

## Mesolithic to Neolithic in Greece. Continuity, discontinuity or change of course?

**Kostas Kotsakis**

Department of Archaeology, Aristotle University of Thessaloniki, Greece

E-mail: Kotsakis@hist.auth.gr

**ABSTRACT** – *The paper reviews the status of the Mesolithic/Neolithic interface in Greece. It is argued that the old dichotomy between “indigenists” and “diffusionists” concerning the neolithization of Greece is simplistic. Instead it is proposed that the discussion should be focused on two separate issues: one factual, emphasizing the form of phenomena and their archaeological description and one interpretive focusing more on content. Concerning the first issue, the hypothesis is made that the discontinuity in the Mesolithic/Neolithic interface is probably the result of the incomplete archaeological record and the biased research on long-term Neolithic sites in Thessaly. As for the second issue, the shift to the Neolithic can be better understood as an effort to control society and its conflicts by manipulating physical and conceptual resources and by constructing new identities.*

**IZVLEČEK** – *V članku predstavljamo hipoteze o prehodu iz mezolitika v neolitik v Grčiji. Menimo, da je staro nasprotje med “autohtonisti” in “difuzionisti” o neolitizaciji Grčije preveliko poenostavljanje. Zato predlagamo, da se razprava osredotoči na dve ločeni vprašanji: prvo se tiče dejstev, kjer je poudarek na obliki pojava in njegovem arheološkem zapisu, drugo pa je interpretativno in osredotočeno bolj na vsebino. Glede prvega vprašanja postavimo hipotezo, da je diskontinuiteta prehoda mezolitik/neolitik verjetno posledica nepopolnega arheološkega zapisa in pristranskih raziskav na kontinuiranih neolitskih najdiščih v Tesaliji. Glede drugega vprašanja menimo, da lahko prehod v neolitik bolje razumemo, če v njem vidimo prizadevanje za nadzor družbe in njenih nasprotij z obvladovanjem fizičnih in pojmovnih virov in z oblikovanjem novih identitet.*

**KEY WORDS** – *Neolithic Transition; Mesolithic; Domestication; Social Identity; Conflict; Anatolia; Thessaly*

### INTRODUCTION

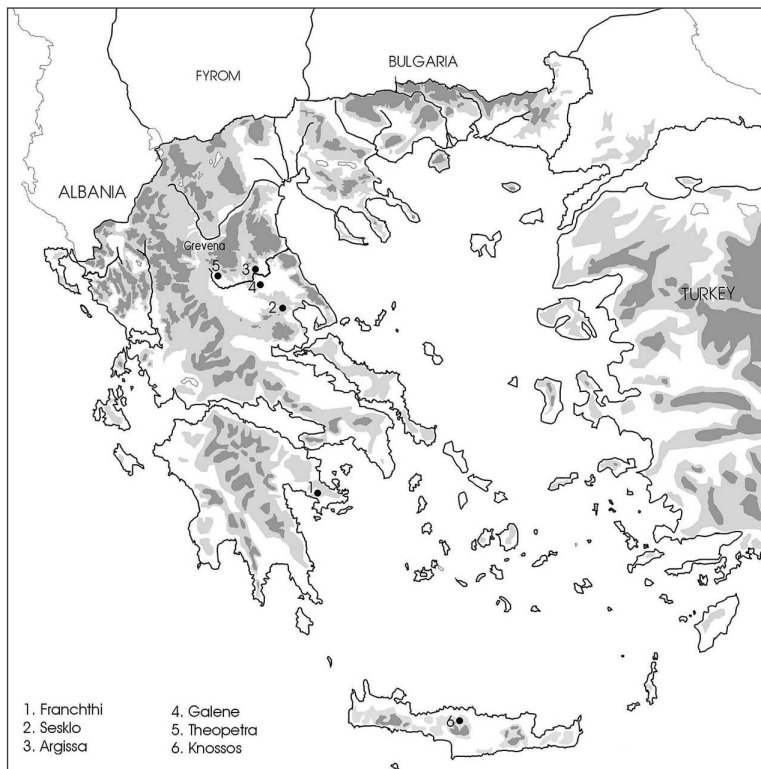
Although the Neolithic has been invariably related to the productive activities of farmers as opposed to hunter-gatherers (*e.g. Cauvin 2000*) the current idea that research on the beginning of the Neolithic should focus on describing a process rather than an event has made the dividing line between these two conditions less distinct and the archaeological mental barrier involved open to deconstructive commentary (*e.g. Pluciennik 1998*). The credit for bringing down this conceptual boundary between hunter-gatherers and farmers can be traced as far back as the School of palaeoeconomy at Cambridge and the relevant ecological models of change (*Higgs and Jarman 1969; Dennell 1983*), even though these mo-

dels did not form the first line of attack of the availability model introduced by Zvelebil and Rowley-Conwy few years later (*Zvelebil 1986*). It is generally accepted that the availability models and the fluidity introduced in demarcating hunter-gatherers vs. farmers have radically changed the landscape of Neolithic origins and brought the dynamics of the indigenous population on stage.

For the Greek Neolithic, however, despite earlier attempts to relativize the Mesolithic/Neolithic dichotomy (*e.g. Kotsakis 1992*), the debate is still largely dominated by the “oriental mirage”, i.e. a straightforward process of demic diffusion from the Near

East. Certainly, we are no longer caught in the old - and simplistic - polarized dichotomy between “indigenists” and “diffusionists” which dominated in the times of scholars like Theocharis (*Theocharis 1973*) and Weinberg (*1965*). Indeed Theocharis (*1967*) was the first to open this debate by questioning the generic Childean paradigm of the Near Eastern predominance and introduced a more favourable angle to the possibility of an indigenous course to neolithisation. After more than thirty years, scholars came to realize the subtleties and the complexities involved in this process towards the Neolithic in Greece and are prepared to examine the variable paths of the development of agriculture and pastoralism (*Halstead 1989; Halstead 1996a*). The initial polarity of the issue is considered today archaeologically parochial, even redundant, but, as Zvelebil has rightly pointed out, still remains politically relevant (*Zvelebil 2000b; Zvelebil 2000a*). Ruth Tringham (*2000*), for example, has indicated how the old Childean idea of the bridging role of the Greek peninsula and the Balkan countries has acted as an antidote to the deep seated notion of the Balkans always forming a buffer zone between the Christian Empires of Europe and the Islamic Empires of the Middle East. Similarly, Özdoğan (*1997: 1–2*) described as “reactionary” and “eurocentric” every model that questioned the predominance of Anatolian origins of the prehistory of Southeastern Europe.

The “wave of advance” by Ammerman & Cavalli Sforza (*1984*) has swept in its unifying simplicity much of the resistance of local developments by subsuming them - in the last instance - under a unidirectional course. I will not discuss here its spatial (hence quantitative and measurable) conception of a predominantly social (i.e. qualitative and interpretative) development that portrays the Neolithic as a physical phenomenon and a function of space and time. Although undoubtedly the diffusion of the Neolithic is a physical phenomenon happening in space and time (like, by analogy, the spread of a virus) it is equally a socially embedded process, taking place in social space and time, which, however, are not part of the model. The social context



**Fig. 1.** The distribution of “the Late Mesolithic and Early Neolithic” sites in Greece.

of diffusion is scarcely touched upon, and this is the deeper reason for a certain uneasiness felt by research informed by social anthropology against such models. For, while in the analogy cited above, the mechanisms for the spatial and temporal transmission of the virus are included in the model as a straightforward biological function, the mechanisms and conditions for either the acceptance or the success of the transportation of the Neolithic package are not, except in the isolated cases where the Neolithic ways are considered superior by definition and their benefits self-evident, a clearly biased political consideration which probably merits no further comment (*Zvelebil 1996*). Recently, there is a more or less general consensus that these (conceptual) mechanisms and conditions are the primary focus of research, the unknown entities about which we need to know more (*e.g. Hodder 1990*). In contrast to Cauvin (*2000*), however, I fail to see, why these process are relevant in the case of the “original” inception of the Neolithic, but beside the point and suppressed when we are dealing with the “secondary” Neolithic. In any case, diffusionist models of this sort, stemming as they do from the positivist phenomenalism of the 1970’s, iron out all the fine grain of social context, which some people think contemporary archaeology is, after all, about. This I consider to be the most negative aspect of the dif-

fusion models, demic or of any other variety (cf. *Zvelebil 2000a*). Eventually, it seems that there are two clearly distinct issues here, the conflating of which has created considerable confusion. One is an issue of form and description, occasionally leading to time dependent quasi-historical reconstruction and/or cultural affinities that underline “key” archaeological facts and rest on conceptions of normative archaeological cultures. The other is an issue of content and interpretation that emphasizes the interplay of agency and structure in the process towards neolithisation. Here of prime importance are socially embedded practices such as competition, conflict and group identity, and their recognizable signatures in the archaeological record. In my opinion, there is no way to ignore the latter issue by using exclusively arguments from the former or any merit in disregarding completely the former in favour of the latter, interpretative issue. I will try, therefore, to discuss both issues in turn.

### FORM AND DESCRIPTION

The Greek situation is different from that of the Northern Europe, where the “availability model” was initially introduced, in at least two significant ways: (a) the absence of an active stock of hunter-gatherers, and (b) the early adoption of farming. While the presence of Postglacial hunter-gatherers in northern Europe is well-documented (*Bonsall 1989; Zvelebil, Dennell and Domanska 1998*), their existence in the Greek peninsula follows the thin settlement pattern observable in the Balkans (*Chapman 1989; Chapman 1994; Tringham 2000*). The most recent survey of the Mesolithic in Greece reports less than a dozen sites (*Runnels 1995; also cf. Runnels 1996*), only two of which have been excavated and published. Furthermore, Mesolithic sites are unequally distributed throughout the Greek mainland, whole areas of which appear to be devoid of human presence. Indeed, the conclusion often drawn is that large parts of Greece were completely uninhabited during the early Postglacial. For Thessaly in particular, the total absence of Late Palaeolithic and Mesolithic habitation has been accepted as a fact by a number of scholars (e.g. *Perlès 1988; Demoule and Perlès 1993; van Andel and Runnels 1995*). Furthermore, the few Mesolithic sites known from Greece have a coastal orientation and there is an apparent discontinuity between Mesolithic and Neolithic settlement patterns (*Runnels et al. 1999*). According to *Runnels (1995: 725–726)*, this evidence, together with the break of the Upper

Palaeolithic tradition and similarities in material culture, indicates the intrusive and sea-faring character of the Mesolithic in Greece within the broader eastern Mediterranean context.

The same argument for the divergence between developments in the Northern, Central (cf. *Gronenborn 1999*) and Southeastern Europe is further supported by the early date of the emergence of Neolithic settlements in Greece. Although the dates from the earliest Neolithic are not many, they point towards the beginning of the 7<sup>th</sup> millennium in the case of Franchthi (*Coleman 1993*). This will make the Greek developments roughly contemporary with Catalhöyük East, although the dates from Thessaly (Sesklo, Achilleion, Argissa and Otzaki) are not as conclusive as we will see later on (*Thissen 1999a*). Coupled with the very thin presence of hunter-gatherers in the Greek peninsula in general, this early date makes a long availability phase clearly implausible, another point of weakness for the application of the model in Greece.

Research usually contrasts Franchthi cave in the Argolid, Peloponnese with the open Early Neolithic Thessalian sites, such as Argissa and Sesklo. Following a long Palaeolithic and Mesolithic use of the cave, the Neolithic Franchthi is examined as a possible local adaptation, while Argissa, Sesklo and the Thessalian Neolithic as a clear example of an exogenous, “allothonous” Neolithic with no contribution from an indigenous hunter-gatherer population. As we have already seen, it is generally believed that such a population did not exist in that area. The main argument comes from material culture and more specifically from the lithic analysis: in terms of technological choices and operational sequences, Franchthi is closely tied to Mesolithic “traditions”, while Thessalian sites show, according to *Perlès (1990: 130–137; 1988)*, a completely new lithic technology, which is tightly linked to the fully developed Neolithic. *Perlès* has discarded altogether the earlier claim by *Theocharis (1967)* and *Tellenbach (1983)* for a Mesolithic descent of the early Neolithic Thessalian industries, but in doing so she had to rely on a comparison between cave and open sites, clearly sites representing different adaptations and perhaps occupying different positions of their respective settlement networks. Both types were equated as evidence for sustaining a diversified pattern for the introduction of the Neolithic in Greece, with the Franchthi cave representing some form of contact between local foragers and migrant farmers, and the Thessalian open sites as evidence for an in-

trusive Neolithic stock practicing farming. But leaving aside the unifying narrative of the long term (e.g. *Demoule and Perlès 1993*), and turning instead to the local and the temporary, the difference between those sites may not be solely attributable to divergence in the course towards the Neolithic. There can be at least two alternative explanations that can account for it: a. a chronological difference, which would make the Thessalian sites later and therefore exhibiting more established and recognizable “Neolithic” traits, b. a diversified settlement pattern, of which two possible, but distinct poles, would be open permanent year-round sites and caves or less permanent settlements. Needless to say, arguments involving social dimensions such as kinship relations and marriage patterns are patently relevant.

In any case, a general consensus has been formed that the original Neolithic groups arrived in Greece from somewhere else and that they engaged in either interaction with local population (Franchthi) or penetration in an empty area (Thessaly). In summary, the main arguments in favour of this modified colonization process, apart from the absence of Mesolithic sites, are the absence of the wild progenitors of some of the plants and animals that appear as part of the Neolithic package with the new material culture, the relations of this new material culture with the Anatolia, broadly speaking, the spatial discontinuity between Mesolithic and Neolithic settlements. On the one hand, this line of arguments is a considerable step forward, rendering the sweeping “wave of advance” model somewhat redundant. There is no need for the prediction of a single direction and of a rate for this migratory movement, which on the current – admittedly sparse – evidence is clearly inapplicable in Greece (*Zvelebil 2000b: 69*). On the other hand, the idea of interaction with indigenous population opens the possibility for a whole new range of questions, mainly concerning the contents of this “package,” which replaced either rapidly or gradually the Mesolithic material culture.

The basic arguments that support this moderate colonization hypothesis (cf. *Zvelebil 2000a*) are, of course, debatable. Chapman (*1989; 1994*) has argued that the present distribution of Mesolithic sites is very much affected by the rise in sea-level and sedimentation of valleys (*Lambeck 1996*). The work of van Andel himself in the Thessalian plain indicates that alluviation would have covered the smallest sites, i.e. those that did not developed into long-lasting tall tells of the Early and Middle Neolithic

(*van Andel, Zangger and Demitrack 1990; van Andel, Gallis and Toufexis 1995: 131*). Consequently, the pattern available to research is the selective outcome of consecutive cycles of alluviation. A recent chance find seems to confirm the suspicion that sedimentation of the surface of the Thessalian plain is much more extensive than usually thought: the Late Neolithic site of Galene, near Larisa, was found under a layer of sedimentation 0.80 m thick (*Toufexis, pers. comm.*) The site, being of the flat, extended type was totally unobtrusive and therefore unknown to research so far. Taking these two geomorphological factors into consideration we conclude that many coastal or inland riverside sites of the Mesolithic or, more importantly, many short-term Early Neolithic sites remain buried under alluvium.

The argument for the absence of indigenous population in Thessaly became less plausible after the publication of reports from the Theopetra cave in Eastern Thessaly. The on-going excavation at that site since 1987 has produced a long sequence of radiocarbon dates that cover the span from the Middle Palaeolithic to the Early Bronze Age (*Kyparissi-Apostolika 1998; 1999*). The Mesolithic deposits are dated by seven dates ranging c. 9780–6700 cal BC, thus partially overlapping with the earliest Neolithic dates from Franchthi (*Kyparissi-Apostolika 1999: 237–238*). Theopetra, being a small cave, would accommodate only a small group of foragers, which, to ensure demographic viability must have been part of a larger breeding population moving in the wider region around the cave. It is very likely that this group, tapping different ecological resources, used Theopetra cave only as a station in a more extensive network within a mobile regime. The semi-mountainous plateau region of Grevena, just northwest of Theopetra, could be a zone of foraging activity and the implication is that open sites may remain undiscovered in that region. Among the archaeobotanical remains collected from the Mesolithic deposits of Theopetra wild einkorn (*triticum boeoticum*) has been reported together with wild barley (*hordeum vulgare*), wild goat and possibly bovinds (*Kyparissi-Apostolika 1999*). It is perhaps no coincidence that the Grevena region is one of the present-day habitats for wild einkorn (*Zamanis et al. 1988*). Although specialist analysis seems to exclude the Balkans as a site of primary domestication of wild einkorn so far (*Heun et al. 1997*), the presence of the plant in the Mesolithic deposits of Theopetra, if proven accurate, merits special attention in this context. In this sense, the abrupt change in the botanical and faunal record with the introduction of domesticates,

one of the arguments for the exogenous Neolithic, (e.g. Hansen 1991), might need to be re-evaluated. Franchthi cave in the future may not stand as the single case in Greece that provides some evidence for local pre-adaptation of domesticated cereals (Halstead 1996:299).

The safest conclusion is that the role of Mesolithic human activity in Thessaly has to be drastically revised. Similarly, the absence of any formative stage and the sudden appearance of the full Neolithic “package” need reconsidering. Discontinuity in Thessalian prehistory in the Mesolithic/Neolithic transition is one recurring argument in favour of the colonization process, but on the evidence of Theopetra, discontinuity need not be an inescapable conclusion any more. The sites excavated in Thessaly in the 1950’s and 1960’s were prominent tells that represented long-term permanent habitation. Research of that time had a definite bias for long-lived sites because it was felt that tells could provide more information for the dominant typo-chronological concerns of that period (e.g. Milošević 1960). In my view, long-lived tells represent successful settlements that succeed an initial experimental phase of cultural and productive acquaintance and appropriation of the specific environments. During this hypothetical phase, short-term settlements, possibly in environments such as those predicted by van Andel & Runnels (1995) can be a viable probability. Research up to now has never considered this option seriously, trapped in the post-War mainstream ideas, which placed the early deposits of Sesklo (Theocharis 1967) and Argissa (Milošević 1960) at the very start of the Neolithic sequence in a debatable Aceramic phase (Bloedow 1991) preceding an early monochrome pottery phase. But even so, geomorphological factors would make the identification of such sites extremely difficult.

On the other coast of the Aegean, in western Turkey, which in many respects is analogous to mainland Greece, recent research has offered new evidence on the Aceramic stage of the Neolithic. Surface survey in the Southern Marmara region identified two Aceramic sites with deposits rich in lithic assemblages (Özdoğan 1997; Özdoğan and Gatsos 1998). According to Özdoğan the sites predate the Archaic (ceramic) Fikirtepe phase and they lack microlithic elements, including micro-blades, but incorporate large blades. If I read Özdoğan correctly, these industries are considered as a possible bridge between Epi-Palaeolithic micro-blade traditions (like e.g. Ağaçlı) and the large blades of the ceramic Neo-

lithic (Özdoğan 1999:211–212), while the coastal Fikirtepe culture incorporates many elements of the Ağaçlı industries such as micro-blades, and backed bladelets (Özdoğan and Gatsos 1998:213). There are two useful conclusions one can draw from these observations that possibly concern Thessaly as well: (a) that Aceramic sites may be separate from fully ceramic sites like e.g. Illipinar, (b) that the difference between the pre- or formative Neolithic and the full-fledged Neolithic industries can be less sharp than usually assumed, and consequently the argument for the total break between Neolithic and local Mesolithic traditions becomes much weaker, at least in principal. Interestingly, the Aceramic sites of southern Marmara are all located on high plateaus rather than in alluvial plains, so probably represent tiers in a wider network of settlements. An idea of the possible complexity of intersecting settlement patterns can be gained from a Thessalian example. Recent research in the Grevena plateau identified a number of Early Neolithic sites of brief duration (Wilkie and Savina 1997). One of them has been excavated (Toufexis 1994) and, although dated to the final stage of the Early Neolithic, the differences from the major tell sites of the eastern Thessalian plain in duration, stratigraphy, material culture and architecture are paramount.

The possible date of this proposed initial phase in the Thessalian Neolithic could be a matter of some consideration. The later date for the Mesolithic of Theopetra (6700 cal BC) overlaps with the dates for the Aceramic in Franchthi, but not with the Aceramic in Thessaly (Coleman 1993:209–211). Sesklo and Argissa do seem to start later than both Franchthi and Knossos (Bloedow 1991:42, Fig. 11; Thissen 1999a:192–193), and this might be associated, to some extent, with the well-known difference described in detail between the industries of “Aceramic” Franchthi and the Thessalian “Aceramic” (Perlès 1988; Perlès 1990). Sesklo and Argissa also seem to start later than the final date of the Mesolithic for Theopetra. A date around mid 7<sup>th</sup> millennium seems probable, while Franchthi dates cluster consistently in around the start of 7<sup>th</sup> millennium. We conclude that, in any case, even if migrationist hypotheses are justified for Thessaly, there was enough time scope for these scattered immigrants to build a relation with local population and surroundings and interact with them in local palimpsests. As we have already seen, in contrast to Western Turkey, the early sites that would potentially picture this interactive process are still missing from the archaeological record of Thessaly and Northern Greece in general. But,

conversely, if the scenario advanced here has any value, it might explain the perplexities of material culture that seem to vex diffusionists and migrationists. Although vague similarities with Anatolia have already been pointed out since the times of Weinberg (1965) and more recently by many scholars (e.g. Demoule and Perlès 1993; van Andel & Runnels 1995), they never passed the point of being anything but general evaluations. For example, Thessalian pottery is considered either a local invention (Thissen 1999a, 194–195), or a product of Anatolian indirect diffusion together with painting, mud-brick houses and agriculture (Schubert 1999, 201). Anyhow, judging from the Illipinar X radiocarbon dates, the earlier sites in Western Turkey seem considerably later than the Thessalian ones (Thissen 1999b, 31). In this respect it is difficult to accept the hypothesis proposed by Özdoğan that the settlement in Western Anatolia, the Aegean and the Balkans are but different episodes of a single drama, the “exodus” of the late PPNB or PPNC of egalitarian farmers, shedding behind them the tyranny of centralized authority (Özdoğan 1997, 16–17; Özdoğan and Gatssov 1998). If we are going to deal with the game of migrations we should keep in mind that migrations happen – and have happened in the Aegean – in both directions.

## CONTENT AND INTERPRETATION

Throughout the preceding section I have avoided to discuss in any detail the content of the term “Neolithic”. In ascribing meaning to this term we are very much within the broad influence of Childe’s early emphasis on food production and of his “Neolithic Revolution”. Childe was the first to shift the meaning from an implicitly social evolutionary perspective of the 19<sup>th</sup> century to a socio-economic one, combining it with the biological (i.e. domestication) and the chronological. For Childe (1936) the “Neolithic Revolution” was a paradigmatic transformation of the productive forces, which led to a radical change in the mode of production, following the Marxist model of the pre-War period. However, for reasons that are besides the point of this paper, the socio-economic dimension of this change was marginalized by Childe’s successors, especially in eastern countries, which retained the chrono-biological part of the argument (Zvelebil 1998, 2). The Neolithic economy, in this sense, became almost identical to the domestication and exploitation of plants and animals. It follows that their apparent absence in Greece would seem enough to elucidate the emergence of

the Neolithic, as a whole. Following this reasoning, the understanding of the origins of the Neolithic would be identical to the definition of the origins of domesticates.

Naturally, it would be absurd to maintain that we should not somehow account for the presence of “exotic” domesticates in Greece. The theoretical point is, however, that the question acquires central, exploratory importance only within a framework that perceives the Neolithic exclusively as domestication of plants and animals. Otherwise, we can assume that some domesticates were available one way or another in the beginning of the 7<sup>th</sup> millennium in Greece, either through local domestication (e.g. einkorn wheat, barley, goat, bovines, pig, etc.) – if such a process ever proves to have taken place – or carried with people moving to and from Anatolia, in a continuous interaction with the less mobile segment of the population, for instance through the obsidian exchange network and the knowledge of the sea ways in the Aegean (Perlès 1989). Or even the other way round, farmers with domesticates resuming a foraging economy. Therefore, it is this choice rather than the actual fact of using domesticates or substituting wild resources with domesticates that should be the focus of explanation and in this respect it is useful to remember that it happened in a piecemeal way and over a period of several centuries (Halstead 1996, 297). If the element of choice, a contingent and unpredictable process, grounded in history is not taken into consideration, the domestication issue becomes an essential quality of the Neolithic. A lot of confusion in the relevant arguments comes from this essentialist understanding of the Neolithic, a legacy from earlier, Childean, cultural approaches.

Instead of laying emphasis on the simple presence of domesticates (as the constituting ingredient of agriculture) let us see the problem of the Neolithic transition as a problem of fluid boundaries created in social practice in the sense described by Barth (1969). From this point of view choices and decisions acquire a much more central significance as they are tightly connected to practice (Hodder 1992; Preucel and Hodder 1996) and can be seen as creating boundaries between foragers and farmers deeply embedded in economic and political relations. The forager/farmer boundaries involve new material, social and ideological categories and therefore represent a fundamental conversion of the social identity of the foragers alongside farmers and vice versa. People create their identities not by dra-

wing boundaries to separate “...‘something’ from nothingness, but rather ... two ‘somethings’...” (Barth 1969.14–15) and in this sense boundaries can be seen as a continuous process of becoming Neolithic farmer, a process which presupposes the Mesolithic forager and the hunter-gatherer.

Barth has also underlined how boundaries become more pronounced in situations of conflict and competition. This brings us to the question of defining situations of stress or crisis, a familiar archaeological explanatory device with a long lineage (e.g. Binford 1983.195–213). From this point of view it would be very crucial to define socially embedded practices of competition and conflict, and trace their recognizable signatures in the archaeological record. It is true that the notion of external crisis or stress in archaeology has been criticized long ago for having a particularly strong systemic functionalist aspect (Hodder 1982) and seems today rather parochial. Much more promising is the perception of conflict within the structural elements of Mesolithic/Neolithic social groups. It is well-known that groups of hunter-gatherers are based on economies that do not produce exchange values (Sahlins 1972.68; Bender 1978.209) and therefore sharing – as opposed to hoarding – plays a central role (Zvelebil 1998). For the Batek De’ of Malaysia “the obligation to share food is one of the fundamental components of Batek self-identity and one of the main bonds that link Batek families together as a society” (Endicott 1988.127). Hunter-gatherer groups rely on a network of obligations and alliances of a reciprocal character, operating at different levels of integration, such as kinship or social storage (Bender 1978; Ingold 1980; O’Shea 1981). Ingold (1988.278) shows how production itself is organized on an individual basis, and although some cooperation is always present “hunter-gatherers act as self-conscious agents endowed with subjective intentionality”. Gibson (1988.176), for example, discussing meat sharing, points out how the “owner” of the animal, who has the right to distribute the meat, is the one whose arrow first penetrates the animal. This “individuality” is respected even when a hunter has used someone else’s arrow giving him the right to share the animal. The obligation of sharing therefore, the collective appropriation, seems to run in the opposite direction of the mode of subsistence, which, as Ingold demonstrates, although taking place within a context of some cooperation, is predominantly individualistic.

This residing conflict and its repercussions must have left their mark on the whole society, especially in

times of economic crisis and reduced availability. In Tikopia, Firth reports the dramatic decrease in sharing and the fivefold increase in theft as a result of famine conditions (Sahlins 1972.127–130). For the Pintupi Aborigines, even in everyday, normal conditions, there is a constant “tension between a valued autonomy and the claims and necessity of shared identity”. This tension leads to concealing things to withdraw them from the network of sharing and is closely related to concepts of ownership and personal obligations (Myers 1988.59, 56). To make things somewhat clearer we can say that in the hunter-gatherer social universe the part based on individual production represents autonomy, the liability of fission and the immediate returns of labour. By contrast, the part based on collective appropriation and sharing represents shared identities, stability, social cohesion and delayed returns (Woodburn 1988). We can safely assume that buffering the effects of this tension would be essential for the conservation and expansion of the network of reciprocity, vital for group survival and that hunter-gatherer groups would be engaged in a continuous effort to control this potentially destructive conflict. It is this process that would constantly redefine the forager/farmer boundary in Barth’s terms. But we have to perceive this boundary not in any deeply structural or functional sense, but simply as an answer to a real problem of daily practice, which under certain conditions may have become occasionally more acute. In this sense the short-term of particular instances and the long-term of the Neolithic as an historical process are equally important.

This approach disengages the Neolithic of Greece from its usual archaeological referents i.e. domesticates (e.g. Hansen 1991) and material culture (e.g. Perlès 1988). In this sense, it follows closely the concept of *domus*, introduced by Hodder (1990.12; 1998) with its emphasis on the house and on domestication of the wild as “a metaphor and mechanism for the control of society”. For the way followed to supersede the conflict described above was twofold: (a) intensifying the production to ease the tension on collective appropriation, and (b) making production more collectively oriented by introducing the household and its control over part of resources, land and staples. Both point to agriculture as a way to control society and its conflicts and as such, agriculture is far more than domestication: although dependent on it, agriculture is produced by the agency of people in constructing identities, relations of ownership control and power. This they do by manipulating their resources, material or conceptual.

## CONCLUSIONS

The point made in the above discussion was that the transition to the Neolithic in Greece couldn't be described solely in terms of a straightforward economic process. Of course, I can see no way to understand the "economic" as a self-defined domain, separate from practice and agency. Recent critical discussion on the Neolithic transition has described "economic" approaches as overemphasizing one of the equally possible aspects of change (*Phuciennik 1998, 77*), but usually the concept of "economic" (and /or subsistence) is disappointingly narrow and inadequately informed by the relevant discussion outside archaeology. Economy is usually ascribed under the general label of "materialism" – as opposed to "ideology" – and is often linked to "Marxist" claims for the precedence in the last instance of the economy. In so doing, discussion seems to reinstate the obsession with the opposition between the objective and the subjective. I take a rather different view on this issue that is closer to Marx's first thesis on Feurbach, a view that restores the close relation between the materiality and the subjectivity of human practice: The chief defect of all hitherto existing materialism – that of Feurbach included – is that the thing, reality, sensuousness, is conceived only in the form of the object or of contemplation, but not as *human sensuous activity, practice*, not subjectively. Hence it happened that the active side in contradistinction to materialism was developed by idealism – but only abstractly, since, of course, idealism does not know real, sensuous activity as such. (Original emphasis)

To return to the Mesolithic/Neolithic transition in Greece, it is plainly obvious that no exclusive interpretation, either economic or quasi-historical such as migration, diffusion and the like, can deal effectively with the complexity and the variability of human practice in the post-glacial era. The Neolithic was not a one-way street once the first domesticates arrived in the Greek peninsula together with some people who knew what to do with them. Nor was the Mesolithic somehow pre-destined to become Neolithic, as if history follows by necessity the path of the rigid evolutionary stages prescribed by the 19<sup>th</sup> century ideas. I have proposed here that a lot of crucial information is probably hidden in short-term sites, representing the initial attempts at the Neolithic way of life – and I do not mean here necessarily steps towards the biological domestication of wild plants and animals. In general terms, it can be argued that the domestication concept is repeated every time a farmer sows a field, so the archetypical

action of domestication is to a large extent a conceptual abstraction of research. As a working hypothesis, these short-term sites might provide clues for the scale and form of the selective manipulation of novel resources discussed extensively in the previous section and might help on the identification of the new categories and identities thus created. The example of Theopetra certainly proves that this is not an unreasonable expectation and gives much hope that these sites will be a reality in Thessaly – or elsewhere in Northern Greece – in the near future. To this end intensive research suitably organized is a first priority (*Andreou, Fotiadis and Kotsakis 1996, 596–597*). Besides, the incapability of research to identify affinities in material culture with any geographical part of the Near East above the level of vague resemblance indicates that the manipulation of cultural resources from the early Neolithic groups in Greece was multiple and complex, ascribing to resources variable meanings within a variability of contexts. Certainly, it did not follow the simple linear progression usually envisaged by the diffusion/migration theorists. The idea that the Neolithic groups came into Greece like proper travellers equipped with a fixed "package" containing economy and culture is obviously useless.

This of course is closely related to the notion of the Neolithic "essentials", such as domesticates, pottery, etc. Although this archaeological practice has a long tradition in defining normative cultures, it is time perhaps to consider its applicability and usefulness in the Neolithisation of Greece. In the Balkans and elsewhere in Europe, the presence of pottery in hunter-gatherer groups is well documented (*Biagi, Starinini and Voytek 1993; Budja 1996; Budja 1999*) and this evidence clearly supports the idea of a wide scale interaction among peoples inhabiting Greece in that period – each group with its own "package". This may sound a minor conclusion, one that has already been discussed to some extent for Greece (*e.g. Perlès 1989*) and for South-East Europe (*Voytek & Tringham 1989*). But we have to take into closer consideration the historical variability of this transition in which agency and construction of identity through practice are central and create meaningful categories. We have to take down archaeological observation to the micro-scale of the particular where discursive or non-discursive meanings are formed instead of dealing exclusively with the normative and the general that creates regularities. We only hope that new research in Greece will address similar issues.



## REFERENCES

- AMMERMAN A. J. and CAVALLI-SFORZA L. 1984. *The Neolithic Transition and the Genetics of Populations in Europe*. Princeton University Press.
- ANDREOU S., FOTIADIS M. and KOTSAKIS K. 1996. Review of Aegean Prehistory V: The Neolithic and Bronze Age of Northern Greece. *American Journal of Archaeology* 100: 537-597.
- BARTH F. 1969. *Ethnic Groups and Boundaries*. Little Brown & Co., Boston.
- BENDER B. 1978. Gatherer-Hunter to Farmer: A Social Perspective. *World Archaeology* 10: 204-222.
- BIAGI P., STARNINI E. and VOYTEK B. A. 1993. The Late Mesolithic and Early Neolithic Settlement of Northern Italy: Recent Considerations. *Poročilo o raziskovanju Paleolita, Neolita in Eneolita v Sloveniji XXI*: 45-67.
- BINFORD L. 1983. *Working at Archaeology*. Academic Press, New York.
- BLOEDOW E. F. 1991. The 'Aceramic' Neolithic Phase in Greece Reconsidered. *Mediterranean Archaeology* 4: 1-43.
- BONSALL C. (ed.) 1989. The Mesolithic in Europe. *Papers Presented at the Third International Symposium*. John Donald Publishers Ltd, Edinburgh.
- BUDJA M. 1996. Neolithisation in the Caput Adriae Region: Between Herodotus And Cavalli-Sforza. *Poročilo o raziskovanju Paleolita, Neolita in Eneolita v Sloveniji XXXIII*: 61-76.
1999. The Transition to Farming in Mediterranean Europe - an Indigenous Response. In M. Budja (ed.), *Documenta Praehistorica XXVI*: 119-141.
- CAUVIN J. (1994) 2000. *The Birth of the Gods and the Origins of Agriculture*. Translated by Trevor Watkins. Cambridge University Press.
- CHAPMAN J. C. 1989. Demographic Trends in Neothermal South-East Europe. In C. Bonsall (ed.), *The Mesolithic in Europe. Papers Presented at the Third International Symposium*: 500-515.
1994. The Origins of Farming in South East Europe. *Préhistoire Européenne* 6: 133-156.
- CHILDE V. G. 1936. *Man Makes Himself*. Watts. London.
- COLEMAN J. 1993. Greece, the Aegean, and Cyprus. In R. W. Ehrich (ed.), *Chronologies in Old World Archaeology*: 247-279.
- DEMOULE J.-P. and PERLÈS C. 1993. The Greek Neolithic: A New Review. *Journal of World Prehistory* 7(4): 355-416.
- DENNELL R. 1983. *European Economic Prehistory: A New Approach*. Academic Press, London.
- ENDICOTT K. 1988. Property, Power and Conflict Among the Batek in Malaysia. In T. Ingold, D. Ritches and J. Woodburn (eds.), *Hunters and Gatherers. Property, Power and Ideology*: 110-127.
- GIBSON T. 1988. Property, Power and Conflict Among the Batek in Malaysia. In T. Ingold, D. Ritches and J. Woodburn (eds.), *Hunters and Gatherers. Property, Power and Ideology*: 165-179.
- GRONENBORG D. 1999. A Variation of a Basic Theme: The Transition to Farming in Southern Central Europe. *Journal of World Prehistory* 13(2): 123-210.
- HALSTEAD P. 1989. Like Rising Damp? An Ecological Approach to the Spread of Farming in South East and Central Europe. In A. Milles, D. Williams and N. Gardner (eds.), *The Beginnings of Agriculture, BAR International Series 496*: 23-53.
1996. The Development of Agriculture and Pastoralism in Greece: When, How, Who, and What? In D. R. Harris (ed.), *The Origins and Spread of Agriculture and Pastoralism in Eurasia*: 296-309.
- HANSEN J. M. 1991. *The Palaeoethnobotany of Franchthi Cave. Excavations at Franchthi Cave, Greece*. Indiana University Press, Bloomington & Indianapolis.
- HEUN M., SCHAFER-PREGL R., KLANAN D., CASTAGNA R., ACCERBI M., BORGHI B. and SALAMINI F. 1997. Site of Einkorn Wheat Domestication Identified by DNA Fingerprinting. *Science* 278 (14. November): 1312-1314.

- HIGGS E. and JARMAN M. 1969. The Origins of Agriculture: A Reconsideration. *Antiquity* 43: 31–41.
- HODDER I. 1982. Theoretical Archaeology: A Reactionary View. In I. Hodder (ed.), *Symbolic and Structural Archaeology*: 1–16.
1990. *The Domestication of Europe*. Routledge, London.
1992. *Theory and Practice in Archaeology*. Routledge, London and New York.
1998. The Domus: Some Problems Reconsidered. In M. Edmonds and C. Richards (eds.), *Understanding the Neolithic of North-Western Europe*: 84–101.
- INGOLD T. 1980. *Hunters, Pastoralists and Ranchers*. Cambridge University Press, Cambridge.
1988. Notes on the Foraging Mode of Production. In T. Ingold, D. Riches and J. Woodburn (eds.), *Hunters and Gatherers. History, Evolution and Social Change*: 269–285.
- KOTSAKIS K. 1992. *The Neolithic Mode of Production. Native or Settler?* Diethnes Synedrio gia tin Arhaia Thessalia sto mnimi tou Dimitri R. Theochari. TAPA, Athina.
- KYPARISSI-APOSTOLIKA N. 1998. The Significance of Theopetra Cave for Greek Prehistory. *Prehistoire d'Anatolie, Genese de Deux Mondes*: 241–52.
1999. The Palaeolithic Deposits of Theopetra Cave in Thessaly (Greece). In G. Bailey, E. Adam, E. Pagnopoulou and K. Zachos (eds.), *The Palaeolithic Archaeology of Greece and Adjacent Areas*: 232–239.
- LAMBECK K. 1996. Sea-Level Change and Shore-Line Evolution in Aegean Greece Since Upper Palaeolithic Time. *Antiquity* 70: 588–611.
- MILOJČIĆ V. 1960. *Hauptergebnisse der Deutschen Ausgrabungen in Thessalien 1953–1958*. Rudolf Habelt Verlag, Bonn.
- MYERS F. 1988. Burning the Truck and Holding the Country: Property, Time and the Negotiation Identity Among Pintupi Aborigines. In T. Ingold, D. Riches and J. Woodburn (eds.), *Hunters and Gatherers. Property, Power and Ideology*: 52–94.
- O'SHEA J. 1981. Coping with Scarcity: Exchange and Social Storage. In A. Sheridan and G. Bailey (eds.), *Economic Archaeology, BAR International Series* 96: 167–183.
- ÖZDOĞAN M. 1997. The Beginnings of Neolithic Economies in Southeastern Europe: An Anatolian Perspective. *Journal of European Archaeology* 5(2): 1–33.
1999. Northwestern Turkey: Neolithic Cultures in Between the Balkans and Anatolia. In M. Özdoğan and N. Başgelen (eds.), *Neolithic in Turkey. The Cradle of Civilization*: 203–224.
- ÖZDOĞAN M. and GATSOV I. 1998. The Aceramic Neolithic Period in Western Turkey and the Aegean. *Anatolica* 24: 209–232.
- PERLÈS C. 1989. La Neolithisation de la Grece. In O. Aurenche and J. Cauvin (eds.), *Neolithisations, BAR International Series* 516: 109–127.
1988. New Ways with an Old Problem. Chipped Stone Assemblages as an Index of Cultural Discontinuity in Early Greek Prehistory. In E. French and K. Wardle (eds.), *Problems in Greek Prehistory. Papers Presented at the Centenary Conference of the British School of Archaeology at Athens, Manchester, April 1986*: 479–488.
1990. *Les Industries Lithiques Taillees de Franchthi (Argolide, Grece). Les Industries Du Mersolithique et Du Neolithique. Excavations at Franchthi Cave, Greece*. Indiana University Press, Bloomington & Indianapolis.
- PLUCIENNIK M. 1998. Deconstructing 'the Neolithic' in the Mesolithic-Neolithic Transition. In M. Edmonds (ed.), *Understanding the Neolithic of North-Western Europe*: 61–83.
- PREUCEL R. and HODDER I. (eds.) 1996. *Contemporary Archaeology in Theory*. Blackwell Publishers Ltd, Oxford.
- RUNNELS C. 1995. Review of Aegean Prehistory IV: The Stone Age of Greece from the Palaeolithic to the Advent of the Neolithic. *American Journal of Archaeology* 99: 699–728.
1996. The Palaeolithic and Mesolithic Remains. In B. Wells (ed.), *The Berbati-Limnes Archaeological Survey 1988–1990*: 23–35.

- RUNNELS C., van ANDEL T. H., ZACHOS K. and PASCHOS P. 1999. Human Settlement and Landscape in the Preveza Region (Epirus) in the Pleistocene and Early Holocene. In G. Bailey, E. Adam, E. Pagnopoulou and K. Zachos (eds.), *British School at Athens Studies: 120-129*.
- SAHLINS M. 1972. *Stone Age Economics*. Aldine, New York.
- SCHUBERT H. 1999. *Die bemalte Keramik des Frühneolithikums in Südosteuropa, Italien und Westanatolien*. Internationale Archäologie. Bd 47. Verlag Marie Leidorf, Rahden/Westf.
- TELLENBACH M. 1983. Materialien Zum Prakeramischen Neolithikum in Süd-Ost-Europa. *BeRZK: 23-137*.
- THEOCHARIS D. 1967. *I Avgi Tis Thessalikis Proistorias (The Dawn of Thessalian Prehistory)*. Filarchaios Etaireia Volou, Volos.
1973. *Neolithic Greece*. National Bank of Greece, Athens.
- THISSEN L. 1999a. *Early Village Communities in Anatolia and the Balkans: Studies in Chronology and Culture Contact*. Unpublished Ph.D. dissertation.
- 1999b. Trajectories Towards the Neolithisation of NW Turkey. In M. Budja (ed.), *Documenta Praehistorica XXVI: 29-39*.
- TOUFEXIS G. 1994. Anaskafi sto Neolithiko Oikismo Kremastos sto Nomo Grevenon. *AEMTh 8: 17-26*.
- TRINGHAM R. 2000. Southeastern Europe in the Transition to Agriculture in Europe: Bridge, Buffer, or Mosaic. In T. Douglas Price (ed.), *Europe's First Farmers: 19-56*.
- van ANDEL T. H., GALLIS C. and TOUFEXIS G. 1995. Early Neolithic Farming in a Thessalian River Landscape, Greece. In J. Lewin, M. G. Macklin and J. C. Woodward (eds.), *Mediterranean Quaternary River Environments: 131-143*.
- van ANDEL T. H. and RUNNELS C. N. 1995. The Earliest Farmers in Europe. *Antiquity 69: 481-500*.
- van ANDEL T. H., ZANGGER E. and DEMITRACK A. 1990. Land Use and Soil Erosion in Prehistoric and Historical Greece. *Journal of Field Archaeology 17: 379-396*.
- VOYTEK B. A. and TRINGHAM R. 1989. Rethinking the Mesolithic: The Case of South-East Europe. In C. Bonsall (ed.), *The Mesolithic in Europe, Papers Presented at the Third International Symposium: 492-499*.
- WEINBERG S. 1965. The Stone Age in the Aegean. In I. Edwards, C. Gadd and N. Hammond (eds.), *The Cambridge Ancient History: 557-618*.
- WILKIE N. C. and SAVINA M. E. 1997. The Earliest Farmers in Macedonia. *Antiquity 71: 201-207*.
- WOODBURN J. 1988. African Hunter-Gatherer Social Organization: Is It Best Understood as a Product of Encapsulation? In T. Ingold, D. Riches and J. Woodburn (eds.), *Hunters and Gatherers. History, Evolution and Social Change: 31-64*.
- ZAMANIS A, SAMARAS S., STAVROPOULOS N. and DILLE J. 1988. *Report of an Expedition to Rescue Germplasm of Wild Species of Wheat and Relatives in Greece*. Greek Gene Bank Scientific Bulletin. North Greece Agricultural Research Centre.
- ZVELEBIL M. (ed.) 1986. *Hunters in Transition*. Cambridge University Press, Cambridge.
1996. Farmers Our Ancestors and the Identity of Europe. In P. Graves-Brown, S. Jones and C. Gamble (eds.), *Cultural Identity and Archaeology: 145-166*.
1998. What's in a Name: The Mesolithic, the Neolithic, and Social Change at the Mesolithic-Neolithic Transition. In M. Edmonds and C. Richards (eds.), *Understanding the Neolithic of North-Western Europe: 2-36*.
- 2000a. The Social Context of the Agricultural Transition in Europe. In C. Renfrew and K. Boyle (eds.), *Archaeogenetics: DNA and the Population Prehistory of Europe: 57-79*.
- 2000b. Transition to Agriculture in Eastern Europe. In T. Douglas Price (ed.), *Europe's First Farmers: 57-92*.
- ZVELEBIL M., DENNELL R. and DOMANSKA L. (eds.) 1998. *Harvesting the Sea, Farming the Forest: The Emergence of Neolithic Societies in the Baltic Region*. Sheffield Archaeological Monographs. Edited by J. R. Collis. Sheffield Academic Press, Sheffield.