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Thessaly, Franchthi and Western Turkey: Clues to the Neolithisation of Greece?

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ABSTRACT - *Potential pathways towards neolithisation are discussed for two regions: Thessaly and the Peloponnese (Franchthi). Differences between North and South Greece in settlement patterns, subsistence and social structure are argued to reflect similar variations in a hypothesised West Anatolian Aceramic Neolithic. It is proposed to seek the neolithisation of Greece in an ultimate stress-situation in specific inland plains of West Anatolia. Traditional contacts of sites here with settlements along the West Turkish seaboard may have provided information on new land, the stimulus to consider migration as a possible solution, and the practical means of crossing the Aegean.*

IZVLEČEK - *V članku govorimo o možnih poteh neolitizacije v dveh regijah: Tesaliji in na Peloponezu (Franchthi). Razpravljamo o tem, da razlike med severno in južno Grčijo odsevajo podobne spremembe hipotetičnega zahodnoanatolskega akeramičnega neolitika tako glede vzorca naselitve, načina preživljanja kot tudi družbene zgradbe. Predlagamo, da začetke neolitizacije Grčije iščemo v skrajno stresnih razmerah v ravnicah v notranjosti zahodne Anatolije. Tradicionalni stiki med tukajšnjimi najdišči in naselbinami v zahodnoturškem primorju so morda prinesli podatke o novi deželi, sprožili razmišljanja o migraciji kot možni rešitvi in zagotovili način za prečkanje Egejskega morja.*

KEY WORDS - *Anatolia; culture contact; Greece; migration; neolithisation*

INTRODUCTION

The often-observed difference between North and South Greece (for instance in settlement patterns, in material culture or as to pathways towards neolithisation - cf. *Perlès 1987.34; Demoule and Perlès 1993.364, 370; Halstead 1994*) may give clues to the nature and origins of the first farming communities on European soil. In an earlier paper I stated that the neolithisation of Europe was, in its initial stages, an "Aegean phenomenon," meaning that the actual impulse to establish permanent farming villages in Greece resulted from a long-lasting Aegean interaction (likewise, *Halstead 1996.299*). On the basis of the accumulated evidence acquired from the recent work carried out in North-western Turkey (*Özdoğan 1999; Roodenberg 1999a; 1999b*), I likewise proposed that the assumed bridge function of that area *vis-à-vis* the neolithisation of Europe had not much to credit it - the area, at the present state of research, being peripheral both to the developments taking place in Central and Southwest Anatolia and to those in Greece (*Thissen 2000a*). Here, I would like to put forward some hypotheses concerning the origin of the Greek Early Neolithic, integrating the evidence from Thessaly and Southern Greece (notably from Franchthi), and that from West Turkey. If the Greek North-South difference for the EN period is accepted, we may perhaps extrapolate this difference backward in time, *e.g.*, to the Aceramic Neolithic, which at Franchthi at least was not disruptive to the preceding Mesolithic stage (cf. *Chapman 1994.136; Halstead 1996.300*).

THESSALY

Evidence concerning the nature and the dating of the earliest Neolithic in Thessaly (inclusive of a PPN phase) is rather conflicting and not generous in hard facts. The conflicts appearing in the debate on the validity of a PPN stage (cf. *Nandris 1970; Theocha-*

ris 1973; Bloedow 1991; Bloedow 1992–1993) and, the absence of solid data particularly felt in the limited exposures and absolute chronological backing. The possibility of an autochthonous process of plant cultivation in Thessaly has recently been ventured on the basis of the Theopetra Cave data (*Budja 1999.132*; cf. also *Kyparissi-Apostolika 1998; 1999. 238*). Here, on the NW edge of the Thessalian Plain, in the Mesolithic deposit, several wild seeds and pulses have been identified, including *hordeum vulgare* subsp. *spontaneum*, and *triticum boeticum* (*Kyparissi-Apostolika 1998.249; 1999.237*). According to the excavator, the Mesolithic deposit also contained some sherds *in situ* (*Kyparissi-Apostolika 1998.249*). Unfortunately, at Theopetra there is a huge gap of 800 calendar years in the local sequence of the Mesolithic–Neolithic, at least as far as it has been fixed in ^{14}C dating (*Kyparissi-Apostolika 1999. 236–239*) (Fig.1). It is, therefore, impossible to check whether the knowledge and use of wild seeds and pulses led to domestication here; and whether the sherds suggest an independent early invention of the craft of pottery making potentially much along the same lines as hypothesised by Vitelli for 'Aceramic Franchthi,' *viz.* as representing a "rare and precious" product (*Vitelli 1993*). Barring the as yet preliminary data from Theopetra, it is presently safer to assume that the Mesolithic–Neolithic sequence in Thessaly is disruptive in time. And I share the view of several authors (*Demoule and Perlès 1993.364–365; Van Andel and Runnels 1995*) that the EN in Thessaly was disruptive also in the cultural sense – being a foreign intrusion by migrant farmers. Simultaneously, this might not have been the case for Franchthi (*vide infra*).

While the question of a PPN phase in Thessaly rests on unsteady grounds (largely due to the restricted areas excavated), it is a fact that the small component of much less sophisticated pottery occurring in the basal layers of Achilleion, Argissa, Gendiki, Nessonis, Sesklo and Soufli (the *Frühkeramikum*, or the Early Neolithic I) decreases in time, coinciding with an increase in technical ability in overall pottery manufacture (cf. *Wijnen 1981.33–34*). As Wijnen rightly assumes, these crudely made vessels themselves do not *represent* the first pottery-making stage, but are merely *part* of that initial stage (*Wijnen 1981.34*). The fact that a 'beginners' stage' and an 'advanced stage' are not archaeologically separable (in the chronological sense – hence the 'mix'), would rather point to rapidity on the part of the potters in mastering the different levels of expertise required. Archaeologically visible is the intense level of experimentation apparent from the EN Thessalian pottery concerning shaping, the use of slips and paints, and firing (*Wijnen 1993.323;* and contra *Bloedow 1991.43*).

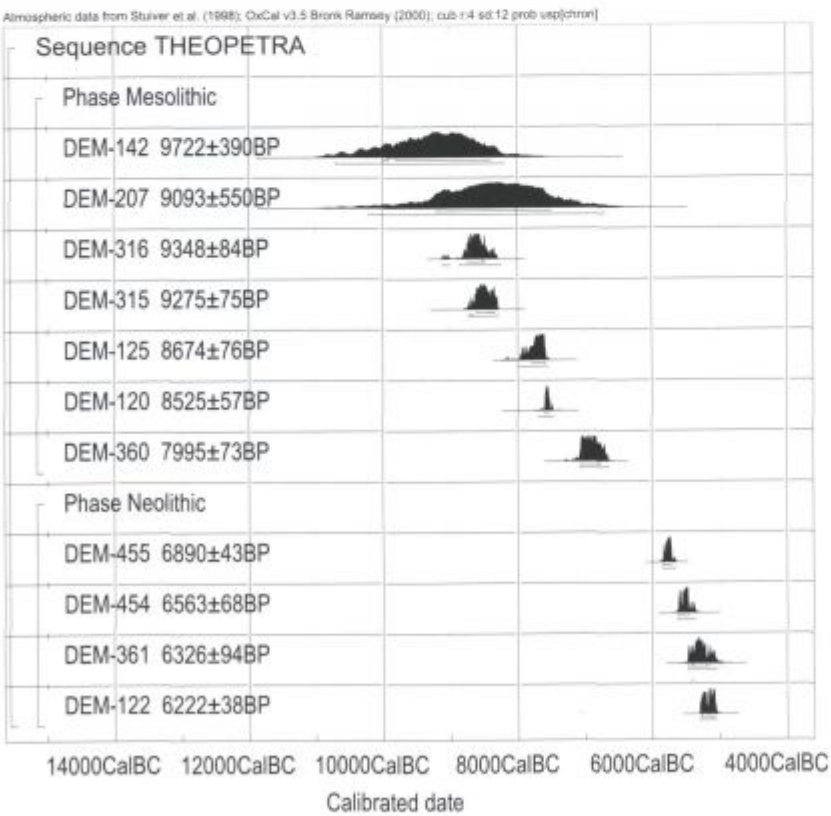

Fig. 1. Theopetra Cave radiocarbon dates for the Mesolithic–Neolithic, calibrated individually.

In line with the foregoing, it seems fair to assume that the idea to start manufacturing pottery was developed by the settlers upon founding the sites in Thessaly. Put otherwise, pottery was more or less a local invention, and possibly part of adaptation processes to cope with new environments and circumstances of living (pots used to "underline the social significance of hospitality," as Halstead has suggested [*1994. 206*]). If locally invented, then the knowledge of pottery, or the notion of its need, cannot have been part of the cultural world of those who ultimately risked the move towards Thessaly. Fol-

lowing Theocharis (*1967.173–174*) and Wijnen (*1981.97, 101–102*), Perlès in 1989 also suggested that the pottery of EN Greece was developed locally, and, consequently, proposed that the first Greek Neolithic be established during a pre-ceramic stage (*Perlès 1989.119*). Certainly the evidence from the PPN sites in the Near East makes it clear that there is no direct relationship between farming and the origins of pottery, and people had, of course, built up long experience in cooking foodstuffs without the knowledge or the need of containers made of baked clay (cf. *Pavlů 1997.28ff; Björk 1998.44*). The theory of Vitelli that the EN pottery was not used for cooking, but was instead non-utilitarian and high-status (*Vitelli 1989; Perlès 1993.377;* cf. *Halstead 1994.206*), is probably correct, viewing the absence of soot traces, and the dominant presence of ring- and pedestal bases (cf. *Wijnen 1981.33* for Sesklo).

The earliest Thessalian pottery consists of only a few different categories, including dishes and deep globular bowls, which typologically merge into holemouth bowls (Fig. 2). The use of vertically- or horizontally pierced knobs is limited to the bowls, while other handle types are not attested. Vessels are not larger than medium size, with neither rim diameters nor general height extending over 20 cm. Ring- and low ring bases are common. If we accept the general date for the Thessalian EN as starting at about 6300 cal BP[1] at the earliest (see below), then a correspondence with contemporary pottery concepts and use in the wider world (to be specific: Anatolia) is farfetched. The Konya Early Neolithic pottery (*e.g.*, Çatalhöyük East levels VI–0, the Beyşehir and Suğla Lakes sites), and by extension the NW Anatolian wares (Demircihüyük, Menteşe, Ilıpınar and the Fikirtepe sites) differ in a major way from the Thessalian assemblages in their discrimination of different types of cooking pots. S-shaped bowls, the preference for flat bases, and the use of alternative handle types in Anatolia, all suggest different ways of handling, positioning and using pottery. Open dishes of the Thessalian kind are not in general use in the Central and NW Anatolian assemblages, while, alternatively, Anatolian oval-mouthed shapes (possibly referring to original wooden or gourd prototypes), do not seem to have been present in Thessaly. Also, the possibly earliest pottery from SW Turkey, *viz.* that found in the Pamphylian site of Bademağacı and datable to the second half of the 7th millennium cal BC, appears to be based on a more diversified vessel repertoire and a handle system different from the Thessalian pottery (see *Duru 1999.Figs. 33–38, 42*).

The date for the beginning of permanent farming villages in Thessaly cannot be satisfactorily established with the Achilleion and Sesklo radiocarbon dates, which do not allow as fine-grained a resolution as one would like for this key phase in Euro-

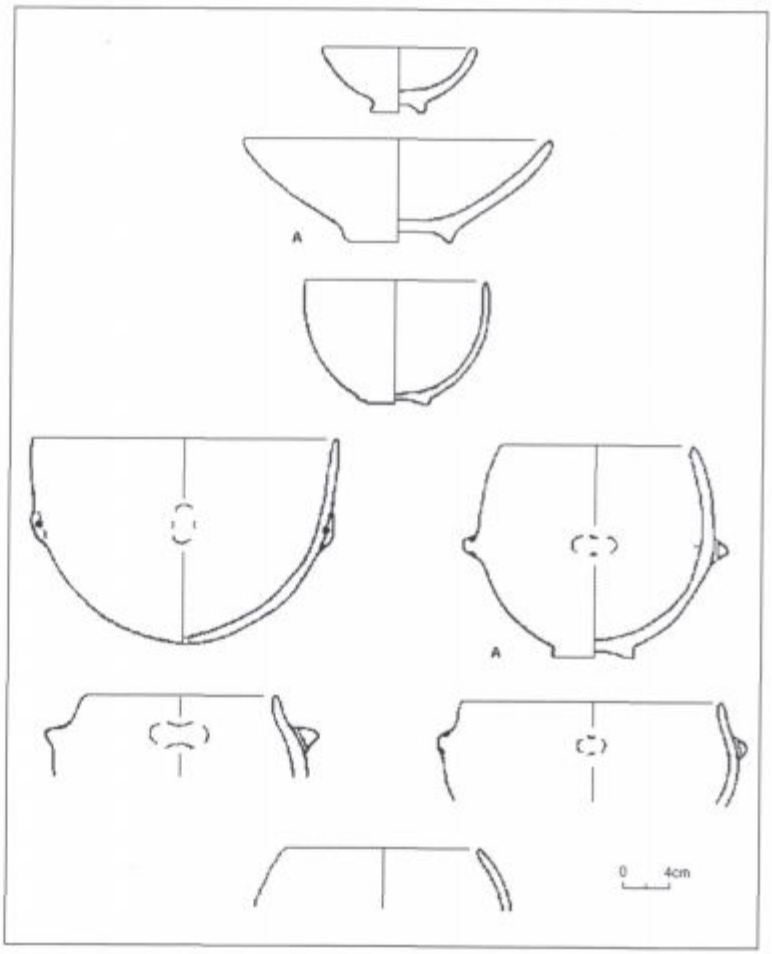

Fig. 2. Early Neolithic I pottery from Sesklo and Achilleion (marked "A"). Dishes, bowls and holemouth bowls/pots (after* Wijnen 1981.26 Fig. 11*).

1 Calibrations throughout this paper are made with help of the latest version of the OxCal program (v3.5) (*Bronk Ramsey 2000*), dependent on the most recent calibration curve INTCAL98 (*Stuiver et al.1998*).

pean prehistory. At Sesklo, combining the stratigraphic evidence collected so far from three trenches all located in the NE-sector of the Sesklo Acropolis,[2] the entire EN period including the PPN stage does not seem to have comprised more than three to four building levels (Tab. 1).

Virgin Soil

^{14}C dates come from several different Sesklo trenches, but only Trench 2 yields a larger, though by no means sufficient body of dates (Fig. 3).[3] When calibrated, agreement of the posterior distributions of the six Trench 2 PPN and EN dates is far below the statistically acceptable (34.8% where the threshold is set at 60.8%) (Fig. 4). A date much earlier than the 6300 cal BC threshold would, however, conflict in my view with the small number of individual building levels counted at PPN/EN Sesklo and EN Achilleion. For Achilleion, after a reanalysis of the stratigraphic sequence (*Thissen 2000b*), only two building levels appear to belong to the EN period. Achilleion yields a larger series of ^{14}C dates (nine for the combined levels Ia and Ib, eight for the combined levels IIa and IIb) (Fig. 5). When we combine the probability distributions of the calibrated dates of Achilleion Ia–Ib, assuming that the samples stem from a single event or from events occurring within a short period, then the earliest possible range at 2σ is set at 6240–6160 cal BC (Fig. 6).[4]

A pre-6300 cal BC date for the onset of the Thessalian PPN/EN would further be in disaccord with the most likely date for the beginning of the MN period at about 6000 cal BC. Finally, the limited thickness of the EN deposits at Sesklo and Achilleion does not suggest a very large time span for these levels. If we further know that the earliest possible range for the beginning of settlement at Nea Nikomedeia, based on a combination of the probability distributions of the calibrated dates, can be put at 6230–6150 cal BC (at 2σ), then again a pre-6300 cal BC beginning of permanent villages in Sesklo and Achilleion is not warranted (Figs. 7 and 8). The Nea Nikomedeia dates, likewise, conform rather perfectly to those of basal Achilleion, suggesting roughly contemporaneous events. In this respect, when acknowledging EN Thessaly as a coherent, culturally cohesive society (*Halstead 1994. 207*) with social barriers to external contacts (apart from those established and maintained by tradition – see below), this may stand in the way of seeing Thessaly as a root area for renewed colonization of the regions further north, notably of Macedonia. Indeed, cultural variance between Thessaly and Macedonia is visible in pottery, in settlement patterns and in commitment to the land (cf. *Thissen 2000a. 194; Fotiades et al. 2000.217*; for a contrary view, however, see *Wilkie and Savina 1997*).

Franchthi

In contrast to Thessaly, Southern Greece, or at least Franchthi, reflects a mobile, non-static society, not intent on exploiting the land, but the boundless sea. Franchthi Cave was used over an extremely long period, but discontinuously and fluctuating in intensity. An important place, as Chapman argues, for those who used the cave (*Chapman 1994.137*), it must have been only one of several (cf. Ulbrich Cave, Zaimis Cave) during the Palaeolithic, Mesolithic, and Aceramic (Initial) Neolithic periods. It is probably only a matter of time before similar sites will be found on the Turkish shores of the Aegean. It is even possible that this sense of mobility is still present in the first pottery Neolithic at Franchthi Cave and at Paralia, the small open-air site on the coast.[5] Thessalian patterns of tradition and place and of self-containment are not conspicuously visible at

period	building method	number of building levels	thickness of deposit
EN III settlement burnt			
EN II/III	pisé or mud brick	1–2 (?)	20 – max. 85 cm
EN I	like PPN	2–3 floors	40 – 50 cm
PPN	single stone foundations/pisé	1	30 – 60 cm
		(total thickness: 90 – max. 195 cm)	

Tab. 1. Sesklo. Stratigraphic evidence from Trench 2, NE-sector Acropolis (after* Wijnen 1981.12, Fig. 5; Wijnen 1992*).

2 A trial trench of 2.5x2.5m, excavated in 1956 and 1957 (*Wijnen 1981.9, Fig. 4*); a trench dug in 1962, possibly trench Thita (*Bloedow 1991.23, Fig. 8*); and trench 2, excavated during 1963 and 1965 (*Wijnen 1981.12, Fig. 5*).

3 I am greatly indepted to Mies Wijnen for allowing me to use the Gröningen data of Sesklo.

4 The nine Achilleion Ia–Ib dates are exclusive of LJ-4449 and UCLA-1896A which come from test pit east. In addition, I have reassigned level II samples LJ-3328, LJ-3186 and LJ-3325 to level I instead on stratigraphic grounds.

5 cf. Jacobsen (*1984*), hypothesizing such patterns of mobility for the MN period.

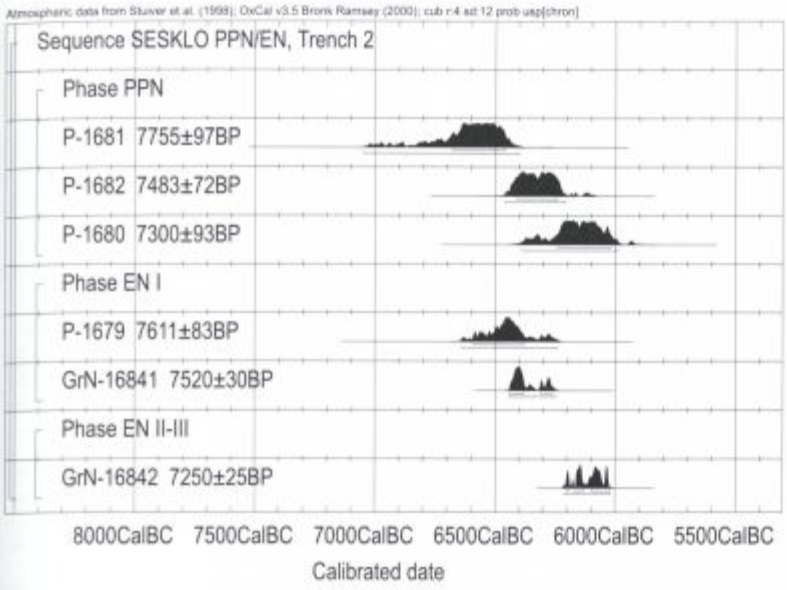

Fig. 3. Sesklo Trench 2 radiocarbon dates, calibrated individually.

Franchthi, or for that matter, in the other Neolithic sites in the Peloponnese and Central Greece (cf. *Demoule and Perlès 1993.364, 370*). *Tell* built-up, with its long-term association to localised space (cf. *Chapman 1989*) is quite rare in Southern Greece, and if occurring, is seemingly restricted to sites in key positions in relation to the sea (*e.g.* Old Corinth, Goniá, Lerna, Halai or Franchthi Cave itself in a sense) (cf. also *Cherry et al. 1988*). Moreover, settlement locations differ from Thessaly – in Southern Greece rocky preeminences are favourite spots instead of floodplains, terraces and fens (*Demoule and Perlès 1993.362; Van Andel and Runnels 1995*; but also *Wilkie and Savina 1997.201*). As Van Andel and Runnels have pointed out on the basis of their extensive surveys, the Argolid was "very thinly settled" during the EN period (and, indeed, during the ensuing MN and LN periods as well) (*Van Andel and Runnels 1987. 67*). They also make clear that the EN inhabitants of Franchthi did not exploit their environment to the full. In stark contrast to Thessaly, the EN settlers in the Peloponnese "(...) failed to spread out to fill the space available (...)" (*Van Andel and Runnels 1987. 69; cf. 75, Map 13*). Van Andel and Runnels consider the region's geographic setting "(...) well placed to maintain trade contacts throughout the southern Aegean and across the Peloponnese" (*1987.73*) – as the first reason for the Early Neolithic settling of the NE Peloponnese, not so much the traditional search for new fertile land. It is only during the Final Neolithic and the Early Bronze Age that people in the Argolid oriented themselves towards their hinterland: only then were the best soils of the region settled (*Van Andel and Runnels 1987. 81–85*).

A reanalysis of the Franchthi Cave sequence, a thorough treatment of which falls outside the limits of this paper (*Thissen 2000b*), has led me to the following synopsis:

❶ Franchthi phase Int 0/1 is aceramic, following Jacobsen (*1969.352*), but in contrast to Vitelli (*1993.39*). Domesticated plant and animal species are already known. A set of five consistent ^{14}C dates makes it possible to date this stage somewhere within a range of 7000–6600 cal BC (Fig. 9). Franchthi Int 0/1 is roughly equivalent to Perlès' "phase lithique X" (*Perlès 1990.115ff.*) and to Hansen's "botanical zone V/VI and VI" (*Hansen 1991.163*).

❷ Franchthi phase Int 0/1 probably did not lead into FCP 1, a point which is confirmed by the pertaining ^{14}C dates, which show a gap of 200–400 years (at 1σ) between Int 0/1 and FCP 1. Given this discontinuity at the site, the knowledge of domesticates during Interphase 0/1 may have remained an isolated phenomenon, not leading to continued exploitation. It is, however, unlikely that the settling

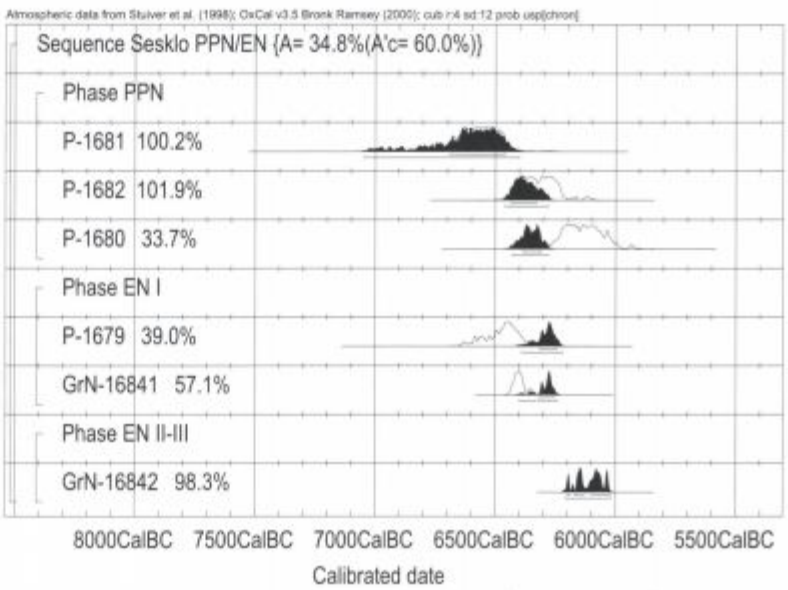

Fig. 4. Sesklo Trench 2 radiocarbon dates, showing posterior distributions (in black).

of Franchthi, and the introduction of domesticates at the site, including the absolute date at which the latter allegedly took place, are phenomena that are applicable or contemporary to other Greek regions, notably to Thessaly. The immediate density of sites in the Thessalian Plain, the continuity evident from their individual histories and the coherence shown by their material culture all point to a strong, rather sudden and lasting impact on the land. Franchthi phase Int 0/1, at the present state of research, would antedate the Thessalian PPN/EN by some 400 calendar years.

❸ Being perhaps a trial event, the NE Peloponnese with Franchthi lacked occupation for many centuries. Only by the 60th–59th century cal BC were pottery-Neolithic sites established in the Argolic Gulf: at Franchthi the Paralia site was founded, while the old Cave site was reused as well, as evidenced by contemporary deposits. The total duration of occupation in the cave as well as at Paralia during Franchthi phase FCP 1 may have been fairly short, given the shallow deposits and the absence of thick and consecutive occupation horizons, and given the absence of any development within the ceramic assemblage.

❹ In view of the gradual transition attested both in the pottery- and in the lithics development from FCP 1 over FCP 2, as well as similar patterns in faunal remains over FCP 1–2, the EN period at Franchthi most likely is not as early as suggested in the literature. Instead, FCP 1 could well immediately predate FCP 2, *i.e.* roughly at about 5900 cal BC.

❺ On the basis of the radiocarbon evidence, the MN period at Franchthi, represented by the FCP 2 and FCP 3 stages, appears to be of short duration as well – the absolute dates suggesting the 58th and 57th centuries cal BC (Fig. 9).

❻ The Franchthi FCP 1 pottery resembles rather perfectly the 'EN' assemblage retrieved from Old Corinth. There, what Weinberg classified as 'red monochrome' and 'coarse monochrome' wares have strict parallels in technique (paste, colour, firing) and form (including decoration and location of vertically pierced knob handles below the rim) with FCP 1. Also at Corinth continuity is noted for EN–MN (*Lavezzi 1978.427*).

❼ As pointed out by Lavezzi (*l.c.*), the EN–MN development at Corinth is comparable to Franchthi Cave, Lerna, Phlius and Asea, and even to Central Greece, *i.e.* Elateia and Halai. Similar EN–MN pottery groups have been acknowledged by Howell surveying Eastern Arcadia (*Howell 1970.103–108*).

❽ If the update of the Franchthi Neolithic (FCP 1) is correct, it opens the road to reconsidering the EN period of Southern Greece in general. Given the tight correspondences in the pottery assemblages of EN Franchthi and Lerna (cf. *Vitelli 1974*), as well as the links with other EN sites in the region, we have, I think, to reconsider the current temporal equation of the Southern Greek EN period with the Thessalian EN sequence. While, unfortunately, ^{14}C dates from EN sites in Southern Greece are lacking (except for the rather unreliable ones from Elateia [cf. the remarks on these dates by *Vogel and Waterbolk 1963. 182–183*]), Franchthi EN would rather date to a time frame during which, in Thessaly, the Middle Neolithic Sesklo period had already begun. Interpretation and explanation of the misleading archaic aspect of the Southern Greek pottery, well represented by Franchthi, of simple vessel forms (for example, deep

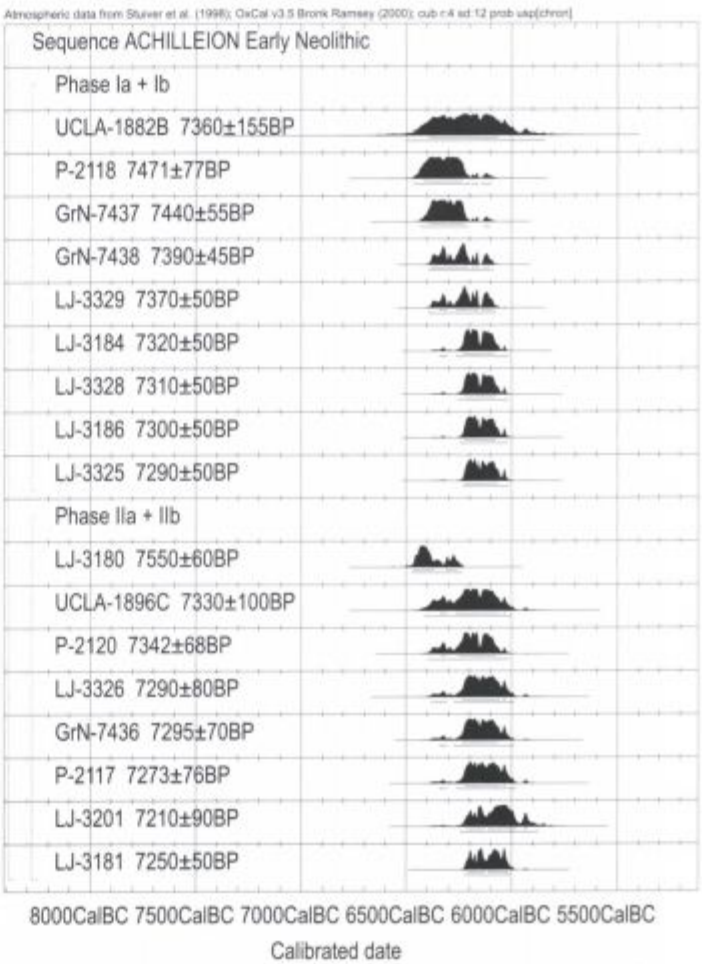

Fig. 5. Achilleion radiocarbon dates from the Early Neolithic levels (exclusive of LJ-4449 and UCLA-1896A from test pit east), calibrated individually.

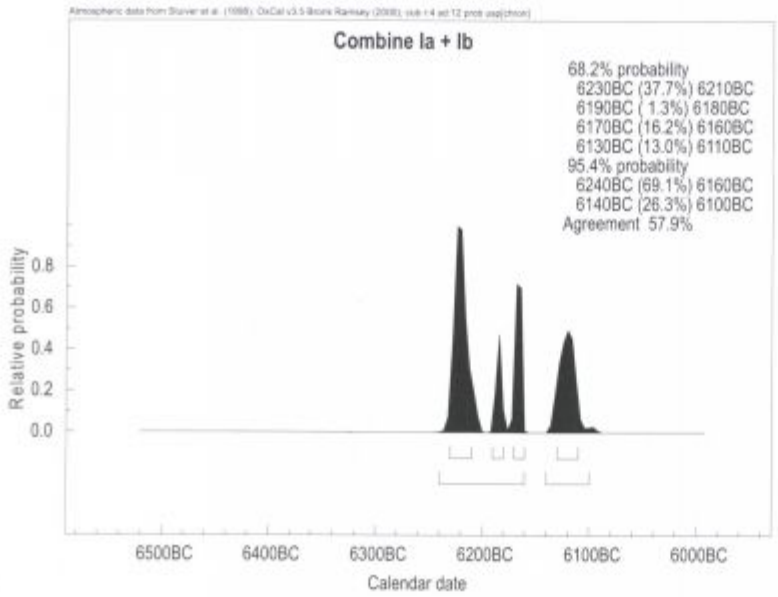

Fig. 6. Achilleion radiocarbon dates from the Early Neolithic levels (exclusive of LJ-4449 and UCLA-1896A), the probability distributions of level Ia-Ib combined.

hemispherical bowls), 'Early Neolithic' handle shapes such as vertically pierced knobs, and a limited number of ceramic categories, may profit from re-evaluating it from the perspective that we have at least two different pottery traditions: a Thessalian one and a Southern Greek one, neither related in time nor in origin. These different traditions are possibly nothing more than a reflection of the different pathways that led to the neolithisation of both regions (see further below).

WESTERN TURKEY

Even compared to the scarcity of data on EN Thessaly and Southern Greece, West Anatolia is worse off, hard evidence (^{14}C dates, excavations) being virtually non-existent. Little work is done here, and consists almost solely of surface surveys. If I will, nonetheless, treat this area as a potential key region in the neolithisation of SE Europe, cq. Greece, I can only defend my position with the current adage that absence of evidence is not evidence of absence. It should be said beforehand that aceramic sites have not yet been attested in West Anatolia. The sites mentioned here are, on the basis of the surface pottery, cross-dated with the Hacılar evidence, and are tentatively assigned to the last centuries of the 7th millennium cal BC (Fig. 10).

Evaluating the present data on early site location in West Turkey, it is the diversity that is striking. Several sites are immediately on the Aegean seaboard, to note: Karaağaçtepe (Fig. 10, site 12) on the southern tip of the Gelibolu peninsula, Kumtepe (site 13), Coşkuntepe (site 11), Ayio Gala cave, Killiktepe (site 8), Limantepe (site 33), Milete (site 9); or on islets (Tavşan Adası [site 10]) and small peninsulas (Saplı Adası [site 5]). The orientation of these sites was evidently towards the sea, their position not on the edge of fertile alluvial plains suggesting that agriculture may not have been the dominant subsistence strategy. Several of these coastal sites are situated on rocky outcrops (*e.g.* Coşkuntepe, Tavşan Adası). By contrast, the inland sites yielding similar material culture assemblages are concentrated in several alluvial plains and side valleys of the Gediz and Büyük Menderes rivers: *e.g.*, the Akhisar and Manisa Plains (Fig.10, sites 40, 41, 44, 48, 49) (*French 1965; Dinç 1997*), the Torbalı Plain (sites 19, 20, 22, 26, 32, 35, 36) (*Meriç 1993*), the Akçay Plain (sites 6, 7) (*Akdeniz 1997*), or even the Alaşehir Plain (sites 43, 45-47, 50) (*Meriç 1993*).

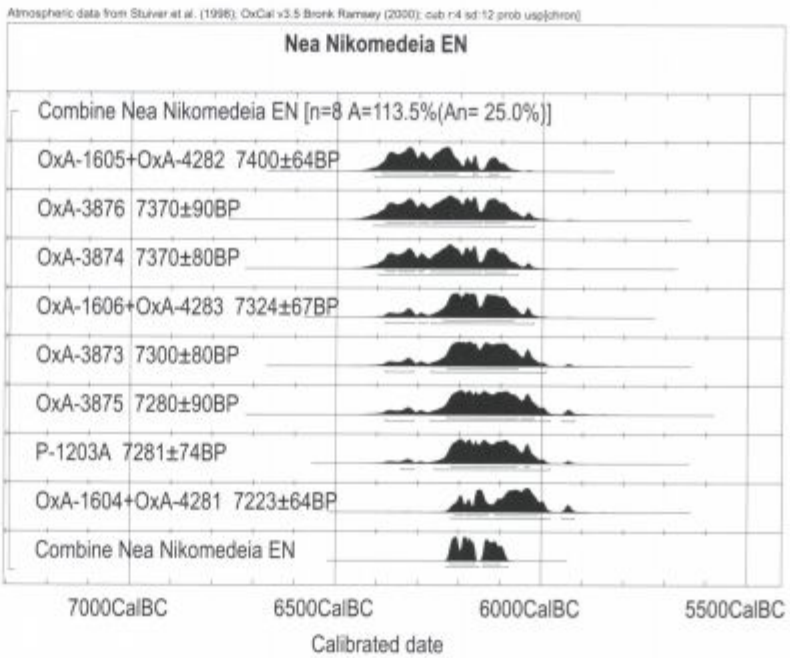

Fig. 7. Nea Nikomedeia radiocarbon dates (exclusive of Q-655, GX-679, P-1202 and OxA-1603+OxA-4280), calibrated individually.

From the density of early sites, these plains obviously represent key areas for the Neolithic–Early Chalcolithic periods in West Anatolia, and might very well have done so earlier, their success being dependent on the exploitation of the alluvial plain and the mountains around.

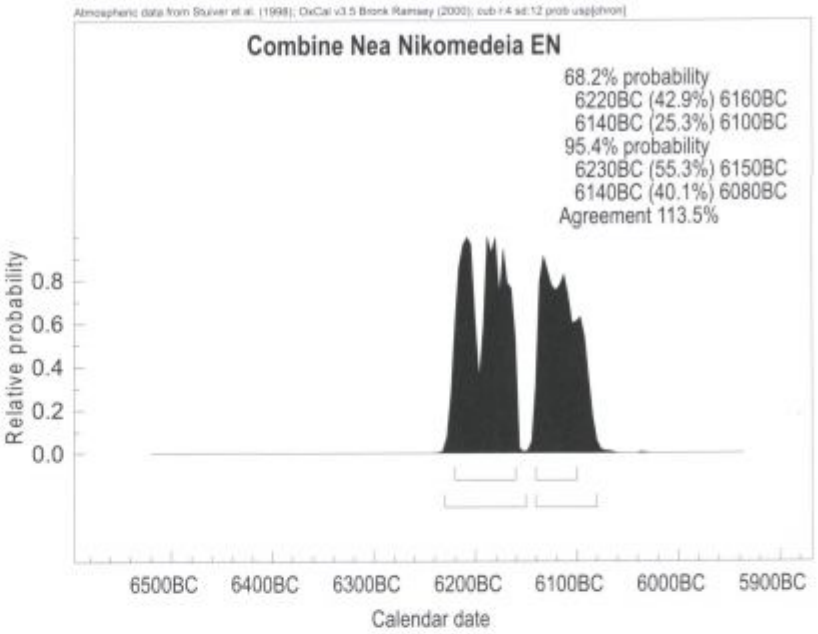

Fig. 8. Nea Nikomedeia radiocarbon dates (exclusive of Q-655, GX-679, P-1202 and OxA-1603+OxA-4280), the probability distributions combined.

The obsidian from the West Anatolian settlements was probably all imported from Melos, although this assumption rests on the two analysed pieces from the site of Moralılar (Fig. 10, site 48) in the Akhisar Plain (*Renfrew, Cann and Dixon 1965. 235*). The lithics industry appears based on simple blades, but seems highly exploited as evidenced by Coşkuntepe (*Seeher 1990.11, 13.Fig. 2:11–16*). Indeed, the mountains have been used thoroughly for raw materials (cf. the use of pumice, volcanic stone from the area around Kula, and silex in Moralılar [*French 1965. 15; Dinç 1997.266–267*]).

While solid data are still lacking on the Turkish side, several correspondences between Thessaly and West Anatolia can tentatively be pointed out in support of a shared cultural background. If the survey data from West Anatolia are be trusted, individual regions of this large area were rather densely settled at least in the final centuries of the 7th millennium cal BC, both in the coastal areas and in large alluvial plains in the hinterland. A dualism in orientation, on the one hand to the sea, on the other hand to solid farming away from the Aegean, hidden behind coastal mountain ranges, is equally present both in Thessaly and in West Anatolia. At the same time, dependence on the sea was possibly felt also in the hinterland, if we may believe the Melian obsidian at Moralılar. West Anatolian sites, being usually not much larger than 100 m in diameter (cf. Hoca Çeşme or Coşkuntepe), would compare both in settlement location and in size to Thessalian EN villages. The picture sketched by Halstead for EN Thessaly, *viz.*, that of a thickly wooded region studded with small, but many sites may well be applicable to the West Anatolian plains (cf. *Halstead 1981; 1989*). His interesting point, that sheep/goat were foremost kept for their meat, as evidenced by the high death rate of young sheep, hence discarding pastoralism as a means of subsistence (*Halstead 1989*), is equalled and confirmed at least at Ilıpınar. Also here, sheep/goat were bred purely for meat (*Buitenhuis 1989–1990. 117–118*), while most of the animals were killed as sub-adults or young adults (*L.c.*). It is likely that similar patterns will become available when archaeological research finally focuses on contemporary sites in West Anatolia. In line with Halstead's findings for Thessaly, West Anatolian inland sites might also have relied primarily on arable farming to provide for the energy requirements of the population. In contrast, the West Anatolian coastal sites very probably acted as base sites for the Aegean navigators-fishers, and it is likely that several such locations did represent points of reference within a Transaegean network of places, much as might have been the case for Franchthi (cf. *Chapman 1994. 137*). These coastal sites may only have depended on farming in a very limited way and, to extend the speculation, may have depended on the inland villages for agricultural products in exchange for obsidian and raw materials from the sea.

Concerning parallels in material culture, both regions may eventually demonstrate affinity, although here again the lack of West Anatolian data is felt. Discussing the Thessalian evidence above, I have ventured the idea that Thessalian ceramic procedures were developed on the spot and not as part of the baggage of the immigrants. We must begin to reconcile, as pleaded for by Cauvin (*1994*), the facts of colonization with the possibility of cultural variation.

However, in the chipped stone assemblages of both Thessaly and West Turkey a *rapprochement* may exist in the parallel preference for a flake/blade industry. Neither the Thessalian toolkit, nor, for instance, that of Hacılar in the SW Anatolian Lakes District has much affinity with the sophisticated assemblages of the Konya Plain (*e.g.*, Çatalhöyük East). In addition, despite the fact that the obsidian of Hacılar may have been retrieved from the Acıgöl source, Mortensen, in his analysis of the Hacılar obsidian, was not able to relate it to the obsidian industry in the Konya region or to Mersin (*Mortensen* apud *Mellaart 1970.156–157*). Both in technology, in type range and in quantity, the Hacılar obsidian yielded highly different results. Lamellar pressure-flaking, well known at Çatal, was rare at Hacılar. While the Hacılar industry is based on blades (as that of Kuruçay, very close to Hacılar, see *Baykal-Seeher* apud *Duru 1994.108*), at Çatalhöyük fifty different types of tools and weapons have been distinguished, forty-three for Levels III–II alone (*Bialor 1962; Mellaart 1975.103*). At Hacılar, flint dominated the tool kit, *versus* 42% of obsidian (Çatal: 95% obsidian in levels III–II). In view of the cultural coherence of Western Anatolia and the Lakes Region, the remark by Mortensen that the flint and obsidian objects surveyed by French from Moralılar "bear a considerable resemblance to the chipped stone industry of Hacılar" (*Mortensen* apud *Mellaart 1970. 157*) gains in importance.

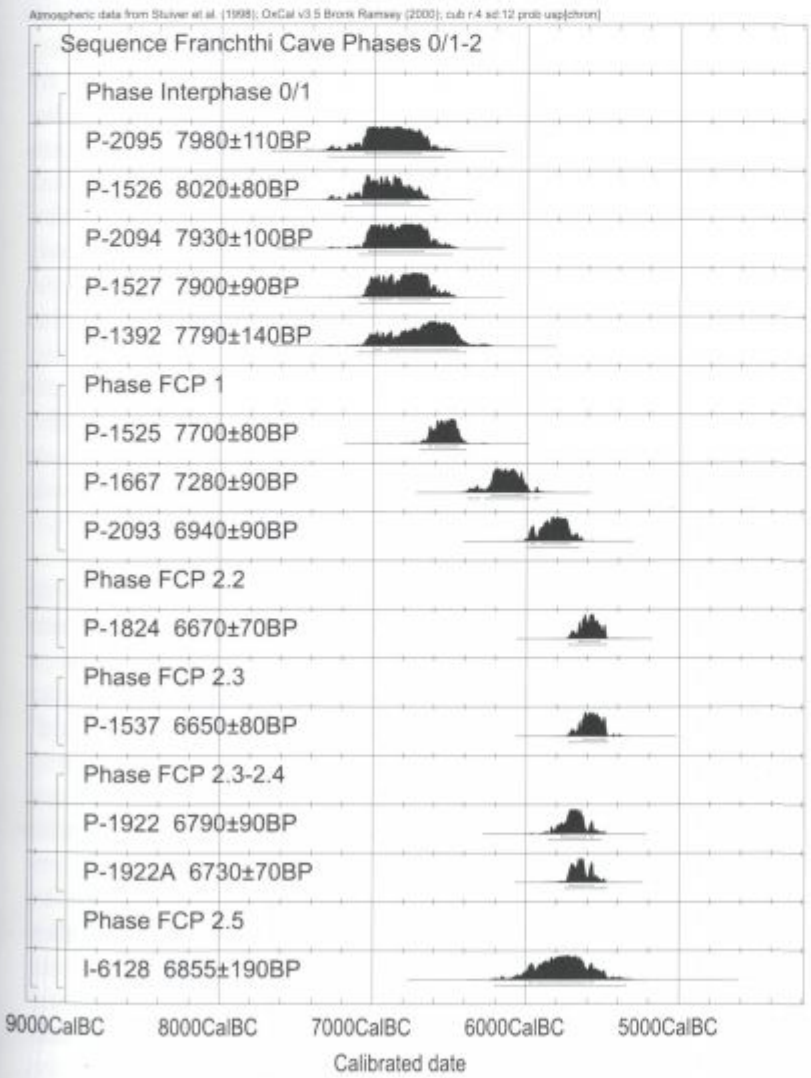

Fig. 9. Franchthi Cave radiocarbon dates for Phase Int 0/1, Phase 1 and Phase 2, calibrated individually.

DISCUSSION

The following discussion rests on two basic assumptions, first, the existence of an Aceramic Neolithic culture in West Anatolia depending for a large part on farming, but to be distinguished in an inland area, and a coastal area, with different commitments and subsistence bases, and second, the existence of a body of Transaegean navigators (hunters-fishers?) acting as know-how transmitters, suppliers of Melian obsidian and ultimately as a medium in transferring West Anatolian aceramic farmers to the Thessalian Plain.

In seeking for a possible origin of the Thessalian settlers, Perlès' remark that they deliberately ignored the local raw material sources (meaning those for quality flint, obsidian and jasper, not so much the directly utilitarian ones) is significant (*Perlès 1992.121, 124, 128*). Living in an obviously strongly socialised context, the first Thessalian farmers, in order to evade conflicts, depended on local exchange mechanisms (*Perlès 1992.121*). The *avoidance* of conflict, the success of which is archaeologically visible in the coherence of Thessalian EN culture, in the close proximity of sites over centuries and in the scarcity of burnt destruction horizons, and an *unwillingness* to engage in conflict might both find their basis in the to all appearances peaceful, non-aggressive milieu, with only a minor hunting component (cf. *Halstead 1994.206–207; 1996.304–305*).

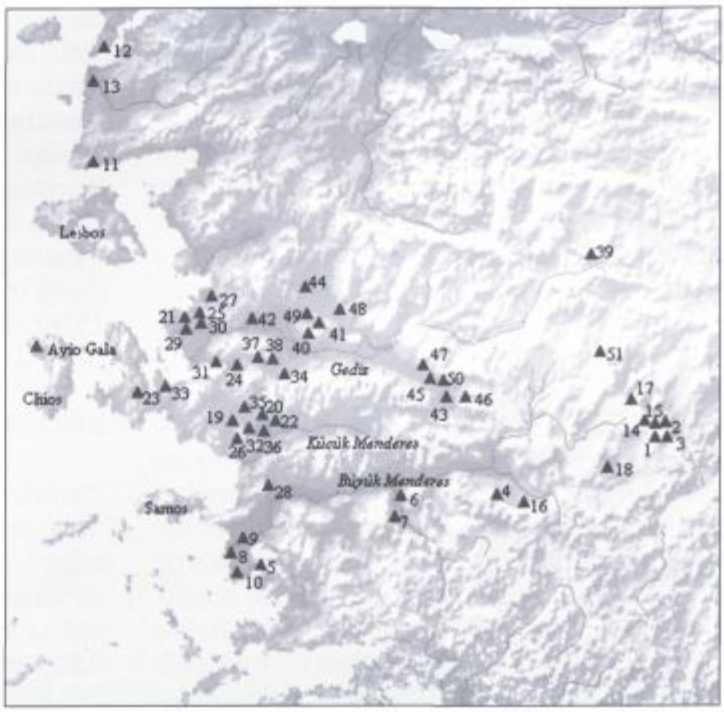

Fig. 10. Map showing Late Neolithic – Early Chalcolithic sites in Western Anatolia. 1. Ak Höyük. 2. Boz Höyük–Dinar. 3. Dinar Höyük. 4. Afrodisias. 5. Akbük–Saphıadası. 6. Hamidiye (Toygartepe). 7. Kavaklıkahve. 8. Killiktepe. 9. Milete. 10. Tavşan Adası. 11. Coşkuntepe. 12. Karaağaçtepe. 13. Kumtepe. 14. Çandar I. 15. Çandar II. 16. Karakurt. 17. Ömerköy. 18. Sürmeli Höyük. 19. Altıntepe. 20. Arapkahve. 21. Araptepe–Bekirlertepe. 22. Aslanlar. 23. Barbaros. 24. Bornova. 25. Bozköy. 26. Bulgurca. 27. Çaltıdere. 28. Gökçealan. 29. Helvacı–Höyücek. 30. Höyücek II. 31. Küçük Yamanlar. 32. Lembertepe. 33. Limantepe. 34. Nemrut Höyüğü. 35. Oğlananası. 36. Tepeköy. 37. Ulucak. 38. Yenmiş. 39. Akmakça. 40. Alibeyli. 41. Arpalı II. 42. Çerkeztevfikiye. 43. Gâvurtepe (Alaşehir). 44. Kayışlar. 45. Kemaliye. 46. Killik. 47. Mersinli. 48. Moralı (Moralılar Höyüğü). 49. Nuriye. 50. Yuvacalı. 51. Aliçli Höyük.

Conflict-evasion might be prompted by the initial foreignness to the land and by the concomitant necessity to keep together. Early Neolithic Thessalian society thus offers a picture of a densely occupied land of peaceful, undoubtedly hard-working (see *Sahlins 1972.Ch. 1*) farming villages or hamlets, keeping in close contact with each other and making use of each others', overlapping, raw material source areas. Not only in a material sense, but also socially, all villages are thus linked through a network of reliable integrative mechanisms maintained through local exchanges (*Perlès 1992.121*). Though internally dynamic, this society is self-contained and static externally *except for* a few important and specific, direct alliances established by tradition. The self-containment, and the probable intention on the part of the settlers to "make it" in the new land (an intention which would live on over the generations and find its consolidation and justification in the success of the exploit) would generate what Chapman has called the concept of "cyclical, or reversible, time" (*1994.139*). In such a concept of time – denying linear progression – tradition, and the maintenance of tradition, will become the yardstick for life, instead of time; tradition which causes to remain to the land, to the village and to the building plot (cf. *Chapman, l.c.*). As Perlès argues, in such a society there are social barriers to engage and maintain the circulation of goods and/or people over long distances, adding that such a society presupposes "a socially more neutral trading system, such as one based on recognised middlemen" (*Perlès 1992. 121*). Direct alliances, whether or not mediated by "neutral" middlemen, might very well form the basis for the import of Melian obsidian so conspicuously and permanently present on Thessalian sites. Perlès argues convincingly that the Melian obsidian was probably not acquired through local initiative, as seems confirmed by the small amount of these materials on each EN site not being in proportion to the exertions of such distant trips. There is, furthermore, absence of local variation, the incoming material arriving in a worked state, while, additionally, the specialised know-how needed to circumnavigate the Aegean may not have been present (*Demoule and Perlès 1993.383*).

A similar constellation might well have existed in West Turkey: inland sites depending on middlemen for providing the Melian obsidian (and perhaps other "marine" resources); middlemen supplying information about the Aegean, about "available land" across the sea. If the existence of an aceramic farming society in West Anatolia is assumed (albeit not yet proven), this society, with its long ancestry, must have differed from what, in a later stage, was implanted in Thessaly; in fact, it is improbable that the social structure of the Anatolian inland communities were the same as those in Thessaly. Put otherwise: the Anatolian colonists did not apply the traditional social structure (perhaps viewed as one of the causes leading to migration, and therefore not to be reiterated) in the new land, where it was decided to 'stick together.' If we above followed Halstead, see-

ing the Thessalian pottery as structuring the laws of hospitality (*Halstead 1994.206*), it is perhaps this decision that stood at the basis of the willingness to make and use pottery, so indeed, following Perlès and Vitelli, primarily as a social construct, to tie the bonds between the different groups of settlers. It is even imaginable that the aceramic West Anatolian inland farmers knew about the new invention, either from the Konya Plain area to the East of them, or from the lakes area to the Southeast of them, but did not find any immediate use for them.

From Perlès' analyses and on the basis of the evidence discussed in this paper, several suggestions may be advanced, testable through excavations of some key sites both in inland West Anatolia, and along the Turkish Aegean seaboard:

- The EN Thessalian settlers are not identical to those who explored the Aegean, catching tunny-fish and exploiting Melos obsidian.
- These EN Thessalian colonists are farmers *pur sang*, not much depending on hunting, as well as not much acquainted with the sea and with marine life. Their ignorance or dislike of the sea and marine food may find its corroboration in their food habit patterns: most of the EN Thessalian sites yield very meagre evidence of the use of seafood (cf. *Wijnen 1981.54; Schwartz* apud *Wijnen 1981.112* for Sesklo). A major exception is the site of Pyrasos sitting immediately on the coast (*Wijnen 1981.57*).
- It is, among others, the Franchthi people who navigated the Aegean, who possessed the expertise to cope with the currents and winds and who may have acted as providers of the Melian obsidian, either directly to Thessaly, or more probably, by way of middlemen. The information supplied by Wijnen (*1981.78*) concerning the site of Nea Makri, on the coast of Attica, and the only site thus far yielding obsidian implements including cores and waste flakes, leads her to suggest that "people from this area shipped obsidian from Melos, knapped blades and then transported them over the country or exchanged them for other goods."[6]
- The people frequenting Franchthi Cave may have represented the filter through which the existence of fertile land in Thessaly became known in the region of origin of the Thessalian farmers. Moreover, the knowledge that the fertile land was roughly similar environmentally to the root country must have filtered through as well.
- The most logical option for the root country of the Thessalian colonists may be the plains in the West Anatolian *hinterland*. The farmers living here stood in contact with sites on the West Anatolian seaboard, *ergo* with the Aegean navigators, as proven by the Melian obsidian from Moralı.
- Given the absence of know-how on the part of the colonists in seafaring, it is tempting to assume that the transporting of the migrants was in the hands of the Aegean navigators.
- If the Thessalian farmers had their roots in West Anatolia, then the fact that they developed pottery only upon arrival in Thessaly, implies that they left West Anatolia at a time when they were still 'aceramic.' The development of pottery in Thessaly cannot therefore be related to cooking, as techniques of cooking without clay containers were known.
- By identifying the Thessalian settlers as rooting in West Anatolia, we may assume a long-lasting process of development in West Anatolia *before* the move across the Aegean was decided upon. A longer process of development is required in order to comply with the time needed to raise to conflicts, to become so overwhelmingly embedded in farming and in order to take the decision to solve the conflict by migration. This assumption, incidentally, might explain why the Thessalian Early Neolithic appears so balanced and mature (as both practising animal husbandry and plant exploitation, with hunting playing a minor role). This *longue-durée* perspective also would provide a framework within which to position the age and complexity manifest in the exploitation of the Melian obsidian (cf. *Perlès 1989.117*).

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6 Clear evidence of obsidian working is attested also at Neolithic Halai (*Coleman 1992.274*).

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