

**Book Review: Archaeologia in Valle Lagorara. Diecimilia Anni di Storia  
Intorno a una Cava di Diaspro**

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from the contributions is that ethnicity and various forms of population movements are slowly but surely on their way back. With the recent evidence from strontium isotope analysis of human bones (Price et al. 2004) suggesting movements of at least some Bell Beaker people, not least the now famous archer from Wessex (Fitzpatrick 2003), this change in interpretative focus will be strengthened in the future. However, it also demands new theoretical considerations and developments. We are perhaps for the first time beginning to see the contours of a historical explanation of the Bell Beaker phenomenon, one that is able to account for both its unity and regional complexity.

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Nadia Campana and Roberto Maggi, eds, *Archaeologia in Valle Lagorara. Diecimila Anni di Storia Intorno a una Cava di Diaspro*. (Origines, Studi e Materiali Pubblicati a Cura dell'Istituto Italiano di Preistoria e Protostoria, Florence, 2002, 400 pp., hbk)

The Italian Institute of Prehistory and Protohistory has published an important monograph on the open-air jasper 'mine' in Lagorara valley (Maissana, La Spezia). The Lagorara valley mine, actually a quarry, is one of the rare examples of such prehistoric mines in Europe. Better known chert mines are generally of the 'shaft mine' or 'pit mine' type. Analogies are found in the USA – Mount Jasper mine in New Hampshire – and in Italy – Val di Farma in Tuscany and Monte Lama, close to Bardi, in the Apennine range (the latter had been exploited during the middle Palaeolithic, the Aurignacian and the Copper Age). Since

jasper is extremely resistant to atmospheric agents, the characteristic conchoidal fractures left by the hammers are still today magnificently preserved and visible on the subvertical layers of rocks. The hammers were mainly of diorite and a type of gabbro that are found in the area of Voltaggio, north of Genoa, and thus rather far from Lagorara.

The interest in the discovery lies, first of all, in the fact that it had been an extraction place of a raw material that was widely used for artefacts; the major part of the chipped stone industry of eastern Liguria, beginning in the Palaeolithic, is made of red jasper. Precise volumetric calculations, although they have a degree of uncertainty, show that during the use of the quarry, between the late Neolithic and the early Bronze Age (between 3400 and 2500 BC), approximately 2000 tons of jasper could have been extracted. Jasper is perfectly suited to the production of ogival preforms that were exported away from the extraction site; the preforms, produced almost exclusively by bifacial flaking, were essentially destined for the production of arrowheads and, to a degree that is not known, dagger blades. Of the 2000 tons, approximately 700 were unfinished artefacts, each weighing about 40 grams. Consequently, from the quarry at Lagorara, about 5 to 10 million ogival preforms or 5000–10,000 unfinished artefacts per year had been produced – a number objectively disproportionate to the local needs. As Mannoni opportunely notes in the preface, the idea of groups devoted essentially to extraction and exchange contradicts the lack of local settlement during the Copper Age. Along these lines, one can note that there must have been different levels of organization of extraction and exchange, as well as of the social structure of the group (or groups) and of inter-societal relations.

The book gives an account of the numerous investigations in the two principal extractive areas (LG1 and LG3), in the area of the rock-shelters (LG2), and in the cave named 'Tana del bandito'. The recovery of a collective burial in this cave, dated to the Chassey culture, introduces very interesting thoughts about the cultural and geographical origins of the so-called 'small cave burials' (Civate culture, Tuscan small caves) which were, since the Copper Age, an essential component in

northern Italy with a very wide distribution between the Alps and the Apennines.

The research on Lagorara has gone on for 14 years since its discovery, although the publication appeared only six years after the conclusion of the excavation. This is an exceptional result according to the normal standards of Italian prehistoric studies, which are generally penalized by long-standing shortages, not only financial, but also organizational and structural. Without doubt, the resulting publication is due to superior operational planning, to the methodological lucidity, and last but not least, to the evident passion demonstrated by Maggi and his team for an enterprise that must have seemed, from the beginning, almost impossible.

One should, indeed, not forget the scientific and logistical difficulties associated with such a huge mass of finds – basically pieces of stone and arguably lacking any aesthetic attraction – which underpins this report (in just one excavation area (LG-TER1) 333,572 flakes and debitage and 448 hammers were found!).

A special focus of the investigation was the conchoidal scars at the base of the quarried walls that represent the traces of jasper extraction. The jasper series of Monte Scogliera is a continuous sequence of thousands of layers with a thickness from about 10 to 200 mm, in a prevalent subvertical layer with a thickness of over 150 m. The flaking capability is very uneven, due to greater or lesser quantities of silica and to the presence of microfractures. For this reason, difficult and dangerous points of access were investigated by the prehistoric miners, probably indicating the use of ladders and scaffolding. The surfaces with the highest number of traces of extraction are often associated with small terraces or workplaces where it had been possible to place scaffolding.

One of the more interesting aspects of the research is the elaboration of the excavation strategy, adequate to the needs of an unusual type of archaeological site or a site that has not been uncovered before in the region. The excavations were in fact limited to 11 small trenches that covered all the possible types of archaeological context at the site, from the extraction areas to the rock-shelters at the base of large erratic jasper blocks. The evidence from these trenches is analysed in the first 133 pages of the book, where the quality of the writing is much appreciated, as is that of the

presentation of the geographical background and of the photos of the thin sections of sediments, which are provided with full captions in Italian and in English.

Following the first part is an analysis of the chipped stone industry (typology and technology) by Campana and Negrino that is notable for the clear identification of a real *chaîne opératoire* focused on the manufacture of ogival preforms using flat retouch. The *chaîne opératoire* began with roughouts (irregular preforms made almost exclusively with flat, rough retouch) and continued with the reduction of the volume of the pieces, the production of ogival preforms and of preforms of picks and, finally, the possible production of arrowheads, dagger blades, and picks (rarely found in Lagorara). The production of arrowheads starting from ogival preforms was not frequent at Lagorara, as shown by the find of six points of which only two had come from ogival preforms; the other four had been made on blanks. The lithic assemblage was studied microscopically for traces of wear (Voytek). Of the 1164 lithic artefacts considered (104 retouched tools and 1100 additional flat, roughly retouched artefacts), only 72 had been used for working wood, steatite (which actually leaves little use-wear), leather, and skins.

The replication experiments (Briosi and Negrino) suggested the time of production from preforms to arrowheads of a size of 50–70 mm and weight of 5–10 g as from 5–30 minutes' duration. According to the authors, several inexplicable errors in production – 'fossilized in the discards' – should not be considered the activity of 'apprentices'.

There is a laudable breadth of scientific collaborations that makes the volume a valuable example of interdisciplinary study, with the perspective of palaeoecology to the fore; geologists, geomorphologists, sedimentologists, petrographers, chemists, archaeobotanists, archaeometallurgists, palynologists, anthropologists, and aerial mapping specialists have answered the call of the palaeoethnologists. They do not consider it disciplinary vagabondage – as it seems to be considered by certain proponents of the worst and most conservative schools of thought in Italian prehistoric studies – to read palaeoethnological data in the light of environmental and other scientific knowledge (and vice versa).

There is no doubt that if the soils had

preserved the bones of the domesticated animals (and not only their excretions – coprolites of goats and sheep were found in a Bronze Age level in LG 2B – Riparo East), zooarchaeology could also contribute to the picture of subsistence activities at the site between the fourth and third millennia and also perhaps clarify the notion of seasonal occupation of the site proposed by Maggi on the assumption that only a few people were necessary to work the quarry.

Of great importance for the wider palaeo-ecological perspective are the palaeobotanical studies (Nisbet); what stands out is the absence of evidence for agriculture, although the only evidence for food collecting is of hazelnuts. The multi-faceted palynological analyses (Branche) indicate a strong anthropogenic impact on forest maintenance during the Copper Age (hypothesized pollarding, tree-felling, and thinning).

A disc-headed pin, made of an alloy of copper, zinc, and pewter, is conceivably datable to the early Bronze Age, in spite of its uncertain stratigraphic position. Also found at Lagorara was a piece of copper slag, in a level (Riparo East, US 6) dated between 3490 and 3040 BC. This is an extremely early date, which the report relates chronologically and functionally to the Loreto and Libiola mines a little further south and to the smelting of copper known from the region of the Lagorara valley.

As noted by Maggi in his conclusion: 'the mining activities helped to define a micro-regional context composed of social and environmental changes underlying the elaboration of new knowledge'. This volume is a fundamental contribution on a European scale to the archaeology of extraction processes during the course of the Copper Age.

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M. Given and A.B. Knapp, *The Sydney Cyprus Survey Project. Social Approaches to Regional Archaeological Survey*. (Los Angeles: The Cotsen Institute of Archaeology of California, *Monumenta Archaeologica* 21, 2003, 356 pp. including index, hbk, ISBN 1 931745 04 8)

After ten years of research and intensive survey in the north-central foothills of the Troodos Mountains around the modern villages of Politiko and Mitsero, the Sydney Cyprus Survey Project (hereafter SCSP) has now published the results of its fieldwork in a monograph, after numerous preliminary reports that have appeared since 1992. The survey region, a key resource zone for copper-mining with adjacent fertile agricultural plains covering an area of 65 km<sup>2</sup>, was chosen for its potential to provide new insights into the early agricultural and industrial landscape of Cyprus. The project's aim, to achieve a diachronic reconstruction of landscape history, was pursued through a fruitful cooperation of archaeologists, geomorphologists and geobotanists in the field, which provided an understanding of site formation and preservation factors as well as human modifications of the landscape. Thus the archaeological investigation of settlement patterns in relation to both metallurgical and agricultural resources was complemented by information on the effects of natural resources on socio-cultural development.

The first three chapters are concerned with the carefully outlined methodological framework of the SCSP; after presenting the project's perspective on social archaeology and some entertaining personal experiences in the field, the project's goals and concerns in the context of contemporary regional survey methodology and theory are considered, especially as concerns the validity of sampling methods. Finally, in Chapter 3 the methodology is developed in detail concerning sampling techniques, mapping, analysis and interpretation as well as the specific procedures involved in each specialist enterprise such as GIS, pottery and lithic studies, geomorphology, archaeometallurgy, ethnohistory, and historical archaeology.

Chapters 4 and 5 are characterized as the 'empirical heart' of the study, the first presenting a selection of 11 *special interest areas* (SIA) and nine *places of special interest* (POSI). For each the collected data concerning physical landscape, historical context, and field methodology, as well as analytical maps, artefact assemblages, and GIS thematic maps with artefact scatter and density by period are given. The summaries of the material from each SIA are first presented in a tabular format, then in Chapter 5 in a catalogue of the most