

EXTRACTION AND DISTRIBUTION OF FOREST RESOURCES IN PRE-MODERN EUROPE

18 June 2021

During the later middle ages forests were exploited with increasing intensity. Under commercial pressure, woods became an economic resource sought by many actors. Forests were thus rationally controlled and managed and became highly anthropized spaces.

This conference will address the management, production, sale and consumption of forest products in pre-modern Europe

Online. For information contact:

mt-hist-medieval-bees@kcl.ac.uk

or <https://beesinthemedieval.wordpress.com/contact/>

Extraction and distribution of forest resources in Pre-modern Europe

18 June 2021 online.

Conference programme (All times London BST – UTC+1:00). All papers will be delivered in English.

9.00-9.15: Introduction/welcome (Mark Whelan)

Session 1: Wax and the Hansa

Chair: Mark Whelan (KCL)

9.15-9.30: Cezary Kardasz (Towarzystwo Naukowe w Toruniu): **Wax exports from the Baltic zone in the 14th - early 16th centuries**

9.30-9.45: Anna Paulina Orłowska (Tadeusz Manteuffel's Institute of History, Polish Academy of Sciences): **The infrastructure of wax processing in Eastern Europe or how to put together the work of 50 million bees**

Discussion: 9.45-10.00

Session 2: Wood, timber and charcoal in context

Chair: Roser Salicrú (IMF-CSIC Barcelona)

10.00-10.15: Xavier Soldevila (independent): **Charcoal and timber production and trade in the Viscounty of Cabrera (14th and 15th Centuries)**

10.15-10.30: Pol Junyent (IMF-CSIC Barcelona/CAIMMed): **From the forest to the shipyards. Logging, shipment, and timber markets for shipbuilding in the Crown of Aragon (14th-15th centuries)**

Discussion: 10.30-10.45

Break: 10.45-11.15

11.15-11.30: Krzysztof Szewczyk (Polish Academy of Sciences): **Charcoal burning in northern Poland in the pre-industrial era**

11.30 – 11.45: Francesco Salvestrini (Università degli Studi Firenze): **Planting, cutting and transporting construction timber in Medieval Tuscany (13th-16th centuries)**

Morning final discussion: 11.45-12.15

Break 12.15-14.30

Session 3: Ecology and forests in Pre-modern Europe

Chair: Albert Reixach (Universitat de Lleida)

14.30-14.45: Andy Ford (University of Reading): **Vert versus Venison: Trees in the English Royal Forest, 1227-72**

14.45-15.00: Dominik Róg (Catholic University of Lublin): **Forest settlements of the Solska Forest – human and landscape**

15.00-15.15: Paweł Swoboda and Michał Słowiński (Polish Academy of Sciences): **Past use of the forest and its resources reflected in Polish toponymy**

Discussion: 15.15-15.30

Session 4: Other forest products (plants and fruits)

Chair: Lluís Sales i Favà (KCL)

15.30-15.45: Albert Reixach (Universitat de Lleida): **Dye plants and other raw vegetal materials for the cloth industry in Late Medieval Catalonia: from imports to crop specialization**

15.45-16.00: Marta Sancho (Universitat de Barcelona): **Exploitation and use of leaves, flowers, fruits, roots and fibres in the Middle Ages in the Mediterranean context**

Discussion: 16.00-16.15

16.15-16.30: Final conclusions (Lluís Sales i Favà)

Abstracts

Cezary Kardasz (Towarzystwo Naukowe w Toruniu): **Wax exports from the Baltic zone in the 14th - early 16th centuries**

With the incorporation of the Baltic zone into the Hanseatic system around the half of the 13th century, this area became one of the most important exporters of raw materials like wood, ash, flax, hemp and wax to Western Europe. Wax was widely exported from the territories of Ruthenia, Livonia, Prussia and Poland. A full explanation of the problem of raw materials export from *Balticum*, taking into account also the ecological impact of this form of human activity, requires a wider range of methods. Interdisciplinary cooperation is necessary, and the task of historians is to create the basis for such research. In the proposed paper, I want to discuss the role of wax in Baltic trade, scale and importance of wax exports from the Baltic Ports (quantity, if possible, the value of the goods), indicating the areas of extraction, nodal and destination ports. The paper will be based on a wide variety of historical sources, especially customs books from Toruń, Elbląg, Gdańsk, Lubeck and Reval/Tallinn from the 14th to beginning of the 16th century.

Anna Paulina Orłowska (Polskiej Akademii Nauk): **The infrastructure of wax processing in Eastern Europe or how to put together the work of 50 million bees**

The extensive forests of Eastern Europe were the main source for the supply of wax to Western Europe. The enormous potential of these regions can be demonstrated by the fact that the ships of Hanseatic League were obliged to transport pieces of wax not heavier than 500 kilograms per individual piece. Whereas the literature on the wax export from Eastern Europe as well as on beekeeping is constantly growing, the question on how the pieces were created from raw material has seen little investigation. The aim of this talk is to examine the question of the infrastructure needed for processing the raw material delivered by the beekeepers into a form needed for the long-distance trade – not only purified but also remelted into massive blocks. I will analyze which terms were used to define these objects of infrastructure in primary sources, in which towns they were built and according to which location advantages, where in the towns they were located, whose property they were and which fees were collected on these. I will primarily examine the territories of the Polish-Lithuanian state and the State of the Teutonic Order in the Middle Ages and in the early modern period.

Xavier Soldevila (independent): **Charcoal and timber production and trade in the Viscounty of Cabrera (14th and 15th Centuries)**

The aim of this paper is to show how forest resources—mainly charcoal and timber—were obtained from mountains and wood of the coastal side of the Viscount of Cabrera, on the north-east Catalan littoral, in later Middle Ages. These activities involved peasant families who, usually to return the money they had previously borrowed, engaged themselves in agreements forcing them to produce certain amounts of timber and charcoal, and to transfer them from the mountains to the nearest beaches. Once at the seaside the new owners of forest products—normally the same businessmen who had lent the money to peasants—sent them to Barcelona on small or mid-sized ships in an intense and regular littoral traffic. This

research is based on notarial sources which show a significant number of agreements between peasants and businessmen, judicial sources in which different conflicts related to such business are recorded, and, finally, the registers of arrivals to the harbour of Barcelona, an interesting source in which the origin of the ships and the load they transferred are recorded.

Pol Junyent (IMF-CSIC Barcelona/CAIMMed): From the forest to the shipyards. Logging, shipment, and timber markets for shipbuilding in the Crown of Aragon (14th-15th centuries)

In our imagination, wood is the main element used to build ships, although, raw materials needed for shipbuilding in the Middle Ages were diverse, such as cork, hemp, iron, bronze, tar, et cetera. Throughout the territories of the Crown of Aragon wood was an abundant raw material. The climatic and geographic characteristics of the territories near the most important shipyards of the Crown allowed the growth of forests with a great diversity of arboreal resources. The main kinds of wood obtained from these forests for shipbuilding, in addition to cork, were oak, holm oak, fir, poplar, pine and black poplar. Sometimes wood with special characteristics was required, despite the richness of the Catalan forests near the shipyards, for example, those destined for the manufacture of masts. In these cases it was necessary to import materials from the Pyrenean valleys or further regions. In summary, the main objective of this paper is to show in a sequential way the complete process of obtaining forest resources for shipbuilding in the Crown of Aragon in the 14th-15th centuries. The study will analyse the social agents who carried out these jobs, such as shipbuilders, sawyers, farmers, sailors and many others. The paper will focus on their work inside and outside the shipyards while analysing their tasks and salaries. As it will be shown, these men and women were dedicated to precise tasks such as the location of optimal wood, logging and processing it in the forest, as well as its transport to the shipyards where it would be transformed into future vessels.

Krzysztof Szewczyk (Polish Academy of Sciences): Charcoal burning in northern Poland in the pre-industrial era

In the pre-industrial era charcoal was an integral part of economic development. One way of obtaining it was to produce it by pyrolysis (dry distillation) of wood in charcoal piles. In order to produce the required amount of charcoal in piles, a lot of wood was needed, which resulted in increased forest clearance. Thanks to LIDAR data it is possible to find preserved places of such pre-industrial activity. The aim of this announcement is to present previous research in this field, and to show how, with the help of LIDAR data, topographic, soil and potential vegetation maps, it is possible to show distribution and size of piles, scale of firing and its impact on the environment.

Francesco Salvestrini (Università degli Studi Firenze): Planting, cutting and transporting construction timber in Medieval Tuscany (13th-16th centuries)

This paper focuses on the timber trade in Communal-age Tuscany, when the flourishing city economies, in need of a lot of timber for urban construction, established important commercial relationships with some large monastic and ecclesiastical forest owners (i.e. Vallombrosa Abbey,

Camaldoli Hermitage, Opera del Duomo in Florence). The aim of the report is to highlight the bargaining between city governments and religious institutions over the extraction, implantations, and taxes on fir, chestnut and beech wood sales. Special attention will be paid to the flow of timber along the Arno river and the economic and social implications of this activity.

Andy Ford (University of Reading): **Vert versus Venison: Trees in the English Royal Forest, 1227-72**

The English royal forest was created primarily as a private hunting ground for the crown. While it existed to 'protect the vert and the venison', the former played second fiddle to the latter. Trees were therefore valued initially as a means of providing a habitat for the deer that were the primary target of royal hunting activity. The task of protecting and administering the forest spawned a substantial bureaucracy that in turn bequeathed a vast quantity of documentation, particularly from the early thirteenth century. It is clear that, during the personal rule of Henry III (1227-72), trees within the royal forest, and especially, oaks were valued as products in their own right for royal use in the building of castles and palaces, as gifts and as a source of income. However, these varied uses of the vert in turn threatened the sustainability of the environment necessary to provide the venison. The extant records therefore attest to a delicate balancing act performed by the crown's agents to manage this tension. Often this appears to have worked but sometimes it did not. This paper will therefore explore the multiple uses made by the crown of trees within the royal forest during the reign of Henry III and the attempts to reconcile these with the need to preserve the habitat for the purposes of hunting and deer farming.

Dominik Róg (Catholic University of Lublin): **Forest settlements of Solska Forest – human and landscape**

In this paper the author will attempt to diagnose and compare the forms of forest settlement in Solska Forest, such as potash sheds, forest barracks, charcoal forest clearings, tar production points and forest farms. These forms of human interference in the woods is connected with social and occupational groups of *budnicy* (Polish: forest workers, mostly colliers) and *budziarze* (Polish: peasants settled in the forests of Zamoyski Family Fee Trail). Both groups where in most cases connected with some kind of forest industry and were present in Solska Forest. They settled in the forest in a different manner than the peasants – in the 18th c. their major obligation was rent. A key activity of *budnicy* was tar, pitch, potash production. *Budziarze* also cultivated small fields and meadows scattered in the forest (in Polish: *sznury*), they also harvested honey and were beekeepers. Many of the settlements were transformed into typical farming villages, existing to this day. Some disappeared, and their traces can be found today using archaeological field surveys.

Paweł Swoboda and Michał Słowiński (Polish Academy of Sciences): **Past use of the forest and its resources reflected in Polish toponymy**

Geographical names have long been an auxiliary material in historical research, especially in the field of settlement, but also economy and nature. Properly interpreted (in terms of linguistics) toponyms can be a valuable indicator of human activity in a given territory, especially when

(complete) historical source data are not available. We are attempting for the first time to synergize palaeoecological, soil, climatic, phytosociological findings with historical economy and especially toponymic data in order to understand and perceive the past use of forests. The aim of the paper is to present how toponymic data can be used to determine what type of forestry production and in which areas was carried out in the past in Poland. Selected groups of names derived from lexical bases belonging to the Old Polish vocabulary related to the usage of forest and its resources as well as their spatial distribution will be presented.

Albert Reixach (Universitat de Lleida): **Dye plants and other raw vegetal materials for the cloth industry in Late Medieval Catalonia: from imports to crop specialization**

This paper deals with the raw vegetal materials employed for the textile and leather crafts developing in Catalonia from the mid-14th century to the end of the following century. It will pay attention to dye plants such as woad or rose madder, as well as redoul, used as a tanning substance. During earlier times these products had been imported mainly from southern France or Italy. As a result of a combination of factors, after the Black Death the growing manufacturing centres resorted to local cultivation or extraction of these plants. Different sources—local ordinances, notarial ledgers and the bailiff's court books—assess a certain degree of specialization of several areas close to the urban centres. Thanks to ongoing research, I seek to define the chronological scope of this phenomenon with a special focus on the region of Girona.

Marta Sancho (Universitat de Barcelona): **Exploitation and use of leaves, flowers, fruits, roots and fibres in the Middle Ages in the Mediterranean context**

We propose an approach to the different uses that were given to these parts of plants during the Middle Ages. We will analyse their uses as food for both animals and humans, as well as their culinary and medicinal applications. We will use a multidisciplinary methodology in which we provide data from written texts, archaeology, iconography and an ethnographic approach to those activities for which we only have indirect data. Finally, we will propose some productive activities aimed at optimising these resources, such as selective gathering and semi-agriculture.