of Field Archaeology* 21: 345–350.

Rehren, Th. 1997. Die Rolle des Kohlenstoffs in der Prähistorischen Metallurgie. *Stahl Und Eisen* 117: 87–92.

Rehren, Th. 2003. Crucibles as reaction vessels in ancient metallurgy, in P.T. Craddock, and J. Lang (eds) *Mining and Metal Production Through the Ages*: 207–215. London: The British Museum Press.

Rehren, Th. 2008. METALS, Primary Production Studies of, in M.P. Deborah (ed.) *Encyclopedia of Archaeology*: 1616–1620. New York: Academic Press.

Rehren, Th. 2014. Crossing boundaries, in P. Stone and Z. Hui (eds) *Sharing Archaeology: Academe, Practice and the Public*: 36–46. New York, London: Routledge.

Rehren, Th. and E. Pernicka. 2008. Coins, artefacts and isotopes-archaeometallurgy and Archaeometry. *Archaeometry* 50: 232–248. DOI: https://doi.org/10.1111/j.1475-4754.2008.00389.x.

Rehren, Th., M. Charlton, S. Chirikure, J. Humphris, A. Ige and H.A. Veldhuijzen. 2007. Decisions set in slag - the human factor in African iron smelting, in S. La Niece, D. Hook and P. Craddock (eds) *Metals and Mines: Studies in Archaeometallurgy*: 211–218. London: Archetype Publications.

Rehren, Th., Boscher, L. and E. Pernicka. 2012. Large scale smelting of speiss and arsenical copper at Early Bronze Age Arisman, Iran. *Journal of Archaeological Science* 39 (6): 717-1727. DOI:https:??doi.org/10.1016/j.jas.2012.01.009.

Rehren, Th., P. Leshtakov and P. Penkova. 2016. Reconstructing Chalcolithic copper smelting at Akladi Cheiri, Chernomorets, Bulgaria, in V. Nikolov and W. Schier (eds) *Der Schwarzmeerraum vom Neolithikum bis in die Früheisenzeit (6000-600 v.Chr.). Kulturelle Interferenzen in der zirkumpontischen Zone und Kontakte mit ihren Nachbargebieten*: 205–214. Rahden/Westf: Verlag Marie Leidorf GmbH.

Rehren, Th., P. Penkova and E. Pernicka. 2020. The Chalcolithic copper smelting at Akladi Cheiri, in R. Krauss, E. Pernicka, R. Kunze, K. Dimitrov and P. Leshtakov (eds) *Prehistoric Mining and Metallurgy at the Southeast Bulgarian Black Sea Coast.* (RessourcenKulturen Band 10): 137–156. Tübingen: Tübingen University Press.

Reimer, P.J., E. Bard, A. Bayliss, J.W. Beck, P.G. Blackwell, C. Bronk Ramsey, P.M. Grootes, T.P. Guilderson, H. Haflidason, I. Hajdas, C. Hatt, T.J. Heaton, D.L. Hoffmann, A.G. Hogg, K.A. Hughen, K.F. Kaiser, B. Kromer, S.W. Manning, M. Niu, R.W. Reimer, D.A. Richards, E.M. Scott, J.R. Southon, R.A. Staff, C.S.M. Turney and J. van der Plicht. 2013. IntCal13 and Marine13 radiocarbon age calibration curves 0-50,0000 years cal BP. *Radiocarbon* 55(4): 1869–1887.

Reingruber, A. 2014. The wealth of the tells: Complex settlement patterns and specialisations in the West Pontic between 4600 and 4250 cal BC, in B. Horejs and M. Mehofer (eds) *Western Anatolia before Troy: Proto-Urbanisation in the 4th millennium BC?*: 217–241. Vienna: Austrian Academy of Sciences Press.

Reitz, E. and E. Wing. 2008. *Zooarchaeology*. 2nd edition. Cambridge: Cambridge University Press.

Remondino, F. 2013. Worth a thousand words – Photogrammetry for archaeological 3D surveying, in R.S. Opitz and D.C. Cowley (eds) *Interpreting Archaeological Topography*: 115–122. Oxford: Oxbow Books.

Renfrew, C. 1969. The autonomy of the south-east European Copper Age. *Proceedings of the Prehistoric Society* 35: 12–47.

Renfrew, C. 1970. The place of Vinča culture in European prehistory. *Zbornik Radova Narodnog Muzeja (Belgrade)* 6: 45–57.

Renfrew, C. 1971. Sitagroi, radiocarbon and prehistory of south-east Europe. *Antiquity* 45(180): 275–282.

Renfrew, C. 1972. *The Emergence of Civilisation: the Cyclades and the Aegean in the Third Millennium B.C.* London: Methuen.

Renfrew, C. 1973. Sitagroi and the independent invention of metallurgy in Europe, in M. Garašanin, A. Benac and N. Tasić (eds) *Actes du VIIIe congrès international des sciences préhistoriques et protohistoriques: Belgrade, 9-15 septembre 1971* (Volume 2): 473–481. Belgrade: Union Internationale des Sciences Préhistoriques et Protohistoriques.

Renfrew, C. 1978b. The anatomy of innovation, in D. Green, C. Haselgrove and M. Spriggs (eds) *Social Organization and Settlement.* (British Archaeological Reports International Series 47/1): 89–117. Oxford: Archaeopress.

Renfrew, C. 1978a. Varna and the social context of early metallurgy. *Antiquity* 52: 199–203.

Renfrew, C. 1979. *Problems in European Prehistory*. Edinburgh: Edinburgh University Press.

Renfrew, C. 1986. Varna and the emergence of wealth in prehistoric Europe, in A. Appadurai (ed.) *The Social Life of Things: Commodities in Cultural Perspective*: 141–168. Cambridge: Cambridge University Press.

Renfrew, C. 1987. *Archaeology and Language: The Puzzle of Indo-European Origins*. London: Jonathan Cape.

Renfrew, C., J.E. Dixon and J.R. Cann. 1965. Obsidian in the Aegean. *Annual of the British School of Archaeology at Athens* 60: 225–247.

Renfrew, C., J.E. Dixon and J.R. Cann. 1966. Obsidian and early culture contact in the Near East. *Proceedings of the Prehistoric Society* 32: 30–72.

Renfrew, C., J.E. Dixon and J.R. Cann. 1968. Further analysis of Near Eastern obsidians. *Proceedings of the Prehistoric Society* 34: 319–331.

Renfrew, C. and E. Elster. 2003. Metal artifacts and metallurgy, in E. Elster and C. Renfrew (eds.), *Prehistoric Sitagroi: Excavations in northeast Greece, 1968–1970. Volume 2: The final report*: 301–324. Los Angeles: Cotsen Institute of Archaeology, University of California.

Renfrew, C., C. Gosden and L. DeMarrais (eds). 2005. *Rethinking Materiality.* Cambridge: McDonald Institute for Archaeology.

Renfrew, J.M. 1979. The first farmers in South East Europe, *in* U. Körber-Grohne (ed.) Festschrift Maria Hopf. *Archaeo-Physika* 8: 243–265.

Rice, P.M. 1981. Evolution of specialized pottery production: a trial model. *Current Anthropology* 22: 219–227.

Rice, P.M. 1991. Specialization, standardization, and diversity: a retrospective, in R.L. Bishop and F.W. Lange (eds) *The ceramic legacy of Anna O. Shepard*: 257–279. Niwot. Colorado: University Press of Colorado.

Rice, P.M. 2015. *Pottery Analysis: A Sourcebook*. Chicago: University of Chicago Press.

Ристић-Опачић, J. 2005. Топографско-хронолошке карактеристике насеља винчанске културе на територији Србије. Гласник Српског археолошког друштва 21: 71–112.

Roberts, B.W. and M. Vander Linden (eds). 2011. *Investigating Archaeological Cultures: Material Culture, Variability, and Transmission*. London: Springer.

Roberts, B.W. and C. Frieman. 2012. Drawing boundaries and drawing models: investigating the concept of the 'Chalcolithic frontier' in north-west Europe, in M.J. Allen, J. Gardiner, and A. Sheridan (eds) *Is there a British Chalcolithic? People, Place and Polity in the Late 3rd Millennium*: 27–39. Oxford: Oxbow.

Roberts, B.W. and C.P. Thornton (eds). 2014. *Archaeometallurgy in Global Perspective. Methods and Syntheses*. New York: Springer.

Roberts, B.W. and M. Radivojević. 2015. Invention as a process: pyrotechnologies in early societies. *Cambridge Archaeological Journal* 25: 299–306. DOI: https://doi.org/10.1017/S0959774314001188.

Roberts, B.W., C.P. Thornton and V.C. Pigott. 2009. Development of metallurgy in Eurasia. *Antiquity* 83: 1012–1022.

Rogers, E.M. 1962. *Diffusion of Innovations (1st edition)*. New York: Free Press of Glencoe.

Rogers, E.M. 2003. *Diffusion of Innovations (5th edition)*. New York: Simon and Schuster.

Rosenstock, E., S. Scharl and W Schier. 2016. Ex oriente lux? – Ein Diskussionsbeitrag zur Stellung der frühen Kupfermetallurgie Südosteuropas, in M. Bartelheim, B. Horejs and R. Krauss (eds) *Von Baden bis Troia: Resourcennutzung, Metallurgie und Wissenstransfer. Eine Jubiläumsschrift für Ernst Pernicka* (Oriental and European European Archaeology 3): 59–122. Rahden: Leidorf.

Rostoker, W. and J.R. Dvorak. 1990. *Interpretation of Metallographic Structures* (3rd Edition). San Diego, London: Academic Press Incorporated.

Rostoker, W., V.C. Pigott and J.R. Dvorak. 1989. Direct reduction to copper metal by oxide-sulfide mineral interaction. *Archeomaterials* 3: 69–87.

Rothermel M., K. Wenzel K., D. Fritsch D. and N. Haala. 2012. SURE: Photogrammetric surface reconstruction from imagery. *Proceedings, Low Cost 3D Workshop, Berlin, 01.12.2012*.

Rousseau, J.-J. 1761. *A discourse upon the origin and foundation of the inequality among Mankind*. London: R. & J. Dodsley.

Roux, V. 2003. Ceramic standardization and intensity of production: quantifying degrees of specialization. *American Antiquity* 68: 768–782.

Roux, V. 2008. Evolutionary trajectories of technological traits and cultural transmission, in M. Stark, B.J. Bowser and L. Horne (eds) *Cultural Transmission and Material Culture*: 82–104. Tucson: The University of Arizona Press.

Roux, V. 2010. Technological innovations and developmental trajectories: Social factors as evolutionary forces, in M. J. O'Brien and S. J. Shennan (eds) *Innovation in cultural systems. Contributions from Evolutionary Anthropology*: 217–234. Cambridge: The MIT Press.

Roux, V. 2017. *De Cramiques et des Hommes. Décoder les Assemblages Archéologiques*. Paris: Presses Universitaires de Paris Nanterre.

Roux, V. and D. Corbetta. 1989. *The Potter's Wheel: Craft Specialization and Technical Competence*. New Delhi/Bombay/Calcutta: Oxford and IBH Publishing.

Roux, V., B. Bril and G. Dietrich. 1995. Skills and learning difficulties involved in stone knapping: the case of stone-bead knapping in Khambhat, India. *World Archaeology* 27 (1): 63-87.

Rovira, L.S. and I. Montero Ruiz. 2013. Iberia: technological development of prehistoric metallurgy, in S. Burmeister, S. Hansen, M. Kunst and N. Müller-Scheeßel (eds) *Metal Matters. Innovative Technologies and Social Change in Prehistory and Antiquity*: 231–239. Rahden/Westf.: Marie Leidorf.

Rowlands, M.J. 1971. The archaeological interpretation of prehistoric metalworking. *World Archaeology* 3: 210–224.

Rowley-Conwy, P. 2003. Early domestic animals in Europe: imported or locally domesticated? In A. Ammerman and P. Biagi (eds) *The Widening Harvest: the Neolithic Transition in Europe – Looking Back, Looking Forward*: 99–117. Boston: Archaeological Institute of America.

Rowley-Conwy, P. 2007. *From Genesis to Prehistory: The Archaeological Three Age System and its Contested Reception in Denmark, Britain and Ireland.* Oxford: Oxford University Press.

Roy, D.P., V. Kovalskyy, H.K. Zhang, E.F. Vermonte, L. Yan, S.S. Kumar and A. Egorov. 2016. Characterization of Landsat-7 to Landsat-8 reflective wavelength and normalized difference vegetation index continuity. *Remote Sensing of Environment* 185: 57–70.

Ruddiman, W. F. 2014. *Earth Transformed*. New York: W.H. Freeman & Co Ltd.

Ruíz Taboada, A. and I. Montero-Ruíz. 1999. The oldest metallurgy in Western Europe. *Antiquity* 73: 897–903.

Russell, N. 1990. The bone tools, in R. Tringham and D. Krstić (eds) *Selevac. A Neolithic village in Yugoslavia*: 521–548. Los Angeles: UCLA.

Russell, N. 1993. Hunting, Herding and Feasting: Human Use of Animals in Neolithic Southeast Europe. Unpublished PhD dissertation, University of California at Berkley.

Russell, N. 1998. Cattle as wealth in Neolithic Europe: Where's the beef? In D.W. Bailey (ed.) *The Archaeology of Value: Essays on Prestige and the Processes of Valuation* (British Archaeological Reports S730): 42–54. Oxford: Archaeopress.

Russell, N. 2001. The social life of bone: a preliminary assessment of bone tool manufacture and discard at

Çatalhöyük, in A. Choyke and L. Bartosiewicz (eds) *Crafting Bone: Skeletal Technologies Through Time and Space – Proceedings of the 2nd meeting of the (ICAZ) Worked Bone Research Group, Budapest, 31 August – 5 September 1999*: 241–250. Oxford: Archaeopress.

Russell, N., K. Twiss, D. Orton and A. Demirergi. 2013. More on the Çatalhöyük mammal remains, in I. Hodder (ed.) *Humans and Landscapes of Çatalhöyük: Reports from the 2000–2008 Seasons*: 213–258. Los Angeles: Cotsen Institute.

Ryndina, N. 2009. The potential of metallography in investigations of early objects made of copper and copper-based alloys. *Historical Metallurgy* 43: 1–18.

Ryndina, N.V. and I.J. Ravich. 2000. Eneolithic Balkan-Carpathian Metallurgical Province (BCMP) as a unique centre of the origin and development of the earliest metallurgical activity (Part I). *Bulletin of the Metals Museum* 32: 6–28.

Ryndina, N.V. and I.J. Ravich. 2001. Eneolithic Balkan-Carpathian Metallurgical Province (BCMP) as a unique centre of the origin and development of the earliest metallurgical activity (Part II). *Bulletin of the Metals Museum* 34: 1–21.

Ryndina, N.V. and I.J. Ravich. 2012. О металлопроизводстве майкопских племен Северного Кавказа (по данным химико-технологических исследований) (On Maikop metallurgy in the Northern Caucasus, in Russian). Вестник археологии, антропологии и этнографии (*Moscow)* 2: 4–20.

Ryndina, N., G. Indenbaum and V. Kolosova. 1999. Copper production from polymetallic sulphide ores in the northeastern Balkan Eneolithic culture. *Journal of Archaeological Science* 26: 1059–1068.

S

Saporta, G. 2006. *Probabilités, Analyse des Données et Statistique* (2nd Edition). Paris: Editions Technip.

Schachermeyr, F. 1955. *Die ältesten Kulturen Griechenlands.* Stuttgart: W. Kohlhammer.

Schacht, R.M. 1984. The contemporaneity problem. *American Antiquity* 49: 678–695.

Schalk, E. 1998. *Die Entwicklung der Prähistorischen Metallurgie im Nördlichen Karpatenbecken. Eine Typologische und Metallanalytische Untersuchung.* Rahden-Westfalen: Leidorf Verlag.

Scharl, S. 2016. Patterns of innovation transfer and the spread of copper metallurgy to Central Europe. *European Journal of Archaeology* 19: 215–244. DOI: https://doi.org/10.1080/14619571.2016.1147313.

Schauer, P., Shennan, S., Bevan, A., College, S., Edinborough, K., Kerig, T. and M. Parker Pearson, M. 2020. Cycles in Stone Mining and Copper Circulation in Europe 5500–2000 BC: A View from Space. *European Journal of Archaeology* 24(2), 204-225. DOI: https://doi.org/10.1017/eaa.2020.56.

Schibler, J. 1981. *Typologische Untersuchungen der cortaillodzeitlichen Knochenartefakte. Die neolithischen. Ufersiedlungen von Twann.* Bd.17. Bern: Staatlicher Lerhmittelverlag.

Schickler, H. 1981. Neolithische Zinnbronzen, in H. Lorenz (ed.) *Studien zur Bronzezeit: Festschrift für Wilhelm Albert v. Brunn*: 419–445. Mainz am Rhein: von Zabern.

Schier, W. 1991. Untersuchungen zur Keramik von Vinča-Belo Brdo. *Banatica* 10: 131–140.

Schier, W. 1995. Vinča Studien. Tradition und Innovation im Spätneolithikum des zentralen Balkanraumes am Beispiel der Gefäskeramik aus Vinča-Belo Brdo. Unpublished dissertation. Heidelberg: Heidelberg University.

Schier, W. 1996. The relative and absolute chronology of Vinča: new evidence from the type site, in F. Draşovean (ed.) *The Vinča Culture, its Role and Cultural Connections*: 141–162. Timişoara: National Museum,Timişoara.

Schier, W. 1997. Vinča studies. Tradition and innovation in the Late Neolithic of the Central Balkan region: ceramic vessels from Vinča Belo Brdo. *Archaologisches Nachrichtenblatt* 2(1): 37–46.

Schier, W. 2000. Measuring change: the Neolithic pottery sequence of Vinča-Belo Brdo. *Documenta Praehistorica* 27: 187–197.

Schier, W. 2001. Tellstratigraphien als Zeitmasstab, in Lux Orientis. Archäologie zwischen Asien und Europa, in R. Boehmer and J. Maran (eds) *Festschrift für Harald Hauptmann zum 65.* Geburtstag (Rahden): 371–379.

Schier, W. 2014a. The Copper Age in southeastern Europe - historical epoch or typo-chronological construct? In W. Schier and F. Draşovean (eds) *New Approaches to Dating and Cultural Dynamics in the 6th to 4th Millennium BC.* (Prähistorische Archäologie in Südosteuropa 28): 419–435. Rahden: Leidorf.

Schier, W. 2014b. Der spätneolithisch-kupferzeitliche Tell von Uivar (Rumänien). Prospektionen und Grabungen 1998–2009, in W. Schier and M. Meyer (eds) *Vom Nil bis an die Elbe. Forschungen aus fünf Jahrzehnten am Institut für prähistorische Archäologie der Freien Universität Berlin*: 17–36. Rahden/Westf: Leidorf.

Schier, W. and F. Draşovean. 2004. Vorbericht über die rumänisch-deutschen Prospektionen und Ausgrabungen in der befestigten Teilsiedlung von Uivar, jud. Timiş, Rumänien (1998-2002). *Praehistorische Zeitschrift* 79(2): 145–230.

Schier, W. and F. Draşovean (eds). 2014. *New Approaches to Dating and Cultural Dynamics in the 6th to 4th Millennium BC* (Prähistorische Archäologie in Südosteuropa 28). Rahden/Westf: Verlag Marie Leidorf Gmbh.

Schier, W. and V. Nikolov (eds). 2016. *Der Schwarzmeerraum vom Neolithikum bis in die Früheisenzeit (6000–600* *v.Chr.). Kulturelle Interferenzen in der zirkumpontischen Zone und Kontakte mit ihren Nachbargebieten*. Rahden/ Westf: Leidorf.

Schiffer, M. (ed.) 2001. *Anthropological Perspectives on Technology.* Albuquerque: University of New Mexico Press.

Schiffer, M.B. 2005. The devil is in the details: the cascade model of invention processes. *American Antiquity* 70: 485–502.

Schiffer, M.B. 2010. Can archaeologists study processes of invention? In M.J. O'Brien and S.J. Shennan (eds) *Innovation in Cultural Systems. Contributions from Evolutionary Anthropology*: 235–250. Cambridge, MA: The MIT Press.

Schiffer, M.B. 2011. *Studying Technological Change: A Behavioral Approach.* Salt Lake City: University of Utah Press.

Schmid, E. 1972. *Atlas of Animal Bones: For Prehistorians, Archaeologists and Quaternary Geologists*. New York: Elsevier.

Schneider, G., H. Knoll, K. Gallis and J.P. Demoule. 1994. Production and circulation of Neolithic Thessalian pottery: chemical and mineralogical analyses, in J.-C. Decourt, B. Helly and K. Gallis (eds) *La Thessalie. Quinze Années de Recherches Archéologiques, 1975-1990: Bilans et Perspectives*: 61–70. Athens: Ministry of Culture.

Schoch, W.H., B. Pawlik and F.H. Schweingruber. 1988. *Botanische Makroreste: Ein Atlas Zur Bestimmung Häufig Gefundener und Ökologisch Wichtiger Pflanzensamen.* Bern: Paul Haupt.

Schroedter, T.M., R. Hofmann, M. Furholt, J. Müller and O. Nelle. 2011. Woodland and its use in central Bosnia during the late Neolithic. Results from anthracological investigations in the Visoko-basin. *Sagvntvum Extra* 11: 87–89.

Schubert, F. 1965. Zu den südosteuropäischen Kupferäxten. *Germania* 43: 274–295.

Schumpeter, J. 1939. *Business Cycles: A Theoretical, Historical, and Statistical Analysis of the Capitalist Process.* New York: McGraw-Hill.

Séfériadès, M.L. 1992a. Le métal, in Treuil, R. (ed.) *Dikili Tash, Village Préhistorique de Macédoine Orientale*: 113–116. Athens: Ecole Française d'Athènes.

Séfériadès, M.L. 1992b. L'os et le bois de cervidé, in R. Treuil (ed.) *Dikili Tash. Village préhistorique de Macédoine orientale I. Fouilles de Jean Deshayes (1961–1975), Bulletin de correspondance hellénique, supplément XXIV, 1992*: 99–112.

Séfériadès, M.L. 2010. Spondylus and long-distance trade in prehistoric Europe, in D. Anthony (ed.) *The Lost World of Old Europe: The Danube Valley 5000–3500 BC*: 178–190. Princeton and Oxford: Princeton University Press.

Sekereš, L. 1967. Ludaš-Budžak, ranoneolitsko naselje. *Arheološki pregled* 9: 9–13.

Semenov, S.A. 1976. *Prehistoric Technology: An Experimental Study of the Oldest Tools and Artefacts from Traces of Manufactures and Wear.* Bradford-on-Avon. Wiltshire: Moonraker.

Sergeev, G.P. 1963. Rannetripolskii klad u s. Karbuna. *Sovetskaja Arheologija* 1: 135–151.

Shennan, S. 2000. Population, culture history and the dynamics of culture change. *Current* Anthropology 41: 811–835.

Shennan, S. 2001. Demography and cultural innovation: a model and its implications for the emergence of modern human culture. *Cambridge Archaeological Journal* 11: 5–16.

Shennan, S. 2013. Demographic continuities and discontinuities in Neolithic Europe: evidence, methods and implications. *Journal of Archaeological Method and Theory* 20: 300–311. DOI: https://doi.org/10.1007/s10816-012-9154-3.

Shennan, S. 2018. *The First Farmers of Europe: An Evolutionary Perspective*. Cambridge: Cambridge University Press.

Shennan, S. and J. Steele. 1999. Cultural learning in hominids: a behavioural ecological approach, in H.O. Box and K.R. Gibson (eds) *Mammalian Social Learning: Comparative and Ecological Perspectives*: 367–388. Cambridge: Cambridge University Press.

Shennan, S., S.S. Downey, A. Timpson, K., Edinborough, S. Colledge, T. Kerig, K. Manning and M.G. Thomas. 2013. Regional population collapse followed initial agriculture booms in mid-Holocene Europe. *Nature Communications* 4: 2486.

Shepard, A.O. 1980. *Ceramics for the Archaeologist*. Washington DC: Carnegie Institution.

Sherratt, A.G. 1981. Plough and pastoralism: aspects of the secondary products revolution, in I. Hodder, G. Isaac and N. Hammond (eds) *Pattern of the Past: Studies in Honour of David Clarke*: 261-306. Cambridge: Cambridge University Press.

Sherratt S. 2018. Why was (and is) silver sexy? Silver during the 4th-3rd millennia in the Near East and Mesopotamia, in X-L. Armada, M. Murillo-Barroso and M. Charlton (eds) *Metals, Minds and Mobility. Integrating Scientific Data with Archaeological Theory*: 97-106. Oxford: Oxbow.

Shimada, I. (ed.) 2007. *Craft Production in Complex Societies: Multi-Crafting, Sequential Production, and Producers.* Salt Lake City (UT): University of Utah Press.

Siklósi, Z. 2004. Prestige goods in the Neolithic of the Carpathian Basin. Material manifestations of social differentiation. *Acta Archaeologica Academiae Scientiarum Hungaricae* 55: 1–62. DOI: https://doi.org/10.1556/aarch.55.2004.1-2.1.

Siklósi, Z. 2013. *Traces of Social Inequality during the Late Neolithic in the Eastern Carpathian Basin. Dissertationes Pannonicae IV, 3.* Budapest: Eötvös Loránd University, Institute of Archaeological Sciences.

Siklósi Z., Prange M., Kalicz N. and P. Raczky 2015. New data on the provenance of Early Copper finds from the Great Hungarian Plain. In Hansen S., Raczky P., Anders A. and A. Reingruber (eds.) *Neolithic and*

Copper Age between the Carpathians and the Aegean Sea. Chronologies and Technologies from the 6th to the 4th Millennium BCE: 57-92. Archäologie in Eurasien 31. Bonn: Habelt.

Siklósi, Z. and M. Szilágyi 2019. New data on the provenance of copper finds from the Early-Middle Copper Age of the Great Hungarian Plain. *Archaeological and Anthropological Sciences* 11: 5275–5285. DOI: https://doi.org/10.1007/s12520-019-00867-8

Sillar, B. 2003. Technological choices and experimental archaeology, comments on M.S. Tite, V. Kilikoglou and G. Vekinis, 'Review Article: Strength, toughness and thermal shock resistance of technological choice'. *Archaeometry 43(3):* 301–324.

Sillitoe, R.H. 1983. Enargite-bearing massive sulfide deposits high in porphyry copper systems. *Economic Geology* 78: 348–352.

Silva, F. and M. Vander Linden. 2017. Amplitude of travelling front as inferred from 14C predicts levels of genetic admixture among European early farmers. *Scientific Reports* 7: 11985. DOI: https://doi.org/10.1038/s41598-017-12318-2.

Silver, I. 1969. The ageing of domestic animals, in D. Brothwell and E. Higgs (eds) *Science in Archaeology: A Survey of Progress and Research*: 283–302. London: Thames and Hudson.

Simonović, D. Č. 1967. Osnovne karakteristike jugoslovenske poljoprivredne proizvodnje, *Zbornik radova Pravno – Ekonomskog Fakulteta u Nišu* 6: 265–283.

Shott, M.J. 1996. Mortal pots: on use life and vessel size in the formation of ceramic assemblages. *American Antiquity* 61(3): 462–482.

Skakun, N. 1992. Evolution des techniques agricoles in Bulgarie chalcolithique (d'après les analyses tracéologiques), in P. Anderson (ed.) *Préhistoire de L'Agriculture: Nouvelles Approches Expérimentales et Ethnographiques* (Centre de Recherches Archéologiques Monograph 6): 289–303. Paris: Centre National de la Recherche Scientifique.

Skakun, N. 1993. Results of traseological examination of flint implements from Neolithic settlements in Western Bulgaria, in I. Gatsov (ed.) *Neolithic Chipped Stone Industries in Western Bulgaria*: 52–54. Kraków: Jagellonian University Press.

Скакун Н., Э. Ибрагимова and В.Терёхина. 2015. Некоторые результаты комплексного изучения материалов поселений Беловоде и Плочник, Неолитические культуры Восточной Европы: хронология, палеоэкология, традиции. Материалы Международной научной конференции, посвященной 75-летию Виктора Петровича Третьякова. Санкт-Петербург.

Skibo, J.M. 2013 *Understanding Pottery Function. Manuals in Archaeological Method, Theory and Technique.* New York: Springer.

Slavchev, V. (ed.) 2008. *The Varna Eneolithic Necropolis and Problems of Prehistory in Southeast Europe: Studia in Memoriam Ivan Ivanov.* (Acta Musei Varnensis 7). Varna: Regionalen Istoričeski Muzej, Varna.

Smith, C.S. 1981. On art, invention and technology, in C.S. Smith (ed.) *A Search for Structure*: 325–331. Cambridge (MA): The MIT Press.

Smith, K.Y. and F.D. Neiman. 2007. Frequency seriation, correspondence analysis, and Woodland period ceramic assemblage variation in the deep south. *Southeastern Archaeology* 26(1): 47–72.

Solecki, R.S., R.L. Solecki and A.P. Agelarakis. 2004. *The Proto-Neolithic Cemetery in Shanidar Cave.* Texas: Texas A&M University Press.

Sørensen, M.L.S. 2010. Households, in K. Kristiansen and T. Earle (eds) *Organizing Bronze Age Societies. The Mediterranean, Central Europe & Scandinavia compared:* 122–154. Cambridge: Cambridge University Press.

Spandl, K., A. Dain-Owens, C. Champness, M. Dresser, M. Hann, R. Godwin and P. Booth. 2010. Trials to identify soil cultivation practices to minimise the impact on archaeological sites. (Defra project number BD1705). *Effects of Arable Cultivation on Archaeology* (EH Project number 3874). Known collectively as: 'Trials' Appendix 3: Studying the effects of different cultivation systems on flat archaeological sites. Oxford Archaeology: 1–58.

Spasić, D. 1993. Dva neolitska lokaliteta u Pomoravlju. *Glasnik Srpskog Arheološkog Društva* 9: 180–185.

Spasić, M. 2011. Vinčanska keramika s lokaliteta Crkvine. *Kolubara* 5: 101–146.

Spataro, M. 2014. Continuity and change in pottery manufacture between the early and middle Neolithic of Romania. *Journal of Archaeological and Anthropological Sciences* 6(2): 175–197.

Spataro, M. 2017. Innovation and regionalism in the Middle/Late Neolithic of south and south-eastern Europe (ca. 5,500-4,500 cal. BC): A ceramic perspective, in L. Burnez-Lanotte (ed.) *Matières à Penser. Raw Materials Acquisition and Processing in Early Neolithic Pottery Productions*. Proceedings of the Workshop of Namur (Belgium), 29-30 May 2015: 61–72. Paris: Société Préhistorique Française.

Spataro, M. 2018. Origins of specialization: the ceramic chaîne opératoire and technological take-off at Vinča-Belo Brdo, Serbia. *Oxford Journal of Archaeology* 37: 247–265. DOI: https://doi.org/10.1111/ojoa.12140

Spataro, M. and M. Furholt (eds). 2020. *Detecting and Explaining Archaeological Innovation in Prehistory*. Leiden: Sidestone.

Spataro, M., M. Cubas, O.E. Craig, J.C. Chapman, A. Boroneanţ and C. Bonsall. 2019. Production and function of Neolithic black-painted pottery from Schela Cladovei (Iron Gates, Romania). *Archaeological and Anthropological Sciences* 11: 6287–6304. DOI: https://doi.org/10.1007/s12520-019-00918-0.

Spielmann, K.A. 2002. Feasting, craft specialization, and the ritual mode of production in small-scale societies. *American Anthropologist* 104: 195–207, DOI: https://doi.org/10.1525/aa.2002.104.1.195.

Srdoč, D., A. Sliepčević, B. Obelić and N. Horvatinčić. 1977. Rudjer-Boskovic Institute Radiocarbon Measurements IV. *Radiocarbon* 19(3): 465–475.

Srdoč, D., N, Horvatinčić, B. Obelić, I.K. Bronić and A. Sliepčević. 1987. Rudjer Bošković Institute Radiocarbon Measurements X. *Radiocarbon* 29(1): 135–147.

Srdoč, D., A. Sliepčević and J. Planinić 1975. Rudjer-Boskovic Institute Radiocarbon Measurements III. *Radiocarbon* 17(1): 149–155.

Srejović, D. 1963. Versuch einer historischen Wertung der Vinča-Gruppe. *Archaeologica Iugoslavica* 4: 5–18.

Srejović, D. 1968. Neolitska plastika centralnobalkanskog područja, in L. Trifunović (ed.) *Neolit centralnog Balkana*: 177–240. Beograd: Narodni muzej.

Srejović, D. 1969. *Lepenski Vir: Nova Praistorijska Kultura u Podunavlju*. Belgrade: Srpska književna Zadruga.

Srejović, D. 1972. *Europe's First Monumental Sculpture: New Discoveries at Lepenski Vir*. London: Thames and Hudson.

Srejović, D. (ed.). 1984a. *The Chipped Stone Industry from Vinča: Excavations 1929–1934.* Belgrade: Univerzitet u Beogradu, Centar za Arheološka Istraživanja.

Srejović, D. 1984b. Umetnost i religija, in S. Ćelić (ed.) *Vinča u praistoriji i srednjem veku*: 42–56. Beograd: Srpska akademija nauka i umetnosti.

Srejović, D. 1988. The Neolithic of Serbia: a review of research, in D. Srejović (ed.) *The Neolithic of Serbia: Archaeological Research 1948–1988*: 5–19. Belgrade: Faculty of Philosophy.

Srejović, D. 1997. *Arheološki leksikon.* Beograd: Savremena administracija.

Срејовић, Д. and **Б.** Јовановић. 1959. Оруђе и оружје од кости и накит из Винче [Utensils and weapons in bone and ornaments from Vinča]. *Starinar (new series)* 9-10: 181–190.

Srejović, D. and Z. Letica. 1978. *Vlasac: mezolitsko naselje u Djerdapu 2: Arheologija).* Belgrade: Srpska Akademija Nauka i Umetnosti.

Srejović, D. and N. Tasić (eds). 1990. *Vinča and its World.* Belgrade: Serbian Academy of Sciences and Arts.

Srejović, D., B. Stojanović, N. Tasić and Dušan Krstić. 1984. *Vinča u praistoriji i srednjem veku*. Beograd: Srpska Akademija Nauka i Umetnosti.

Stalio, B. 1960. Pločnik-Prokuplje-naselje. *Arheološki pregled (Belgrade)* 2: 33–36.

Stalio, B. 1962. Pločnik, Prokuplje- naselje vinčanske grupe. *Arheološki pregled (Belgrade)* 4: 19–25.

Stalio, B. 1964. Novi metalni nalaz iz Pločnika kod Prokuplja. *Zbornik Narodnog Muzeja (Belgrade)* 4: 35–41.

Stalio, B. 1972. *Gradac. Praistorijsko naselje.* Belgrade: Narodni Muzej.

Stalio, B. 1973. Četvrti nalaz bakarnog i kamenog oruđa sa Pločnika kod Prokuplja. *Zbornik Narodnog Muzeja* (Belgrade) 7: 157–161.

Starović, A. 2004. *Signs of Civilization: Exhibition Catalogue.* Novi Sad: Serbian Academy of Sciences and Arts.

Starović, A. 2005. If the Vinča script once really existed who could have written or read it? *Documenta Praehistorica* 32: 253–260.

Stefan, C.-E. 2018. Notă asupra unor materiale preistorice de la Romula (Reşca, judeţul Olt). *Buletinul Muzeului Judeţean Teleorman* 10: 109–130.

Stefanović, S. 2008. Late Neolithic boys at the Gomolava cemetery (Serbia), in L. Oosterbeek, (ed.) *Babies Reborn: Infant/Child Burials in Pre- and Protohistory. Proceedings of the XV World Congress of the International Union for Prehistoric and Protohistoric Sciences* (British Archaeological Reports International Series 1832): 95–100. Oxford: Archaeopress.

Stefanovich, M. and C. Angelova (eds). 2007. *PRAE: In honorem Henrieta Todorova*. Sofia: Bulgarian Academy of Sciences.

Sterud, E., R.K. Evans and J.A. Rasson. 1984. Part I: Ex Balcanis Lux? Recent Developments in Neolithic and Chalcolithic Research in Southeast Europe. *American Antiquity* 49: 713–741. DOI: https://doi.org/10.2307/279738.

Stevanović, M. 1997. The age of clay: the social dynamics of house destruction. *Journal of Anthropological Archaeology* 16: 334.

Stojanović, I. and J. Bulatović. 2013. Arheozoološka istraživanja mlađe praistorije na teritoriji Srbije, in N. Miladinović-Radmilović and S. Vitezović (eds) *Bioarheologija na Balkanu. Bilans i perspektive. Radovi Bioarheološke sekcije Srpskog arheološkog društva*: 13–24. Beograd: Srpsko Arheološko Društvo.

Stojanova-Kanzurova, E. and Z. Rujak. 2016. Food procurement, storage and preparation during the Neolithic in the Republic of Macedonia, in N. Miladinović-Radmilović and S. Vitezović (eds) *Bioarheologija na Balkanu 2: Metodološke, komparativne i rekonstruktivne studije* života *u prošlosti*: 69–79. Beograd: Srpsko Arheološko Društvo.

Stojić, M. and D. Jacanović. 2008. *Požarevac: kulturna stratigrafija praistorijskih lokaliteta u Braničevu.* Beograd: Arheološki Institut. Požarevac: Narodni muzej.

Stojić, M. and M. Jocić. 2006. *Niš. Arheološka građa Srbije.* Beograd, Niš: Arheološki Institut, Narodni muzej.

Stöllner, T., Samaschev, Z., Berdenov, S., Cierny, J., Doll, M., Garner, J., Gontscharov, A., Gorelik, A., Hauptmann, A., Rainer, H., Kusch, G. A., Merz, V., Riese, T., Sikorski, B. and Zickgraf, B. 2011. Tin from Kazakhstan - Steppe tin for the West? *In:* Yalçın, Ü. (ed.) *Anatolian Metal* V: 231-251. Bochum: Deutsches Bergbau-Museum.

Stout, D. 2002. Skill and cognition in stone tool production: an ethnographic case study from Irian Jaya. *Current Anthropology* 45(3): 693–722.

Stout, D. 2005. The social and cultural context of stone-knapping skill acquisition, in V. Roux and B. Bril (eds) *Stone Knapping: The Necessary Conditions for a Uniquely Hominin Behaviour*: 331–340. Cambridge: McDonald Institute for Archaeological Research.

Strahm, C. 1984. Die Anfänge der Metallurgie in Mitteleuropa. *Helvetica Archaeologica* 97: 1–39.

Stratouli, G. 1998. *Knochenartefakte aus dem Neolithikum und Chalkolithikum Nordgriechenlands*. Bonn: Rudolf Habelt.

Stratton, S., Griffiths, S., Kogălniceanu, R., Simalcsik, A., Morintz, A., Ştefan, C., Dumitraşcu, V., Bronk Ramsey, C., Nehlich, O., Beavan, N., Borić, D. and A. Whittle 2019. The Emergence of Extramural Cemeteries in Neolithic Southeast Europe: A Formally Modelled Chronology for Cernica, Romania. *Radiocarbon* 61: 319-346.

Struckmeyer, K. 2011. The bone tools from the dwelling mound Feddersen Wierde, Germany, and their functions, in J. Baron and B. Kufel-Diakowska (eds) *Written in Bones. Studies on Technological and Social Contexts of Past Faunal Skeletal Remains*: 187–195. Wrocław: Uniwersytet Wrocławski, Instytut Archeologii.

Stuiver, M. and H.A. Polach. 1977. Discussion: reporting of 14C data. *Radiocarbon* 19(3): 355–363.

Sümegi, P., G. Persaits and S. Gulyás. 2012. Woodland-grassland ecotonal shifts in environmental mosaics: lessons learnt from the environmental history of the Carpathian Basin (Central Europe) during the holocene and the last ice age based on investigation of paleobotanical and mollusk remains, in R.W. Myster (ed.) *Ecotones Between Forest and Grassland*: 17–57. New York: Springer-Verlag.

Svoboda, V., J. Vuković, S. Knežević, D. Izvonar and D. Kićević. 2004/2005. Experimental archaeology: traditional production of ceramics, presentation of phase I. *Diana* 10: 123–131.

Szakmány, Gy., K. Vanicsek, Z. Bendő, A, Kreiter, A. Pető, Z. Lisztes-Szabó and F. Horváth.

2019. Petrological analysis of late Neolithic ceramics from the tell settlement of Gorzsa (south-east Hungary), in S. Amicone, P.S. Quinn, M. Marić, N. Mirković-Marić and M. Radivojević (eds) *Tracing Pottery Making Recipes in the Balkans 6th-4th Millennia BC*: 156–171. Oxford: Archaeopress.

Š

Šarić, J. 2002. Stone as material for production of chipped artifacts in Early and Middle Neolithic of Serbia. *Starinar* 52: 11–26.

Šarić, J. 2006. Typology of chipped stone artefacts in the Early and Middle Neolithic in Serbia. *Starinar* 56: 9–45. DOI: https://doi.org/10.2298/STA0656009S.

Šarić, J. 2015. *Artefakti od okresanog kamena u starijem i srednjem neolitu na tlu Srbije*. Beograd: Arheološki institut.

Šarić, K. and V. Cvetković. 2013. Mineraloško-petrografska analiza uzoraka sa eneolitskog lokaliteta Crkvine u Malom Borku (Mineralogical-petrographical analyses of samples from Eneolithic locality Crkvine (Mali Borak)), in M. Blagojević (ed.) *Kolubara* 6: 37–43. Beograd: Republički zavod za zaštitu spomenika kulture.

Šiška, S. 1964. Gräberfeld der Tiszapolgár-Kultur in Tibava. *Slovenská Archeologia* 12: 293–356.

Šljivar, D. 1993–2009. *Belovode Field Excavation Diaries.* Belgrade: Project Archives, National Museum Belgrade.

Šljivar, D. 1996. The Eastern Settlement of the Vinča culture at Pločnik: a relationship of its stratigraphy to the hoards of copper objects. *Starinar* 47: 85–97

Šljivar, D. 1999. Pločnik, naselje vinčanske kulture i problem najranije metalurgije bakra, in D. Marinković (ed.) *Prokuplje u Praistoriji, Antici i Srednjem veku*: 31–44. Prokuplje: Archaeological Institute Belgrade and Museum of Toplica.

Šljivar, D. 2006. The earliest copper metallurgy in the Balkans. *Metalurgija-Journal of Metallurgy* 12: 93–104.

Šljivar, D. and D. Antonović. 1996. Mačina – naselje vinčanske kulture kod Prokuplja. *Zbornik Narodnog Muzeja* 16(1). *Arheologija*: 61–74.

Šljivar, D. and D. Jacanović. 1995. Rezultati arheoloških istraživanja neolitskog naselja Konjušnica u Viteževu. *Glasnik Srpskog Arheološkog Društva* 10: 181–185.

Šljivar, D. and D. Jacanović. 1996a. Veliko Laole – Belovode, naselje vinčanske kulture. *Glasnik Srpskog Arheološkog Društva* 12: 55–60.

Šljivar, D. and D. Jacanović. 1996b. Veliko Laole, Belovode-Vinča culture settlement in northeastern Serbia. *Préhistorie Européene* 8: 175–188.

Šljivar, D. and D. Jacanović. 1996c. Veliko Laole, 'Belovode' naselje vinčanske grupe. *Glasnik Srpskog Arheološkog Društva* 11: 185–189.

Šljivar, D. and D. Jacanović. 1997a. Veliko Laole-Belovode, the settlement of the Vinča culture. *Journal of Serbian Archaeological Society* 13: 115–125.

Šljivar, D. and D. Jacanović. 1997b. Veliko Laole-Belovode, istraživanja u 1997. *Glasnik Srpskog Arheološkog Društva* 14: 73–78.

Šljivar, D. and D. Jacanović. 1997c. Arheometalurgija bakra na naselju vinčanske culture Belovode kod Petrovca na Mlavi, in M. Lazić (ed.) *Arheologija istočne Srbije*: 189–195. Belgrade: Faculty of Philosophy, Centre for Archaeological Research.

Šljivar, D. and D. Jacanović. 2005. Zoomorphic figurines from Belovode. *Zbornik narodnog muzeja* 18(1): 69–78.

Šljivar, D. and J. Kuzmanović Cvetković. 1996-2009. *Pločnik Field Excavation Diaries*. Belgrade: National Museum Belgrade.

Šljivar, D. and J. Kuzmanović Cvetković. 1997a. Pločnik kod Prokuplja, naselje vinčanske kulture. *Glasnik Srpskog Arheološkog Društva* 13: 103–113.

Šljivar, D. and J. Kuzmanović Cvetković. 1997b. Pločnik kod Prokuplja, naselje vinčanske kulture. *Glasnik Srpskog Arheološkog Društva* 14: 79–85.

Šljivar, D. and J. Kuzmanović Cvetković. 1998a. Najstarija metalurgija bakra na Pločniku kod Prokuplja, naselju vinčanske kulture. *Arheometalurgija* (Belgrade) 6: 1–18.

Šljivar, D. and J. Kuzmanović Cvetković. 1998b. Pločnik near Prokuplje, excavation in 1997. *Journal of the Serbian Archaeological Society* 14: 79–85.

Šljivar, D. and J. Kuzmanović Cvetković. 2009a. Pločnik, archaeology and conservation. *Diana* (Belgrade) 13: 56–61.

Šljivar, D. and J. Kuzmanović Cvetković. 2009b. Pločnik 2008. Field Journal of Trench 21. September/October. (Unpublished). Belgrade: National Museum in Belgrade.

Šljivar, D., D. Jacanović and J. Kuzmanović Cvetković. 2006. New contributions regarding the copper metallurgy in the Vinča culture, in N. Tasić and C. Grozdanov (eds) *Homage to Milutin Garašanin*: 251–266. Belgrade: Serbian Academy of Sciences and Arts and Macedonian Academy of Sciences and Arts.

Šljivar, D., J. Živković and D. Jacanović. 2011. *Belovode: naselje vinčanske kulture 5400-4600 g.p.n.e.* Petrovac na Mlavi: Zavičajni muzej.

Šljivar, D., J. Kuzmanović Cvetković and J. Živković. 2012. Belovode, Pločnik: on copper metallurgy in the Vinča culture. *Zbornik Narodnog Muzeja (Belgrade)* 20: 27–46.

Šljivar D., J.D. Živković and M.M. Svilar. 2015. Belovode, sonda XV. Prilozi stratigrafiji vinčanske kulture. *Zbornik Narodnog Muzeja* XXII-1: 9–27.

Šmilauer, P. 1992. *CanoDraw 3.0 User's Guide*. University College London: Environmental Change Research Centre.

Šumatić, N., J. Todorović, I. Komljenović and M. Marković. 1999. *Atlas korova*. Banja Luka: Glas Srpski, Šumarski fakultet, Poljoprivredni fakultet.

T

Taborin, Y. 1993. La parure en coquillage au paléolithique. *XIXe supplément à Gallia Préhistoire*. CNRS Editions.

Taborin, Y. 2004. *Langage Sans Parole. La Parure aux Temps Préhistoriques*. Paris: La Maison des roches.

Tasić, N. 1973. Neolitska Plastika. Beograd: Muzej grada Beograda.

Tasić, N. 1979. Tiszapolgar i Bodrogkeresztur kultura, in A. Benac (ed.) *Praistorija jugoslavenskih zemalja III – eneolitsko doba*: 55–85. Akademija nauka i umetnosti Bosne i Hercegovine.

Tasić, N. 1982. Naselje bakarnog doba u istočnoj Srbiji. *Zbornik radova Muzeja rudarstva i metalurgije u Boru (Serbia)* 2: 19–36.

Tasić, N. 1995. *Eneolithic Cultures of the Central and Western Balkans*. Belgrade: Institute for Balkan Studies.

Tasić, N. 2005. Vinča - the third glance, in L. Nikolova, J. Fritz and J. Higgins (eds) *Prehistoric Archaeology and Anthropological Theory and Education* (Reports of Prehistoric Research Projects 6–7): 1–8. Salt Lake City: Karlovo.

Tasić, N. 2007. Ritual pottery set from Vinča. *Glasnik Srpskog Arheološkog Društva* 23: 203–210.

Tasić, N. 2008a. Nemi svedoci jednog vremena: figuralna umetnost Vinče, in D. Nikolić (ed.) *Sto godina istraživanja arheološkog lokaliteta Vinča-Belo Brdo:* 139–163. Belgrade: Faculty of Philosophy University of Belgrade, National Museum Belgrade, City Museum Belgrade, Serbian Academy of Arts and Sciences.

Tasić, N. 2008b. *Vinča. Praistorijska metropola*. Beograd: Narodni muzej.

Tasić, N. 2015. *Metodologije i procedure na arheološkim istraživanjima u Vinči 1998-2015*. Beograd: Dosije Studio.

Tasić, N. and E. Tomić. 1969. *Crnokalačka bara – naselje starčevačke i vinčanske kulture*. Kruševac: Narodni muzej. Arheološko društvo Jugoslavije.

Tasić, N.N., M. Marić, K. Penezić, D. Filipović, K. Borojević, N. Russell, P. Reimer, A. Barclay, A. Bayliss, D. Borić, B. Gaydarska and A. Whittle. 2015. The end of the affair: formal chronological modelling for the top of the Neolithic tell of Vinča-Belo Brdo. *Antiquity* 89(347): 1064–1082. DOI: https://doi.org/10.15184/aqy.2015.101.

Tasić, N.N., M. Marić, D. Filipović, K. Penezić, E. Dunbar, P. Reimer, A. Barclay, A. Bayliss, B. Gaydarska and A. Whittle. 2016a. Interwoven strands for refining the chronology of the Neolithic tell of Vinča-Belo Brdo, Serbia. *Radiocarbon* 58: 795–831. DOI: https://doi.org/10.1017/RDC.2016.56.

Tasić, N., M. Marić, N. Bevan, C.B. Ramsey, B. Kromer, A. Barclay, A. Bayliss, B. Gaydarska and A. Whittle. 2016b. Vinča-Belo Brdo, Serbia: the times of a tell. *Germania* 93: 89–157.

Taylor, T. 1999. Envaluing metal: theorizing the Eneolithic 'hiatus', in S.M.M. Young, A.M. Pollard, P. Budd and R.A. Ixer (eds) *Metals in Antiquity* (British Archaeological Reports International Series 792): 22–32. Oxford: Archaeopress.

Teichert, M. 1969. Osteometrische Untersuchungen zur Berechnung der Widerristhöhe bei vor- und frühgeschichtlichen Schweinen. *Kühn Archiv* 83 (3): 237–292.

Teichert, M. 1975. Osteometrische Untersuchungen zur Berechnung der Widerristhöhe bei Schafen, in A. Clason (ed.) *Archaeozoological Studies*: 51–69. Amsterdam: North-Holland Publishing Company/Elsevier.

ter Braak, C.F.J. and P. Šmilauer. 1997–1999. *CANOCO for Windows version 4.02.* Wageningen: Centre for Biometry.

Ţerna, S. and B. Govedarica (eds). 2016. *Interactions, Changes and Meanings. Essays in Honour of Igor Manzura on the Occasion of His 60th Birthday*. Kishniev: High Anthropological School University, Kishniev.

Thomas, J.T. 2011. Fashioning identities, forging inequalities: Late Neolithic/Copper Age personal ornaments of the Portuguese Estremadura. *European Journal of Archaeology* 14 (1–2): 29–59.

Thomas, R. and N. Johannsen. 2011. Articular depression in domestic cattle phalanges and their archaeological relevance. *International Journal of Paleopathology* 1: 43–54.

Thomas, P., M. Radivojević, S. Derikonjić, F. Schapals, J. Pendić, A. Jablanović, K. Kosczinski, N. Heil, B.W. Roberts, M. Marić, E. Pernicka, Th. Rehren and T. Stöllner. (In preparation). Jarmovac, a new prehistoric mine in the Balkans.

Thornton, C.P. 2001. The Domestication of Metal: A Reassessment of the Early Use of Copper Minerals and Metal in Anatolia and Southeastern Europe. Unpublished MPhil dissertation, University of Cambridge.

Thornton, C.P. 2007. Of brass and bronze in prehistoric southwest Asia, in S. La Niece, D. Hook, and P. Craddock (eds.) *Metals and Mines: Studies in Archaeometallurgy*: 123–135. London: Archetype Publications.

Thornton, C.P. 2009. The Emergence of complex metallurgy on the Iranian Plateau: escaping the Levantine Paradigm. *Journal of World Prehistory* 22: 301–327. DOI: https://doi.org/10.1007/s10963-009-9019-1.

Thornton, C.P. 2010. The Rise of Arsenical Copper in Southeastern Iran. *Iranica Antiqua* 45: 31–50.

Thornton, C.P. and B.W. Roberts. 2009. Introduction: The beginnings of metallurgy in global perspective. *Journal of World Prehistory* 22: 181–184.

Thoury, M., B. Mille, T. Séverin-Fabiani, L. Robbiola, M. Réfrégiers, J.F. Jarrige and L. Bertrand. 2016. High spatial dynamics-photoluminescence imaging reveals the metallurgy of the earliest lost-wax cast object. *Nature Communications* 7: 13356. DOI: https://doi.org/10.1038/ncomms13356.

Timberlake, S., 2007. The use of experimental archaeology/archaeometallurgy for the understanding and reconstruction of Early Bronze Age mining and smelting technologies, in S. La Niece, D. Hook and P. Craddock, (eds) *Metals and Mines. Studies in Archaeometallurgy*, 27-36. London: Archetype/British Museum.

Timpson, A., S. Colledge, E. Crema, K. Edinborough, T. Kerig, K. Manning, M.G. Thomas and S. Shennan. 2014. Reconstructing regional population fluctuations in the European Neolithic using radiocarbon dates: a new case-study using an improved method. *Journal of Archaeological Science* 52: 549–557.

Todorova, H. 1978. *The Eneolithic Period in Bulgaria in the Fifth Millennium B.C.* (British Archaeological Reports International Series 49). Oxford: Archaeopress.

Todorova, H. 1981. *Die kupferzeitlichen Äxte und Beile in Bulgarien.* (Prähistorische Bronzefunde, Volume 9, Band 14). München: C.H. Beck'sche Verlagsbuchhandlung.

Todorova, H. 1982. *Kupferzeitlische Siedlungen im Nordostbulgarien.* Munchen: C.H. Beck.

Todorova, H. 1986. *Kamenno-Mednata Epokha v Bulgariya. Peto Khilyadoletie predi Novata Era*. Sofia: Nauka i Izkustvo.

Todorova, H. 1995. The Neolithic, Eneolithic and Transitional Period in Bulgarian prehistory, in D.W. Bailey, I. Panayotov and S. Alexandrov (eds) *Prehistoric Bulgaria* (Monographs in World Archaeology 22): 79–98. Madison (WI): Prehistory Press.

Todorova, H. (ed.) 2002a. *Durankulak - Die Prähistorischen Gräberfelder.* Sofia: The Bulgarian Academy of Sciences.

Todorova, H. 2002b. Chronologie, horizontale Stratigraphie und Befunde, in H. Todorova (ed), *Durankulak, Die prähistorischen Gräberfelder,* band II: 35–52. Sofia: Anubis.

Todorova, H. and I. Vajsov. 1993. *Novo-Kamennata Epokha v Bulgariya.* Sofia: Nauka i Izkustvo.

Todorova, H. and I. Vajsov. 2001. *Der kupferzeitliche Schmuck Bulgariens.* (Prähistorische Bronzefunde, Vol. 20, Band 6). Stuttgart: Steiner.

Todorova, M. 1997. *Imagining the Balkans*. Oxford: Oxford University Press.

Todorova-Simeonova, H. 1971. Spätneolithisches Gräberfeld bei der Stadt Devnja. *Bulletin du Musée National à Varna* 7: 3–26.

Tomkins, P.D. and P.M. Day. 2001. Production and exchange of the earliest ceramic vessels in the Aegean: a view from early Neolithic Knossos, Crete. *Antiquity* 75: 259–260.

Trajković-Filipović, T., D. Milanović and A. Bulatović. 2008. Reviziona arheološka iskopavanja lokaliteta Bubanj kod Niša u 2008. godini. *Zbornik Narodnog muzeja u Nišu* 16–17: 309–318.

Trbojević, N. 2005. The possibility of reconstruction of the early Eneolithic house at the locality of Livade in the village of Kalenić. *Kolubara* 4: 79–88.

Trigger, B.G. 1986. The role of technology in V. Gordon Childe's archaeology. *Norwegian Archaeological Review* 19: 1–14.

Tringham, R. 1971. *Hunters, Fishers and Farmers of Eastern Europe, 6000-3000 B.C.* London: Hutchinson and Co. Ltd.

Tringham, R. 1992. Life after Selevac: Why and how a Neolithic settlement is abandoned. *Balcanica* 23: 133–145.

Tringham, R. and D.A Krstić. 1990a. Selevac and the transformation of southeast European Prehistory, in R. Tringham and D. Krstić (eds) *Selevac: a Neolithic Village in Yugoslavia*: 567–616. Los Angeles: University of California Press.

Tringham, R. and D.A. Krstić (eds). 1990b. *Selevac: A Prehistoric Village in Yugoslavia*. Los Angeles: University of California Press.

Tringham, R. and D. Krstić. 1990c. Conclusion: Selevac in the wider context of European prehistory, in

R. Tringham and D. Krstić (eds) *Selevac. A Neolithic Village in Yugoslavia*: 567–616. Los Angeles: UCLA.

Tringham, R. and M. Stevanović. 1990. Nonceramic uses of clay, in. R. Tringham and D. Krstić (eds) *Selevac, A Neolithic Village in Yugoslavia*: 328–388. Los Angeles: University of California Institute of Archaeology.

Tringham, R.E., B. Brukner and B. Voytek. 1985. The Opovo Project: a study of socio-economic change in the Balkan Neolithic. *Journal of Field Archaeology* 12: 425–44.

Tringham, R., A. McPherron, J. Gunn and G. Odell. 1988. The flaked stone industry from Divostin and Banja, in A. McPherron and D. Srejović (eds) *Divostin and Neolithic of Central Serbia*: 203–254. Pittsburgh, Kragujevac: University of Pittsburgh, Narodni muzej Kragujevac.

Tringham, R.E., B. Brukner, T. Kaiser, K. Borojević, L. Bukvić, P. Šteli, N. Russel, M. Stafanović and B. Voytek. 1992. Excavation at Opovo, 1985–1987: Socioeconomic change in the Balkans Neolithic. *Journal of Field Archaeology* 19(3): 351–386.

Tripković, B. 2003a. Obsidian deposits in the Central Balkans? Tested against archaeological evidence. *Starinar* 53–54: 163–79.

Tripković, B. 2003b. A dialogue between the household and community: a case study of Banjica, in L. Nikolova (ed.) *Early Symbolic Systems for Communication in Southeast Europe* (British Archaeological Reports International Series 1139): 447–457. Oxford: Archaeopress.

Tripković, B. 2007. *Domaćinstvo i prostor u kasnom neolitu. Vinčansko naselje na Banjici* (Household and Space in the Late Neolithic. Vinča Settlement at Banjica). Beograd: Srpsko Arheološko Društvo.

Tripković, B. 2009a. Domaćinstvo i zajednica u kasnom neolitu Zapadnog Balkana (Household and Community in the Late Neolithic of the Western Balkans, in Serbian). Unpublished PhD dissertaion, University of Belgrade.

Tripković, B. 2009b. House(hold) continuities in the central Balkans. *Opuscula Archaeologica* 33: 7–28.

Tripković, B. 2011. Containers and grains: food storage and symbolism in the Central Balkans (Vinča period). *Documenta Praehistorica* 38: 159–172.

Tripković, B. 2013. *Domaćinstvo i zajednica: kućne i naseobinske istorije u kasnom neolitu centralnog Balkana*. Beograd: Univerzitet u Beogradu, Filozofski fakultet.

Tripković, B. and M. Milić. 2008. The origin and exchange of Obsidian from Vinča – Belo Brdo. *Starinar* 58: 71–86.

Tripković, B., and K. Penezić. 2017. On-site and off-site in western Serbia: a geoarchaeological perspective on Obrovac-type settlements. *Quaternary International* 429: 35–44.

Trubitt, M. 2003. The production and exchange of marine shell prestige goods. *Journal of Archaeological Research* 11(3): 243–277.

Tsirtsoni, Z. 2016a. The end of the Balkan Chalcolithic: A viewpoint from the south, in V. Nikolov and W. Schier (eds) *Der Schwarzmeerraum vom Neolithikum bis in die Früheisenzeit (6000–600 v. Chr.). Kulturelle Interferenzen in der Zirkumpontischen Zone und Kontakte mit ihren Nachbargebieten. Proceedings of the Humboldt-Kolleg held at Varna, May 16–20, 2012* (Prähistorische Archäologie in Südosteuropa Band 30): 339–358. Rahden/Westf: Leidorf.

Tsirtsoni, Z. (ed.) 2016b. *The Human Face of Radiocarbon. Reassessing Chronology in Prehistoric Greece and Bulgaria, 5000–3000 cal BC* (Travaux de la Maison de l'Orient 69). Lyon: Maison de l'Orient et de la Méditerranée Jean Pouilloux.

Tucakov, J. 1986. *Lečenje biljem*. Beograd: Izdavačka radna organizacija 'Rad'.

Turck, R. 2010. *Die Metalle zur Zeit des Jungneolithikums in Mitteleuropa – Eine sozialarchäologische Untersuchung*. (Universitätsforschungen zur prähistorischen Archäologie 185). Bonn: Habelt.

Tutin, T.G., H.H. Vernon, N.A. Burges, D.H. Valentine, S.M. Walters and D.A. Webb. 1964–1980. *Flora Europaea*. Cambridge: Cambridge University Press.

Tykot, R.H. 2011. Obsidian finds on the fringes of the Central Mediterranean: exotic or eccentric exchange? In A. Vianello (ed.) *Exotica in the Prehistoric Mediterranean*: 33–44. Oxford: Oxbow Books.

Tylecote, R.F. 1962. *Metallurgy in Archaeology*. London: Edward Arnold.

Tylecote, R.F. 1976. *A History of Metallurgy*. London: The Metals Society.

Tylecote, R.F., H.A. Ghaznavi and P.J. Boydell. 1977. Partitioning of trace elements between the ores, fluxes, slags and metal during the smelting of copper. *Journal of Archaeological Science* 4: 305–333.

U

Ucko, P.J. 1969. Ethnography and archaeological interpretation of funerary remains. *World Archaeology* 1: 262–280.

Ur, J. 2003. CORONA satellite photography and ancient road networks: A northern Mesopotamian case study. *Antiquity* 77(295): 102–115.

Urem-Kotsou, D. 2016. Salting the roads: connectivity in the Neolithic Balkans, in B.P.C. Molloy (ed.) *Of Odysseys and Oddities: Scales and Modes of Interaction between Prehistoric Aegean Societies and Their Neighbours* (Sheffield Studies in Aegean Archaeology 10): 123–141. Oxford: Oxbow Books.

U.S. Geological Survey, 2008, Declassified intelligence satellite photographs: U.S. Geological Survey Fact Sheet 2008–3054, viewed 21.07.2020, https://pubs.usgs.gov/fs/2008/3054/pdf/fs2008-3054.pdf

U.S. Geological Survey, 2020a, Landsat Missions, viewed 20.06.2020, https://www.usgs.gov/

U.S. Geological Survey, 2020b, Earth Explorer, viewed 20.06.2020, https://earthexplorer.usgs.gov/

V

Vajsov, I. 2007. Promachon-Topolnica. A typology of painted decorations and its use as a chronological marker, in H. Todorova, M. Stefanovich and G. Ivanov (eds) *The Struma/Strymon River Valley in Prehistory. Proceedings of the International Symposium 'Strymon Praehistoricus'*: 79–120. Düsseldorf: Gerda Henkel Stiftung.

Valamoti, S.-M. 2004. *Plants and People in Late Neolithic and Early Bronze Age Northern Greece: an Archaeobotanical Investigation* (British Archaeological Reports International Series 1258). Oxford: Archaeopress.

Valamoti, S.-M. and K. Kotsakis. 2007. Transitions to agriculture in the Aegean: the archaeobotanical evidence, in S. Colledge and J. Conolly (eds) *The Origins and Spread of Domestic Plants in Southwest Asia and Europe*: 75–92. London: Left Coast Press.

Valamoti, S-M., A. Moniaki and A. Karathanou. 2011. An investigation of processing and consumption of pulses among prehistoric societies: archaeobotanical, experimental and ethnographic evidence from Greece. *Vegetation History and Archaeobotany* 20: 381–396.

van der Leeuw, S.E. and R. Torrence (eds). 1989. *What's New? A Closer Look at the Process of Innovation.* London: Unwin Hyman.

van der Veen, M. 2005. Gardens and fields: the intensity and scale of food production. *World Archaeology* 37: 157–163.

van der Veen, M. 2007. Formation processes of desiccated and carbonised plant remains - the identification of routine practice. *Journal of Archaeological Science* 34: 968–990.

van Zeist, W. 2002. Plant Husbandry and Vegetation of Tell Gomolava, Vojvodina, Yugoslavia. *Palaeohistoria* 43/44: 87–115.

Vander Linden, M., I. Pandžić and D. Orton. 2014. New radiocarbon dates for the Neolithic period in Bosnia & Herzegovina. *Godišnjak/Jahrbuck* 43:7–34.

Varvara, S., B. Fabbri, S. Gualtieri, P. Ricciardi and M. Gligor. 2008. Archaeometric characterisation of the Neolithic pottery discovered at Alba Iulia-Lumea Noua archaeological site (Romania). *Studia Universitatis Babes-Bolyai Chemia* 53(1): 5–13.

Васић, Ч. 1987. Релативни хронолошки односи између објеката на Акропољу Царичиног града. *Саопштења* XIX: 127–138. Beograd.

Vasić, M. 1911. Gradac, preistorisko nalazište latenskog doba. *Glas Srpske Kraljevske Akademije* 86: 97–140.

Vasić, M. 1932-1936. *Preistoriska Vinča I-IV (Prehistoric Vinča, in Serbian).* Belgrade: Državna štamparija.

Васић, М. 1932. Преисториска Винча I. Београд: Државна штампарија.

Vasić, M. 1936a. *Preistorijska Vinča II.* Beograd: Kraljevska državna štamparija.

Vasić, M. 1936b. *Preistorijska Vinča III. Plastika.* Beograd: Državna štamparija kraljevine Jugoslavije.

Vasić, M. 1936c. *Preistoriska Vinča IV. Keramika.* Belgrade: Državna Štamparija Kraljevine Jugoslavije.

Vetnić, S. 1974. Počeci rada na ispitivanju kulture prvih zemljoradnika u srednjem Pomoravlju. *Materijali* X: 123–168.

Vértes, L. 1965. The depot of silex blades from Boldogkőváralja. *Acta Archaeologica Hungarica* 17: 128–136.

Videiko, M. 2004. Absolute dating of Tripolye culture, in M. Videiko (ed.) *Encyclopedia Trypilskoi tsyvilizatsii. Volume 1*: 85–95. Kyiv: Ukrpoligraphmedia.

Vigne, J.-D. And D. Helmer. 2007. Was milk a 'secondary product' in the Old World Neolithisation process? Its role in the domestication of cattle, sheep and goats. *Anthropozoologica* 42(2): 9–40.

Virmani, S.M., K.L. Sahrawat and J.R. Burford. 1982. Physical and chemical properties of vertisols and their management, in *Proceedings of the 12th International Congress of Soil Science, 8-16 February 1982, New Delhi.* India: 80–93. New Delhi: Indian Society of Soil Science.

Vitezović, S. 2007. Koštana Industrija u Neolitu Srednjeg Pomoravlja. Unpublished MPhil dissertation, University of Belgrade.

Vitezović, S. 2011a. Koštana Industrija u Starijem i Srednjem Neolitu Centralnog Balkana. Unpublished PhD dissertation, University of Belgrade.

Vitezović, S. 2011b. The Neolithic bone industry from Drenovac, Serbia, in J. Baron and B. Kufel-Diakowska (eds) *Written in Bones. Studies on Technological and Social Contexts of Past Faunal Skeletal Remains*: 117–135. Wrocław: Uniwersytet Wrocławski, Instytut Archeologii.

Витезовић, С. 2012. Коштана индустрија са локалитета Витково-Трифуновићи (ископавања 2001. године) [Bone industry from the site Vitkovo-Trifunovići (excavation season 2001)], Крушевачки зборник *[Kruševac collection]* 15: 351–376.

Vitezović, S. 2012. The white beauty – Starčevo culture jewellery. *Documenta Praehistorica* XXXIX: 91–203

Vitezović, S. 2013a. Analiza praistorijskih koštanih predmeta – neka metodološka razmatranja, in N. Miladinović-Radmilović and S. Vitezović (eds) *Bioarheologija na Balkanu. Bilans i perspektive. Radovi bioarheološke sekcije Srpskog arheološkog društva*: 107–132. Beograd-Sremska Mitrovica: Srpsko arheološko društvo-Blago Sirmiuma.

Vitezović, S. 2013b. Osseous raw materials in the Vinča culture, in A. Choyke and S. O'Connor (eds) *From These Bare Bones: Raw Materials and the Study of Worked Osseous Objects*: 59–72. Oxford and Oakville: Oxbow Books.

Vitezović, S. 2013c. Personal ornaments in the Vinča culture: the case study of Vitkovo and Stragari, in I. Vasile Ferencz, N. Cătălin Rişcuţa and O. Tutilă Bărbat (eds) *Archaeological Small Finds and their Significance: Proceedings of the Symposium: Costume as an Identity Expression*: 9–20. Deva, Cluj-Napoca: Mega.

Vitezović, S. 2014. Pavlovac - Kovačke Njive: preliminarni izveštaj analize koštane industrije, in D. Antonović, S. Golubović and V. Bikić (eds) *Arheologija u Srbiji. Projekti Arheološkog instituta u 2012*: 16–19. Beograd: Arheološki institut.

Vitezović, S. 2016a. *Metodologija proučavanja praistorijskih koštanih industrija*. Beograd: Srpsko arheološko društvo.

Vitezović, S. 2016b. The sea within: the use of mollusc shells as ornaments in the central Balkans Neolithic, in C. Preoteasa, C.-D. Nicola (eds) *Cucuteni Culture within the European Neo-Eneolithic Context: Proceedings of the International Colloquium Cucuteni – 130. 15–17 October 2014, Piatra-Neamţ, Romania: In Memoriam Dr. Dan Monah, In Memoriam Dr. Gheorghe Dumitroaia*: 237256. Piatra-Neamţ: Editura 'Constantin Matasă'.

Vitezović, S. 2018. Managing raw materials in prehistory: the importance of studying osseus raw materials. *Opuscula Archaeologica* 29–40: 13–24.

Vitezović, S. and D. Antonović. 2020. Functional differentiation and possible regional specialisation of the Vinča culture settlements: viewpoint from osseous and lithic industries. *Quaternary International* 539: 39–48.

Vitezović, S., D. Antonović and V. Dimić. 2017. Life in white: symbolism and importance of the white colour in the Neolithic in the Balkans, in V.P. Sekulov (ed.) *Acta Musei Tiberiopolitani, Volume* 2: 26–37. Strumica: Institute for the Protection of Monuments of Culture and Museum Strumica.

Vitelli, K.D. 1993a. *Franchthi Neolithic Pottery, Volume 1. Classification and Ceramic Phases, 1 and 2*. Bloomington, Indiana: Indiana University Press.

Vitelli, K.D. 1993b. Power to the potters: comment on Perlés systems of exchange and organization of production in Neolithic Greece. *Journal of Mediterranean Archaeology* 6: 247–257.

Vlassa, N. 1967. Unele probleme ale neoliticuli Transilvaniei. *Acta Musei Napocensis (Romania)* 4: 403–423.

Vogel, J.C. and H.T. Waterbolk. 1963. Groningen radiocarbon dates IV. *Radiocarbon* 5: 163–202.

Vollmar, K. 2009. *Das grosse Buch der Farben*. Krummwisch: Königsfurt-Urania Verlag GmbH.

Von den Dreisch, A. 1976. *A Guide to the Measurements of Animal Bones from Archaeological Sites*. Cambridge (MA): Harvard University Peabody Museum.

Von de Pulsky, F. 1884. *Die Kupferzeit in Ungarn*. Budapest: Kessinger Publishing.

Vörös, I. 1980. Zoological and palaeoeconomical investigations of the Early Neolithic Körös culture. *Folia Archaeologica* 31: 3–64.

Voruz, J.-L. 1984. *Outillages Osseux et Dynamisme Industriel dans le Néolithique Jurassien.* Lausanne: Cahiers d'archéologie romande 29.

Voytek, B. 1985. The Exploitation of Lithic Resources in Neolithic Southeast Europe. Unpublished PhD Dissertion, University of Berkeley.

Voytek, B. 1988. Chipped stone industry of Selevac, Serbia, Yugoslavia, in T. Szelag (ed.) *Archaeologia Interregionali. Chipped Stone Industries of the Early Farming Cultures in Europe.* Warsaw: Warsaw University Press.

Vukanović, T. 1969. A Neolithic Janus from Kosovo, *Vranjski glasnik* 5: 112.

Vukmanović, M. and N. Radojčić. 1990. Quantitative analysis of the pottery, in R. Tringham and D. Krstić (eds) *Selevac: A Neolithic village in Yugoslavia*: 289–317. Los Angeles: The Institute of Archaeology, University of California.

Vuković, J. 2010. Neolithic fine pottery: properties, performance and function. *Glasnik Srpskog Arheološkog Društva 26*: 7–23.

Vuković, J. 2011. Late Neolithic pottery standardization. Application of statistical analysis. *Glasnik Srpskog archeološkog društva (Journal of the Serbian Archaeological Society)* 27: 81–101.

Vuković, J. 2013. Posude za pečenje u kasnom neolitu: đuveči iz Vinče. Zbornik Narodnog muzeja XXI/1: 129–144.

Vuković, J. 2015. Izgubljeni u tranziciji: problem prelaza ranog/srednjeg u kasni neolit centralnog Balkana u jugoslovenskoj/srpskoj arheologiji druge polovine XX veka. *Etnoantropološki problemi* 10(3): 651–673.

Vuković, J. 2018a. Erasing boundaries or changing identities? The transition from early/middle to late neolithic, new evidence from southern Serbia, in M. Gori and M. Ivanova (eds) *Balkan Dialogues: Negotiating Identity between Prehistory and the Present*: 240–253. London: Routledge.

Vuković, J. 2018b. Late Neolithic Vinča pottery firing procedure. *Opuscula Archaeologica* 39/40: 25–35.

Vuković, J. 2020. Technological innovation and social change. Early vs. Late Neolithic pottery production of the Central Balkans, in M. Spataro and M. Furholt (eds) *Detecting and Explaining Technological Innovation in Prehistory*: 135–150. Leiden: Sidestone

Vuković, J. and I. Miloglav. 2018. Part-time labor and household production: Emergence of specialized potters in the Late Neolithic Vinča (Serbia) and Late Eneolithic Vučedol (Croatia) Societies, in I. Miloglav and J. Vuković (eds) *Artisans Rule: Product Standardization and Craft Specialization in Prehistoric Society*: 120–136. Cambridge: Cambridge Scholar Publishing.

Vuković, S. and D. Marković. 2019. Ostaci životinja iz horizonta mlađe praistorije na lokalitetima Nad Klepečkom i Rit, in A. Kapuran, A. Bulatović, A. Golubović and V. Filipović (eds) *Viminacijum u praistoriji – iskopavanja 2005-2015*: 223–248. Beograd: Arheološki institut.

Vulpe, A. 1975. *Die Äxte und Beile in Rumänien.* (Prähistorische Bronzefunde Volume 9, Band 2). München: C. H. Beck'sche Verlagsbuchhandlun.

Vulpe, R. 1957. *Izvoare: Săpăturile din 1936-1948*. Bucharest: Editura Academiei Republicii Populare Romîne.

W

Wailes, B. (ed.) 1996. *Craft Specialization and Social Evolution: In Memory of V. Gordon Childe.* Philadelphia: University Museum of Archaeology and Anthropology, University of Pennsylvania.

Walker, A. and A. Bogaard. 2011. Preliminary archaeobotanical results from teleor 003/Măgura 'Buduiasca', in S. Mills and P. Mirea (eds) *The Lower Danube in Prehistory. Landscape Changes and Human-Environment Interactions*: 151–160. Bucureşti: Editura Renaissance.

Wallaert-Pêtre, H. 2001. Learning how to make the right pots: apprenticeship strategies and material culture, a case study in handmade pottery from Cameroon. *Journal of Anthropological Research* 57: 471–493.

Ward, G.K. and S.R. Wilson. 1978. Procedures for comparing and combining radiocarbon age determinations – critique. *Archaeometry* 20: 19–31.

Washburn, D. and D. Crowe (eds). 2004. *Symmetry Comes of Age.* Seattle (WA): University of Washington Press.

Watanabe, N., S. Nakamura, B. Liu and N. Wang. 2017. Utilization of structure from motion for processing CORONA satellite images: Application to mapping and interpretation of archaeological features in Liangzhu Culture, China. *Archaeological Research in Asia* 11: 38–50.

Watson, J. 1979. The estimation of relative frequencies of mammalian species: Khirokitia 1972. *Journal of Archaeological Science* 6: 127–137.

Weber, R.J., S. Dixon and A.M. Llorente. 1993. Studying invention: the hand tool as a model system. *Science, Technology, and Human Values* 18: 480–505.

Weninger, B., C. Lee, E. Rohling, O. Bar-Yosef, U. Böhner, M. Budja, M. Bundschuh, A. Feurdean, H.G. Gebe, O. Jöris, J. Linstädter, P. Mayewski, T. Mühlenbruch, A. Reingruber, G. Rollefson, D. Schyle, L. Thissen, H. Todorova and C. Zielhofer. 2009. The impact of rapid climate change on prehistoric societies during the Holocene in the Eastern Mediterranean. *Documenta Praehistorica* 36: 7–59.

Wertime, T.A. 1964. Man's first encounters with metallurgy. *Science* 146: 1257–1267.

Wertime, T.A. 1973. The beginnings of metallurgy: a new look. *Science* 182: 875–87.

White, L. 1959. *The Evolution of Culture: the Development of Civilization to the Fall of Rome*. New York: McGraw-Hill.

Whittle, A. 1996. *Europe in the Neolithic: The Creation of New Worlds*. Cambridge: Cambridge University Press.

Whittle, A. 2003. *The Archaeology of People: Dimensions of Neolithic Life*. London: Routledge.

Whittle, A. 2018. *The Times of their Lives: Hunting History in the Archaeology of Neolithic Europe*. Oxford: Oxbow.

Whittle, A., L. Bartosiewicz, D. Borić, P.B. Pettitt and M. Richards. 2002. In the beginning: new radiocarbon dates for the Early Neolithic in northern Serbia and south-east Hungary. *Antaeus (Budapest)* 25: 63–117.

Whittle, A., A. Bayliss, A. Barclay, B. Gaydarksa, E. Bánffy, D. Boric, F. Draşovean, J. Jakucs, M. Marić, D. Orton, I. Pantović, W. Schier, N. Tasić and M.Vander Linden. 2016. A Vinča potscape: formal chronological models for the use and development of Vinča ceramics in south-east Europe. *Documenta Praehistorica* 43: 1–60.

Wiener, N. 1993. *Invention. The Care and Feeding of Ideas.* Cambridge (MA): The MIT Press.

Wijnen, M. 1994. Neolithic pottery from Sesklo – technological aspects, in J.-C. Decourt, B. Helly and K. Gallis (eds) *La Thessalie. Quinze Années de Recherches Archéologiques, 1975-1990: Bilans et Perspectives*: 149–155. Athens: Ministry of Culture.

Wilkinson, T.C., Sherratt, S. and J. Bennet. (eds) 2011. *Interweaving Worlds: Systemic Interactions in Eurasia: 7th to the 1st Millennia BC*. Oxford: Oxbow.

Williams, M. 2006. *Deforesting the Earth: From Prehistory to Global Crisis, an Abridgement.* Dordrecht: Kluwer Academic Publishers.

Williams, R. A. and Le Carlier de Veslud, C. 2019. Boom and bust in Bronze Age Britain: major copper production from the Great Orme mine and European trade, c. 1600–1400 BC. *Antiquity,* 93, 1178-1196.

Williams-Thorpe, O., S.E. Warren and J.G. Nandris. 1984. The distribution and provenance of archaeological obsidian in Central and Eastern Europe. *Journal of Archaeological Science* 11: 183–212.

Willis, K.J. 1994. The vegetation history of the Balkans. *Quaternary Science Reviews* 13: 769–788.

Willis, K.J. and K.D. Bennett. 1994. The Neolithic transition – fact or fiction? Palaeoecological evidence from the Balkans. *The Holocene* 4: 326–330.

Willms, C. 1985. Neolitischer Spondylusschmuck. Hundert Jahre Forschung. *Germania* 63(2): 331–343.

Windler, A. 2018. *Der Austausch von Spondylus gaederopus in Europa zwischen 5.500 und 5.000 v. Chr. Eine ökonomische Analyse.* Rahden, Westfalen: Marie Leidorf.

Windler, A. 2019. The use of *Spondylus gaederopus* during the Neolithic of Europe. *Journal of Open Archaeology Data* 7: 7. DOI: http://doi.org/10.5334/joad.59

Winn, S. 1981. *Pre-Writing in South-eastern Europe: The Sign Systems of the Vinča Culture ca. 4000 BC*. Calgary: Western Publishers.

Wright, E. and S. Viner-Daniels. 2015. Geographical variation in the size and shape of the European aurochs (*Bos primigenius*). *Journal of Archaeological Science* 54: 8–22.

Wright, K., P., Critchley, A., Garrard, D., Baird, R., Bains and S. Groom. 2008. Stone bead technologies and early craft specialisation: insights from two Neolithic sites in eastern Jordan. *Levant* 40: 131–165.

Wright, K. and A. Garrard. 2003. Social identities and the expansion of stone bead-making in Neolithic Western Asia: new evidence from Jordan. *Antiquity* 77: 267–284.

Y

Yahalom-Mack, N., D. Langgut, O. Dvir, O. Tirosh, A. Eliyahu-Behar, Y. Erel, B. Langford, A. Frumkin, M. Ullman and U. Davidovich. 2015. The earliest lead object in the Levant. *PLoS ONE* 10(12): e0142948. DOI: https://doi.org/10.1371/journal.pone.0142948.

Yang, J., H. Shao and L.Pan. 2020. *The Metal Road of the Eastern Eurasian Steppe: The Formation of the Xiongnu Confederation and the Silk Road*. Singapore: Springer.

Yorston R.M., V.L. Gaffney and P. Reynolds. 1990. Simulation of artefact movement due to cultivation. *Journal of Archaeological Science* 17: 67–83.

Youni, P. 2000. Painted pottery from East Macedonia in North Greece: technological analysis of decorative techniques. *Documenta Praehistorica* 27: 198–214.

Yovchev, D. Native gold and platinum in stream sediments from Dvoynitsa River and right tributaries of Kamchia River, Bulgaria *'GEOSCIENCES 2014', Sofia, 2014*: 33–34. Bulgarian Geological Society.

Z

Zakšek, K., K. Oštir and Ž. Kokalj. 2011. Sky-view factor as a relief visualization technique. *Remote Sensing* 3: 398–415.

Zeder, M. 2006. Reconciling rates of long bone fusion and tooth eruption and wear in sheep (*Ovis*) and goat (*Capra*), in D. Ruscillo (ed.) *Recent Advances in Ageing and Sexing Animal Bones*: 87–118. Oxford: Oxbow.

Zeder, M. and H. Lapham. 2010. Assessing the reliability of criteria used to identify postcranial bones in sheep, *Ovis*, and goats, *Capra*. *Journal of Archaeological Science* 37: 2887–2905.

Zeder, M. and S. Pilaar. 2010. Assessing the reliability of criteria used to identify mandibles and mandibular teeth in sheep, *Ovis*, and goats, *Capra*. *International Journal of Archaeological Science* 37: 225–242.

Žeravica, Z. 1993. *Äxte und Beile aus Dalmatien und anderen Teilen Kroatiens, Montenegro, Bosnia und Herzegowina.* (Prähistorische Bronzefunde Volume 9, Band 8). Stuttgart: Steiner.

Zhang, Y., B. Guindon and J. Cihlar. 2002. An image transform to characterize and compensate for spatial variations in thin cloud contamination of Landsat images. *Remote Sensing of Environment* 82(2): 173–187.

Zhang, Y. 2002a. Problems in the fusion of commercial high-resolution satellite as well as Landsat 7 images and initial solutions, in C. Armenakis and Y.C. Lee (eds) *The International Society for Photogrammetry and Remote Sensing. Commission IV Symposium 'Geospatial Theory, Processing and Applications', 9-12 July 2002, Ottawa, Canada.* Vol. 34, Part 4.

Zhang, Y., 2002b. A new automatic approach for effectively fusing Landsat 7 as well as IKONOS images, *IEEE International Geoscience and Remote Sensing Symposium*, Vol. 4, Toronto, Ontario, Canada, 2002: 2429–2431.

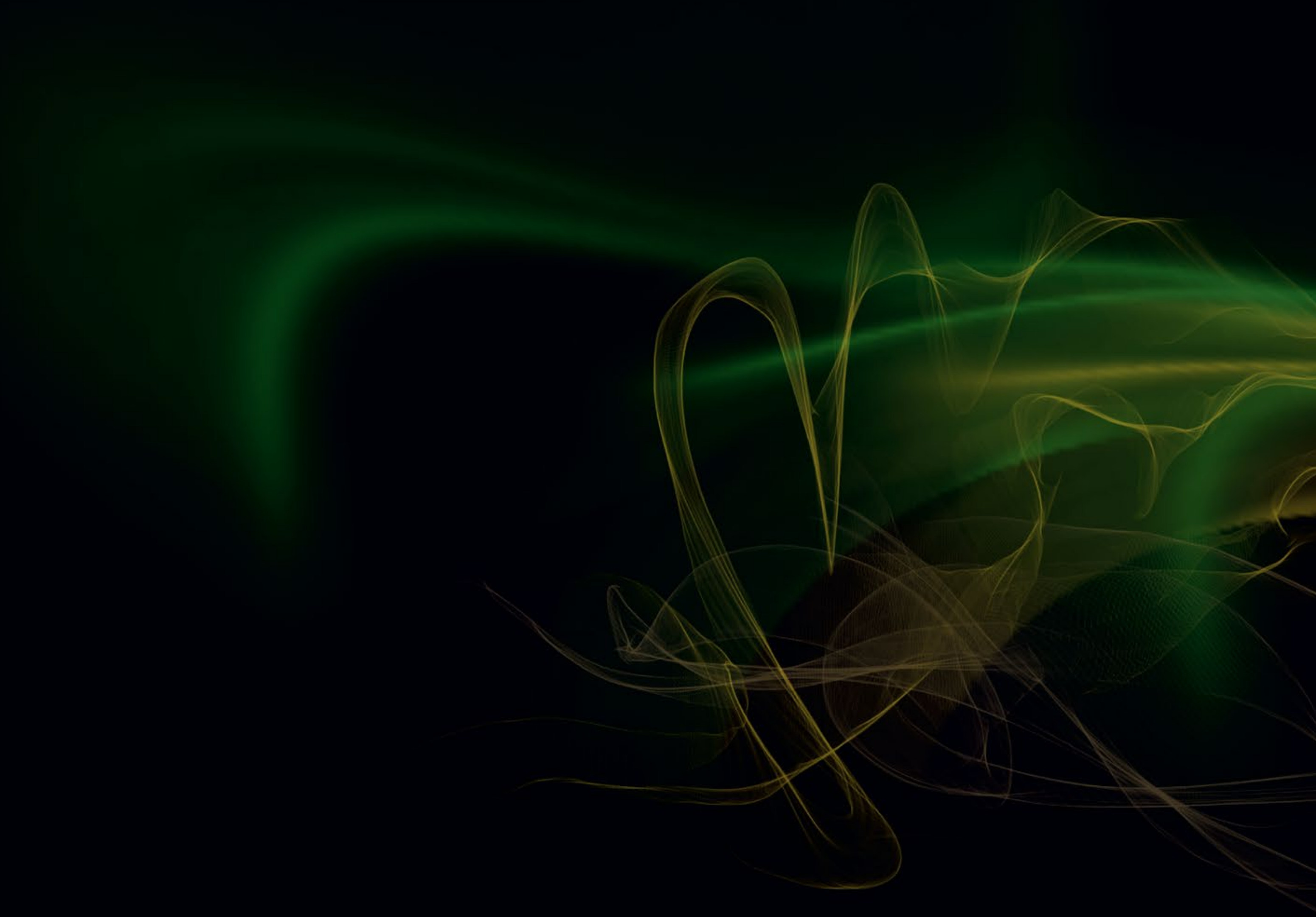
Zhu, Z., M.A. Wulder, D.P. Roy, C.E. Woodcock, M.C. Hansen, V.C. Radelod, S.P. Healey, C. Schaaf, P. Hostert, P., Strobl, J.-F. Pekel, L. Lymburner, N. Pahlevan and T.A. Scambos. 2019. Benefits of the free and open Landsat data policy. *Remote Sensing of Environment* 224: 382–385.

Zidarov, P. 2005. Bone artefacts. *Acta Archaeologica* 76(1), *Acta Archaeologica Supplement* 6. *Lîga. Copper Age Strategies in Bulgaria*: 124–131, 185–187.

Živanović, Z. 2013. *Eneolitska gradina Bodnjik*. Koceljeva: Zavičajni muzej Koceljeva.

Zohary, D., M. Hopf and E. Weiss. 2012. *Domestication of plants in the Old World*. Fourth edition. Oxford: Oxford University Press.

Zori, C. 2019. Extracting Insights from Prehistoric Andean Metallurgy: Political Organization, Interregional Connections, and Ritual Meanings. *Journal of Archaeological Research 27*: 501–556. DOI: https://doi.org/10.1007/s10814-019-09128-7.



The Rise of Metallurgy in Eurasia is a landmark study in the origins of metallurgy. The project aimed to trace the invention and innovation of metallurgy in the Balkans. It combined targeted excavations and surveys with extensive scientific analyses at two Neolithic-Chalcolithic copper production and consumption sites, Belovode and Pločnik, in Serbia. At Belovode, the project revealed chronologically and contextually secure evidence for copper smelting in the 49th century BC. This confirms the earlier interpretation of c. 7000-year-old metallurgy at the site, making it the earliest record of fully developed metallurgical activity in the world. However, far from being a rare and elite practice, metallurgy at both Belovode and Pločnik is demonstrated to have been a common and communal craft activity.

This monograph reviews the pre-existing scholarship on early metallurgy in the Balkans. It subsequently presents detailed results from the excavations, surveys and scientific analyses conducted at Belovode and Pločnik. These are followed by new and up-to-date regional syntheses by leading specialists on the Neolithic-Chalcolithic material culture, technologies, settlement and subsistence practices in the Central Balkans. Finally, the monograph places the project results in the context of major debates surrounding early metallurgy in Eurasia before proposing a new agenda for global early metallurgy studies.

Archaeopress Archaeology **www.archaeopress.com**