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