## Paul Warde

The Invention of Sustainability: Nature and Destiny, c. 1500-1870 Cambridge, Cambridge University Press, 2018, 416 pp.

'n this book Paul Warde presents the history of the idea of sustainability from c, 1500 to the late nineteenth century. He introduces how major scientific discourses across Europe dealt with sustainability problems avant la lettre. To this end, he defines sustainability as an environmental problem (p. 5), that is the challenge to continuously provide resources without degrading the conditions under which they regenerate. The issues at stake thus range from perceptions of scarcity (in land, in nutrients, in labour), to ideas of overuse. Drawing on rich material from Western Europe, each chapter identifies, for different periods and specific resources (notably, wood or food), the scientific rationale with which contemporaries approached sustainability challenges, and the particular topics of that discourse. The book is compelling in content and style, though at times challenging for non-En-

glish native speakers, and presents an impressive overview on a timely but previously hardly studied topic.

Chapter 1 focuses on agricultural production in 1500-1620, and describes major issues including tillage and enclosure, livestock husbandry and manuring, as means to avoid or mitigate "dearth", that is shortage in resource provision. During the same period, a more conscious management aiming at securing natural resources for posterity is described for the use of woods in chapter 2, centuries before the scientific discipline of forestry emerged, or, for that matter, an actual large-scale shortage of wood. Chapter 3 introduces ideas of "improvement", prevalent from the late sixteenth century through the mid-eighteenth century, as issues of sustainability. In contrast to tillage, where the focus was largely on the territory (enclosure), here the focus was on management aiming at increasing

rents. The "state" as a new concept emerged in the sixteenth century, and it is the focus of chapter 4 ("Paths to Sustained Growth, c. 1650-1760"), where sustainability questions are discussed as a matter of public institutions, culminating in the science of cameralism in the mid-eighteenth century. Debates revolved around feeding the population and providing the economy with resources, be it through domestic production or import. Chapter 5 is something of a discourse into assessing and measuring the availability of -forest- resources from the late seventeenth to the early nineteenth century. Theories of circulation are the topic of chapter 6, in which the focus turns from political economic discourse and practice towards natural sciences and their interest in understanding life-sustaining chemical processes and establishing this knowledge in new scientific initiatives. Chapter 7 returns to political economy, and to the role of natural resources in those debates in late eighteenth and early nineteenth centuries. Here, Warde argues that political economists [did not] harbor [...] a fantasy of no limits. Rather, the idea of the limit was not seen as very relevant to the issues that did preoccupy them (p.266). In the last chapter ("History and Destiny") early ideas of collapse and scarcity are explored.

The book offers a formidable overview on how ideas of what is currently subsumed under the term *sustainability* shaped major scholarly discourses in past centuries. It provides counter narratives, *e.g.* against overly simplistic concepts of "sustainable" resource use in preindustrial times, against the negligence of scarcity problems and

against assumptions that resource conflicts emerged only in the course of the industrial revolution. By its broad perspective, encompassing discourses on political, economic, and biological questions, the book serves as a role model on how sustainability questions should be framed, touching upon all three pillars of sustainable development. The chapters on wood are particularly brilliant, synthesizing much of the previous extensive work by the author (*e.g.*, Warde 2006, 2007).

Two major conclusions of relevance to current sustainability debates will be stressed here, one made throughout the book, the other in the conclusion. Firstly, Warde describes how throughout much of the period covered in his book, sustainability was perceived as a problem of lacking labor, diligence -virtue even- or technology, rather than a problem of resource scarcity or overuse. Well into the nineteenth century, nature appeared as an abundant source of resources, and institutional and political efforts towards sustainability almost exclusively focused on tapping this potential. In other words, until the fairly recent past, the thought of scarcity or overuse of nature was, in Europe, not part of mainstream scientific discourses or political agendas. This insight may be of explanatory value for the current political and institutional challenges of governing sustainability problems.

Secondly, Warde conceives of sustainability as something that is being made, or "invented", as the book title states, rather than something that has to be, has ever been, or can ever be discovered. This pers-

pective, though seemingly in conflict with the "environmental" nature of sustainability introduced early on in the book, enables Warde to highlight the different disciplinary and topical approaches to the issue as equally valid and relevant in response to their particular spatio-temporal context. Warde's perception of sustainability thus may inspire current sustainability debates by calling for a "re-invention" of sustainability that addresses the historically unique dimensions of global sustainability challenges today.

We now highlight two issues addressed in the book which we hope will inspire future research in environmental history. Firstly, the geographical focus is, as the author states in the introduction, on Europe: the book tells largely a European story, and the narrative focuses on particular parts of Europe: England and Germany, moving later during the eighteenth century to Scotland and France (p.12). Warde indeed cites authors from even larger parts of Europe. While this provides relevant insights as such, it opens questions regarding the generalizability of the findings to other parts of the world. How do the European ideas presented compare to those in other world regions? In particular, this refers to the Global South, where an extensive and influential body of literature -bevond Carolyn Merchant-demonstrates the existence of debates and collective practices on the conservation of nature. For example, in the influential book *Memoria biocultural*, Toledo and Bassols (2008) elaborate preindustrial sustainability discourses and practices. Comparative analyses of historical

sustainability discourses in Europe and other world regions appear as fruitful future research topics.

Secondly, as material environmental historians, we observe that Warde clearly chooses a discursive focus on historical sustainability challenges, though he does not entirely neglect their biophysical dimensions, e.g. stressing that these things do matter (p. 59). Given the author's extensive experience in quantifying historical resource use (e.g., Warde 2019), it is somewhat surprising that he resisted the opportunity to connect the intellectual birth of the idea of sustainability with existing empirical biophysical evidence. Instead, by providing a comprehensive overview on European scholarly debates relevant to sustainability challenges, the book offers substantial material for future work linking discursive and material perspectives on the historical emergence of and shifts between specific sustainability challenges. For example, future environmental history could inquire if, and to what extent, the lack of labor or the lack of land discussed in expert literature corresponded -or not- to actual material sustainability challenges in particular periods and places.

Overall, we find that the book offers a great overview on the history of the idea of sustainability. It is an important read not only for environmental historians, but also for historians of science and all scholars interested in the historical emergence of a currently seemingly ubiquitous concept. As we laid out, the book not only brings together in a highly skilled manner a broad array of otherwise rather disjointed debates,

contributing to sustainability thinking over a period of 400 years. In addition, and perhaps even more importantly, we believe that the book will inspire –not only– environmental history in the years to come, both by offering a solid reference on a previously under-researched topic, and by opening new grounds to build future research on. We highly recommend the read and look forward to using it in future research and teaching.

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# Jesús Fernández Fernández and Margarita Fernández Mier (Eds.) The Archaeology of Medieval Villages Currently Inhabited in Europe

Oxford, Archaeopress Archaeology, 2019, VIII + 119 pp.

the papers given at a conference held in Oxford in 2016. The meeting was an initiative of the ELCOS project, and one of the editors, Professor Fernández Mier, is the principal investigator for the project. The book consists of five papers (illustrated in colour) with a brief introduction and conclusion. The theme of the conference, repeated a number of times by different contributors, is that archaeological research into medieval rural settlements began with the study of abandoned village

sites, and that the time has come for investigation of places that survived, and are therefore still inhabited. A small minority of medieval settlements were deserted, and only study of existing places will reveal the characteristics of settlements as a whole. Deserted sites represent failures, and we risk distorting our interpretations by focussing on them. We ought to be defining the roots of resilience and explaining what factors contributed to the survival of villages.

The authors of the papers explore the theme in five European countries, giving an

contributing to sustainability thinking over a period of 400 years. In addition, and perhaps even more importantly, we believe that the book will inspire –not only– environmental history in the years to come, both by offering a solid reference on a previously under-researched topic, and by opening new grounds to build future research on. We highly recommend the read and look forward to using it in future research and teaching.

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The authors of the papers explore the theme in five European countries, giving an

overview of the whole subject, but often focussing on particular sites which have been well investigated. Lewis writes about a technique for sampling dating evidence (pottery) in English villages, by means of digging small test pits in gardens and open spaces. She presents an extended study of the village of Pirton in Hertfordshire, which from the evidence of more than a hundred test pits emerged in 850-1200, expanded in the next two centuries, and then shrank in size. Peytremann provides a comprehensive survey of research in France over recent decades, giving particular attention to the contribution of "preventive" excavations, that is work carried out in advance of the destruction of a site by modern development for housing or road building. There is more about methods and approaches to research than actual results, but she does examine Fossier's argument that the French village began c. 1000, and finds a much extended chronology of village development, stretching from the Neolithic to the present day. A team from the Netherlands are discussing the "preventive" excavations which have led to "Malta driven research" or a surge in information gathering which they call the "Valletta harvest". These are references to the Valletta treaty of 1992 which established the principle in Europe that developers should pay for the costs of excavation. They present an overview of data from many sites, but also show that particular villages such as Warnsfeld in Guelders have been the subject of focussed academic research with many small-scale archaeological interventions. Researchers are pursuing general factors in village formation, such as manorialisation. Oye, presenting research in Norway, is troubled by the focus in his country's research tradition on the farm rather than the village, and he agonises over the appropriateness of applving the term "village" to the "agglomerations of farms" which he studies in a district of western Norway. He seeks to explain the settlement pattern in terms of social power and the exploitation of resources, and sees parallels in these factors in other parts of Europe. The essay on Spain has been contributed by the two editors of the book, drawing on their research in upland districts at Vigaña in the Cantabrian mountains, and Villanueva in Asturias. They have carried out a number of small-scale excavations, demonstrating the multi-period character of occupation, in which prehistoric and medieval sites coincide. Their research extends into the fields and is concerned with the villages' methods of using local resources. They make much use of environmental evidence. They seek to connect their academic work with the local community, and in this respect their work has some similarities with Lewis's involvement with local inhabitants in her work in villages in eastern England.

Chris Wickham provides a useful conclusion in which he advises against defining villages in terms of a cluster of houses, but instead the village should be seen as a territory that provided resources for its inhabitants. He notes the capacity of these settlements to change, which invalidates too much reliance on modern maps as evidence for earlier forms of settlement. He is impressed by the villages presented in the

book which are sited on or near prehistoric monuments, but wonders if that tells us about continuities, as they could be cases of coincidence. Perhaps medieval people were attracted to settle near prehistoric religious sites which excited their curiosity. He picks up the point made by some contributors that the church provided a focus for settlement and served as an anchor that helped to fix the village in the landscape in subsequent centuries.

While it is very understandable for researchers to embark on new projects to claim novelty for their methods, and to promise fresh insights from developing a neglected branch of learning, it is only right to remind ourselves of the value of research on abandoned settlements When work began on deserted villages in the 1950s and 1960s the research questions that justified the excavations were basic and unsophisticated. The pioneers wished to demonstrate that "lost" villages had once existed and their remains could be identified. That was relatively easily accomplished. They aimed to learn more about the desertion process: why was a village abandoned, and how was it removed? Archaeology was not the best way of addressing those questions, and they still remain only partly resolved. The third research priority was to investigate the material culture –as we would now call it– of the peasantry, finding out more about houses, possessions, the rural economy and so on. Houses were certainly revealed and studied, but the wider questions still need more research, and in subsequent decades more evidence is being investigated using scientific techniques, for example by analysing environmental material such as human and animal bones, and plant remains. While the investigation of peasant life was progressing slowly, the burning research question through the 1970s and beyond related to village origins, which meant that research focussed on early periods, in which archaeological evidence was not always abundant. These avenues of enquiry took into account such matters as settlement planning, which was supposed to reveal the role of lords and the state in the creation of villages. It also became a goal to understand more about regional differences, as it was necessary to explain why in one area villages were created, often in a regular and orderly fashion, while elsewhere people lived in straggling and undisciplined hamlets and farmsteads.

All of these developments emerged from the investigation of deserted settlements, and with good reason. A village abandoned in c. 1450 presents opportunities for research. Here the settlement's plan has been preserved for us to photograph, survey and analyse. Of course the abandoned skeleton of the village represented the last phase, and its plan might have changed radically in previous centuries -but that can be discovered by excavation or geophysical survey. The settlement has not been covered by centuries of modern buildings and alterations which obscure the medieval past. Large scale open excavation of parts of a deserted village can lay bare the foundations of buildings, and ranges of pottery, artefacts and environmental samples are recoverable. The ambitious archaeologist can gain a full view of the peasants' living and working space. Much of the work in modern inhabited settlements resembles keyhole surgery, in which a complete house, farmyard, or smith's workshop will rarely be visible. More advanced questions about the sociology, mentality and technology will be addressed with difficulty if the evidence is confined to the fragments of data derived from small-scale work in surviving settlements.

It is also alleged that deserted settlements are giving us a false picture of settlement forms and material culture because they represent failure. This is very difficult to prove. Archaeological work on the final phase of a deserted village have problems in identifying signs of decline; indeed, the last stage of occupation often seems to show a better quality of buildings and signs of prosperity. Of course we know that some places were closed down by their lords, or fell victim in times of war, so that they experienced no slow decline, and may not have suffered from inherent weaknesses.

This book offers an overview of new trends in settlement archaeology. It would be more fully convincing if some authors were less preoccupied with the bureaucratic processes of "preventive" archaeology, and if they could convince us that work on inhabited settlements could answer important and well-defined research questions. Archaeological theory is now so ambitious and comprehensive that every change in the past can be seen to have multiple explanations and implications, leaving the reader without clear guidelines for understanding the subject. Fossier's statement that villages began *c*. 1000, in a particular set of

social, economic and environmental circumstances, receives sharp criticism here, yet he provided a bold and useful point of reference which clarified our thinking.

Wickham ends his conclusion with the point that we do not need to choose between research into deserted and surviving medieval villages. Investigations of all types of settlement, regardless of whether they are now occupied by modern houses, should be welcomed because they have the potential to extend our knowledge of the subject and answer the many questions about the medieval rural past.

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