Komisja Geografii Historycznej
Polskiego Towarzystwa Historycznego
i
Instytut Historii im. Tadeusza Manteuffla
Polskiej Akademii Nauk

mają zaszczyt zaprosić
na konferencję

HISTORIA ŚRODOWISKOWA
TEORIA I PRAKTYKA

23 listopada 2017 r.
godz. 13:00
Instytut Historii im. Tadeusza Manteuffla PAN
(Warszawa, Rynek Starego Miasta 29/31)
Sala im. Joachima Lelewela

PROGRAM KONFERENCJI

godz. 13:00

dr Péter Szabó
(Institute of Botany of the Czech Academy of Sciences)

Environmental history: its history, methods and current research trends

godz. 13:30

dr Paweł Cembrzyński (Instytut Archeologii i Etnologii PAN)

Górnictwo, hutnictwo i jakość życia. Uwagi na temat relacji człowiek-środowisko w średniowiecznych i wczesnonowożytnych miastach górniczych Europy Centralnej

godz. 14:00

dr Piotr Guzowski (Instytut Historii PAN)

Gospodarcza odpowiedź na zmiany klimatu. Polska w czasie Małej Epoki Lodowcowej

godz. 14:30

mgr Tomasz Panecki, mgr Tomasz Związek (Instytut Historii PAN)

Metody rekonstrukcji zalesienia na Równinie Nowotomyskiej w XVI w.

godz. 15:00 – **Dyskusja**

godz. 16:00 – **Zakończenie konferencji**

Abstrakty

Péter Szabó (Institute of Botany of the Czech Academy of Sciences)

Environmental history: its history, methods and current research trends

Environmental history means many things to many people. A number of definitions have been put forward but virtually all agree that environmental history researches the mutual relationship between humans and the rest of nature. In this relationship both parties are dynamic and act as agents of historical change. In other words, environmental history studies how human societies affected nature and how nature affected human societies. Better still, environmental historians are interested in the co-evolution of humans and the rest of nature, which, in Isenberg's words, is approached through "reciprocally constituted contextualization." It follows from this that environmental history is inherently interdisciplinary combining sources and methods from the humanities, social sciences and natural sciences. This in turn means that it is difficult to put strict disciplinary boundaries around environmental history. Weiner called it „a very big tent", Sörlin and Warde „a convenient umbrella", Ritvo „an unevenly spreading blob." More soberly, one of the its founding fathers, Donald Worster, argued that environmental history „brings together a wide array of subjects ... rather than setting up something new. From that synthesis, we hope, new questions and answers will come." There have been heated debates since the 1990s whether this is an advantage or a drawback, whether environmental history should rid itself of its interdisciplinary character and develop a strictly historical methodology. By and large environmental historians rejected this path and instead celebrated the openness and methodological diversity of the field. In fact, interdisciplinarity has been time and again called the greatest asset of environmental historical research, the very thing that makes it appealing. Environmental historians use the traditional sources of historians (mainly written documents and maps) as well as natural scientific sources and methods (such as palynology, charcoal analysis, dendrochronology, stable isotope analysis etc.) It largely depends on the scientific background of individual researchers which methods they are capable of applying themselves and where they can only be interpreters of existing results. Because current university systems strongly disfavour interdisciplinary education, reaching across the „great divide" between history and the natural sciences poses the greatest challenge in environmental historical research. Historians must acquire at least a basic understanding of natural scientific methods and in general of the ways the functioning of nature is understood in modern natural sciences. On the other hand, natural scientists must be able to grasp the functioning of human societies in their own periods of interest.

Studies that would be probably called environmental history today have been written for more than a century in various disciplines and any number of intellectual strands were listed as the roots of environmental history. Such strands include for example the French Annales school, historical geography, forest history or landscape history. Nonetheless, self-conscious environmental history was born in the US, Roderick Nash is usually credited with coining the term itself in a 1972 paper. The emergence of the field is connected to the environmental movement of the 1960s, exemplified by the hugely influential book Silent Spring (1962) by biologist Rachel Carson, after whom the most important European hub for environmental history in Munich is named. Early American research centred around topics such as frontier and wilderness, and, because of its connections to the environmental movement, had a strong moral basis, i.e. many environmental historians saw themselves also as environmentalists. From the 1990s onwards the field expanded including many new topics and gradually lost much of its moralistic drive. Especially in the US, environmental history was quick to institutionalize, the American Society for Environmental History was founded in 1977 and the predecessor to the journal Environmental History was first published in 1976. It took several decades for other countries and continents to catch up. The leading European journal (Environment and History) was founded in 1995, while the

European Society for Environmental History came into being in 1999 and held its first conference in Scotland, in 2001. Several similar societies were born in the 2000s (Society for Latin American and Caribbean Environmental History: 2003, Canadian Network for Environmental Historians: 2006, Association of South Asian Environmental Historians: 2007, Association for East Asian Environmental History: 2009). There also exists the International Consortium of Environmental History Organizations whose purpose is to foster international communication.

As described above, environmental history in Europe has had a different history from its American predecessor. Many European colleagues emphasized that European environmental history was, from its beginnings, more diverse. This is partly simply given by Europe's extraordinary linguistic and national diversity but also by the long history of research on human-nature interactions especially in historical geography and landscape history. European researchers also had very little to take from the initial topics of US research, since there have been perceptibly no 'wilderness' areas in Europe for millennia and cultural landscapes are so pervasive that the nature-culture divide was always difficult to interpret in practical terms. In addition, and this has remained a specialty of European environmental history paralleled probably only by China, copious and high quality European written sources cover longer periods than those on most other continents. This, and other factors, such as Europe's role in colonization and its relation towards forests, led Radkau to talk about Europe's „special path (Sonderweg)" in environmental history. That said, it must be noted that, unlike in the US, European mainstream history (and mainstream academia) is still reluctant to fully embrace environmental history. This may stem from several factors. First, European environmental history is often done by non-historians, which discourages its institutionalization as a historical sub-discipline. Second, as I mentioned above, when self-conscious environmental history emerged in Europe, the relevant topics were already long-researched, which sometimes created long-lasting conflicts with other, well-established (sub)disciplines. Third, as opposed to the US, the birth of environmental history in Europe was not connected to the environmental movement, therefore there was less of a moral incentive to accept and support it.

A number of high-profile researchers attempted to describe what environmental history investigates. The general (although sometimes criticized) agreement is that environmental history operates on three levels. First, it studies the material aspects of past environments, how these were influenced by humans and how human society was influenced by them. Second, it focuses on socioeconomic factors that regulated the relationship between society and nature. Third, it analyses what humans (in effect a few intellectuals) thought and believed about nature. Following up on Worster, McNeill called these levels material, political and cultural environmental history. Naturally there can be no clear boundary lines between the individual levels and most environmental historians engage in at two levels of research.

Another way to conceptualize environmental historical research was put forward by Donald Hughes. Instead of levels, he talked about three „dimensions" of environmental history. The first dimension is the nature-culture continuum. He argued that there can be no clear distinction between nature and culture and even though environmental history is an anthropocentric exercise, it must always keep in mind ecological impacts. The second dimension is historical vs. scientific methods, of which a synergy must be achieved. The third dimension spatial and temporal scale. According to Hughes, in theory at least environmental history must include all space (up to planetary scales) and time (including all of prehistory). Importantly, he mentioned the myriad of other dimensions (e.g. determinism vs. human action, neutral vs. declensionist narratives, nature vs. perception of nature) that influence any piece of environmental historical research.

Current environmental history is multifaceted and is so expansive that even a basic overview would exceed the limitations of the present paper. To get a taste of the huge amounts of research conducted all over the world, I might mention the works of Bankoff and Boomgard on Southeast Asia, Elvin on China, Totman and

Mizoguchi on Japan, McCann on Africa, Rangarajan on India, Castro on Latin America, Moon on Russia or Robin on Australia. The heated debates between 'materialists' or 'biocentrists' and 'idealists' or 'anthropocentrists' (effectively the first and second/third levels of environmental history as described above) for supremacy in the field in the 1990s large came to an end, to my mind fortunately. All three levels continue to be of equal value. In fact, the new challenges that environmental history faces come from other aspects. History and ecology have not stood still in the past few decades and environmental history must react to these recent changes in order to be able to retain its intellectual vigour and appeal. As Isenberg argued in a 2014 volume, new subfields emerged in historical research (such as gender, race, ethnicity, border, labour, power histories) with which environmental historians have to learn to engage. In addition, McNeill pointed out that environmental history, although it is ill-suited to the spatial scale of the nation-state, can have important contributions towards such traditional historical topics as revolutions, wars or statehood. On the other hand, the natural sciences, especially ecology, have been transformed almost beyond recognition in the past two decades. Their language is now heavily mathematical, and statistics almost entirely replaced earlier qualitative descriptions. While the idea of stable states have been given up many decades ago, the search for generalizability for various correlations between, for example, global warming and plant growth, species traits and evolutionary success, are now prevalent. Quantitative approaches including modelling and big data have come to dominate ecology, and environmental historians have to begin to at least experimenting with integrating such approaches into their research if they are to continue a fruitful conversation with the natural sciences.

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dr Paweł Cembrzyński (Instytut Archeologii i Etnologii Polskiej Akademii Nauk)

Górnictwo, hutnictwo i jakość życia. Uwagi na temat relacji człowiek-środowisko w średniowiecznych i wczesnonowożytnych miastach górniczych Europy Centralnej

Górnictwo było ważnym elementem gospodarki Europy Centralnej w średniowieczu i okresie wczesnonowożytnym. Jednakże wydobycie i przerób rud nieżelaznych negatywnie wpływały na środowisko naturalne i warunki życia w rejonach górniczych. Jak dotąd nie podejmowano jednak kompleksowych badań nad tym zagadnieniem.

Chciałbym spróbować odpowiedzieć na trzy pytania badawcze: 1) jaki był wpływ górnictwa i hutnictwa na środowisko naturalne; 2) jak te zmiany wpływały na jakość życia mieszkańców obszarów górniczych; 3) czy i jak ludzie ci adaptowali się do zmienionego środowiska.

Dla określenia głównych elementów wpływu ludzi na środowisko naturalne a co za tym idzie też na kondycję populacji użyję informacji dostępnych z badań archeologicznych, historycznych i środowiskowych z różnych rejonów górniczych Europy. Następnie przeprowadzę analizę przestrzenną lokalizacji miast i osiedli w kontekście krajobrazu górniczego.

Główny wpływ dawnego górnictwa obserwujemy w masowym wylesianiu. Drewno było używane przede wszystkim w procesie hutniczym oraz przy budowie infrastruktury (obudowa chodników itd.). Wycinka drzew oraz odsłanianie złóż (górnictwo odkrywkowe) prowadziło do erozji, szczególnie widocznej na terenach górzystych. Już podczas wydobycia a następnie przerobu do środowiska uwalniały się szkodliwe pierwiastki. Były one transportowane przez wodę i powietrzne na znaczne odległości. Szkodliwe substancje powodowały wiele chorób, na które prawdopodobnie cierpieli mieszkańcy okręgów górniczych. Pomimo degradacji terenu oraz zanieczyszczeń ludzie mieszkali w pobliżu kopalń i hut.

Górnictwo poza tym, że było poważnym zagrożeniem dla zdrowia, przynosiło pokaźne zyski. Niemniej wiele nieprzewidywalnych czynników (geologia, transport) sprawiało, że zyski te były nieprzewidywalne. W efekcie górnicy byli zmuszeni do optymalizacji produkcji kosztem jakości życia. Być może dlatego nie zważali na zagrożenie, tylko osiedlali się w pobliżu kopalń a huty stawiali w miejscach, które minimalizowały koszty ich użytkowania (łatwy dostęp do napędu wodnego). Z drugiej strony wysokie zyski i przywileje górnicze gwarantowały dostęp do lepszego pożywienia i warunków mieszkaniowych co mogło pozytywnie wpływać na jakość życia.

Mining, smelting and quality of life. Some observations regarding man-environment relation in medieval and early modern mining towns in Central Europe

Mining was an important element of central European economy in the Middle Ages and Early Modern Period. Extraction and ore processing negatively impacted natural environment and created harsh conditions for people living in mining areas. Our understanding of that phenomenon is however limited, since it remained outside main focus of interest of European mining studies so far.

There are three research questions I would like to address: 1) what was the impact of mining and smelting on natural environment; 2) how those changes influenced life quality of local populations and 3) how (or if) the people adapted to such altered conditions.

To establish key elements of anthropogenic impact on natural environment and human health, I will use information available through archaeological, historical and environmental studies from several mining regions in Europe. Subsequently, I will conduct spatial analysis of settlements' and towns' localization in the context of mining landscapes.

In the first place, mining caused massive deforestation. Trees were primarily utilized in smelting process, but also for mining timbering . Cutting down the trees and uncovering ore deposits (mostly by opencast mining) caused large soil erosion especially in mountainous regions. Mining and smelting lead to transfer of ore-derived toxic elements into environment. Transport of those elements was facilitated especially through water and air, causing pollution of whole mining districts. Toxic elements are well known to underlie many diseases, which were probably frequent among the inhabitants of mining districts. Despite the land deterioration and pollution people kept on living in a close distance to mining and smelting sites.

In spite of constituting a serious threat to health, mining was a source of great incomes. Nevertheless, many unpredictable factors (geology, transport) could make those incomes uncertain. As a result, miners were forced to optimize trade-offs between their own well-being and profits. Possibly, that is why they settled in a proximity of mines and built smelters in a location allowing to minimize costs (easy access to a water power) regardless of health hazards they incurred. On the other hand, high incomes and privileges guaranteed access to better food and housing, which could have improved quality of life.

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dr Piotr Guzowski (Instytut Historii im. Tadeusza Manteuffla Polskiej Akademii Nauk)

Gospodarcza odpowiedź na zmiany klimatu. Polska w czasie Małej Epoki Lodowcowej

W ostatnich latach zarówno historycy, jak i klimatolodzy zwrócili uwagę na problematykę konsekwencji zmian klimatu w Europie Środkowej i Wschodniej. Geofrey Parker w swojej głośnej książce o globalnym kryzysie w XVII wieku wskazywał na Rzeczpospolitą Obojga Narodów jako przykład kraju szczególnie dotkniętego przez wojny i właśnie małą epokę lodowcową. Szczyt kryzysu nastąpił w czasie konfliktu ze Szwecją z lat 1655-1660, kiedy kraj nawiedzili Czterej Jeźdźcy Apokalipsy: zaraza, wojna, głód i śmierć. Okresu

wcześniejszego nie da się jednak uznać za epokę szczególnie dotkniętą zmianami klimatu, a początkom małej epoki lodowcowej towarzyszył niespotykany dotąd na ziemiach polskich rozwój gospodarczy.

Economic response to climate change. Poland during Little Ice Age

In his recent *opus magnum* on the impact that the Little Ice Age had across the globe in the 17th century, Geoffrey Parker included a substantial chapter on the Polish Lithuanian-Commonwealth, that is, Central Europe. Using the data and results published by the previous generations of Polish historians, he concluded that Poland was hard hit by the warfare and economic decline that could be associated with the LIA's climate instability. More recent data, however, suggest that Poland's story was actually different. First of all, the palaeoclimate data from north-western Poland suggest that the main cooling episode occurred in this part of Europe in the middle of the 14th century, and not in the 17th c. In this later period, the climate conditions seem to be relatively stable. Secondly, pollen profiles that cluster in two key agricultural regions of the country, Greater and Lesser Poland, suggest that there occurred no drop in the spatial extent of cereal cultivation in the 17th century; this suggests that there was no major crisis in the key sector of the country's economy. On the other hand, there is a clear longer-term decline in all pollen indicators of agriculture in the 14th and 15th century. Last but not least, preliminary results of our research on documentary data from estate inventories in different parts of Poland also suggest that there was no significant crisis in agricultural productivity (or rural demography) in the 17th c. Consequently, despite its history of almost incessant warfare throughout the period, Poland seems to have escaped the real impact of the Little Ice Age, so well documented in some others parts of the world. The Little Ice Age in Poland was, in fact, the period of the country's greatest economic and political development.

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Tomasz Panecki, Tomasz Związek (Instytut Historii im. Tadeusza Manteuffla Polskiej Akademii Nauk)

Metody rekonstrukcji zalesienia na Równinie Nowotomyskiej w XVI w.

Celem referatu jest zaprezentowanie problemów metodycznych służących rekonstrukcji powierzchni, zasięgu oraz typu szaty leśnej, występującej na Równinie Nowotomyskiej (Wielkopolska) w XVI w. Za punkt w badaniach retrogresywnych przyjęto zachowane ślady XVIII-wiecznego osadnictwa olęderskiego na tym terenie. Głównym założeniem prezentowanej metody rekonstrukcji zalesienia jest analiza informacji przestrzennej i atrybutowej dotyczącej wsi olęderskich. Osady te były lokowane w ciągu niemal całego XVIII wieku najczęściej na terenach podmokłych, w lasach i na obszarach wcześniejszych nieudanych lokacji. W trakcie referatu chcielibyśmy zaprezentować poszczególne etapy badań z naciskiem na wykorzystywane przez nas metody, omówić najważniejsze problemy związane z krytyką źródeł oraz przedstawić finalny efekt i tym samym poddać go ocenie słuchaczy.

Afforestation reconstruction methods for Nowy Tomyśl plain in 16th century

The paper presents the methodological background in reconstructing the area, range and type of forest on Nowy Tomyśl Plain (Wielkopolska region in western Poland) in the 16th c. The so-called "Dutch type" 18th c.

settlements were taken as the starting point for the retrogressive methods. The main axis of afforestation reconstruction method is the analysis of spatial and attribute information about “Dutch type” settlements. These were being founded throughout the 18th c. mostly at wetlands, in forests and in other areas such as those with previous but unsuccessful settlement locations. During the paper we would like to present the stages of research with an emphasis on the methods we use, discuss the most important issues related to the (spatial) analysis of the historical sources, and present the final result and evaluate it.

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