

## Encyclopedia of the Maghreb

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### SUBTRADITIONS

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## Capsian

**TIME PERIOD:** 10,000–7500 B.P.

**LOCATION:** Northwest Africa from approximately 28° N on the west at the Atlantic to 36° N on the east at the Gulf of Gabès (modern Tunisia, Algeria, and Morocco) and, with an intervening area devoid of any evidence, and as far east as Cyrenaica (22° E).

**DIAGNOSTIC MATERIAL ATTRIBUTES:** Stone tool industry with two major variants: Typical Capsian characterized by nonmicrolithic and microlithic flake and blade tools, with high frequencies of backed implements, burins, and end scrapers; Upper Capsian with abundant and varied geometric microliths, backed bladelets, and notched or denticulated pieces. A wide variety of bone tools (especially awls and needles) is found as well as shell beads (both marine and ostrich) and decorated bone and shell (including ostrich shell containers). Sites are either open air or in caves and rock shelters, and the deposits are characteristically dark gray (because of abundant charcoal, ash, and fire-cracked rock) with enormous numbers of land-snail shells.

### CULTURAL SUMMARY

#### Environment

During the cold and dry Younger Dryas in Europe (c. 10,800–10,200 B.P.), North Africa experienced a relatively arid phase, evidenced in part by lowered water levels in Lake Chad. After 10,000 B.P., humidity increased again, and at this time the vegetation zones of the Sahara appear to have had limits similar to modern ones. Moist conditions continued, reaching a maximum between c. 9000 and 8000 B.P. This was followed by a short but severe arid phase (found worldwide) with dates for North Africa centered around c. 7500 B.P., and then by

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continued increasing aridity from c. 6500–5500 B.P., but still more humid than at present (Adams et al. 1997; Vernet 1995, both with extensive bibliographies).

For the Capsian specifically, analyses of charcoal (Couvert 1972, 1975, 1976, 1977; Renault-Miskovsky 1985) and faunal remains (Bouchud 1975; Lubell 1984; Lubell et al. 1975, 1976, 1982–1983, 1984; Morel 1974; Pond et al. 1938) from archaeological deposits, in addition to pollen and other data (Farrand et al. 1982; Lamb et al. 1989, 1995; Ritchie 1984), provide a relatively good idea of climatic and ecological conditions. Vegetation cover was open woodland savanna, probably not too different in many respects from modern East African environments, with Mediterranean forests and maquis at higher elevations and/or where humidity was higher. An abrupt, short-lived period of climatic instability (Alley et al. 1997) at about the same time as the establishment of *Quercus* forests (Marret and Turon 1994) is correlated with a change in Capsian technology, which we believe has been identified at several sites (Lubell et al. 1984: 182–184; Sheppard 1987; Sheppard and Lubell 1990; and unpublished data for Aïn Misteheyia and Kef Zoura D).

### Settlements

Capsian sites are usually found inland from the modern littoral, especially on the high interior plateaus of Algeria west and south of Constantine and in Tunisia near Gafsa—ancient Capsa from which this industry takes its name (Lubell et al. 1984: Fig. 3.1). The density of sites is very high (noted by Balout 1955: 397 and Vaufrej 1955: 234, but see especially Grébénart 1976 and Lubell et al. 1976: Fig. 1), and they are often located near springs or passes. Although sites do occur in caves and rock shelters, they are more common as open-air mounds, which vary in size from a few to several hundred m<sup>2</sup> and in depth from less than 1 m to well over 3 m. The common component of almost all Capsian sites is the enormous numbers of whole and crushed land-snail shells, which has led Francophone archaeologists to call the sites *escargotières*, while local Arabic speakers refer to them as *ramadiya* because of the dark gray color of the ash-rich deposits that suggested to some Francophone archaeologists that they should perhaps be called *cendrières* (Gobert 1937; Morel 1974: 299). Other than hearths and burial cairns, no clear structures have ever been identified in these sites, despite careful modern excavations at Aïn Misteheyia, Dra-Mta-El-Ma-El-Abiod, Kef Zoura D, Medjez II, and Relilai (however, see Tixier et al. 1976). Our understanding of the structure of the deposits and the manner

of their accumulation remains much as Pond described it (Pond et al. 1938: 109):

A group of refuse heaps welded into a single mound . . . composed of snail shells, camp fire ashes, hearth stones, animal bones and tools of bone and flint. It often contains human skeletons. Many present saucer-shaped depressions and hard-packed areas which seem to have been habitation floors. On many of these “floors” hearths or fire places, areas of burned stone, and deep beds of ashes are found.

This characterization is echoed by Francophone archaeologists:

Un magma de lentilles de rejets qui ont été accumulées dans un désordre total et que les remaniements, la pluie et le vent, le tassement naturel ont, selon l'heureuse expression de L. Balout (1955, p. 392), «moulé en un ensemble». Les coupures stratigraphiques naturelles que constituent, par exemple, un lit de coquilles écrasées par le piétinement ou une mince couche de sable soufflé par le vent du Sud, y sont rares et toujours discontinues; la stratigraphie artificielle elle-même n'offre pas de garantie absolue (Morel 1974: 300).

Despite these difficulties (which appear to apply only to the open-air middens and not to those in caves or rock shelters), occupational surfaces have been defined in at least one Capsian site and the stratigraphy reconstructed by using a variety of geoarchaeological methods (Lubell et al. 1976).

### Economy

First defined by de Morgan (1910), the Capsian is traditionally divided into two variants initially based almost exclusively on characteristics of the stone tool assemblages: Typical Capsian (*Capsien typique*) and Upper Capsian (*Capsien supérieur*). Although thought at one time to represent an evolutionary sequence (Typical to Upper; cf. Vaufrej 1936), radiocarbon dating of well-controlled stratigraphic sequences has demonstrated that the two variants are often contemporary (Camps 1968; 1974; Grébénart 1976; Lubell 1992; Lubell et al. 1984), leading to a reinterpretation of the traditional sequence (Sheppard and Lubell 1990).

Typical Capsian is characterized by abruptly backed tools made on macrolithic flakes and blades, abundant truncation burins (over 25% of retouched tools on average), end scrapers, and a significant proportion ( $\pm 20\%$ ) of backed bladelets but very few (10%) geometric microlithics although microburin technique is always present (see Camps 1974; Inizan 1976; Lubell et al. 1986; Sheppard 1987; Tixier 1963, 1976). Bone

tools are present but in limited variety (Camps-Fabrer 1966).

Upper Capsian is characterized by abundant and varied geometric microliths and numerous forms of backed bladelets although the larger tools of the Typical Capsian are present in regions of abundant raw material. Bladelets were probably manufactured by using pressure (Tixier 1976), but the suggestion (Inizan et al. 1976) that heat treatment was used cannot be confirmed (Sheppard and Pavlish 1983).

Burins tend to be less common than in the Typical Capsian but there is considerable variability in this (cf. Grébénart 1976; Lubell et al. 1984: 153). Variability within Upper Capsian stone tool assemblages has led Camps (1974) to propose three phases (Early, Middle, and Recent) found in five regional facies (Tebessa, Setif, Central, Tiaret, and Southern). These are in addition to a series of other, more-or-less contemporary, regional variants (Southern Tunisian Bladelet Industry, Columnnarian, Ellassolithic, Keremian, Eastern Oranian, and Libyco-Capsian—see Lubell et al. 1984: 154–157, for brief definitions and essential references).

This variability is reviewed in detail by Lubell et al. (1984: 177ff.; see also Sheppard and Lubell 1990), who proposed on the basis of multiple variables (archaeological, chronological, osteological, paleoenvironmental) that the most parsimonious division is into a Western tradition (incorporating Columnnarian, Keremian, and Ellassolithic) and an Eastern tradition (Typical and Upper Capsian and perhaps some of the later Iberomaurusian from this region).

The Capsian subsistence pattern has been the subject of investigation by several interdisciplinary teams beginning with the Logan Museum Expeditions in the 1920s and 1930s (Lubell 1992; Pond et al. 1928, 1938). Research in the Télijdjène Basin south of Tebessa in Eastern Algeria (Lubell et al. 1975, 1976, 1982–1983), at Medjez II near Setif (Camps-Fabrer 1975), and at Dra-Mta-El-Ma-El-Abiod on the Algerian side of the border but near Gafsa in Tunisia (Morel 1974, 1977, 1978, 1980, 1981) has provided sufficient data for a partial reconstruction (a general overview is given by Camps and Morel 1982). Investigations at the partly contemporary Neolithic of Capsian tradition site called Grotte Capéletti in the Aurès (Roubet 1979) provide additional information.

Despite their frequency in site deposits, we know that the five major species of land snails found (*Helix aspersa*, *H. melanostoma*, *Leucochroa candissima*, *Helicella setifensis*, *Otala* species), all of which still occur in the region today, were not the major source of animal protein in the diet. That protein source was a number of

vertebrates ranging in size from very large to very small and including aurochs (*Bos primigenius*), hartebeest (*Alcelaphus buselaphus*), zebra (*Equus mauritanicus*), mouflon (*Ammotragus lervia*), gazelle (*Gazella dorcas*, *G. cuvieri*), and lagomorphs (*Lepus capensis*, *Oryctolagus cuniculus*). Reptiles, amphibians, and birds are present, as are gerbil (*Jaculus orientalis*, *Meriones shawi*), hedgehog (*Aetechinus algirus*), and jackal (*Canis aureus*), but none of these can be assumed to have been used as food. Whether the eggs of ostrich (*Struthio camelus*) were used for food as well as raw material for containers and ornaments is unknown. There is no direct evidence for the vegetal component in the diet, other than the charred bulbs of *Allium* species found in the collections at the Logan Museum (Lubell et al. 1976: 919). Analyses of charcoal from archaeological deposits (Couvert 1972, 1975, 1976, 1977) suggest that nuts (pine, pistachio, oak) and perhaps some fruits (carob, juniper) would have been available on a seasonal basis depending on local environmental conditions.

Although there is no absolute certainty, the available data do suggest that most (if not all) Capsian sites represent seasonal rather than year-round occupations. The arguments for and against are reviewed in a number of publications (Lubell 1984; Lubell et al. 1975, 1976, 1982–1983; Morel 1977, 1978, 1980, 1981).

The people responsible for Capsian sites and material culture were anatomically modern *Homo sapiens* and have been referred by Chamla (1978) to two types, each of which has two subtypes: Mechta-Afalou (Typical Capsian and Mechtoid), and Protomediterranean (Types I and II). Both are said to be present at Medjez II. It is argued by some (e.g., Ferembach 1985), that Capsian populations were immigrants from the east who replaced the earlier populations responsible for the Iberomaurusian. These interpretations of the osteological data have been challenged by Lubell et al. (1984: 158–165), who argued for population continuity based on analyses of both metrical and nonmetrical cranial and postcranial characteristics in addition to characteristics of the lithic industries and data on subsistence. Their view is corroborated by more recent work on dentition (Irish 1998) as well as analyses of skeletal series from the central Sahara (Dutour 1989: 222ff.).

### Religion and Expressive Culture

Other than mortuary practices that imply some belief in an afterlife (cf. Haverkort and Lubell 1999), there is no direct evidence for religion or religious practices. Decorative art is extensive at Capsian sites (Camps-Fabrer 1966) as is the use of ochre on both

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human remains and stone tools (Beyries and Inizan 1982; Camps-Fabrer 1960; Gobert 1950; Inizan 1976). The latter were often modified, either for utilitarian or nonutilitarian purposes (e.g. Camps-Fabrer 1966; Vallois 1971). Evulsion of the central incisors was practiced just as it had been in the Iberomaurusian, but was perhaps restricted to females in Capsian populations (Lubell et al. 1984: 160).

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