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### Why are there no Neolithic mega-sites in the Anatolian Euphrates basin? A socio-archaeological approach to the marital structure of early farming societies

*Anadolu Fırat havzasında neden Neolitik mega-köyler bulunmamaktadır? Erken tarım toplumlarının medeni yapılarına sosyo-arkeolojik bir yaklaşım*

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Cédric BODET\*

#### Abstract

The appearance and disappearance of Late Neolithic mega-sites in Central Anatolia are poorly understood. These huge agricultural settlements are all the more puzzling that they seem to be unknown from Southeast Anatolia, the area where the mixed-farming economy (along with its social counterpart, the Domestic Mode of Production) appeared first. In order to tackle these enigmas, the mere reading of the archaeological data will fall short of any convincing explanation. It seems necessary to adopt a sociological point of view, necessarily backed by the appropriate ethnological analyses. From this perspective, it must be acknowledged, before anything else, that the adoption of farming modifies deeply, in the long term, the internal structure of hunter-gatherer societies: the lineage becomes the relevant social unit, while marital alliances are more likely to be contracted with the outside world than within the kinship group. Moreover, this internal adjustment is heavy and slow, and this seems to be the reason why, in a context of lengthy diffusion, mega-sites are not seen equally everywhere.

The social reaction to the new mode of production led to the advent of exogamic segmental lineages all over South-West Asia. This process seems however to have taken a markedly different path whether farming slowly came out independently, like in the Euphrates basin, or whether it was rapidly adopted by hunter-gatherers, like in Central Anatolia. The traditional social structure of the latter communities seems to have stood still long after farming began: the reciprocal marital practices (endogamous) appear to have prevented people from leaving the village, leading in time to an accumulation of population. On the contrary, the Euphratean societies, which witnessed the advent of sedentary life and agriculture from the beginning, had a millennium or so to adjust themselves to the Domestic Mode of Production; it is the resulting matrimonial flexibility that arguably allowed small farming sites to spread slowly over Northern Mesopotamia all through the later Neolithic, preventing the concentration of population at any one particular site.

**Keywords:** Neolithisation, ethno/socio-archaeology, social structure, mega-sites, spatial endogamy, kinship, lineage

#### Özet

Orta Anadolu'daki Geç Neolitik mega köylerin ortaya çıkışı ve ortadan kalkması tam olarak anlaşılamamıştır. Güney Doğu Anadolu'da, karışık-tarım ekonomisinin (ve sosyal karşılığı, Ev içi Üretim Modu) ilk ortaya çıktığı alan olarak, bu büyük tarımsal yerleşimler bilinmedikleri için, daha da şaşırtıcıdır. Bu bilmeceyi ele almak için, arkeolojik verilerin salt okunması, ikna edici açıklamaların dışında kalacaktır. Mutlaka uygun etnolojik analizlerle desteklenen, sosyolojik bir bakış açısı benimsemek gerekir. Bu açıdan bakıldığında, ilk önce anlaşılması gereken unsur, çiftçiliğin benimsenmesinin uzun vadede avcı-toplayıcı toplum yapısını derinden değiştirmiş olmasıdır; özellikle, evlilik ittifaklarının, akrabalık grubu içinden çok, dış dünya ile gerçekleştiği

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düşünülmektedir. İkinci nokta da, bu iç düzenlemenin çok ağır ve yavaş olması nedeniyle, mega-köylerin her yerde eşit görülmemesine yol açmış olabileceğidir.

Yeni üretim moduna verilen sosyal tepki sonunda her yerde evlilik sisteminin açılmasına neden olmuştur. Ancak, bu tepki, tarımın Fırat havzasında olduğu gibi yavaş yavaş bağımsız bir şekilde çıkmasından ya da Orta Anadolu'daki yerel avcı-toplayıcılar tarafından hızlıca benimsenmesinden, belirgin şekilde farklı bir yol izlenmiş görünüyor. İkinci toplulukların sosyal yapısı, tarım başlamasından sonra çok uzun süre durdu: geleneksel karşılıklı evlilik uygulamaları (yerel endogami), insanların köyden ayrılmalarını önlemiş gibi gözüküyor ve aynı zamanda zaman içinde nüfus birikimine yol açmış olabilir (ve kadın kaçırma olayları köylerin bitişik şekline zorlamış olabilir). Öte yandan, başlangıçtan itibaren yerleşik hayatın ve tarımın ortaya çıkmasına tanık olan Fırat toplumlarının, kendilerini Evcil Üretim Moduna ayarlamaları için yüzyılları olmuş; bu evlilik esnekliği, Geç Neolitik Dönem boyunca Kuzey Mezopotamya'ya yavaş yavaş küçük tarım yerleşimlerinin yayılmasını sağlamış ve herhangi belirli bir yerleşimde nüfusun yoğunlaşmasını engellemiş olduğu iddia edilebilir.

**Anahtar kelimeleri:** Neolitikleşme, etno/sosyo-arkeoloji, sosyal yapı, mega-köyler, mekansal endogami, akrabalık, soy hattı

## Introduction

The Neolithic horizon of the Euphrates basin seems to present a composition rather distinct from that of Central Anatolia. The divergence is not just about contingent cultural matters, like aesthetic choices, but involves deeper layers of the social organization. Such structures may be cautiously approached when the relevant archaeological data, like village planning, architecture or burials<sup>1</sup>, are read through the prism of the appropriate ethnological analogy.

Late J.-D. Forest<sup>2</sup> made precious advances on these aspects but they have been generally ignored and the same incomprehension keeps on flourishing in the literature<sup>3</sup>. His views are presently combined with an economic approach<sup>4</sup> in order to uncover the structure of populations living at distinct stages of the Neolithic revolution. Indeed, the difference between an Epipalaeolithic and a proto-urban society, which lie at both ends of this long and momentous process, is much more than about agriculture. It concerns two completely distinct forms of social organization. And it is this evolution that is of concern here, as it is, more generally, in the Ethneo project<sup>5</sup>.

## I- The parameters of the research

### The Neolithisation process: a general assessment

It is not useless to review the main steps of the Neolithisation process in southwest Asia, the way it is understood here, as this makes up the framework of the following investigation. At the onset of the Holocene, the settling down of communities, seasonally and then year-round, seems to have encouraged the advent of plant cultivation and then of animal husbandry. At this point, it becomes possible to speak of a "mixed farming"<sup>6</sup> economy, even if hunting and gathering still play a certain economic role for some time.

There is nowadays a general acceptance that the emergence of farming in the Near-East is a "poly/multi-centric" process<sup>7</sup>. Even though the ultimate core of innovation may be

<sup>1</sup> Souvatzi 2017.

<sup>2</sup> Forest 1996b.

<sup>3</sup> Asouti - Fuller 2012, 158, citing other scholars like Bienert, Gebel, Neef or Simmons.

<sup>4</sup> Bodet 2012.

<sup>5</sup> <http://ethneo.scienceontheweb.net/>

<sup>6</sup> Mixed-farming consists of "the integrated cultivation and herding of fully domestic cereals, legumes, and caprines" (Baird *et al.* 2018).

<sup>7</sup> Bogaard *et al.* 2017, 4; Asouti 2013, 210-211.

reduced to a number of small pockets, the first wave of farming settlements seems to cover a wide but coherent area: the so-called Neolithic 'Fertile Crescent' covers the foothills of the Taurus-Zagros arc, the Middle section of the Mesopotamian river valleys and the eastern Mediterranean coastal area. The success of the new mode of production is made obvious by its immediate diffusion in neighbouring regions, in particular, for the present concern, across the Taurus mountain range, towards Central Anatolia (before spreading over Europe).

Within the wide area concerned by the initial neolithisation process and its first diffusion, two smaller provinces, one in the core, the other in the periphery, will be more particularly looked at because of the quality and relevance of their archaeological material. In the Euphratean core, the independent emergence of sedentism and mixed-farming economy (agriculture and herding) lasted a millennium and a half or so<sup>8</sup> (between around 10 000 BC and 8500 BC<sup>9</sup>). At the scale of human history, this time-span is very short, hence the term of "Neolithic revolution" coined by Gordon Childe<sup>10</sup>. At the human level however, this process is slow, so much so that the change probably could not be perceived by the actors, and farming could not have been pre-conceived as a goal to be reached before it ever existed. The lengthiness of the process is crucial here.

In accordance with Baird *et al.*<sup>11</sup>, the diffusion is generally expected to proceed more through the adoption of sedentism and farming by local foragers, than by the long-range physical migration of farmers at once<sup>12</sup>, at least if arable land is available nearby<sup>13</sup>. However, over a great many generations, from one farmstead to the next, the search for land can cover considerable distances, like in the Halaf period<sup>14</sup>. Such expansion, we will see, can only be possible when the system of marital alliances has become flexible enough to allow for marriage with unrelated neighbours, behaviour quite foreign to traditional nomadic hunter-gatherers.

### Socio-archaeology: a methodology

A human society is composed of individuals interacting with each other along principles shaped by the experience accumulated by their predecessors (something of Bourdieu's *habitus*<sup>15</sup>). This complexity makes all societies very difficult to apprehend, even more so when these have long disappeared, leaving only archaeological traces and no writing. The internal mechanism of a prehistoric society should not simply be guessed at, inevitably using our own schemes of perception, which are certainly very different from theirs<sup>16</sup>. Sahlins<sup>17</sup> and Lévi-Strauss<sup>18</sup>, among others, have shown how modern concepts such as economic efficiency or rationality for example have nearly no echoing in 'prime societies', more concerned with reciprocity and generosity<sup>19</sup>. The societies in question

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<sup>8</sup> Harris 2002.

<sup>9</sup> All dates are calibrated.

<sup>10</sup> Childe 1992. Watkins (2017) recently challenged the revolutionary aspect of the neolithisation, as the roots of the innovation, like intensification in subsistence strategies and increasing population densities, lay in the Epi-Palaeolithic and the Upper Palaeolithic.

<sup>11</sup> Baird *et al.* 2012, 232.

<sup>12</sup> Bodet 2012, 15.

<sup>13</sup> The colonisation of Cyprus by farmers (Bodet 2018) is the most obvious exception. It may be explained by the lack of land in the Eastern Mediterranean coastal areas (Bodet 2017); the small Neolithic sites identified on the ancient littoral of the Çukurova (Caneva 2012, 1) tend to support this idea.

<sup>14</sup> Forest 1996a.

<sup>15</sup> Bourdieu 1980.

<sup>16</sup> Radcliffe-Brown 1972.

<sup>17</sup> Sahlins 1972.

<sup>18</sup> Lévi-Strauss 1962.

<sup>19</sup> Marcus - Joyce 2012; Mithen 2013, 3.

include late nomadic hunter-gatherers and the first farmers who follow them directly, and with whom they share a common Palaeolithic ideological background<sup>20</sup>.

Another implication of the complexity of societies is that their internal organization is best apprehended through direct observation<sup>21</sup>. For socio-archaeologists, ethnography thus represents an invaluable source of knowledge. Ethnology provides a collection of living snapshots in the long social evolution of humanity, while archaeology has access to the dead material of a chronologically clearly defined and mostly uninterrupted sequence. Only the intermingling of both sciences can help, at least to some degree, the reconstitution of social evolution<sup>22</sup>. “All societies, Flannery and Marcus (2012) argue, have their own social logic, a set of explicit or implicit rules of social behaviour that archaeologists or anthropologists must grasp if they are to understand how societies function or change.”<sup>23</sup>

For socio-archaeology, the whole issue is then to find, in the rich ethnographical repertoire, the accurate elements to bring life to the dry archaeological material. This is arguably where lies the “knowledge which links human activities (i.e. dynamics) to the consequences of those activities that may be apparent in material things (i.e. statics)”<sup>24</sup>; Binford was achieving this through the Middle-Range Theory<sup>25</sup>. In the present perspective, the relevant analogies should be made at the intangible level of what societies all share: the **structure** (especially as opposed to culture)<sup>26</sup>. When ethnologist Barnard aims at explaining the transition from Mesolithic (foraging) to Neolithic (accumulating) societies in terms of “economic ideology (modes of thought)”, his methodology is clear: “the pitfalls of crude ethnographic analogy are avoided because the model is structural and not dependent on ethnographic or archaeological detail”<sup>27</sup>.

At the structural level indeed, societies with low level of productive forces gain to be understood as a coherent **system** of interactions<sup>28</sup> revolving around two fundamental matters, the economy (the **production**) and the kinship/marital relations (the **re-production**)<sup>29</sup>. It is this structural approach that may allow bridging, however cautiously, the ethnological with the archaeological data. Trying to uncover prehistoric social mechanisms and their evolution is the aim of the **socio-archaeological** approach.

The importance given to **kinship** by traditional communities is a matter that has inevitably struck all ethnologists, and there is no reason why it should be any different for the societies studied by prehistoric archaeology<sup>30</sup>. “Kinship is a most significant organizing principle of human grouping, the basic matter of social categories in archaeological and ethnographic societies, and an important concept universally”<sup>31</sup>. The marital alliance pattern, that is, the rules according to which people mate in order to have children, appears as absolutely crucial a matter for them as it is neglected in archaeology because of its

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<sup>20</sup> Forest 2006; Barnard 2007, 14.

<sup>21</sup> Binford 1983.

<sup>22</sup> The history of research usually depicts evolutionary and structuralist approaches as antithetical with Radcliffe-Brown and Lévi-Strauss opposing their predecessors (Testart 1992). As a matter of fact, both views are complementary especially from an archaeologist’s point of view.

<sup>23</sup> Mithen 2013, 4.

<sup>24</sup> Binford 1983, 19.

<sup>25</sup> Trigger 1989, 361-363, 389; Fagan 1994, 58-59.

<sup>26</sup> Forest 2006, 126.

<sup>27</sup> Barnard 2007, 5.

<sup>28</sup> Radcliffe-Brown 1972.

<sup>29</sup> Testart 1985, 228-229.

<sup>30</sup> Ensor 2013.

<sup>31</sup> Souvatzi 2017, 172.

apparent invisibility in the data. However, ethnology can make certain archaeological indices 'speak' so as to allow a patient social reconstruction.

Because they are often too small to ensure the reproduction of their members, traditional societies need to keep alive acquaintances with extended kinship groups in order to reproduce<sup>32</sup>. This is why, in the early periods of humanity, cultural networks are almost entirely based on kinship and matrimonial exchanges<sup>33</sup>. In the words of Walker *et al.* "the exchange of mates among kin groups (reciprocal exogamy) (...) arguably create the foundation of human social organization"<sup>34</sup>. Another reason for us to take a serious look at this subject is that the Neolithic arguably stands at a crucial curve in the evolution of marital practices where communities, traditionally turned inward, start to open to the outside world in search for partners (*infra*).

*The research process should not be misunderstood. Principles of social evolution are not tried against the archaeological material, quite on the opposite. The archaeological data (mega-sites - or their lack, site configuration, arrowheads etc.) is the raw material of the reflexion, for which ethnology just provides a framework and, at most, a direction for the social reconstitution. However, the presentation of the argumentation must take an opposite direction from the research process itself, as the concepts that ended up proving adequate, need, in the paper, to be presented first, before they are applied to the material.*

### Social changes correlated with farming

Ethnological analyses have proceeded to show how the social structures, particularly the type of relation among producers (A) and among reproducers (B), drastically differ between a hunter-gatherer and a farming type of society<sup>35</sup>.

**A)** For **nomadic** (i.e. non-food storing, non-complex) **hunter-gatherer** societies, the kinship structure is often horizontal, of the 'classificatory' type, to use Lewis Morgan's terminology. This indicates that every individual is classified according to the generation and the descent line (patri/matrilineal); as pointed out by Radcliffe-Brown<sup>36</sup>, siblings therefore belong to the same 'class'<sup>37</sup>. "It may seem strange to archaeologists, but it is ethnographically attested throughout the world (that) hunter-gatherers have universal systems of kin classification, in which each member of society classifies every other as belonging to a particular kin category" says Barnard<sup>38</sup>. **In a farming society** (at least where land is cultivated), the social construction is usually different. The means of production tend to be restricted to a specific and limited unit of land and/or herd, passed on from one generation to the next. It is inherited by specific individuals designated by the genealogy: at the father's death, the first born male (masculine primogeniture) generally comes to be responsible, not only for the land, herd and estate but also for the individuals in his group, especially those to be married<sup>39</sup>. The organization of the society has then a tendency to take on a vertical or 'linear' structure, with the '**lineage**' as the relevant (re)producing unit. The lineage is a unilineal construction (generally patrilineal among farmers) that embraces the

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<sup>32</sup> Lévi-Strauss 1967.

<sup>33</sup> Forest 1996a, 23.

<sup>34</sup> Walker *et al.* 2011.

<sup>35</sup> Testart 2012.

<sup>36</sup> Radcliffe-Brown 1972.

<sup>37</sup> This 'class' has nothing to do with the modern understanding of a social class, as it is based solely on kinship and not on economic considerations (no hierarchy is implied). It is according to this 'classification' that the sexual mate will be defined or prescribed, always outside Ego's own 'class' to avoid incest (Testart 2012).

<sup>38</sup> Barnard 2007, 10.

<sup>39</sup> Meillassoux 1991.

individuals sharing an acknowledged common ‘founding ancestor’<sup>40</sup>. “In many parts of the world, hunter-gatherers tend **not** to have unilineal descent groups whereas small-scale agro-pastoralists do”<sup>41</sup>. The elders, as the closest living individuals to the founding ancestors, come to hold a prominent role: they are usually expected to manage and represent the entire lineage, if not the entire community for the elder of the elder lineage. Also, according to Sahlins<sup>42</sup> and Meillassoux<sup>43</sup>, one of the main features of the “**Domestic Mode of Production** (DMP)” is the *segmental lineage*, where nuclear families are inclined to split from the family core (see below). Because dry agriculture usually does not require a large force of production, in Northern Mesopotamia and in Anatolia every nuclear family, or household, potentially constitutes an autonomous unit of production<sup>44</sup> inclined to split from the lineage and the village. Forest<sup>45</sup> has convincingly shown this splitting to arise fully only by the Halaf horizon, about four millennia after the first pre-domestic agriculture, but the process is gradual, and susceptible to be momentarily and dramatically hindered as we will see.

**B)** A parallel evolution tends to affect the relations of reproduction, that is, the type of marital alliance (see appendix), or, in other words, the rules, specific to every society, according to which individuals mate<sup>46</sup>. Lévi-Strauss<sup>47</sup> has assembled these rules under two major groups, the ‘**elementary**’ one, where the community, closed on itself, is divided in exogamic sub-groups, and the ‘**complex**’ one, open to outer communities, enlarging considerably the choice of possible mates. The former type is said to be ‘**prescriptive**’, which means that the system designates for everyone, in advance, the individual (necessarily a more or less distant relative, a cross-cousin for example) to be married<sup>48</sup>: this form is often found among foragers, while the ‘complex’ type is more characteristic of farming (and industrial) societies. With the advent of agriculture marriages tend to be contracted with unrelated groups<sup>49</sup> (i.e. sliding from elementary to complex types), but this adjustment of the alliance and kinship<sup>50</sup> to the mode of production is not straightforward and takes more time than the technical advent of farming itself.

To synthesize coarsely, while the hunter-gatherer generational ‘classes’ tend to reproduce in a never ending circle according to arranged rules, the farmers’ lineages are a more flexible social unit inclined to some degree of opening. This slightly esoteric presentation will hopefully make sense when confronted to the archaeological material.

### Notes on social evolution

For hunter-gatherers, the earliest and most pristine example is arguably the Australian aborigines, deprived even of bows and arrows and of any individualistic behaviour. This “primitive communist” stage of social evolution<sup>51</sup> is certainly not represented in any of the societies under investigation here. However, it stands as a universal starting point for the subsequent evolution which includes Woodburn’s

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<sup>40</sup> Ghasarian 1996.

<sup>41</sup> Barnard 2007, 13.

<sup>42</sup> Sahlins 1972.

<sup>43</sup> Meillassoux 1991.

<sup>44</sup> Larsen *et al.* 2015, 28.

<sup>45</sup> Forest 1996a, 51.

<sup>46</sup> Walker *et al.* 2011.

<sup>47</sup> Lévi-Strauss 1967.

<sup>48</sup> Forest 1996a, 265.

<sup>49</sup> ‘Delayed-return societies are generally associated with pastoralism/farming, lineages/clans and ‘in which women are bestowed in marriage by men to other men’ (Woodburn 1982, 433).

<sup>50</sup> Ensor 2013, 14.

<sup>51</sup> Testart 1985.

“immediate-return” and “delayed-return” phases<sup>52</sup>. The basic difference between these two types seems to be that only the latter store their food<sup>53</sup>. Among them are farmers, of course, but also sedentary hunter-gatherers like the Indians of California or of the NW coast of America. These complex hunter-gatherers may look like they stand in between hunter-gatherers and farmers but they represent another line of evolution<sup>54</sup> that needs not concern us here; as for the Natufians, they could have ended-up as the first farmers but the Younger-Dryas cold interval stopped a process which only resumed with the last hunter-gatherers of the early Holocene. The latter have probably more in common in terms of social construction and especially of marital patterns with Aborigines and other immediate-return societies like the Hadza, the !Kung San and the Mbuti Pygmies of Africa.

There has been recently, in Neolithic research, a certain interest in Lévi-Strauss<sup>55</sup> concept of *sociétés à maison* or ‘house societies’<sup>56</sup>. Trying to give life to archaeological data with ethnology is generally welcome, but analogy can only work under controlled parameters, the first of which being, as Barnard<sup>57</sup> reminded, that the structure of the societies be similar, “not identical” but “literally compare-able”. Gonzalez-Ruibal<sup>58</sup> remarked that Lévi-Strauss saw “anomalies in several ranked societies that did not fit into traditional kinship classifications”. House societies are “a type of social structure hitherto associated with complex societies also to be found in non-literate societies” says Lévi-Strauss<sup>59</sup>. The societies where Lévi-Strauss applies this model are indeed highly hierarchical, like medieval Europe / Japan, or Northwest American Indians (Kwakiutl, Yurok): the former have already gone through the Urban revolution and the apparition of the state, while the extreme inequalities of the latter (hunter-gatherer)<sup>60</sup> have developed on prestige competition (potlatch) and on the systematic storage and surplus of food (salmon or acorn). Because the first state formations are millennia away and because there is no archaeological reason to believe that any substantial stratification has developed in the Neolithic Fertile Crescent, none of the house societies can structurally be compared to Anatolian Neolithic ones, neither can the house society model be used to enlighten them. The house society is therefore just one of Lévi-Strauss’ ‘complex’ societies, term he used in opposition to the ‘elementary’ ones, (or kinship-based), to which he devoted his famous analysis<sup>61</sup>, an analysis that remains most efficient when applied to the classless composition of the Neolithic communities of SW Asia. As a matter of fact, the ‘elementary’ kinship structure is not so much a model than a very efficient tool to understand how prime (or pre-state and classless) societies marry.

The pure structuralism of Lévi-Strauss would prevent him from positing an evolution<sup>62</sup> between ‘elementary’ and ‘complex’ (to which the house society belongs) types of societies. Archaeology has however allowed Marxist authors like Forest<sup>63</sup> to show it as a historically determined process based on the farming mode of production. If farming is the inevitable infrastructure, its repercussion on the social superstructure (hierarchy) is delayed.

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<sup>52</sup> Woodburn 1982.

<sup>53</sup> Testart 1982.

<sup>54</sup> Testart 2012.

<sup>55</sup> Lévi-Strauss 1979.

<sup>56</sup> Boric 2008, 112-114; Gillespie 2000, 2.

<sup>57</sup> Barnard 2007, 5.

<sup>58</sup> Gonzalez-Ruibal 2006, 145.

<sup>59</sup> Lévi-Strauss 1987, 151.

<sup>60</sup> Testart 1982.

<sup>61</sup> Lévi-Strauss 1967.

<sup>62</sup> Testart 1992.

<sup>63</sup> Forest 1996a.

## II- The archaeological data

### 1- Areas of Innovation and Diffusion

Though every Neolithic site seems to have developed its own approach to the control of food resources, there appears to be only one relatively reduced area where mixed-farming (agriculture + farming) became a successful mode of production to the point that, by way of diffusion, it pre-empted its independent blossoming anywhere else. This area is the Upper section of the Middle Euphrates<sup>64</sup>. The map (fig. 1) and the table (fig. 2) below show the geographical and temporal location of the main sites discussed in the text.

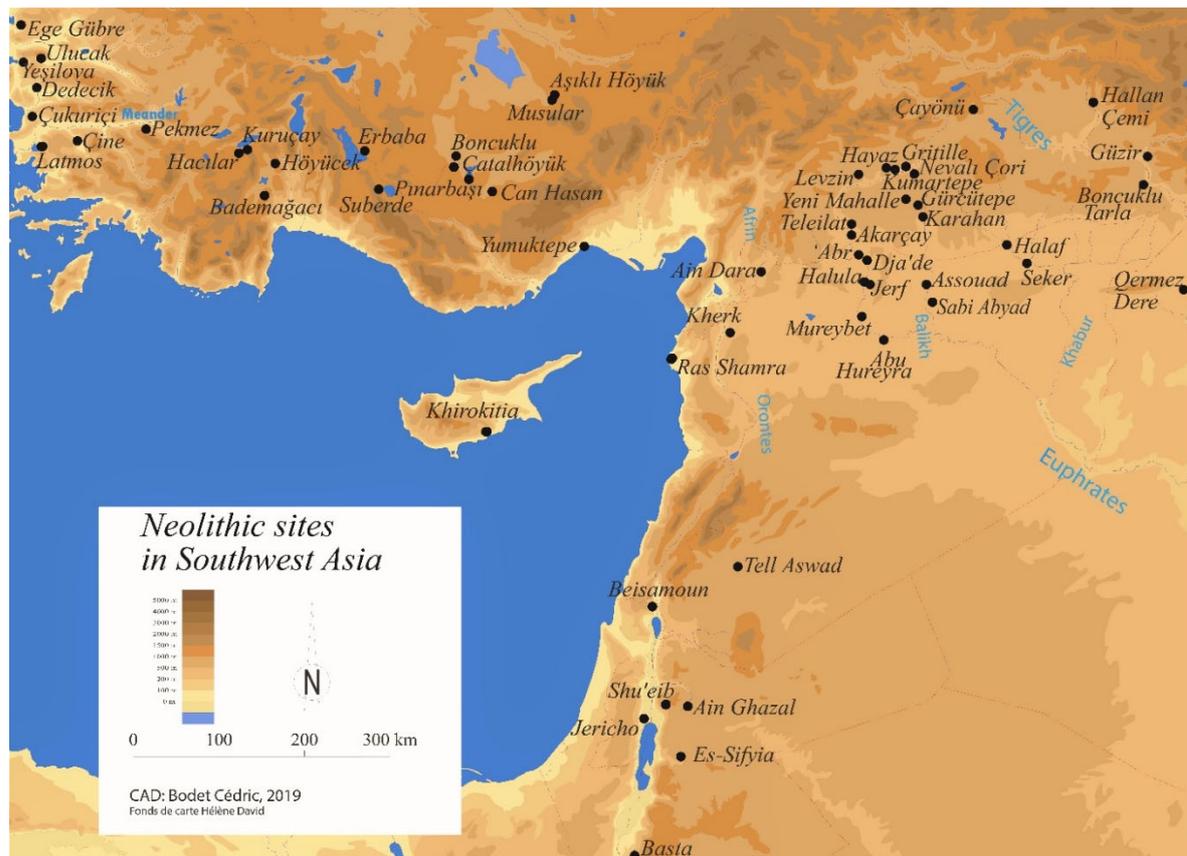


Figure 1: Sites mentioned in the text

A) In the **Middle Euphrates** basin as a whole, the neolithisation process can be followed from incipency to maturation as a genuine innovation. Sedentism first occurs at the beginning of the Holocene in the southern (Syrian) half, where plant cultivation seems to be attested a few centuries later, around 9500 BC, at the sites of Jerf el Ahmar, Mureybet and Tell Abr<sup>65</sup>. This PPNA “long period of (...) pre-domestication cultivation, i.e. the planting, tending and harvesting of morphologically wild plants”, is followed by a slow “rate of development of (morphological) domestication (indehiscent rachis, large seed size, germination inhibition)”<sup>66</sup> from the M PPNB onward. It is at this time, almost a millennium after the emergence of plant cultivation, that caprine herding seems to be attested. It first appeared in the northern ‘Taurusian’ half of the Middle Euphrates basin, an area best known by the sites of Nevalı Çori and Çayönü<sup>67</sup>. Mixed-farming can be considered

<sup>64</sup> Bodet 2012.

<sup>65</sup> Willcox – Stordeur 2012.

<sup>66</sup> Asouti 2013, 211-212.

<sup>67</sup> Peters *et al.* 2005.

sustainable around 8500 BC and slowly gained importance relatively to hunting and gathering. Deprived of any model to follow and any specific goal to reach, the whole process emerged hesitatively: the time-span implied may have been long enough for the social structure to start slowly adjusting to the economic changes, in particular towards more linearity in the kinship structure and loosening of the marital rules (*infra*).

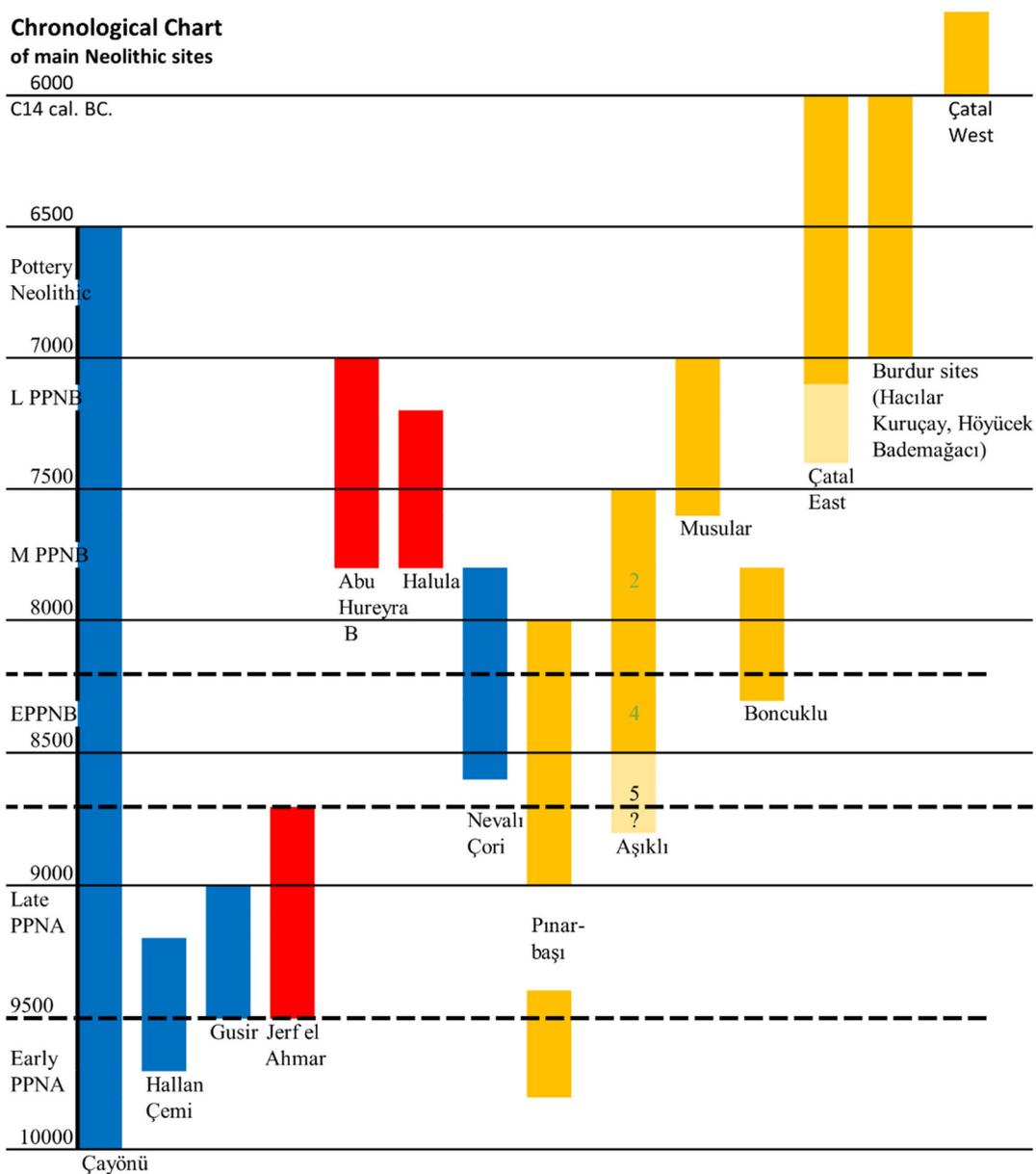


Figure 2: Chronological chart of the main sites discussed in the text

**B)** Following its implantation in the Euphrates valley, the mixed-farming mode of production seems to have appeared rather rapidly in Cappadocia, at the site of Aşıklı Höyük “upper level 4” dated to 8400-8100 BC<sup>68</sup>. The material culture is a local one (known from Epipaleolithic Direkli cave in the Central Taurus<sup>69</sup>) which likely invalidates the possibility of a migration by farmers<sup>70</sup>. The semi-subterranean oval architecture as well as the hunting of small species in the first levels seems to confirm the presence of foragers. As

<sup>68</sup> Stiner *et al.* 2014.

<sup>69</sup> Erek 2009, 333; Arbuckle - Erek 2012.

<sup>70</sup> Özbaşaran 2012.

regional specialists put it “cultivation appeared in Central Anatolia through adoption by indigenous foragers”<sup>71</sup>, probably inspired by what was going on in the Euphrates valley since several centuries already<sup>72</sup>, both regions being connected at that time at least through the circulation of obsidian<sup>73</sup>. Moreover, the “low-level food production” is, here, “oriented to quick returns”<sup>74</sup>. This timid practice of farming may show, by the way, that it was primarily adopted to permit year-round sedentism, which could itself be desired as it released pressure on the childbearing process. Whatever the case, when sedentism and farming start in Central Anatolia, the heavy social adjustment to farming hardly had any time to operate on the social structure. The latter must overall have remained that of a hunter-gatherer for a long time, that is, still of the classificatory type and closed on itself. Because mode of production (farming) and social organization (hunter-gatherer) did not move together, the resulting offset is thought to have brought a deep local disequilibrium, as detailed below.

C) Within about a millennium, the size and density of population at Aşıklı grew immensely before the site was abandoned around 7500 BC, followed locally by the nearby foundation of a great many but much smaller sites like Musular and others known by prospection<sup>75</sup>. By then, the spread of farming had proceeded westward, in the Konya plain, first at Boncuklu around 8300 BC<sup>76</sup> and then at Can Hasan and Çatalhöyük<sup>77</sup>, before reaching the Lake region, at Höyücek, Hacılar, Kuruçay and Bademağacı<sup>78</sup>. Everywhere, a development strikingly similar to that of Cappadocia can be detected: local “relatively mobile” foragers (known from the Epipalaeolithic rock-shelter of Pınarbaşı in the Konya plain) adopt the technique of farming from neighbours<sup>79</sup>, and their sites, like Çatalhöyük, grow near saturation within a few centuries, before they seem to ‘burst’ in a number of small sites like Çatalhöyük West<sup>80</sup>. From then onward, the diffusion seems to come down to a more balanced spread of smaller farming communities in search for land in Western Anatolia (Latmos, Çine, Pekmez), all the way north to the Marmara region. The Aegean coast, with Ege Gübre, Yeşilova, Çukuriçi Höyük and Ulucak<sup>81</sup> could well be included in this wave. Horejs *et al.*<sup>82</sup> consider however some of these sites at least to be founded by sea-borne migrants from the northern Levant, like those of Cyprus<sup>83</sup>. Whatever the case, the peculiar development of the Central Anatolian mega-sites like Aşıklı and Çatalhöyük (just like those of the southern Levant like Ain Ghazal, *infra*), that have fostered so many questions and incomprehension (see note 2), will require an explanation.

## 2- Çayönü or the slow emergence of the Domestic Mode of Production (DMP)

Within the Middle Euphrates basin, the emergence of mixed-farming can be followed without drastic interruption at the single site of Çayönü<sup>84</sup>. Extensively excavated at nearly every layer, the interconnections between the architectural features are clear enough to allow some insight on the evolution of the population structure.

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<sup>71</sup> Baird *et al.* 2018, 1.

<sup>72</sup> Asouti – Fairbairn 2002.

<sup>73</sup> Cauvin – Chataigner 1998.

<sup>74</sup> Stiner *et al.* 2014, 8404.

<sup>75</sup> Özbaşaran 2012.

<sup>76</sup> Baird *et al.* 2018, 5.

<sup>77</sup> Mellaart 1967.

<sup>78</sup> Duru 1999, 2012.

<sup>79</sup> Baird 2012, 191; Baird *et al.* 2012, 232.

<sup>80</sup> Fairbairn 2005, 204.

<sup>81</sup> Çilingiroğlu *et al.* 2012.

<sup>82</sup> Horejs *et al.* 2015.

<sup>83</sup> Bodet 2017, 2018.

<sup>84</sup> Özdoğan 1999.

In the PPNA period, several small round houses (arguably of nuclear families, as supposed from their size and facilities) materialize, in the long term, the short-lived camp dwellings of their previous nomadic life. The hearth can be considered as the focal point around which the members of the household revolve. Similarly, there is a central space and/or building that may have served as a focal point towards which villagers could converge and meet for anything that involves the group as a whole<sup>85</sup>: taking communal decisions, celebrating events, storing food or, more ordinarily, listening to mythical stories, hunters' feats or gossips. In prime societies, there is indeed usually no clear distinction between the public matters that are, today, clearly separated between economy, religion, entertainment or politics<sup>86</sup>, and the same place/building could serve all purposes. Such communal buildings are well identified in several PPNA sites such as Jerf el-Ahmar and Mureybet<sup>87</sup> downstream the Euphrates, as well as in Hallan Çemi in the Tigris basin<sup>88</sup>. Among the several round houses found in the earliest phase at Çayönü, such a specific building has not been clearly identified. There is however a cluster of larger constructions with specific features (red-painted floor, large stones) placed just below the sumptuary buildings of later periods<sup>89</sup>.

Later on, in the Early PPNB, the domestic buildings conform to a peculiar rectangular 'grill' plan. Given their size and arrangement (with one or two hearths), it is reasonable to suspect that these structures are again individual houses for a nuclear family, to which several rows of parallel walls are attached. Given that farmers need to store their crops, the function of the latter left little doubt to the first excavators (Braidwood and his team): the grills appeared to them as the ventilated foundation of a disappeared superstructure where the grain and other food items were stored dry<sup>90</sup>. This seems to betray already an evolution in the village internal organization, with every household being now supposedly responsible for its 'own' cereals. There is however no reason to see here the beginning of 'private ownership', an anachronistic concept for a small community where everyone is probably related in some way. This change can be better understood as a practical way to facilitate the redistribution and the storing of natural resources within a population growing under the combined effects of sedentism and food reliability<sup>91</sup>. A switch towards a relatively more individualized ideology may be better apprehended as a later consequence than as a primary cause of this shift in the relations of production.

In these early PPNB layers of Çayönü, the focal point of the village appears to be a specifically arranged wide open space, the so-called 'plaza', at the edge of which stands the 'Skull building' (BM) which clearly holds a communal function. In one of its cells, 70 skulls were retrieved, several being carefully deposited after natural death and decomposition of the flesh<sup>92</sup>. It is interesting to note that everybody's skull has not been placed here: the MNI remains of nearly 400 individuals were found in that building and twice more in the rest of the site, notably beneath the floors of contemporary houses<sup>93</sup>. This means that there seems to be some (albeit not drastic) selection as to who gets buried here. The ethnological

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<sup>85</sup> Acar 2001.

<sup>86</sup> Sahlins (1972, 168) on the many meanings of the 'hau' concept central to New Zealand Maori culture: "Does not the apparent 'imprecision' of the term hau perfectly accord with a society in which "economic", "social", "political" and "religious" are indiscriminately organized by the same relations and intermixed in the same activities?"

<sup>87</sup> Stordeur 2003, 18-19.

<sup>88</sup> Rosenberg 2011, 63.

<sup>89</sup> Erim-Özdoğan 2011, 194-197.

<sup>90</sup> Erim-Özdoğan 2011, 195, fn. 29; Forest 1996b.

<sup>91</sup> Bellwood - Oxenham 2008, 13-14, 30.

<sup>92</sup> Özbek 2004, 18.

<sup>93</sup> Pearson *et al.* 2013, 182.

analogy<sup>94</sup> and the structure of farming societies reviewed above can be applied presently to guess how: the selection may well have operated along the genealogical line<sup>95</sup>, according to the ancestors of the founding lineages of the site<sup>96</sup>. At every generation, the married elder sons and their female partners, for example, could be a realistic presumption for such selection. The skulls having been placed together in this communal building could moreover imply that the ancestors were recognized, beyond each lineage, by the entire community, and, thus, that several exogamic lineages (i.e. exchanging their women) may have lived side by side in the village.

The skull building must be put in relation with the above mentioned communal building of PPNA Jerf el Ahmar, likewise intentionally burnt down and where a female headless body was retrieved<sup>97</sup>. Such skull treatments also recall the “exposed and weathered human crania” of Qermez Dere<sup>98</sup>, as well as contemporary similar cases from Nevalı Çori, Abu Hureyra, and, in particular, Ain Ghazal, Jericho and Tell Aswad where skull plastering is most impressive<sup>99</sup>. These strong chronological correlations and the width of the area concerned seem to show that the detachment of skulls is neither a cultural coincidence nor a local peculiarity but a “widespread, if not universal, practice during the PPNB”<sup>100</sup>, with clear roots in the PPNA. This behaviour indeed seems to take on a *structural* aspect, farming being suspected, as suggested above, to push the inner construction of the society towards more verticality and genealogical linearity. There may be a link with the fact that the means of production, the land, is inherited according to the law of primogeniture, as is often the case among farming societies, so as to prevent the prospect of a disastrous anarchy. Skull removal can be put in relation with yet another archaeological feature.

Davis<sup>101</sup> has put an enlightening emphasis on the village organization at Çayönü: at every PPNB layer, and most remarkably in the later PPNB, a few buildings worth attention are found directly aligning the plaza and the corresponding communal building (like the Skull building). Though similar in form to the contemporary individual houses (whether grill, channelled, or cell plan) found further away in the western ‘residential’ area, these constructions are substantially larger, better constructed, more ostentatious (some with a porch and a stone pavement) and hold more obsidian. Davis speaks about “social differentiation”, an observation consolidated by a stable isotope analysis by Pearson *et al.*<sup>102</sup> (*infra*). From our perspective however, it is worth to be precise about the terminology employed so as to avoid the idea of ‘hierarchy’ in a society where everyone is predictably conscious of the kinship ties that link everybody in the community, where there is, most probably, no labour division (other than gender-related), no surplus to be extorted, and, arguably, where the egalitarian ideology still puts foreword strong social mechanisms to “disengage people from property, from the potentiality in property rights for creating dependency”<sup>103</sup>. The statement of Flannery and Joyce that “many societies have remained egalitarian after thousands of years of farming”<sup>104</sup> is probably true for the first two or three thousand years in Mesopotamia.

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<sup>94</sup> Radcliffe-Brown 1972.

<sup>95</sup> Barnard 2007, 13.

<sup>96</sup> Forest 1996b.

<sup>97</sup> Stordeur 2000, 45-46.

<sup>98</sup> Watkins 1996, 85; Watkins 2017, 5.

<sup>99</sup> Stordeur *et al.* 2010, 49-52; Aurenche – Kozłowski 1999, 112.

<sup>100</sup> Hole 2000, 205.

<sup>101</sup> Davis 1998.

<sup>102</sup> Pearson *et al.* 2013.

<sup>103</sup> Woodburn 1982, 445.

<sup>104</sup> Flannery – Joyce 2012, 91.

Overall egalitarianism is not contradicted by the fact that in DMP farming communities, elders of lineages (household heads) manage the affairs of their families and represent them when communal decisions are to be taken, in particular concerning matrimonial transactions<sup>105</sup>. In these early domestic times, this delegation of power must be conceived as purely organizational, as a mere service rendered to the community, and not, yet, as a way to exploit the commoner (who always remains a more or less close kin or affine). It is certain that in time this position will tend to take a slightly exploitative turn, but the Neolithic is not quite there yet (because the integrative force of irrigation agriculture is not present), and status remains totally kinship-bound and is thus ephemeral and limited. At most, when several (necessarily related) households live side by side, as is maybe the case of later PPNB Çayönü, social integration may have reached the level of the extended family. The authority is then naturally transferred one generation higher, to the elders of the elder lineages (thus covering more people). Indeed, as the village grows, not everyone can be consulted when public decisions are taken (justice, communal works, inner and outer conflicts, marriages, ceremonies etc.). It is reasonable to subsume, as Forest<sup>106</sup> did for early proto-urban Mesopotamia, that, in order to perform their duties, elders tend to receive many people in their house (individuals of their own lineage, the elders of other lineages, outsiders...) and gather valuable objects used for marital transactions like copper beads, shells and obsidian, materializing the prestige and wealth of the entire lineage. This managing function of elders could well explain the relatively big size, centralized location and the relatively sumptuary aspect of their houses in Çayönü, as well as the “different diet” of the individuals buried (with their spouse-s) in the skull building, compared to those buried under houses<sup>107</sup>. But there is no question of a separate elite or hierarchy.

At Nevalı Çori, a similar village organization may also have existed: large excavated houses near the ‘Kultgebäude’ are situated away from the western part of the mound destroyed by erosion<sup>108</sup> where smaller residential houses may have been clustered. The fact that these large houses are to the East, could hold a symbolical meaning: the elders, by way of the ancestors they represent, may have been conceived as the ‘birth’ of their lineage; the location of their house, where the sun eternally rises, would then place the community (and not just the elder) within a cosmic order. The adequacy of cosmic symbols with the items of ‘practical’ life is indeed known to be very important to traditional people, as shown by Bourdieu<sup>109</sup>.

The plaza would be where, under the auspices of the elders, the communal ceremonies take place, some of them related to the agricultural calendar, again inserting the community within the cosmic order fixed by the imperturbable cycle of the seasons and the sky bodies (sun, moon, stars). Other such ceremonies were probably related to social celebrations such as marriages, which concern the entire community as the reflection of the rules (in particular exogamy) that, again, prevent it from falling in a dangerous form of anarchy and violence, a perspective that is known to scare so much traditional societies<sup>110</sup>. Among these celebrations, the initiatory rites of passage to adulthood may not be the least. The importance of an individual’s age group in a traditional community is such that puberty is commonly made manifest by indelible signs: this invites us to think that the human blood found on a stone table in the Skull Building<sup>111</sup> could well be that of

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<sup>105</sup> Woodburn 1982, 433.

<sup>106</sup> Forest 1996a.

<sup>107</sup> Pearson *et al.* 2013, 185.

<sup>108</sup> Hauptmann 2011, 90.

<sup>109</sup> Bourdieu 1980.

<sup>110</sup> Girard 1972; Clastres 1974.

<sup>111</sup> Özbek 2004, 20.

circumcision<sup>112</sup> (there is probably no need to think of human sacrifices, although the traces of animal blood may well indicate animal sacrifices<sup>113</sup>). It is indeed interesting to note that marriages and circumcisions, practically involving only a limited number of individuals, are always celebrated by the entire community, as it is still today. The reason seems to be that everybody is expected to witness the immutable rule whereby one enters the sphere of the (re)producers. Again can we see the ordering of the society, which the elders conduct (from their houses, just opposite) as representatives of the founding ancestors, to ensure the smooth perpetuation of the community.

In the last PPN and then in the PN layers, Çayönü apparently becomes smaller, socially less integrated (with no specific communal building or area) and is slowly deserted. This desertion certainly is happening through the segmental<sup>114</sup> structure characteristic of farming societies, whereby youngsters readily leave the group to establish a farm somewhere else. This situation seems in fact to be the outcome of a trend starting timidly earlier on. Indeed, throughout of the PPNB, the size of Euphratean sites like Çayönü always remained very reasonable (especially in comparison with Central Anatolian ones), in spite of a long sequence of sedentism and farming which must have entailed a steady population growth<sup>115</sup>. It is tempting to think that the demography of these PPNB villages probably could not have remained so moderate if, gradually, a fraction of the new generations did not move out to marry and/or establish elsewhere. This seems to go well, we will see, with the fact that the number of sites (of similarly moderate size) seems to burst throughout the Euphrates basin in M and L PPNB phases.

These final Neolithic layers should not be considered as the end of a culturally blossoming era, but simply as the advent of a normal agricultural community after a long period of adjustment. After about 7000 BC, the adoption of ceramic and the reliance on fully domestic crops and animals, the Çayönü community seems finally to have fully adopted the segmental lineage and other social characteristics of the Domestic Mode of Production. It is important to note that the features reviewed here are approximately shared by contemporary neighbouring sites at every period, and that this social evolution is a regional one. Our insistence on Çayönü comes from the fact that only there can the entire process be followed at the same place, giving a coherent spatial unity to the long evolution.

This review of the archaeological evidence shows how long and winding is the road for the internal structure of a nomadic hunter-gatherer society to become that of a genuine farming society, with lineages, elders and arguably splitting nuclear family segments.

### 3- Hypertrophied Central Anatolian villages

Once firmly established in the Euphrates valley, the Neolithic way of life seems to diffuse westward, adopted by Central Anatolian hunter-gatherer societies. The social adjustment to settled life and farming, which was so gradual in the area of invention, must, in Cappadocia, start all over again, against an ideological background still of the hunter-gatherer type. Archaeologically speaking, the most striking difference between the two regions is the site size. Contrary to what could be expected, the biggest sites are not situated in the region where mixed-farming came out first, but in those where it diffused. It is interesting to note that a similar situation is found in other regions of diffusion like the Levant as we will see, in Ukraine Dnieper alluvial plain with the Trypillian mega-sites<sup>116</sup>,

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<sup>112</sup> Forest 1996b, 24-25.

<sup>113</sup> See Girard for a general understanding of the universal role of (usually domestic) animal sacrifices.

<sup>114</sup> Sahlins 1972; Meillassoux 1991; Forest 1996a, 35.

<sup>115</sup> Larsen *et al.* 2015.

<sup>116</sup> Müller *et al.* 2016.

but also at the periphery of other independent cases of Neolithisation like in Eastern Asia<sup>117</sup>. There must therefore be a structural reason accounting for this systematic dichotomy between regions of innovation and diffusion. To try to uncover it, it is first necessary to evaluate the data at hand.

The evolution of the settling pattern in Aşıklı Höyük is characteristic. The earliest levels (4 and 5, mid. 9<sup>th</sup> mill) are loosely populated, recalling a forager camp with circular structures and open spaces for daily activities. At the end of the occupation, in the mid-8<sup>th</sup> millennium BC, the constructions have taken up all the available space on the mound, barely leaving narrow “middens” between the small packed houses<sup>118</sup>. About a millennium later, an even denser and larger demographic cluster will characterize Çatalhöyük, with thousands living together<sup>119</sup>. How are we to explain the constitution of these heavily populated and agglutinative ‘mega-sites’? Only then will we be able to understand why they are unseen in the Upper-Middle Euphrates core area.

### *Endogamy*

The matrimonial alliance system of hunter-gatherer is generally closed on itself and characterized by reciprocity in the exchange of women among the subgroups into which the community is divided. These societies tend to exchange simultaneously with each-other the individuals to be married. This is the ‘elementary’ kinship pattern described by Lévi-Strauss<sup>120</sup>, in particular its ‘restricted’ formula (see appendix). When these societies settle down permanently, there is no reason why such tradition should change, at least for a while. Indeed, the individuals prescribed for marriage are present locally, immediately at reach. Matrimonial subgroups thus mechanically exchange women/men for marriage without delay, and they reproduce their matrimonial arrangements generation after generation. This reciprocal matrimonial pattern indeed renders fission from the community difficult and dangerous, as the promised mate can hardly be given if she/is not physically present; if people left the village, this would be a problem for his/her entire subgroup breaking down an age-old contract of mate exchange, affecting the balance of the whole community. Indeed, fission does not seem to be practiced and, as can be inferred from the growing size of Central Anatolian Neolithic sites, the new generations are kept within the boundaries of the settlement to perpetuate the reciprocity.

Moreover, no break in the material culture of these sites would indicate a population replacement: a rather uniform genealogical pool seems to run through the dozens of generations of the occupation of these Central Anatolian Neolithic sites. The exchange of women between subgroups therefore continues the way it always has but in a context where sedentism and farming naturally involve demographic growth, as shown by the bioarchaeological study of Larsen *et al.*<sup>121</sup>. The end-result of this closed-in marital system is tremendous: the population seems to aggregate slowly but continually and the village appears to grow beyond social reason, leading to the creation of the hypertrophied Neolithic settlements of Aşıklı Höyük, Çatalhöyük, maybe also Can Hasan, Hacilar and Er Baba. It is interesting to note that the sites mentioned cover a wide chronological span, which further shows that mega-sites do not correspond to a definite time-period but are a structural reaction to the arrival of agriculture, *whenever it arrives*, within a society still functioning under a hunter-gatherer construction (this can be well into the Chalcolithic as

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<sup>117</sup> Bellwood – Oxenham 2008.

<sup>118</sup> Özbaşaran 2012, 139.

<sup>119</sup> Bogaard *et al.* 2017, 2; up to 8000 according to Hodder 2012, 246; Hodder 2016, 1.

<sup>120</sup> Lévi-Strauss 1967.

<sup>121</sup> Larsen *et al.* 2015, 28.

the Trypillian mega-sites<sup>122</sup> show for example). In a word, there seems to be in Central Anatolia a good case of 'spatial **endogamy**'<sup>123</sup>, in the sense that marriages probably proceeded mostly among individuals born in the village (though not totally, as some women may have been kidnapped from outside, see below).

This picture is not contradicted by the high mortality rate of juveniles at Çatalhöyük which seems to minimize the possibility of immigration as a cause of population growth. However, a bio-archaeological study, conducted on the individuals buried under the house floors of Çatalhöyük, showed "limited biological affinity, contradicting the expectation that those individuals were members of extended biological families"<sup>124</sup>. Another investigation likewise showed "a lack of maternal kinship among ten analyzed individuals buried under the floors of selected **adjacent** Çatalhöyük buildings"<sup>125</sup>. Moreover, there seems to be no more genetic link between individuals living within the same district than with the rest of the settlement<sup>126</sup>. Considering the alliance system, the reason for these facts may be partly reachable: because of exogamy, every woman marries necessarily outside her lineage and goes out to live in her husband's family district (Larsen *et al.* have indeed showed the probable patrilocal residence on the site)<sup>127</sup>, where she leaves half of her genes to her children (and where she is probably buried). That could explain the genetic patchwork across the site, albeit generally turned inward.

Promiscuity, epidemics or epizootics, family conflicts (mostly on marriages), problematic distribution and access to fields and pastures<sup>128</sup> are among the serious problems that population density may involve. This suppose an apparent lack of 'political' maturity, that is, the lack of effective delegation of the decision-making process to individuals higher in the genealogical line, the way it was argued above for late PPNB Çayönü. But the deepest problem with this situation of hypertrophy comes from a general contradiction with the standard functioning of the agricultural mode of production; indeed, these early farming communities would be much better off scattered over the landscape, as independent and isolated units, each on its 'own' piece of land, as will probably be the case in the Chalcolithic period. These aggregations of population, often understood as a sign of 'civilisation' on the model of later urbanized entities, appear on the contrary, for the Neolithic period, as the symptom of a deep disequilibrium between mode (farming) and force (nuclear family) of (re-)production<sup>129</sup>.

#### *Agglutinative architecture and kidnapping*

Now, if the elementary alliance system prompted people to live in the same place, it does not satisfactorily explain the extreme clustering of the population, as the villages could have been somewhat expanded<sup>130</sup> so as to preserve open spaces on the ground, without having to push them on the roof. Only the most crucial reasons can push people to live in such an architecture. The fact that a massive stone wall surrounded Aşıklı in the later levels, as in Kuruçay<sup>131</sup>, enjoins to surmise a certain climate of tension among neighbouring communities, whether they be agriculturalists or foragers. Why such a tense climate with the outside world, for communities that have just been described as

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<sup>122</sup> Müller *et al.* 2016.

<sup>123</sup> Forest 1993; Forest 1996b, 4.

<sup>124</sup> Larsen *et al.* 2015, 58.

<sup>125</sup> Chylenski *et al.* 2019, 10.

<sup>126</sup> Hodder 2012, 247.

<sup>127</sup> Larsen *et al.* 2015, 41.

<sup>128</sup> Fairbairn 2005, 205-206; Larsen *et al.* 2015, 47-48.

<sup>129</sup> Forest 1993.

<sup>130</sup> Rosenberg 2003.

<sup>131</sup> Duru 2012, 6.

supposedly endogamic, i.e. turned inward? The lack of hierarchy and of state-like political organization should prevent us from seeing here a conventional type of violence. The presence of stores of food (grains and herds) is, likewise, not convincing enough a reason, as all communities certainly possessed a sufficiently dependable source of food not to have to rely on the uncertainty of violence. We then need to look, again, at the other vital concern for human life, that is, re-production. Because of their reproductive capacities, women are actively sought for by prime communities. Woman abduction is often practiced by hunter-gatherers and other nomadic peoples (still today in Central Asia for example, though, now more on a ritualistic level) to compensate for the inevitable demographic disequilibrium occurring among small populations practicing some form of endogamy<sup>132</sup>. Within a sedentary context, agglutinative architecture, even without surrounding wall, appears like a good way to keep a good vision of the 'state of matrimonial affairs' and to repel potential outsider kidnappers.

Rosenberg<sup>133</sup> proposed that the large morphology of flint or obsidian points of the later Neolithic (so-called 'Big Arrowhead Industry-BAI' by Aurenche and Kozłowski<sup>134</sup>) is certainly more conceived for close-range warfare, as hand-held spearheads, than for hunting (especially at a time where herding replaces hunting). This observation fits well with the hypothesis above, as kidnapping within or in the vicinity of such huge villages would only involve close-range violence, and not "full-scale assault". Çatalhöyük would be a 'nest of women' for hunter-gatherer communities living around (hence the agglutinative architecture), but this goes both ways, and these foraging groups would attract Çatalhöyük farmers for the same reason. Such abduction would be enough to slightly shuffle the genetic map of the site, as mentioned by Larsen *et al.*, but would certainly remain low in comparison with the normative prescriptive endogamic (closed-in) local alliances. It could be possible to go even further saying that the concern for reproduction is symbolically 'written' on the walls of the so-called 'shrines' of Çatalhöyük<sup>135</sup>, but we shall leave this point to further investigations.

*Changes in time: on the so-called 'skull cult', linear structure and segmental lineages*

Prior to the abandonment of Çatalhöyük East, certain signs suggest that fundamental changes were already under way. Larsen *et al.*<sup>136</sup> and Hodder<sup>137</sup> have noted that the population of Çatalhöyük grows until about the middle of the occupation and starts to decline thereafter until complete desertion. This process seems to go well with an internal social process that cannot be completed overnight. But which one?

First of all, we note that certain skulls are extracted after death and found on or under house floors. This certainly recalls the process of selection reviewed for Çayönü. If the analogy is correct, the society had, by then, slowly started to adopt the linear structure characteristic of agriculturalists. The skull treatment could therefore imply that lineages slowly became autonomous units of reproduction, and we will try to see how this tremendous change may have been made possible.

One of the most patent ways to assert the prerogatives of the lineage elder is to collect, under the floor of his house, the bodies of the dead members of his entire lineage (except, maybe, the infants who are not socialized yet), as this seems already to have been

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<sup>132</sup> Forest 1993.

<sup>133</sup> Rosenberg 2003, 92-97.

<sup>134</sup> Aurenche - Kozłowski 1999, 103-104.

<sup>135</sup> Forest 1993.

<sup>136</sup> Larsen *et al.* 2015, 58.

<sup>137</sup> Hodder 2012.

the case in Çayönü<sup>138</sup>. Within these members are probably the affines, that is the married women, necessarily coming from other subgroups. This could illustrate the results of the kinship study made on the Çatalhöyük population by Pilloud and Larsen, according to which “the choice for interment location may have transcended biological lines”<sup>139</sup>. This would more generally help explaining the genetic patchwork mentioned above as well as the fact that individuals buried together don’t seem to share the same matrilineal kinship; women kidnapped from neighbouring groups would further complicate the genetic map. Also, if the entire society takes on a linear structure, probably by the middle of the occupation, elders of elder lineages start to assert a control over larger and larger patches of populations. This could explain why only certain skulls are plastered several times and why only certain houses, especially those Hodder<sup>140</sup> calls ‘history houses’, are repeatedly rebuilt, become bigger and concentrate more burials. This way of seeing things could also bring some practical clarification to the ‘panarchy theory’ developed by Bogaard *et al.*<sup>141</sup> in order to explain the “innovations in cropping practice (...) on the part of particular households (...) successful enough to be adopted across the community as a whole”. In the view presented here, this ‘success’ comes down to a matter of genealogy. Even today, in traditional societies, being the ‘*abi*’ (elder-brother) of a family still confers a symbolical prestige, which, among early farming societies, translated into real decisional power over the individuals of the lineage. The main consequence of this situation, as it is well asserted in ethnography<sup>142</sup>, is that younger brothers, as the least socialized stretches of the population, seek to withdraw whenever possible from the growing influence of their elders, and their gradual splitting could explain how the village started to be slowly abandoned.

It is interesting to note that skull removal, which we attempted to interpret as a sign of linearity of the social structure, dates to the PPNA in Northern Mesopotamia (ca 9 000 BC) and, at the earliest it seems, to the Pottery Neolithic (ca. 7000 BC) in Central Anatolia. This can be taken as a hint for the delay of the latter societies in terms of social adjustment to the farming mode of production.

### *The end of the mega-sites*

Çatalhöyük East is abandoned, at last, around 6000 BC. Just like it was the case for Aşıklı Höyük, this event is followed by the constitution of small sites scattered over the landscape, in particular Çatalhöyük West. In line with the properties of a farming society, this situation seems to imply that the nuclear families tended to split up from the village, attracted by the land available all around. If we follow our thread of thought, this new behaviour could only have become possible with the loosening of the restricted and prescriptive closed-in pattern of alliance (that until then indicated to everyone the person to be married with). This pattern must have been replaced by the adoption, instead, of a new type of alliance, open to outside groups (termed ‘complex’ by Levi-Strauss). In other words, if people have to marry a cousin, they have to remain in the same place, but if this rule is abandoned, they can leave the village to establish elsewhere where they can marry an unrelated neighbour.

As we saw with the Euphratean data, the advent of an alliance system allowing people to marry outside their kinship group and outside their village, making thus splitting possible, did not happen overnight, and could account for the gradual desertion of

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<sup>138</sup> Pearson *et al.* 2013, 181.

<sup>139</sup> Pilloud – Larsen 2011, 519.

<sup>140</sup> Hodder 2016, 1-2.

<sup>141</sup> Bogaard *et al.* 2017, 22.

<sup>142</sup> Meillassoux 1991, 122-124; Testart 2005.

youngsters starting by the middle of the occupation at Çatalhöyük. But, again, the basic reason for splitting would be due to the farming mode of production itself, which is most effective when restricted units are established on the land they farm<sup>143</sup>, hence the scattered aspect of rural landscapes, even today.

One last point: a rather spacious communal building is known at Aşıklı. It seems to answer a natural need for communities to centralize communal matters as we saw. There is therefore no need to call for a cultural diffusion from the Euphrates basin to explain its presence in Cappadocia. A more difficult question is why such communal buildings seem to be so seldom found west of Cappadocia<sup>144</sup>. As for the relatively small settlements that postdate Çatalhöyük East, *i.e.* after 6000 BC<sup>145</sup>, supposedly made up of clusters of nuclear families that tend to split when they are too big to be managed, communal affairs are 'family affairs' that do not require such a building. As for Çatalhöyük East itself, the lack of such building seems to be common with other Late Neolithic hypertrophied sites like Abu Hureyra<sup>146</sup>, and this must show something about the internal organisation of the community. This would imply that nothing needed a higher form of integration, hence the problem of 'political maturity'. The lack of surrounding wall, irrigation system, centralized distributive centres, communal buildings and the like, as well as the dispatching of symbolic buildings in every other building at Çatalhöyük or at Höyücek, point to the fact that lineages needed each other for marital matters but less for economical or 'political' reasons.

### *Synthesis*

This situation allows us to compare, in the 8<sup>th</sup> and 7<sup>th</sup> millennia BC (M/L PPNB – E PN), contemporary communities practicing farming but displaying different levels of social compatibility and approach to the new mode of production: one, in the Euphrates, already well on its way to become a DMP (proto-Halaf type), the other, in Central Anatolia, still imbedded in a Palaeolithic tradition until at least half of its occupation, before promptly and dramatically adjusting.

The segmental structure of linear societies and the mode of production imply that farming societies are generally characterized by their fragility as a group, and are thus inclined to split frequently<sup>147</sup>. Only very strong contradictory forces could preclude such segmentation and, in the case of Aşıklı and Çatalhöyük, it seems to have been the persistence of the obsolete 'elementary' (closed-in) marital alliance system going along with a hunter-gatherer type of social structure. The site desertion happening at the end of each site sequence would finally show the adoption of more liberal marital practices.

### **III- Structures in transition**

The gap is large between 'elementary' and 'semi-complex' alliance systems, as it distinguishes two drastically distinct forms of society. We just saw the friction that could arise when the alliance system is not in phase with the rest of the society, and in particular with the mode of production. We are now to wonder: how did the alliance system evolve in the Euphrates basin, where farming occurred independently on a hunter-gatherer background and where, according to our reading of the Central Anatolian data, a similar

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<sup>143</sup> Forest 1993.

<sup>144</sup> Özbaşaran 2012.

<sup>145</sup> Fairbairn 2005, 204.

<sup>146</sup> Hole (2000, 198) characterizes Abu Hureyra as very densely populated, with only narrow passageways between houses and "no obvious indication of communal facilities, cultic activities or status differences".

<sup>147</sup> Forest 1996a, 35.

problem of site hypertrophy should have been encountered. In other words, what about mega-sites in the Taurusian section of the Middle Euphrates?

### 1- The Euphratean social adjustment

The first thing is to wonder whether such sites are really absent. The site of Şanlıurfa - Yeni Mahalle, dating to the late PPNA, has an estimated size of 15 ha; by comparison, Çatalhöyük is 12,5 ha<sup>148</sup>. The neighbouring site of Karahan Tepe also seems to be quite big<sup>149</sup>. These local hunter-gatherer communities, contemporary with Jerf el Ahmar and certainly acquainted with pre-domestic agriculture, may have thus endured an incipient form of demographic explosion and hypertrophy, possibly due to the application of the restricted system of alliance in a sedentary and early agricultural context, exactly like at Aşıklı and Çatalhöyük. If the size of these early sites were to be confirmed, this could well back-up our reconstitution. However, they are not excavated and it would be hazardous to hypothesise much further for now.

For the better known PPNB period, early Çayönü and Nevalı Çori (reviewed above) are, during the M and L PPNB, joined by a very large number of sites: Gritille, Mezraa Teleilat, Akarçay, Lidar, Levzin, Hayaz Höyük, Garoz Tepe, Gürcütepe, Sefer Tepe, Kumartep<sup>150</sup>. One fact deserves attention right away: these sites never feature, it seems, the hypertrophied size or the over-clustering characteristics (agglutinative architecture, defensive system) of the late Neolithic sites of Central Anatolia or of other regions of diffusion like in the Levant (*infra*). For example, in his comparative study, Frank Hole<sup>151</sup> notes how Çayönü always remained much smaller than Abu Hureyra.

The PPNB is characterized by the so-called 'Big Arrowhead Industry (BAI)', argued above to hint at some intercommunal tension, maybe arising from women kidnapping. This defiance will gradually come to an end. By about 7000 BC, the BAI is abandoned<sup>152</sup>. The LPPNB process of site spreading seems to be followed by a further process of site segmentation especially recognized in contiguous areas: in the Balikh river, 20 very small sites (<1 ha) were recovered by prospection around Sabi Abyad/Damishliyya and Assouad<sup>153</sup>; the contemporary Harran plain<sup>154</sup>, the Syrian coastal plain (Ras Shamra), the Khabur (Seker, Halaf)<sup>155</sup>, the Afrin (Ain Dara III) and the Orontes (Kerkh)<sup>156</sup> river valleys as well as the Amuq areas (eleven Pottery Neolithic sites recorded<sup>157</sup>) all seem to experience the establishment of a number of modest communities around the time of the emergence of pottery. The climax of disintegration will be reached during the Halaf period (6<sup>th</sup> mill BC), where nuclear families seem to settle only for a few years and then move on to a new location<sup>158</sup>. These farmsteads are economically autonomous, like Çatalhöyük West in contemporary Central Anatolia<sup>159</sup>, but are probably dependent on neighbouring communities, that is, on other nuclear families spreading around, for marital matters.

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<sup>148</sup> Fairbairn 2005, 198; Hodder 2016, 1.

<sup>149</sup> Çelik 2011, 139.

<sup>150</sup> Hauptmann 2011, 103-104.

<sup>151</sup> Hole 2000, 199.

<sup>152</sup> Rosenberg 2003, 97-98.

<sup>153</sup> Akkermans 1989; Akkermans 1999, 129-131.

<sup>154</sup> Hauptmann 2011.

<sup>155</sup> Nishiaki 2016.

<sup>156</sup> Arimura - Suleiman 2015.

<sup>157</sup> Gerritsen *et al.* 2008, 244.

<sup>158</sup> Forest 1996, 23-24, 32-35.

<sup>159</sup> Anvari *et al.* 2017.

To sum up the Euphrates sequence, by the beginning of the Chalcolithic era, communities appear like the repository not merely of a mastered economic evolution, but also of a long period of social adjustment to settled and agricultural life, locally tracing back to the earlier PPNA at least. The apparent lack of mega-sites in the M/L PPNB Upper-Middle Euphrates (following their disintegration in the LPPNA/EPPNB?) could possibly, then, be explained by the beginning of a slow adaptation to the agricultural lifestyle, the way it was developed above for Çayönü. In particular, this would show that lineages became the relevant social unit and that the alliance system had, by then, gradually loosened its marital rules: obligations of reciprocity in the exchange of women among subgroups having vanished, alliances would have been more and more open to outside groups. In this social context gaining in security, youngsters in particular would be more and more tempted to break free from their lineage, to establish small farmsteads in nearby lands. The gradual autonomy gained by lineages from the old classificatory system seems to have brought an implicit mutual agreement among lineage elders to marry their mates separately from the old endogamic system, paving the way for the gradual spreading of small sites attested throughout the Late Neolithic period in Northern Mesopotamia.

## 2- Comparison with the Levant

Following the Central Anatolian examples, site hypertrophy can be roughly defined by a population of several thousand living in agglutinative villages. Two such villages, Abu Hureyra and Halula, are known from the lower (Syrian) section of the Middle Euphrates, in the M and L PPNB<sup>160</sup>. According to our interpretation, this may appear, at first sight, rather surprising if we think that the communities of the Euphrates basin as a whole have experienced the full neolithisation process and, thus, should have had the time to adjust their marital pattern. However, after a thriving PPNA sequence with clear pre-domestic cultivation (detected in particular by the expansion of “arable weed flora” and “increased reliance on cultivars”<sup>161</sup>), this lower section of the middle valley seems to be pretty much deserted (following E PPNB Dja’de)<sup>162</sup>. A stable mixed-farming economy only seems to resume in the course of the M PPNB (ca 7900 BC), with the arrival of herd animals already morphologically domestic (together with fully domestic crops<sup>163</sup> ?) from the upper section of the river<sup>164</sup>. In this sense, the lower section in the second half of the PPNB can be considered as a region of diffusion (at least of the mixed-farming economy). The explanatory model developed for Central Anatolia can thus be applied here: the local hunter-gatherers who adopted agriculture would not have had the time to modify their restricted (reciprocal) closed-in marital system, leading to a situation of site hypertrophy. As Barnard noticed on the ‘mode of thought’ of the !Kung Kalahari hunter-gatherers, ‘people can hold on to ideologies reflecting foraging for generations, even when their systems of production have undergone transition’<sup>165</sup> (towards farming). Within this mode of thought we can securely include marital practices, as production and reproduction are always intimately linked to each other.

The southern Levant also offers an informative parallel, with the Late Neolithic hypertrophied sites of Ain Ghazal, Ba’ja, Basta, Es-Sifyia and Wadi Shu’eib, all situated on the edge of the desert east of the Jordan River. These sites are contemporary (though founded later) with more normal-size sites in next-door Palestine, like Jericho or

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<sup>160</sup> Moore *et al.* 2000, 3-5, 256-259; Molist 2001, 35, 44-48.

<sup>161</sup> Asouti - Fuller 2013, 303.

<sup>162</sup> Bodet 2012.

<sup>163</sup> Abbo *et al.* 2010.

<sup>164</sup> Peters *et al.* 1999, 38-39.

<sup>165</sup> Barnard 2007, 8.

Beisamoun<sup>166</sup>. The Jordanian mega-sites get somehow smaller at the end of the L PPNB and in the PN before they are abandoned, contrary to those in Palestine that continue to thrive, though in smaller size. Also, while M PPNB Jericho shows “incontestable evidence of a mature domesticated crop ‘package’ (i.e. mostly displaying ‘non-shattering rachis/enlarged grains’)”, contemporary Beidha displays the “cultivation of local wild-type crops”<sup>167</sup>, as if the former was the intensive consequence of a long tradition of plant management (starting in the PPNA) and the latter was only getting used to it. Gebel certainly is correct when he says that linking mega-sites with proto-urbanisation is wrong; to go further, the parallel with Anatolia, and its endogamic marital pattern, seems to offer a satisfactory explanation here as well. The correlation between the two regions is indeed rather striking, with respectively, on the one hand, Palestine (Jericho PPNA-B)/Jordan valley<sup>168</sup> and the Taurusian Middle Euphrates core areas, with long and gradual social adaptations to sedentism and agricultural (DMP) life<sup>169</sup>, and, on the other hand, peripheral Central Anatolian and Jordanian desert-edge with forager populations who adopted farming from their neighbours. While core areas seem to have had the time to loosen their marital practices, adapting them to the needs of the new mode of production, the sites of the latter regions grew out of control. As we have tried to argue, the latter reaction could well be due to the perpetuation of age-old endogamic practices in a sedentary and food producing context (favourable to demographic growth). The Jordanian case may be even more dramatic as the splitting of people was hindered by the lack of arable land near the desert. The core of the problem is, however, probably more to be found, we saw, in the alliance practices. Even Cyprus seems to be concerned by a similar development, though at a slightly later date due to isolation, with the desertion, around 5500 BC, of the huge site of Khirokitia followed by the advent of the much smaller sites of the Sotira culture<sup>170</sup>.

The regions that saw the constitution and abandonment of huge sites all share the fact that they received mixed-farming by diffusion on a fully hunter-gatherer background. The response to the adoption of the farming way of life appears surprisingly similar in all these cases isolated from each other. The release of the marital pressure that, following our reconstitution, would explain the end of these hypertrophied villages, leaving a landscape of small farmsteads, also seems to be structural in nature. As a matter of fact, the hypertrophy and the density of occupation at Aşıklı and Çatalhöyük, argued here to imply the late social adaptation to sedentary life, seem to be a good hint that the Neolithic way of life did **not** arise completely independently in Cappadocia, as it is sometimes argued.

### 3- The Western Anatolian epilogue

Even prior to the abandonment of Çatalhöyük East, the Neolithic way of life had diffused westward to the nearby 'Lake region'. According to Refik Duru<sup>171</sup>, the four excavated sites around Burdur Lake, Hacılar, Kuruçay, Höyücek and Bademağacı, present a cultural background (architecture, pottery) distinct from that of the Konya area. Certain structural characteristics of these sites are, however, not without recalling Çatalhöyük: “some settlements (...) grew (...) into communities perhaps large enough to be called towns”<sup>172</sup>. The situation seems similar to the one devised for Central Anatolia: the local hunter-gatherers, who probably adopted farming from their eastern neighbours, may not

<sup>166</sup> Simmons 2000, 216-217; Gebel 2002, 317-319.

<sup>167</sup> Asouti - Fuller 2012, 154-155.

<sup>168</sup> Kuijt - Finlayson 2009.

<sup>169</sup> Asouti - Fuller 2012, 152-154.

<sup>170</sup> Le Brun - Daune-Le Brun 2009, 77.

<sup>171</sup> Duru 2012, 28.

<sup>172</sup> Duru 1999, 186.

have had the time to adapt their marital system to the sedentary context, having for consequence the accumulation of population on the site. However, the development seems to have been truncated: because the Lake sites are founded much later than Çatalhöyük, they may not have had the time to develop an equivalent demographic pressure. The four Lake sites all seem to be abandoned at about the same time as Çatalhöyük, by 6000 BC<sup>173</sup>. It is, again, tempting to explain this deflagration by the advent of the Halaf-type 'semi-complex' open form of marital alliance. Indeed, because this form is open outward to unrelated communities, the most convenient environment for it to function adequately is when the whole area is concerned at once.

### General Synthesis

The prime emergence of farming, as it is known from the Euphrates basin, can be traced back to the advent of the Holocene, which seems to have allowed for a high degree of sedentism and which in turn set all the parameters for the gradual cultivation of plants as an unconscious improvisation that was to have a great future. By the time animals started to be regularly herded in the Upper Middle Euphrates basin (during the M PPNB), agriculture seems to have been practiced for more than a thousand years in the area<sup>174</sup>. The old social structure inherited from their hunter-gatherer background, in particular the reciprocal marital system, is consequently expected to have already been altered towards more linearity and flexibility, as seen by the gradual spreading of small sites until the Halaf period all over Northern Mesopotamia. By contrast, the regions towards which farming diffused generally witnessed a peculiar evolution. In Central Anatolia, the sites of Aşıklı and Çatalhöyük in particular show a formidable internal and clustered growth. To make sense of this reaction, it has been supposed that the societies, having adopted farming directly on a forager background, did not have the time to adjust, socially speaking, to the economic novelty. More particularly, the closed-in marriage system predictably kept on going. Together with the demographic growth entailed by sedentism and farming, these strict endogamic marital rules (among cross-cousins for example) are supposed to have led the community to a situation of spatial endogamy, hypertrophy and dense agglutination. This incongruity seems to have only come to an end with the opening of marital alliance rules towards unrelated groups, at a distance, allowing nuclear families to split from these huge villages, so as to settle each on its own piece of land. If there really was such an evolution in alliance practices, it cannot have been straightforward. When ancestors are remembered and their skulls removed during the Çatalhöyük horizon, they seem to embody a supernatural reference called-in to keep the old rules of reciprocity alive, to counter the lineages pushing to break free. However, the latter could not but eventually succeed.

So, to answer the question in the title, mega-sites do not seem to appear in the PPNB of the Taurusian Middle Euphrates (after having maybe done so during the PPNA?), because this area is where mixed-farming appeared first, after a long sequence of sedentism and pre-domestic agriculture. This left a long time for the organisation of the community to adjust, in particular in terms of kinship and marital pattern, to the mode of production. In other words, in the Euphrates basin, the economic and the kinship novelties affected each other by growing mutually.

As a matter of fact, the social evolution triggered by farming does not appear to be so much different, in itself, between the regions of innovation and those of diffusion. The

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<sup>173</sup> See fig. 2 which partly reproduces the chronological table p. 237 of the 'Western Turkey' volume (4), of the 2012 edition of "Neolithic in Turkey"

<sup>174</sup> Asouti - Fuller 2012, 159.

former (the Euphrates, Palestine), starting earlier, evolved more slowly and more smoothly, while the latter (Central Anatolia, Jordan), starting later, under external influence, evolved faster albeit more chaotically. In the end, the entire South-West Asia seems to reach the DMP stage of (open) social construction about the same time, at the onset of the Chalcolithic.

In this perspective, the abandonment of mega-sites and the dispersal of small farms at the very end of the Neolithic should not be understood as a collapse, and even less a 'Dark Age', as often seen in the literature. After nearly four millennia of slow social adjustment in the Pre-Taurus and a couple of inner stress in Central Anatolia, the Chalcolithic seems to announce a liberating solution. Young couples, relieved from the constraint of a prescriptive marital system, can split (fission) along the segmental lines particular to farming societies, so as to establish small autonomous communities, to take better advantage of the potentiality offered by the farming mode of production. The social superstructure is then finally, and for the first time really, in accordance with the farming infrastructure.

#### **Appendix On kinship structures<sup>175</sup>**

'**Alliance**' is the union between two persons in order to have children. Among traditional societies, it can be seen as a form of **contract** between two kin groups or lineages. There are two major forms of alliance. **Elementary**-type alliance usually designates a group closed on itself and whose subgroups exchange sexual partners among each other (by prescription). The '**complex**'-type alliance, as in domestic societies, designates the people with whom marriage is not possible (proscription); it is then possible with anybody else. The 'semi-complex' form, where prohibitions are more extended, seems to concern the end-result of the process reviewed here, maybe around the Halaf period.

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<sup>175</sup> Levi-Strauss 1967; Ghasarian 1996; Forest 1996a, 265-266.

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