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Surface surveying in high mountain areas, is it possible? Some methodological considerations

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ABSTRACT

Until the last twenty years, high mountain areas have been excluded from the attention of archaeological research. This is primarily because it was taken for granted that in Europe over 2000 m a.s.l., climatic and environmental settings precluded a stable human settlement. Secondly, the steep and sharp slopes of the mountain areas are really hard to systematically survey. Nevertheless, this last point is only partially true. Although it is difficult to implement successfully in high mountain zones the same sampling strategies adopted for plain or hilly regions, recent research projects in Alpine and Pyrenean areas demonstrated that alternative sampling strategies can be applied with promising outcomes. This paper discusses the methodological organization of the surveying of mountainous areas located between 1700 and 2900 m a.s.l. in the Central Pyrenees and, more precisely, in the National Park of Aigüestortes i Estany de Sant Maurici. Not only the fieldwork organization and the sampling strategies adopted, but other issues, referred to survey-data recovering and recording, are discussed as well, e.g., how to record dispersed but continuous evidence over space. As a result of this methodological reflection, surveys in high mountain environments are revealing humanized past landscapes, hard to imagine even a few years ago; new scenarios that challenges the traditional (pre)conceptions deduced from archaeology and ethnography.

1. Introduction

During recent decades, archaeological research in some of the main European mountains underwent an important development. As a consequence, fresh data is finally available for areas that have long been overlooked by many archaeologists. The reasons for this renewed role that has been assigned to mountain areas within the archaeological research are many and diverse. In part, this situation has come about by chance or by other causes not inherent in the scientific practise. A good example is given by the discovery by two mountaineers, at the end of summer 1991, of a human mummy in the Tissenjoch glacier, at 3200 m a.s.l. in the South Tyrol region. Today, this person, who died between 3370 and 3100 cal BC (Kutschera and Miller, 2003), is colloquially called Ötzi and represents one of the praised archaeological discoveries of recent history.

Nevertheless, there are also factors inherent to the archaeological investigation (and of other close disciplines as well) and its development during the last forty-fifty years. Starting from the 1960s, new perspectives on the relation between human populations and the surrounding environmental setting were offered from the Anglo-Saxon academic world. This school of thought, also known as Cultural Ecology, came to influence European archaeology leading to the creation of a new field, or sub-field of research, under the name of 'landscape archaeology', even if today this definition includes very different methodological and theoretical approaches (Cherry et al., 1991; Criado, 1999; Howard, 2006; Fairclough and Moller, 2008). The main idea is that although archaeology is a powerful tool for historical and social reconstruction (and not only a way to recover ancient artefacts and fossils to fill museums), it is impossible to understand human societies, and their changes over time, without considering the environmental setting in which they were acting and their mutual interactions. This framework favoured a reconsideration of the mountain spaces, which too often were considered as fixed landscapes without a past, except for the

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geological one. Understanding the social dimension of these places, contextualizing it into the climatic and vegetation dynamics, is a real research objective.

It follows that during the last years, several research programmes were started in many of European mountainous areas (Gassiot et al., 2014b). All of these projects are very heterogeneous, with a diversity of methods and objectives. Some are built to answer to specific questions, such as the reconstruction of certain human activities and their changing through time, while others focus on a wider range of social practices (i.e. pastoralism, agriculture, hunting, mining, burial, etc.), trying to understand the development of a whole society or group in all his dimensions (political, economic, demographic, symbolic, etc.). Despite such diversity, most of those investigations share some common traits. For example, 'Mountain Archaeology' generally has a more diachronic perspective than other archaeological works carried out in plain or coastal zones. Moreover, almost all the projects carried out in mountain areas have to deal with a more or less absolute absence of data; in other words, there are no previous investigations to compare with, and the archaeological record has to be built from zero. Another common trait is the primary role that is attributed to landscape, not only as background 'container' for social practice, but as an active element, and an additional social instance. Thus, often several disciplines related to the paleoenvironmental reconstruction from different proxies are included within those archaeological projects, creating true interdisciplinary programmes. In this context, surface surveying acquires a fundamental importance within mountain zone research, not only being an effective manner for site detection, but, from a more general perspective, because it represents a main research tool for studying the spatial dimension of social practices.

2. Identification of archaeological sites in the high-mountain areas of the Pyrenees: an open issue

Between the final years of the twentieth century and the beginnings of the new millennium, several research projects focused on the archaeological and palaeoecological investigations of the high-altitude areas, were started on both sides of the Pyrenees (Galop et al., 2004; Rendu et al. 2004; Palet, 2005; Gassiot et al., 2010). The first problem that these scholars have to face was the collection of empirical data. Concerning the palaeoecological record, data are being collected extensively from lake and peat-bog sediments and from soil-sampling sites on both sides of the Pyrenees, creating a growing database on vegetation and climate fluctuations (Catalan et al., 2001; Pèlachs et al., 2011; Cunill et al., 2012; Pérez-Obiol et al., 2012; Galop et al., 2013).

In the Pyrenees, archaeologists began carrying out extensive surveys in order to build a strong database system, necessary for approaching the study of long-term human dynamics (Fig. 1). Nevertheless, all face some common problems. The first is the lack of an appropriate empirical record, or, in other words, the lack of well-documented archaeological sites. As a result, the first obstacle to overcome was to show that such absence of data was not 'real' – not a consequence of behaviours or strategies adopted by the human populations that inhabited the mountains and the surrounding areas in the past– but a consequence of specific choices made by the archaeologists during the previous decades both on a methodological and theoretical level. In other words, it was necessary to demonstrate that mountainous zones, and especially subalpine and alpine areas, had been long ignored, for a variety of reasons, by archaeologists and historians. This topic could be approached only through systematic survey programs. However, it

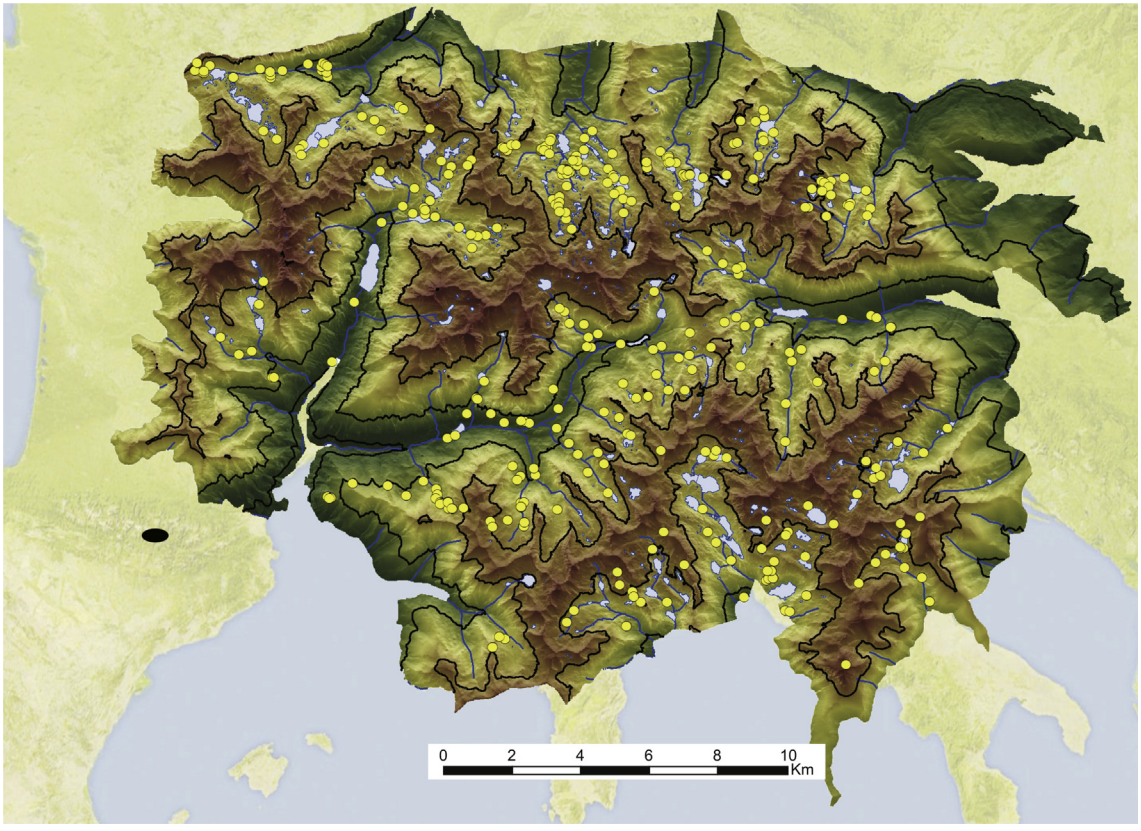

Fig. 1. Localization of the PNAESM and archaeological sites found in between 2004 and 2014.