

Review of: Querré, G., Cassen, S. & Vigier, E. (eds) (2019). *La parure en callaïs du Néolithique européen*. Oxford: Archaeopress. Hardback; viii + 634 pages; ill. in full colour; text in French and English. ISBN 9781789692808 (printed ed.), 9781789692815 (ebook).

Emma L. Baysal

Enigmatic 'green stone' artefacts have long been a feature of archaeological reports in many different locations around the globe, usually associated with Neolithic or later contexts and raising questions about material choices, social structure and beliefs. Comprehensive regional or interregional studies of the sources, use and distribution of these materials have rarely been attempted, mostly because of insufficient data and the lack of necessary analyses and source identifications for the materials involved. This volume, consisting of 20 separate chapters (9 in French, 11 in English) and 6 appendices (all French), is the result of a conference that was held at the *Musée J. Miln-Z. Le Rouzic de Carnac* in 2015. The subject of the book is items of ornamentation of the Neolithic and later periods in (western) Europe made from variscite and related materials including turquoise (grouped here under the umbrella term *callaïs*). Variscite is particular to certain sources, and therefore holds a specific role within the archaeology of some regions with the potential to reveal the relationships between sources and areas of use as well as trade, exchange and socially attributed value of the material and its use. In the case of this volume the focus is on source areas in Spain, Portugal, France and Italy.

In the most general terms, the publication of new academic volumes dedicated to ambitious studies of personal ornamentation is something to be celebrated, the subject area having for many years failed to take its rightful place among other areas of archaeological material culture research. Large scale interregional studies have both positive and negative aspects – they have the potential to promote the discussion of the wider social and economic practices of certain periods, which in the case of the Neolithic is generally known from existing studies to be a fruitful exercise. However, the resulting volumes sometimes lack the unity of subject and approach that allows the development of a truly coherent publication.

The recent release of another volume on the exchange of turquoise, variscite and jade (RODRÍGUEZ-RELLÁN, C., B. A. NELSON & R. FÁBRIGAS VALCARCE [eds] [2019]. "*A Taste for Green: A*

global perspective on ancient jade, turquoise and variscite exchange". Oxford: Oxbow Books) indicates that large scale funding and long-term research is bearing fruit. This new variscite volume therefore takes its place amidst an area of topical interest with which a considerable number of scholars are currently engaged.

That the volume in question here is available online in open access pdf format is much to be praised as print versions with many colour images, as is the case here, are inevitably very expensive. The decision to publish bilingually has resulted in some significant problems with language editing in the volume, which would have benefited from thorough proof reading.

The short introduction to the book tells the reader briefly about the history of research into the various green stones, the gradual discovery of their sources, and explains the aim of the original conference to look at how variscite/turquoise affects our understanding of the Neolithic societies of western Europe from the 5th to the 3rd millennia BC using interdisciplinary approaches from geology to physics, chemistry and archaeology. An exhibition was also organised to accompany this work, thereby ensuring public dissemination. Throughout the volume the reader is left in no doubt that this is the product of a conference, the most obvious indicators being the repetition of much information between chapters and the somewhat loose structure and uneven length of the sections. Greater coherence would have been achieved by either a longer introduction situating the complex history of variscite research within its historical context and highlighting the various large-scale projects on the subject, or with the addition of a concluding chapter drawing together the diverse evidence in a state of play summary. This question of structure relates more widely to expectations surrounding conference volumes and whether a journal special issue would be more appropriate to the material presented.

The studies included in the book are divided under sub-headings which follow the structure of the original conference. The first section, which is dedicated to geology, mineralogy and gemmology consists of two chapters, and acts by way of introduction to the materials discussed in the volume. The first (FERNÁNDEZ, MORO & DABARD) deals with the formation, composition and structure of the variscite and its accompanying rocks, looking in detail at possible differences between sources with particular reference to the Iberian Peninsula. The second (FRITCH, RONDEAU, LULZAC & MOCQUET) is a very general overview of the phosphate

minerals as gemstones, and their uses in modern contexts and present-day exploitation practices, without reference to historical practices.

The second section is about variscite exploitation in western Europe, starting with the mines of Gavà in Spain (ARGILAGÓS). The chapter gives an introduction to the evidence for the working of variscite mines in the Neolithic period, the stages of the process and necessary tools are illustrated, as well as exploring the social organisation of the activity and the wider impact of the material through exchange with other regions. The next chapter (FÁBREGAS VALCARCE & RODRÍGUEZ-RELLÁN) moves the reader to a different region, the north-west of Iberia, and a very different set of research conditions, in which little detailed research has yet been carried out and evidence for prehistoric activity is virtually absent. Indirect evidence from beads leads to the conclusion that the area was exploited during the 5th millennium. Here we learn of the possibility of exploitation of seams of material close to the surface, and that if blocks were quarried and then removed there may be little trace of early period activity. DOMÍNGUEZ-BELLA and RAMOS-MUÑOZ give a detailed overview of the mining of the *Pico Centeno* variscite source in south-west Spain with particular focus on the chemical characterization of the material using multiple methods of analysis which have allowed source identification of artefacts recovered elsewhere. The following chapter jumps off-topic to look at much later use of phosphates in the Roman world (DOMÍNGUEZ-BELLA) and makes interesting use of proxy information mostly from collections to understand the popularity and spread of the materials.

The following section focuses on the distribution of products, starting with the use of source characterisation data obtained by non-destructive PIXE analysis (QUERRÉ, CALLIGARO, CASSEN, DABARD & DOMÍNGUEZ-BELLA), on which some other chapters of this book also rely. By this stage in the book the information about the geological sources and analyses overlaps significantly from chapter to chapter. The next chapter (QUERRÉ, CALLIGARO & CASSEN) is a continuation of the previous, making use of the source characterisation method to identify the origin of nearly 750 artefacts from the north of France. This study contains a lot of data in catalogue format that would be better presented as either an appendix (in addition to that already presented for the chapter) or in a supplementary website. In addition, the lack of information needed by an archaeologist to make sense of this information – site location maps, details of the artefacts allowing comparison of product

as well as material, dating and details of excavation/discovery render much of the information almost unintelligible. The results of the work, particularly relating to change in practice/source use through time, are interesting, but the small amount of space and discussion allotted to them does no justice to the subject of an undoubtedly very large and thorough piece of research.

DOMÍNGUEZ-BELLA & COLLEAGUES present a data set from the Iberian Peninsula which links archaeological finds to phosphate sources, however, again the chapter is data-heavy with relatively little discussion of the results, wider archaeological discussion or interpretation. MELGAREJO & COLLEAGUES provide a useful perspective on the degree to which different chemical characterisations can be reliably used in the identification of material sources and their evaluation of RAMAN spectroscopy is well presented, concise and easy to understand for those who might not have expertise in this area.

In the following section on the use of variscite in the Neolithic, CASSEN & COLLEAGUES present a descriptive catalogue of personal ornaments of variscite from the north of France, giving detailed contextual information including other finds found within the contexts. As is the case with many archaeological sites there is a lack of data as a result of old research. This enormous chapter presents a compendium overview of a huge amount of information that is beautifully illustrated and could almost stand as a summary volume in its own right, as it includes a good amount of contextual information, making it easily accessible.

VAQUER provides a similar oversight of the Midi region of France, bringing together available data and creating detailed plots of frequency of distribution by date, that gives a useful summary of change through time in the Neolithic and Chalcolithic periods. This is followed by a similar study of the east of Spain by MOLIST MONTANA & POVEDA who identify and characterise differing distribution through time. RODRÍGUEZ-RELLÁN & FÁBREGAS VALCARCE consider the same situation in western Spain, again aggregating the available data to understand distribution through time and considering wider issues of the use of multiple materials. Again, there is little mention of the humans involved and a lack of discussion of decision making processes and social structure in anything but the most superficial terms.

KOSTOV's broad geographical description of turquoise deposits and their use, which makes extensive use of site names and locations, needs maps in order to make the information intelligible

to the reader. The purely descriptive text, missing some information and references, renders this a partial picture, although highlighting the degree to which the enquiry foregrounded in this volume could usefully be extended to other regions.

In the last section, on models of circulation in the Neolithic period, the book branches out to cover a greater variety of materials. LE MAUX, CASSEN & COLLEAGUES give a key description of the use of micas to produce ornaments and suggest them as an alternative to the Iberian variscites. What emerges is a far more complex picture of the use of mica materials as ornaments that reveals that the variscite 'phenomenon' was accompanied by other materials, which were also moved around, traded or exchanged. Although the authors refer to it as 'substitution material' there is little to indicate which material carried more 'prestige' or could be regarded as the most important/original. This raises the question of the degree to which material or source was important, or whether colour or other factors relating to relationships or exchange were a priority in decision making processes.

The next two chapters make the most significant contributions to exploring the social conditions that brought about the stone use at the heart of the volume. CARVALHO makes a very clear description of the variscite distribution and use in Portugal, and notably considers the possible social and economic models for the procurement of materials, tentatively discussing that there may have been itinerant individuals involved and debating whether or not hierarchical structures would have been present. PÉTREQUIN & COLLEAGUES give a fascinating and highly readable account of the success of the multi-directional trade and exchange of various types of stone objects from axes to arm-rings, generally based around the colour green, although with different sources and materials. The nuanced interpretations offered here about how some areas, including the Gulf of Morbihan, became centres for the accumulation of valuable or symbolically powerful artefacts give insight into both connectivity and social structure in the 6th – 4th millennia BC and show the usefulness of a more integrated narrative approach to artefact studies.

VIEL & COLLEAGUES present preliminary results relating to beads from south-east France dating to the end of the Neolithic. The study is establishing links between material and form, looking at how the production process changes as well as the quality of the products and will undoubtedly produce useful results in time.

Finally, SCHULTZ PAULSSON & COLLEAGUES have used Bayesian modelling of dates for variscite artefact contexts and provenance of the artefacts to understand patterns of source exploitation drawing out the importance of both excavation technique and conditions of deposition. They give a regional summary of locations, context and reliability, showing that the combination of data produces more than the sum of the parts, with some evidence for use at sites that is not traced at mines, indicating that exploitation cannot always be seen at source.

If the aim of this book is to provide a compendium of information about the use of variscite, and various other green materials, in the prehistory of western Europe then it is indeed a useful reference volume. In addition to providing a documentation of the current state of research in this subject, the book also gives a useful snapshot of the various approaches that can be taken to a material and their roots in the archaeological research traditions of different countries/regions. Such information will surely be useful to future historians of the archaeological discipline. It does not, however, provide the reader with a smooth journey through the subject, instead jumping from topic to topic and the lack of cross referencing within the volume results in a huge amount of repeated information and a lack of coherence. This is a typical problem with collections of conference papers that are not significantly edited or structured before publication. The result is a collection of related information in the form of stand-alone articles and it loses much of its potential impact by not making better use of the material available, which is overall of very good quality. Unfortunately, this serves to justify the reluctance of many publishers to engage with conference publication. Almost all of the chapters would have benefited from editing to make the presentation of information clearer. In several cases huge quantities of data presented as text would be much more efficiently organised and accessible in tables and in other cases data could have been removed to an appendix and more discussion added to the text.

From a theoretical perspective, the book consists overwhelmingly of culture historical narratives showcasing the long term intensive regional study of certain materials and artefact types as a mean to understanding the activities of communities in the past. The book clearly exposes some of the classic problems associated with personal ornaments in archaeological context – namely that lack of sieving and detailed excavation in earli-

er research means that recovery rates were low, and lack of study and detailed description often make it difficult to understand what was found. For similar reasons chronology is problematic. There are occasional moments in the texts where the true potential of the research can be seen, the chapter of PÉTREQUIN & COLLEAGUES offers insight into what a combination of broader perspective and interpretive nuance can add in terms of basic culture historical understanding and more detailed interpretation of past human activities.

The book leaves the reader frustrated, not only because of the lack of cohesion but also because there is an overall deficiency of interpretation – the prehistoric communities of the regions and sites discussed are almost entirely missing from the descriptions of the past. Although the movement and use of green stones of various sorts over considerable distances is established – the book gives more than adequate scientific evidence – this is presented as a mechanical process, sometimes with ‘prestige’ among ‘elites’ given as an explanation. The reader must search in vain for more than a passing acknowledgement of the possible meaning and motivation for the use of green stones in the prehistoric past in Europe among detailed data about deposition in tombs. This is undoubtedly a result of the long duration of the research and resulting traditional perspectives that have developed, accumulating a palimpsest of theoretical assumptions.

Wider questions can be asked about looking at a single material out of its wider context, in this case particularly the movement/exchange and directionality of evidently complex contacts involving materials sourced from often distant regions. The green variscite stone did not exist in a vacuum, a fact of which the reader sees a fascinating glimpse in the examples of stone axes and annulets. Integrating the results presented in the volume into a comprehensive narrative of identities, social activities and the structuring of decision making is a vital next step.

*Assoc. Prof. Dr. Emma L. Baysal
British Academy Newton Advanced Fellow
Department of Prehistoric Archaeology
Ankara University
Turkey
elbaysal@ankara.edu.tr*

<https://orcid.org/0000-0002-9804-2799>