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HUNTER-GATHERER CONTINUITY: THE TRANSITION FROM THE EPIPALAEOLITHIC TO THE NEOLITHIC IN SYRIA

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ABSTRACT

Small, short-term hunter-gatherer occupations, rather than large, permanently occupied farming villages, were the rule in Syria in the early Neolithic, ca. 10,000-7500 BC. The sedentary lifestyle seems to have appealed only to a small number of people for a very long time. The handful of larger hunter-gatherer settlements of this period, characterized by sometimes long sequences and complex architecture, served ritual purposes, in addition to their role in domestic contexts. The communities, large and small, had much in common with their Epipalaeolithic forebears; profound changes in the forager lifestyle took place late in the Neolithic sequence.

RÉSUMÉ

Des installations temporaires de taille réduite, occupées par des chasseurs-cueilleurs, semblent avoir été la règle en Syrie au Néolithique ancien (ca. 10 000-7500 BC), plutôt que des villages permanents occupés par des cultivateurs. La vie sédentaire semble n'avoir attiré pendant longtemps que peu de gens. La poignée d'installations plus importantes datant de cette période, et qui sont caractérisées par une séquence longue et une architecture complexe, ont aussi servi à des activités rituelles à côté de leur rôle dans les activités domestiques. Ces communautés, petites ou grandes, ont beaucoup de points communs avec leurs ancêtres épipaléolithiques ; de profonds changements dans le mode de vie des cueilleurs n'interviennent que tard dans la séquence néolithique.

INTRODUCTION

The transition from the Epipalaeolithic to the Neolithic in the tenth millennium BC[2] has always been understood as a watershed in the prehistory of Syria and the Levant, pivotal in the profound transformation of human society in the millennia that followed. The shift is defined on the basis of material-culture distinctions such as the development of projectile points and other lithics, but other, primarily economic, implications are usually taken into account as well. Thus hunting and gathering have come to characterize the activities of the late glacial groups, whereas a reliance upon food production by agriculture and stock raising is considered to be essential to Neolithic communities, turning them, in the words of V. Gordon Childe, into "active partners with nature instead of parasites on nature" (Childe, 1942: 55). In this perspective, cultural change and variability primarily derive from changes in the nature of subsistence, in response to such (external) matters as environmental shifts, population pressure or resource imbalances; in their turn, these variables imply that Neolithic people were passive and were reacting to events rather than bringing them about. While the long-held superiority of agriculture over foraging—people would take up farming almost automatically once they had the knowledge to do so—has rightly been challenged, there is still an enormous disposition to believe in the Neolithic as being primarily composed of a set of innovations and achievements in the field of subsistence and

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2. All dates used in this article are calibrated dates BC.

production, thus clearing the path to a "rise of civilization" in the subsequent millennia (see *e.g.* Ingold, 1996; Thomas, 1999 for extensive criticism).

Another pervasive element of the economic point of view is to use the term "Neolithic" (read: "agriculture") as virtually synonymous with "sedentary life", thereby assuming that the practice of mixed farming necessitated staying in one place in view of such matters as regular labour input and crop protection. However, ever since the work at 'Ain Mallaha in the Jordan valley in the mid-fifties (and at other hunter-gatherer settlements in later years), we are well aware that the origins of sedentism have little or nothing to do with the farming economy; sedentary village life began several thousand years before the full-scale adoption of agriculture and stock rearing in the late ninth and eighth millennia BC. Agriculture was not a necessary prerequisite of sedentary life, nor were sedentary settlers always farmers.

In recent years, there is an increasing tendancy to move away from the idea of the Neolithic as a unitary phenomenon and cultural package wholly built around changes in subsistence practice. Julian Thomas was referring to British prehistory when stating that "it is because we choose to see mixed agriculture as the fundamental essence of the Neolithic that we fail to recognise the potential range of economic variability which might characterise the period." (Thomas, 1997: 59), but to a considerable extent his remark holds for the Neolithic sites of Syria and the Levant as well. There is good evidence that the Neolithic in these regions was not characterized by a single economic system but by many different sets of subsistence practices, depending on local circumstances and societal preferences. Moreover, interest has shifted to some degree from the materialist, economic approach to an idealist proposition, which argues for changes in ideology in the Neolithic (*e.g.* Cauvin, 1994; Hodder, 1990; Hayden, 1990; Bender, 1978; Thomas, 1999).

These issues are relevant because they address some of our difficulties in coming to terms with what happened on the Epipalaeolithic/Neolithic transition. It is important to realize that the break between both periods is in the first place a construct of our research, aimed at making sense of the archaeological evidence, rather than a substantive, homogeneous reality in prehistory [(in the words of Mark Edmonds: "We have reified what should at best be regarded as a heuristic device." (Edmonds, 1997: 99)]. We are inclined to see the Epipalaeolithic and Neolithic as objective, homogeneous entities and the boundary between them as a threshold across which a traditional, many thousands-of-years-old forager society comprehensively changed into a wholly new world with different social and economic values. Although the heuristic value is evident, dividing the past into discrete periods has an inherent risk of emphasizing the replacement of the old by the new; it brings innovation and change to the fore, usually at the expense of similarities and continuity. But was there such a distinct shift in culture and society in Syria in the tenth millennium BC?

In what follows, the development of community life from the Epipalaeolithic to the early Neolithic in Syria will be commented on (with short excursions into adjacent regions), with the emphasis on patterns of settlement and the nature of change and continuity therein. For matters of clarity, I shall rely on the conventional division of the Neolithic into two broad, successive phases, *i.e.* the Pre-Pottery Neolithic A (PPNA, ca. 10,000-8700 BC) and the Pre-Pottery Neolithic B (PPNB, ca. 8700-6800 BC), the latter with its usual subdivisions in an early, middle, late and final stage (cf. Cauvin and Cauvin, 1993; Cauvin, 1994).

EPIPALAEOLITHIC ENDINGS

Our knowledge of Syria at the end of the Pleistocene is still in its infancy. Sparse evidence for forager camps of this period, ca. 16,000-10,000 BC, has emerged from surveys and small-scale excavations in all corners of the country (see the overviews by, *e.g.*, M.-C. Cauvin, 1981; J. Cauvin, 1994; Akkermans and Schwartz, 2003). Settlement was mostly small, between 15-25 and 600 m^2, and ranged from rockshelters in remote mountain areas, such as Yabrud III, Nachcharini and Douara I, to dispersed open-air stations in the lowland plains and valleys, like Nahr al Homr, 'Ain Juwal, Aarida, etc. These sites were probably occupied by a few dozen people at most. Moreover, their often short sequence and shallow occupation deposits argue for restricted though sometimes repeated stay. Mobility was unquestionably a main characteristic of settlement in this era. In this respect, given the length of the period, there can be no doubt that our current site inventory is little more than the tip of the iceberg.

There were also a few more substantial occupations up to 2500 m^2, such as Umm el-Tlel 2 and Nadaouiyeh 2 in the El Kowm basin, and (after ca. 11,000 BC) Abu Hureyra I and Mureybet IA on the Euphrates. Although excavation was everywhere very limited in extent, we have some insight into the kinds of dwellings at these sites. Umm el-Tlel 2 revealed a small, semi-circular structure measuring about 5 by 2.6 m, built of light, perishable materials on a limestone foundation. An oval hearth had been sunk into the floor in the centre of the house. Abu Hureyra had a number of shallow depressions interpreted as semi-subterranean dwellings about 2-2.5 m across, with a superstructure of brushwood, reeds or hides. In later phases, free-standing timber-and-reed huts presumably replaced the pit dwellings. Mureybet has not yet produced any buildings in its lower level IA, but circular, semi-subterranean houses up to 6 m in diameter and built of mud-plastered stone walls appeared in the next level IB, with little or no hiatus in the stratigraphic order or the material-culture assemblage. Part of a circular building founded on stone also occurred in a small-scale sounding at Jayrud I in the Qalamun region (J. Cauvin, 1979; M.-C. Cauvin, 1991; Molist *et al.*, 1992; Moore *et al.*, 2000). Although the evidence should not necessarily be treated on a par, the architecture of this period is much better known from sites in the southern Levant, where the investigations at sites like Nahal Oren and 'Ain Mallaha revealed settlements approximately a quarter of a hectare in extent, containing clusters of circular or semi-circular, stone-built dwellings 2 to 6 m across. The investment in architecture and the depth and diversity of cultural deposits are suggestive of long-lasting occupation, but it is not certain that the sites were occupied year-round.

The Epipalaeolithic communities, large and small, were hunter-gatherers who for their subsistence fully relied on the exploitation of the seasonal riches of the wild. Wild-plant foods probably constituted the most significant part of the diet, as shown by the finds at Abu Hureyra, comprising over 150 edible seed and fruit species along with a long list of non-food plants. Subsistence included abundantly harvesting the stands of wild barleys and wheats, but there is little or no evidence to support claims that people were involved in agriculture; they were still food collectors, not farmers. People also hunted a wide variety of animals such as the gazelle, wild sheep, wild goat, aurochs, wild boar, red deer, roe deer, onager, hare, wolf, fox, turtle, lizards, reptiles, and birds. The most commonly exploited animal throughout Syria and the Levant was the gazelle, comprising 40 to 80% of the faunal assemblages. At Abu Hureyra and many other places, it seems that the hunt, with the employment of many hunters, ended in mass-killings; the target was the herd, rather than the individual animal.

Summarizing the modest amount of information available, it appears that the Epipalaeolithic communities were characterized by a dispersal of population, low and fluctuating density of population, small group size, mobility and short-term stay, and a diverse, seasonal exploitation of resources. There is some evidence of prolonged stay and greater permanence of shelter at the end of the period, although in most cases people remained mobile and continued hunting and gathering in small groups.

AT THE INTERFACE: THE PPNA, CA. 10,000-8700 BC

The Neolithic sequence in Syria and the Levant begins with the PPNA in the tenth millennium BC. In many ways, the communities of this era were little different from their Epipalaeolithic forebears. The transition from the Epipalaeolithic into the Neolithic was a gradual process over many centuries and generations, rather than a momentous break with the past. The lithic industries, for example, initially continued for hundreds of years the earlier, late glacial traditions of tool production as reflected by an ongoing use of microlith technology and tool kit, in association with a new, distinctive kind of arrowhead—the El Khiam point. A classic example is the lithic sequence at Mureybet on the Euphrates, where the lowest Neolithic levels IB-II evolve from the earlier, Epipalaeolithic level IA without any significant break in the stratigraphy or in the material culture. Gradually abandoning their microlithic character, the industries of the ninth millennium and later tended to focus on the manufacture of relatively standardized blades that were frequently struck from bipolar or naviform cores and subsequently reworked into sickles, scrapers, borers, burins, knives and a variety of notched and tanged arrowhead types. The lithic assemblages were subjected to change and innovation, yet they remained relatively consistent over long spans of time (see *e.g.*, Moore, 1982; Henry, 1989: 224; Gopher, 1994; Nishiaki, 2000; Cauvin, 1994).

Continuity with what had gone before also holds for the pattern of settlement in the early Neolithic. In the light of our current evidence, it appears that the practice of settling down permanently must have appealed only to a very small number of people for a very long time. The shift to increased village life began in different regions at different times. For example, while settlement on the Euphrates seems to have developed first at places like Abu Hureyra I and Mureybet IA in the eleventh millennium BC, other, neighbouring, areas followed suit literally thousands of years later. For two or three millennia at least, the sedentary lifestyle remained limited to a handful of small sites less than 0.5-1 ha in size with evidence of long-lasting though not necessarily year-round occupation.

The number of (known) PPNA sites in Syria is very low. Four sites have been located along the Euphrates: Mureybet, Sheikh Hassan, Jerf el Ahmar and the recently discovered Tell al 'Abr (*e.g.* Cauvin, 1979; 1980; Stordeur, 1998). Two other sites have been found in the west: Tell Qaramel north of Aleppo and, probably, Tell Aswad near Damascus (Mazurowski, 2000; Contenson, 1995). PPNA-type lithics have also been reported from the surface of Tell Chehab east of Homs (Copeland, 1991). Heavy later overburdens obscure the early deposits in most cases, leaving us uncertain about their size in prehistory; however, on the basis of the current evidence, it seems safe to assume that all were small occupations less than 0.5-1 ha, inhabited by a few dozen people at most. An example is Jerf el Ahmar, where settlement in the eastern area comprised about 2400 m^2, whereas later settlement in the western area was probably limited to about 250-350 m^2.

Architecture at these sites consisted of round or oval, sometimes semi-subterranean huts 3-6 m across, built of pisé on stone. The buildings were occasionally divided into smaller compartments for living, cooking and storage. Wall paintings occur in a few cases. Gravelled paths seem to have facilitated passage through the settlements, as at Mureybet and Jerf el Ahmar. By 9000 BC, the round houses were slowly replaced by multi-roomed rectangular structures, with walls built of disused querns and soft limestone, sometimes strengthened with wooden poles. Mureybet and Jerf el Ahmar (and most recently: Tell al 'Abr) have also revealed a kind of architecture that was probably related to community-wide ritual and ceremony, rather than ordinary living: large, round and wholly subterranean buildings embellished with benches and carved upright stone slabs, with friezes of triangles, undulating lines, human figures, and birds of prey (Stordeur *et al.*, 2000).

The distribution of settlement in Syria has much in common with that of the neighbouring countries, such as Jordan or the Lebanon, where research has produced only a handful of PPNA occupations so far. El Khiam points have been found in soundings at Nachcharini cave high in the Anti-Lebanon, just inside the Lebanese border, and on the surface of open-air stations such as Borj Barajne and "Tell aux Haches" in the coastal dunes near Beirut. Layers of sediment with hearths and ash-filled pits at Nachcharini almost certainly derive from small groups of hunter-gatherers who camped at the site seasonally. The other occupations are similarly interpreted as the temporary shelter of hunting parties (Copeland, 1991 and references therein).

Three or four sites in Jordan have been ascribed to the PPNA, viz. Sabhra I, "Iraq ed-Dubb, Dhra" and, possibly, Jebel Queisa J-24. While both Sabhra 1 and Jebel Queisa J-24 were small, short-lived camp sites with no evidence of architecture, the rock shelter at 'Iraq ed-Dubb revealed the remains of two small, oval structures approximately 1.5 by 3 m, one built on top of the other, suggestive of a more prolonged stay. Dhra' may have been a small village about 0.4 ha in extent, with oval or circular buildings up to 3 m in diameter and made of stone and mud (see Rollefson, 1998 and references therein).

Similar evidence comes from Israel and Palestine. Jericho and Nahal Oren were the only known sites of the PPNA in the region for a very long time, but the list has been expanded in more recent years with places like Netiv Hagdud, Gilgal, Gesher, Salibiya IX and Hatula. The sites are estimatedly between 0.1-1 ha in size, and characterized by oval or circular, semi-subterranean structures usually around 4-5 m in diameter. These sites give evidence of long though not necessarily continuous use (Bar-Yosef *et al.*, 1992, and references therein). Jericho is often taken as proof of the existence of large settlements with dense populations in the early Neolithic. The settlement supposedly covered an area of 2-3 ha, inhabited, according to the excavator, by a population as large as 2000-3000 persons. However, this figure is highly exaggerated and probably should be divided by ten at least (cf. Aurenche, 1981 *vs.* Kenyon, 1957; 1981). The monumental stone-built tower with the heavy walls and moat in front of it have initially been considered to be part of defense structures, but more recently it has been proposed that the wall served to protect the settlement from incidental flooding, whereas the tower had a public-ceremonial role (Bar-Yosef, 1986).

The PPNA groups retained traditional hunting and gathering as the primary means of food procurement;

there was no doubt considerable continuity from the Epipalaeolithic to the Neolithic in the domain of subsistence and production. Early Neolithic people everywhere relied on the intensive exploitation of wild plant species, such as at Mureybet where up to 60 species of wild plants with edible seeds or fruits were identified in phase III, ca. 9500-8700 BC, including sizeable quantities of wild einkorn wheat. At other sites, such as Jerf el Ahmar on the Euphrates or Netiv Hagdud in the Jordan valley, it was barley instead of wheat that was predominantly harvested in the wild, perhaps reflecting local environmental variation or cultural preferences. The work at Mureybet, Jerf el Ahmar, Nachcharini, 'Iraq ed-Dubb, Netiv Hagdud and so on, has shown that people also hunted a broad spectrum of wildlife, such as the gazelle, onager, aurochs, wild boar, fallow deer, badger, wild cat, polecat, beaver, hare, fox, small rodents like mice, rats and jerbils, and dozens of bird species.

Although sites such as Tell Aswad near Damascus and Jericho in the Jordan valley have produced some evidence of very early cereal cultivation around 9000-8500 BC, there is little or nothing to suggest an intensive use of domesticated cereals or any other domesticated resources at this time. The claim that rye already occurred in its domestic form at Abu Hureyra ca. 11,000 BC (Moore *et al.*, 2000: 397) is difficult to reconcile with the lack of cultivated cereals at this site and elsewhere for another 2000 years or more, suggesting that this early effort at cultivation had a highly restricted, local impact. Although experimental study indicated that in the case of cereal cultivation the change from the wild progenitor to the primary domesticate may well have been achieved within a few dozen years (Hillman and Davies, 1990; Moore and Hillman, 1992: 491; Blumler, 1996: 37-38), we should not simply assume that the shift from foraging to farming took place in an equally rapid manner. Given chronology and cultural history as currently understood, the process of change was a lengthy one; Neolithic people remained primarily hunter-gatherers for thousands of years before they fully adopted agriculture and animal husbandry in the eighth millennium BC. Many communities probably were not tied to the farming economy at all or in a selective manner only. I would emphasize that many people in Syria throughout the Neolithic continued to practise a mobile foraging economy, either in its own right or (in the later part of the period) in a reciprocal relationship with neighbouring farming communities.

CONTINUITY: THE EARLY AND MIDDLE PPNB, CA. 8700-7500 BC

The pattern of settlement in Syria in the early PPNB phase, ca. 8700-8200 BC, was little different from that of the preceding period, with only a handful of permanently occupied sites known so far. The PPNA settlements on the Euphrates were abandoned shortly after ca. 8700 BC, with the exception of Mureybet, which remained in use for another 900 to 1000 years. A few sites were newly founded in the ninth millennium (although not all at the same time), such as Dja'de el Mughara on the Euphrates and site BS 397 on the Balikh, both small occupations between 0.5-1 ha at most (Coqueugniot, 1998; 1999; Copeland, 2000). The nature and lay-out of settlement is poorly known, due either to the very small scale of excavation (Mureybet) or the limitation of research to surface materials (BS 397). The best information comes from the work at Dja'de el Mughara, which revealed small, one-roomed houses built of pisé on a stone foundation. The free-standing rectangular buildings had been repeatedly renewed, suggestive of some permanence of settlement, although there were insubstantial, short-lived structures as well. An extraordinary find was the so-called "Maison des Morts", which seems to have been primarily used for burial purposes.

Early PPNB sites are rare not only in Syria but elsewhere as well; for example, in Jordan only two sites have been attributed to this period so far—Jilat 7 and Abu Hudhud (Rollefson, 1998: 103).

The scarcity of settlement continued into the middle PPNB, ca. 8200-7500 BC, with Mureybet still in use, Dja'de el Mughara and BS 397 abandoned, and other occupations newly founded, such as Halula and Abu Hureyra. The latter sites grew into sizeable villages in the course of time, assumedly comprising up to 7-8 ha at about 7500 BC, perhaps inhabited by several hundred people (Molist, 1998: 116; Moore *et al.*, 2000: 269). Similar large population aggregrations occurred in places like 'Ain Ghazal in Jordan, possibly 4 to 5 ha in extent, with the population estimates ranging from about 500 people at the beginning to more than a thousand at the end of the period (Rollefson, 1998: 110).

In terms of subsistence, there was still an overwhelming dominance of wild resources over possible cultivars and domesticated animals in the early

and middle PPNB. People at early PPNB Mureybet and Dja'de el Mughara continued to rely completely on hunting and gathering to make a living. Hunting remained important at Abu Hureyra and Halula in the middle PPNB, with gazelle (as before) the main prey in mass killings, supplemented by wild species such as onager, deer, cattle and pig.

The occupants of Abu Hureyra and Halula started to practise agriculture as a supplement to their foraging activities, although the scale of production is unknown. The earliest (middle PPNB) Neolithic settlement at Abu Hureyra was associated with the introduction of a range of domestic plants, such as emmer wheat, hulled six-rowed barley, lentils, chick-peas, horse beans and common vetch. The remains of the domesticates occur together with those of their wild counterparts, either because the wild stands were still exploited, or because the wild and domesticated forms grew side by side in the fields, or a combination of the two. However, the basal levels at Tell Halula have yielded no evidence for wild crop plants, suggesting that the first settlers at the site brought species such as wheat, barley and flax with them in the fully domesticated form. People also began to tend herds of domestic sheep and goats, although their contribution to the diet must have been modest (domestic animals comprising about 12-14% of the animal bone at Abu Hureyra). A dramatic increase in the use of domestic resources (up to 65-75%) took place in the second half of the eighth millennium, when sheep and goats began to displace gazelles as the main meat source. Domestic pigs and cattle were soon to follow (see *e.g.* Helmer *et al.*, 1998; Moore *et al.*, 2000).

CHANGE: THE LATE PPNB, CA. 7500-6800 BC

A main shift of focus began in the late PPNB. Not only did the the number of occupations increase substantially but this period also saw the establishment of settlements in areas hitherto little used, such as the Khabur region or the Balikh valley (cf. Hole, 1994; Akkermans, 1993). Moreover, many of the newly founded sites tended to become settlement mounds, with a rather ordered lay-out, uniform structures, frequent rebuildings, and repeated occupation over long spans of time. There were a few large settlements, although it is not always clear how much later occupations contributed to the size of the mounds as we see them today. Most sites were small, in the order of 0.5-1 ha, with the number of inhabitants restricted to a few dozen. Good examples are Tell Damishliyya and the recently excavated Tell Sabi Abyad II on the Balikh, both small villages with a few structures dispersed over an area less than 0.5 ha and each used by perhaps only 20-30 people (Akkermans, 1986-1987; Verhoeven and Akkermans, 2000).

The change in the organization of settlement seems to have been related to important shifts in subsistence. The use of domestic resources strongly increased after 7500 BC, and farming communities became well-established throughout many of the areas where rain-fed agriculture was viable. There is no need to repeat the evidence in detail (see *e.g.* Cauvin, 1994; Helmer *et al.*, 1998); for our present purposes, it will do to conclude that the reliance on the four principal domestic crops —emmer wheat, barley, lentils, and field peas—steadily increased, with the diet complemented by species like vetch, chick peas and horse beans. The herding of sheep, goats, pigs and cattle for the meat, blood, hides, etc., was thoroughly integrated into the communities' economic activity. The animals may also have been kept for their expression of wealth and the creation of social distinctions and barriers, or as security against crop failure.

However, not all sites grew into villages with long sequences of use, nor did all sites necessarily rely on the farming mode of subsistence. Although their precise date in the PPNB sequence is often uncertain, there were small communities which seem to have clung to the pattern of mobile, short-term stay so characteristic of the early phases of the Neolithic. A number of rock shelters between 35 and 100 m^2 in the Anti-Lebanon, such as Yabrud III, Nachcharini and Qornet Rharra, had thin deposits with tanged Byblos-type arrowheads and other lithics of probably late PPNB origin (Rust, 1950; Contenson, 1966; Copeland, 1991). Briefly used camps also occur in the caves in the Jebel ed-Douara or in the Palmyrene in the desert, and at many of the flint-working localities in their vicinity (Akazawa, 1978: 211; Nishiaki, 2000; see also Zarins, 1989). The site of Taibe in the Hawran covered about 100 m^2 between two promontories on top of a basalt outcrop, without any traces of architecture (M.-C. Cauvin, 1973). Several ephemeral occupations barely covering 250 m^2 were found in the vicinity of Abu Hureyra on the Euphrates (Moore, 1975: 56). A few arrowheads on the surface of nearby Dibsi Faraj East have been taken as evidence of a small hunting party that visited the site briefly (Wilkinson and Moore, 1978). Other (very) small Neolithic occupations occur in the plain of Sahl es-Sahra

and at Neba'a Barada (van Liere and Contenson, 1963; Contenson, 1985).

Although beyond the scope of this paper, it is useful to recall that short-term, ephemeral occupation is well documented for the "PPNB final" at the end of the seventh millennium, contemporaneous with the early Pottery Neolithic. Small stations or camp sites with evidence of episodic settlement, usually associated with the activities of migrant pastoralists, abundantly occur in the El Kowm area and other parts of the desert in the heart of Syria (Qdeir, Nadaouiyeh 4, Al Khabra, etc.; cf. Cauvin, 1990; 1991), but they were not unique to this marginal region. For example, many lithic scatters associated with seasonal camps, hunter stands or other special-purpose occupations have been also found in the Khabur valley in northeastern Syria (Nishiaki, 1992).

PATTERNS OF SETTLEMENT AND MOBILITY

It will be clear that the Neolithic occupations varied considerably in size, duration and lay-out. However, the emphasis of archaeological research has primarily been on the sites in the form of settlement mounds with long sequences, rather than on the small, short-term occupations. The mounds have provided substantial evidence of Neolithic activity and have set the tone in the representation of the achievements of the period so far. They were undoubtedly foci of social and economic, domestic life, particularly in the late PPNB and afterwards. However, the pattern of settlement and the role of the mounds therein is less clear in earlier times, *i.e.* the Neolithic period prior to the mid-eighth millennium BC. It seems useful to briefly summarize the evidence for this period:

—The (known) mounds were rare, isolated occurrences, such as the four PPNA sites on the Euphrates, all on the east bank and at considerable distances from each other, *i.e.* 20-30 km as the crow flies. Others seem to have been even fully on their own, such as PPNA Tell Qaramel on the Qoueiq, PPNA Tell Aswad in the Damascene, and early PPNB Dja'de el Mughara on the Euphrates.

—Nearly all of the early settlement mounds were small, in the order of 0.5-1 ha, with the number of inhabitants probably restricted to a few dozen, such as at Jerf el Ahmar or Dja'de el Mughara.

—The mounds seem to have been long-lived settlements, used over many centuries and generations. Mureybet, for example, may have been inhabited for over a thousand years, although not necessarily continuously. Jerf el Ahmar had at least 10 building levels comprising ca. 800 years of settlement.

—The mounds display a considerable investment of effort in the preparation, construction and maintenance of architecture.

—The people at these early sites relied almost fully on hunting and gathering to make a living.

Both their paucity and their small size make it clear that the early Neolithic settlement mounds were inhabited by a very limited number of people altogether. None of them were probably major population centres. Moreover, it appears that the mounds and their architecture were the work of people who lived by hunting and gathering as in the age before; these were all hunter-gatherer settlements with a long history of more or less continuous use. The sites clearly show that prolonged sedentism, mound building, etc., are not necessarily dependent on agricultural surplus.

Not all early Neolithic sites occur in the shape of settlement mounds or display a degree of permanence and extended use. The account presented in the pages above—obviously a *résumé*, not a full study—shows that there were also very small and 'flat' or thin occupations, with scatters of flints often being the sole traces of use, suggestive of short stay and restricted size of habitation. Some of these tiny occupations have been interpreted as special-purpose sites, such as for the working of flints or the exploitation of the sabkhas for their salt. However, the usual view is that they were stands or camps briefly used by small hunting parties, or, in the case of the final stages of the PPNB, stops used by pastoralists on their annual treks.

Given the overall small size of these sites, there can be little doubt that they were used by groups consisting of a few persons only. And given their frequently thin depositional strata, one receives an impression of short-lived and intermittent occupation. However, we know little or nothing of the composition of the groups, or of their relationship to other communities, or of the patterns of mobility they pursued. Were the camps, caves, etc., simply haltes temporaires where a small group of (assumedly male) hunters stopped for the night, butchered their kill, or manufactured their tools? Were these people part of larger communities who had established themselves at

base camps for shorter or longer periods, with individuals and small groups pursuing tactical forays out into the landscape? Or, in contrast, did these hunter groups encompass entire families, including the men and the women, the young and the old, all involved in some form of residential mobility and moving wholesale from one camp to another at varying intervals, thereby producing a series of short-stay-camps, some for repeat-visits? On the basis of modern hunter-gatherer ethnography, the latter interpretation would imply a social organization resting on small and autonomous, family-based households, although they will undoubtedly have been loosely organized into larger networks in order to mitigate the omnipresent risks of fluctuation in the food resources or to enhance the circulation of goods, information and, perhaps most crucial, marriage partners. At present, it seems wise not to impose a rigid separation and not to sweep all possible variability onto one heap. In view of the still unequal distribution of archaeological information, there is a clear danger that developments and traditions envisaged for some regions or periods will become the assumed standard for all, with generalization favoured over diversity and regional coherence preferred over local variability.

Although we are still in the dark on all ins and outs, it seems clear that small, short-term, flexible occupation was a main characteristic of the Neolithic from its beginning in the tenth millennium BC, complementary to life at the settlement mounds. A number of sites testify to the continuation of the traditional, Epipalaeolithic way of living based on mobility, hunting and gathering—to the way things were always done. Caves and other places inhabited intermittently in Palaeolithic times were still utilized or re-utilized in a similar fashion in the Neolithic period, and so were modes of subsistence and the organization of society. Mobility and the exploitation of the wild persisted in various degrees in landscapes with much space still in them. However, it would be wrong to assume a timeless, ahistorical forager way of life; hunter-gatherers are immensely diverse and their strategies of settlement, subsistence, etc., are the result of specific historical and environmental circumstances (see *e.g.* Kelly, 1995: 111ff).

We have been aware of the considerable diversity in the settlement system in the early Neolithic for a long time but, remarkably enough, we have always chosen to characterize Neolithic society primarily by the few settlement mounds at isolated locales, rather than by the small, temporary camp sites, etc., that may have once littered the landscape. But is this preference justified? Or phrased differently: is perhaps the exception taken as the rule?

Erosion or the far-reaching effects of modern agricultural intensification may have obliterated many small, shallow occupations from the surface of the earth. Others may have been buried underneath alluvial fans and terraces or below later settlement mounds. An intensified search will undoubtedly lead to the discovery of more sites. However, it is not without significance that settlement mounds of PPNA to middle PPNB affiliation are rare occurrences or absent altogether even in regions intensively investigated over the past decades, such as the Euphrates valley and the Jezireh. Archaeological research has failed to reveal any substantial proliferation of permanent settlement until the beginning of the late PPNB in the eighth millennium; as a consequence, I believe, we have to accept that the sedentary lifestyle had, indeed, an appeal only to a (very) limited number of people throughout the first 25 (!) centuries or so of the Neolithic period.

Our current inventory of sites is by no means a complete reflection of settlement distribution in Syria in the Neolithic. Although there were at no time large numbers of people in any one place, it goes without saying that the present number of sites of the PPNA or early PPNB—a handful of small occupations at isolated places, with their nearest neighbours dozens or even hundreds of kilometres away—did not provide shelter to the population in its entirety. These few sites cannot have functioned in what seems to have been a social or cultural vacuum at first sight; the presence of other communities in the neighbourhood is a necessity, if only to avoid genetic deformation (in-breeding) and to ensure local group survival. Given the size of the area and the length of the period, many dozens or, even more likely, hundreds of sites must have once existed in Syria in the early Neolithic, ca. 10,000-7500 BC. It is expected that the majority of these as yet "invisible" sites were not settlement mounds but ephemeral, short-lived occupations with little accumulation of occupation refuse and low archaeological visibility. Stated otherwise: small, temporary camps rather than large, permanent settlements were the rule in the earliest Neolithic.

DOMESTIC USE OR RITUAL PURPOSE?

The domestic role of the Neolithic settlements is usually taken for granted, with reference to such variables as the presence of ordinary houses for living and working; the accumulation of household waste in and around these structures; and the occurrence of weaponry, ground-stone equipment and other tools useful in the collection and preparation of food. However, we may wonder whether this description does full justice to the handful of settlement mounds of the PPNA to middle PPNB period (Mureybet, Jerf el Ahmar, Dja'de el Mughara, etc.). Although they were lived in and utilized for all kinds of domestic purposes, these sites also contain ample evidence for other, ritual and public ceremonial activities, even when taking into consideration that only a small portion of the dazzling complexity so characteristic of ritual and ceremony will have left its material imprint on the archaeological record.

The evidence for ritual in the early Neolithic is obvious in the case of the architecture and the treatment of the dead. The spectacular subterranean round buildings at Jerf el Ahmar, up to eight metres across and supplied with stone benches, engraved friezes and, probably, wall paintings, had little or nothing to do with ordinary dwellings and were undoubtedly of importance in community meetings and ceremony (Stordeur *et al.*, 2000). Similar structures occurred at the nearby mounds of Mureybet and Tell al 'Abr. Buildings interpreted as sanctuaries, containing extraordinarily worked stone pillars and large sculpture of humans, animals and creatures half human, half animal, were also found at a number of ninth millennium sites in the neighbouring piedmont of Anatolia, such as Nevalı Çori and Göbekli Tepe (*e.g.* Schmidt, 1998). Public ritual significance should also be attached to the large statues and busts found at 'Ain Ghazal and Jericho in the Jordan valley, which originally probably stood in sanctuaries and served the needs of the communities as a whole (Rollefson, 1983). Part of the so-called defense structures at Jericho may have fulfilled a role in communal ritual activities (Bar-Yosef, 1986). These features all point to the existence of places of considerable ceremonial ostentation, where people congregated and participated in what may have been complex rituals, with, perhaps, the ancestors and mythological spirits omnipresent.

Ritual was probably not confined only to large structures built for the purpose but may also have included dwellings that had a purely domestic meaning at one time but could serve cult aims at another. Horns and skulls of wild cattle, for example, hung on the walls or were embedded in them in small houses at Mureybet and Jerf el Ahmar. Human crania, too, were kept in the houses or their surroundings at these mounds.

The settlement mounds were not meant to serve the needs of only the living but those of the dead as well. They were burial grounds, aimed at keeping the dead within the community, in the form of graves in and around the houses of the living. The funerary customs were very diverse, ranging from primary inhumations of single individuals lying on one side, to secondary interments of individuals without the skull, parts of other individuals' skeletons, groups of skulls, or skeletons and skulls jumbled together. Sometimes the crania were intentionally kept in charnel houses and other buildings for the dead, such as at Abu Hureyra, Dja'de el Mughara (the so-called Maison des Morts), and Çayönü in Anatolia ("Skull Building"). The considerable number of human remains stored in these buildings indicate that they served the needs of a group larger than a single household; they were used by the local community as a whole. Éric Coqueugniot has proposed that the practice of secondary burial in the Maison des Morts at Dja'de was related to semi-nomadic groups, who interred those who had died away from the site during the seasonal itineraries. In contrast, the primary burials would involve people who had died at the site itself (cf. Coqueugniot, 1998; 1999; Özbek, 1988; Moore and Molleson, 2000).

While a discussion of developments in material culture (human and animal figurines, stone masks, stones with incised decorations, etc.) would add to the evidence for ritual, these few examples will suffice to propose that the handful of mounds were domestic villages and cult centres at the same time, located at selected locales in a cultural landscape dominated by small, transitory forager settlements. In a constantly changing regional mosaic characterized by tiny occupations rapidly founded and rapidly deserted, these sites were pre-eminent landmarks and meeting places full of history and memories, existing since time immemorial in the minds of the population. The long sequence of use, reflected in sometimes monumental visibility, is one of the most conspicuous characteristics of these ceremonial centres. Evidently, the mounds did not spring from the soil fully formed but depended upon a commitment to staying in one place and the passage of time (Chapman, 1997). The reason (or reasons) for this commitment may be highly diverse

and easily elude archaeological investigation, but the impact may have been significant. Lending more weight to some places rather than others may have led to a notion of primary, ancestral communities and an emphasis on communal rather than individual or household interest—the mounds became the focal points of group identities. In this manner, ritual and ceremony helped to tie people to chosen places, both physically and mentally. Such a binding (of both the living and the dead!) undoubtedly had an integrative significance and contributed to the social cohesion of the numerous small and dispersed Neolithic communities. The mounds became centres of social engagement, where people regularly or seasonally gathered for the benefit of ceremonies and initiation rites, the re-confirmation of social bonds and allegiances, and the exchange of commodities and marriage partners.

The lengthy use of the specific localities over many centuries and generations undoubtedly added to a developing sense of place and descent. It may have had an effect on the overall pattern of settlement in the early Neolithic, in the sense that community mobility was retained in various degrees but perhaps in more circumscribed areas and associated with specific places. Such a link may have resulted in the explicit recognition of tribal, ancestral lands, passed on from generation to generation. For example, it is not excluded that the dispersed spatial patterning of PPNA settlement on the Euphrates, with the permanently occupied sites at distances up to 20-30 km away from each other, was related to the existence of a number of extensive community-held territories in between. Although on a different scale, it can hardly be doubted that such community-held territorial claims were a widespread reality by the mid-eighth millennium at the latest, when permanent settlement began to assume enormous proportions.

CONCLUDING REMARKS

The transition from the Epipalaeolithic to the Neolithic is much less distinct than is often still believed. The usual association of the Neolithic with agriculture at permanent settlements is valid for the end of the period, after ca. 7500 BC, but not for its beginning a couple of millennia before. Early Neolithic people retained much of the lifestyle of their Epipalaeolithic forebears over a very long period, including the use of small, short-term camps for habitation and a strong reliance on hunting and gathering for subsistence purposes. Even the small number of tenth and ninth millennium communities with evidence of long-term sedentism, resulting in the emergence of mounds with high visibility, almost fully relied on hunting and gathering to make a living.

Agriculture seems to have been of little or no importance to these groups until the mid-eighth millennium BC. The rare evidence for agriculture in earlier times should, of course, not be dismissed but it is reasonable to assert that the impact of these initial attempts at cultivation was very limited and local. For example, it is recalled that domesticated rye has been claimed to occur at Epipalaeolithic Abu Hureyra around 11,000 BC, but we may wonder how to reconcile the claim with the absence of domesticated cereals at Abu Hureyra and elsewhere for thousands of years afterwards.

Many hypotheses trying to explain the shift to agriculture emphasize the importance of climatic and other environmental changes at the interface of Pleistocene and Holocene, especially during the Younger Dryas interval (see *e.g.* Moore and Hillman, 1992). However, putting the role of hunting and gathering in the early Neolithic in the forefront would allow us to move away from the concept of climate change as a prime mover in the transition from foraging to farming. In other words: people did not begin to farm at the time of climate change but continued to hunt and gather for another 2000 years at least (cf. Peters *et al.*, 1999 for a similar view, based on the role of animal husbandry in the Neolithic). Agriculture was not an inevitability imposed on the Neolithic communities by environmental force, but part of a profound transformation of the forager society in the eighth millennium, including the development of new ways of thinking, which involved new types of subsistence, burial, and material culture. The transformation also implied substantial change in the pattern of settlement, manifested in the proliferation of the sedentary lifestyle after ca. 7500 BC. The appearance of villages even in regions seemingly avoided or little used in earlier times is often associated with significant population growth, population movements and colonization, but it is, I believe, better interpreted as the transformation of existing, indigenous hunter-gatherer groups with little archaeological visibility into more sedentary farming communities with high archaeological visibility. In this perspective, the impetus for the shift from foraging to farming did not

spring from climate change, etc., but was in the hands of the Neolithic people themselves: it was not any external event beyond their control but they themselves who brought about the change.

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