The papers collected in the present volume of the ‘Światowit’ journal examine developments in textile production in Bronze and Iron Age Europe and the Mediterranean by tracing both traditional and innovative elements in textile technology. The issue comprises 11 original contributions that resulted from the session ‘Tradition and Innovation in Textile Technology in Bronze Age Europe and the Mediterranean’ organised in 2016 by Agata Ulanowska and Małgorzata Siennicka during the 22nd Annual Meeting of the European Association of Archaeologists in Vilnius. The papers discuss available archaeological evidence of textiles, textile imprints, textile tools and textile iconography, as well as botanical and faunal remains related to textile manufacture and dyeing. The papers examine the types of social relations and cultural and economic processes which may have enhanced developments in textile technology and impacted on cross-cultural transmission of textile knowledge and skills in the Bronze and Iron Ages.

Streszczenie

Tradycje i innowacje w technologii włókienniczej w epoce brązu w Europie i basenie Morza Śródziemnego


Keywords: textile technology, innovation, tradition, Bronze Age, Iron Age, Europe, Mediterranean
Textile archaeology has developed significantly in recent years, prompting growing academic interest in archaeological textiles, textile technology, and textile production. These developments have arisen from multidisciplinary approaches to studies of prehistoric textiles that comprise all the available evidence and comparative data, such as material-contextual, iconographic, and textual sources, as well as experimental archaeology and scientific analyses (cf. Rahmstorf 2015; Siennicka et al. 2018). As a result, textile production, with its complex technology and high socio-cultural significance, has been acknowledged as a key craft in the economies of Bronze Age Europe and the Mediterranean. In addition to this, the great diversity and complexity of knowledge and skills, as well as the large workloads required by textile-making, have been properly recognised as economically and socially important (cf. Andersson Strand, Nosch 2015).

Despite its complexity and importance, textile technology has often been considered rather traditional andunchanging throughout the centuries of the Bronze Age (for a discussion on traditional and innovative elements in textile production, cf. Nosch 2015). It is only in the last few years that innovations in textile technology, such as a spread of woolly sheep and the growing significance of ‘wool economy’ (cf. Breniquet Michel 2014; Nosch 2015; Becker et al. 2016; Bender Jørgensen, Rast-Eicher 2016; Sabatini in this volume), various methods of procurement of fibres and yarns (cf. Rast Eicher 2005; Grömer et al. 2013; Bender Jørgensen, Rast-Eicher 2016; Ruiz de Haro in this volume), various weaving and decoration techniques such as twill weaves, tapestry, embroidery (cf. Grömer et al. 2013; Nosch 2015; Bender Jørgensen, Rast-Eicher 2016; Banck-Burgess in this volume), as well as invention of advanced dyeing techniques such as purple dyeing (cf. Burke 2010; Nosch 2015; Hofmann-de Keijzer 2016; Landenius Enegren, Meo 2017) have been recognised as major developments in the Bronze Age.

In order to examine in more detail the processes that may have influenced innovations in textile technology, as well as possible factors which may have prevented the use of wool in the textile production, Agata Ulanowska and Małgorzata Siennicka organised a session ‘Tradition and Innovation in Textile Technology in Bronze Age Europe and the Mediterranean’ during the 22nd Annual Meeting of the European Association of Archaeologists in Vilnius, in 2016. The session was intended to explore the ways in which traditional and innovative elements in textile technology may be traced and defined in the longue durée of the Bronze Age. To this end, the archaeological and textual sources, as well as experimental archaeology and scientific analyses (cf. Rahmstorf 2015; Siennicka et al. 2018) have been acknowledged as a key craft in the economies of Bronze Age Europe and the Mediterranean. In addition to this, the great diversity and complexity of knowledge and skills, as well as the large workloads required by textile-making, have been properly recognised as economically and socially important (cf. Andersson Strand, Nosch 2015).
discusses whether these innovations can be examined diachronically and in the context of specific socio-cultural relations. As potential innovations she suggests improvements in the construction of the warp-weighted loom, possible use of other types of big looms, and the introduction of new forms of loom weights.

Various uses of fibre-spun products, e.g. strings and ropes, as well as the research potential of imprints of threads on clay and plaster, are studied in the contribution ‘Beyond Textiles: Alternative Uses of Twisted Fibres. Evidence from Akrotiri, Thera’ by Sophia Vakirtzi, Fragoula Georma, and Artemis Karnava. Technical parameters of thread and string impressions from Late Bronze Age Akrotiri on Thera are also examined in relation to finds of actual strings and ropes from Akrotiri, as well as the functional parameters of textile tools discovered at the site, in order to recognise whether locally and non-locally produced threads may be distinguished.

Dominika Kofel discusses textile production and dyeing at Late Bronze Age Hala Sultan Tekke in the paper ‘To Dye or Not to Dye: Bioarchaeological Studies of Hala Sultan Tekke Site, Cyprus’. With the intention to scrutinise what kind of raw materials were used and what textile activities could have been undertaken at Dromolaxia Vizatzia, she analyses the compound evidence of bioarchaeological remains (plant macrofossils and molluscs) together with textile tools and built-in installations from the site.

The use of a spinning bowl and production of linen yarns in the Castreñá culture of the Late Bronze and Iron Age are discussed by María Irene Ruiz de Haro in her paper ‘Technical Innovation in Processing of Flax Yarn Production in the Northwest of the Iberian Peninsula: The Spinning Bowl’. She analyses the limited and late distribution of the so-called ‘spinning bowls’ in relation to flax, a fibre that was presumably processed with these tools, contextualised by the raw materials and spinning techniques that were traditionally used in this region and time-period.

In the paper ‘Textile-impressed Pottery Revisited: Its Usefulness for Studying Bronze Age Textile Craft in Estonia’, Riina Rammo examines and systematises textile impressions on pottery as indirect evidence of textile manufacturing in the Estonian Bronze Age. While discussing the limitations of the data that can be gained from the imprints, as well as the application of other items that may have been impressed on clay, she suggests that textiles were primarily impressed on clay for functional reasons, without excluding potential symbolic meanings of this practice.

Magdalena Przymorska-Sztuczka, in the paper ‘A Comb or a Loom? An Attempt at Interpretation of the Szemud Urn Image’, discusses an engraving on a face-urn from the Late Bronze or Early Iron Age Szemud in Poland as a possible representation of a vertical warp-weighted loom. By presenting a comparative analysis of the Iron Age iconography of the warp-weighted loom, she suggests a new interpretation for a motif that is traditionally recognised as a depiction of a comb.

In the paper ‘The Hallstatt Textiles from the Bi-ritual Cemetery in Swibie’, Joanna Slomska and Łukasz Antosik present the largest collection of archaeological textiles from the Hallstatt period in Poland. After discussing technical parameters of fabrics, braids, and threads, they argue that, unlike the other finds of archaeological textiles from the Hallstatt period in Poland, the textiles from Swibie represent several features that associate them with textile production of the Lusatian culture.

In the contribution ‘Wool Textiles from the Roman Period at the Site of Grudna, Poland’, Małgorzata Grupa introduces unique remains of wool textiles, made using the sprang technique, that were discovered in a kurgan dated to the Roman period. She discusses the status of the person buried in the kurgan and the possible provenance, e.g. local or non-local, of the grave goods, including the textiles.

The editors of the present ‘Światowit’ volume wish to express their special thanks to Marie-Louise Nosch (Centre for Textile Research, Copenhagen) whose excellent paper ‘The Wool Age: Traditions and Innovations in Textile Production, Consumption and Administration in the Late Bronze Age Aegaean’ (2015) inspired them to choose tradition and innovation as the main framework for investigating developments in textile technology during the EAA session in Vilnius. We would also like to thank the colleagues from the EAA and the University of Vilnius for all the received support and help in organising the session. However, the organisation of the session would not be possible without the funding received by Agata Ulanowska from the National Science Centre in Poland for her research project ‘Textile production in Bronze Age Greece – comparative studies of the Aegean weaving techniques’ (FUGA post-doctoral internship at the Centre for Research on Ancient Technologies, Polish Academy of Sciences, awarded by the National Science Centre in Poland, DEC-2015/16/S/HS3/00085) and the funding received by Małgorzata Siennicka from the Research Executive Agency of the European Commission and the Marie Skłodowska-Curie Actions for her research on textile tools from Early Bronze Age Greece carried out at the University of Copenhagen (PIEF-GA-2012-329910).

The editors wish to express their gratitude to the director of the Institute of Archaeology at the University of Warsaw, Krzysztof Jakubiak, who kindly agreed to publish the proceedings of the Vilnius session in this issue of the ‘Światowit’ journal, as well as provided all the necessary funding for this publication. For the language proof
of the submitted contributions we are grateful to Maciej Talaga (English) and Martin Lemke (German).

Finally, the editors wish to sincerely and warmly thank all the peer-reviewers and experts who kindly advised on the submitted papers contributing their time and knowledge to improve the entire publication. These are, in alphabetical order: Carmen Alfaro Giner (University of Valencia, Spain), Eva Andersson Strand (Centre for Textile Research, Copenhagen, Denmark), Marta Bazzanella (Museo degli Usi e Costumi della Gente Trentina, Trento, Italy), Lise Bender Jørgensen (Norwegian University of Science and Technology, Trondheim, Norway), Karina Grömer (Natural History Museum in Vienna, Austria), Anna Grossman (Archaeological Museum in Biskupin, Poland), Susan Möller-Wiering (Archäologie und Textil, Germany), Elena Soriga (“L’Orientale” University of Naples, Italy), Stella Spantidaki (ARTEX Hellenic Centre for Research and Conservation of Archaeological Textiles, Athens, Greece), and John Peter Wild (University of Manchester, England).

Bibliography:


