SHORT-RANGE SEASONAL MOBILITY: 
AN ADAPTIVE PATTERN ON OPEN PLATEAUX 
IN A CLOSED MOUNTAINOUS REGION.

ABSTRACT — The issue of Seasonal mobility is discussed in numerous ethnographic and late prehistoric studies from the Upper Palaeolithic on. Less so for Middle Palaeolithic groups, and only rarely concerning Lower Palaeolithic ones. Furthermore, in most studies mobility ranges are taken to have extended over different regions covering considerable distances. This paper presents a different adaptive pattern whereby short-range seasonal mobility was practiced. The Late Acheulian groups inhabiting (c. 250,000 — 150,000 BP) the open basaltic plateaux lived in a rather closed mountainous region. Both difficulties of recurring movements outside the region and the environmental and economic advantages within it induced a repeated small-scale mobility pattern. Climatic conditions were mainly responsible for the abandonment of summer locations on the open plateau summits, shifting to the more wooded and protected slopes and valleys for the winter. The data emanating from the archaeological research of the Yiron and Baran Plateaux serve as the basis for the short-range mobility model suggested here.

KEY WORDS: Adaptation — Seasonal mobility — Acheulian — Upper Galilee — Israel.

INTRODUCTION

Mobility in general, and seasonal mobility in particular, is a common topic in hunter-gatherer studies. Yet, most of these studies relate to ethnographic, or to late prehistoric groups from the Upper Palaeolithic on (e.g., Yellen 1977; Upham 1984; Parkington 1972;Clark, G. 1977; Andersen et al. 1981; Binford 1982; Bahn 1983). Less frequently has seasonal mobility been studied in detail and in-depth for the Middle Palaeolithic, and only rarely for the Lower Palaeolithic (Speth and Davis 1976; Davis 1979).

The traditional notion that variability seen in spatial locations, settlement patterns, and/or lithic assemblages is indicative of group uniqueness, often even culturally idiosyncratic, is still a rather widespread apprehension with regard to Lower Palaeolithic occurrences. Even in studies where seasonal mobility is mentioned (e.g., Clark, J. D. 1967, 1968, 1969; Kleindienst 1961; Hansen and Keller 1971; Bordes 1972; Lumley 1967a, 1967b; but see Villa 1983; and see also Gamble 1986), mostly the seasonal counterparts for the sites under discussion are not suggested. Namely, if a site uncovered is interpreted, for instance, as a summer location — then where and which was exactly the winter location, or vice versa?

There is of course quite an "objective" reason for this lacuna. The remotest in time, the lesser credible archaeological visibility. In turn, data are more often than not insufficient for a plausible, detailed reconstruction of the primary dynamic contexts of which palaeoenvironmental settings and early man behaviours form main constituents (cf.
This paper intends a) to solve one case-study to the existing rare ones on seasonal mobility in the Lower Palaeolithic, and b) to show that under specific environmental conditions, a pattern of short-range locational shifts, by season, could have worked as an adaptive solution for small Aurignacian groups, c. 250,000-100,000 years ago.

Settlements, Environment, subsistence - and the problem

On Yiron Plateau’s summit in the Upper Galilee of Israel (Fig. 1) two bicompartiment sites (Y27/36 and Y31/63) are situated at a distance of about 2 km from each other (Fig. 2). Two additional sites (Y13 and Y18) lie, the former somewhat lower in elevation than the latter, on the northern, relatively mild slope of the Plateau. Another two sites (A43 and A65) are placed on the opposite, lower part of the southern slope of Mt. Avivim, straight across the narrow Avivim Valley. A large, well-bounded locality (Y25) containing seven separate artefact concentrations in close association with nine basaltic stone formations (Ohel 1986) occupies part of the eastern edge of the Plateau summit.

The spatial configuration on the neighboring Barkan Plateau is a totally different story in terms of archaeological visibility. The areas of occupation here have suffered heavy disturbances by modern fruit-plant cultivation. Flowing field clearance, and other mechanical operations have displaced artifactual material to the extent that no site limits can be identified. Despite the massive interventions, meticulous surveying and systematic test-investigations resulted in the obvious recognition of what were called “artificial zones.” Two such zones were distinguished on the summit: one on the banks of the Faro Lake, the other around the Faro Pond. A fairly bound辖ed site, called the Buntaz Site, was detected within a saddle-like depression, about 300 m northwest of the Faro Pond. This site lies at the end of a long, gentle slope, and on the edge of what forms now the steep cliffwall of the Yiron Stream. The site was most likely related to the Pond’s artifact zone as evidenced by the clearest “path” of stream artifacts connecting to the two locales, and the great resemblance of the artifacts throughout.

Both plateaux, at an altitude of 600-700 m above sea level, are tightly enclosed by higher rocky, rugged, hard-limestone mountain chains, deeply incised by narrow, meandering stream valleys. The ridges of these mountains reach heights well over 1,000 m, the plateaux and their near surroundings thus forming kind of cul-de-sac. Although in Aurignacian times the stream beds were not yet so profoundly incised as now, the general geomorphological outline was nearly the same (Bosch and Ozel 1981; Ozel 1986 with references). Repeated movement by foot out of the enclosure and back into it, could not but have posed most serious difficulties for small Aurignacian groups. Furthermore, no Aurignacian occurrences, chronologically or technologically correlated to those on the plateaux, have thus far been encountered on the coastal plain (some 30 km to the west), and no Aurignacian was ever uncovered in the Hula Valley (about the same distance to the east). In short, both reason and evidence do not seem to suggest a long-range recurring mobility pattern by the Aurignacian plateaux groups.

Yet, it is almost obvious that these groups could not have stayed on the plateau summits the year round. Seasonal differences are, as they were 200,000 years ago, quite extreme. Summers on the summits are regularly very pleasant: warm (the hottest month, August, with a maximum/minimum daily average of 18-30°C), refreshingly breezy from late morning to late afternoon, cooler at nights, low humidity, no rains, easy to wander about on the open grassy landscape, and most comfortable under some shade while sitting. Winters, on the other hand, are practically unbearable: cold (in January, the coldest month, daily average of 5-19°C) with strong, freezing winds, especially the eastern frequent ones (often reaching a velocity of about 100 km/h), ferocious rainstorms, and snow for several days almost every winter. Movement on the summits following showers - even nowadays when provided with all necessary dress and equipment — is nearly impossible by foot or by any machine (except on paved roads) owing to the sticky mud. Fogs are common, particularly in the mornings, and dreary, depressing weather is the rule more often than not. Even the pasturing cattle seek some sheltering on the slopes.

Unless the protection by built shelters can be secured, as is the case in modern times, it is hard to imagine how the Aurignacian lived in the summits during winters.

Chalcolithic settlements (e.g., Y33, see Fig. 2) preferred downslopes while living in solid structures. Shepherds in Byzantine and Roman times, as well as
monkeys later, occupied caves in the cliffs, but not yet exposed in more ancient periods. Many Arab stone constructions are encountered on the descending slopes. However, the impression you get is that Achaeulian people remained on the summits for the winters.

According to our calculations (Brosh and Ohel 1981; Ohel 1980) subsistence resources were varied and sufficient throughout the seasons; provided the groups were mobile. It is estimated that not more than 2–4 groups inhabited at one and the same time the Yiron Plateau while 1–2 groups at Bar'am. The permanent population on both plateaux could have never exceeded 20–50 people. Within this presumed site-range, the produce of the landscape was quite able to supply adequate nutrition extracted from hunted game and collected edible plants. Potable water was always closely, and need not have posed problems, only perhaps after a long succession of draughts (which could have caused total abandonment of the area for a shorter or longer period).

Thus, in sum, the problem we were faced with was the following. Given, on the one hand, that repeated, seasonal movement outside the region was doubtless a quite risky venture, for a small population in particular; that the subsistence within the region for the sake of such a population was no threat to survival, while, on the other hand, the groups were clearly able to produce winters on the plateau summits (their favorite summer accommodations) — where, then, did they move for when weather?

THE HYPOTHESIS AND THE DATA

The hypothesis consequently postulated was that the Achaeulian groups of the plateau summits practiced a recurring short-range mobility pattern. In order to accept this assumption as a working model, the resolution of two aspects of the results followed. One, the availability of winter shelter at close distance. And two, the socio-cultural affinities, temporarily local, but shared between groups, and later, the sites should not be representations of idiosyncrasies separated either in temporal or social terms, but rather continuations of a few, firmly associated groups, repeatedly changing residential locations.

The detailed data, their analyses, and testing, cannot be presented here; they may be found elsewhere (Ohel 1986 with references). Only the interpretative aspects of the results will be sought.

Whereas, as emphasized earlier, the open, flat summits are extremely menacing in winter, descend- ing just a little down the slope, particularly the northern one, changes the situation dramatically (see note about the cows above). Although not protected from the most brutal weather, the freezing, fast wind passes over the head. Only a dozen meters may separate one from the "table's" edge to render the feeling that one transverses another.

weather. Clearly, the cold is there and the sloppy soil as well, yet one's breath can be regained and one can function again, albeit the remaining hardships. One has to play the same patience and use the experience that after many times, or as everybody from the Kibbutz of Yiron and Bar'am will testify, to realize the great difference.

The further one descends the slope, the better one feels. Now, it is essential to mention that during Achaeulian times the slopes were warmer and much better as they are now (here and there patches of pine occur, but these were planted in the last decades). Actually, the slopes and valleys were of a woody nature. Thus protection from winter elements could be found more readily then now. Many areas on the slope and valley bottoms were quite able to supply adequate nutrition extracted from hunted game and collected edible plants. Potable water was always closely, and need not have posed problems, only perhaps after a long succession of draughts (which could have caused total abandonment of the area for a shorter or longer period).

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