

SEAS, SLOPES AND SHELTERS: ARCHAEOLOGICAL SURVEYS ALONG THE MEDITERRANEAN COAST, WEST OF THE MELILLA PENINSULA (MOROCCO)

Jörg Linstädter & Magnus Blatt

Abstract

Archaeological research along the coastline west of the Mellila Peninsula has been undertaken by the University of Cologne in cooperation with the German Archaeological Institute and the *Institut National des Sciences Arquéologique et Patrimoine (INSAP)* since 2005. Fieldwork has focused on excavations in shelters west of the Oued Kert Delta, for example at Ifri Oudadane and Ifri Armas. In the course of our research we have engaged in questions relating to the archaeological background of these rich coastal sites. In the frame of this project two survey campaigns were conducted in 2010 and 2011. These explored the shelters and surroundings in the areas of Jebel Bou Salah and Jebel Lahouta, between the Oued Kert Delta in the east and Ras Afrou in the west. Rock shelters were discovered in the entire area, though evidence for secure archaeological deposits is still lacking. Nevertheless, key factors crucial for local prehistoric occupation could be identified: the availability of water is only guaranteed by the Oued Kert itself as the sole perennial source in the area.

Keywords

Morocco, survey methods, remote sensing, resources

INTRODUCTION

The paper presents the results of archaeological surveys conducted in 2010 and 2011 along the Moroccan Mediterranean littoral, west of the Melilla Peninsula. This survey work was a component of a larger fieldwork campaign undertaken within the framework of the ongoing CRC 806 'Our way to Europe' based at the University of Cologne, Germany, and initiated in 2009. However, our research in Morocco looks back on a longer history, with an already well-established cooperation between the *Institut National des Sciences Arquéologique et Patrimoine (INSAP)*, the German Archaeological Institute (DAI), and the University of Cologne. One result of this cooperation was the discovery in 2005 by Eiwanger and Mikdad of a number of rock shelters, west of the Oued Kert delta that were affected by construction work of the new coastal road, the so-called rocade. Among these, the most important shelters are Ifri Ouzabour, Ifri Armas and Ifri Oudadane, with their deposits spanning from the Late Iberomaurusian to the Neolithic. In subsequent years, excavations were carried out at all three of these sites (Linstädter 2010).

After a short break in 2010, excavations resumed at Ifri Oudadane (Linstädter &



Fig. 1 Seas, slopes and shelters. Coastal landscape between the Oued Kert delta and Ras Afrou, north of Ifri n'Sasha.

Kehl 2012). Parallel to work at the site, surveys were undertaken in the surrounding mountain area between Oued Kert in the east and Ras Afrou in the west. While one of the authors (JL) was mainly responsible for excavation work at Ifri Oudadane, the survey was planned and executed by Gerd-Christian Weniger (Neanderthal Museum). He was supported by our Moroccan colleague Abdessalam Amarir (Ministère de la Culture) who, through his dedication, his unique communication skills and, last but not least, his physical agility in the field, made an immense contribution to the success of the mission. Additional support came from Anna Roeloffs (RWTH Aachen) and students from the University of Cologne and the INSAP at Rabat. The discovery of the aforementioned rocade-sites with their rich assemblages made us confident that further sites with the same potential would also be found. Furthermore, we hoped to identify sites with deposits older than those already investigated at the sites discovered so far, these dating back to the very end of the Pleistocene.

METHODS

Sporadic surveys during 2008 and 2009, when sites including Ifri n'Douh and Ifri n'Sasha were discovered, left no doubt that the mountainous area is difficult to access and systematic prospection, in terms of covering its surface square kilometre by square kilometre, is exceptionally difficult (Fig. 1). Until 2010 we entered the valleys by car, as far as this was possible, though often this was only possible for a few metres, after which we had to proceed on foot. It became clear very soon that by using this method we would need years to cover the area, time we definitely did not have. Therefore we developed an idea to optimise our surveys. This was implemented in the framework of a bachelor thesis by Roeloffs from RWTH Aachen (Roeloffs et al. 2011). Due to the poor preservation of open air sites as a consequence of intensive grazing causing soil erosion, archaeological deposits are encountered predominantly in caves and shelters. Incidentally these types of sites frequently provide stratigraphies and thus allow a diachronic insight into the settlement history of the area. With only a few exceptions, all caves and shelters are situated in karstic areas. Roeloffs digitised the distribution of the different limestone facies and then added this geological information to the topo-

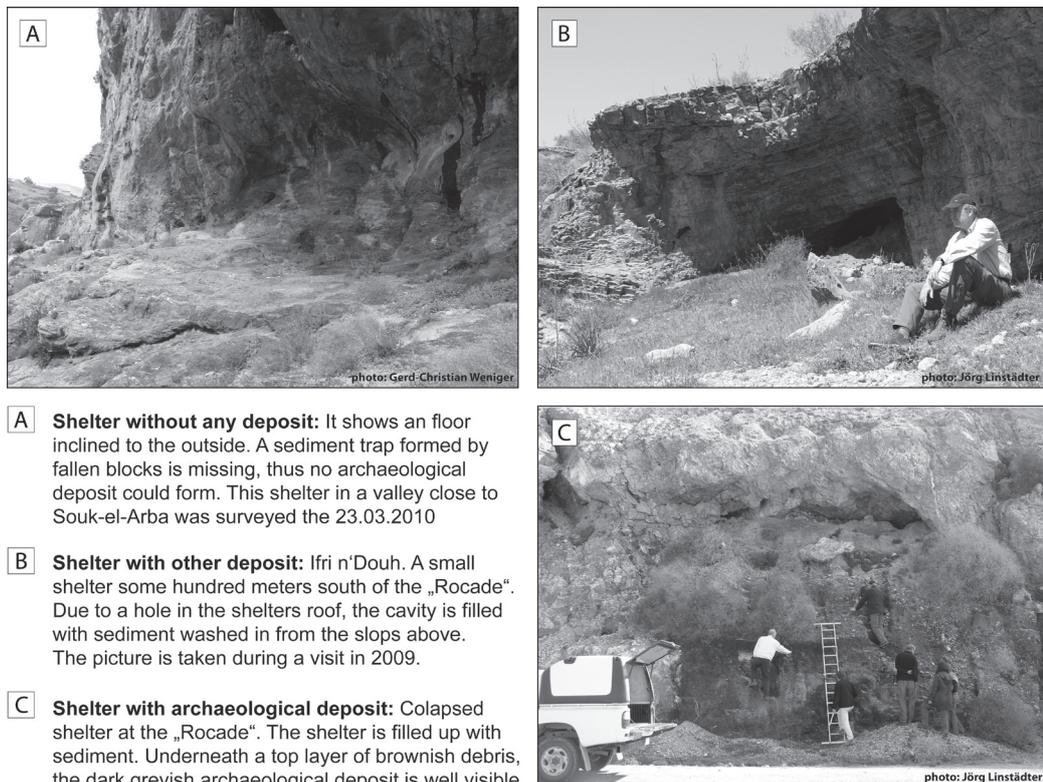


Fig. 2 Three types of shelters recorded in the research area.

graphic maps and Quick Bird-satellite images used in the surveys.

At this point, it became evident that only a few limited limestone outcrops are preserved in the range of the Jebel Lahouta, west of the Oued Kert. These are located mainly at the coast and, due to their lower susceptibility to erosion, form small cape-situations. Nearly all rocade-shelters with archaeological deposits are located in such locations (e.g., Ifri Ouzabour, Ifri Oudadane). In contrast, in the Jebel Bou Salah range further west, the mountain surface is formed by extensive outcrops of different limestone facies and Lias-dolomite.

Following this approach of concentrating on the karstic ranges, the survey area could be reduced to just 5 % of the area we had previously focused on. As a result, in 2011 we could apply a much more systematic approach to surveying, and we were successful in nearly covering this area completely. Even so, the survey area remained difficult to access and some remote corners still remain unvisited.

Shelters are assigned to three categories: 1) with archaeological deposits, 2) with other deposits, and 3) without deposits (Fig. 2). Shelters assigned to the second category are of particular interest. If shelters are generally able to retain sediments, archaeological deposits should be preserved. If no archaeological deposits can be recorded in an area, even though this type of shelter exists, then this absence can probably be attributed to factors other than topography, e.g., availability of resources, distance from fresh water, etc.

SURVEYS

Fieldwork in 2010 concentrated on one hand on the western side of Jebel Lahoute, around Itchoukout, and on the other hand in the region southwest of Ras Afrou, in particular the valley of Oued Sidi Saleh up to Taliouine, and some valleys in the region of Souk el Arba. Several shelters with or without sediment were discovered (Fig. 3). Indeed none provided the remains of a prehistoric occupation. The same is true for the area southeast of Ras Afrou and the region of Ait Ouali. Several shelters, including Ifri de l'Ane, were visited but no prehistoric deposits or archaeological surface finds could be detected.

Now equipped with new maps showing the karstic areas in 2011 specific areas were approached, including limited limestone outcrops in the Jebel Lahouta area and in the more widespread ranges of the Jebel Bou Salah. These included again the area of Ait Ouali but also the steep cliffs north of Taida. Here, amongst others, the large shelter of Ifri Btislit (25 x 10 x 7 m) was visited again but as before no evidence for prehistoric occupation was found.

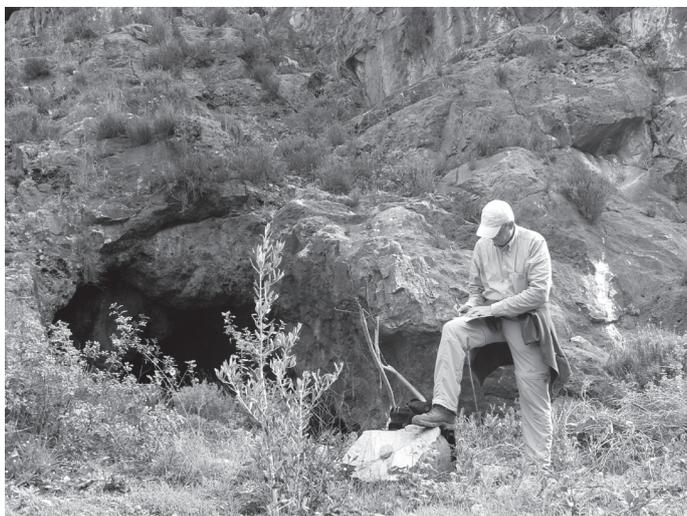


Fig. 3 Gerd-Christian Weniger documenting the topographical parameters of a small shelter.

RESULTS

The overall objective of the survey was the detection of unknown archaeological sites. The exciting finds from the shelters and caves along the rocade west of the Oued Kert delta gave us reason to believe that many more such sites would be discovered further to the west. This, however, was not the case. This raises the question as to 1) the availability of adequate locations for such sites in this area, and/or 2) the availability of resources in the area needed to sustain a prehistoric occupation.

Most importantly, the first point can be negated. Shelters are available in nearly the entire area; it could also be shown that – generally speaking – these shelters could have retained anthropogenic material if these were deposited. Looking at the map (Fig. 4), it becomes obvious that with just two exceptions, the important archaeological sites are concentrated in an area in the east of the research area. Shelters without deposits or with other deposits, such as weathering debris or recent dung (Fig. 5), show no distinctive spatial distribution. Consequently the preservation of sediments

Archaeological Sites of the Eastern Rif region (NE-Morocco)

Map Legend:

- shelter, prehistoric occupation
- shelter, other deposits
- shelter, no deposit
- open air site
- △ tumulus
- ⊙ town

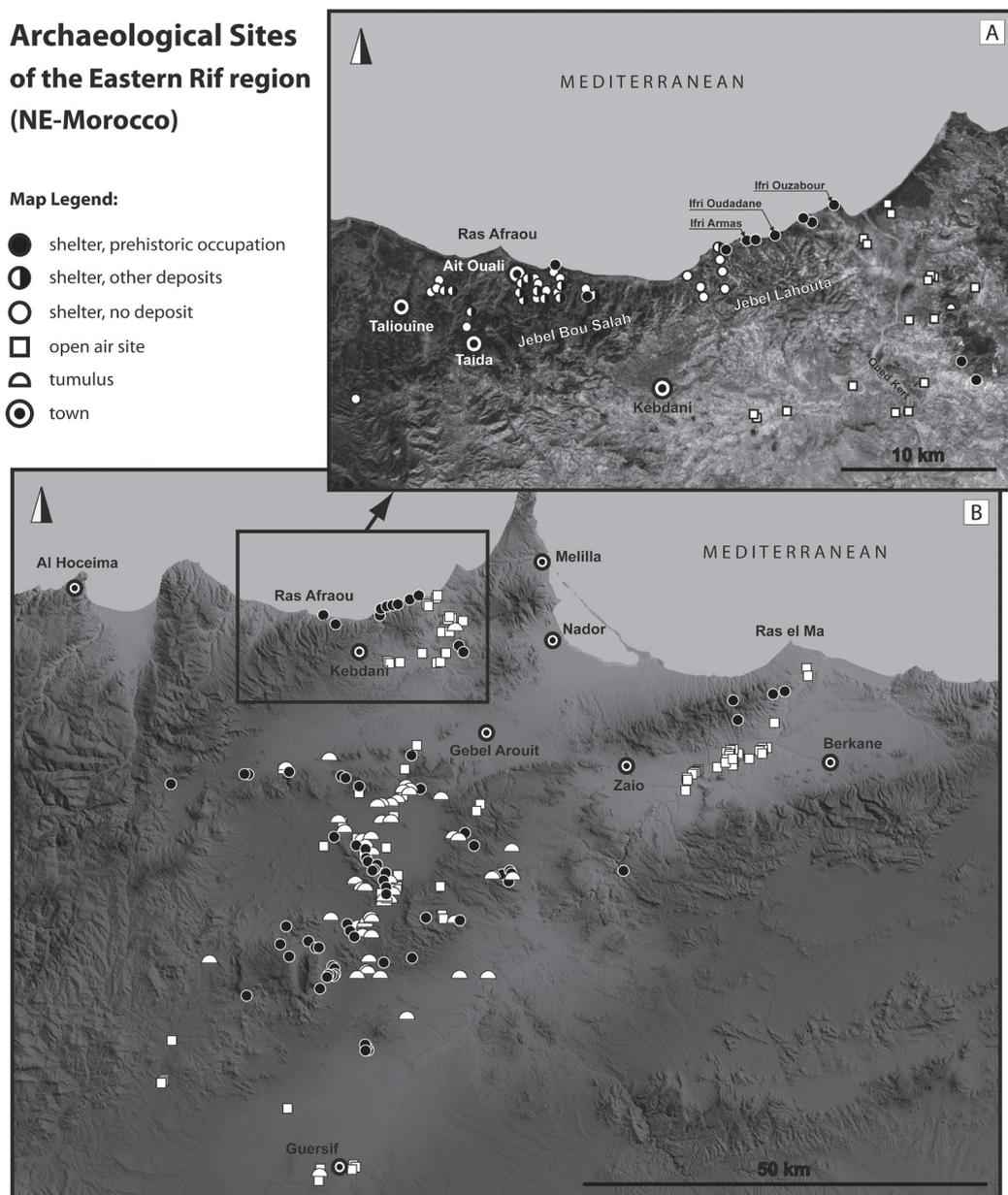


Fig. 4 Archaeological sites of the Eastern Rif region: A) Survey area in 2010 and 2011 between the Oued Kert delta and Ras Afrou, B) Research area of the joint mission of INSAP, German Archaeological Institute and University of Cologne with all sites recorded since 1995.

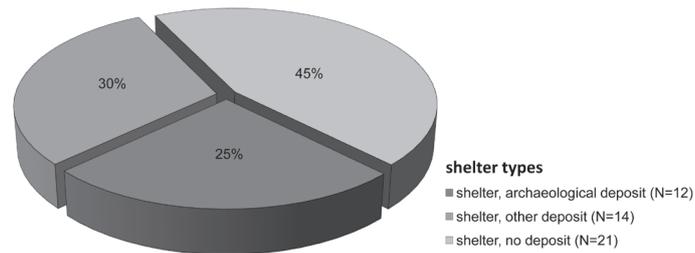


Fig. 5 Quantity and percentage of the three types of shelters recorded in the research area.

in a shelter is independent of location; instead it depends on features such as rubble or huge blocks in front of the shelter that form a sediment-trap. Consequently, it is the second of the aforementioned factors (availability of resources) that takes centre stage in our reflection of possible explanations for the concentration of rich archaeological sites along the eastern shoreline.

Whereas huge amounts of remains from marine resources (fish bones and mollusc shells) found at coastal sites explain the physical location of these sites, we are left to deliberate the reason for the attraction of prehistoric populations to the Oued Kert delta. One explanation of course is that the Oued Kert has different kinds of raw materials used for the production of lithic tools or grinding implements. Furthermore, the source of clay used for the production of Neolithic pottery was detected in a tributary of the Oued Kert, southeast of Jebel Amar (Linstädter & Müller-Sigmund 2012).

Of particular interest is, however, the permanent availability of water. The Oued Kert meets these needs (Fig. 4A). The next permanent river is the Oued Nekor, entering the Mediterranean Sea near Al Hoceima some 55 km to the west of the Oued Kert delta (Fig. 4B). Ifri Armas, the most remote of the rocade-sites, is located 7.5 km from the Oued Kert delta. Indeed, ethnographic studies have shown that it is not unusual that drinking water is sometimes collected from distances of up to 8 km. Therefore, it is suspected that freshwater supply was the limiting factor for the use of caves and shelters further to the west.

In summary, it should be recorded that although the main aim of the survey was not actually achieved (the identification of new archaeological sites), interesting insights were nevertheless gained. Gerd-Christian Weniger was not at all discouraged, quite the opposite (Fig. 6). He proposed that we should publish the results immediately and try to explain the situation we had to deal with. This is done with this paper. He also proposed that we compare these results with the very different situation noted for the northern coast of the Iberian Peninsula. This aspect must be the focus of a later study. To be continued ...



Fig. 6 Gerd-Christian Weniger and Abdessalam Amarir after a long day of surveying at the shelter of Ifri Oudadane.

Jörg Linstädter & Magnus Blatt
University of Cologne
Institute of Prehistoric Archaeology
Weyertal 125
50923 Köln
Germany
joerg.linstaedter@uni-koeln.de

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