

sequence is documented thanks to the recovery of several surface finds and the excavation of test trenches. They show that the area was settled from the early Bronze Age Polada Culture (Bz A1b) to the 17th–19th century AD.

Among others, the contribution by G. Bombonato (pp. 723–759) is also to be mentioned. It reports the results of the investigations carried out at the ruins of St Peter's church in locality Castelvechio / Altenburg near Caldaro. The excavations of the church revealed indeed the existence of one of the most ancient cult places of the entire region. The fact that this location might have been settled in antiquity had already been suggested according to its toponym, which recalls the presence of an "ancient castle". It was in the late 1900s that the restoration of the ruins started, involving also archaeological explorations of the site. These investigations permitted to ascertain not only the existence of a palae-Christian phase of the building, but also of an Iron Age layer attributable to the 9th–7th century BC.

To sum up, this volume is a commendable careful reconstruction of the history of this region that exploits archaeological sources and archive documents, past and present finds, combining the results obtained from new excavations with the study of old collections. It is a complete synthesis of our knowledge on this Alpine region with a more comprehensive bibliography.

The volume is nicely illustrated with excellent quality colour and black and white drawings and photographs. However, although many detailed micro-regional maps are provided in the different chapters, a general, large-scale map with the main localities of Trentino / Alto Adige within the surrounding regions (Austria, the Veneto, Friuli and Überetsch / Oltradige within South Tyrol and Italy for instance) is unfortunately missing. Thus, the location of most of the sites presented in the different contributions is difficult to interpret to a reader who is unfamiliar with the area. In my opinion, this is the main fault of the volume that nevertheless represents an important and useful contribution to the knowledge of the archaeology of South Tyrol and the Alpine region in general. Literally, its heavy weight mirrors very well the "weight of knowledge".

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RÜDIGER KRAUSE, Archäologie im Gebirge. Montafoner Zeitmaschine. Frühe Besiedlungsschichte und Bergbau im Montafon, Vorarlberg (Österreich). With contributions by Lisa Brिंगemeier, Rudolf Klopfer, Astrid Röpke, Astrid Stobbe, Franziska Würfel. Dr. Rudolf Habelt, Bonn 2015. € 19.80. ISBN 978-3-7749-3981-3. 147 pages, 213 illustrations.

The archaeology of the highlands can draw on a long tradition of research in the eastern Alps. More than a century ago, numerous prehistoric finds and sites were discovered, mostly in conjunction with the then still active mining of copper in the Alps, and these findings were reported for the first time then. There has been no loss of interest in pre- and protohistoric mining since, and techniques appropriate for its investigation have evolved steadily. It comes as a surprise that specialists in uplands archaeology have so far paid scant attention to the Montafon, and consequently the site was almost a blank spot on the map. This situation changed completely when the investigations presented in the book under review were set in train. Within a few years, a comprehensive interdisciplinary project was established and brought to fruition.

The project presented in Krause's volume is not limited to uplands archaeology but embraces the wider sphere of Alpine archaeology. Granted, this branch of historical research is a niche discipline, but, since the discovery of "Ötzi" the Iceman, public interest in the subject has gathered pace. Research has grown massively over the last few decades in the eastern Alps, focused on the use and frequentation of the Alpine zone as well as on mining itself. Existing initiatives have been expanded and new projects started in locations ranging from the eastern edge of the Alps in Lower Austria, through Upper Styria, the Dachstein plateau, Hallstatt, Hallein, the Salzach valley, the area of Kitzbühel, the valley of the Inn, the Silvretta region, the central Alpine ridge, right down to northern Italy.

Many such projects are accompanied by intensive media support designed to communicate and support the research undertaken. In the Alpine zone, new finds are often discovered and reported by non-specialists. They will continue to do so only if they possess the relevant knowledge, awareness and appreciation of the finds and sites they come across. Even entire mountain landscapes can be more readily conserved and protected if they are appreciated and better known – as a newly-started project supported by the European Union illustrates (Interreg CENTRAL EUROPE CE947 VirtualArch; see <https://www.interreg-central.eu/Content.Node/VirtualArch.html> [last access 09.11.2018]).

The work under review can be considered an outstanding example of the advancement of archaeological knowledge through the media and of the promotion of respect for a fascinating highland landscape. Although, as the volume's preface tells us, the idea of this book was conceived only in 2013, the wish to reinforce and communicate the investigations on the Montafon with exceptional images must have been there from the start. Indeed, every single site and scientific investigation is backed up by extremely expressive and well-composed photographs. It is the high quality of these illustrations that contributes in no small measure, alongside the engaging text, to the success of the book.

Because the intention is to make the volume accessible to a wide readership, references are left out of the text; for each chapter the relevant literature is cited in the form of short references in the margin at the beginning of the chapters. A glossary at the end of the book explains some of the unfamiliar specialist terminology.

The book's scope is very wide, with 25 chapters introducing several millennia of Alpine culture history condensed in 150 pages. It ranges from the first traces of human activity in the mountains after the last Ice Age, environmental archaeology, medieval mining, to newly-established museums and themed trails. All the chapters are conceived as self-contained units that can stand on their own.

The Bartholomäberg is presented in just two pages in the first chapter (pp. 10–11), a device used to underpin the structure of the whole book. Chapters 2–9 serve as an introduction to the work undertaken and acquaint the reader with the archaeology of the Alpine milieu.

Chapter 2 (pp. 12–15) bears the title "History of archaeology in the Montafon" ("Geschichte der Archäologie im Montafon"), which outlines the first archaeological investigations in the Alpine Rhine valley and the Montafon in particular up to the advent of the large research projects initiated over the last few years. This chapter already gives an inkling of one of the book's leading motifs: large-format illustrations of excellent quality introduce the subject under discussion and tempt readers into perusing the text. There is not a single page in the entire book that contains purely text. The captions of the illustrations are separated from the running text and appear in the margins. Chapter 2 also makes clear that communication is one of the key aims of the book, as illustrations reproducing the information panels of the newly-established "Bergknappenweg"

(mountain miners' trail) shows. This determination to disseminate information is also underlined by the fact that Chapter 2 includes brief presentations of archaeological methods and techniques; for example, an auger and the soil profile taken from the borehole is illustrated with a caption explaining the potential and results that such techniques can contribute to the understanding of the Bartholomäberg.

Chapter 3, "The Alps, a prehistoric settlement area? Inhospitable mountains or a life-sustaining landscape?" ("Die Alpen als prähistorischer Siedlungsraum? Unwirtliches Gebirge oder lebensfreundliche Landschaft?") (pp. 16–19), gives us the answer to these questions straight away: the Montafon area is presented, by means of distribution maps and aerial views with sites marked on them, as a zone that was economically viable and habitable over millennia. Furthermore, this zone was linked to the neighbouring valley communities from prehistoric times onwards, as Chapter 4 (pp. 20–23) impressively demonstrates.

Chapter 5 is devoted to the first hunter-gatherers that appeared in the mountains after the last Ice Age (pp. 24–27). Mesolithic sites above the treeline include rockshelters with camps and flint mines in the little Walser valley. The following chapter (6, pp. 28–31) deals with the evidence recovered within the Silvretta project and concerns the first mountain pastoralists. Thomas Reitmeier's maps emphasise the exploitation of the highlands, which could at times be very intensive, from the Mesolithic to modern times, debunking the myth that this was an apparently untouched mountain landscape. A contribution by Lisa Bringemeier (Chapter 7, pp 32–41), the first longer chapter in this introductory section, presents "4000 years of pastoralism on the Schafberg – a contribution to the economic history of an Alpine upland setting" ("4000 Jahren Weidewirtschaft auf dem Schafberg – zur Wirtschaftsgeschichte einer alpinen Hochlage"). The Schafberg was chosen as a complement to the Montafon project, designed to uncover evidence in upland locations between 1800 and 2500 m asl. Here, the topography is illustrated by large-format photographs which give a striking impression of the landscape and of the excavations undertaken there. Illustrations showing cores being extracted from the moor and descriptions of soil profiles are used to explain the processes of environmental archaeology. The results obtained from work on this wetland archive, from excavation of a large rockshelter, and from investigations in several deserted mountain pasture sites (so-called alps) dating from the late Iron Age to the early Middle Ages are used to elucidate the history of the upland pastoral economy.

Chapter 8 (pp. 42–45), "The basis for settlement in the highlands" ("Grundlagen der Gebirgsbesiedlung"), briefly touches on three aspects – pastoralism, agriculture, and mining – as reasons for occupying and exploiting the Alps, before focusing once again on the Bartholomäberg.

Astrid Stobbe takes the opportunity in Chapter 9 (pp. 46–49) to explain in detail and in a manner that is appropriate for a publication aimed at a wider public the methods and principles of pollen analysis and of examining plant macro-remains. She also considers the conditions affecting preservation and the extraction of cores from the moor, to conclude that it is possible to identify the first human impact on the environment of the Montafon area some 5000 years ago. In addition, Stobbe shows how she was able to reconstruct the diet of the community living in the settlement located in the Friaga forest.

"Of people and terrain on the Bartholomäberg" ("Von Menschen und Böden am Bartholomäberg") is the title of Chapter 10 (pp. 50–55), where Astrid Röpke provides further information derived from the environment. She presents the fundamentals of geoarchaeology and shows, from thin sections and soil profiles, how slash-and-burn forest clearance some 4000 years ago, pasture, and the maintenance of meadows can be recognised.

Before embarking on the best-known site excavated on the Bartholomäberg – the Bronze Age defended site in the Friaga forest – Chapters 11 and 12 (pp. 56–63 and 64–67 respectively) present further investigations in this Bronze Age settlement area, i. e. the excavations on the Bodaweg and at Dünnglers Ebni. Both sites were identified in intensive surface surveys and part-excavated from 2005 and 2008 respectively. Among the settlement remains uncovered at the Bodaweg site, Franziska Würfel highlights the phases dated to the 18th/17th and 14th/13th centuries BC and uses the opportunity to present geophysical prospection. She presents in detail 20 pits filled with burning debris (charcoal, ash, burnt soil, and burnt stones) and interprets them, with the aid of parallels, in the context of food preparation. Unfortunately, there is no reference to an overview on the subject in her reference list (M. HONECK, *Nichts als heiße Steine? Zur Deutung der Brenngruben der späten Bronzezeit und frühen Eisenzeit in Deutschland*. Universitätsforsch. Prähist. Arch. 166 [Bonn 2009]). For the Hallstatt-period settlement of Dünnglers Ebni, Rudolf Klopfer uses sections to elucidate the increased erosion caused by human impact on the vegetation and presents the stone floors and foundations of the houses that survived on the site.

Chapters 13 and 14 (pp. 68–73 and 74–79 respectively) deal in ten pages with the flagship site excavated within the Bartholomäberg research project, the Bronze and Iron Age (predominantly Bronze Age) defended settlement in the Friaga forest. The two chapters start in a quite low-key manner with a general view of the settlement mound against a snowy mountain backdrop and an inconspicuous door pivot stone. A short presentation of the settlement layers uncovered is followed by a brief overview of the pottery attributed to various Alpine culture groups; this serves as a preamble to the remarkable model of the Bronze Age site on p. 74 showing the extent of the excavations undertaken. The following pages contain many photographs illustrating the impressive remains of stone walls; the discussion concentrates on Alpine defended sites in general and on the territory and social organisation of the Bartholomäberg in particular.

Before tackling the second main element of the book – the Montafon mine – in Chapters 16 to 25 (pp. 84–136), Chapter 15 (pp. 80–83), concerned with “The impact on the environment – the consequences of settlement and economic activity” (“Auswirkungen auf die Umwelt – Folgen des Siedelns und des Wirtschaftens”), is inserted somewhat unexpectedly. Here, Astrid Röpke considers the consequences of land clearance and other interventions in the Alpine landscape from pre-historic times onwards. Striking images and descriptions of their settings show landslides and floods to illustrate the problem and its consequences.

The chapters dedicated to mining are equally broad in scope, with topics ranging from medieval sources illuminating the archaeology of the uplands to the drive to communicate the results of research around the Montafon mines. As before, readers are accompanied though the text by large-format and well-composed photographs. Chapter 16 (pp. 84–91), “Medieval mining in the Montafon” (“Mittelalterlicher Bergbau im Montafon”), serves as an introduction. The ambiguous sources relating to the Carolingian period are mentioned, as are the first deeds of 1319 and later documents. It is worth emphasising that the data obtained from environmental investigations can fill (or at least reduce) the gaps in the written sources. The prosperity that mining brought to the valley is given significant coverage. The church on the Bartholomäberg and its furnishings are remarkable testimonies of the prime period of mining, which ended around the middle of the 18th century, when most mines in the region closed.

The following chapter (17, pp. 92–99) gives a comprehensive account of the traces of medieval mining that survive in the landscape. Numerous photographs illustrate how the fragmented hilly terrain that one encounters in places on the Bartholomäberg and in the Silbertal came into being: sections through these hillocks show that they are the waste tips and shafts associated with the medieval mining activity. Radiocarbon dating indicates that this mining sector is one of the earliest

medieval mines in the eastern Alps: shafts existed as early as the 11th/12th century. Rüdiger Krause mentions that it is all the more surprising that no archaeological investigations were undertaken in the area before 2000. On p. 95, Gerd Weisgerber's model explains not only how such shafts formed but the terrain model also clearly illustrates the shaft-riddled landscape in the Silbertal and how ski runs and forest tracks can damage a relict medieval mining landscape. In addition to shafts and waste dumps, processing and smelting sites have also been identified for the first time.

Rüdiger Krause, the book's main author, considers in Chapter 18 (pp. 100–103) the question that has been at the forefront of the Montafon research project right from the beginning, i. e. whether the imposing defended site in the Friaga forest and the settlement's territory were connected to mining or whether they only emerged because of it. So far, there are only indirect indications of mining activity in the Bronze Age in the form of increased concentrations of heavy metals and greater quantities of charcoal in layers of the relevant date. For the later Iron Age, it has been possible to identify, in addition to the increased presence of heavy metals, the existence of a mining refuse dump. The prehistoric heap had been covered by a medieval dump and hence preserved. Although there are few sites as unsightly and as unspectacular as sections through mining waste heaps, the book manages to acquaint readers with this unpromising material in a series of photographs on pp. 100 to 103. It becomes once again clear that the volume under review was not purely conceived as a matter of duty but as a real attempt at communication and introduction to the subject. The chapter ends with a preview of what is intended over the next few years: a new research project of the Deutsche Forschungsgemeinschaft (German Research Foundation, DFG) is to investigate the beginnings of mining in the region.

Chapter 19 (pp. 104–111) illustrates handsomely that every intervention in the region's terrain is likely to uncover remains of medieval mining. In the excavation of a construction site in the Silbertal, waste dumps of the 11th/12th to 14th century were encountered and perfectly preserved refuse was discovered under them. Of particular note, apart from a pendant made of tin, are artefacts made of organic material, including the soles of shoes, leather straps, wooden nails, and a plait of human hair.

The wider organisation of the medieval mine is explored in Chapter 20 (pp. 112–117). Its extent was also revealed in geophysical surveys. Parts of a large building were excavated from 2008 onwards; the presence of numerous pieces of slag from forging identifies it as a mountain smithy. Once again, the well-chosen series of photographs illustrates the progress of the excavations and the massive drystone walls preserved to a height of up to 1 m. A photograph of the smithy reconstructed in the Frühmesshaus archaeological museum rounds off the chapter.

The latter image leads on to the last section of the book, an account of the promotion of the scientific research of the last few years. Although uplands archaeology is a newcomer to the Bartholomäberg and the Silbertal, the research element has not only been developed and brought to a high standard over a very short time, but it has also been translated into a communication concept resting on several pillars. Chapter 21 (pp. 118–121) presents a demonstration that formed part of a themed day: the archaeobotanist Frank Trommer built with the help of students a clay shaft furnace to smelt iron ore. This demonstration was very well suited to explain the process of medieval iron production and to introduce the topic of sites and finds yet to be discovered. It should, however, not be considered to represent a scientific experiment, as the subtitle implies, since ores from Brazil were used.

Chapter 22, "Archaeological Museum in the Frühmesshaus in Bartholomäberg and Mining Museum in Silbertal" ("Archäologie Museum im Frühmesshaus in Bartholomäberg und Bergbau-Museum in Silbertal") (pp. 122–125), Chapter 23, "The show mine in the mineworks" ("Das

Schaubergwerk in der Knappengruaba”) (pp. 126–129), Chapter 24, “The miners’ track to the mine” (“Der Bergknappenweg zur Bergbauzone”) (pp. 130–133), and finally Chapter 25, “The mine, an archaeological monument” (“Bodendenkmal Knappengruaba”) (pp. 134–126), provide ample details about this communication concept. The redesigned exhibition spaces in the museum are presented alongside the many original finds exhibited, as are the show mine and the recently established themed trails. The miners’ trail leads from its starting point in Schruns in the valley to nearly all the sites presented in the book right up to the medieval mining sector. Sixteen information panels set up in the landscape refer to the excavations and the special history and significance of the region.

In its last pages, Chapter 25 emphasises once again that the project that has been presented is not only about research but just as much about communicating its findings and conserving this special mountain zone. It has thus been possible in 2012 to register part of the Bartholomäberg mining landscape as a cultural monument of outstanding importance in the list of monuments of the Austrian Republic.

The “Montafon Time Machine” (Montafoner Zeitmaschine) is an outstanding example, in terms of content as well as concept, of how to treat archaeological knowledge. It demonstrates impressively that initially quite unprepossessing subjects like Alpine archaeology or uplands archaeology can be presented in an attractive manner. Interested readers are introduced to an Alpine culture history that spans several millennia. The highly expressive and well-composed photographs effectively ensure that the Montafon comes across not only as a landscape but also as the focus of interdisciplinary research around the Bartholomäberg. The volume unquestionably marks an important stage in the understanding of this fascinating mountain landscape and the conservation of at least part of it.

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JOHN COLLIS / MARK PEARCE / FRANCO NICOLIS (Hrsg.), Summer Farms. Seasonal Exploitation of the Uplands from Prehistory to the Present. Sheffield Archaeological Monographs Band 16. J. R. Collis Publications, Sheffield 2016. £ 100,-. ISBN 978-0-90609-055-8. (Hardback). £ 30,-. ISBN 9780906090565. (Paperback). 262 Seiten, 172 Abbildungen in Schwarz-Weiß und Farbe.

Dieser Sammelband, der Beiträge aus zwei Sektionen von Tagungen der European Association of Archaeologists (EAA) zur Archäologie in Gebirgsräumen zusammenfasst, widmet sich dem Thema saisonaler Nutzung von Gebirgs- und Hochgebirgslandschaften von der Vorgeschichte bis in die Neuzeit. Insbesondere der Auftrieb von Tieren auf Hochalmen außerhalb des eigentlichen Siedlungsgebiets im Sommer ist verbindendes Thema der verschiedenen Beiträge. Die als saisonale Transhumanz beschriebene Sömmierung der Herden auf Hochweiden ist Teil einer in den meisten Gebirgsregionen gebräuchlichen Viehhaltpraxis. Durch das Entfernen eines größeren Teils der Herden im Sommer und Frühherbst bleibt die Vegetation im Siedlungsumfeld intakt und kann als Winterfutter gemäht und gelagert werden. Allerdings ist das Thema der vertikalen Transhumanz hier eher Hintergrund für eine Reihe ganz unterschiedlicher Beiträge, die praktische aber auch ökologische sowie juristische Aspekte von Gebirgslandwirtschaften beleuchten.