Archaeologia Polona, vol. 56: 2018, 5–9
PL ISSN 0066-5924

Editorial

Archaeologists working with lithic material always struggle with proper identification and description of siliceous rocks. This is especially important in attempts to study contacts between prehistoric communities, and also distribution paths.

A little over three years ago, the idea was raised to organize in Warsaw a meeting gathering archaeologists interested in siliceous rocks – their sources, exploitation, geochemical and petrographic investigations, distribution, etc. The very positive feedback to this idea exceeded all our expectations and showed a very strong urge to create a platform for sharing ideas and experiences, especially in an age of very rapidly developing methods used for analyses of siliceous rocks.

The first meeting was held in the Institute of Archaeology and Ethnology, Polish Academy of Sciences on 12 May, 2015 and was entitled *Flint in time and space – Time and space in Flint: Use of geochemical and petrographical methods in archaeology*. Most of the papers presented in preliminary form at this seminary were published in the 54th volume of this journal in 2016 (Special theme: *Investigating geochemical and petrographic methods for identifying siliceous rocks in archaeology*, edited by Dagmara H. Werra and Richard E. Hughes). Since that time we have made it our aim to organize a conference every year (in Warsaw: 01–03 XII 2016 – *Procurement and distribution of siliceous rocks in prehistory with a special theme - flint mining*; 18–20 V 2017 – *Characteristics and distribution of siliceous rocks in prehistory*; 30 X 2018 – *Siliceous rocks vs. metadata – a new perspective (presentation, definition and use*). We have also organized analogous meetings outside Poland during international conferences (22nd Annual Meeting of European Association of Archaeologists in Vilnius in 2016 – session TH5-01: *Investigating Geochemical and Petrographic Methods for Flint Identification in Archaeology*; 24th Annual Meeting of European Association of Archaeologists in Barcelona in 2018, session 618: *Procurement and distribution of siliceous rocks in the light of geochemical and petrographic analysis in archaeology*; Fig. 1 and 2).

The meetings held in Warsaw are of a workshop nature and give a very good opportunity not only to exchange knowledge between scientists from different fields, but also to study various raw materials from Poland and neighbouring areas. Moreover, field excursions were part of the programmes (2016 – the flint mines at Borownia and Krzemionki, Ostrowiec Świętokrzyski district; 2017 – the chalk mine and cretaceous flint outcrops at Mielnik, Siemiatycze district; Fig. 3 and 4). These enabled to participants of the Workshops to study in person important places both for archaeological siliceous rocks outcrops and the Polish archaeological heritage. Symposiums were

Fig. 1. 22nd Annual Meeting of European Association of Archaeologists (Vilnius, Lithuania; 2 IX 2016). Participants of session TH5-01: *Investigating Geochemical and Petrographic Methods for Flint Identification in Archaeology*. Photo: S. Buławka.

Fig. 2. 24th Annual Meeting of European Association of Archaeologists (Barcelona, Spain; 8 IX 2018). Participants of session 618: *Procurement and distribution of siliceous rocks in the light of geochemical and petrographic analysis in archaeology*. Photo: A. Burke.

supported by the Polish Academy of Sciences (PAS) and the Institute of Archaeology and Ethnology PAS. The Seminary in 2018 was financed by the Operational Program Digital Poland, 2014–2020 – Measure 2.3. Digital accessibility and usefulness of public sector information, fund from the European Regional Development Fund and national co-financing from the state budget. The main aim was to create a framework for fostering cooperation and communication between scientists from different fields.

Fig. 3. Archaeological Museum and 'Krzemionki' Reserve (3 XII 2016). Participants of the excursion to flints mine in Borownia and Krzemionki, Ostrowiec Świętokrzyski distr. Photo: E. Józefowicz.

Fig. 4. Mielnik, Siemiatycze district (20 V 2017). Participants of the excursion to the chalk mine and cretaceous flint outcrops at Mielnik, Siematycze distr. Photo: Z. Narkiewicz.

We are delighted to have the chance to present a new volume of *Archaeologia Polona*, dedicated to the characteristics and distribution of siliceous rocks in prehistory. The papers that are published here were mostly presented in their initial form at conferences held in the Institute of Archaeology and Ethnology Polish Academy of Sciences in Warsaw on December 2016, May 2017 and in Vilnius in September 2016.

The present volume is opened by two papers concerning the distribution and use of siliceous rocks in the Palaeolithic. In *Variability of the Lithic Raw Material in the Upper and Late Palaeolithic sites in Southeastern Poland* Dariusz Bobak and Marta Połtowicz-Bobak (pp. 11–21) discuss the provenance and intensity of use of different raw materials by Palaeolithic communities settled in the south-eastern part of present-day Poland. Next, in *Preliminary Archaeopetrological Study of the Lithic Industry From the l' Hort de la Boquera Rock Shelter (Margalef de Montsant, Tarragona, Spain): Applying Mineralogical and Geochemical Techniques* (pp. 23–33), Mar Rey-Solé and colleagues apply different macroscopic and petrographic methods in order to discriminate various types of flints utilized by Magdalenian groups in northeastern Iberia.

The next group of papers deals with 'chocolate' flint – its characterization and presence in site assemblages. The first two present the contribution of Polish siliceous rocks in chronologically differential assemblages from Czech Republic. In the first of them, *Artefacts Made from Siliceous Rocks of Polish Origin on Prehistoric Sites in the Czech Republic* (pp. 35–48), Antonín Přichystal examines the occurrence of Jurassic-Cracow flint, 'chocolate' flint, Świeciechów (grey white-spotted) flint and banded (striped) Krzemionki flint at Bohemian and Moravian sites throughout the Stone Age. Pavel Burgert in *The Status and the Role of 'Chocolate' Silicite in the Bohemian Neolithic* (pp. 49–64), considers the spatial distribution and importance of this siliceous rocks among Neolithic assemblages.

Subsequent papers contribute to the discussion of the role of 'chocolate' flint in lithic processing during the Mesolithic and Neolithic in present-day Poland. In *Three Stories About the Exploitation of 'Chocolate' Flint During the Stone Age in Central Poland* (pp. 65–78), Dominik K. Płaza and Piotr Papiernik discuss conceptions of blade production within Mesolithic Janislavice, early Neolithic Linear Band Pottery (LBK) and middle Neolithic Funnel Beaker (TRB) societies. The second paper of this group, Jacek Kabaciński *Contribution to Understanding the Distribution of 'Chocolate' Flint on the Polish Lowlands in the Early Neolithic: Kruszyn, Site 13* (pp. 79–87) is devoted to Linear Band Pottery (LBK) flint distribution system developed on the Lowlands. The last paper in this group is *Characterizing 'Chocolate' Flint Using Reflectance Spectroscopy* (pp. 89–101) in which Ryan Parish and one of editors of this volume present the initial results of Visible Near-infrared (VNIR) and Fourier Transform Infrared (FTIR) enabling the characterization and differentiation of 'chocolate' flint.

The next two papers present the procurement and distribution of non- and siliceous rocks within Stone Age communities. Grzegorz Osipowicz and colleagues, in *Late Palaeolithic and Mesolithic Treatment and Use of Non-flint Stone Raw Materials: Material Collection From Site*

17 at Nowogród, Golub-Dobrzyń District, Poland (pp. 103–125), discuss results of complex analysis of non-flint stone artefacts and obsidian from a multicultural site. In *Lithic Raw Material Procurement in the Late Neolithic Southern-Transdanubian Region: A Case Study From the Site of Alsónyék-Bátaszék* (pp. 127–140), Kata Szilaggi presents the role of the Mecsek radiolarite in local network maintenance in the Late Neolithic.

The last group of papers is devoted to local raw materials, their distribution and importance in flint processing. In, *Neolithic Flint Axes Made from Cretaceous flint of the Bug and Neman Interfluve in the Collection of the Museum of Podlasie in Bialystok* (pp. 141–165), Hubert Lepionka introduces the axes made of cretaceous flint stored in Museum of Podlasie in Bialystok. The collection became the basis for a contribution to the discussion about the technology, meaning and distribution of an axes in the Neolithic. The result are useful not only for researchers of North-East part of Poland, but they have a much more wider relevance. In the text *New Perspectives on the Problems of the Exploitation Area and the Prehistoric use of the Buda Hornstone in Hungary* (pp. 167–189), Norbert Faragóa and his colleagues present the provenance, distribution and importance of this raw material within Bronze Age communities. Finally in *Examining Raw Material of Stone Tools. Siliceous Marl from the Eastern Part of the Polish Carpathians Re-interpreted* (pp. 191–201), Andrzej Pelisiak discusses a problem of the cherts and siliceous marls used for axes and flake tool production. He also points out the necessity of re-analysis of some collections in which raw materials used for tools processing might previously have been be mistakenly classified.

We cherish the hope that all presented papers will be useful and inspiring for researchers interested in siliceous rocks.

Finally, we extend special thanks to all the reviewers of these chapters for their time and commitment; the volume could not have been completed without their cooperation and assistance. These individuals include: Katalin T. Biró (Budapest), Clive Bonsal (Edinburgh), Tomasz Boroń (Warsaw), Michael Brandl (Vienna), Pavel Burgert (Prague), Piotr Chachlikowski (Poznań), Tomasz Herbich (Warsaw), Richard E. Hughes (Portola Valley), Witold Grużdź (Warsaw), Hanna Kowalewska-Marszałek (Warsaw), Jacek Lech (Warsaw), Jerzy Libera (Lublin), Jolanta Małecka-Kukawka (Toruń), Zsolt Meszter (Budapest), Adrián Nemergut (Nitra), Piotr Papiernik (Łódź), Ivan Pavlů (Prague), Andrzej Pelisiak (Rzeszów), Tomasz Płonka (Wrocław), Marta Połtowicz-Bobak (Rzeszów), Łukasz Pospieszny (Poznań), Antonín Přichystal (Brno), Joanna Pyzel (Gdańsk), Katarzyna Pyżewicz (Poznań), Romuald Schild (Warsaw), Marcin Szeliga (Lublin), Paweł Valde-Nowak (Cracow), Marcin Wąs (Gdańsk), Jarosław Wilczyński (Cracow), Andrzej Wiśniewski (Wrocław), Tadeusz Wiśniewski (Lublin), Anna Zakościelna (Lublin). The English language translation of some articles was done in consultation with Paul Barford (Warsaw), which hopefully allowed us to avoid substantive errors. Nonetheless, we take responsibility for errors that remain.

Dagmara H. Werra
Iwona Sobkowiak-Tabaka