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Long-term perspectives on the occupation of the Franchthi Cave: continuity and discontinuity

Catherine Perlès

Greece is a region of marked climatic and topographic contrasts. Modern annual rainfall ranges from 300 to 1500 mm, and the number of frost days varies from none to 30. Topographical contrasts are equally marked, between the high mountains of the Pindus, the low flat plains of the alluvial basins and the hilly countryside of the Peloponnese. The distribution of Early Neolithic sites sharply reflects these contrasts: they are concentrated in the drier, eastern half of the country. The density of settlement, highest in the large alluvial basins, illustrates the importance of topographic contrasts. The limited data on Mesolithic sites apparently indicate similarly marked oppositions, with the sites located along the coasts, and the centre of the fertile inner basins and the high mountains apparently deserted.

Though the nature and distribution of climatic zones was different in the Late and Final Pleistocene, I consider that contrasts of a similar magnitude existed during the Upper Palaeolithic. These must have had an important bearing on the nature of resources, modalities of territorial exploitation and nature of the archaeological assemblages. The elaboration of a general framework for the Upper Palaeolithic of Greece must be based, I think, on these premises and aim at models which account for the following:

- i. Synchronic regional differences, in terms of availability of resources, selection and mode of exploitation, site occupation. Why, for instance, are seasonal specialised hunting camps in Epirus rich in artefacts and occupational debris,¹ whereas hunting occupations at Franchthi are extremely poor in artefacts? Why, also, are burins, bone tools and ornaments present in Epirus and not at Franchthi?
- ii. Long-term differences in settlement patterns and regional dynamics. Why, for instance, was Franchthi occupied throughout the Pleistocene and the Holocene, whereas Upper Pleistocene sequences in Epirus have so far failed to reveal any demonstrable evidence of Holocene occupation (see Bailey, this volume; Kotjabopoulou *et al.*, this volume)?

The following outline of the Franchthi sequence, from the beginning of the Upper Palaeolithic to the onset of the Neolithic, will be brief since it relies on already published data.² It will be oriented towards the above-mentioned perspectives, in the hope that it can serve

as a basis for comparisons and discussions with other regions of Greece.

It should also be noted, however, that the period considered is itself one of marked climatic, environmental and economic contrasts. Even within the Franchthi sequence, important variations in terms of site occupation, exploitation of resources and activities must be taken into account.

GENERAL PRESENTATION

Franchthi is a large cave opening in a limestone peninsula of the Hermionid. The topography is varied and comprises hills, low mountains, small coastal plains and inner alluvial basins. The region is currently very dry (c. 400 mm at Nafplion), and the vegetation is a typical garrigue, with juniper trees, kermes oaks, olive trees and some Aleppo pines. The spacious, easily visible, cave offered exceptional shelter and room for domestic activities. Its location, overlooking a now-submerged coastal plain and backed by hilly regions behind, was equally favourable for hunter-gatherers, fishers (the

1 For references on sites in Epirus, see for instance: Adam 1989; Bailey 1992; Bailey and Gamble 1990; Bailey *et al.* 1983a; 1983b; Higgs and Vita-Finzi 1966; Higgs *et al.* 1967.

2 Nine monographs on Franchthi have been published so far: Hansen 1991 (macrobotanical remains); Jacobsen and Farrand 1987 (maps, plans and sections); Perlès 1987 (Palaeolithic stone industries); Perlès 1990 (Mesolithic and Initial Neolithic stone industries); Shackleton 1988 (marine molluscs); Talalay 1993 (Neolithic figurines); Van Andel and Sutton 1987 (landscape and population); Vitelli 1993 (Early and Middle Neolithic pottery); Wilkinson and Duhon 1990 (sediments and stratigraphy of the Paralia).

In addition, I have used the following articles: Cullen 1995 (Mesolithic mortuary data); Farrand 1993 (stratigraphic discontinuities); Hansen 1992 (origins of domesticated plants at Franchthi); Jacobsen 1981 (early Neolithic at Franchthi); Payne 1975 and 1982 (faunal remains); Perlès 1995 (Final Palaeolithic and Mesolithic of Greece); Perlès in press (Greece 30,000–20,000 BP); Perlès in prep. (Early Neolithic of Greece); van Andel and Shackleton 1982 (variations in coastlines and marine mollusc selection); Vaughan 1990 (functional analyses of Mesolithic stone tools).

To avoid numerous repetitions, no further references to these publications will be given *in text*, unless specific arguments are involved.

coast was never more than about 5 km away) and farmers. It would be simplistic, however, to explain the exceptional duration of occupation merely in these terms. Economic systems are culturally determined, and, as will be quickly realised, this same location and shelter has played very different roles in prehistoric subsistence strategies.

The excavations were conducted in 1967–76 under the direction of T. W. Jacobsen of Indiana University. They revealed prehistoric occupations that started in the Middle Paleolithic and continued through the Upper Paleolithic, the Mesolithic and the Neolithic. The main purpose of the excavations was the establishment of the chronostratigraphy and palaeoenvironmental reconstructions. Techniques rarely practised in Greece in the 1970s, such as systematic water-sieving and flotation, permitted the systematic study of remains such as seeds, snails, shells, microfauna, microcharcoal, etc. The small extent of each trench did not permit spatial analyses, but the combination of trenches provides some insight into the overall archaeological sequence and large scale stratigraphical variations. We are, in fact, dealing here, as everywhere, with discontinuous stratigraphic sequences, each marked by important erosional phases (Farrand 1993). Throughout, the ‘sequence’ from Franchthi must be studied as a succession of discrete occupational phases, not as a mythical continuous ‘*in situ* development’.

Had more trenches been opened, the archaeological sequence might possibly have been more complete. Indeed, only a small portion of this huge site could be excavated, and the soundings were all the more restricted in the deeper levels. The Palaeolithic and/or Mesolithic were reached in each of the deepest trenches: A, G, G₁, F/A, H, HH₁. But only two trenches (each subdivided into two) have been systematically water-sieved: F/A (N and S) and HH₁ (A and B). All detailed studies of the Palaeolithic and Mesolithic remains are based on these two trenches, which represent a surface of about 10–20 m² (from bottom to top of the sequence), with a depth of sediments of over 5 m in HH₁, and 6 m in F/A. The other trenches, which were at best dry-sieved, have only been occasionally used for verification or as a complement.

THE UPPER PALAEOLITHIC

The Upper Paleolithic sequence can be divided into two major periods of occupation (each interrupted by smaller erosional breaks), separated by a hiatus of several millennia. Each major period corresponds roughly (but not exactly) to different functions and modalities of use of the site. The first period, c. 30,000–17,000 BP was dry and cold, and characterised by a steppe vegetation with *Alkanna*, *Lithospermum* and *Anchusa*. The second period, c. 12,000–10,000 BP, was characterised by a milder and more humid climate; the vegetation was a Mediterranean garrigue, comprising *Pistacia*, *Prunus*, *Pirus*, wild cereals and wild legumes.

First period: occupation before the Last Glacial Maximum

The first occupational phase (*Lithic phase I*),³ typologically akin to an Aurignacian, will not be discussed in detail here; it is known so far only from scarce lithic data. I believe, however, that the nature of the cave occupation was similar to what is found in the next two phases.⁴

Lithic phase II, radiocarbon dated to the 22nd or 23rd millennium BP, is separated from the preceding lithic phase by a discontinuity. The macrofaunal remains are dominated by equids and cervids (TABLE 29.1). There are no carbonised seeds, and the seeds of *Alkanna* sp., *Anchusa* sp. and *Lithospermum arvense* were probably brought in by animals. The molluscan remains are scarce: the small sea-shells may have been wind-blown, and there is no evidence that the land-snails (*Helix* sp., *Helicella* sp.) were intentionally gathered.

The lithic assemblage is characterised by its extremely unbalanced structure: backed bladelets (64% of which are single backed and obtuse, 12% double backed and pointed) amount to 80% of the total. Endsrapers, notches and laterally retouched pieces amount to no more than 5% each. The material is poor, and comprises only a few pieces in each excavation unit.⁵

Lithic phase III was not dated by radiocarbon, but the scarce lithic remains suggest cultural (and chronological) continuity. Pointed backed bladelets shift from double-backed to single-backed types, but this transformation (which can almost be qualified as ‘stylistic’) is not accompanied by any difference in the conception or techniques of debitage. The structure of the assemblage remains very unbalanced and is still heavily dominated by backed bladelets. The hypothesis of chronological and cultural continuity is confirmed by the stability of economic and palaeoenvironmental data: again equids and cervids predominate, the seeds are still uncarbonised, and molluscan remains are rare and most probably brought in by natural agency.

The occupation of the site during this first period must have been very limited, both in scope and intensity. The density of archaeological remains is very, very low. The cave seems to have been used only briefly and sporadically as a hunting camp, and subsistence activities were restricted to small-scale big game hunting. Pending systematic use-wear analyses, most of the lithic remains are provisionally attributed to the refitting of projectile inserts and the repair of the shafts.

3 This presentation will follow the lithic phasing, which provided the most detailed chronostratigraphic framework for these periods.

4 The interpretations concerning the nature of the cave occupation are mine: my colleagues share no responsibility if I have misinterpreted the data!

5 Excavations units mostly followed, as far as possible, sedimentological variations. In these levels, they usually covered the whole surface of the trench and their depth varied usually 2–8 cm.

TABLE 29.1: Synthetic data on the Palaeolithic of Franchthi (after Perlès 1995, modified).

Period	¹⁴ C BP	Botanical zone	Botanical species	Faunal phase	Faunal species	Marine mollusc zonation	Marine molluscs	Terrestrial molluscs	Lithic phase	Lithics (diagnostic types)
≥ 30,000 BP		Ia	<i>Alkanna</i> sp., <i>Lithospermum arvense</i> , <i>Anchusa</i> sp. (uncarbonised seeds)		Data not available	o	Species of small size such as cf. <i>Bitium</i> sp. (natural deposits)	Some <i>Helix</i> sp. <i>Pupillidae</i> , et <i>Helicella</i> sp.	I	Carinated endscrapers, twisted bladelets
c. 23rd millennium BP	22,330±350 21,480±1270	Ib	<i>Alkanna</i> sp., <i>Lithospermum arvense</i> , <i>Anchusa</i> sp. (uncarbonised seeds)	A	Equids and cervids, tortoise, hare, lizard, birds	o	<i>idem</i>	<i>Helix</i> sp., <i>Helicella</i> sp. et <i>Pupillidae</i> , more abundant	II	Bladelets with 1 b.a., obtuse, bladelets with 2 b.a. pointed
c. 20th/22nd millennium BP		Ib	<i>Alkanna</i> sp., <i>Lithospermum arvense</i> , <i>Anchusa</i> sp. (uncarbonised seeds)	A	No change	o	<i>idem</i>	<i>idem</i>	III	Bladelets with 1 b.a., obtuse and pointed
13th millennium BP	12,540±180	II	<i>Alkanna</i> sp., <i>Anchusa</i> sp., <i>Lithospermum arvense</i> , <i>Medicago</i> sp., <i>Lens</i> sp., <i>Vicia ervilia</i> , <i>Pistacia</i> sp., <i>Prunus amygdalus</i> , <i>Vitis silvestris</i> , <i>Avena</i> sp., <i>Hordeum</i> sp.	B	Large bovids, caprids (ibex or chamois) cervids, equids.	o			IV	Microburins, la Mouillah points, bladelets with b.a., obtuse, truncated bladelets
2nd half of 12th millennium	11,240±140	II	<i>Alkanna</i> sp., <i>Lithospermum arvense</i> , <i>Lithospermum officinale</i> , <i>Pistacia</i> sp., <i>Prunus amygdalus</i> , <i>Pyrus amygdaliformis</i> , <i>Hordeum</i> sp., <i>Vicia lathyris</i> , <i>Galium</i> sp., <i>Liliaceae</i>	C	Reduction in large bovids and equids, increase in cervids and suids, some fish	o	<i>Patella</i> spp., <i>Monodonta</i> spp., <i>Gibbula</i> spp.	<i>Helix figulina</i> in very great abundance	V	Bladelets with 1 b.a., obtuse, bladelets with 2 b.a. pointed, triangles, microburins
11th millennium	10,880±160 10,460±210 10,840±510 10,260±110	II/III	<i>Alkanna</i> sp., <i>Lithospermum arvense</i> , <i>Lithospermum officinale</i> , <i>Pistacia</i> sp., <i>Prunus amygdalus</i> , <i>Pyrus amygdaliformis</i> , <i>Lens</i> sp., <i>Avena</i> sp., <i>Hordeum</i> sp.	C (for the earliest part)	Poor. Dominance of cervids, caprids and suids. Fewer fish?	I	<i>Cyclope neritea</i> , <i>Cerithium vulgatum</i> , <i>Patella</i> sp., <i>Monodonta</i> sp., <i>Gibbula</i> sp.	Extreme abundance of <i>Helix figulina</i>	VI	<i>idem</i> , more segments and trapezes

Second period: the Tardiglacial

The second period follows a hiatus recognised in all trenches by environmental and geological data; it was confirmed by ^{14}C dates. This hiatus covers the Last Glacial Maximum, and whether the cave had actually been occupied at the time is unknown.

This second period leads us well into the Tardiglacial. The striking feature is the rapid 'Mesolithisation' of both cultural and economic data. Compared with early Holocene sites elsewhere in the Mediterranean basin, the material from Franchthi would already qualify it as a 'Mesolithic' site on the basis of its late Pleistocene material. This is in part related to environmental conditions: contrary to the position in Northern Greece, the increased humidity in the Argolid does not lead to the development of a dense deciduous forest, but to a garrigue, open enough to allow for the presence of wild cereals and legumes. This led to transformations in the available resources, but also to a major (though gradual) shift in the nature of the cave occupation.

Lithic Phase IV dates from the 13th millennium BP. Although backed bladelets are still predominant, the assemblage is characterised by important conceptual, technical, typological and structural changes. The production of blanks becomes undifferentiated, and there is no distinct reduction sequence for the production of bladelets; the microburin technique is now used for the shaping of pointed backed bladelets, and microburins constitute 30% of the retouched pieces. Typological changes include the related appearance of numerous 'La Mouillah points'. On the whole, there is a slight increase in typological diversity (not solely due to increased sample size) and a slightly more balanced structure: backed bladelets drop from 80% in phase III to 45% in phase IV (65% without the microburins). Finally, there is a sharp increase in the density of material. All this would suggest, *a priori*, a more intensive use of the cave and slightly more varied activities.

More diversified subsistence activities are confirmed by an enlarged faunal spectrum, which now includes bovids and caprids, and by the appearance of carbonised seeds. Almonds, pears, vine, pistacios, wild cereals and legumes are now gathered around the site. Yet, one must wait for the following two phases before this trend becomes more pronounced. So far, the site may still be interpreted as primarily a hunting site, but the gathering of plants suggests the presence of women and children, confirmed by the presence of shed milk teeth. Rather than a simple halt, Franchthi may have become a logistical hunting camp.

Lithic Phase V, dating from the early 12th millennium BP, sees the appearance of sea-shells, of massive amounts of landsnails (*Helix figulina*) and of small-scale fishing. At the same time, the larger mammals (equids and bovids) show a sharp decrease. Cervids and suids are now predominant, probably because they were better adapted to the extension of shrubs and tough garrigue vegetation.

Several important technical, typological and structural changes can be highlighted in the lithic assemblage, in spite of its small size. The microburin technique is no longer used for the production of pointed backed bladelets, but for the first true geometrics (isosceles triangles). As in the very earliest phases, single backed bladelets are again mostly obtuse, and pointed backed bladelets are double-backed (akin to Sauveterre points). The trend towards a diversification of the tool-kit and a more even distribution of tool types increases. In particular, 'transformation tools' (notches, denticulates, endscrapers, etc.) are better represented.

Despite superficial resemblances with the lithic assemblage of the preceding phase, the changes are of a magnitude that indicates, in my opinion, a different cultural tradition (cf. the role of the microburin technique, and the nature of the inserts for hunting weapons, in particular). The transformations in the macrofaunal assemblage support the hypothesis of an occupational break between phases IV and V, which would allow for these cultural transformations. At the same time, they are accompanied by a transformation of the role of the cave and the nature of its occupation. The importance and diversity of gathering activities (plants, land-snails, sea-shells, small fish), indicates a generalised exploitation of the environment, a 'broad spectrum economy'. I think that this reflects the occupation of the cave by complete domestic groups, now practising the whole range of activities typical of a 'base camp'. This new mode of occupation continues throughout Lithic Phase VI, and, with modifications, throughout the Mesolithic.

Lithic Phase VI, radiocarbon dated from the 11th millennium BP, is very rich in lithic remains. This time, however, the changes are only typological: the modes of production of the blanks and retouched tools are unmodified. A few new types (mostly new geometrics: segments and trapezes) are introduced, and are added to already existing ones. This results in an increased diversity, which is in part, but only in part, related to an increase in sample size. Simultaneously, the trend towards a more even representation of transformation tools *vis-à-vis* the projectile inserts (the backed bladelets and geometrics) is amplified. Rare bone tools, grinding implements and possible ornaments increase the diversity of the assemblage; however, there is clear cultural continuity between phases V and VI, in spite of a brief temporal hiatus indicated by radiocarbon dates and changes in the marine molluscan species.⁶ The subsistence base is characterised by a further decrease in the large mammal bones recovered from the trench, far fewer fish bones and a peak in representation of land snails. Paradoxically, Melian obsidian is present for the first time.

6 Shackleton and van Andel relate these changes to eustatic rise and coastal transformations (Shackleton and van Andel 1980).

In conclusion, this second period witnesses the onset of a generalised, broad spectrum economy, based on the gathering of land and sea resources (plants, molluscs and fish) and the hunting of deer and boar. It presents well-affirmed 'Mesolithic' characteristics, as illustrated, for instance, by the dense shell middens. Interestingly, the lithics also show definite 'Mesolithic' characteristics, with the early presence of microburins and geometric microliths, a millennium or two earlier than in the rest of Europe. The nature of the cave occupation has now changed drastically: it is intensively occupied, and constitutes a stable basis for very diversified activities. The resources exploited would have been available over a long period of the year, and Franchthi can be interpreted as a seasonal base camp, occupied not only by hunters, but by complete residential groups.

THE MESOLITHIC

Given the 'Mesolithic' characteristics of the Final Pleistocene occupations at Franchthi and the absence of drastic environmental changes (transformations had occurred earlier), one would have expected a 'typical' Mesolithic site during the early Holocene. But such is not the case. Compared with European Mesolithic sites, Franchthi is most atypical, and this appears to hold true also for the other Mesolithic sites in Greece.

As shown by the lithic traditions, Greece became more and more isolated from the rest of Europe, S Yugoslavia and Albania excepted, during the Tardiglacial. This isolation appears to have been reinforced during the Mesolithic, and both the economic strategies and technical traditions reveal idiosyncratic features, not found, or found only much later, in the rest of Europe.

Drastic changes in lithics are observed in the Lower Mesolithic (*Lithic Phase VII*), dated to the first half of the tenth millennium BP. Backed bladelets and geometrics, instead of gaining importance, decrease from 60 to 8%, and microburins from 12 to 0.2%. The tool-kit is now dominated by 'transformation tools' (laterally retouched pieces, notches, denticulates and endscrapers), in contrast with the Palaeolithic, when weapon inserts always predominated. Furthermore, it is a very crude industry (the 'uglylithic'!), expediently manufactured on casual flakes, with no predetermination of the blanks. The few microliths are all of Palaeolithic types, and I suspect they are mere contaminants.

The disappearance of projectile inserts in the Lower Mesolithic could either reflect radical changes in hunting techniques (with the use of traps, since bone and antler points are still absent) or very limited big game hunting at the site. Bones of large animals (boar and deer) are indeed rather scarce, but full publication of the faunal remains is needed, before the contradictory relations between microliths and faunal remains in phases VI and VII can be fully understood. Changes in hunting techniques are also possible: a few fragmen-

tary bone points were recovered from phase VII (used as projectile points?) and traps may have been used in the now more wooded environment. Finally, the temporal hiatus between phases VI and VII renders any discussion about cultural continuity fragile. All that can be said is that the basic conception of the debitage has not changed.

Franchthi is not unique. Other Mediterranean Mesolithic sites are also very poor in microliths, in spite of careful recovery techniques.⁷ What is striking is that the tool-kits are also very crudely fashioned (probably because the now predominant transformation tools required no technical investment),⁸ and everywhere excavators emphasise the importance of gathering activities. Should these sites, Franchthi included, be considered as seasonal, specialised sites? Can we expect to find contemporaneous inland sites where big game hunting was important and microliths well represented? Possibly, but not necessarily. After several decades of surveys and excavations, the rarity of inland Mesolithic sites⁹ must be considered seriously. As shown by Bailey *et al.* (1986; see also Bailey, this volume), even Late Upper Palaeolithic Greece was sparsely populated, and environmental changes may well have introduced a further factor of disequilibrium. Judging by the number of prehistoric findspots from the Middle Palaeolithic to the Mesolithic, the scarcity of Mesolithic sites appears as the outcome of a long-term trend of progressive diminution in the number of sites and findspots. As climatic conditions 'improved' after the Pleniglacial, large mammals such as bovids and equids must have found it increasingly difficult to adapt. Deer and boar are more ubiquitous, but the dense forests of Northern Greece may have rendered their exploitation difficult, whereas the dry Mediterranean garrigue in the S could not support a high density of animals. On the other hand, the garrigue offered varied plant resources, but at a high energetic cost. If, as I am arguing, plants and molluscs constituted the bulk of the diet, the density of population in the Mesolithic must indeed have been low.

But the interpretation of the Lower Mesolithic occupation at Franchthi is rendered more complex by the fact that, for the first time, the symbolic importance of the cave is clearly demonstrated: 15–30 different individuals, of all sexes and ages, were cremated or buried in the cave, possibly in collective burials.¹⁰ This might reinforce the hypothesis of a 'specialised' site, but the specialisation, then, would not be primarily economic.

Whatever the case, the ritual importance of Franchthi is no longer attested in the Upper Mesolithic, when

7 See Perlès 1990.

8 Use wear analyses have shown that they were mostly used as wood-working and reed-working implements (Vaughan 1990).

9 The only inland Mesolithic site known to date is Theopetra (see Kyparissi-Apostolika, this volume).

10 Cullen 1995.

TABLE 29.2: Synthetic data on the Mesolithic of Franchthi (after Perlès 1995, modified).

Period	¹⁴ C BP	Botanical zone	Botanical species	Faunal phase	Faunal species	Marine mollusc zonation	Marine molluscs	Terrestrial molluscs	Lithic phase	Lithics (diagnostic types)
2nd half of 10th millennium	9,430±160 9,300±100 9,290±100 9,270±110 9,250±120 9,150±100 9,060±110	III	More abundant and diverse remains. <i>Pistacia</i> sp., <i>Pyrus amygdaliformis</i> and <i>Prunus amygdalus</i> dominant. Legumes and wild cereals always regularly present.	D1	Dominance of cervids, with suids and fox. Hare and birds. Caprids absent. Some small fish	II	<i>Cyclope neritica</i> dominant. Diverse assemblage	Lesser abundance of <i>Helix figulina</i>	VII	Disappearance of microliths and microburins. Notches, endscrapers, denticulates
1st half of 9th millennium	(9480±130) 8740±110 8940±120 8710±100 8730±90 8530±90	IV V	Reappearance of uncarbonised seeds of <i>Lithospermum arvense</i> . Small quantities of <i>Pistacia</i> sp., <i>Lens</i> sp., <i>Prunus amygdalus</i> , <i>Hordeum</i> sp., <i>Avena</i> sp.	D2	Appearance in large quantities of tuna vertebrae (20 to 40% by volume of bones). Red deer and boar.	II	<i>idem</i>	No important anthropogenic deposits of molluscs	VIII	<i>idem</i> , much more numerous atypical microliths and trapezes. No microburins
end of 9th millennium	8190±80	V	Very poor. Same species as before		Not published. Quite few. Fewer remains of tuna.	III	Assemblage dominated by <i>Cerithium vulgatum</i>	<i>idem</i>	IX	Some notches, endscrapers and denticulates

only one child burial and a few scattered bones were recovered. The nature of the cave occupation shifts again: during *Lithic Phase VIII* (second half of the ninth millennium BP), the site becomes the focal point of large-scale tuna fishing. Simultaneously microliths reappear in large quantities. Most are very unusual: they have neither points nor cutting edges, but two, three or four sides with an abrupt retouch and a roughly geometric shape. I suspect these microliths are related one way or another to the fishing activities:¹¹ preparation of equipment (nets, traps), capture of the fish and preparation for storage. They disappear after the Upper Mesolithic, when Franchthi ceased to be the focus of large scale (and certainly collective) fishing activities. Other microliths (many fewer) are more typical of the Mesolithic; but, contrary to what obtains in the rest of Europe, these pointed backed bladelets or trapezes are never manufactured with the microburin technique.

The Final Mesolithic (*Phase IX*), of the ninth millennium BP, is a very poor occupation phase. Large scale tuna fishing has stopped, faunal and floral remains are scarce, and only sea-shells remain in relative abundance. The industry is similar to that of the Early Mesolithic, with a crude assemblage dominated by laterally retouched pieces, notches and denticulates. The presence of a few typical transverse arrow-heads, with concave sides, is the only sign of a typological development. The cave occupation reverts to temporary and small scale stays, exploiting what appears to be rather meagre subsistence resources.

The presence of several major changes in the subsistence base raises the problem of cultural continuity during the Mesolithic. An analysis of the nature of the transformations in the lithic assemblage supports the hypothesis of cultural continuity. In contrast to the Palaeolithic, changes do not relate to the conception of the debitage, while typological changes are only of an additive/subtractive nature: new tool-types are added to an unchanged substratum, without provoking a general reorganisation of the tool-kit, as new activities appear. And again they disappear, leaving an unchanged basic tool assemblage.

THE TRANSITION TO THE NEOLITHIC

Finally, there is the question of cultural continuity in the transition between the Mesolithic and the Neolithic. Because of its long, so-called 'continuous' sequence, Franchthi is widely used as an example of 'local' Neolithisation. Without going into all the details, let us simply say that this perspective does not fit the available data. First, there is nothing in the subsistence economy of the Late and Final Mesolithic that could be deemed as 'pre-adaptive' to an agro-pastoral economy. Even the locally available wild cereals, such as *Hordeum*, are absent from the latest Mesolithic levels. Aside from the temporary episode of tuna fishing,

there is no indication of a trend towards a more intensive exploitation of selected species; nor is there any gradual increase in the size of the lentils, which could have indicated proto-agricultural practices.¹²

There is no doubt, however, that hunter-gatherers from Franchthi came into contact with Neolithic peasants and modified part of their subsistence basis accordingly. This is reflected in the Initial Neolithic phase (*Lithic phase X*) by the presence of selected domesticated species: mainly wheat, lentils and ovicaprids of Near Eastern origin.¹³ The basic tool kit maintained the traditions of the Mesolithic, but a few pieces, such as pressure-flaked blades and trapezes (possibly traded, since there is no evidence of local manufacture), clearly belonged to a different, Neolithic, tradition. Whether pottery was in use during the Initial Neolithic is still debated, even amongst Franchthi experts.¹⁴ The 19 sherds recovered in this well-defined stratum can be interpreted as evidence of contamination, or as evidence for a very limited use of pottery.

As yet there is no indication that the site was used on a more permanent basis than before. The scarce remains rather indicate the persistence of a mobile way of life, with periodic (but brief) occupation of the site.

In this respect, the contrast with the following Early Neolithic is important. Suddenly (and probably after a break in occupation), one witnesses a fully developed Early Neolithic, with the complete range of domesticated species found in Greece, a different lithic assemblage, pottery, bone tools, grinding implements, celts, ornaments, etc. At the same time, the focus of occupation shifts from the cave itself to the outside 'Paralia'. The density of remains is spectacularly higher. No traces of earlier, Mesolithic, traditions are retained. The break is complete, and the Early Neolithic from Franchthi is indistinguishable from that of any other Early Neolithic site. A claim for continuity, at this stage, can rest only on the presence of human occupations both before and during the Neolithic. But real continuity in occupation is contradicted by stratigraphical and archaeological data. Nothing indicates that the Early Neolithic groups that settled at Franchthi for several centuries had any connection with the earlier hunter-gatherers who had partially adopted a Neolithic economy.

Rather than a 'continuity of development', what the Franchthi sequence exemplifies remarkably is how different populations (and sometimes the same ones) succeeded in devising very different, but successful, strategies of exploitation, in an environment that had been more or less stable for millennia. The dry southern

11 Preliminary use wear analyses have been inconclusive (Vaughan 1990).

12 Hansen 1992.

13 *idem*.

14 See Perlès 1990; Perlès in prep.; Vitelli 1993.

Argolid, which was probably never covered by dense forests or rich pastures, seems to have offered better long-term opportunities for prehistoric occupation and drastic shifts in the subsistence basis than did the better-watered or richer regions of the N.

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