goods. It seems to be dangerous to conduct quantitative analyses with data that have been oversimplified. This can only lead to inaccurate results. This also is one of the problems of this most ambitious PhD thesis, unfortunately not sufficiently supervised.

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DOMENICA GULLì (ed.), From Cave to Dolmen. Ritual and Symbolic Aspects in the Prehistory between Sciacca, Sicily and the Central Mediterranean. Archaeopress Archaeology, Oxford 2014. £ 45.00. ISBN 978-1-78491-038-9. 308 pages, numerous grey-scale illustrations.

This volume derives from papers presented at a conference organised by the Soprintendenza ai Beni Culturali e Ambientali of Agrigento and by the municipal council of Sciacca in November 2011. It aims to review the archaeology of prehistoric caves and megalithic architecture in the Sciacca area, with its intriguing Monte Kronio cave complex and nearby dolmens, and to set it in the wider context of related research in Sicily and the Central Mediterranean. It is dedicated to modern-day cave enthusiasts and to also Santo Tiné, who first excavated in the Grottadel Kronio. The chronological coverage of the volume is wide, extending from the Upper Palaeolithic to the post-Medieval period, although the focus is on the flourishing Sicilian Copper Age. The volume is published by Archaeopress Archaeology, as part of a growing set of volumes similar in format to, but separate from, their well-known BAR series. (It also shares some familiar inconsistencies and errors in typography and formatting, stemming from weak copy-editing.) There are 30 chapters. All are authored by Italians, especially archaeologists working for various Superintendencies (including the editor, Domenica Gullì), national parks and universities, and for the Italian National Research Council (CNR). This represents an impressively broad alliance of researchers. However, a significant omission is the internationally significant research on the long-term and seasonal human uses of Sicilian caves and their environs undertaken by Marcello Mannino and colleagues, especially in the Conca d'Oro area but also at well-known sites such as Grotta dell'Uzzo (e. g. M. A. Mannino, Marine resources in the Mesolithic and Neolithic at the Grotta dell'Uzzo (Sicily): evidence from isotope analysis of marine shells. Archaeometry 49, 2007, 117-133; M. A. MANNINO / K. D. THOMAS / M. J. LENG / R. DI SALVO / M. P. RICHARDS, Stuck to the shore? Investigating prehistoric hunter-gatherer subsistence, mobility and territoriality in a Mediterranean coastal landscape through isotope analyses on marine mollusc shell carbonates and human bone collagen. Quat. Internat. 244, 2011, 88-104). Nearly two-thirds of the chapters are written in English, and all the chapters are usefully accompanied by abstracts written both in English and Italian. The volume is, then, clearly targeted not only at a domestic audience but also at a wider international readership.

The chapters begin with the editor's introduction to the volume. This diplomatically praises the archaeology of the host-community of Sciacca, clarifies the origins, aims and structure of the volume, and summarises its chapters. But no attempt is made to provide an overview of the key themes – for example, on the human uses of caves – which the mass of data presented in the chapters cry out for. There follow two chapters on the archaeology of Sciacca, six chapters on natural and cultural dimensions of the Monte Kronio caves, 14 chapters providing a valuable overview of caves in the context of Sicily's diverse regions, a rather weak set of five chapters on megaliths (especially dolmens) and Bell Beakers, and finally two papers on caves beyond Sicily – in central and northern Italy and in Malta. There is no index. Overlaps of information between chapters are frequent, which sometimes leads one to read variants on the same story (particularly of the Monte

Kronio caves) over and again. Also, despite the stated aim to "broaden and deepen" some of the main conference themes, there is little evidence of this in the volume, in which some authors have clearly not modified their brief and superficial conference papers. Indeed, one gets the sense that almost everything and everyone from the conference has been published here and with minimal editorial control. Clearly this is not a peer-reviewed volume. As a consequence, it is hard work to extract precise data out of this collection.

Despite these reservations, volumes like this are a valuable source of up-to-date information on current research, and this one certainly serves that purpose for cave archaeology in Sicily. For specialists, the regional studies provide useful inventories of later prehistoric caves, some also appropriately acknowledging the limitations of old and current approaches and data - hampered in part by limited funding. And, for non-specialists, the volume as a whole represents a valuable first step in bringing Sicilian cave archaeology to the attention of a wider international audience; it reminds us of the archaeological importance, diversity and potential of Sicily's caves and of the Monte Kronio caves in particular. The most widely-read authors also helpfully make the connection to broader current issues in cave archaeology. For example, a number of the contributors share an interest in human experiences of caves, informed in particular by the pioneering work of Ruth Whitehouse (Underground Religion. Cult and Culture in Prehistoric Italy [London 1992]). The work of other British scholars on cave and landscape archaeology is also referred to (e. g. G. BARKER, Landscape and Society. Prehistoric Central Italy [London 1981]; R. SKEATES, The human uses of caves in east-central Italy during the Mesolithic, Neolithic and Copper Age. In: C. Bonsall / C. Tolan-Smith (eds), The Human Use of Caves. BAR Internat. Ser. 667 [Oxford 1997] 79-86). On balance, few archaeologists who pick up this book will put it down not feeling excited by the rich diversity and potential of cave archaeology in Sicily and impressed by the dedicated interest being shown to it by so many Italian scholars, despite the challenging economic conditions they are currently working in. Indeed, it is truly encouraging to see Italian scholars combining their detailed knowledge of the rich archaeological and speleological data with new ways of thinking about caves, landscape, economy, ritual and sensory experience, that acknowledge wider international interpretative perspectives and that help establish a fruitful dialogue which I sincerely hope we will maintain together in the future.

So, in the light of the information provided in this volume, what do we now know about the archaeology of prehistoric caves in Sicily?

The Monte Kronio caves are both a highlight and an exception, with their extreme environmental conditions (an internal temperature of 38° C and 100% humidity derived from a volcanic thermal water table) and their well-preserved Copper Age deposits of human remains and large pottery vessels. At the moment, these cultural materials raise many questions. For example, did same environmental conditions exist in these caves in prehistory? Precisely which of the Kronio caves were occupied during prehistory? In what periods were they occupied? Were the pots and the human remains deposited together? And, prior to the historic development of the cave cult of San Calogero, were these caves always regarded as cult places? On-going research on the Kronio caves will hopefully provide new answers, despite the considerable logistical challenges posed by undertaking research in such conditions.

The volume also reveals an interesting variety of natural cave forms in Sicily that were exploited by humans in the past. These range from the sulphur-related caves of the Agrigento area to the lava tubes of the Mount Etna area. But, as Anita Crispino and Massimo Cultraro point out with reference to caves in the Siracusa province, archaeologists need to develop a better typology of natural caves, including better definition in geomorphological terms. Lorenzo Guzzardi even goes one step

further, usefully extending the category of cave in the Monti Iblei area to include artificial caves (such as the Calaforno hypogeum and Monte Tabuto quarry) that were used for human burials.

It is clear that many caves in Sicily were used for ritual purposes, particularly during the Copper Age. Gulli's chapter, for example, makes a strong case for the ritual use of caves in the Agrigento province throughout prehistory and identifies some of their recurrent features (including the presence of water vapours and dripping water leading to the formation of stalactites and stalagmites, streams and lakes; hidden underground locations; difficult access; darkness; and the deposition of valuable cultural materials). Her work also takes us beyond Ruth Whitehouse's general idea of a "water cult" to something more specific in the case of this area's 'pseudo volcanic' phenomena. However, despite making an effort to interpret "the meanings of caves", Gulli's interpretations tend to be inward-looking, focussed on the cave interiors, without the benefit of more outward-looking considerations of how ritual caves were valued and gained meanings within wider landscapes and lifeways. This kind of approach is provided by Francesco Privitera in his chapter on upland caves and environment in the Mount Etna area, whose funerary human uses during the Late Copper Age he connects to seasonal, mid-slope pastoral activities. Another step in the right direction is provided by Giuseppina Battaglia, whose chapter presents a plan to contextualise caves in relation to settlement sites in the Palermo province, informed by the broader approach of landscape archaeology. However, she acknowledges the poor quality of the existing corpus of data from old excavations and chance finds, as well as the financial limitations of undertaking new archaeological field-survey and of adding to the few existing radiocarbon dates. Davide Tanasi's chapter on Ghar Mirdum cave, located on the south coast of Malta, is also worth mentioning here, since it usefully suggests direct links between this Middle Bronze Age cave complex and the nearby and contemporary settlement of Wardija ta San Gorg.

Other chapters in the volume remind us that caves in Sicily also served a variety of other purposes at different times and places. For example, Massimo Cultraro's chapter on the 'multi-purpose' Grotta del Vecchiuzzo near Petralia Sottana reinterprets the available stratigraphic data to suggest changes in the human uses of the cave over time – from a Neolithic domestic shelter, to a Copper Age mortuary and cult cave, to an Early Bronze Age storage place or temporary shelter – whilst also appropriately acknowledging that the cave could have served more than one function at a time. Enrico Giannitrapani's chapter likewise suggests that the rock-shelter of Contrada San Tommaso near Enna was used to stable animal herds during the Late Copper Age and Early Bronze Age, but was redeveloped as a shrine during the Iron Age and Greek periods.

This volume also prompts thoughts about future archaeological research on the human uses of caves in Sicily and the Central Mediterranean during prehistory. We need more richly interwoven, contextual interpretations of the significance of caves in the cultural landscape and of developments in their human uses over space and time. This approach will, for example, help us avoid a simple ritual / domestic interpretative dichotomy, and also enable us to deepen our understanding of the relations (in form, landscape and human practices) between caves and dolmens. Much greater use of science-based archaeological methods would help us address important questions about chronology, paleo-environments, food resources, seasonality, the mobility of people and objects, and so on. And to do so, greater international collaboration is required, which in turn demands a greater awareness of current archaeological research on the human uses of caves in the rest of the Europe and the world (e. g. K. A. Bergsvik / R. Skeates, Caves in Context. The Cultural Significance of Caves and Rockshelters in Europe [Oxford 2012]; H. Moyes, Sacred Darkness. A Global Perspective on the Ritual Use of Caves [Boulder 2012]; M. Dowp, The Archaeology of Caves in Ireland [Oxford 2015]). More ethno-historical studies would help bring the long-term histories of caves up to the present day. At the same time, we must become ever more

discursive and critical of the archaeological data, methods and theories through which cave archaeologies are constructed.

Thinking more broadly about the cultural life of caves raises many new questions. In what ways do certain 'wild' caves and their interior 'architectures' afford opportunities for human use and are sometimes (but not always) selected and modified into cultural places? In what ways are previously occupied caves remembered (or forgotten), re-discovered and reincorporated as historically significant places within new patterns of life and belief? What is the variety of ways in which caves are linked to (or marginalised from) wider patterns of life and experience, including particular social groups, practices, materials, places and architectures distributed over adjacent and more distant cultural landscapes? How and why are caves used as work-places, often temporarily and as part of wider economies? How and why are particular caves chosen as dwelling places and in what ways is their natural architecture modified by people to make them more inhabitable? What does it feel like to live in a cave? What rights do people have to occupy caves, and what factors sometimes force them to abandon living in caves? How and why are often inaccessible caves and their sometimes fantastic, other-worldly features and atmospheres sacralised (or desecrated), particularly through repeated ritual and artistic performances? What different kinds of ritual practice and religious belief are associated with the underworld? How are different kinds of performance in caves experienced, controlled and understood by different participants? How is access to the natural and cultural resources of valued caves controlled? And how is it contested by disenfranchised groups? Finally, how are the histories of caves and cave-dwellers variously studied, reinterpreted and represented in the present?

With signs from Sicily and elsewhere that cave archaeology is flourishing, we should now seize the opportunity to pursue this new interpretative agenda.

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TOBY C. WILKINSON, Tying the Threads of Eurasia. Trans-regional Routes and Material Flows in Transcaucasia, Eastern Anatolia and Western Central Asia, c. 3000–1500 BC. Sidestone Press, Leiden 2014. € 49,95. ISBN 90-8890-244-5. 406 Seiten, 170 Abbildungen, 8 Tabellen.

Der Titel des Buchs von Toby C. Wilkinson, "Tying the Threads of Eurasia", gleichermaßen Poesie und Metapher, überschreibt eine großräumige Studie zu den bronzezeitlichen Kontakten und Fernbeziehungen zwischen West- und Zentralasien und stellt die Frage: Lassen sich bronzezeitliche Formen der Seidenstraße(n) nachweisen? Der Text entstand ursprünglich im Rahmen einer Dissertation an der Universität Sheffield bei Sue Sherratt und John Bennet. Er steht in der Tradition der Website ArchAtlas, begründet von dem zu früh verstorbenen Andrew Sherratt. "Tying the threads" steht deshalb auch für das Aufgreifen loser Fäden in Argumentation und Forschung und ihre Verknüpfung im Rahmen eines "grand narrative". Die systematische Anwendung von GIS als Analysewerkzeug erlaubt es dem Autor anhand von drei großen Materialgruppen – Edelsteine, Metalle und Textilien –, zahlreiche in früheren Beiträgen von A. Sherratt und anderen skizzierten überregionalen Verbindungen zu modellieren und, zumindest virtuell, ihre Plausibilität zu prüfen. Das Ergebnis dieses ehrgeizigen Unterfangens ist in jedem Fall anregend zu lesen, auch wenn gelegentlich mit sehr groben Pinselstrichen gezeichnet wird. Doch die große Erzählung leidet unter ihrer Größe.