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TIME IN POLISH PREHISTORIC ARCHAEOLOGY IN THE NINETEENTH AND EARLY TWENTIETH CENTURY

Abstract

The nineteenth century marked the emergence of Polish archaeology in terms of defining time and the continuity of past events reconstructed based on material sources. The article offers an account of the changing perception of time in Polish prehistoric archaeology during the nineteenth and early twentieth century while assessing the impact of specific contemporary discoveries and archaeological studies on attempts at chronology and periodisation of prehistoric time. These discoveries broadened the knowledge of the continuity of events that took place within particular prehistoric ages and periods. As a result, the previously accepted "short" chronology of prehistoric times had been lengthened, and an evolutionary model replaced the biblical image of human time.

Keywords: nineteenth century, history of Polish archaeology, prehistory, time, relative chronology, absolute chronology

INTRODUCTION

The purpose of archaeology as a historical science has consistently been to determine the time and continuity of past events by way of reconstruction on the basis of material sources. During the nineteenth century, interest in archaeological monuments in Europe grew markedly, leading to the formation of archaeology as a science endowed with its own research methods. Developments in archaeological research did not evade Polish lands, in spite of the challenge posed by the fact that they had been partitioned among the neighbouring states. One of the basic tasks faced by the budding discipline was the dating of relics and archaeological sites, thus determining the time of habitation of prehistoric communities in Polish lands.

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Nineteenth-century pioneers of Polish archaeology were primarily invested in defining the relative chronology of their finds, far more than their absolute chronology. The role of time in archaeological research has already attracted attention,[1] primarily in contributions of a strictly methodological nature.[2] Some publications also outline the history of archaeological research in Poland, addressing the question of dating monuments, archaeological sites, and prehistoric periods.[3] The current text, however, proposes to illustrate changes in the perception of time that took place in Polish archaeology during the nineteenth and early twentieth centuries, as well as the impact of the findings of contemporary scholars of the most remote past on the chronology and periodisation of prehistory. Due to space limitations, only selected opinions, discoveries, and studies are discussed here, and by the same token, just a handful of the many Polish archaeologists who contributed to defining the chronology of prehistoric times in the Polish lands are mentioned. The current study is based on publications by nineteenth- and twentieth-century authors, supplemented by archival sources.

THE PERCEPTION OF TIME IN NINETEENTH-CENTURY POLISH ARCHAEOLOGY

In the first half of the nineteenth century, the prehistory of Polish lands primarily attracted the interest of historians and men of letters, the leading research centre in these parts being the Royal Warsaw

[1] Jacek Woźny, 'From Magical Valorization to Radiocarbon Chronology. Changes in Determining Age of Prehistoric Artifacts', *Analecta Archaeologica Ressoviensia*, 11 (2016), 79–89.

[2] Janusz Ostoja-Zagórski, 'Refleksje na temat roli czasu i przestrzeni w badaniach archeologicznych', *Kwartalnik Historii Kultury Materialnej*, xxxvii, 1 (1989), 163–73; Andrzej Mierzwiński, 'Between Chronos and Kairos – Existential Dilemma of an Archaeologist', *Analecta Archaeologica Ressoviensia*, 11 (2016), 99–117; Grzegorz Kiarszys, 'Upływający czas archeologii', *Przegląd Archeologiczny*, lxi (2013), 15–31; Stanisław Iwaniszewski, 'Archeologia czasu', in Stanisław Tabaczyński, Arkadiusz Marciniak, Dorota Cyngot, and Anna Zalewska (eds), *Przeszłość społeczna, próba konceptualizacji* (Poznań, 2012), 273–83.

[3] Bożena Stelmachowska, *System trzech epok w prehistorii polskiej* (Poznań, 1925); Józef Kostrzewski, *Dzieje polskich badań prehistorycznych* (Poznań, 1949); Andrzej Abramowicz, *Wiek archeologii: problemy polskiej archeologii dziewiętnastowiecznej* (Łódź, 1967); *id.*, *Historia archeologii polskiej. XIX i XX wiek* (Warszawa–Łódź, 1991); Stefan Nosek, *Zarys historii badań archeologicznych w Małopolsce* (Wrocław–Warszawa–Kraków, 1967).

Society of the Friends of Learning [Towarzystwo Królewskie Warszawskie Przyjaciół Nauk, TKWPN],[4] active in 1800–32 – the first Polish scientific institution whose programme included conduct of archaeological research. Learning about the past, even extremely remote, provided an important tool for maintaining the national identity of a society deprived of statehood following the partitions. At the time, interest in archaeology manifested itself most often in activities such as collecting artefacts typically found by happenstance, more so than as a result of deliberate excavations. The research conducted by nineteenth-century pioneers of archaeology was significantly invested in the temporal placement of the finds, an expression of the understandable desire to establish the chronology of the beginnings of human settlement in Polish lands, as well as the stages of its subsequent development until historical time.

The excavated artefacts believed to have originated in pre-Christian times were initially described most often as "Sarmatian" or "Slavic". This spoke both to the very limited contemporary knowledge of the farthest past of the Polish lands, and the concurrent assumption of continuous Slavic habitation from the most remote times to the present, and to the patriotic sentiments awakened by the loss of independence, which took the shape of Slavophilia. One example of such an approach to archaeological artefacts was the interpretation of burial sites discovered in Gruszów (Miechów county) by Krzysztof Wiesiołowski (1742–1826), owner of a collection of archaeological artefacts and co-founder of TKWPN. Wiesiołowski believed that the graves, one of which contained a stone axe, "undoubtedly belong to ancient Slavs, the primordial inhabitants of Poland and descendants of the Sarmatians".[5] Another member of the TKWPN, Wawrzyniec Surowiecki (1769–1827), historian and Slavist, also considered Slavs "eternal inhabitants" of Europe, and identified them with the Venedae (Venetians) known from Roman accounts, who had lived

[4] Kostrzewski, *Dzieje*, 210.

[5] Krzysztof Wiesiołowski, 'Rozprawa o starożytnościach Religiynych Sławian pierwszych mieszkańców Polski, tudzież o przyczynach Emigracyi tego Narodu i Hunnów do Europy, czytana przez Krzysztofa Wiesiołowskiego na posiedzeniu publicznem Towarzystwa Król. Warsz. Przyjaciół Nauk. Dnia 2. Stycznia 1812', *Roczniki Towarzystwa Królewskiego Warszawskiego Przyjaciół Nauk*, ix (1816), 282–3.

on the continent "from time immemorial … in a far-off era before Christianity".[6] Similar opinions were expressed by many pioneers of Polish archaeology, both interpreting incidental archaeological discoveries and engaging in their own fieldwork. Among them was Michał Grabowski (1804–1863), literary critic and author of historical novels, whose assessment of the chronology of the numerous barrows found in his estate in Ukraine concludes that "they are immeasurably ancient monuments", rightly deciding that they did not all date from the same age, but had been "spread over a dozen or more centuries". In his work, he opines that they were "the work of a people sat in one place for long centuries", identifying them as the Scythians,[7] whom he regarded as direct ancestors to the Slavs, "the one major people that had persisted [in Ukraine] from the farthest centuries to the present day".[8]

Nevertheless, from the very outset of the nineteenth century, some already suggested the possibility that Slavic – including Polish – lands may have been settled in the distant past by peoples other than Sarmatians, Scythians, and Slavs. In its July 23, 1817 edition, the *Gazeta Krakowska* daily published an anonymous note about the discovery in Żurawniki (Pińczów county) of a stone-encased grave containing a human skeleton with a flint hatchet stuck in the skull. The author of the note claimed that the find could change extant "historical presumptions", given that "it has so far been believed that these parts were not inhabited before the Sarmatians, and the Sarmatians already fought with iron; hence, the only conclusion that can be drawn is that the Kraków area was inhabited by civilised people even before the Sarmatians".[9] Another member of the TKWPN, Count Edward

[6] Wawrzyniec Surowiecki, *Śledzenie początków narodów słowiańskich: rozprawa czytana na publicznem posiedzeniu Królewsko-Warszawskiego Towarzystwa Przyjaciół Nauk w dniu 24 stycznia R. 1824 przez Wawrzyńca Surowieckiego Członka czynnego, umieszczona w Rocznikach tegoż Towarzystwa Tomu XVII w Warszawie* (Warszawa, 1824), 6–9, 29–30, 40–4.

[7] Mikołaj Grabowski, *Ukraina dzisiejsza i teraźniejsza*, i: *O zabytkach najgłębszej starożytności* (Kijów, 1850), 137–40.

[8] *Ibid.*, 35; Abramowicz, *Historia*, 33; Katarzyna Ryszewska, 'Michał Grabowski (1904–1863) jako pionier polskiej archeologii na Ukrainie', in Lidia Michalska-Bracha, Marek Przeniosło, and Beata Wojciechowska (eds), *Historia magistra vitae est. Studia z dziejów społeczno-politycznych, gospodarczych i kulturalnych* (Kielce, 2016), 125.

[9] *Gazeta Krakowska*, supplement to no. 59 (1817), 757.

Raczyński (1785–1845) – a renowned patron of the arts and sciences and founder of the municipal library in Poznań – wrote of barrows "lying scattered across the country" as graves of Sarmatian warriors.[10] Nevertheless, he voiced doubts about the provenance and age of ceramic dishes used as urns, noting that "one is hard-pressed … to proclaim them as Slavic; for other peoples who stayed in our country also observed the custom of burning the bodies of the dead".[11] The few attempts made at the time to define the chronology of the earliest settlements in Polish lands were usually limited to time after Christ, rarely going beyond this boundary. Julian Ursyn Niemcewicz (1758–1841), writer and historian who also exhibited an interest in archaeology and was President of the TKWPN in 1826–31, remarked that "the history of our nation has only just passed one thousand years" and wondered "how many thousands of years have flown over the land inhabited by the peoples of our tribe".[12] Niemcewicz correctly opined that the beginnings of "human industry" were connected with the use of stone tools and noted that it was the later stage, involving the use of ceramics and metal weapons, that was characterised by ritual cremation.[13]

More daring but commonly inflected were the insights of Danish pioneers of archaeology, Vedel Simonsen and Christian Jürgensen Thomsen, which led to the development of the first periodisation of prehistory. The Three-Age System, presented to the public in 1836 by Thomsen, who used it to organise the collections of the Museum of Northern Antiquities in Copenhagen already in 1815–19,[14] divided prehistoric times into three successive ages: stone, bronze and iron.[15] By placing the archaeological finds on a linear timeline whose sections corresponded to each age, one could demonstrate the evolutionary

[10] Edward Raczyński, *Wspomnienia Wielkopolski to jest województw poznańskiego, kaliskiego i gnieźnieńskiego*, i (Poznań, 1842), 2.

[11] *Ibid.*, 185–6; Abramowicz, *Historia*, 16.

[12] Julian Ursyn Niemcewicz, 'Zagajenie posiedzenia publicznego Towarzystwa Królewskiego Warszawskiego Przyjaciół Nauk, dnia 4 maja 1828 r. przez Juliana Ursyna Niemcewicza, prezesa tegoż Towarzystwa', *Roczniki Towarzystwa Królewskiego Warszawskiego Przyjaciół Nauk*, xxi (1930), 10.

[13] *Ibid.*, 11.

[14] Abramowicz, *Wiek archeologii*, 58; *id.*, *Historia*, 18; Stelmachowska, *System*, 10–11.

[15] Christian Jürgensen Thomsen, *Ledetraad til nordisk Oldkyndighed* (København, 1836).

progress resulting from technological change.[16] One of the positive outcomes of adopting the system was that the relative chronology of the findings became more accurate than before. Publications by Count Eustachy Tyszkiewicz (1814–1873) and Teodor Tripplin (1812–1881) played an important role in introducing and disseminating the system in Polish lands. The latter, a physician and traveller, visited Copenhagen in 1835 during one of his trips across Europe and became acquainted with the archaeological collections that Thomsen had classified.[17] Tyszkiewicz, a Lithuanian landowner who contributed significantly to Polish archaeology, undertook an expedition to Sweden, Denmark, and Finland in 1853 "to compare … our archaeological relics with those of Scandinavia".[18] Over the nineteenth century, the Three-Age System was gradually, though not always consistently, adopted by increasing numbers of Polish archaeologists.[19]

One of the main centres of prehistoric research in the 1850s was Kraków, where the Kraków Scientific Society [Towarzystwo Naukowe Krakowskie, TNK], itself established in 1817, formed an Archaeological Committee and created the Museum of Antiquities in 1850. Another such centre was Vilnius, where the aforementioned Eustachy Tyszkiewicz obtained permission from the Russian government to establish the Archaeological Commission in 1855 and to open the Museum of Antiquities in 1856, initially dependent on exhibits from the founder's private collection.[20] Instructions concerning the collection, classification, and conservation of archaeological artefacts issued by the Archaeological Committee of the TNK in 1850 recommended using the Three-Age System for arranging artefacts from pagan times.[21] The classification of the archaeological collections

[16] Woźny, 'From Magical Valorization', 83; Iwaniszewski, 'Archeologia czasu', 273–5.

[17] Teodor Tripplin, *Wspomnienia z podróży po Danii, Norwegii, Anglii, Portugalii, Hiszpanii i Państwie Marokańskim*, i (Poznań, 1844), 52–3.

[18] Edward Tyszkiewicz, *Listy o Szwecji*, i (Wilno, 1846), V; Abramowicz, *Historia*, 26.

[19] Stelmachowska, *System*, 15–26.

[20] Kostrzewski, *Dzieje*, 35, 39, 211; Abramowicz, *Wiek archeologii*, 99, 105–6.

[21] *Odezwa Towarzystwa Naukowego Krakowskiego z Uniwersytetem Jagiellońskim połączona w celu archeologicznych poszukiwań wraz ze Skazówką mającą posłużyć za przewodnika w poszukiwaniach tego rodzaju* (Kraków, 1850), 8–16; Kostrzewski, *Dzieje*, 35; Abramowicz, *Wiek archeologii*, 100–1.

of the Museum of Antiquities in Vilnius, headed by Adam Honory Kirkor (1819–1886), also embraced elements of the system.[22] Kirkor – archaeologist, publisher, and researcher of sites in the Vilnius area and subsequently in Lesser Poland – repeatedly invoked the system in his publications.[23]

Among scholars who took account of the system in their writings on archaeology was Franciszek Maksymilian Sobieszczański (1814–1871),[24] journalist, historian and archaeologist who was the first to attempt to define an absolute chronology of the three ages. He did this by relating the period of origin of artefacts made of particular raw materials to the time of existence of ancient civilisations.[25] According to him, "monuments discovered in graves possess a character of their own, marking the age of their origin, for items fabricated exclusively of stone refer to the deepest antiquity of the earliest centuries of Persians and Greeks. Short swords, clasps, and urns belong to the classical era of the Greeks and Romans. Arab coins and iron wares, to the time when Europe had trade relations with the East".[26] In subsequent years, other Polish archaeologists who subscribed to the Three-Age System took on the task of dating prehistoric ages and associated artefacts. One such figure was Józef Ignacy Kraszewski (1812–1887), author of innumerable historical novels, as well as scientific publications in history and archaeology.[27]

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[22] Adam Honory Kirkor, *Przechadzki po Wilnie i jego okolicach* (Wilno, 1856), 236–45; Abramowicz, *Historia*, 36.

[23] Lietuvos valstybes istorijos archyvas [Lithuanian State Historical Archives], Vilniaus mokslo bičiulių draugija, Istoriko, archeologo Adomo Honorio Kirkoro asmeninio archyvo bylų apyrašas, fond 1135, ap. 11, fols 358–84, M. Brensztejn, Rękopis A.H. Kirkora. Otrzymałem w 1894 r. od Piotra Umińskiego Prezesa Towarzystwa Numizm. Archeol. w Krakowie; Adam Honory Kirkor, 'O grobach kamiennych na Podolu galicyjskim', *Zbiór Wiadomości do Antropologii Krajowej*, i (1877), 17–35; *id.*, 'Sprawozdanie i wykaz zabytków złożonych w Akademii Umiejętności z wycieczki archeologiczno-antropologicznej w roku 1877', *Zbiór Wiadomości do Antropologii Krajowej*, ii (1878), 17; *id.*, *Pokucie pod względem archeologicznym. Badania A.H. Kirkora* (Kraków, 1876), 5–14, 40, 62.

[24] Abramowicz, *Historia*, 28.

[25] Kostrzewski, *Dzieje*, 30.

[26] Franciszek Maksymilian Sobieszczański, 'Wiadomości historyczne o stanie sztuki i przemysłu na ziemiach Słowian przed chrześcijaństwem', *Przegląd Naukowy*, iv (1845), 938.

[27] Kostrzewski, *Dzieje*, 49–52.

In a work presenting Slavic relics arranged according to the Three-Age System, he proposed that the beginnings of the Stone Age date back two and a half thousand years and placed the end of the age at 700 years before Christ.[28] References to the chronology advanced by Kraszewski can be found in a study by Galician landowner and active archaeologist Karol Rogawski (1820–1888), who states that "the age known … in archaeology as the Stone Age … is presumed to have ended … seven hundred years before the Birth of Christ".[29]

However, not all contemporary archaeologists fully accepted the Three-Age System; some believed that only two ages could be accounted for in Polish lands, while others rejected the system. Józef Przyborowski (1823–1896), linguist, literary historian, archaeologist, and pioneer of research of dune sites with numerous flint wares, was the first Polish scholar to draw attention to the so-called fine tools (now called microliths), thought that the Iron Age followed immediately after the Stone Age.[30] The negation of the existence of the Bronze Age in Polish lands stemmed from problems such as the limited number of sites known at the time to contain artefacts made from metal. Leading opponents of marking the Bronze Age included two members of the TNK, Teodor Nieczuja Ziemięcki (1845–1916) – publisher of *Dwutygodnik Naukowy Poświęcony Archeologii, Historii i Linguistyce* [Scientific Biweekly Devoted to Archaeology, History, and Linguistics] – and Jan Nepomucen Sadowski (1814–1897), archaeologist, ethnographer, and journalist.[31] The latter advanced the erroneous claim that all bronze items found in Poland were imports: Phoenician, Etruscan, or Roman.[32]

The shape of archaeology in the second half of the nineteenth century, including views on the dating of prehistoric ages, was strongly

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[28] Józef Ignacy Kraszewski, *Sztuka u Słowian* (Wilno, 1860), 40–1.

[29] Karol Rogawski, 'Wykopaliska z epoki kamienia i gliny. Zabytki kamienne z przedchrześcijańskich czasów', in Aleksander Przezdziecki and Edward Rastawiecki (eds), *Wzory sztuki średniowiecznej i z epoki Odrodzenia po koniec wieku XVII w dawnej Polsce, Serya III* (Warszawa, 1860); Kostrzewski, *Dzieje*, 45–6.

[30] Józef Przyborowski, 'Wycieczki archeologiczne po prawym brzegu Wisły', *Wiadomości Archeologiczne*, i (1872), 76; Kostrzewski, *Dzieje*, 76; Abramowicz, *Historia*, 38.

[31] Kostrzewski, *Dzieje*, 69–72; Stelmachowska, *System*, 33–46.

[32] Jan Nepomucen Sadowski, 'Obecny sposób zaopatrywania się na zabytki z epoki spiżowej', *Rozprawy i Sprawozdania z Posiedzeń Wydziału Historyczno-Filozoficznego Akademii Umiejętności*, i (1874), 125–62.

influenced by discoveries made by exponents of natural sciences. What they led to were changes in the perception of relative – and sometimes even absolute – chronology, above all concerning the times preceding the emergence of Slavic settlements on Polish lands. Thus, Polish archaeology formulated a separate prehistory, limited in scope to prehistoric times and focussed mainly on studying the Stone Age.

Polish archaeologists were influenced by the advancements by figures such as Georges Cuvier, scholar of fossil fauna, regarded as the founder of palaeontology, whose findings inspired Bolesław Podczaszyński (1822–1876), an architect by profession and one of the organisers of the Exhibition of Antiquities and Art Objects in Warsaw, the first such event on Polish soil. In a catalogue of the artefacts presented at this exhibition in 1856, he compared the capabilities of palaeontology and archaeology in attempts to date "earth deposits" containing the remains of ancient fauna and relics of human craft. In his opinion, "archaeology has its world of fossils, which constitute the most ancient original and unique traces of peoples who inhabited various corners of the earth in prehistoric times … its research serving to establish the age of these relics … arranging them according to place, nation, and time".[33] Podczaszyński also deserves mention among the still limited number of archaeologists who undertook the task of determining the chronological placement of certain prehistoric ages, and his attempt was very successful for the time, though it required corrections from later archaeologists.[34] Describing "the oldest monuments of this land", he named, among others, urns containing the ashes of persons who died "roughly 3,000 years ago",[35] while dating the age when "the use of bronze weaponry began", – that is, the onset of the Bronze Age – to mid-thirteenth century BC, and the beginning of the Iron Age to fifth or fourth century BC.[36]

The discoveries of Jacques Boucher de Perthes were of groundbreaking significance for the perception of time in European – and

[33] Bolesław Podczaszyński, *Przegląd historyczny starożytności krajowych: z powodu wystawy urządzonej w Warszawie w r. 1856 w pałacu JW. hr. Aug. Potockich*, 1: *Archeologia, zbiory starożytności* (Warszawa, 1857), 3.

[34] Kostrzewski, *Dzieje*, 47–8.

[35] Podczaszyński, *Przegląd*, 17.

[36] *Ibid.*, 23–7.

Polish – archaeology. Until then, the earliest history of man had been interpreted most often following biblical chronology,[37] based on the calculations by James Ussher and going back as far as 4004 BC.[38] In contrast, in his publications from 1847–64, de Perthes concluded that the stone tools he found near Abbeville on the Somme had been made long before the biblical flood.[39] His findings were related in a treatise by Count Konstanty Tyszkiewicz (1806–1868),[40] a participant in the famous Hallstatt excavations (early Iron Age sites), brother of Eustachy, who concluded on their basis that "the Stone Age deserves to be set back several thousand years from its current dating".[41]

Polish archaeologists followed the discoveries and findings of European scholars, both by reading their publications and by participating in international archaeological congresses organised in various cities of Europe.[42] This allowed them to familiarise themselves with the division of the Stone Age into the Palaeolithic and the Neolithic, proposed in 1865 by British archaeologist John Lubbock,[43] as well as with studies conducted by French geologist and archaeologist Édouard Lartet. The latter's discovery in the caves of Dordogne, one of the oldest traces of human settlement in Europe, inspired Polish historians of prehistory to undertake excavations in caves near Ojców and Kraków.[44] The role of the pioneer of Polish cave research, and at the same time of the first Polish scholar of the Palaeolithic,[45] was assumed by Jan Kazimierz Zawisza (1822–1887), landowner and founder

[37] Jacek Lech, 'Prehistoria i przemiany światopoglądowe w Europie', *Archeologia Polski*, xxxvii, 1–2 (1992), 273; Woźny, 'From Magical Valorization', 81.

[38] James Ussher, *The Annals of the World* (London, 1658), 12; James Barr, 'Why the World Was Created in 4004 BC: Archbishop Ussher and Biblical Chronology', *Bulletin of the John Rylands University Library of Manchester*, 67 (1984), 579–80.

[39] Abramowicz, *Historia*, 49.

[40] Konstanty Tyszkiewicz, *O kurhanach na Litwie i Rusi Zachodniej: studium archeologiczne* (Berlin, 1868), 169–70.

[41] *Ibid.*, 152–8.

[42] Kostrzewski, *Dzieje*, 41; Abramowicz, *Wiek archeologii*, 137–8, 162.

[43] Lech, 'Prehistoria', 275–6.

[44] Jacek Lech, 'Początek polskiej prehistorii w Jurze Ojcowskiej', in Jacek Lech and Jacek Partyka (eds), *Jura Ojcowska w pradziejach i początkach państwa polskiego* (Ojców, 2006), 62–7.

[45] Kostrzewski, *Dzieje*, 41.

of *Wiadomości Archeologiczne* – one of the oldest Polish archaeological journals.[46] Of the excavations he carried out, those in the Wierzchowska Dolna Cave near Ojców – since called the Mammoth Cave due to the numerous mammoth bone products found there – proved the most consequential. In his publications, Zawisza accepted the division of the Palaeolithic into four periods, as proposed by Lartet,[47] and the periodisation and chronology of the age introduced by another French historian of prehistory, Gabriel de Mortillet.[48] Zawisza sought to reconcile both systems, as indicated by his statement that "thus I ascribe our cave to the Magdalenian type according to the system of Mr G. de Mortillet, and therefore to the two Quaternary ages of the Mammoth and the Reindeer", the latter according to Lartet.[49] However, the scholar could not accurately identify and determine the relative chronology of the finds because the archaeological cultures they would eventually be ascribed to had not been distinguished.

Another figure to research the caves around Ojców and Kraków was Godfryd Ossowski, a trained geologist and archaeologist by passion and practice. In the oldest sediments of some caves in both areas, he discovered numerous artefacts, including flint and bone items contemporary with the remains of Pleistocene fauna, dating back to the Old Stone Age. One of Ossowski's most outstanding achievements was the examination of the "Nad Galoską" cave in Piekary, as well as the Maszycka Cave near Ojców, along with the remains of several people who inhabited the latter cave during the Old Stone Age. However, Ossowski committed quite significant errors when ascribing the cultural layers and the artefacts found in them to the prehistoric periods identified at the time. One example of such an error is the interpretation of Palaeolithic finds from the Maszycka Cave as having originated in the Neolithic, a result of contemporary problems with (relative) dating of individual layers of cave sediments,

[46] Kazimierz Władysław Wójcicki, 'Jan Kazimierz Zawisza', *Tygodnik Ilustrowany*, ix, 217 (1887), 150; Maria Magdalena Blombergowa, 'Jan Kazimierz Zawisza – badacz, społecznik i dobroczyńca', *Analecta*, xvii, 1–2 (2008), 78–81.

[47] Lech, 'Prehistoria', 275.

[48] Gabriel de Mortillet, *Le Préhistorique: antiquité de l'homme* (Paris, 1883).

[49] Jan Kazimierz Zawisza, 'Jaskinia Mamuta w dolinie Wierzchowskiej w okolicy Krakowa i Ojcowa położona', *Wiadomości Archeologiczne*, ii (1874), 9–12.

as well as the as-yet insufficient knowledge of both primary periods of the Stone Age.[50]

This does not alter the fact that the studies of caves mentioned here contributed significantly to narrowing the gap between the nascent Polish prehistoric archaeology, developing though it did in difficult political conditions, and Western European archaeology. Published and presented at archaeological congresses, the findings of Polish scholars became known in Europe, permeating into studies by leading contemporary historians of prehistory on the continent.[51] The fact that the discoveries made in the Ojców and Kraków caves proved that certain parts of Polish lands were inhabited already in the Palaeolithic helped extend the "short" chronology of prehistoric times heretofore dominant in European (and Polish) archaeology. Moreover, knowledge of Darwin's theory of evolution and the corresponding findings of the French and British historians of prehistory mentioned above, along with the discoveries made by Polish pioneers of prehistory, led to the displacement of the biblical image of human history with an evolutionary model, gradually adopted by a growing number of Polish scholars.[52]

ATTITUDES TOWARD TIME IN EARLY TWENTIETH-CENTURY POLISH ARCHAEOLOGY

Around the turn of the twentieth century, dating of archaeological finds became more and more effective due to the continuous development of prehistoric archaeology in Europe. The periodisation of prehistory expanded, with more ages (the Bronze and the Iron) being divided into periods and sub-periods, despite constant problems with establishing their chronological boundaries. As a result, Polish prehistory historians also focused primarily on defining the relative chronology of finds, though attempts were made with increasing frequency to provide absolute dating. Polish archaeology was undergoing

[50] Godfryd Ossowski, 'Jaskinia Wierzchowska-Górna', *Pamiętnik Fizjograficzny*, vi (1886), 16; Katarzyna Ryszewska, *Historia badań archeologicznych na obszarze międzyrzecza Wisły i Pilicy w XIX i na początku XX wieku* (Kielce, 2013), 110.

[51] Gabriel and Adrien de Mortillet, *Le préhistorique, origine et antiquité de l'homme* (Paris, 1900), 198, 619, 635, 656–7; Moritz Hoernes, *Der diluviale Mensch in Europa: die Kulturstufen der älteren Steinzeit* (Braunschweig, 1903), 172–80.

[52] Lech, 'Prehistoria', 277.

a change of guard at the time; members of a new generation of historians of prehistory were beginning to engage in research and proving themselves more and more effective in conducting fieldwork and interpreting the discoveries they made. It was a time of scientific revival in Polish lands, including the Russian partition, where after the Revolution of 1905, the repressive regime had somewhat relented. Conditions were now more favourable for establishing new museums, among them those containing archaeological collections, and new publishing initiatives emerged, which resulted in the publication of several monographs on the prehistory of various regions of Poland at the time.[53]

One of the leading contemporary historians of prehistory was Erazm Majewski (1858–1922), founder of a private prehistoric museum in Warsaw and publisher of another Polish archaeological journal, *Światowit*. In the introduction to the first issue of this periodical, he justified its name by reference to the need to "discover the past of parts eternally Slavic" to "recreate the culture of the land … of Slavs",[54] referring to the interest in Slavdom that typified particularly the first half of the nineteenth century, driven primarily by the desire to maintain a national identity in the partitioned Poland. Majewski's scientific interest focussed mainly on the Stone Age. He has authored, among others, an archaeological monograph of one of the counties of the Kielce Governorate of the Kingdom of Poland,[55] in which he describes artefacts analogous to Palaeolithic relics from Western Europe, ascribed to Palaeolithic "epochs" (today's archaeological cultures) distinguished at the time: "Magdalenian … Solutrean and Mousterian".[56] Furthermore, he was the first Polish scholar to accept the existence of an intermediate period between the Old and New Stone Ages, defined in 1872 by Hodder Michael Westropp as the Mesolithic.[57] To this era, Majewski dated the flint

[53] Kostrzewski, *Dzieje*, 106–7, 128, 212–3.

[54] Erazm Majewski, 'Słowo wstępne', *Światowit*, i (1899), IV.

[55] *Id.*, 'Powiat Stopnicki pod względem przedhistorycznym. Część I', *Światowit*, iii (1901), 97–161; *id.*, 'Powiat Stopnicki pod względem przedhistorycznym, Część II, Opisanie zabytków', *Światowit*, iv (1902), 73–144.

[56] Majewski, 'Powiat. Część II', 84–90.

[57] Jacek Lech, 'Erazm Majewski jako archeolog i tradycja polskich badań epoki kamienia', in Stefan Karol Kozłowski and Jacek Lech (eds), *Erazm Majewski i warszawska szkoła prehistoryczna na początku XX wieku* (Warszawa, 1996), 60.

"fine tools" previously described by Przyborowski,[58] discovered at many sites in Stopnica county.[59] In the case of finds from the Stone Age, Majewski generally limited himself to defining their relative chronology while trying to date more precisely artefacts from later periods, especially the more recent periods of the Iron Age, by reference to the typology of artefacts developed at the end of the nineteenth century by Swedish archaeologists Oscar Almgren and Gustav Oscar Montelius. One example of this is Majewski's dating of barrow relics in Nevėžninkai [Pol. Niewieżniki], Lithuania – researched by Maria Butrymówna, an enthusiast of archaeology and daughter of local landowners – to the third century after Christ (the relics indeed dated from the Roman Iron Age).[60]

Another scholar who did not shy away from attempting to determine the absolute chronology of his finds was Marian Wawrzeniecki (1863–1943), a painter by training and archaeology enthusiast. He dated the remains of residential sites he had discovered in Lelowice (Miechów county) to late-stage, "polished" Stone Age, or "1,000 years before Christ".[61] At the same time, he cited the opinion of Danish historian of prehistory Sophus Müller that "in prehistoric archaeology, being off the mark by a few hundred years does not matter at all".[62] The latter opinion highlights the problems that archaeologists

[58] Zbiory Cyfrowe Państwowego Muzeum Archeologicznego [Digital Collections of the State Archaeological Museum] (hereinafter: ZC PMA), Kolekcja spuścizn, Spuścizna Erazma Majewskiego, file no. PL PMA 1-5-1-4-1, 2-31, Rękopisy Erazma Majewskiego dot. Archeologii, 'Notatnik (brulion) Archeologiczny Erazma Majewskiego', a manuscript written in 1895–7 and 1912–13.

[59] Erazm Majewski, 'Zabytki przeddziejowe w Jastrzębcu', *Światowit*, i (1899), 45–7.

[60] Maria Butrymówna, 'Kurhany w Niewieżnikach w pow. Poniewieskim', *Światowit*, iv (1902), 148–50; Katarzyna Ryszewska, 'Kobiety w badaniach archeologicznych na ziemiach polskich w XIX i w początkach XX wieku', in Magdalena Gibiec, Dorota Wiśniewska, and Leszek Ziątkowski (eds), *Na przekór konwencjom. Nieszablonowe role społeczne kobiet i mężczyzn od czasów nowożytnych do 1945 roku* (Kraków, 2018), 258–9.

[61] Archiwum Muzeum Archeologicznego w Krakowie [Archive of the Archaeological Museum in Krakow] (hereinafter: AMAK), Katalog stanowisk, teczka Lelowice, pow. Miechów, Marian Wawrzeniecki, Cmentarzysko przedhistoryczne w Guberni Kieleckiej, pow. Miechowski, we wsi Lelowice znalezione na polach folwarku Siedliska do tej wsi należącego.

[62] Marian Wawrzeniecki, 'Najstarsze nasze zabytki budownictwa', *Ziemia*, iv, 28 (1913), 458.

of the time faced when trying to date artefacts and determine the duration of different prehistoric periods. This was particularly true of the Stone Age, which lacked any reference in the form of written sources. On the other hand, Wawrzeniecki's dating of two burial sites accidentally discovered in Jakuszowice (Pińczów county) and Przemęczany (Miechów county) proved remarkably accurate.[63] The first of these, which the scholar rightly claimed to have originated "in the period of migration of nations", was dated to between 350 and 500 AD,[64] while he placed the chronology of the second between the fifth and eighth century after Christ,[65] showcasing a good understanding of the typology and chronology of finds from the youngest phase of prehistory.[66] Wawrzeniecki often consulted another leading archaeologist of the time, Włodzimierz Demetrykiewicz (1859–1937), seeking the experienced scholar's advice when interpreting his finds,[67] as he did, for example, when dating the finds from Lelowice and the grave from Przemęczany.[68] Demetrykiewicz, a lawyer by training who eventually devoted himself primarily to prehistoric archaeology,[69] was a professor at the Jagiellonian University and, between 1894

[63] Ryszewska, *Historia badań*, 220–1.

[64] Marian Wawrzeniecki, 'Zbiory wykopalisk przedhistorycznych przy Muzeum Oddziału Polskiego Towarzystwa Krajoznawczego w Kielcach', *Pamiętnik Fizjograficzny*, xxii (1914), 2–3.

[65] *Id.*, 'Poszukiwania zabytków przedhistorycznych w Królestwie Polskiem. Grób szkieletowy z V–VIII w. po Chrystusie we wsi Przemęczanach', *Materiały Antropologiczno-Archeologiczne i Etnograficzne*, xii (1912), 50–1.

[66] Later analysis allowed for the dating of both gravesites, which testify to a Hun presence in Polish lands, to fifth century AD, Krzysztof Dąbrowski, 'Kultura Hunów', in Jerzy Wielowiejski (ed.), *Prahistoria ziem polskich*, vol. 5, *Późny okres lateński i rzymski* (Wrocław–Warszawa–Kraków–Gdańsk, 1981), 281–2.

[67] AMAK, Spuścizna po Włodzimierzu Demetrykiewiczu, Korespondencja Mariana Wawrzenieckiego do Włodzimierza Demetrykiewicza, SP8/36; Marzena Woźny, 'Działalność Mariana Wawrzenieckiego (1863–1943) w świetle listów do Włodzimierza Demetrykiewicza z lat 1900–1911', *Materiały Archeologiczne*, xxxvii (2009), 153–60.

[68] Archiwum Nauki PAN i PAU w Krakowie [Archive of Science of the Polish Academy of Sciences and the Polish Academy of Arts and Sciences in Krakow], sign. PAU W III-46b, List Mariana Wawrzenieckiego do prezesa Akademii Umiejętności z 8 stycz. 1912.

[69] Marzena Woźny, 'Włodzimierz Demetrykiewicz – pierwszy prehistoryk z Krakowa', *Materiały Archeologiczne*, xxxviii (2010), 178–81; *ead.*, *Włodzimierz Demetrykiewicz (1859–1937). Prehistoryk z przełomu epok* (Kraków, 2018), 127, 213–8.

and 1937, director of the Archaeological Museum in Krakow (formerly the Museum of Antiquities). In 1895, he presented his views on the prehistory of Galicia, distinguishing within the Iron Age periods of the "Hallstatt culture", from the middle of the first millennium BC, of the "dominance of the so-called La Tène culture", starting in fourth century BC, of the "Roman era", and of the "era of the so-called migration of nations", as well as of the "final, purely Slavic prehistoric time".[70] Demetrykiewicz devoted much attention to the Old Stone Age, examining archaeological sites dated to this period together with geologist Witold Kuźniar: the "Okiennik" cave at Skarżyce near Zawiercie[71] and Mount Bronisławy near Kraków.[72] In 1914, he summarised the existing knowledge on the beginnings of human settlement in Polish lands; referring to geological knowledge on the Ice Age available at the time, he wrote that "the oldest traces of residence of Palaeolithic man in Poland, found in two caves in the Kraków area, date back to the older half of the Palaeolithic, namely the so-called Mousterian period, the duration of which falls on the fourth, or last, geological ice age".[73]

Those were the days when scholars who would number among the most famous Polish historians of prehistory in subsequent decades took their first steps in archaeology. This was the case with Stefan Krukowski (1890–1982), an autodidact archaeologist but also an outstanding expert on the Stone Age and later a professor at the University of Warsaw, as well as Leon Kozłowski (1892–1944), the only archaeologist by training in this cohort.[74] The latter conducted excavations in caves near Ojców, including the Mammoth Cave (1913–14), and the former worked in the Dark Cave in Ojców

[70] 'Sprawozdania z posiedzeń Komisji odbytych w r. 1895', *Materiały Antropologiczno-Archeologiczne i Etnograficzne*, i (1896), VII–X.

[71] Włodzimierz Demetrykiewicz and Witold Kuźniar, *Najstarszy paleolit na ziemiach polskich oraz inne wykopaliska odkryte w jaskini 'Okiennik' koło wsi Skarzyce w pow. będzińskim gub. piotrkowskiej* (Kraków, 1914).

[72] *Ibid.*, 'Ślady siedziby człowieka przedhistorycznego z okresu paleolitu na Górze Bronisławy koło Kopca Kościuszki pod Krakowem', *Materiały Antropologiczno-Archeologiczne i Etnograficzne*, xi (1910), 24–44.

[73] Włodzimierz Demetrykiewicz, 'Obraz epoki paleolitycznej na obszarze ziem dawnej Polski', *Wiadomości Numizmatyczno-Archeologiczne*, xxv, 1 (1914), 1–3.

[74] Stefan Karol Kozłowski, *Leon*, in Stefan Karol Kozłowski and Oleksandr Sytnyk (eds), *Profesor Leon Kozłowski* (Lublin–Warszawa, 2010), 205–6.

(1918). Both dated the oldest cultural layers they found to particular sub-periods of the Old Stone Age. Kozłowski attributed the lowest level of sediment in the Mammoth Cave and the artefacts found in it to the "Moustier era", the middle level to the "Solutrean era", and the latest to the "Magdalenian era",[75] which corresponded to the Middle and Upper Palaeolithic. Based on the assortment of flint items found in the Dark Cave,[76] Krukowski dated the oldest of the cultural layers he distinguished in the cave to the Lower Palaeolithic period, describing them as "Late Acheulean" and "Late Mousterian" and the most recent level to the Upper Palaeolithic period.[77] Most of Kozłowski and Krukowski's findings presented here were confirmed by the research of their successors, endowed with superior dating methods, which also made it possible to determine the absolute chronology of the finds.[78]

CONCLUSION

What typified Polish archaeology of the nineteenth and early twentieth century was a focus primarily on attempts to establish the relative chronology of finds, unsurprisingly so given the state of knowledge in a new, barely emerging scientific discipline. Nevertheless, during the period in question, covering over a century of gradual development of archaeological knowledge, there arose an awareness of the fact that Polish lands had been inhabited by human communities well before the Sarmatians and Slavs, named in written sources. In European – and Polish – archaeology, due to repeated archaeological discoveries and under the influence of the rapid development of natural sciences that typified the second half of the nineteenth century, the initially accepted

[75] Leon Kozłowski, *Starsza epoka kamienna w Polsce (paleolit)* (Poznań 1922), 29–30.

[76] ZC PMA, Kolekcja spuścizn, Spuścizna Stefana Krukowskiego, PL PMA 1–1–1–2–9, pp. 1–9, Manuscript of a study entitled 'Ojców–Jaskinia Ciemna–Ogrójec–warstwa prądnicka: materiał do charakterystyki wyrobów krzemiennych'.

[77] Stefan Krukowski, 'Doliny Prądnika i Sąspówki jako teren przedhistoryczny', *Ochrona Przyrody*, iv (1924), 85–92.

[78] Jacek Lech, 'Stefan Krukowski i początki badań nad pradziejowym górnictwem krzemienia w Polsce (1919–1939)', in Jacek Lech and Jacek Partyka (eds), *Profesor Stefan Krukowski (1890–1982). Działalność archeologiczna i jej znaczenie dla nauki polskiej* (Ojców, 1992), 143–4; Jacek Lech and Danuta Piotrowska, 'Leon Kozłowski i jego związki z Jurą Ojcowską', in Jacek Lech and Jacek Partyka (eds), *Jura Ojcowska w pradziejach i początkach państwa polskiego* (Ojców, 2006), 171.

"short" chronology of prehistory became extended, and the biblical image of human history was replaced with an evolutionary model. On the other hand, establishing an absolute chronology of prehistoric times remained a major challenge throughout the period in question. Attempts to date finds from more recent ages and periods, particularly the Iron Age, by reference to chronologies of events described by ancient historians offered the best chance of success. However, during the second half of the nineteenth century and early twentieth century, increasing efforts were made to date artefacts from the Stone Age and establish a chronological framework for all ages and periods. Nevertheless, there was no possibility of complete success in such an endeavour at the time. Reaching a realistic approximation of the time of settlement in Polish lands in successive prehistoric ages only became possible after the discovery of methods based on measuring the decay of the content of radioactive elements in organic materials, which did not occur until the second half of the twentieth century.

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