

Aterian and Mousterian in North Africa

Introduction

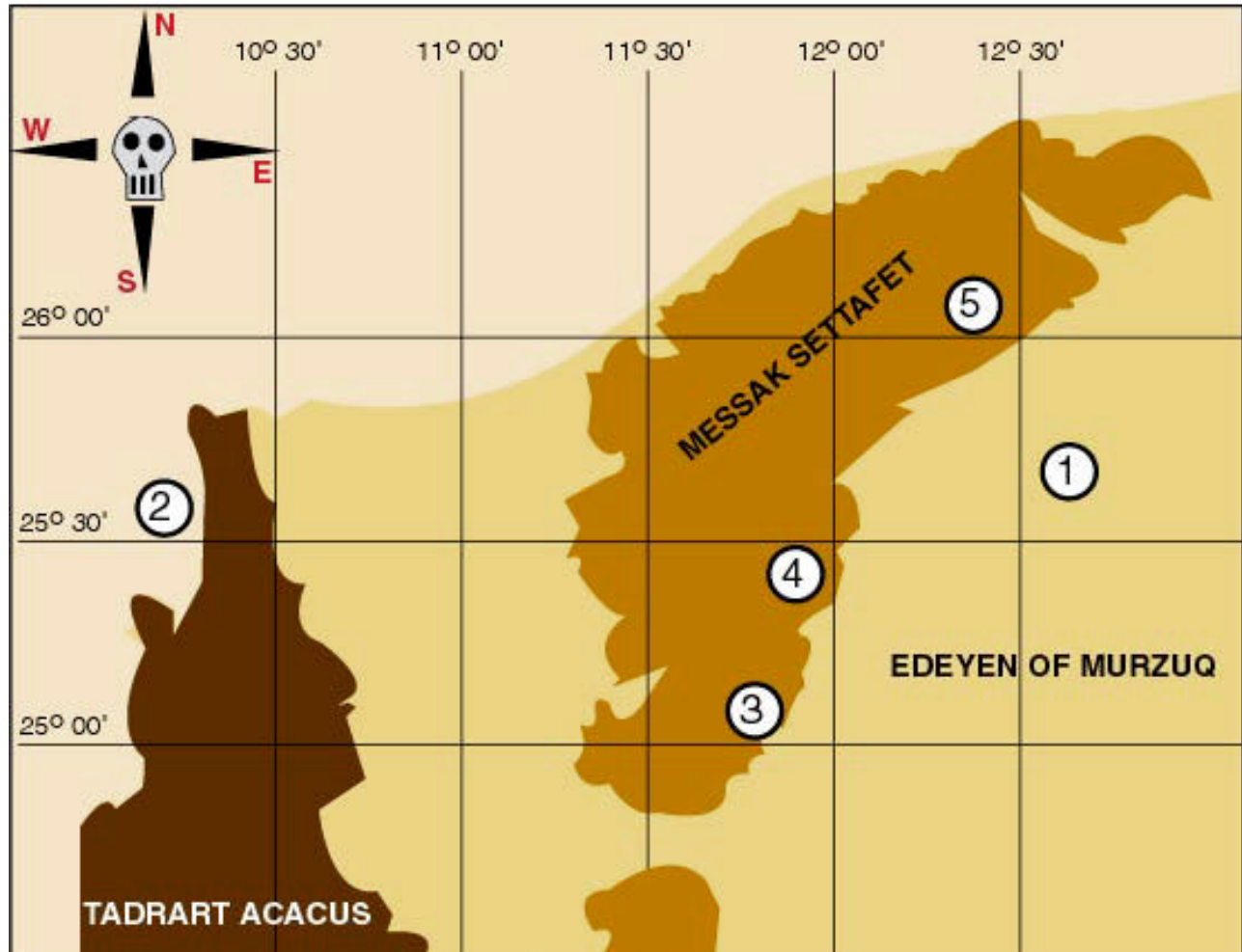
The sites in Northern Africa in country of Libya were researched because of the multiple Aterian stone tools found in the surrounding areas. The Aterian is another specialized industry similar to the Mousterian and the Levallois found in the Middle Paleolithic. The hominid species that occupied this area (modern humans) appeared to be "modern" by the types of artifacts that they left behind. The tools are more advanced having been used mounted on a stick as either a knife or a spear possibly for hunting. There was also evidence at the sites in the Libya area that showed evidence for habitation. Structures and hearths were found in some sites showing the use of a home base with shelters and fire. These finds could represent a living community (temporary) or permanent. The Levallois technique combined with the evolution of some of the formal tools of the industries lend to the idea that the Aterian shows similarities to the Mousterian industry. The Aterian was once considered a subsequent facies of the Mousterian. Even using stratigraphic context the succession remained. This succession was based on radiometric datings, despite its problems and the pattern involving the wet phases and occupation of the prehistoric Sahara by humans. Since the Aterian and Mousterian industries tied closely together the matter of how many Aterian tools need to be present for it to be considered an Aterian site becomes a question. That issue is explanative of the relationship between the two industries. Because stratigraphic contexts in both are rare, it is difficult to say whether Aterian tools are technological, typological, functional or chronological markers. All factual information in this article was taken from the article by Mauro Cremaschi.

Overview

In Libyan Sahara around the Tadrart Acacus mountain range, more than 350 archaeological sites have been identified. These Aterian sites are located in Tadrart Acacus and surrounding areas in both mountain and lowland areas. The Tadrart Acacus Mountain range, overall an area supporting Aterian sites, is around 8,000 km². The Middle Stone Age Mousterian tools occupied fifteen of the 350 sites in the area. The Middle Stone Age Aterian tools occupied fourteen sites. There has not however been a Mousterian assemblage found in a stratigraphic position. This leaves archaeologists to define the industries based on traditional archeological indicators. The area differs from other sties areas such as the Nile Valley or the Near East because the Middle/Late Paleolithic transition in the Sahara is not marked by changes in core technology. Rather a different organization of the lithic industry focusing on an increase in elaborate artifacts drives the change. The overall dates for the Libya sites containing the Aterian tool technique range from 47,000-24,500 BP. Some of the dating techniques were Thermoluminescence (TL) which proved successful in dating several types of sediments including "desert loss" sand dunes. This method

can date organic materials that are older than 50,000 years old. Another technique used in dating Aterian tools was the optically stimulated luminescence (OSL) which uses optical instead of thermal excitation sources to stimulate remission of light. The third used was radiocarbon dating for the Aterian tool aging.

THE TADRART ACACUS AND MESSAK SETTAFET MOUNTAIN RANGES



LEGEND

- | | |
|--------------|----------------|
| 1 Uan Tabu | 3 wadi Tidwa |
| 2 Uan Afuda | 4 wadi Imrawen |
| 5 wadi Adroh | |

Tunisia



Uan Tabu and Uan Afuda

One Aterian site is the site Uan Tabu that was excavated in the years 1990-1994. The lowest unit (unit IV) of thick stratigraphy was different than the upper layers at this site. With surveying the area, the site is located in the central Tadrart Acacus region. The area is covered in Acacus sandstone. The area has pluristratified deposits with Late Pleistocene (Aterian) and early Holocene occupation. The site at Uan Afuda was excavated at the same time as Uan Tabu. In fact the entire area is similar to the Uan Tabu site. The geological features as well as other features such as location and artifacts are similar. Uan Afuda and Uan Tabu were cave shelters located in Central Acacus. Central Acacus is located in the Sahara Desert area of North Africa and within the country of Libya. The time involving the Aterian tools looks as though it was similar to the desert landscape seen today in North Africa. Unit three consisted of two meters of aeolian sands lying on paleosol it also had dune deposits included with several boulders. Specific sites like Uan Afuda age near 20,000 BP. The site Uan Tabu dates around 61,000 BP. The two site dates were taken from archaeological remains with a variety of dating techniques. Stone tools were present in the sites excavated between the years of 69,000-90,000 years BP. Different dating techniques lend to the large time frame between the two. A uniform method of dating between sites would probably give a more constant picture of the true time between them.

If stone tools were present in the area then it would seem appropriate that hominids occupied the area whether or not remains were found. It appears that the hominids occupied the area for only a short period of time during the Middle Stone Age. The environment appeared to be slightly more humid than it is today, but appeared to still be a desert region. The excavation of Uan Afuda was near the excavation of Uan Tabu and it has been said that the two sites were similar to the Sahara desert region today. The artifacts found in the Libya sites are the Aterian, which is a Late Pleistocene flake-orientated technology that is to chronological "facies" with a huge geographic extension. The Aterian covers a large region of North Africa and a not determined chronological range (Wendroff and Schild 1982). The Upper Paleolithic sites had Mousterian tools (similar to Aterian); they had Levallois technique and formal tools. At Uan Afuda the site contained only ten artifacts and none of them were the Aterian. At Uan Tabu the site had variety from Levallois, Mousterian, to Aterian stone tools. The types of tools that could be found at the site were backed knives, tanged points, pseudo Levallois flake, flakes, cores, etc. During the Middle Stone Age the only tools found at these sites were Aterian. Excavations showed interesting new techniques like the use of a point on a stick as either a spear or a knife.

Messak Settafet

Many different Middle Stone Age sites were found in the Messak Settafet, a plateau found east/northeast of the Tadrart Acacus. The Aterian finds there with located in both stratified and

surface contexts. However, poor environmental preservation of the record leads the paleoenvironmental setting to be further investigated.

At the Messak Settafet site the Aterian artifacts were found in their original place in a open pit in an Upper Pleistocene deposit. Three superimposed units make up the sequence. Unit 1 showed gravel and sand lying at a base that contains rolled Acheulean bifaces. Unit 2 consists of weathered aeolian sand. Finally Unit 3 contained "Pastoral" Neolithic artifacts as well as charcoal and ostrich eggshell fragments. The sequence in the Messak Settafet site showed that the Aterian occupation was followed by a wet Middle Pleistocene phase, indicated by the paleosol at Uan Afuda sequence. The Messak Settafet sequence was separated from the Holocene by a severe dry episode leading to aeolian sand. The Middle Stone Age assemblages were spread throughout the entire Messak Settafet unlike the post-Pleistocene. All of these assemblages were open-air and found on the upper plateau. Widi tidwa, located in Messak Settafet, a stratigraphic sequence between Acheulean and "Pastoral" Neolithic flaked stones was found. At the excavation at Wadi Imrawen what was thought to be an Aterian lithics assemblage was collected. Also at Wadi Adroh archeologists identified a sequence of "Pastoral" Neolithic and Aterian-Mousterian assemblages.

The Edeyen of Murzuq

In the areas of the Edeyen of Murzuq the Aterian sites were scarce, showing only sporadic occupation. The idea that these sites could have been transient, where hominids stopped during hunting excursions, is prominent. This is due to the excavating of scattered Aterian tanged tools.

Analysis and Conclusion

It's hard to say when the transition between the Mousterian and Aterian industries took place and the relationship between the two is unclear. While the Aterian industry has been dated between 90,000 to 61,000 years BP, the Mousterian industry had yet to be dated. Further studies are needed due to the fact that the two industries share similar technological and typological organizations. During the Aterian tool phase there was a presence of tanged points that could represent well transient (hunting) camps. The camps or sites appeared to only be occupied for short times then never returned to. The sites contained no organic material, but had a cluster of artifacts. The sites had scarcely elaborate technology and were struck from unpatterned cores of silicified sandstone. Hunts of modern humans in central Sahara are probably linked to different technological traditions. The evidence of hearths for fires and archeological evidence of shelters were discovered at Aterian sites. The sites contained raw materials for tools such as fine-grained exotic rocks. The archeological finds from the habitations or structures were slabs, wedging, elements, pole holes and fences. There was evidence at sites for hearths and the sites were located around water basins. It is believed that because they located themselves near water they were fishing and used fowl.

This information was all found in the article given for this section. It dealt with the Aterian tools and the sites they were located in. The article was:

- Cremaschi, Mauro, et al. "Some Insights on the Aterian in the Libyan Sahara: Chronology, Environment, and Archeology." *African Archaeological*, Vol. 15, No. 4. 1998.