

Characteristics of main research directions investigated at the institute and the achievements 2010–2014

Institute	Institute of Archaeology of the CAS, Brno, v. v. i.
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Archaeology as a humanistic and historical discipline plays a crucial role in the modern cultural society of the Czech Republic. It fulfils our constant interest in finding out about our own past and national identity, and through its finds helps to shape our idea of the Czech state and nationhood. However, it also covers the broader pan-European chain of events in the history of the Czech state and nation, formulates social awareness of continuity and discontinuity in the nation, and emphasises the historical, interethnic and cultural relations. Through all its work it also helps to save and protect the archaeological finds and monuments of the Czech Republic as part of the national and worldwide cultural heritage and wealth, with a far-reaching social and economic impact (the standard of general education, raising the cultural awareness of the population, tourism and recreation, etc.).

The establishment of the direct predecessor to what is now the Institute of Archaeology of the ASCR, Brno in 1942 reflected the urgent need to create a scientific Institution to perform basic research and to protect the archaeological monuments in Moravia and Czech Silesia. Within Central Europe, Moravia and the area that now comprises Czech Silesia has always been a geographically, culturally and historically independent region with its own course of development. This region was traditionally the link between the west and east of the continent of Europe, a region involving the cultures of the whole of Eurasia, strongly influenced by the countries surrounding it, formed a specific historical and cultural milieu. It was the work of the Brno academic Institute of Archaeology which has brought this quality to the fore: it is at least worth mentioning our understanding of the importance of Moravian localities in the origins of European civilisation (Dolní Věstonice, Pavlov) for shaping the nationhood and culture of the Czech lands and the western Slavs (Mikulčice and other early medieval sites).

The present Institute of Archaeology of the ASCR, Brno, v. v. i. is the result of the profound reductions and transformations that occurred between 1990 and 1994. It focuses its work on the prehistoric and early medieval history of Moravia and Czech Silesia, but also on the broader Middle Danube region. It specialises in the fundamental archaeological problems which are of more far-reaching significance in the (Central) European context and partly in the world at large and which may only be resolved by research in this territory. These are also topics which, owing to lack of manpower, adequate information and the necessary technology, cannot be researched as well at other research establishments in the Czech Republic.

The Brno Institute of Archaeology of the Academy of Sciences has always set itself up as **the central archaeological workplace for the whole of Moravia and Czech Silesia, as the leading professional and expert arbitrator**. This role is based on the applicable version of Law No. 20/1987 Coll. on State Monuments Care; in accordance with § 21, Paragraphs 1 and 4 the Institute is the only organisation legally authorised to perform archaeological research. The law stipulates that all other archaeological organisations are obliged to notify the Institute of their own research and to present the Institute with a report of the results. Since 1942 **the Institute's Central Archive** has been collating, recording and processing information about all archaeological activities in Moravia and Czech Silesia. This happens under the central archaeological database program as part of a wider project aimed at maintaining and preserving the national cultural heritage. It also keeps a wide range of other documentation from institutional research projects and from research carried out by other organisations, probate collections, etc. Therefore, since 1956 the Institute has published the magazine entitled *Přehled výzkumů* (*Research Summary*), which every year presents information about all the archaeological activities in Moravia and Czech Silesia for the previous year. The archive collections, which are essential as a basic

database, are freely available for perusal by researchers, students, interested members of the public, and state administrative bodies.

In the field **the Institute also coordinates all research activity in Moravia and Czech Silesia.**

This happens through regional archaeological committees, the Institute, and other authorised organisations established in each region. The Institute also supervises the fulfilment of agreements concluded by the various organisations in accordance with Law No. 20/1987 Coll. with the Academy of Sciences of the Czech Republic, and permits issued by the Ministry of Culture of the Czech Republic for archaeological research.

In the sphere of the **protection of archaeological sites and monuments** the Institute also works in the capacity of a lawfully appointed body involved in state administration. In accordance with § 22, Paragraph 2 of Law No. 20/1987 Coll., builders and construction firms are obliged to report all plans to build on land which contains archaeological finds. For state administration bodies and local governments, investors and a wide variety of other subjects it compiles hundreds of expert statements and professional opinions every year; between 2010 and 2014 the number of reference numbers issued totalled 4 864. In the sphere of archaeology and archaeological monumental care it also provides advisory and consultancy services, in the capacity of an official archaeological expert. In accordance with § 3 of Law No. 20/1987 Coll. the Institute presents the Academy of Sciences of the Czech Republic and the Ministry of Culture of the Czech Republic with proposals to have archaeological finds declared as cultural monuments. As part of saving the archaeological cultural heritage the Institute is also involved in rescue excavations which relate to the its scientific program.

The **Institute's library** soon became an important source of information on a nationwide scale; with its collection of over 50 thousand volumes on archaeology and related sciences it is now the most extensive technical facility of its kind in the Czech Republic. Therefore it provides comprehensive services to researchers from the Institute and from outside, as well as to students and other interested members of the general public.

The work of the Institute also includes the **conservation and reconstruction of movable archaeological finds**, which is done in the Institute's own laboratories; this service is also provided to other archaeological institutions which do not have their own facilities or which require more demanding analyses.

The most important **discoveries have become a huge social phenomenon**, and have been met with great interest in this country and abroad. Extensive worldwide publicity has been given particularly to the unique finds at the palaeolithic hunting camps below Pavlovské vrchy (the triple grave of Dolní Věstonice and other graves, the earliest pottery and textiles, works of art made from mammoth ivory). Members of the public will have the chance to gain a comprehensive insight into the results of the Institute's work aimed at understanding the oldest human populations at the Pavlov Archaeology Park, which is currently being built, the exhibition part of which will use excavated parts of the mammoth hunters' settlement displayed in situ and will also offer other educational activities. The results of the surveys in Mikulčice have completely changed our ideas about the early medieval Slavs, which the Institute has made available both as a presentation in the Mikulčice Memorial as well as again as part of an extensive exhibition entitled *The Great Moravian Empire and 1150 years of Christianity in Central Europe*, presenting the general public as well as experts and trained visitors with a selection of the most valuable finds from the Great Moravian centres and from the surrounding regions (Brno – Prague – Bratislava, November 2014 – November 2015). The Institute will also present its research in the field of Slavic archaeology at the Archaeology Park at the prehistoric and Slavic hillfort of Chotěbuz – Podobora near Český Těšín, which has long been investigated by the Institute. This complex, which is continually being expanded, is a good example of an instructive presentation of scientific findings about this important locality of the Slavic period during the 8th – 10th centuries for the general public.

It would not be possible to deal with specific key topics without broader international cooperation. All the research centres base their work on the numerous find collections primarily from Moravia

and the whole of the Middle Danube region, although the nature of these territories, with their extensive ethnic and socio-cultural contacts requires wide-ranging comparative study on a European and even global scale. What is also essential is international collaboration and comparisons in the field of the methodology used, both theoretical and practical, particularly in the application of analytical natural science methods. International cooperation is in the form of a wide range of joint projects or within the framework of a number of bilateral agreements, although to a great extent also through informal, traditional or newly acquired contacts.

In essence the Palaeolithic period and palaeoethnology relate to a very broad sphere of disciplines, so cooperation with renowned workplaces abroad is therefore highly effective and beneficial (the University of Minnesota, Minneapolis, Department of Anthropology; the Max Planck Institute for Evolutionary Anthropology, Leipzig; the University of Tübingen; the University of Addis Ababa; the University of Poznan). The theme of the ancient Roman intervention, beyond its domain and the ethnic-cultural processes of the early Middle Ages in Europe, also forms the basis for multilateral involvement in international research (National Centre for Scientific Research, Paris; Roman-Germanic Commission, Frankfurt a. M.; Roman-Germanic Central Museum Mainz, etc.). New opportunities for research and interpretation are also provided by international cooperation on the study of the early medieval Slavic states of Central Europe and their development, for which it is essential to move beyond the narrow “national” framework (cf. the programs Great Moravia, Germania Slavica, etc.). The breadth of the conceive interdisciplinary results from study of the Chalcolithic stone industries is down to the long-term conceptual collaboration between the Institute and the Polish Academy of Arts and Sciences in Kraków.

The main scientific focus of the basic research carried out by the workplace is consistent with the science concepts of the Academy of Sciences of the Czech Republic concentrated on resolving selected major themes relating to the most ancient history in the European and global context. The basic direction is defined by the Institute’s Research Programme for the years 2012 – 2017, and essentially involves three basic priorities:

- 1) research into the first anatomically modern human populations (*Homo sapiens*), particularly the formation of their cultural, economic and social structures;
- 2) the historical development of Central Europe at key stages in the expansion of the ancient Roman Empire and in the migratory movements in late antiquity and the early Middle Ages;
- 3) comprehensive study of the period from the arrival of the Slavs in the 6th century to the High Middle Ages (13th/15th century), with emphasis on understanding the early state formations of Central Europe in the 8th–10th century.

Research into all these topics strives to make innovative use of the results of advanced natural science disciplines and methods, that are particularly applicable in studying the physical habitat of prehistoric and early historic populations, their cultures and migration movements, as well as any questions regarding autochthony and our understanding of the natural environment with its fauna and flora (archaeogenetics, isotope geochemistry, multi-element analysis, seasonality, zooarchaeology, etc.).

In accordance with the basic scientific areas the workplace specialises in, the Institute consists of three key basic research centres, which are allocated other smaller research departments and two prospecting sections:

The Palaeolithic and Palaeoethnology Research Centre systematically specialises in research into the oldest anatomically modern human populations (*Homo sapiens*), particularly the formation of their cultural, economic and social structures in the context of the changing natural environment. Wide-ranging interdisciplinary and international cooperation is focused on three

fundamental topics: the first is the beginning of the Upper Palaeolithic with the earliest signs of the material culture of modern man and his contacts with older human communities and their cultures (45 – 35 thousand years BC). The second is understanding the Gravettian culture as the peak of the Upper Palaeolithic (30 – 22 thousand years BC), the range of finds from this period and the cultural relations to Eurasia. The third topic is the Central European Mesolithic with all its specifics (10 – 5.5 thousand years BC), studied in certain model regions (particularly the sandstone areas of North Bohemia). The Centre is also engaged in in-depth study into other selected, important and supporting aspects: human evolution from the perspective of palaeoanthropology, the origins of art in prehistory, the seasonality of prehistoric hunters, etc. It draws on the unique find collection from sites in Moravia (especially Dolní Věstonice, Pavlov, Přerov), which is supplemented by other archaeological and ethnological research performed in the Czech Republic and abroad (Brno region, sandstone areas of North Bohemia, Egypt, Ethiopia, Siberia, etc.). The Centre's research also has broad popularisation, educational and application potential, e.g. in terms of understanding the physical and cultural transformations of human populations in relation to the natural environment.

The Centre for Research into the Roman Age and Migration Period has long focused its studies on three topics that are crucial to our interpretation of early historical development in the Czech Republic as well as in the European context during the 1st to 6th century AD. Applying adequate analytical natural science methods it collaborates with numerous European research centres, and significantly expands its source base through its own rescue excavations. The first topic covers questions relating to relations between ancient Rome and barbarian territory from the view of point of military-political conflicts and cultural-ethnic interaction as studied at archaeological sites particularly in the area to the north of the Middle Danube region (Morava, Lower Austria: the Roman military camp in Mušov and its broader hinterland, Roman marching camps, Germanic settlements). Closely linked to this are efforts to gain a comprehensive understanding of domestic settlement structures. The third theme concerned the transformation of settlement structures, cultural, social and power relations and migration in late antiquity and the Early Middle Ages, as well as their impact on the ethnic-cultural map of Europe: research is based on excavations of settlements and particularly lavish necropolises dating from the Migration Period, particularly Lombardi. The Centre's work opens up potential applications in education and popularisation (local historical processes in the wider European context, contacts with communities that were sharply differentiated and unevenly developed in cultural terms, etc.).

The primary long-term objective of the **Centre for Slavic and Mediaeval Archaeology** is comprehensive research into the period from the arrival of the first Slavs during the 6th century AD to the High Middle Ages (13th – 15th century), particularly in Central Europe, with emphasis on the area to the north of the Middle Danube region. It prioritises three basic themes. The first concerns the oldest Slavic settlements in Moravia and Silesia and evidence of their spiritual and material culture and relations to other ethnic and cultural circles. It then focuses on the issue of early mediaeval Great Moravia in the 9th century, including its decline in the 10th century, studied particularly on the basis of systematic excavations carried out at the hillfort in Mikulčice. The Centre covers a whole range of aspects: the development and internal structure of power, political and settlement centres, their natural environment, cultural transformations and contacts, social stratification and differentiation, anthropology of Great Moravian populations, manifestations of Christianization in burial rites and architecture, geo-political and cultural expansion into neighbouring areas, the reflection of political and power processes and conflicts in the archaeological sources, the question of the demise of the Mojmir estate, and the decline and transfer of Great Moravian elements to later periods. The third area of interest includes selected phenomena of the High Middle Ages: the emergence, initial development, formation and spiritual and material culture of institutional urban communities, the role of fortification in society at that time, the settlement processes and structures of the 11th-14th century, the mining of precious

metals and how this affected settlement. The topic of Great Moravia in particular has great society-wide popularization, educational and application potential – this topic encompasses the origins of Czech statehood and culture, Christianization, changes in the natural environment in accumulation districts, the impact of settlement and mining processes on the landscape, etc.

The Department of Moravian-Silesian Prehistory specialises in the study of prehistorical development in the breakthrough periods of the Late Stone Age and the Bronze Age in Moravia and Silesia, particularly the role these played in the transfer of cultural contacts and innovation (stone industry in the Young and Late Eneolithic, long-distance contacts of Eneolithic populations on the basis of comparative analysis of finds and the provenance of raw materials, social structure and cultural interaction between the south and north in the Middle and Late Bronze Age based on the study of burial rites and material culture, the beginnings of the Early Iron Age, etc.). Emphasis is placed on the comprehensive assessment of the complete find collection, if possible, drawing on broad international cooperation and using interdisciplinary applications (geology and mineralogy, osteology, anthropology, etc., especially Poland). The department supplements its source base well through its own field work, the results of which have great application and educational potential, for example concerning long-distance contacts between prehistoric cultures, the provenance of stone raw materials, etc.

The Archaeological Prospection Department is a specialised section concentrating particularly on non-destructive archaeology – seeking and evaluating archaeological sources without damaging the terrain. It specialises in archaeological prospection particularly in the region of South and Central Moravia, focusing on mapping and photographing settlement and burial structures from the Roman Period, the Migration Period and the Slavic Period. Another priority is the systematic prospection and documentation of selected sites from the Roman Period and the High Middle Ages using metal detectors, with subsequent spatial analyses. The department's work has a considerable educational and application impact, especially in terms of the preservation of archaeological monuments.

The Opava workplace of the Institute of Archaeology of the Czech Academy of Sciences, Brno was established as a scientific research department focuses on the comprehensive rescue of construction works at endangered archaeological sites and finds dating from prehistory to the High Middle Ages on the territory of historical Czech Silesia and north-east Moravia that have not yet been adequately covered and studied by archaeologists. The department also currently provides the source base for studying selected groups of topics in which the department specialises. The department's activities are used extensively in various applications, particularly in the field of heritage conservation and construction planning.

Research Report of the team in the period 2010–2014

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Scientific team	Centre for the Palaeolithic and Palaeoethnology

The research carried out by the team in 2010–2014 was in accordance with its long-term focus on studying the oldest anatomically modern human populations (*Homo sapiens*), especially the formation of cultural, economic and social structures, and the evolving interaction with the changing natural environment. The team also concentrated on certain selected key topics affecting important aspects of the issue, with sufficient potential in the find base. It should therefore draw primarily on material from unique sites in Moravia, principally from Dolní Věstonice – Pavlov. However, this research has also been accompanied by other field work in the Czech Republic, in collaboration with other institutions and abroad (the Brno basin, the Moravian Highlands, Předmostí, the Moravian Karst, northern Bohemia; and Ethiopia, Siberia). The basic characteristics of all these activities were interdisciplinarity and the international dimension of the solution.

The palaeoanthropological research was based on systematic study of finds from excavations carried out by the workplace that comprised a basis for broader syntheses. The results attained in coordination with leading teams from around the world and published in prestigious impacted journals relate to palaeogenetic research (the new calibration of “mitochondrial clocks” – *Fu, Q., Mitnik, A., Johnson, P., Bos, K., Lari, M., Bollongino, R., Sun, Ch., Giemsch, L., Schmitz, R., Burger, J., Ronchitelli, A. M., Martini, F., Cremonesi, R., Svoboda, J., Bauer, P., Caramelli, D., Castellano, S., Reich, D., Pääbo, S., Krause, J.: A revised timescale for human evolution based on ancient mitochondrial genomes, Current Biology 23, 2013, 553-559*), the oldest anatomically modern fossils in Europe and their differentiation from Neanderthal fossils (*Benazzi, S., Douka, K., Fornai, C., Bauer, C., Kullmer, O., Svoboda, J., Pap, I., Mallegni, F., Bayle, P., Coquerelle, M., Condemi, S., Ronchitelli, A., Harvati, K., Weber, G.: Early dispersal of modern humans in Europe and implications for Neanderthal behavior, Nature 479, 2011, 525-528; cf. also Fornai, C., Benazzi, S., Svoboda, J., Pap, I., Harvati, K., Weber, G.: Enamel thickness variation of deciduous first and second upper molars in modern humans and Neanderthals, Journal of Human Evolution 76, 2014, 83-91*) and the unexpected proportion of plants in the diet of hunting populations (*Revedin, A., Aranguren, B., Becattini R., Longo, L., Marconi, E., Mariotti Lippi, M., Skakun, N., Sinitsyn, A., Spiridonova, E., Svoboda, J.: Thirty thousand-year-old flour: New evidence of plant food processing in the Upper Paleolithic, Proceedings of the National Academy of Sciences USA 107, 2010, 18815-18819.*)

Laboratory analysis of Gravettian osteological material from Dolní Věstonice II and Pavlov I has resulted in the discovery of a further 11 human skeletal remains from Dolní Věstonice II and 20 remains from Pavlov I, a full 16 of which were from a pair of human hands (Pavlov 31). The belonged to anatomically modern humans with certain archaic features, in two cases remarkably tall. The discovery raised questions concerning the various ways in which the deceased were treated; in addition to complete ritual graves, these were freely scattered remains and now also part of the body buried separately, the bones of a hand (*Trinkaus, E., Svoboda, J. A., Wojtal, P., Nývltová Fišáková, M., Wilczyński, J.: Human Remains from the Moravian Gravettian: Morphology and Taphonomy of Additional Elements from Dolní Věstonice II and Pavlov I. International Journal of Osteoarchaeology, 20, 2010, 645–669*). The monograph then again highlighted the important role played by the hand and feet in the gradual hominisation of the *Homo* genus, where significant changes in the bone structure of the foot enable us to trace the transition to upright movement: the release of the hand with hand-brain feedback stimulated the

development of the brain (Nývltová Fišáková, M.: *Osteometrická a funkční analýza a evoluce autopodií u rodu Homo (Osteometric and Functional Analysis and Evolution of Autopods in the Homo Genus)*. *Anthropos – Studies in Anthropology, Palaeoethnology, Palaeontology and Quarternary Geology*. Brno 2013, 123 pp.).

The palaeoanthropological research culminated in a book, summarising the findings concerning human evolution from the first hominids to anatomically modern humans in terms of palaeoanthropology, evolutionary biology and other scientific disciplines (quaternary geology, palaeoecology and palaeoethnology). Therefore, the actual palaeoanthropological text was preceded by introductory chapters designed from the viewpoint of evolutionary biology, written by Miloš Macholán from the Institute of Animal Physiology and Genetics of the Academy of Sciences of the Czech Republic. The text is widely illustrated by the author's original drawings and photographs (Svoboda, J. A.: *Předkové. Evoluce člověka (Ancestors. Human Evolution)* (with introductory chapters by M. Macholána). Praha 2014, 480 pp.).

The research team has traditionally focused its attention on the **origins of art** in human culture. The key outcome here was a book, which represents a new, comprehensive synthesis of the phenomenon of the origins of art in prehistoric times. It is based on the archaeological database of Eurasia and North Africa, and also uses general analogies and evolutionary interpolations, emphasising the contextual approach to art. It analyses zoomorphic and anthropomorphic depictions, signs and their associations, and interprets early art from the viewpoint of observation, play, magic, ritual and myth (Svoboda, J. A.: *Počátky umění (Origins of Art)*. Praha 2011, 335 pp.).

Another important topic covered concerned the **origins of the Upper Palaeolithic**. Intensive surface prospecting of selected model regions was carried out in 2010–2014 using GPS and digital relief models (Brno region – lower Bobravy microregion, the central Jihlava region, Vyškovská brána), and discovery or rescue excavations were carried out in a number of localities (e.g. Szeletian: Želešice; Bohunician: Ořechov; mixed Levallois techno-complex: Ondratice/Želeč). The results of these have already been collectively published (e.g. Škrdla, P.: *Paleolitické osídlení středního Pojihu (Paleolithic Settlement of the Central Jihlava Region)*. *Mikroregionální studie (Microregional Studies)*, *Acta Musei Moraviae, Sci. soc.* 97, 2012, 15-44; Škrdla, P., Vokáčová, J., Knotek, P., Rychtaříková, T.: *Mohelenský mikroregion na počátku mladého paleolitu (Mohelno Microregion in the Early Upper Palaeolithic)*, *Přehled výzkumů (Research Summary)* 53-1, 2012, 9-32; Mlejnek, O., Škrdla, P., Přichystal, A.: *Ondratice I/Želeč – an Early Upper Palaeolithic site in central Moravia*, *Archäologisches Korrespondenzblatt* 42, 2012, 295-314; publications on older systematic prospection work include the study of the Aurignacian settlement of the Lower Morava Vale: Škrdla, P.: *Aurignacien Dolnomoravského úvalu (Aurignacian of the Lower Morava Vale)*, *Slovácko* 51, 2010, 111-138; 52, 2011, 135-152). Some of the most fundamental benefits resulting from this include the dating of Moravian early Upper Palaeolithic sites using optically stimulated luminescence, while research in Želešice has given us a better understanding of the stratigraphy, cultural typology and absolute age of the Szeletian in Moravia and has enabled the absolute dating of the Bohunician through excavations in Ořechov (Nejman, L., Rhodes, E., Škrdla, P., Tostevin, G., Neruda, P., Nerudová, Z., Valoch, K., Oliva, M., Kaminská, L., Svoboda, J., Grün, R.: *Chronological Review of the Middle to Upper Palaeolithic Transition in the Czech Republic and Slovakia: New Optically Stimulated Luminescence results*, *Archaeometry* 53/5, 2011, 1044-1066; Kaminská, L., Kozłowski, J. K., Škrdla, P.: *New approach to the Szeletian - Chronology and cultural variability*. *Eurasian Prehistory* 8 (1-2), 2011, 29-49).

A comparative study has also been elaborated concerning the origins of the early Upper Palaeolithic and interaction between the last of the Neanderthals and the first anatomically modern humans of Eurasia (material from Temnata Dupka (Dark Hole) in Bulgaria, Moravany nad Váhom, Trenčianské Teplice, Dzierzyslaw, Stajnia, Kulichivka, etc.). This has resulted particularly in summary essays on the technology and culture of the Bohunician in the broader Eurasian context, emphasising the possible presence of non-utilitarian activities indicating the oldest evidence of modern behaviour in Central Europe (Škrdla, P.: *Nové impulsy ve výzkumu*

bohunicien (New Impulses in the Study of the Bohunician). In: I. Fridrichová-Sýkorová, ed., *Ecce homo. Im memoriam Jan Fridrich*. Praha 2010, 175-185; Škrdl, P.: *The Bohunician in Moravia and Adjoining Regions. Archaeology, Ethnology and Anthropology of Eurasia* 41 (3), 2013, 2-13; Škrdl, P.: *Moravian Bohunician*. In: M. Otte, ed., *Néandertal/Cro-Magnon. La Rencontre*. Arles 2014, 123-140).

One key aspect of the research team's work was the **Gravettian as the peak period of the Upper Palaeolithic**. Here, the researchers' work was primarily based on the classic sites in South Moravia. Activities in 2010–2014 were focused on the evaluation and publication of previous research projects as well as on extensive new excavations. Rescue excavations carried out by the team in 2007–2011 on the edge of the village of Pavlov provided some surprising information about little-known smaller settlements of Palaeolithic hunters, their purpose, layout, spiritual culture, dating and the natural environment of the time. The results of this research were presented to the professional community in the form of a monograph by a collective of 26 authors from the Czech Republic, France, Italy and Poland, and in addition to the settlement sector of Pavlov II, the book also presents the new locality of Pavlov VI and explored another recently discovered find site, Milovice IV. The head of the research team (J. Svoboda) was the editor of the publication, the author of three important chapters, the leader of the actual research work, and also the coordinator within the framework of the broad international multi-disciplinary team, which also included other members of the research team, M. Novák and M. Nývltová Fišáková (Svoboda, J., ed.: *Pavlov. Excavations 2007-2011. Brno 2011, 287 pp.*). Details of the Milovice IV site were published separately in an impacted journal: Svoboda, J., Bocheński, Z. M., Čulíková, V., Dohnalová, A., Hladilová, Š., Hložek, M., Horáček, I., Ivanov, M., Králík, M., Novák, M., Pryor, A., Sázellová, S., Stevens, R., Wilczyński, J., Wojtal, P.: *Paleolithic hunting in a Southern Moravian landscape: The case of Milovice IV, Czech Republic, Geoarchaeology* 26, 2011, 838-866.

Another group monograph written by seven researchers from the Czech Republic and Poland evaluated the team's research performed in 2006 for the purposes of presenting the widely-known site at Předmostí near Přerov as part of a field museum exhibition. The southern part of a Gravettian settlement had been uncovered (27–25 thousand years old), which probably served as a dumping ground and an area for specialised activities. In particular, this is a large dump, mostly of burnt animal bones (predominantly mammoth), although direct evidence of human activities was also found (stone tools, fragments of red dye). J. Svoboda also headed this research, coordinated the compilation of the results and, together with M. Novák, contributed the most to the publication (Svoboda, J., Mikulík, J., Novák, M., Polanská, M., Schenk, Z., Wilczyński, J., Wojtal, P.: *Předmostí. Building an Authentic Museum*. Brno 2013, 77 pp.). A specialised study on Předmostí III was printed in an impacted journal: Polanská, M., Svoboda, J., Hromádová, B., Sázellová, S.: *Předmostí III: un site pavlovien de la Porte de Moravie (République tchèque, Europe centrale), L'Anthropologie* 118, 2014, 255-291.

Besides monographs on the various research projects, the research team's work also included a synthesising range of conceived contributions (e.g. Svoboda, J.: *Komplexnost lovců-sběračů a kolaps moravského gravettien* (Complexity of Hunter-Gatherers and the Collapse of the Moravian Gravettian). In: Bárta, M., Kovář, M., eds., *Kolaps a regenerace: Cesty civilizací a kultur* (Collapse and Regeneration: The Paths of Civilisations and Cultures). Praha 2011, 49-67; Svoboda, J.: *Signifikante Gerättypen des Jungpaläolithikums im östlichen Mitteleuropa*. In: Floss, H., ed., *Steinartefakte vom Altpaläolithikum bis in die Neuzeit*. Tübingen 2012, 481-488).

The team is constantly developing field research methods and documentation, and the use of GPS has been made more precise in processing the results of research into the Palaeolithic settlement complexes of Dolní Věstonice, Pavlov and Milovice as a comprehensive way of managing and analysing archaeological data for the spatial analysis of find distribution. Model outcomes of this type could include a study evaluating the comprehensive interdisciplinary research carried out at Dolní Věstonice IIa, with evidence of settlement dating back to the early Gravettian period (Svoboda, J., Hladilová, Š., Horáček, I., Kaiser, J., Králík, M., Novák, J., Novák, M., Pokorný, P.,

Sázelová, S., Smolíková, L., Zikmund, T. 2014: *Dolní Věstonice IIa: Gravettian microstratigraphy, environment, and the origin of baked clay production in Moravia. Quaternary International*, <http://dx.doi.org/10.1016/j.quaint.2014.06.048>; other outcomes include Novák, M.: *Priestorové štruktúry gravettienských sídlisk (Spatial Structures of Gravettian Settlements)*. In: Fridrichová-Sýkorová I. (ed.), *Ecce Homo. In Memoriam Jan Fridrich. Praha 2010*, 152-158). It is also important to mention the editorial work carried out by the team in relation to the archaeological, palaeoanthropological and ethnological study of Palaeolithic settlements, such as the volume of contributions from the themed professional conference, which was edited, issued and distributed to the various countries by the team (Sázelová, S., Hupková, A., Mořkovský, T., eds., *Mikulov Anthropology Meeting. Brno 2014*, 189 pp.). The period 2010–2014 also yielded some important new discoveries at classic Gravettian settlement sites. Small rescue excavations were carried out in 2010 and 2011, such as the second phase of the rescue excavation at Milovice IV (a seasonal locality, relatively rich in finds, in a geographically unusual position), Pavlov II and Pavlov – Podhradní ul. In 2012 the research season then also followed up on previous excavations carried out at Dolní Věstonice II, with a central multi-layered fireplace, researched in detail, and scattered finds of fauna and Palaeolithic industry nearby. In 2013 and 2014 the team performed a major rescue excavation at the settlement of Pavlov I, on the site of the future Archeopark Pavlov exhibition building, presenting the general public with details of the South Moravian population of mammoth hunters. The building was designed predominantly on areas that had already been researched; discovered in the parts and levels that were still intact were sunken buildings, a mammoth bone dump and a sequence of cultural layers 0.5-0.7 thick, with an abundance of palaeobotanical, malacozoological, osteological and archaeological material. A crucial new finding is the chronology of the settlement, dated to 32-25 ky BP, which pertains both to the Evolved Gravettian as well as to the older, so far little-known phase of this culture.

A separate, very important chapter was the research carried out at Mohelno – Plevovce in the central Jihlava region, settled repeatedly during the late phase of the Upper Palaeolithic (the end of the Last Glacial Maximum, then again after several millennia). Research into the older phases of the settlement focused on the structure, consisting of piled flat stones, interpreted as a paved dwelling. The specifics of the undecorated stone industry in Moravia and in the surrounding lands indicate a possible link to the eastern climate refugium in the northern Black Sea region (Škrdla, P., Rychtaříková, T., Eigner, J., Bartík, J., Nikolajev, P., Vokáč, M., Nývltová Fišáková, M., Čerevková, A., Knotková, J.: *Mohelno-Plevovce: Lokalita osídlená v průběhu posledního glaciálního maxima a pozdního glaciálu (Mohelno-Plevovce: Locality Settled During the Last Glacial Maximum and Late Glacial)*, *Archeologické rozhledy (Archaeological Insights)* 66, 2014, 243-270).

Very valuable comparative results are provided by the team's study into the Paleolithic and especially the **Mesolithic** in the region of sandstone rocks in North Bohemia. Here, the team carried out several comprehensive excavations of the settlements below rock overhangs, with a detailed analysis of the spatial distribution of the finds (Jetřichovice – Janova zátoka, Radvanec – Údolí samoty, Velenice – Malý medvědí tábor). Situated under the upper strata of the Mesolithic were often also Palaeolithic layers, providing a continual stratigraphic and environmental record of the Late Glacial to the Holocene, substantiated by C14 dating and palaeobotanical and osteological analyses. However, no fundamental turning point was discovered in the settlement and food strategies – the hunters and gatherers adapted to the varied landscape of sandstone plateaus and canyons as the climate changed, in order to make maximum use of the plant and animal resources available to them. Besides key stratigraphy (Radvanec – Údolí samoty: a profile of the modern era / later prehistory approx. 3 m thick, several Mesolithic layers more than 1 m thick and on the base a Palaeolithic layer), research also focused on a circular sunken fireplace with a burnt edge. In its research at the sandstone rocks in North Bohemia the team has collaborated with several other institutions, led by Masaryk University, cf. for example Svoboda, J., Novák, J., Novák, M., Sázelová, S., Demek, J., Hladilová, Š., Peša, V.: *Paleolithic / Mesolithic stratigraphic sequences at Údolí samoty and Janova zátoka rock shelters (North Bohemia)*,

Archäologisches Korrespondenzblatt 43, 2013, 469-488; Svoboda, J., Novák, J., Novák, M., Pokorný, P., Sázelová, S.: *Camps and waters: Malý Medvědí Tábor as part of a North Bohemian Mesolithic landscape*. In: Sázelová, S., Hupková, A., Mořkovský, T., eds., *Mikulov Anthropology Meeting*. Brno 2014, 125-130. A synthesis of the Mesolithic of the European Lower Danube region was published as a chapter of the Oxford Encyclopaedia: Svoboda, J.: *Post-glacial transformations: Danubian Europe*. In: Cummings, V., Jordan, P., Zvelebil, M., eds., *Oxford Handbook of the Archaeology and Anthropology of Hunter-Gatherers*. Oxford 2014, 521-536. The research team is also systematically developing methods to analyse dental cement accretions and isotope analyses enabling **study of the seasonality and migration** prehistoric human populations and the animals they hunted. Important results have been acquired from research into certain Middle Palaeolithic sites. In 2011–2012, for example, comprehensive study of the osteological material from Stajnia (Poland) showed that the cave was seasonally inhabited during the winter by Neanderthals within the warm period during MIS3 and MIS2, i.e. the transition from forest-steppe to tundra. In a similar manner proof was obtained of the seasonal winter settlement of another famous Palaeolithic site, Kůlna Cave in the Moravian Karst, concentrating on both the cooler and the warmer period in MIS3; strontium isotope ratios have shown that the deer hunted by the Neanderthals came mostly from the area around the cave (Nývltová Fišáková, M., *v tisku*: *Faunal remains from Stajnia Cave*. In: *Stajnia Cave*, ed. M. Urbanowski; Nerudová, Z., Nývltová Fišáková, M., Míková, M.: *Palaeoenvironmental analyses of animal remains from the Kůlna Cave (Moravian Karst, Czech Republic)*, *Quartär* 61, 2014, 147–157). Settlement seasonality has also been established on the basis of analyses of dental cement in the complex of Gravettian localities in the Lower Danube region, indicating large settlements that were occupied all year round (Krems, Willendorf, Pavlov, Dolní Věstonice, Přerov), as well as a series of sites that were inhabited on a seasonal basis only (Jarošov, Boršice, Krakow-Spadzista, Trenčianské Bohuslavice, etc.; cf. Nývltová Fišáková, M.: *Seasonality of Gravettian sites in the Middle Danube Region and adjoining areas of Central Europe*, *Quaternary International* 294, 2013, 120–134). As far as the Epigravettian is concerned, material was studied from the settlements of Mohelno – Plevovce (hunted fauna typical of cool and dry steppe regions) and Brno – Vídeňská (a large seasonal settlement from the period following LGM). In terms of seasonality, isotope analyses, palaeontology and archaeology, interdisciplinary research has been carried out into the Magdalenian locality of Balcarka Cave (Nývltová Fišáková, M., Nerudová, Z., Moravcová, M.: *Interdisciplinary research of Magdalenian layers in Balcarka Cave (Ostrov near Macocha, Moravian Karst)*, *Acta Mus. Nat. Pragae, Ser. B, Hist. Nat.* 67(1-2), 2011, 35-46). International teamwork has also resulted in a series of collective articles with a palaeoenvironmental focus published in impacted journals, relating to the **reconstruction of the glacial landscape** over time and in spatial terms, including: Beresford-Jones, D., Johnson, K., Pullen, A. G., Pryor, A. J. E., Svoboda, J., Jones, M.: *Burning wood or burning bone? A reconsideration of flotation evidence from Upper Palaeolithic (Gravettian) sites in the Moravian corridor*, *Journal of Archaeological Science* 37, 2010, 2799-2811; Beresford-Jones, D., Taylor, S., Payne, C., Pryor, A., Svoboda, J., Jones, M.: *Rapid climate change in the Upper Palaeolithic: The record of charcoal conifer rings from the Gravettian site of Dolní Věstonice, Czech Republic*, *Quaternary Science Reviews* 30, 2011, 1948-1964; Wojtal, P., Wilczyński, J., Bocheński, Z. M., Svoboda, J. A.: *The scene of spectacular feasts: Animal remains from Pavlov I south-east, the Czech Republic*, *Quaternary International* 252, 2012, 122-141; Antoine, P., Rousseau, D. D., Degeai, J. P., Moine, O., Lacroix, F., Kreutzer, S., Fuchs, M., Hatté, Ch., Gauthier, C., Svoboda, J., Lisá, L.: *High-resolution record of the environmental response to climatic variations during the Last Interglacial-Glacial cycle in Central Europe: the loess-palaeosol sequence of Dolní Věstonice (Czech Republic)*, *Quaternary Science Reviews* 67, 2013, 17-38; Fuchs, M., Kreutzer, S., Rousseau, D. D., Antoine, P., Hatté, Ch., Lacroix, F., Moine, O., Gauthier, C., Svoboda, J., Lisá, L.: *The loess sequence of Dolní Věstonice, Czech Republic: A new OSL-based chronology of the Last Climatic Cycle*, *Boreas* 42, 2013, 664-677; Pryor, A., Steele, M., Jones, M., Svoboda, J.,

Beresford-Jones, D.: *Plant foods in the Upper Palaeolithic at Dolní Věstonice? Parenchyma redux*, *Antiquity* 87, 2013, 971-984.

Also essential is the team's comparison of results obtained from Eurasia with **research carried out in other parts of the world Palaeolithic oecumene**, as well as the use of **palaeoethnological and ethnological findings**. Details have been published of previous activity in the Egyptian Bahriya oasis in the Sahara (Svoboda, J.: *Prehistory of Southern Bahriya. A case study in Northeast African settlement archaeology*. In: Dospěl, M., Suková, L., eds., *Bahriya Oasis. Recent research into the past of an Egyptian Oasis*. Praha 2013, 35-62). Since 2013 the team has been working with Masaryk University and the university in Addis Ababa to research selected areas of Ethiopia, the Afar Depression and the Blue Nile valley. The site in Afar is around Galili (Heriye), with a three-year research licence, where sediments up to 4 my old have yielded osteological material (*Deinotherium* sp., etc.), while in the areas on the edge of the Afar Depression excavations have discovered only MSA/LSA artifacts. Evidence of MSA settlement has recently been discovered in the Blue Nile valley (cf. Svoboda, J., Said, H., Novák, M., Desse, A., Sázelová, S.: *Research Report: The Middle Stone Age of the Blue Nile Gorge, Ethiopia*, *Anthropologie* 51, 2013, 431-436).

As part of a cooperation agreement with the Ural Department of the Russian Academy of Sciences there have been two working seasons focusing on the settlement strategies and structures of the Nenets in the tundra region, with current and abandoned Nenet camps in and around the mountain ridge of Yangana Pe and the nearby lakes being documented and mapped out. A pilot publication has been published in an impacted journal: Svoboda, J., Sázelová, S., Kosintsev, P. A., Jankovská, V., Holub, M.: *Resources and spatial analysis at actual Nenets campsites. Ethnoarchaeological implications*, *Journal of Anthropological Archaeology* 30, 2011, 30-43. Preparations are now under way to publish the resulting maps and their palaeoethnological interpretation (preliminarily, for example Sázelová, S., Svoboda, J., Novák, M.: *Detecting the children zone at the abandoned Nenets campsites: An ethnoarchaeological example from the Polar Ural Mts., Russia*. In: Sázelová, S., Hupková, A., Mořkovský, T., eds., *Mikulov Anthropology Meeting, The Dolní Věstonice Studies* 20, Brno 2014, 57-60). It is also important to mention the documentation of the cave art in the Urals in 2010 (Kapova Cave, Ignatijevská Cave, etc.), accompanied by research into peat bogs (Mesolithic/Neolithic) and Bronze Age steppe settlements (the route led through Yekaterinburg territory and the Chelyabinsk region and the Republic of Bashkortostan).

Research Report of the team in the period 2010–2014

Institute	Institute of Archaeology of the CAS, Brno, v. v. i.
Scientific team	Centre for the Roman Period and the Migration Period

1. General characteristics

During the period 2010–2014 the team's research was carried out in line with its long-term conceptual focus on key themes of protohistorical development. During this period the team underwent a fundamental staffing restructuring process; at the beginning of 2014 B. Komoróczy was temporarily appointed to replace the previous head, J. Tejral, which resulted in thematic and methodological restructuring. While the focus of past activities was generated by one person as an international-scale researcher, the range of topics covered and methodological tools the Centre applies has been diversified significantly. Coordinated by the team head, two working groups have been set up within the team, which although cooperating and partially interlinked, are more autonomous in terms of the research activities they choose to focus on. The first of these specialises in the earlier phase of protohistorical development and on the heuristics of new sources (B. Komoróczy, S. Klanicová, O. Šedo, M. Vlach), while the second focuses more intensively on the Migration Period (Z. Loskotová, O. Šedo). Both groups share the team's infrastructure and technical facilities. The initial stage of the staffing restructuring process has not yet been completed and will continue in the near future through the – initially time-limited – involvement of talented young researchers studying various related sub-topics.

2. Roman age and general protohistory

Research into Roman-Germanic military confrontations in this period was - and still is – a key theme, widely covered and popular throughout Europe, generating extensive international cooperation around the research team. Of the two basic types of field sources studied in parallel, the first is the central fortified base at Hradisko near Mušov, providing a deeper and multi-layered insight into its centralised position, advanced Roman architecture and representative range of find collections. A number of historical interpretations of this site have already been published (cf. Komoróczy, B., *Mušov-Burgstall, eine römische zentrale Militärbasis in Germanien zur Zeit der Markomannenkriege*. In: *Varus-Gesellschaft zur Förderung der vor- und frühgeschichtlichen Ausgrabungen im Osnabrücker Land e.V. (Hrsg.), Rom und Germanien. Georgsmarienhütte 2010*, 42-56; Tejral, J., *Reevaluated but still enigmatic - the Roman site at »Burgstall« (district of Brno-venkov/CZ)*. In: *Honesta Missione. Festschrift für Barbara Pferdehirt*. Mainz, 2014, 221-248; Šedo, O., *Objekty s nálezy cihel zkoumané v průběhu výzkumu v trati Mušov-Neurissen (Buildings with Finds of Bricks Examined during Exavations on the Musov-Neurissen Line)*. *Zborník Slovenského národného múzea (Proceedings of the Slovak National Museum)* 106, 2012, 267-275). Even so, the team is due for a more extensive, systematic and up-to-date analysis and processing of the results from older field excavations that are less burdened by recent historical preconceptions. The team's recent excavations here indicate the site underwent complex, apparently multi-phase development and that the area was broken up into several chronologically and functionally distinct segments. Work therefore started on processing the older find collections, creating a single GIS-compatible database of field phenomena and find categories, presenting the site at international specialised forums and preparing to get involved in projects implemented on a national scale. The entire complex is being subjected to systematic geophysical and surface prospection and finds are being investigated on a targeted systematic basis. The following questions are of key importance from the viewpoint of the field research carried out at the site: the full extent of the fortified area and the temporal differentiation of the individual

sections of the fortification, the precise structure of the fortification, the nature of the interior structure, especially in parts that have not been damaged, and determining the chronology of the structural development of the site as a whole based on stratigraphic sequences and extensive find collections.

There were numerous other discoveries of traces of the Roman arms in the barbarian lands to the north of the Middle Danube region during this period and the team played a leading role in these. It was in charge of the systematic mapping and exploration of the buildings and finds indicating the presence of the Roman army and the way it was spread throughout the territory in question (Komoróczy, B., *Římské fortifikace na barbarském území ve středním Podunají v období markomanských válek* (Roman Fortifications in Barbarian Territory in the Middle Danube Region during the Marcomannic Wars). In: XXX. Mikulovské sympozium (Mikulov Symposium) 2008. *Hranice na jižní Moravě a její obrana od doby římské* (The Border in South Moravia and its Defence since the Roman Age). Brno 2010, 51-82). The most intensive focus was on the so-called Roman temporary camps, reflecting the scope and spatial strategy of Roman military action in this territory (for the theoretical background and some models of this testimony, see Komoróczy, B./Vlach, M., *Využití GIS pro výzkum římského vojenského zásahu na barbarském území ve střední Evropě v době Markomanských válek – úvod do problematiky a perspektivy* (Use of GIS for Research into Roman Military Intervention in Barbarian Territory in Central Europe during the Marcomannic Wars - Introduction and Perspectives). In: Beljak, J./Březinová, G./Varsik, V. (ed.), *Archeológia barbarov* (Barbarian Archaeology) 2009. *Hospodárstvo Germánov. Sídliiskové a ekonomické štruktúry od neskorej doby laténskej po včasný stredovek* (Germanic Economy. Settlement and Economic Structures from the Late Iron Age to the Early Middle Ages). *Archaeologica Slovaca Monographiae, Communicationes, Tomus X, Nitra 2010*, 247-289). Within the framework of this topic the team is involved in wide-ranging formal and informal international cooperation. Since 2010 it has been collaborating with the Austrian Archaeological Institute (ÖAI Wien) on a joint project aimed at identifying and verifying temporary camps of the Roman army in Lower Austria and Moravia. A project entitled "Temporary Camps of the Roman Army in Moravia and Lower Austria: Multidisciplinary Research – Standard Method – New Historical Interpretation" (No. M300011201) will be implemented in 2012–2015 as part of the Programme of Internal Support for International Cooperation Projects of the Academy of Sciences of the Czech Republic (Groh, S./Komoróczy, B./Vlach, M./Sedlmayer, H., *Basis of the International Research Project of the Roman Military Camps in the Barbarian Territory to the North of Carnuntum*. In: *Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012, in print*). It commenced with excavations and prospection work carried out by both partners at the Engelhartstetten camp in Lower Austria (Groh, S./Komoróczy, B., *KG Engelhartstetten, MG Engelhartstetten, VB Gänserndorf. Fundberichte aus Österreich Bd. 49, 2010, 269*; Groh, S./Lindinger, V./Komoróczy, B., *KG Engelhartstetten, MG Engelhartstetten. Fundberichte aus Österreich Bd. 50, 2011, 245*). Since 2011 this activity has also been extended to include multilateral cooperation with the Roman-Germanic Commission of the German Archaeological Institute in Frankfurt and the Institute of Archaeology of the Slovak Academy of Sciences in Nitra, and joint research activities have also been broadened to cover the temporary camps in territory settled by the tribe of Quadi in Slovakia.

The interdisciplinary methodology used for the project involves a whole range of fields and activities (GIS analysis, aerial and surface landscape prospection, pedology, geology, etc.). One of the objectives is to prepare a standard methodology for verifying and probing Roman camps. One partial study already published is devoted to the comprehensive characteristics of the topic in question and the methodology applied in the interdisciplinary research, presenting as a model case the partial results of research at the Roman camp in the cadastre of Charvátská Nová Ves in South Moravia (Komoróczy, B./Vlach, M./Hüssen, C.-M./Lisá, L./Lendáková, Z./Groh, S., *Projekt interdisciplinárneho výzkumu římských krátkodobých táborů ve středním Podunají* (Interdisciplinary Project to Research the Roman Temporary Camps in the Middle Danube

Region). In: B. Komoróczy (ed.), *Sociální diferenciace barbarských komunit ve světle nových hrobových, sídlištních a sběrových nálezů (Social Differentiation of Barbarian Communities in the Light of New Grave, Settlement and Recovered Finds) (Archeologie barbarů (Barbarian Archaeology) 2011). Spisy Archeologického ústavu AV ČR Brno (Files of the Institute of Archaeology of the Academy of Sciences of the Czech Republic Brno) 44, Brno 2014, 341–367). The range of field and analytical methods applied includes extensive use of natural science analyses (geoarchaeological, micromorphological and geochemical), giving us a detailed understanding of the mechanisms involved in the creation and disappearance of Roman ditches as the chronological, structural and strategic aspects of these temporary camps (cf. Lisá, L./Komoróczy, B./Vlach, M./Válek, D./Bajer, A./Kovárník, J./Rajtár, J./Hüssen, C. M./Šumberová, J., *How were the ditches filled? Sedimentological and micromorphological classification of formation processes within graben-like archaeological objects. In: Quarternary International 2015, in print*). Intensive research activities have also been carried out at Mušov – Na Pískách, Mušov – Neurissen, Pasohlávky, Modřice near Brno, and at selected temporary camps in Lower Austria and Slovakia; the results will be presented in an extensive monographic synthesis during 2015 once most of the work has been completed. Considerable attention is devoted to using a metal detector to search for small finds that indicate other places used by the Roman army in this country. These are mostly small parts of armour and accoutrements, with analogies to be found in the find collections from Hradisko near Mušov and other reference sites. One study on this aspect describes the find of a castellated openwork fitting (balteum) from the village of Pavlov, indicating the existence of an “observation point” for the central fortified base at Hradisko during the Marcomannic Wars (Komoróczy, B./Vlach, M./Hložek, M., *Detektorový nález římsko-provinciálního prolamovaného kování z Pavlova, Jihomoravský kraj (Detector Find of a Romano-Provincial Castellated Fitting from Pavlov, South Moravia). In: Čížmářová, J./Venclová, N./Březinová, G. (edd.), Moravské křižovatky. Střední Podunají mezi pravěkem a historií (Moravian Crossroads. The Middle Danube Region between Prehistory and History), Brno 2014, 767-784*).*

Another of the principal topics researched by the team is ***the development of the Germanic populations in this country during the Roman period***. In 2009–2011 the settlement situation of the Elbe-Germanic populations of South Moravia and the chronology of the Middle Roman Period were the subject of a grant project from the Grant Agency of the Czech Republic entitled “*Germánská populace na prahu mladší doby římské: historický, sídlištní a socio-ekonomický kontext na příkladu mikroregionu Pasohlávky*” (“*The Germanic Population on the Threshold of the Late Roman Period: Historical, Settlement and Socio-Economic Context Taking the Pasohlávky Microregion as an Example*”) (GA CR No. 404/09/1054); coordinator B. Komoróczy). The final outcome was a collective monograph on the exceptionally valuable collection of field phenomena and finds dated to the Roman period in the cadastre of Pasohlávky (Komoróczy, B. (ed.), *Germánská společnost a Římané na prahu mladší doby římské v mikroregionu Pasohlávky (Germanic Society and the Romans on the Threshold of the Late Roman Period in the Pasohlávky Microregion)*). The manuscript has been edited and will be sent to print by the end of 2015. It will present a detailed analysis of the field phenomena and find categories including numerous natural science analyses (archaeobotany, metallurgy, archaeozoology, anthropology, 14C dating, etc.). The result is a comprehensive picture of the Germanic settlement from the transition between the Early and Late Roman period (B2/C1), with an exceptionally strong link to the milieu of the Roman occupation army encamped at close by at Hradisko near Mušov: the settlement could have been a “live context” of the member of the Germanic elite buried in a nearby princely grave at Mušov. This extraordinary phenomenon, the link between the Roman military and the Germanic community, has also been emphasised in previously published partial studies (e.g. Klanicová, S., *Germánské osídlení na katastru obce Pasohlávky (Jihomoravský kraj) z hlediska nálezů keramiky typu terra sigillata (The Germanic Settlement in the Cadaster of Pasohlávky (South Moravia) from the Viewpoint of Finds of Terra Sigillata Pottery). In: Beljak, J./Březinová, G./Varsik, V. (ed.), Archeológia barbarov (Barbarian*

Archaeology) 2009. *Hospodárstvo Germánov. Sídliiskové a ekonomické štruktúry od neskorej doby laténskej po včasný stredovek* (Germanic Economy. Settlement and Economic Structures from the Late Iron Age to the Early Middle Ages). *Archaeologica Slovaca Monographiae, Communicationes, Tomus X. Nitra 2010, 603-613*; Tejral, J., *Die nachträglichen germanischen Siedlungsaktivitäten am Burgstall bei Mušov. Versuch einer Interpretation*. Přehled výzkumů (Summary of Research) 52/2, 2011, 39-73; Komoróczy, B./Vlach, M., *Types of architecture of the Germanic population and the Roman army on the territory north of the Middle Danube during the Marcomannic Wars*. *Historia Antiqua* 20/2011, 391-404)

Analyses of the Germanic settlement in Pasohlávky have shown considerable as yet unexploited potential to shed light on the settlement material, particularly in order to gain a better understanding of the environmental hinterland of the settlements and a more detailed explanation of the technological and economic aspects of this period. The first steps towards systematically involving specialists from related disciplines have already been taken, in the field of archaeozoology (cf. Komoróczy, B./Sázelová, S., *Příspěvek k výskytu bobra evropského ve středním Podolí* (Article on the Occurrence of the European Beaver in the Middle Thaya Region). *RegioM, Sborník regionálního muzea v Mikulově* (Proceedings of the Regional Museum in Mikulov) 2011, Mikulov 2012, 70-77), as well as in the comparative study of Roman and Germanic ferrous and non-ferrous metallurgy. Work has commenced on an extensive series of measurements concerning the elements (X-ray fluorescence analysis, microanalysis) contained in objects made from non-ferrous metals from precisely dated contexts and from the huge source base obtained from surface collections. The initial study published draws on analyses of certain finds (scale armour, a belt fitting, a melting pot from the settlement in Pasohlávky) to prove that brass manufacturing technology was used in the South Moravia region (Hložek, M./Komoróczy, B./Trojek, T., *X-ray fluorescence analysis of ancient and medieval brass artefacts from south Moravia*. In: *Applied Radiation and Isotopes* 70, 2012, 1250-1253). A series of metallographic analyses of selected iron objects from the actual Germanic settlement in Pasohlávky and from the nearby fortified base at Hradisko near Mušov then identified the presence of Roman swords in both collections (Hošek, J./Beran, V./Komoróczy, B., *The metallography of two Roman swords from Mušov, Czech Republic*. In: *Hauptmann, A./Moderressi-Tehrani, D./Prange, M. (eds.), Archaeometallurgy in Europe III – Abstracts, Bochum 2011, Deutsches Bergbau-Museum Bochum, 100*). In the case of iron woodworking tools, metallographic analyses then showed that the blade parts were made from steel; in metallographic as well as archaeological and typological terms the collection analysed shares analogies with items of Roman-provincial origin (Hošek, J./Komoróczy, B./Beran, V., *Metalografická analýza železných dřevoobráběcích nástrojů z období markomanských válek v oblasti Mušova* (Metallographic Analysis of Iron Woodworking Tools from the Period of the Marcomannic Wars in the Region on Mušov). In: *Březinová, G./Varsik, V. (edd.), Archeológia na prahu histórie. K životnému jubileu Karola Pietu* (Archaeology on the Threshold of History. To Mark the Life Anniversary of Karol Pietu). *Archaeologica Slovaca Monographiae, Communicationes, Tomus XIV, Nitra 2012, 271-288*).

The testing of various economic models and subsistence theories concerning communities and their complexes offers enormous potential for our further understanding of the Germanic settlement structure and how the settlements themselves actually worked. The team carries out intensive theoretical and field work in selected smaller regions, using somewhat overlooked computer simulation and modelling approaches (e.g. Komoróczy, B./Vlach, M., *Simulating archaeological models: Perspectives in Protohistory*. In: *Sborník k jubileu prof. J. Svobody* (Proceedings to Mark the Jubilee of Prof. J. Svoboda). Brno 2015, in print).

Research activities also focused on gaining a better understanding of the social differentiation and stratification of the Germanic populations of the Roman period and protohistory in general. During the period in question the team generated a broad professional discussion on this topic, with one of the outcomes being a collective monograph (Komoróczy, B. (ed.), *Sociální diferenciace barbarických komunit ve světle nových hrobových, sídlištních a sběrových nálezů* (Social Differentiation of Barbarian Communities in the Light of New Grave, Settlement and

Recovered Finds) (*Archeologie barbarů (Barbarian Archaeology) 2011*). *Spisy Archeologického ústavu AV ČR Brno (Files of the Institute of Archaeology of the Academy of Sciences of the Czech Republic Brno) 44*, Brno 2014). The book is devoted to various aspects of scientific research into the social differentiation of protohistorical communities of the Late Iron Age, Roman Period and Migration Period within the territory of non-Roman Europe, and presents the latest sets of sources and numerous general theoretical and methodological approaches to research into this topic, viewed from different perspectives. Discussions of this type also form the basis for the work of the research team members, who strive to describe and explain protohistorical development in this country from an overall, synthetic viewpoint (e.g. Komoróczy, B./Klanicová, S., *V odlesku antiky (In the Reflection of Antiquity)*. In: R. Procházka (Red.), *Dějiny Brna I. Od pravěku k ranému středověku (The History of Brno I. From Prehistory to the Early Middle Ages)*, 403-445; Čížmářová, J./Komoróczy, B., *Na prahu historie (On the Threshold of History)*. In: Galuška, L./Mitáček, J./Novotná, L. (eds.), *Poklady Moravy, příběh jedné historické země (Treasures of Moravia, the Story of a Historic Land)*. Brno 2010, 53-76).

One of the team's priority tasks is also to evaluate and provide access to new grave finds. In addition to efforts to gain a better understanding of the components of the Germanic population during the Roman period in South Moravia (e.g. Vachůtová, D./Vlach, M., *K možnostem identifikace a poznání pohřebišť z doby římské na Moravě (On the Possibility of Identifying and Understanding Cemeteries from the Roman Period in Moravia)*. In: Droberjar, E. (ed.), *Archeologie barbarů (Barbarian Archaeology) 2011: Hroby a pohřebiště Germánů mezi Labem a Dunajem (Germanic Graves and Burial Sites between the Elbe and Danube)*. *Studia Archaeologica Suebica I*. Lublin, 39-63), this work focuses primarily on the extensive cremation necropolis at Modřice near Brno – Sádky, with 230 Germanic cremation graves from the Middle and Late Roman period. The team is currently involved in a grant project from the Grant Agency of the Czech Republic entitled “*Kořeny a proměny germánské společnosti střední a mladší doby římské ve světle výpovědí žárového pohřebiště Modřice-Sádky*” (“*Roots and the Transformation of Germanic Society in the Middle and Late Roman Period in Light of Evidence from the Cremation Cemetery at Modřice-Sádky*”) (GA ČR Reg. No. 15-20700S), devoted to the processing of this extraordinary find collection.

Field work must also contribute towards the development of field excavation methods. The team lays extraordinary emphasis on searching and documenting sites in a non-destructive manner. However, an equally important role is also played by rescue excavations, carried out primarily in the Middle and Lower Thaya micro-region (cf. e.g. Komoróczy, B./Klanicová, S./Šebela, L./Vlach, M., *Pasohlávky (cadaster of Pasohlávky, cadaster of Mušov, district of Břeclav)*, “*U Vodárny, Za Tuchnou*”. *Mladý/pozdní eneolit, KZP. Záchranný výzkum. Hroby, sídlištní objekt (Late Eneolithic, Bell-Beaker Culture. Rescue Excavation. Graves, Dwelling)*. *Přehled výzkumů (Summary of Research) 51*, 2010, 333-337; Komoróczy, B./Klanicová, S./Navrátil, A./Sázelová, S./Vlach, M., *Pasohlávky (cadastre of Mušov, cadaster of Pasohlávky, district of Břeclav)*, “*Za Tuchnou, U vodárny*”. *ÚK, VS, SMK. Sídliště, hroby. Záchranný výzkum (Settlement, Graves. Rescue Excavation)*. *Přehled výzkumů (Summary of Research) 51*, 2010, 348-356). Therefore, modern methodological approaches have been designed for rescue excavations and for the documentation of field phenomena and finds, comparable with systematic research. During all field work all the available artifacts and are systematically collected and an environmental and archaeological database is gradually created, which is effectively structured using GIS (cf. Prokeš, L./Petrík, J./Beran, V./Vlach, M./Humpola, D./Šmerda, J./Hlavica, M./Sova, E., *Možnosti statistické a prostorové analýzy hodnot půdních fosfátů na příkladu sekundárně narušených hrobů z Hodonic a Kyjova (Possibilities for Statistical and Spatial Analysis of Soil Phosphate Levels Using the Example of the Subsequently Disturbed Graves from Hodonice and Kyjov)*. In: Chvojka, O. (Ed.), *Archeologické prospekce a nedestruktivní archeologie (Archaeological Prospection and Non-Destructive Archaeology)*. Jindřichův Hradec 2014, 229-236). Heuristic field documentation methods combining photogrammetric image and detailed total measurement stations are converted into information systems that contain spatial and attribute

information about all documentable field phenomena. The importance dwells in the subsequent compatibility of the individual archaeological field surveys and the possibility of working with large volumes of archaeological information from extensive sites that have been subject to continuous research.

3. Migration Period

As part of its research into the Migration Period, the team participated in a project from the Grant Agency of the Czech Republic entitled “*Langobardi de suis regionibus egressi*” – *časně středověké migrace a problém etnické identity* (“*Langobardi de suis regionibus egressi*” – *Early Mediaeval Migration and the Problem of Ethnic Identity*) (GA CR No. 404/09/1719; 2009–2010; coordinated by J. Tejral). Another significant research project was entitled “*Kontinuita nebo změna – Migrující a autochtonní populace na prahu středověku ve světle multidisciplinárních výzkumů*” (“*Continuity or Change. Migrants and Indigenous Populations on the Threshold of the Middle Ages in the Light of Multidisciplinary Research*”, implemented as part of the Programme of Internal Support for International Cooperation Projects of the Academy of Sciences of the Czech Republic (No. M300010902; coordinated by J. Tejral; implemented 2009–2011 cooperation with the Roman-Germanic Commission of the German Archaeological Institute in Frankfurt – RGK DAI). Both projects were supplemented by (or linked to) a parallel RGK DAI programme entitled “*Untersuchungen und Kartierungen von Sr., Pb- und O Isotopen zur Herkunftsbestimmung ortsfremder Personenverbände während des Frühen Mittelalters – Neue Wege der Langobardenforschung*”. The GA CR project was aimed primarily at processing and evaluating excavated but as yet unpublished smaller and larger Lombard cemeteries from the 6th century in Moravia. This was a broadly themed international cooperation project and focused not only on 6th-century finds, but also on the wider issue of the migratory movements of barbarian tribes from the end of the Roman period to the arrival of the ethnic Slavs. This has therefore greatly helped to resolve the problem of continuity or discontinuity of development processes and has also had an innovative impact on the discussions right across the board of European science concerning the predicative relevance of the archaeological sources when identifying the various ethnic groups or events reported in the historical sources.

In 2013 Z. Loskotová’s team joined the international project “*aDNA – mapping of Longobard Period Europe – Genetic History & Medieval Studies*”, focused on the study of the demographics of early mediaeval migrations (project initiated by prof. P. Geary, School of Historical Studies, Institute for Advanced Study, Princeton and University of California, Los Angeles). Part of the project involves the continuous acquisition and characterisation of aDNA of individuals from cemeteries in Central Europe and Italy, considered to be Lombard in cultural terms, which are then compared with samples taken from concurrent cemeteries that should belong to the non-Lombard population of that period. Analyses are carried out in the laboratories of the Department of Evolutionary Biology of the University of Florence using Next Generation Sequencing (NGS) technology. In addition to aDNA research, isotope analyses are also carried out, by the Freie Universität Berlin (D. Peters) in collaboration with the laboratories of the Johannes Gutenberg Universität Mainz (C. Knipper).

Research activities performed as part of these projects also included heuristic field work, headed by Z. Loskotová. For a long time now she has specialised in the Lombard cemetery at Mušov “Roviny”, which is one of the largest funerary complexes dating from that era in the whole of the Middle Danube region, including Western Hungary. Excavations (72 grave complexes) have enabled documentation to be taken not only of important field situations (e.g. a grave shared by three individuals), and have also provided relatively well preserved anthropological material with the potential for further analysis (strontium, DNA, etc.) in cooperation with partners from abroad. The first results of the archaeological analysis of the found sources have already been published (Loskotová, Z., *Lombard burial grounds and graves of social elites north of the Middle Danube in the light of recent research*. In: Hardt, M./Heinrich-Tamáška, O. (Hrsg.), *Macht des Goldes, Gold der Macht. Herrschafts- und Jenseitsrepräsentation zwischen Antike und Frühmittelalter im*

mittleren Donaauraum. Weinstadt 2013, 321-337). Important finds include the Thuringian brooches from grave 5, from the oldest of the so-called Thuringian phases from the first third of the 6th century, as well as a Schwechat/Pallersdorf-type brooch from grave 3, this from the Pannonian phase, with numerous analogies in what is now Hungary. Most of the graves studied so far in Mušov clearly belong to the middle, so-called Danube phase of the Lombard invasion of Moravia. This was the cultural highpoint in the Middle Danube region, witnessing the emergence of elite social strata (e.g. grave 17 from Šakvice, grave 13 from Hauskirchen, the royal grave from Žuráň near Brno). Field work at the “Roviny” part of the Mušov cemetery has recently been halted and Z. Loskotová is working on an overall assessment of the graves explored so far; resuming this research is definitely one of the team’s priorities.

The most important results of the above-mentioned grant projects have been evaluated by members of the research team and external colleagues in numerous publications. The outcome, which presents the basic source data from older research, is a collective monograph entitled *Langobardische Gräberfelder in Mähren I, Spisy archeologického ústavu AV ČR v Brně (Files of the Institute of Archaeology of the Academy of Sciences of the Czech Republic in Brno) 39, Brno 2011*. Amongst others, it also contains a catalogue of the graves from the cemetery in Lužice (Klanica, Z./Klanicová, S., *Das langobardische Gräberfeld von Lužice (Bez. Hodonín)*, In: *Langobardische Gräberfelder in Mähren I, Brno 2011, 225-312*), Holubice and Borotice, which have never been published together in a single volume. The introductory study in this publication is a comprehensive summary of the current state of research and an evaluation of new conclusions concerning the chronology of this era (Tejral, J., *Zum Stand der Langobardenforschung im norddanubischem Raum*, In: *Langobardische Gräberfelder in Mähren I, Brno 2011, 11-73*).

The culmination of the many years of research performed by J. Tejral, devoted to the broad topic of the development of Central Europe from the end of the 4th century to the initial phase of Slavic settlement was a series of monographs and comprehensive studies published during this period. One of the monographs (Tejral, J., *Einheimische und Fremde. Das norddanubische Gebiet zur Zeit der Völkerwanderung. Spisy archeologického ústavu AV ČR v Brně Files of the Institute of Archaeology of the Academy of Sciences of the Czech Republic in Brno) 33, Brno 2011, 466 pp.*) provides a summary analysis and evaluation of the numerous finds from graves from the end of the 4th and the first half of the 5th century in the broader European context. Multiphase development therefore had clear links to the transformations that occurred in the Roman provinces in the Middle Danube region. In the territory to the north of the Danube we cannot rule out the possibility that the local population survived, although the archaeological sources tend to offer a picture of fundamental changes in tangible culture, particularly in grave equipment. The diversity of the archaeological finds and sometimes also of anthropological material with Eastern mongoloid features indicates that most skeleton graves from the very first phase of the Migration Period were for people who were mostly likely outsiders, with links to Eastern Europe. Some phenomena at the surviving settlements used by the local population or in newly founded highland communities could, however, imply mutual contact between the domestic and a foreign element. It therefore seems that the decisive factor behind the settlement changes that occurred during the first half of the 5th century in the region to the north of the Middle Danube was probably an element acting from outside. It could have been the result of the infiltration of groups of foederati, barbarian allies in the service of the Romans, settled in important places of the provincial borderlands and inland.

J. Tejral devoted several studies to partial aspects of this broad topic. One of these focuses on the initial infiltration of the Huns into the Middle Danube region (Tejral, J., *Zur Frage der frühesten hunnischen Anwesenheit in donauländischen Provinzen am Beispiel der archäologischen Befundes. Slovenská archeológia (Slovak Archaeology) LVIII/1, 2010, 81-122*). There is also another work describing the complicated relations and transformations experienced by Moravia and the whole of the Middle Danube region during the Migration Period (Tejral, J., *Anonyme Herrscher des 5. Jahrhunderts nördlich der Donau und ihre Selbstdarstellung auf dem Weg ins Jenseits*. In: Hardt, M./Heinrich-Tamáška, O. (Hrsg.), *Macht des Goldes, Gold der Macht*.

Herrschafts- und Jenseitsrepräsentation zwischen Antike und Frühmittelalter im mittleren Donaauraum. Weinstadt 2013, 295-319; Tejral, J.: *Cultural or ethnic changes? Continuity and discontinuity on the Middle Danube ca A.D. 500*. In: *The Pontic-Danubian Realm in the Period of the Great Migration*. Paris – Beograd, 2012, 115-188). It discusses questions such as how well the archaeological finds from this period document the cultural changes and power-political and ethnic upheavals, as well as the power of the ruling elites, presented through gold objects found in graves dating from this time.

More extensive studies aimed at clarifying the complex situation at the end of the Roman period and during the Migration Period have also been contributed by Z. Loskotová, whose research activity is a fully-fledged follow-up to J. Tejral's work and in many ways has developed this along more modern lines and has explored some issues not previously pondered. The problem of identifying social elites in grave complexes and the topic of gold neck rings from the beginning of the Migration Period are explored in a study about the skeleton grave from Charvátý (Loskotová, Z., *An early 5th century skeleton grave with gold neck-ring from Charvátý (Moravia)*, In: *The Pontic-Danubian Realm in the Period of the Great Migration*. Paris – Beograd, 2012, 189-195). This is part of a group of unique 5th-century skeleton graves in Moravia. We may assume that it served to inter a member of the social elite of that time, or at the very least, a person with ties to the newly-arriving groups that could, through foederati alliances or involvement in the Roman military structures, have been bearing luxurious late-antiquity products and could also have owned items from the east, from the so-called nomadic equestrian complex. She has also penned numerous studies on the topic of the Przeworsk culture in this country, especially with particular regard to its Bohemian-Silesian enclave, the development of which differs greatly from that of the Elbe-Germanic population in South and Central Moravia. Besides an evaluation of the older grave complex from Štěbořice near Opava and specific aspects of its settlement strategy, she has also focused on the general characteristics of this specific area (Loskotová, Z., *Das Waffengrab der Przeworsk-Kultur aus Štěbořice*. *Slovenská archeológia* LVIII/1, 2010, 53-79; Loskotová, Z., *Die Przeworsk-Kultur im südlichen Teil des Oberschlesiens am Ende der römischen Kaiserzeit und am Anfang der Völkerwanderungszeit*. *Přehled výzkumů (Summary of Research)* 52/1, 111-137; Loskotová, Z., *Zur Frage der Nutzung der Höhenlagen im südlichen Bereich der Przeworsk-Kultur am Beginn der Völkerwanderungszeit, in Bezug auf die Siedlungen im Jeseníky-Vorgebirge*. *Přehled výzkumů (Summary of Research)* 52/2, 7-38). In other studies she assessed an interesting technological aspect, the manufacturing buildings used to make wheel-thrown pottery from settlements of the Przeworsk culture in the region of Czech Silesia, which in geographic and topical terms was in line with the work performed by another member of the Centre's staff, O. Šedo (Loskotová, Z., *Die Töpferöfen der Przeworsk-Kultur in der Umgebung von Opava*. In: Bemann, J./Hegewisch, M./Meyer, M./Schmauder, M. (Hrsg.), *Drehscheibentöpferei im Barbaricum. Technologietransfer und Professionalisierung eines Handwerks am Rande des Römischen Imperiums*. Bonn 2011, 242-257; Šedo, O., *Poznámky k nálezům kvadratických pecí na barbarských sídlištích doby římské (Notes on the Discoveries of Quadratic Kilns at Barbarian Settlements of the Roman Period)*. *Zborník Slovenského národného múzea (Proceedings of the Slovak National Museum)* 2011, 207-214; Šedo, O., *Sídliště z mladší doby římské a začátku doby stěhování národů v Bohušově (Settlements from the Late Roman Period and the Beginning of the Migration Period in Bohušov)*. In: *Kostel sv. Martina v Bohušově (St. Martin's Church in Bohušov)*. Ostrava 2011, 28-54).

Research Report of the team in the period 2010–2014

Institute	Institute of Archaeology of the CAS, Brno, v. v. i.
Scientific team	Centre for Slavic and Medieval Archaeology

During the period in question the research team focused its attention on all three of the proposed sequences in the history of Central Europe during the era from the arrival of the first Slavs in the 6th century to the High Middle Ages in the 13th – 15th century. Therefore, it particularly explored the topic of the origins of the Slavic settlement of Moravia and Silesia, early mediaeval Great Moravia in the 9th century, including its decline in the 10th century, as well as selected aspects of high mediaeval development. The research continued to emphasise an interdisciplinary approach, applying the appropriate analytical methods available to the natural sciences, and also to prioritise international interdisciplinary cooperation within the framework of various specifically formulated projects and programmes (e.g. Moravia Magna).

Between 2010 and 2014 the **study of the oldest Slavic settlement** was fully concentrated on preparing fundamental material monographs aimed at publishing, in the form of complete catalogues, details of the field find situation and the archaeological material from settlements and burial grounds of the Prague-type pottery culture in Moravia. Work has been completed on the actual catalogue of sites and finds, with detailed documentation, categorisation and all the relevant geographical data (*Jelínková, D., Kultura s keramikou pražského typu na Moravě (Prague-type Pottery Culture in Moravia), MS, 486 pp., 438 fig.*). An analysis of the find collection and an assessment of the importance of the Moravian region in the context of the early mediaeval and early Slavic development of Central Europe will then form the subject of another volume, which is also in the preparation phase. The very extensive find collections from the settlements in Pavlov and Přítluky will also be included in the manuscript of another upcoming monograph, aimed at providing a comprehensive presentation of the results of research carried out at these important settlement complexes (*Jelínková, D., Sídliště s keramikou pražského typu v Pavlově a v Přítlukách (Settlements of the Prague-type Pottery Culture in Pavlov and Přítluky), rkp., 460 pp., 154 tab., 130 fig.*). Both of these manuscripts are expected to be published in 2016–2017, although a difficulty remains regarding the complete publication of the famous cremation necropolis from Přítluky, due to both its scope and the fact that the documentation is incomplete and problematic.

Once again, the team's research found evidence of the close links between sites in Moravia and related early Slavic cultural groups in neighbouring countries, particularly in Eastern Europe (the same or similar settlement locations and dwelling and pottery types, farming implements, etc.). However, this work also resulted in studies written on certain important secondary issues. A separate article was written on the function of casting spoons, together with casting moulds offering evidence that settlements engaged in occasional casting in stone furnaces by blowing (*Jelínková, D., Šrein, V., Šťastný, M., Doklady slévačství neželezných kovů v kultuře s keramikou pražského typu na Moravě (Evidence of the Foundry Production of Non-Ferrous Metals in the Prague-type Pottery Culture in Moravia). In: Doležel, J., Wihoda, M., ed., Mezi raným a vrcholným středověkem. Pavlu Kouřilovi k šedesátým narozeninám přátelé, kolegové a žáci (Between the Early and High Middle Ages. Dedicated to Pavel Kouřil in Honour of His Sixtieth Birthday, from Friends, Colleagues and Pupils), Brno 2012, 69-89*). Of equal interest were the previously unpublished findings concerning the occurrence of specific dug-out clay bread ovens, with numerous analogies and perhaps originating in Romania, as well as issues related to various whorl materials, with whorls having been made predominantly from soft rock on top of pottery

whorls. An article was published concerning the important question of dating: *Jelínková, D., K otázce datování počátků kultury s keramikou pražského typu na Moravě (Dating the Origin of the Prague-type Pottery Culture in Moravia), Přehled výzkumů (Summary of Research) (Summary of Research) 53, 2012, 7-21*. The paper presents new important knowledge on the dating of the beginnings of the Prague-type pottery culture on the territory of Southern Moravia. The grave with the sax from Přítluky indicates chronological and cultural relations to the Merovingian realm. Together with 14C dates from the House 953 from Pavlov, it helped to date the earliest phase of the Prague-type pottery culture to the turn of the 6th to 7th century.

Finally, there were interim résumé texts that further answered certain questions and offered some possible model solutions. For the Great Moravia and the Beginnings of Christianity exhibition catalogue the team completed and submitted a concise summary of the results of recent research into the origins of the Prague-type pottery culture, covering questions of chronology and relations to neighbouring non-Slavic environments (*Jelínková, D., Počátky slovanského osídlení na Moravě (The Beginnings of of Slavic Settlement in Moravia). Catalogue to accompany the exhibition entitled Great Moravia and the Beginnings of Christianity, Brno 2014, 23-32*). A summary article was then written for the broader European professional community and printed in *Archäologisches Korrespondenzblatt* (*Jelínková, D., Die früheste slawische Besiedlung Mährens im Lichte der letzten Forschungen*).

The bulk of the team's work was naturally devoted to **research into the Great Moravian hillfort in Mikulčice and the topic of Mojmir's Moravia in the 9th century**. The priority here is still to evaluate, verify and publish details of the extremely extensive field excavations carried out in Mikulčice during the last fifty years. However, fundamental new facts have also come to light as a result of the new, targeted rescue excavations performed particularly in connection with the renewal of the Great Moravia Memorial permanent exhibition and the construction of new tour routes. Systematic field research has also proved just as productive, carried out partially in relation to specific topics that constitute the team's basic research.

Then, in 2010–2013, in preparation for the new heritage presentation, the team carried out revisory research into the sacral buildings in Mikulčice as part of work on processing the original documentation. This resulted in significant new findings to facilitate our interpretation and dating of the masonry structures at the fortress, and the foundations of the palace and churches 3–6 and 8–10 were again gradually uncovered. In the 2010 and 2011 seasons the team also performed non-destructive excavations in the broader hillfort complex, discovering important new information concerning the functional interpretation of the various complexes and material culture (e.g. new altitudinal plans and the first phase of a systematic detector survey). The 2012–2014 period also saw rescue and revisory excavations of the fortifications and certain parts of the hillfort inner complex and bailey, as well as work in the broader hinterland (village on the Trapíkov line, etc.). Excavations at the 1st bridge were completed in 2012, after 45 years, with unique findings concerning the paleoecology of the defunct river system in the settlement and the reconstruction of the supporting structure of bridge No. 1.

In more than one case the excavations at Mikulčice have supplemented the current results of the team's work or have provided impetus for further study. The research has also enabled us to further specify earlier **results concerning Great Moravian sacral buildings** (cf. e.g. the summary of knowledge on the early mediaeval ecclesiastical architecture of Central Europe in a number of articles in the anthology *Poláček, L., Maříková-Kubková, J., hg.: Frühmittelalterliche Kirchen als archäologische und historische Quelle. Brno 2010, 424 pp.*; and the follow-up study *Poláček, L., Mikulčice und das Christentum in Mähren im 9. Jahrhundert. In: Salamon, M., Wołoszyn, M., Musin, A., et al. eds., Rome, Constantinople and Newly-Converted Europe. Archaeological and Historical Evidence. U źródeł Europy Środkowo-wschodniej/Frühzeit Ostmitteleuropas 1,1. Kraków – Leipzig – Rzeszów – Warszawa 2012, vol. I, 109–124*). Work has also continued on **evaluating and publishing details of the lavish skeleton burial grounds in Mikulčice** (e.g. the necropolis by the three-nave basilica), as well as partial publications on

individual finds or groups of finds, cf. e.g. Kavánová, B., *Velkomoravské relikviáře z Mikulčic (The Great Moravian Reliquary from Mikulčice)*, *Jižní Morava (South Moravia)* 49/52, 19-30; Kavánová, B., *Poznámka k relativní chronologii ostruh s páskovými rameny (Note on the Relative Chronology of Metal-strip Spurs)*. In: Doležel, J., Wihoda, M., ed., *Mezi raným a vrcholným středověkem. Pavlu Kouřilovi k šedesátým narozeninám přátelé, kolegové a žáci (Between the Early and High Middle Ages. Dedicated to Pavel Kouřil in Honour of His Sixtieth Birthday, from Friends, Colleagues and Pupils)*. Brno 2012, 169-184; Kouřil, P., Poláček, L., *Goldfunde von Mikulčice – Probleme und Perspektiven*. In: Hardt, M., Heinrich-Tamáska, O., Hrsg., *Macht des Goldes, Gold der Macht. Herrschafts- und Jenseitsrepräsentation zwischen Antike und Frühmittelalter im mittleren Donaauraum. Forschungen zu Spätantike und Mittelalter 2*. Weinstadt 2013, 407–422. In several cases assessment of older research has led us to **revise our previous interpretations**, e.g. of so-called pagan cultic structures (Hladík, M., *Zur Frage der heidnischen Kultstätte in "Tešický les" im Suburbium des Burgwalls von Mikulčice*. In: Poláček, L., Maříková-Kubková, J., Hrsg., *Frühmittelalterliche Kirchen als archäologische und historische Quelle (ITM VIII)*, Brno 2010, 101-121, tab. 12-14; Mazuch, M., *Revidierte Interpretation der "kreisförmigen heidnischen Kultstätte" im nördlichen Suburbium von Mikulčice*, *ibidem*, 123-133; Mazuch, M.: *K údajné existenci tzv. kruhového pohanského kultovního objektu v podhradí velkomoravského mocenského centra Mikulčice-Valy (The Alleged Existence of a So-called Circular Pagan Cultic Building in the Suburbium of the Great Moravian Power Centre at Mikulčice-Valy)*. *Slavia Antiqua* 53, 2012, 15-36).

An important contribution to our **understanding of the pottery from Mikulčice** and its potential historical predicative value comes in the form of the book Mazuch, M., *Velkomoravské keramické okruhy a tzv. mladší velkomoravský horizont v Mikulčicích (Great Moravian Pottery Circuits and the So-called Younger Great Moravian Horizon in Mikulčice)*. Brno 2013, 180 pp. The publication analyses two distinct groups of pottery from the peak and late phases of the settlement of the Great Moravian hillfort in Mikulčice in the second half of the 9th and at the beginning of the 10th century. Based on a detailed analysis of the finds and their depositional contexts from the northern suburbium, it presents the hypothesis that the Mikulčice hillfort met with a violent end sometime in the early 10th century, possibly in connection with a Hungarian invasion. Three studies were devoted to the **construction, formation and development of the fortification system of early medieval centre in Mikulčice**. L. Poláček summarises the results of research carried out so far on the bridges, M. Mazuch presents a critical analysis of current ideas concerning the appearance of the north-eastern gate to the hilltop settlement of the hillfort, and M. Hladík reviews the north-western gate to the outer bailey (Poláček, L., *Mosty a říční archeologie v Mikulčicích (Bridges and River Archaeology in Mikulčice)* (thesis), *Přehled výzkumů (Summary of Research)* 53/ 2, 2012, 23-38; Hladík, M., *Severozápadná brána a opevnenie na predhradí hradiska Mikulčice – Valy (Northwestern Gate and Fortification at the Bailey of the Hillfort at Mikulčice - Valy)*, *ibidem*, 39-67; Mazuch, M., *Prostor severovýchodní brány akropole raně středověkého mocenského centra Mikulčice – Valy (Northwestern Gate of the Acropolis of the Early Mediaeval Power Centre at Mikulčice – Valy)*, *ibidem*, 69-95).

A project involving **research into the river branches in Mikulčice** drew on both older field work as well as recent excavations performed in 2012. This gave us a new insight into the development of the river system demarcating the fortified core of the Mikulčice agglomeration and helped to resolve questions concerning the possible impact environmental changes might have had on the decline and gradual depopulation of the power centre. Two fundamental monographs have already been published from this project (Poláček, L. et al., *Mikulčice River Archaeology. New Interdisciplinary Research on the Bridge No. 1 (ITM X)*. Brno 2014, 153 pp.; Poláček, L., *Grabungen im Bereich der ehemaligen Flussarme in Mikulčice*. Brno 2014, 111 pp.). *Přehled výzkumů (Summary of Research)* magazine (Vol. 55/2, 2014, pp. 7–123) then published a series of five comprehensive studies summarising our current knowledge of how water and water structures were used in the early Middle Ages in Central Europe.

During the period in question the team was also engaged in the **study of anthropology and the health of the populations of Great Moravia** based on selected burial grounds from Mikulčice and its hinterland, in close cooperation with the anthropological department of the National Museum in Prague and the Department of Anthropology and Human Genetics of the Faculty of Arts of Charles University. It was found that in the Great Moravian settlement agglomeration in Mikulčice there were significant differences in physical exertion and thus also in social status between the populations of the actual fortified centre and those of the villages in the centre's hinterland (Havelková, P., Villote, S., Velemínský, P., Poláček L., Dobisíková, M., *Enthesopathies and Activity Patterns in the Early Medieval Greater Moravian Population: Evidence of Division of Labour. International Journal of Osteoarchaeology* (2010). DOI: 10.1002/oa.1164; other outcomes from the project include Garcin, V., Polacek, L., Velemínský, P., Le Bagousse, A., *Influence de l'Eglise dans les pratiques funéraires autour des tout-petits: un parallèle entre deux necropoles moraves (Mikulčice-Kostelisko & Prusanky I, IXe-xe siècles, République tchèque) et la necropole carolingienne de Cherbourg Notre-Dame (Manche, France)*. In: Coste, M.-C., ed., *Le corps des anges*. Milan 2011, 75-89). Pivotal publications are being prepared, while for now a summary is given in the study Poláček, L., Velemínský, P., *Mikulčice und die Problematik der Sozialstruktur Großmährens – Möglichkeiten und Grenzen der Untersuchung*. In: Biermann, F., Kersting, T., Klammt, A., Hrsg., *Soziale Gruppen und Gesellschaftsstrukturen im westslawischen Raum. Beiträge zur Ur- und Frühgeschichte Mitteleuropas 70*. Langenweissbach 2013, 405–422. Based on the processing and analysis of the anthropological material from the early mediaeval Moravian necropolises, this paper summarises the current state of knowledge of the social structure of Mikulčice and the Great Moravia under the cooperation fields of archaeology and anthropology. It defines the problems of current research and formulates questions for the future. There has also been significant progress with research into the **settlement structure in the narrower and wider hinterland of the Great Moravian agglomeration in Mikulčice**. In addition to field rescue excavations, this has particularly involved systematic surface surveys using advanced prediction and documentation methods and technologies. A number of partial or methodical studies have been published during the course of this work (e.g. Hladík, M., *Výskum sídelných štruktúr v zázemí včasnostredovekého hradu v Mikulčiciach (Research into the Settlement Structures in the Hinterland of the Early Mediaeval Castle in Mikulčice)*. In: Doležel, J., Wihoda, M., ed., *Mezi raným a vrcholným středověkem. Pavlu Kouřilovi k šedesátým narozeninám přátelé, kolegové a žáci (Between the Early and High Middle Ages. Dedicated to Pavel Kouřil in Honour of His Sixtieth Birthday, from Friends, Colleagues and Pupils)*. Brno 2012, 111-135; Hladík, M., *Land use and settlement patterns in the hinterland of an Early Medieval stronghold in Mikulčice-Valy (Mikulčice, Czech Republic, 9th – 10th century)*. In: Vermeulen, F., Corsi, C., ed., *Non-destructive approaches to complex archaeological sites in Europe: A round-up*. Ghent 2013, 64-65). So far the project has culminated in a monograph: Hladík, M., *Hospodárske zázemie Mikulčíc. Sídelná štruktúra na strednom toku rieky Morava v 9. – 1. polovici 13. Storočia (Economic Hinterland of Mikulčice. Settlement Structures on the Middle Branch of the River Morava in the 9th to the 1st Half of the 13 Century)*. Brno 2014, 353 pp. This is the first monograph which comprehensively reconstructs the picture of the residential structure in the economic hinterland of the early mediaeval central agglomeration of Mikulčice – Valy and the position of this area in the broader region of the middle course of the River Morava. It is based on analysis of the links between the archaeological data and geographic space; research conducted in GIS used modern methodologies applied in geo-historical analysis. Other outcomes resulting from the research carried out in Mikulčice include, for example, the important assessment of secondary activities within the hillfort (Mazuch, M., *Doklady novověkých aktivit v prostoru zaniklého raně středověkého mocenského centra Mikulčice-Valy (Evidence of Modern Activities in the Defunct Early Mediaeval Power Centre at Mikulčice-Valy)*, Jižní Morava (South Moravia) 48, 2012, 7-45), which is a summary yet is crucial for the team's further research strategy. Thoughts summarising the current state of research into early mediaeval Mikulčice then form the subject of the study Poláček, L., Mazuch, M., Hladík, M., Krupičková, Š., *Between Science*

and Show –on the State of Research and Presentation of the early medieval Power Centre in Mikulčice (Czech Republic). In: von Carnap-Bornheim, C., ed., *Quo vadis? Status and Future Perspectives of Long-Term Excavations in Europe*. Neumünster/Hamburg 2014, 179–209.

In relation to the study of central sites in Mojmir's Moravia of the 9th and early 10th century intensive research has been carried out into **selected territories in the border regions of the Great Moravian power and cultural oecumene**. A model example has been the upper Odra river region, with important new findings resulting from the continuing research carried out at the hillfort at Chotěbuz – Podobora and work to process the older excavations performed at the tumulus in Stěbořice. A fundamental contribution to the topic of the way in which the cultural and evidently power expansion of Mojmir's Moravia into the borderline area to the north of the Moravian Gate at the end of the 9th century is reflected in the material and spiritual culture has been made by the study Kouřil, P., Gryc, J., *Der Burgwall in Chotěbuz-Podobora und seine Stellung in der Siedlungsstruktur des oberen Odergebietes*. In: *Studien zur Archäologie Europas (Bonn) 14*, 2011, 217–243. This study presents a collective evaluation of the group of early 9th-century medieval forts in the upper Odra region, the time and circumstances, in which they originated, grew and met their demise, their material culture, and also questions relating to the purpose they served, and their position in the settlement structure of the time. Special emphasis is placed on the results of systematic research carried out at the Chotěbuz – Podobora hillfort near Český Těšín.

The publication on the early medieval tumulus burial ground in Stěbořice near Opava is then the very first work to publish a comprehensive overview of the Slavic burial mounds in Moravia and Czech Silesia. The way used to bury the dead, the uniqueness of the material culture and the evident ideological stringency of the funeral ritual clearly reflect the expansion of culture and power further north from the central regions of Great Moravia during the latter half of the 9th century (Kouřil, J., Tymonová, M., *Slovanský kostrový mohylník ve Stěbořicích (The Slavic Skeleton Burial Tumulus in Stěbořice)*. Brno 2013, 278 pp.). The head of the team, P. Kouřil, then played a major role in the publication of the first modern synthesis of the most ancient history of Silesia in the period from the start of the Early Middle Ages to the start of the fundamental structural changes that occurred in the 13th century from the viewpoint of Czech mediaeval studies. He prepared a monograph charting the development of the first Slavic settlement of Silesia from the early days until the 13th century, including fortifications and the origins of Silesian towns from an archaeological viewpoint (Antonín, R., Kouřil, P., Prix, D., *Slezsko v časech raného středověku (Silesia in Early Mediaeval Times)*. In: Jirásek, Z., ed., *Slezsko v dějinách českého státu. I. Od pravěku do roku 1490 (Silesia in the History of the Bohemian State. I. From Prehistory to 1490)*. Prague 2012, 95–163).

Another important topic studied was the **problem of the demise of the Great Moravian Empire** and the settlement and ethnic transformations that this gave rise to. This subject was comprehensively explored from an archaeological viewpoint by the article Kouřil, P., *Archeologické doklady nomádkého vlivu a zásahu na území Moravy v závěru 9. a v 10. Století (Archaeological Evidence of the Nomadic Influence and Intervention in Moravia at the End of the 9th and in the 10th Century)*. In: Štefanovičová, T., Hulínek, D., ed., *Bitka pri Bratislave v roku 907 a jej význam pre vývoj stredného Podunajska (Zborník príspevkov z kolokvia) (The Battle of Bratislava in 907 and its Importance for the Development of the Middle Danube Region (proceedings of colloquium contributions))*. Bratislava 2008 (published in 2010), 113–135. This study gives a comprehensive assessment of the indices of nomadic influence in Slavic Moravia at the time of the crisis and demise of the Great Moravian Empire and the “Dark Age” that followed. In addition to evidence of cultural and trade contacts, it also discusses a very interesting group of finds closely linked to the demise of the House of Mojmir, which provide evidence of direct military action waged by the old Hungarian ethnic group. This work is an important contribution which helps to clarify the changes in the political and power relations which occurred in Moravia

at the turn of the 9th and 10th centuries. The ways in which these processes are reflected in the find situations at the Great Moravian castle in Mikulčice are identified in a pair of articles by M. Hladík and M. Mazuch (*Hladík, M., Mazuch, M., Problém interpretace vzájemného vztahu sídlištních a pohřebních komponent v prostoru mikulčické raněstředověké aglomerace. (Poznámky k výskytu tzv. neregulérních hrobů v sídlištních situacích a k interpretaci stratigrafických sekvencí jako výsledku změn kvality sídelních areálů v prostředí raněstředověkých mocenských center)* (*Interpretation of the Link between Settlement and Burial Components in the Early Mediaeval Agglomeration of Mikulčice. (Notes on the Occurrence of So-called Irregular Graves in the Settlement Situations and on the Interpretation of the Stratigraphic Sequences as a result of Changes in the Quality of Settlement Complexes in Early Mediaeval Power Centres)*), *Přehled výzkumů (Summary of Research)* 51, 2011, 82-92; Mazuch, M., *Výzkumy severního podhradí hradiště Mikulčice-Valy: k otázce násilného zániku velkomoravských mocenských center na počátku 10. věku (Excavations at the Northern Suburbium of the Mikulčice-Valy Hillfort: on the Violent Demise of the Great Moravian Power Centre at the Beginning of the 10th Century)*. In: Doležel, J., Wihoda, M., ed., *Mezi raným avrcholným středověkem. Pavlu Kouřilovi k šedesátým narozeninám přátelé, kolegové, žáci (Between the Early and High Middle Ages. Dedicated to Pavel Kouřil in Honour of His Sixtieth Birthday, from Friends, Colleagues and Pupils)*, Brno 2012, 137-160). Based on analysis of the find situation and the material contents of the northern suburbium of the Mikulčice hillfort and draw on further indicators from other parts of this centre, the authors highlight evidence of the violent demise of this Great Moravian centre and the collapse of the power structures of the Great Moravian Empire in the early 10th century, possibly as a result of destructive raids by the ancient Hungarians.

A natural follow-up to the problem of the demise of Mojmir's Moravia in the early 10th century was research into the topic of the **development of Moravia in the 10th–12th century and the role of fortified centres** in the power struggles, administrative organisation and economy of that period. Many years of systematic study formed the basis of the article Procházka, R., *Zur Funktion der mährischen Burgen des 10.–12. Jahrhunderts*. In: Macháček, J., Ungerman, Š., ed., *Frühgeschichtliche Zentralorte in Mitteleuropa. Internationale Konferenz und Kolleg der Alexander von Humboldt-Stiftung zum 50. Jahrestag des Beginns archäologischer Ausgrabungen in Pohansko bei Breclav, 5.-9. 10. 2009. Studien zur Archäologie Europas 14, Bonn 2011, 611–621*. This article presents a clear summary of the current state of research into Moravian castles from the 10th –12th century. It characterises the individual chronological and functional groups of fortified buildings, their formal features, the trend in the dependence on political and social-economic transformations, links to older sites from the Great Moravian period, and their gradual replacement by stone castles in the 13th century. In a similar manner they presented a comprehensive summary of the possible development of fortified sites in the northern half of the territory they were systematically researching: Kouřil P., Gryc J., *Hradiska 10.-12. století na Severní Moravě a v Českém Slezsku (10th-12th-Century Hillforts in North Moravia and Czech Silesia)*. In: Moździoch, S., Czapla, K., Chrzan, K., ed., *Funkcje grodów w państwach wczesnośredniowiecznej Europy Środkowej. Społeczeństwo, gospodarka, ideologia, Wrocław – Głogów 2014, 99-172*. To a certain extent a sui generis topic is still the processing of the results of extensive excavations at the hillfort in Přerov, built as a foothold in the Polish expansion in Moravia at the turn of the 10th and 11th century. R. Procházka is preparing the drafts for the publication of these results, while during the period in question comprehensive research focused on, amongst other topics, Polish influences on Moravia pottery in the 10th/11th century. So far a study has been published comparing Přerov with another site currently being explored, the princely castle at Staré Brno (Procházka, R., *Přerov a Brno, příklady rozdílné dynamiky vývoje hradišť 11.–12. století na Moravě (Přerov and Brno, Examples of the Different Dynamics of Castle Development in the 10th-12th Century in Moravia)*. In: Moździoch, S., Czapla, K., Chrzan, K., ed., *Funkcje grodów w państwach wczesnośredniowiecznej Europy Środkowej. Społeczeństwo, gospodarka, ideologia, Wrocław – Głogów 2014, 227–255*).

During 2010 – 2014 an important part of the team's research work included **archaeology of the High Middle Ages**. It focused particularly on the **genesis, internal structure, manufacturing potential and the material culture of high mediaeval towns**. The fundamental basis for this was study into the methodical aspects of archaeological research into mediaeval towns (*Procházka, R., Odras vrcholně středověké urbanizace varcheologických pramenech na základě vybraných příkladů* (Reflection of High Mediaeval Urbanization in the Archaeological Sources on the Basis of Selected Examples), *Přehled výzkumů* (Summary of Research) 51, 2010, 209–247). A number of studies have been devoted to the important theme of the **origins and transformation of the urban allotment system**, particularly based on evaluation many years of rescue excavations performed in the historical heart of Brno. Some partial contributions should be mentioned, such as *Procházka, R., Zůbek, A., Výpověď archeologických pramenů o prostorovém vývoji jihovýchodní části Brna ve 12.–15. století na příkladu parcely někdejšího domu Josefská 7* (Testimony of the Archaeological Sources Concerning the Spatial Development of the South-eastern Part of Brno in the 12th-15th Century Using the Urban Plots of the Former House at Josefská 7 as an Example), *Archaeologia historica* 37, 2012, 189–208. There has also been multidisciplinary archaeobotanical evaluation, which has been valuable in understanding the environment and economy of the mediaeval town (*Kočár, P., Kočárová, R., Opravil, E., Procházka, R., Archeobotanická výpověď brněnských parcel* (Archaeobotanical Evidence from the Urban Plots of Brno), *Přehled výzkumů* (Summary of Research) 55/2, 2014, 125–166). The latest findings have then been summarised in the text *Procházka, R., Grundzüge der spätmittelalterlichen Grundstückbebauung in Brno (Brünn)*. In: v. Theune-Vogt, C., Scharrer-Liška, G., Huber, E. H., Kühnreiter, T., Hrsg., *Stadt – Land – Burg. Festschrift für Sabine Felgenhauer-Schmiedt zum 70. Geburtstag. Internationale Archäologie. Studia honoraria* 34, Rahden Westf. 2013, 89–99. This study presents a comprehensive assessment of the spatial, temporal and socio-topographic development in the 13th-15th centuries in five residential plots in the historical centre of the city of Brno, explored in 1983–1986 (the change from wood and clay buildings to brick buildings in the 14th century, the transformations in the social structure of the population in the late 15th century, etc.). The work also presents the sequence of the holders of these plots, including all source data.

So far there has been insufficient attention focused on assessment of the **material evidence of production from medieval Moravian cities and pre-locational agglomerations**. The members of the research team therefore took a special interest in this topic, particularly on the basis of findings from Brno, as regards both pottery and other production. However, the **study of pottery** was not restricted merely to typology and chronology, as cooperation with the natural sciences also enabled attention to concentrate on the technological aspects. Themes characterised included the fundamental transformation of South Moravian mediaeval pottery (*Procházka, R., Der Wandel der südmährischen Keramik im 12. und 13. Jahrhundert*. In: Mennicken, R., Peine, H. W., Schöne, S., Stahl, P., Stephan, H.-G., Hrsg., *Keramische Begegnungen: Sachsen-Schlesien-Böhmen. Beiträge zum 42. Internationalen Symposium Keramikforschung vom 21. bis zum 25. September 2009 in Görlitz, Töpfermuseum Raeren* 2010, 66–78). A thorough comparative study then focused on the technology used to make pottery from the various regions of Moravia (*Gregerová, M., Hložek, M., Holubová Závodná, B., Procházka, R., Naturwissenschaftliche Erforschung der mittelalterlichen Keramik aus Brno und Loštice, Beiträge zur Mittelalterarchäologie in Österreich* 27, 2011, 42–52). There were also studies on tiles as a specific component of mediaeval pottery (*Gryc J., Jagosz-Zarzycka, Z., Średniowieczne i nowożytnie posadzkowe płytki ceramiczne ze zbiorów Muzeum Śląska Cieszyńskiego w Cieszynie, Archaeologia historica* 37, 2011, 629–642; *Fleková, K., Čížmář, Z., Procházka, R., Nález románských dlaždic z Rokytne. In: Doležel, J., Wihoda, M., ed., Mezi raným a vrcholným středověkem. Pavlu Kouřilovi k šedesátým narozeninám přátelé, kolegové a žáci* (Between the Early and High Middle Ages. Dedicated to Pavel Kouřil in Honour of His Sixtieth Birthday, from Friends, Colleagues and Pupils). Brno 2012, 279–300). More extensive publications extended these **findings to other branches of**

production, with two articles on the remnants of food and lime kilns, as well as blacksmith slag and smelting crucibles from the 12th–13th/14th century resulting from surface archaeological excavations in the south-eastern part of Brno (*Procházka, R., Hložek, M., Holubová Závadná, B., Doklady neželezné metalurgie z Brna-Josefské ulice (Evidence of Non-ferrous Metallurgy from Josefská Street in Brno), Archeologické rozhledy (Archaeological Perspectives) LXIII, 2011, 65–89; Procházka, R., Archeologické doklady výroby z 12.–13./14. století v jihovýchodní části Brna ve vztahu k vývoji zástavby (Archaeological Evidence of Production from the 12th to 13th/14th Century in the South-eastern Part of Brno, in Relation to Building Development), Forum Urbes medii aevi VI, 2011, 212–251*).

One specific topic was the research team members' involvement in the **systematic study of the history of certain Moravian towns and villages during the Early, High and Late Middle Ages**. These works provided us with a detailed insight into the emergence and development of the more complex mediaeval settlement organisms within the various different regions, enabling us to compare the urbanisation processes amongst the different categories of domicile. The most important was the team's participation in the first modern monograph on the mediaeval history of Brno, summarising the results of many years of research, with team member R. Procházka assisting in the editing work and also writing or co-writing numerous chapters (e.g. *Procházka, R., Místní předpoklady vzniku města. Přímé doklady zaměstnání obyvatel a jejich výrobní činnosti od 13. do 15. století. Dům a parcela. Zásobování vodou a hospodaření s odpady (Local Preconditions for the Emergence of a Town. Direct Evidence of Population Employment and Production Activities from the 13th to 15th Century. House and Plot. Water Supply and Waste Management)*. In: Jan. L., ed., et al., *Dějiny Brna 2. Středověké město (History of Brno 2. The Mediaeval Town)*. Brno 2013, 32–39, 220, 221, 271–287, 376–390, 392–394, 405–407, 812–847, 898–902). The same author also participated in an overall evaluation of the mediaeval settlement and the history of the important residential town in southwest Moravia, Moravský Krumlov (*Procházka, R., Salaš, M., Raně středověké osídlení Moravskokrumlovska (Early Mediaeval Settlement of the Moravský Krumlov Region)*. In: Fišer, Z., ed., *Moravský Krumlov ve svých osudech (Moravský Krumlov in All Its Fates)*. Brno 2009 (published 2010), 31–38). Details were also published of the mediaeval history and monuments of Tišnov as another important town community that has undergone complex development (*Doležel, J., Tišnov ve středověku a na počátku novověku (od slovanského osídlení do roku 1554). Tišnovské památky románského období a gotiky. M. Šimon z Tišnova. Martin z Tišnova. M. Martin z Tišnova. Barbora Konická ze Švábenic. Úvodní slovo (Doležel, J., Tišnov in the Middle Ages and in the Early Modern Age (from the Slavic Settlement Until 1554). Romanesque and Gothic Monuments of Tišnov. M. Šimon of Tišnov. Martin of Tišnov. M. Martin of Tišnov. Barbora Konická of Švábenice. Introduction)*. In: Doležel, J., Lacina, J., Zápál, J., ed., *Tišnov. Příroda – Dějiny – Památky – Lidé (Tišnov. Nature – History – Monuments – People)*, Tišnov 2013, 6-7, 224-292, 521-543, 595-599). A valuable comparison is then given in articles on the settlement development of the large rural village in South Moravia, Miroslavské Knínice (*Jelínková, D., Archeologické lokality na katastru obce Miroslavské Knínice, okres Znojmo, Jižní Morava (Archaeological Sites in the Cadaster of Miroslavské Knínice, District of Znojmo, South Moravia) 51/48, 2012, 199-216; Jelínková, D., Pravěk a časné dějiny Miroslavských Knínic (Prehistory and Early History of Miroslavské Knínice)*. In: Hodeček, D., Jelínková, D., Ryšavá, L., *Miroslavské Knínice 1262-2012*. Brno 2012, 9-54).

Some of the team members' articles also focused on other fields of mediaeval studies, particularly **knowledge of social structures and period mentalities**. A comprehensive prosopography of some of Brno's more prominent burghers up to the year 1278 is provided by *Procházka, R., Wihodová, V., Brněnští měšťané v písemných pramenech přemyslovského období Část I. 1234–1278 (The Burghers of Brno burghers in the Written Sources of the Premyslid Period Part I. 1234-1278)*, *Brno v minulosti a dnes (Brno Past and Present) 23, 2010, 35–88*. Another text was devoted to material evidence of long-distance links in the Middle Ages (*Gryc, J., Znalezisko muszli pielgrzymiej z Góry Zamkowej w Cieszylinie, Cieszyńskie Studia Muzealne 2010, 4, 57-66*).

A study on the history of art, iconography and ecclesiastical history then supplemented some of the most ancient European evidence of the cult of St. Elizabeth of Thuringia and enhanced our knowledge of cultural and spiritual relations in the court of the last Přemyslids (*Doležel, Jiří, Tišnovský tympanon. K rané úctě a ikonografii sv. Alžběty Durynské (The Tišnov Tympanum. The Early Worship and Iconography of St. Elizabeth of Thuringia)*, *Studia Mediaevalia Bohemica* 3/1, 2011, 33-67).

Research Report of the team in the period 2010–2014

Institute	Institute of Archaeology of the CAS, Brno, v. v. i.
Scientific team	Department for Moravia-Silesia Prehistory

During the 2010 – 2014 period the team focused on studying prehistoric development in selected important, breakthrough periods of the Late Stone Age, Bronze Age and the beginning of the Iron Age in Moravia and in Czech Silesia. Research placed particular emphasis on the role played by these regions in the transfer of cultural contacts and innovations, and on important segments of material and spiritual culture: the stone industry of the Late Stone Age, including highly prestigious types of artifacts (silicid axes and daggers), long-distance contacts with Eneolithic populations on the basis of comparative analysis of finds and the provenance of raw materials used, the social structure and cultural interaction between the south and north in the Late Bronze Age and the beginning of the Early Iron Age. Effort has been made to perform a comprehensive assessment of complete find collections, where possible, on the basis of broad international cooperation and making use of interdisciplinary applications (geology, osteology, anthropology, etc.). The team supplemented its source base with its own field excavations.

The first topic to be studied comprised the **stone industries of the Late Eneolithic**. It is important here to emphasise the team's highly effective and systematic collaboration with three other specialised institutions, which has grown to become a form of interconnected teamwork, from the phase involving the collection of the source base and its primary study, all the way through to the resulting final publications. The Institute of Geology of the Faculty of Arts of Masaryk University in Brno, represented particularly by prof. RNDr. A. Přichystala, DSc., has been continuously identifying the type and provenance of the raw materials used in the chipped stone industries. His colleague, involved in work with another two cooperating institutions, was dr. J. Kopacz (assistance in the typological analysis of artifacts). This was partly a long-term Czech-Polish project entitled *Chipped Stone Industries: Lithic chipped industry of the young Eneolithic of Moravia and Czech Silesia*, with Poland being represented by the Institute of Archaeology and Ethnology – Polish Academy of Sciences, Kraków department, the aim of which was to carry out a comprehensive study of the chipped stone industries of the Late Stone Age in Central Europe. In 2010 – 2014 the project focused specifically on the topic of the Jevišovice-Culture Lithic Industry in Moravia (with Central Europe as the Backdrop). This topic was aptly followed up by another, coordinated on the Polish side of the border by the Polish Academy of Arts and Sciences in Kraków and entitled *Chipped Stone Industries: The Bell Beaker Culture in Central Europe in the Light of Study of Chipped Stone Industry (Lithic chipped industries of the Bell Beaker culture in the eastern part of central Europe)*. The aim of this project was to gain a multidisciplinary understanding of the Bell Beaker culture of the Late Stone Age and its territorial contacts based on analysis of the chipped stone industry.

As part of its work on the topic of the **lithic chipped industry of young Eneolithic of Moravia and Czech Silesia**, during the period in question the team managed first to complete and publish the first comprehensive study into the chipped stone industry of the Young Stone Age Jevišovice culture; the collection of finds from the Bosacki group from the settlement at Obědovice in Eastern Bohemia was also assessed on a comparative basis for publication: cf. *Kopacz, J., Šebela, L., Krzemieniarstwo kultury jęwiszowickiej na Morawach. In: Copek, S., Kadrow, S., ed., Mente et rutro. Studia archaeologica Johanni Machnik viro doctissimo octogesimo vitae anno ab amicis, collegis et discipulis oblata. Ressorviae, 2010, pp. 105–131; Kopacz, J., Šebela, L., Lithic Chipped Industry of the Jevišovice Culture in Moravia. An Introductory Study, Přehled výzkumů (Summary*

of Research) 51, 2010, 69-96). Work then proceeded on documenting the Jevišovice inventory from the site of the same name, which had not previously been processed (layer B), as well as from Vysočany and from Ostopovice, and the cultural affiliation and dating of the two newly uncovered Eneolithic necropolises in Czech Silesia were re-evaluated on the basis of the study of the chipped stone industry and other inventory. The cemeteries in Opava-Kateřinky and Opava-Kylešovice, originally attributed to the Chłopice-Veselé cultural group (cf. Juchelka, J., *Nové nálezy eneolitických hrobových celků z českého Slezska (New Finds from the Eneolithic Grave Complexes in Czech Silesia)*, *Časopis moravského muzea (Moravian Museum Magazine)* XCIV, 2010, 89–97), were classed as belonging to the Globular Amphora culture, or the Epi-Corded Ware Cultural Complex (Reinecke Bronz A1). In the case of Jevišovice – Starý zámek, the team also analysed all the available source base from older strata and without stratification, belonging to the Funnel Beaker and Jevišovice cultures. Particularly valuable in terms of the study of the Young Eneolithic is the evidence found that the site had contact with the Brno region (Stránská skála chert), as well as with southern Poland (silicites from the Krakow-Czestochowa Jurassic). Also hugely important were the finds proving the existence of a Mid-Palaeolithic settlement (cf. Šebela, L., Přichystal, A., Škrdl, P., Humpolová, A., *Eneolitické hradisko Starý Zámek u Jevišovic se světle kamenné štípané industrie (The Eneolithic Hillfort of Starý Zámek near Jevišovice in the Light of the Chipped Stone Industry)*, *proceedings from the 2014 Neolithic-Eneolithic conference*, in print, p. 10, fig. 5). The project culminated in a monograph: Kopacz, J., Přichystal, A., Šebela, L., *Lithic Chipped Industry of the Young Eneolithic in Moravia and Czech Silesia. Brno 2014. 185 pp.* Drawing on the available archaeological sources this work offers the first comprehensive overview of the Early Eneolithic chipped industry in Moravia and Czech Silesia, dominated by a chipped stone industry that followed on from older technological development and used predominantly local raw materials. The book characterizes the chipped stone industry of the cultures of the Young Eneolithic (the Jevišovice and Bosacki cultures, the Globular Amphora culture in Czech Silesia), with a brief assessment of items from the Bosacki culture discovered in East Bohemia (Obědovice). Based on the chipped stone industry, the Jevišovice culture has a horizon that is younger than Jevišovice B, indicating contact with the bearers of invasive cultures (in this case the Bell Beaker culture). The dating of the cemetery in Opava – Kylešovice then indicates the presence of the Epi-Corded Ware Cultural Complex in this region. The signal of the impending transformation of the chipped stone industry that occurred in the Late Eneolithic (sub-group IIIc of the Moravian Corded Ware culture and the later period of the Bell Beaker culture) can be seen in the use of local raw materials.

During the 2010 – 2014 period a project devoted to **understanding the chipped stone industry of the Bell Beaker culture** in Central Europe focused on processing the source base and a partial assessment of certain important categories of artifacts. The first of these comprised **silicite daggers**. A catalogue of silicite daggers was created for the territory of the former Czechoslovakia (Bohemia: 31 sites; Moravia: 36 sites; Czech Silesia: 1 site; Slovakia: 5 sites).

After the available pieces had been analysed and the collection evaluated it was stated that according to the materials used, the handle-less silicite daggers, previously believed to have been manufactured in northern Europe, were also produced in areas of the eastern part of Central Europe, as documented by items found in Bohemia made from Bavarian platensilex (Bavaria) and chocolate silicite (Central Poland). Also, there have been 2 types of special silicite daggers discovered in Moravia for which no analogy has been found in neighbouring regions. However, classic silicite daggers do not occur in the inventory of the Bell Beaker culture. In 2012 two studies were compiled on the topic of Central European Eneolithic silicite daggers, formulating preliminary conclusions drawn on the basis of previous research, although these are only now being prepared for print (Šebela, L., – Přichystal, A., *Silicite daggers on the territories of the Czech Republic and Slovakia. Preliminary study* for the international anthology entitled *Silicite Daggers in Europe and beyond*, Australian National University, Canberra; tab. 2, fig. 8, p. 18; also Šebela, L., – Přichystal, A., *Siliciteové dýky na území České a Slovenské republiky. Předběžná studie*

(Silicite Daggers in the Czech Republic and Slovakia. Preliminary Study), Collection of Works of the Faculty of Arts at the University of Brno; 15 pp.; 12 fig.).

The project also focused attention on **silicite axes in the Bell Beaker culture**. Work primarily involved compiling a comprehensive catalogue of finds of Eneolithic silicite axes in Bohemia, Moravia, Slovakia and Polish Silesia, with the team managing to considerably expand on the previously known find collection. As it was shown, silicite axes are a unique feature of graves from the Czech group of the Bell Beaker culture. In terms of morphology, the grave specimens found do not match the silicite axes of the Late Eneolithic and Early Bronze Age, were not made by bearers of the Bell Beaker culture and yet were not acquired else through bartering. It is possible that older pieces were reused, serving as a source of raw materials (to manufacture blades or flakes), or could have had a magical meaning (from the published sources, cf. particularly Přichystal, A., Šebela, L., *Kultura zvoncovitých pohárů ve východní části střední Evropy a silicitové sekery*, *Živá archeologie* 13, 2011, 52-57; Přichystal, A., Šebela, L., *The Bell Beaker culture in Eastern Central Europe and silicite (flint) axes*. In: P. Prieto Martínez & L. Salanova (coords.), *Current Research on Bell Beakers. Proceedings of the 15th International Bell Beaker Conference: From Atlantic to Ural. 5th - 9th May 2011 Poio (Pontevedra, Galicia, Spain). Santiago de Compostela 2013*, 163-176).

The general processing of the chipped stone industry of the Bell Beaker culture in Central Europe continued after Moravia with an analysis of Bohemian finds. Based on the occurrence of arrowheads and segments, the bearers of the Bell Beaker culture arrived in Bohemia from Moravia through the Boskovická brázda graben during the 2nd find group. The influence of Moravia in terms of the raw materials that were used (Krumlovský les-type chert) is apparent beyond the Vltava River. Raw materials originating in Central Poland, unlike those from Moravia found in graves in Bohemia, imply that there were intensive contacts between the Bohemian Basin and Lesser Poland through the Kłodzko Valley and Brana Lubawska. The basin of the Ohře River, on the other hand, is dominated by silicites from Thuringia and of local origin. In typological terms there is no fundamental difference between the chipped industry of the Bohemian and Moravian branches of the Bell Beaker culture; also, arrowheads with a level base appear in Bohemia.

In 2014 a control probe was performed at Stránská skála near Brno, which confirmed the first evidence of the existence of a chipped industry workshop in the Bell Beaker culture environment in the eastern part of Central Europe. The results obtained were presented at the international conference *Beaker days on Danube* (May 2014, Bratislava and Vienna). It has been agreed with the Polish team that the project will be extended to 2015 and 2016. As the source base has basically been collated, work may proceed to analyse the archaeological sources and create a complete synthesis, which could be finished by the end of 2015 and sent to print in 2016.

Besides both these main projects, the study also explored certain **other phenomena of the Eneolithic** (e.g. Šebela, L., *Mohyly v eneolitu Moravy (Eneolithic Burial Mounds in Moravia)*. In: Kowalewska-Marszałek, H., Włodarczak, P., eds, *Kurhany i obrządek pogrzebowy w IV-II tysiącleciu p. n. e. Kraków – Warszawa 2011*, 179-197; Juchelka, J., *Eneolitické jámy s kultovními předměty z Malých Hoštic (okr. Opava). Příspěvek k problematice kultovních míst hornoslezské lengyelské skupiny v českém Slezsku (Eneolithic Pits with Cultic Objects from Malé Hoštice (District of Opava). Article on Cultic Sites of the Upper Silesian Lengyel Group in Czech Silesia)*, *Studia Archaeologica Brunensia* M 14–15, 2009–2010, 221–230).

A separate topic was then the **systematic processing and assessment of prehistoric settlement within selected cadastres of the old settlement oecumene of Moravia**, which provided a detailed understanding of the development of prehistoric settlement structures within the individual micro-regions, offering the possibility for mutual comparison. These studies, carried out within the framework of monographs on the history of the various towns and municipalities, also helped to raise awareness of our archaeological cultural heritage and our most ancient history at the regional level (Šebela, L., *Příspěvek k poznání pravěkého a časně historického osídlení (Contribution towards Knowledge of Prehistoric and Early Historical Settlement)*. In: Mitáček, J.,

et. al., *Kralice nad Oslavou, Kralice nad Oslavou 2010*, 43-64; Šebela, L., *Pravěké a časně historické osídlení katastrálního území Ratiškovice (Prehistoric and Early Historical Settlement of the Cadastral Territory of Ratiškovice)*. In: Čejka, J., et al., *Ratiškovice. Minulostí slovácké obce (Ratiškovice. The Past of this Moravian Slovakian Village)*, Ratiškovice 2010, 25-64; Šebela, L., *Pravěké a časně historické nálezy z katastrálního území Hulína (Prehistoric and Early Historical Finds from the Cadastral Territory of Hulín)*. In: Z. Fišer (ed.) et al, *Hulín. Město na křižovatkách (Hulín - the Town at the Crossroads)*. Brno 2014, 15-72).

The other key topic focused on by the team was the **study of the settlement of Czech Silesia during the Late Bronze Age to the start of the Iron Age**. This research drew on older find collections as well as collections from more recent rescue excavations performed by the team during the last decade. In the first stage of the work attention focused on certain questions relating to the previous development and selected categories of material culture (cf. Juchelka, J., *Únětická kultura na Opavsku? Nové nálezy ze starší doby bronzové z českého Slezska (Unetice Culture in the Opava region? New Finds from the Early Bronze Age in Czech Silesia)*, *Pravěk* NŘ 18/2008 (published in 2010), 321–326; Juchelka, J., *Bronzové a železné náramky, nápažníky a nánožníky lužické kultury z českého Slezska (Bronze and Iron Bracelets, Arm Bracelets and Foot-Warmers of the Lusatian Culture from Czech Silesia)*, *Přehled výzkumů (Summary of Research)* 51, 109–118). What has also proven important in gaining a general overview and improving our understanding of development trends in the settlement structure has been the preliminary evaluation of settlement in certain selected regions, specifically in the Pobeskydí region. This is evidently a specific district with conditions that are none too favourable for settlers, and tended to serve more as a communication corridor. The area was not permanently settled until the Late Bronze Age, from roughly 950 BC. The greatest boom can be dated to between 750 and 450 BC, while the people of the Lusatian culture remained in this region until the turn of HD3/LTA (see Juchelka, J., Nývltová Fišáková, M., Tůma, O., *Osídlení Pobeskydí v závěru doby bronzové a na počátku doby železné (Settlement of the Pobeskydí Region at the End of the Bronze Age and in the Early Iron Age)*, *Těšínsko* LIV/3, 2011, 1–15). The predicative capacity of the find collection for understanding social stratification at that time is the subject of a methodically-themed article: Juchelka, J., *K sociální struktuře společnosti závěru doby bronzové a počátku doby železné ve Slezsku (The Social Structure of the End of the Bronze Age and Early Iron Age in Silesia)*, *Časopis Slezského zemského muzea (Silesian Museum Magazine)*, B, 58/3, 2009 (published in 2011), 193–206. This work summarised all the available archaeological aspects that enable us to reconstruct the social stratification of the population during the Late Bronze and early Iron Age in Czech Silesia.

Information fundamental to our understanding of the material culture, chronology and spiritual life of Urnfield culture society is provided in a study of cremation burial sites from this period. Between 2010 and 2014 the team carried out a comprehensive assessment of the find collections from older excavations. The first to be published were details of the large necropolis dating from the Early and Late Bronze Age from Opava-Kateřinky (a total of 151 graves), with valuable information about the burial rites, material culture and spiritual milieu of society in the Early and Late Bronze Age on the border between northern Moravia and Silesia (Juchelka, J., *Pohřebiště lužické kultury v Opavě-Kateřinkách (Burial Sites of the Lusatian Culture in Opava-Kateřinky)*, *Přehled výzkumů (Summary of Research)* 50, 2009 (published in 2010), 61–138). Another publication, this time a monograph on the two nearby burial sites used throughout the whole of the development of the Lusatian culture at the end of the Bronze Age and in the Early Iron Age, was the following comprehensive work: Juchelka, J., *Lužická pohřebiště ve Vlaštovičkách u Opavy (Lusatian Burial Sites in Vlaštovičky near Opava)*. Brno 2014, 128 pp. The material from the sites has enabled a summary to be compiled into the development and transformations of the material aspects of the Lusatian culture in the Opava region, from the shapes of pottery to the bronze and iron industries and glass objects.

Natural science analyses were used to determine human remains and distinguish grave complexes both on the base of sex and longevity. Animal osteological material found in the graves has helped us to understand more about the domestication of animals during this time, while palaeobotanical samples from the various burial pits have helped give a picture of the taller plants that grew in the wider vicinity of both sites. These facts have also served as the basis for reconstructing burial rites and the manner in which they developed in each phase of the Lusatian culture. The monograph is accompanied by an appendix on CD with the complete inventory of all the material contents of the grave pits in the form of a clear alphanumeric code, as well as an inventory and description of the grave complexes and a multimedia presentation of all the relevant finds.

Work has also started to document and inventory the finds from the Lusatian culture burial site in Samborowice (approx. 250 grave units). This necropolis is a key, as yet unprocessed site in the territory of Upper Silesia from the Głubczyce subgroup of the Lusatian culture. The link to the burial site in Kietrz and Krzanowice could help us to analyse the burial rites of the Lusatian culture in northern Moravia and Upper Silesia, which is plans are being made for a comprehensive anthropological and archaeobotanical natural science analysis.

In 2014 the team then began work on a topic entitled “*Burn and Bury*”, subtitled “*The Complexity of the Burial Rite in the Early Days of the Lusatian Culture*”. The aim was to evaluate burial rites during the early phase of the Lusatian culture (approx. 1350 – 1150 BC), using burial sites from northern Moravia and Upper Silesia as examples (e.g. Kietrz, Krzanowice, Samborowice, Krzyzanowice, Opava – Kateřinky, Vlaštovičky – Jarkovice, Moravičany, Přáslavice, Nivky u Slatinek, Domamyslice, etc.). The rites appear to be uniform and consistent throughout the whole of this territory (cremation rite associated with the actual cremation process, barrows initially, then later only flat burial grounds, urn graves, with pits less common). Of course, when analysing the graves there are minor regional differences that are evident, particularly in the different customs when burying men, women and children (grave equipment, number of pots, urns used, urn or pit graves, additions in graves), as well as in other aspects that can only be seen through natural science analysis (animal offerings, the type of wood used for cremations, cremation temperatures for rich and poor graves, the use of pit and urn graves, etc.). The project therefore aims to determine the burial rite customs in general use throughout the whole of the area in question, as well as to describe regional differences and the areas covered by this research. This project is thus the first more comprehensive study of the burial rites of the Lusatian culture in the Czech Republic, drawing on the results of archaeological and modern natural science methods.

The team has also been active in its study of settlements from the period of the Urnfield culture. The manuscript of an article summarising the findings from newly surveyed settlements in the Czech Silesia region has been completed and submitted for publication in a professional peer-reviewed journal (*Juchelka, J., Nová sídliště lužické kultury na Opavsku (New Settlements of the Lusatian Culture in the Opava Region), Přehled výzkumů (Summary of Research) 2015, in print*). Preparations have also been completed for the publication in another professional peer-reviewed journal of research into the Hallstatt settlement (HC) in Loděnice near Opava, the inner part of which was separated from the rest of the settlement by a perimeter channel; this inner part consisted predominantly of enclosed stake houses. Based on the results of research into the settlement in Loděnice, delimited by a perimeter trough, a study was compiled of the Late Bronze Age and Hallstatt circular stake complexes in Central Europe, with emphasis on the situation within the framework of the Lusatian culture (*Juchelka, J., Sídliště ze starší doby železné v Loděnici u Opavy (The Early Iron Age Settlement in Loděnice near Opava), Acta Musei Moraviae – Scientiae sociales 2015, in print*).

During the period in question, research into the Urnfield culture of Czech Silesia culminated in a summary monograph: *Juchelka, J., Lužická kultura v českém Slezsku (Lusatian Culture in Czech Silesia). Brno, 2014. 341pp*. This work deals with the issue of the early and later Bronze Age and later Iron Age in Czech Silesia, as this was an area inhabited by people of the Lusatian Urnfield

culture. The history of research into the Lusatian culture in the region is introduced at the beginning, together with comments on the literature and sources to this particular topic. The following part presents a description of the development of settlement in the Czech Silesia during the Bronze Age until the end of the early Iron Age, with emphasis on the Lusatian culture period. The focus is on the analysis of the settlement structure (habitation sites, castles) and the issues of burial rites and grave equipment. The social structure of Lusatian culture is also reconstructed on the basis of finds from the whole area of historical Silesia and surrounding regions. This is followed by an introduction and analysis of the pottery from the sepulchral complexes and the chronological and typological analysis of metal, bone and glass objects. A complete list of all sites with finds of the Lusatian culture in the region is included at the end of the work, together with a descriptive system presenting all the pottery shapes from the sepulchral complexes of the Lusatian culture in Czech Silesia.