

2.6. Consumption of wood, energy transitions and woodland management from a historical perspective. Part II

Panel organiser: Infante-Amate, Juan, Pablo de Olavide University, Spain; Iriarte-Goñi, Iñaki, Zaragoza University, Spain

The use of wood as fuel has been essential throughout the course of history. Heat, food and the development of numerous activities such as mining largely depended on the supplies of wood available in preindustrial societies. This dependence gradually diminished as industrialising countries increasingly used fossil fuels. However, today, according to the FAO, 47% of wood production in the world is still used as fuel and this percentage is considerably higher in less developed countries in Africa, Asia and Latin America, where it reaches 90%. The aim of this session is to analyse the consumption of wood in different historical and geographical contexts, linking it with energy needs and its effect on the management of forests, woodlands and areas where the wood was obtained. The chief interest here is to detect different transitions which affected the consumption of wood (either increasing or decreasing it) in a bid to find the causes associated with these changes and trace the environmental effects that changes in consumption can generate. Which factors have historically had the greatest influence on changes in the consumption of wood? What were the effects of increasing or decreasing consumption in environmental terms? How were the approaches to woodland and territorial management adapted in accordance with changes in demand for organic fuels? The session is open to researchers of any historical period or geographical area. There are new lines of research looking at the industrial energy transition process which are providing new details about the spatial and historical peculiarities of change, noting that it did not consistently occur as a process of energy transition which radically changed the consumption of wood for coal. Note, for example, the consumption of woody crops in the Mediterranean or hedgerows in central Europe. The very nature of forest and woodland in the world means that supply differs greatly (scrubland, forest, savannah usage). This session aims to shed light on the nature of a phenomenon which is still occurring in much of the world and which brought about major changes in the management of woodland and rural life in industrialised countries.

Chair: Iriarte-Goñi, Iñaki, Zaragoza University, Spain

Monday 19.8.2013 // 1400 – 1530 // Session 2 – Room A 022

2.6.1. Seeing the wood for the trees: the diversity of local fuel sources and the transition to a coal-burning economy in England

Williamson, Tom, University of East Anglia, UK
Warde, Paul, University of East Anglia, UK

Most research into fuel supply in England in the seventeenth, eighteenth and nineteenth centuries has concentrated on the relative contributions made by wood and coal, and has assumed that the majority of the former came from managed woodland. As there was relatively little of this resource by the start of the seventeenth century, but increasing levels of coal production, the transition to a coal-burning economy is assumed to have come relatively early to England, and at roughly the same time in most parts of the country. But such analyses may be flawed, because they fail to take into account the fact that much domestic fuel was supplied by peat, or from materials like gorse, heather and broom cut from heaths and other commons; most fuel wood, moreover, came not from managed woods but from hedges and farmland trees. This diversity of supply remained important in many regions well into the nineteenth century, not least because of the high costs of transporting coal. The transition to a coal-burning economy in England may thus have occurred slightly later than some historians have recently suggested, and in regional terms, certainly, coal only replaced such traditional fuels as systems of transport were progressively improved in the later eighteenth and nineteenth centuries. This in turn freed up large areas of land for new uses - with major implications for agricultural production and productivity.

2.6.2. Fuel supply to Madrid and forest transformations in an organic economy

Hernando Ortego, Javier, Autonomous University of Madrid, Spain
Madrazo García de Lomana, Gonzalo, Complutense University of Madrid, Spain

This paper provides an analysis of the relationship between a city and its territory of fuel supply – its energy footprint –, in the context of an organic economy. Our case study is the city of Madrid in the eighteenth century, before the transition to fossil fuel. First, we estimate the consumption levels in Madrid, and compare them with other European areas. The fuel supply, with a clear predomi-

nance of charcoal, came from an area that increased historically, and in places extended up to 200 km beyond the city. Transport was exclusively land-based, which represented a major constraint for this important flow of resources. Government intervention was aimed at regulating forests in order to ensure their sustainability since sixteenth century, sometimes in conflict with peasant interests and practices. The study of the nature and state of the forests, and the quantification of the surface required to support urban consumption allows to determinate the land cost of energy production in an organic-based system. Fuel supply had a clear impact on the woodland management and forest landscapes. The main result was the increase of the surface of the “monte bajo”, a forest in which the regular practice of coppice represented a “charcoal specialization”, very different from the “monte alto”, a savannah usage which integrated forestry and livestock. Furthermore, the working methods used in forests tended to intensify fuel production. Finally, production and supply of fuel to the city may be considered as a guarantee of long-term sustainability of forest landscapes.

2.6.3. Wood and fuelwood in Spain: production and final uses in the long run (1850-2000)

Iriarte-Goñi, Iñaki, University of Zaragoza, Spain
Infante-Amate, Juan, Pablo de Olavide University, Spain
González de Molina, Manuel, Pablo de Olavide University, Spain
Soto Fernández, David, Pablo de Olavide University, Spain

The aim of this paper is to examine production and end consumption within Spain's wood and timber sector between the mid 19th Century and the year 2000. In this debate, most research usually focuses on production derived from forest usage. However, in areas such as the Mediterranean, much of the supply of wood and timber comes from cultivated land, such as olive groves, grape vines, fruit trees and also from meadow and pasture lands, which are often not incorporated into production statistics for wood and timber. The aim is to provide an account of the complexity of the supply process for fuel and wood used for industrial purposes in Spain, a country dominated by the cultivation of woody crops. The findings will offer an analysis that encompasses the origin of production, both in terms of land uses and at a regional level in Spain, as well as the end use given to these products. The paper will review the different patterns of production and consumption in a country with broad agro-climatic variability, where some areas are distinctly Atlantic and others are dominated by woody crops. It will also analyse the general effects of the industrialisation process and energy transition initiated in the late 19th century, which changed the functionality and use of forest and agricultural land in Spain.

Participants

González de Molina, Manuel

Professor in Modern History at Universidad Pablo de Olavide. He has studied the rural world in Spain during 19th and 20th centuries and has published eight books and more than sixteen articles on national and international journals. He has been General Director of Organic Agriculture in Regional Government of Andalusia (2004-2007). He is currently vice-president of the Spanish Society of Organic Agriculture (SEAE) and also vice-president of Spanish Society of Agricultural History. He coordinates the Agro-ecosystem History Laboratory, specialized on Agrarian Metabolism and Socio-ecological Transition in Environmental History.

Hernando Ortego, Javier

Javier Hernando Ortego is Associate Professor in the Department of History and Economic Institutions, Autonomous University of Madrid. Research interests include the study of the impact of Madrid's fuel demand on the near surrounding territory in the early modern period, both from an economic and an ecological viewpoint. One of his recent papers is “Energy Production, Ecological Footprint and Socio-Economic Transformation of the Territory in an Organic Economy. The Case Study of Early Modern Madrid”.

Infante-Amate, Juan

Juan Infante-Amate is Lecturer in Contemporary History at University Pablo de Olavide and researcher in the Agroecosystems History Laboratory. His research is focused on the history of the Mediterranean agriculture from an environmental perspective. His recent work has been focused on the history of soil erosion, energy and material analysis, olive orchards history and wood production. Some of his recent papers have been published in Environmental History, Rural History, Historia Agraria and Historia Social. He has taken up visiting positions in University of East Anglia, University of Saskatchewan and IFF Social Ecology Institute.

Iriarte-Goñi, Iñaki

Iñaki Iriarte-Goñi is Senior Lecturer in Economic History in the University of Zaragoza. Interested in forests history, property rights and the commons, environmental history. Recent works on forests uses: “Forests, Fuelwood, Pulpwood and Lumber in Spain, 1860-2000. A non Declensionist History”, Environmental History, 18, 2 (2013)

333-359; “Not only subterranean forests: Wood consumption and economic development in Britain (1850–1938)”, Ecological Economics, 77 (2012) 176–184 (with M.I. Ayuda); “Wood and industrialization Evidence and hypotheses from the case of Spain, 1860–1935” Ecological Economics, 65 (2008) 177–186 (with M.I. Ayuda).

Madrazo García de Lomana

Gonzalo Madrazo García de Lomana holds a PhD in Geography. He is currently Associate Professor of Geography at the Complutense University of Madrid. His research includes the history and geography of Spanish forests. Recent publications: Energy consumption in Madrid, 1561 to c. 1860, Cambridge University Press, 2010; Forest Dynamics in the Spanish Central Mountain Range, in: Landscape Archaeology and Ecology Review. Gonzalo Madrazo had visiting positions at the Cardiff University and the University of Toulouse.

Soto Fernández, David

David Soto holds a PhD in Contemporary History from the University of Santiago de Compostela with a thesis entitled “Productive transformations in contemporary Galician agriculture. From organic agriculture to the green revolution”. In 2007 he became Associate Professor of Contemporary History at the University Pablo de Olavide of Seville. His main research focuses on the analysis of Agrarian History from the environmental perspective. His work has focused on the study of sustainability of agricultural systems and evolution of environmental conflicts.

Williamson, Tom

Tom Williamson heads up the Landscape Group within the School of History – a collection of academics, researchers and research students studying all aspects of the English landscape, from later prehistory to the present. He is currently involved in a number of projects, including the GIS-aided study of Agriculture and the Landscape in Midland England Agriculture and the Landscape in East Anglia, 1870-1950, funded by the AHRC and the Leverhulme Trust. He is also actively involved in the study of designed landscapes, especially parks and gardens of the eighteenth and nineteenth centuries.