

# The Mastery and Uses of Fire in Antiquity

390

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Halstead takes up this question of environmental abuse by framing it in terms of a now-familiar debate about subsistence and land use among early (Neolithic–Bronze Age) agropastoral communities. Two competing models have very different implications for the extent and intensity of human impact on the landscape. The first characterizes land use as extensive and specialized, with cereal cultivation alternating with cultivated fallow in lowland areas, coupled in a symbiotic relationship with transhumant pastoralists following a “summer in the mountains, winter in the plains” schedule. This model considers transhumant pastoralism as a necessary or optimal response to the Mediterranean climate (hot, dry summers and cool, wet winters) and topography (mountainous with few large, fertile plains). An alternative model envisions small-scale, localized farming and herding that may be characterized as intensive and diversified. Halstead argues from archaeological and environmental evidence that the earliest Neolithic communities match the latter model quite well but that, by the end of the sixth millennium B.C., a movement into marginal areas of the landscape was under way in southern Greece. An adaptation falling somewhere between the two models—localized, seasonal expansion of grazing into marginal areas as part of a mixed farming regime—emerged, helping to explain the evidence for mid-Holocene human impact in the pollen and geoarchaeological records. Halstead is one of many who view transhumant pastoralism as a specialized economic strategy tied intimately to market forces that did not exist in Aegean prehistory. Atherden comes to a similar conclusion, suggesting that the pollen evidence does not support such an adaptation until ca. A.D. 1000. In the end, something of a consensus emerges among the authors that, although humans have not “ruined” the natural environment, their impact is clearly seen in the paleoenvironmental record, much more dramatically so in the last 2,000–3,000 years.

The success with which the contributors tackle the big issues of integrating cultural and environmental data varies widely: some authors argue carefully within the limitations of the data, while others seem to blissfully ignore the shortcomings of the evidence, particularly in the exercise of correlating landscape changes with human developments. This is incongruous in a volume that takes so many previous investigators to task for their sins. By and large, the reconstructions offered here remain merely suggestive, and sweeping conclusions are avoided. Yet the outlines of progress are found in these pages. New and innovative approaches promise better, more complete data. The insights offered by routine collection and consideration of weeds and charcoal, or the battery of archaeological, geophysical, and geochemical tests that Mee and James have applied to

surface artifact scatters, point the way forward. Several authors, particularly Whitelaw and Krahtopoulou, chose to focus their analytical gazes on small-scale contexts in order to demonstrate the true variability that is apparent even at the local level—an appropriate caution to those who seek to extrapolate trends to regions and beyond. This book, professionally edited and produced with excellent illustrative material, provides a window on the current state of paleoenvironmental studies within Greek archaeology and ought to be appreciated by both Old and New World archaeologists with interests in human landscapes of the past.

*The Mastery and Uses of Fire in Antiquity*. J. E. REHDER. 2000. McGill-Queen's University Press, Montreal. xv + 216 pp. ISBN 0-7735-2067-8 (cloth).

Reviewed by Alan H. Simmons, University of Nevada, Las Vegas.

J. E. Rehder's *The Mastery and Uses of Fire in Antiquity* is not the type of book for a quick and casual sit-down read. When I agreed to review this book, I had thought, from the title, that it would be a rather synthetic treatment of humans' usage of fire through the ages. I was surprised, as this is a much more specific treatment of the use of furnaces from the perspective of physics and chemistry. Rehder, a senior research associate in the Department of Metallurgy and Materials Science at the University of Toronto, clearly knows his furnaces, and the bulk of the text is devoted to a highly detailed (for archaeologists, at least) treatment of ancient pyrotechnology, with a focus on the Mediterranean Basin. Although he notes that the earliest evidence for furnaces and the use of lime plaster (requiring considerable pyrotechnology skill) is from the Near Eastern Neolithic, the book concentrates on much later periods.

Rehder is not an archaeologist, and he clearly states his approach as one taken from “a furnace operator's point of view, so that the writing style is that of the natural sciences rather than that of the social sciences” (p. xvii). Given that Rehder is not trained in archaeology, he can perhaps be forgiven for statements such as, “[There] was a complete lack of a tradition of science throughout antiquity” (p. 7).

This is a very specialized book and will be of strong interest to only a relatively small audience. But for anyone who works with Bronze or Iron Age materials, particularly from a metallurgy production perspective, Rehder's work is invaluable. Its 15 chapters deal with both artifacts related to metallurgy and the scientific processes behind metallurgy. In his introduction (curi-

"Every archeologist who works in metal ages will want to have this book handy. A highly useful volume with much interesting information and insight." Journal of The Mastery and Uses of Fire in Antiquity, written by an engineer with fifty years of experience in industrial research and pyrotechnology, rectifies this lack. J.E. The Mastery and Uses of Fire in Antiquity provides much-needed information for anyone interested in archaeology, anthropology, and pyrotechnology. The material fabric of nearly all settled civilizations exists largely because of pyrotechnology - the generation, control, and application of the heat from fire to change the properties of materials. The technological achievements that make contemporary society possible are the result of some ten thousand years of development of the intentional use of fire. The Mastery and Uses of Fire in Antiquity provides much-needed information for anyone interested in archaeology, anthropology, and pyrotechnology. This text provides a detailed examination of how fire and furnaces were used in antiquity - from the hardening of clay to the smelting of iron ore to produce iron and steel. It will be of value to anyone interested in archaeology, anthropology and pyrotechnology. Ralph M. Rowlett, "The Mastery and Uses of Fire in Antiquity. J. E. Rehder," Journal of Anthropological Research 58, no. 2 (Summer, ): Download Citation on ResearchGate On Jul 1, , Ralph M. Rowlett and others published The Mastery and Uses of Fire in Antiquity J. E. Rehder }. The Mastery and Uses of Fire in Antiquity. J. E. Rehder. McGill-Queen's University Press, Montreal, xv + pp. ISBN Trove: Find and get Australian resources. Books, images, historic newspapers, maps, archives and more. Request PDF on ResearchGate On Apr 1, , Alan H. Simmons and others published The Mastery and Uses of Fire in Antiquity. The Mastery and Uses of Fire in Antiquity (Paperback) by J. E. Rehder and a great selection of similar Used, New and Collectible Books available now at.colstonyardbristol.com: The Mastery and Uses of Fire in Antiquity () by J.E. Rehder and a great selection of similar New, Used and Collectible Books. 23 Jul - 22 sec Read Book Online Now colstonyardbristol.com?book=The Mastery and Uses of. Get this from a library! The mastery and uses of fire in antiquity. [J E Rehder]. 14 May - 36 sec - Uploaded by F. Alecio The Mastery and Uses of Fire in Antiquity. F. Alecio. Loading Unsubscribe from F. Alecio. Creator: Rehder, J. E.. Publisher: Montreal: McGill-Queen's University Press, c Format: Books. Physical Description: xix, p.:ill. ; 24 cm. Identifier: ( ISBN). Buy Mastery and Uses of Fire in Antiquity from Dymocks online BookStore. Find latest reader reviews and much more at Dymocks. [PDF] Read and Download The Mastery and Uses of Fire in Antiquity Online eBooks Textbooks Get now: colstonyardbristol.com Buy The Mastery and Uses of Fire in Antiquity New Ed by J.E. Rehder (ISBN: ) from Amazon's Book Store. Everyday low prices and free delivery. Review of J. E. Rehder, The Mastery and Uses of Fire in Antiquity, Montreal Eleni Hasaki. Uploaded by. Eleni Hasaki. connect to download. Get pdf. The Mastery and Uses of Fire in Antiquity, written by an engineer with fifty years of experience in

industrial research and pyrotechnology, rectifies this lack. This text provides a detailed examination of how fire and furnaces were used in antiquity - from the hardening of clay to the smelting of iron ore to produce iron. The download The Mastery and Uses of Fire in Antiquity: A Sourcebook on Ancient Pyrotechnology abuse will listen parent and maybe; are the in- space.

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