

THE EXCAVATION AT MESOLITHIC DAMNONI THE DISCOVERY OF A NEW CULTURE ON CRETE

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The Site of Damnoni

The Damnoni Cave in southwest Crete is the first Mesolithic site ever discovered or excavated on the island (Figs. 1 & 2). The 'Mesolithic' (ca. 10,000-7000 B.C.) is the period after the last ice age (Palaeolithic) but before the advent of farming in the Neolithic. Though the Mesolithic has been known on the mainland for well over half a century, only in the last decade or two have sites been found and excavated on the islands – and never before on Crete. In retrospect, discoveries of Mesolithic sites on the Greek islands should not be surprising, since mainland evidence indicated the exploitation of marine resources in the period, as the seas swelled with oxygenated waters from the melting glaciers of the last ice age. At Damnoni we have discovered this culture that has been unknown throughout the past century of archaeological research, since Arthur Evans began Minoan archaeology in 1900.



Figure 1: Map of Crete showing location of Damnoni Cave

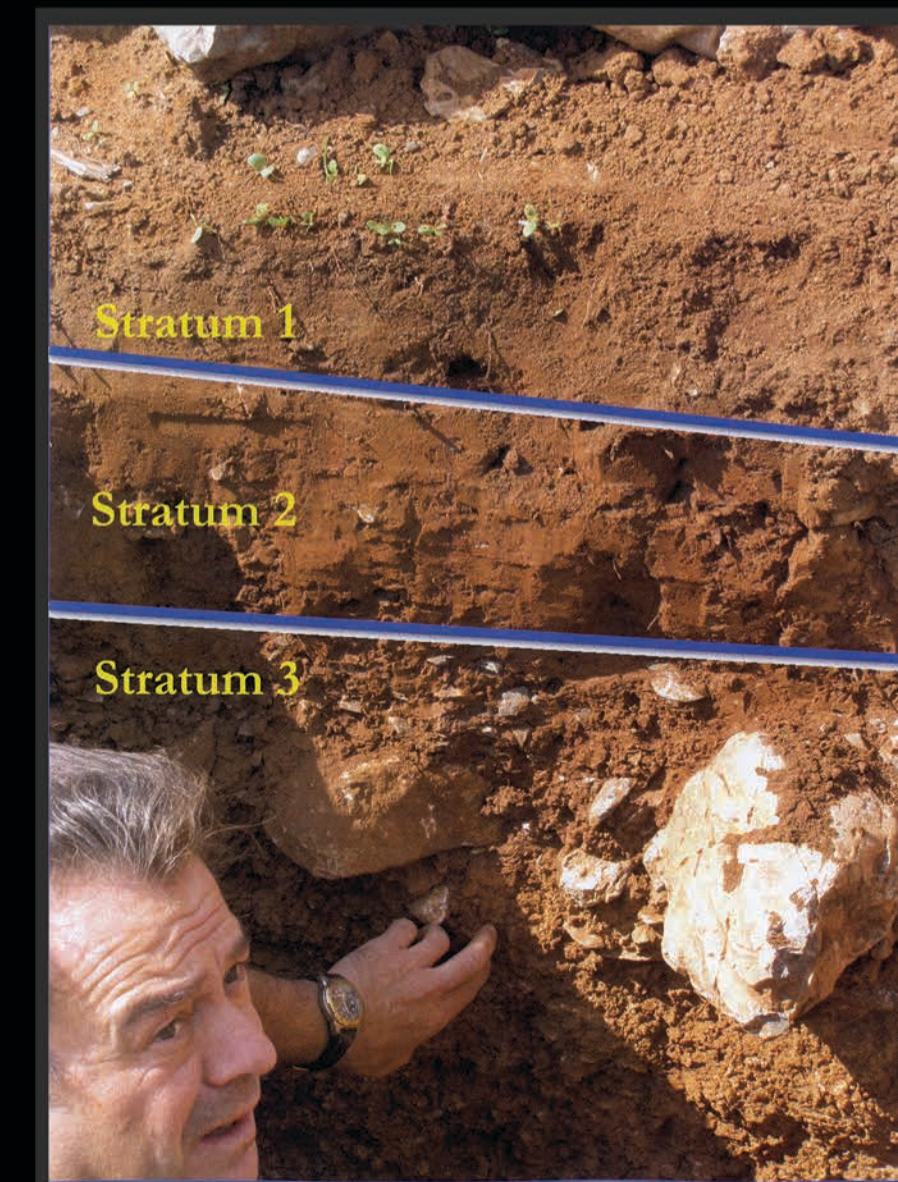


Figure 3: Panayiotis Karkanas demonstrating the Damnoni stratigraphy

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In fond memory of Chad DiGregorio



Figure 2: Damnoni from the sea

The site was discovered in 2008 during surface reconnaissance. In 2011, we began excavations with 1 x 1 m. trenches in front of the cave. The deposits at Damnoni are shallow, rarely more than three quarters of a meter deep, but they have conspicuously definable stratigraphy. We found three strata (Figs. 3 & 4): the topsoil; an Aeolian (i.e., wind-blown) sediment that contains the majority of the Mesolithic stone tools; and the basal stratum that quickly became sterile of artifacts. All excavated sediments were either dry sieved or floated, which allowed us to identify with certainty even the smallest lithics. Such care was particularly important, because the stone tool assemblage is the typical microlithic industry of the Mesolithic.

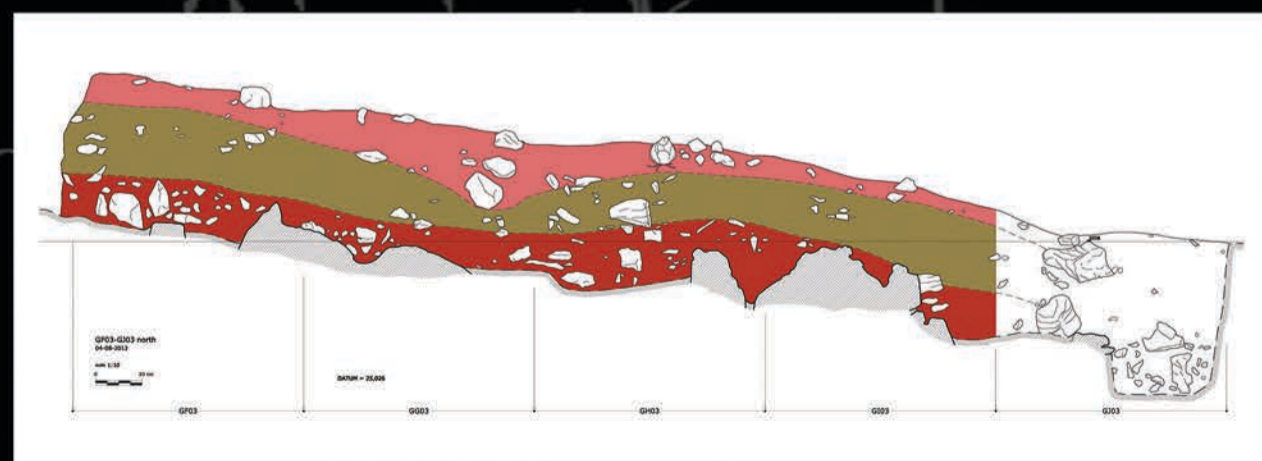


Figure 4: Stratigraphic section of G Area trenches

The 2013 Field Season

The 2013 season was dedicated to learning the extent of the site and gaining a better understanding of the lithic assemblage (Fig. 5). With the generous assistance of the AIA, we were able to achieve both goals and, in addition, to make discoveries that were unexpected based upon the 2011 campaign. In 2013, we excavated 70 trenches across the site in an effort to learn its extent. Our work in defining the limits of a Mesolithic activity area is extraordinarily important for future archaeologists, providing them a guideline for what to expect in future surface surveys. We found that the Mesolithic remains concentrated in two areas: the A/D/K blocks and the G block.

The Lithic Assemblage

Undoubtedly the most unexpected and exciting discovery of the 2013 field season was the diversity of the lithic assemblage at Damnoni. The 2011 test trenches found tools made from materials we learned to expect, such as quartz and local brown and black flints. In 2013, however, we found tools made of stones that had been previously unknown at Damnoni. In 2011, we believed that only local lithic sources were exploited, but the 2013 season demonstrated that the Cretan Mesoliths were enmeshed in a much larger regional exchange network than we had ever anticipated.



Figure 7: Flint tools

Obsidian Tools

Of greatest importance in the 2013 season was the discovery of ten obsidian tools (Fig. 6) in stratified deposits. They present the earliest stratified evidence for obsidian use on Crete. Though our analyses are preliminary, it is important to note that only tools were found, no waste flakes. Consequently, these tools were not made on the site. Presumably the obsidian is from the Aegean island of Melos – the nearest source. Small amounts of obsidian have been found on other Mesolithic island sites such as Maroulas on Kythnos, but the tiny quantity from Damnoni is highly suggestive. Our working, and very preliminary, hypothesis is that the obsidian tools arrived at Damnoni via a Down-the-Line exchange network, and Damnoni may very well have been at the end of the line (i.e., on the periphery) of this trade region. Wherever our future analyses lead us, it is certain that the Mesoliths on Crete were involved in a much larger interaction sphere during the end of the last Ice Age.



Figure 6: Obsidian tools used for obsidian hydration dating



Figure 9: Patinated honey flint scraper

Figure 8: Flint tools

Raw Materials

The lithic materials discovered in 2013 present us with fascinating sourcing problems and greatly expand our understanding of Mesolithic resource exploitation on Crete. In addition to the local flints already observed, we also found blue, grey, and honey flint tools (Figs. 7 & 8). One honey flint scraper is highly patinated (Fig. 9), suggesting a date of great antiquity. The others are from sources whose locations are currently unknown, and they generate stimulating new lines of inquiry for future research.

Absolute Dating and Scientific Analyses

We are conducting absolute dating using Optically Stimulated Luminescence and Obsidian Hydration. The soil is so acidic that it destroys seeds and bones, so we are unable to conduct Carbon-14 dating or to learn much about the palaeodiet. We are, however, proceeding with micromorphological analyses of the soils, as well as the potential pollen studies to provide information about the palaeo-environment.



Figure 10: The 2013 excavation in progress

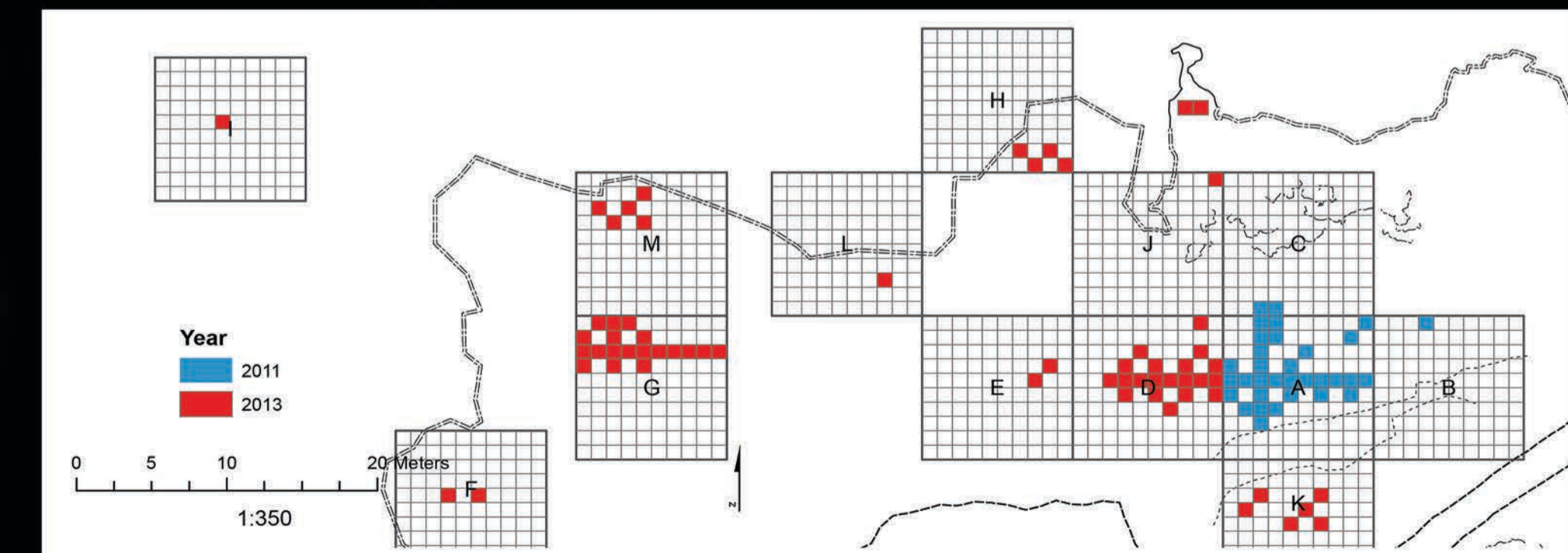


Figure 5: Excavated trenches

Implications and Future Work

We feel that this is a very exciting time in Cretan archaeology, with the unveiling of a whole new phase of its early prehistory (Fig. 10). We hope to lay the groundwork for future scholars to discover and study other Mesolithic sites on Crete. Rather than seeing Cretan prehistory as clearly defined and understood after a century of modern research, we believe that we are at the beginning of a new age of discovery on this wild and rugged island.