



Environment & Society Portal



The White Horse Press

Full citation:

Sieferle, Rolf Peter. Review of *Einführung in die Umweltgeschichte*, by Helmut Jäger. *Environment and History* 1, no. 2 (June 1995): 250–1.

Grove, Jean M. Review of *The Bisses of Valais: Man-made Watercourses in Switzerland*, by Guy Brett.

*Environment and History* 1, no. 2 (June 1995): 251–2.

<http://www.environmentandsociety.org/node/2845>.

Rights:

All rights reserved. © The White Horse Press 1995. Except for the quotation of short passages for the purpose of criticism or review, no part of this article may be reprinted or reproduced or utilised in any form or by any electronic, mechanical or other means, including photocopying or recording, or in any information storage or retrieval system, without permission from the publishers. For further information please see <http://www.whpress.co.uk>.

## Book Reviews

*Einführung in die Umweltgeschichte*

Helmut Jäger

Wissenschaftliche Buchgesellschaft, Darmstadt, 1994.

ISBN 3-534-11366-7. 245pp.

The disciplinary boundaries of environmental history are not well defined. Scholars of different disciplines and historical subdisciplines contribute to a subject which necessarily requires communication transcending the narrower perspectives of established provinces of science. Helmut Jäger's 'Introduction to Environmental History' is quite an astonishing work of scholarship, not least because he manages to ignore almost everything published on this subject during the last twenty years. All the major works of authors like Christian Pfister, Donald Worster, Peter Brimblecombe or Arne Anderson have escaped his attention. The results and perspectives of German methodological discussions, or international conferences on environmental history, are not examined at all.

But nevertheless Jäger has written a valuable and remarkable book, albeit one concentrating on a particular point of view. The author is a (retired) professor of historical geography, and the specific methodological and professional tradition of this discipline shapes his approach. Historical geography as a subdiscipline of geography has developed its own forms of inquiry and research: for more than a hundred years it has provided an immense bulk of knowledge which may be read as a contribution to a general environmental history, even though it is not identical with environmental history in the proper sense of modern research.

The book focuses on the development of landscape and soil during the last 7,000 years with an emphasis on central Europe in early modern times (15th-18th centuries). It demonstrates the extent to which landscapes and vegetation have been modified in preindustrial times and how conditions which today appear as 'natural' are in fact results of human activities. As an example, he estimates that in Roman times no more than 20% of central European forests remained untouched by agriculture or pasture. In view of continuing climatic changes since the late Pleistocene, it seems impossible to distinguish between 'natural' and 'cultural' states of landscape and vegetation, as the early 'untouched' conditions would have developed in some unknown direction, even if there had not been human influences. Another main subject of Jäger's inquiry is the history of wildlife in central Europe, with a focus on the history of hunting since the late Middle Ages. The author (presumably a hunter himself) provides details of the methods and results of game-hunting, fishing, preservation and poaching, with less emphasis on the social conditions than on the quantitative and qualitative outcome. He indicates when certain species have been intentionally extinguished from European hunting-grounds, what measures have been taken to preserve, protect and reintroduce them, and what the results of these attempts have been.

In most parts of this book the reader gets the impression that the author knows much more than is actually depicted, with the exception of modern times proper. The effects of industrialisation on the landscape, on water and soil, on wildlife and habitats, are only referred to marginally. The same applies to legislation and conservation, which are mentioned, but not thoroughly treated. All in all, the book is not so much an 'introduction' covering the whole field of the subject but a contribution to the history of landscape and wildlife in Central Europe in preindustrial times. As such an introduction to historical geography, however, it can be recommended to all students of environmental history, as

## BOOK REVIEWS

it provides a broad spectrum of valuable information and opens a wider horizon for those who approach the subject primarily from the viewpoint of social or economic history. Thus it might become a constituent of a general introduction to environmental history yet to be written.

ROLF PETER SIEFERLE  
Mannheim

*The Bisses of Valais. Man-made watercourses in Switzerland.*

Guy Brett

Published by the author, 2 Orchehill Close, Gerrards Cross, Bucks SL9 8PR, 1995  
ISBN 09524984-0-5 £16.00 + £2.00 postage. Illustrations, maps, 144pp.

Far below the peaks which bring mountaineers to the splendid mountains of Valais, and well above the valley floors across which tourists speed on their way, gently sloping channels lead water to the fields and vineyards. The beautiful landscape contains a blend of natural and man-made elements. This part of southern Switzerland is semi-arid, yet it produces quantities of excellent wine and cheese. Around the villages, patchworks of carefully tended vegetable gardens and meadows full of wild flowers depend on the *bisses*, irrigation channels which bring water from glacier melt-streams and, in a few cases, from snowfields. This book is for those who, like the author, wish to increase their enjoyment of one of the most attractive parts of Europe by understanding what they are seeing.

The *bisses* have been constructed and maintained over many centuries. The oldest date from the thirteenth century and perhaps much earlier. Medieval Valaisians achieved extraordinary feats of engineering and surveying, without sophisticated equipment, bringing water across long distances, even across precipices. The work was so dangerous that the men detailed to repair the damage caused during winter were commonly accompanied by their parish priest. The multiplicity of *bisses* arises because they are the product of local initiative, patterned to meet the characteristics and needs of individual localities. Very detailed knowledge of local topography and hydrology, as well as great skill, was involved.

What is remarkable is that so many *bisses* have survived and that they are still controlled by local groups, most of them associations concerned with one or more communes, and more recently a few municipalities such as Sion. Some modifications have been made; exposed sections across precipices have been replaced by tunnels and modern materials introduced to lessen the need for frequent repairs. But the essentials remain the same. The forebears of the present operators clearly had a very acute understanding of the possibilities of using the environment to the fullest possible extent, carefully tailoring their plans to achieve this end, taking into account details of water availability, rock type, and slope. The resulting system was designed to last, and to a surprising extent has done so, though the total number of *bisses* has fallen.

Although Switzerland is one of the world's most developed countries this ancient irrigation system is still functioning. Basically this is because of the devolved nature of Swiss democracy. Decision-making is still locally based, so that communes, cantons and the state operate in such a way that local communities continue to play active roles. Crucially, the individual communes have retained their water rights. Consequently the great hydro-electricity companies have had to make detailed agreements which take these rights into account. Several *bisses* are now supplied by conduits constructed by enterprises such as Electricité de la Lienne. The *bisses* still have first call on the water and the

companies have to pay for the water they take, the resultant funds going towards upkeep of the bisses. With the increasing commercialisation and mechanisation of agriculture in recent decades, fragmentation of holdings has become increasingly disadvantageous. In many communes consolidation has been carried through with modern aids such as airphoto mapping. The distances which have to be travelled by irrigators to reach their holdings have been reduced and their efficiency has been increased. The detailed arrangements by which water is transferred from the bisses to the fields remain a matter for local decision. Some communes have decided that all the most minor distributaries should be put into pipes; others have rejected this solution, finding it a foolish waste of resources. Such decisions remain theirs.

Up to now, no account of the characteristics and functions of the bisses has been available in English. This book fills the gap very effectively. The Valaisian bisses systems are of more than local interest. Survival of such an ancient system, which so obviously enhances as well as it preserves the environment, even in the immediate vicinity of large scale modern engineering works, in a country well known for its economic and commercial success, has many lessons to offer.

One may suspect that the origins of the bisses are even earlier than the dates suggested. They may well have been constructed during the Medieval Warm Period, which in Switzerland lasted from about 900 AD to 1250-1300 AD (Lamb 1965, Grove & Switsur 1994). Very detailed field work has revealed that this benign interval was followed by a climatic deterioration which was to last until about 1850/1890 AD. It has recently become clear that this Little Ice Age had two main phases, separated by a period in the late fourteenth and early fifteenth centuries during which the ice withdrew, but only about half as far as it had advanced. At the end of the Medieval Warm Period, around 1200 AD, glaciers in Valais expanded and sheared off trees, leaving *in situ* stumps and roots. During the initial advance, some glaciers overran bisses. The Grosser Aletsch overwhelmed the Oberrieden Bisse, which was recorded as abandoned in 1385, following the culmination of the first period of advance. During the second phase of the Little Ice Age, the glaciers fluctuated about forward positions, and have continued to fluctuate even during recession. The remains of the Oberrieden were disclosed in this century, as the glaciers melted back following the end of the Little Ice Age. It seems that these environmental changes must have influenced agriculture, and the pace of development of the bisse system.

Guy Brett, formerly British consul in Geneva, has provided a comprehensive account of the Valaisian bisses. His book is a thorough account of the whole subject. It includes careful directions for twenty one walks along the bisses, as well as explanations of their history, maintenance and practical organisation. It is very much to be recommended to landscape historians and to all who may have the opportunity to explore the lower and gentler, man-made reaches of the Valais. The experience of walking along a gently sloping path beside a sparkling stream, as it crosses a steep mountain side on its way from glacier to vineyard, is unforgettable.

#### REFERENCES

- Lamb, H.H. 1965. The Early Medieval Warm Period. *Paleogeography, Paleoclimatology, Paleoecology* **1**: 13-37.  
 Grove, J.M. & Switsur, R. 1984. Glacial geological evidence for the Medieval Warm Period. *Climatic Change* **26**: 143-69.

JEAN M. GROVE.  
 University of Cambridge