



**HAL**  
open science

# Villages before houses? The neolithization of Europe reconsidered through the concept of the household

Karim Gernigon

► **To cite this version:**

Karim Gernigon. Villages before houses? The neolithization of Europe reconsidered through the concept of the household. *P@lethnologie*, 2017, Household Archaeology – A Transatlantic Comparative Approach, 8, 10.4000/palethnologie.460 . hal-02074949

**HAL Id: hal-02074949**

**<https://univ-tlse2.hal.science/hal-02074949>**

Submitted on 21 Mar 2019

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



GROUPE DE RECHERCHE ARCHÉOSCIENCE / ARCHÉOSOCIALE  
UNIVERSITÉ DE MONTRÉAL

Proceedings of the International Symposium, October 24-25 2014

2016 # 8

<http://www.palethnologie.org>

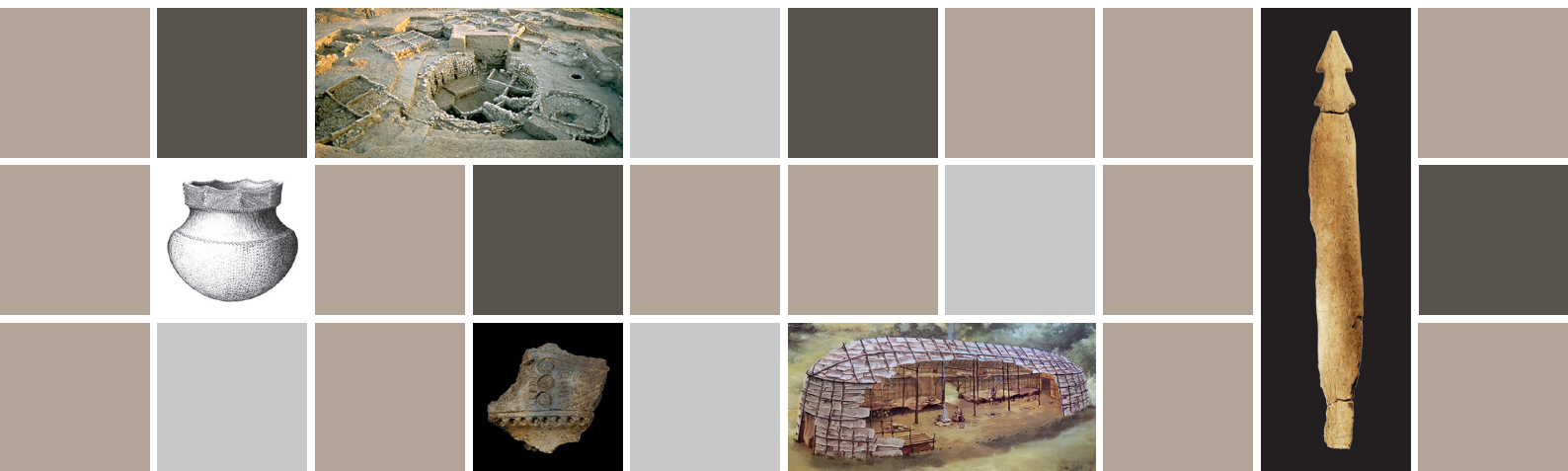
ISSN 2108-6532

directed by

Claude CHAPDELAINÉ  
Adrian L. BURKE  
Karim GERNIGON

HOUSEHOLD ARCHAEOLOGY

A Transatlantic Comparative Approach



Review published by the P@lethnologie association, created and supported by the TRACES laboratory, Inrap and the Ministry of Culture and Communication.

## Director

Vanessa LEA

## Editorial committee

François BON

Pierre CHALARD

François-Xavier FAUVELLE

Karim GERNIGON

Vanessa LEA

Michel VAGINAY

Nicolas VALDEYRON

## Scientific committee

Michel BARBAZA, University Toulouse Jean-Jaurès, Toulouse, France

Marie BESSE, University of Geneva, Geneva, Switzerland

Fanny BOCQUENTIN, CNRS / UMR 7041 – ArScAn, Paris, France

Laurent BRUXELLES, INRAP / UMR 5608 – Traces, Toulouse, France

Adrian BURKE, University of Montreal, Montreal, Canada

Sandrine COSTAMAGNO, CNRS / UMR 5608 – Traces, Toulouse, France

Philippe CROMBÉ, Ghent University, Ghent, Belgium

Jesús GONZÁLEZ URQUIJO, University of Cantabria, Santander, Spain

Jacques JAUBERT, University of Bordeaux / UMR 5199 – Pacea,  
Bordeaux, France

Claire MANEN, CNRS / UMR 5608 – Traces, Toulouse, France

Grégor MARCHAND, CNRS / UMR6566 – CReAAH, Rennes, France

Marco PERESANI, University of Ferrara, Ferrara, Italy

Geneviève PINÇON, National Center of Prehistory, Périgueux, France

Karim SADR, University of Witwatersrand, Johannesburg, South Africa

Isabelle THÉRY-PARISOT, CNRS / UMR 7264 – Cepam, Nice, France

Boris VALENTIN, University Paris 1 Panthéon-Sorbonne, Paris, France

Jean VAQUER, CNRS / UMR 5608 – Traces, Toulouse, France

Randall WHITE, New York University, New York, USA

## Translation

Adrian L. BURKE

Claude CHAPDELAINÉ

Christian GATES ST-PIERRE

Karim GERNIGON

Rowan LACEY

## Layout, graphics

Fabien TESSIER

## Contributions should be addressed to:

### P@LETHNOLOGY REVIEW

Vanessa LEA, Research associates

### CNRS / UMR 5608 – TRACES

Maison de la recherche

5 allées Antonio Machado

31058 Toulouse cedex 9, FRANCE

Phone: +33 (0)5 61 50 36 98

Fax: +33 (0)5 61 50 49 59

Email: [vanessa.lea@univ-tlse2.fr](mailto:vanessa.lea@univ-tlse2.fr)

**This digital publication received support from**



## VILLAGES BEFORE HOUSES?

The neolithization of Europe reconsidered  
through the concept of the household

Karim GERNIGON

<b>Introduction</b> .....	148
<b>1 - The early Neolithic in the Near East and its spread to the southeast of Europe</b> .....	150
A - The formation of village societies in eastern Anatolia and their expansion to the shores of the Mediterranean Sea .....	150
B - Early evidence of the Neolithic in Europe .....	154
<b>2 - The first Neolithic societies and the northern European environment</b> .....	156
A - The spread of the Neolithic to non-Mediterranean environments .....	156
B - The Linear Pottery culture alternative .....	157
C - The expansion of tell architecture .....	159
<b>3 - The Mediterranean expansion</b> .....	161
A - Early Neolithic evidence on the shores of the Mediterranean .....	161
B - The appearance of rectangular buildings in Italy and on the eastern shores of the Adriatic .....	162
C - The French case .....	165
<b>Conclusion</b> .....	172
<b>Acknowledgements</b> .....	175
<b>Bibliographic references</b> .....	175

### To cite this article

Gernigon K., 2016 - Villages before houses? The neolithization of Europe reconsidered through the concept of the household, in Chapdelaine C., Burke A., Gernigon K. (eds.), *Household Archaeology – A Transatlantic Comparative Approach*, Proceedings of the International Symposium, October 24-25 2014, Université de Montréal, *P@lethnology*, 8, 147-181.



## VILLAGES BEFORE HOUSES?

### The neolithization of Europe reconsidered through the concept of the household

Karim GERNIGON

#### Abstract

*Since the 19<sup>th</sup> century, the Neolithic period has been conceived as an inevitable stage of the history of human societies in Europe, taking place between the wild times of predation and the industrial civilization contemporaneous to the first prehistorians. The house is a central element of this model considered as proof of sedentarity, the end of nomadism and the beginning of social construction with the hearth drawing the household together. The lack of documentation relative to the architecture of several large geographical and chronological chunks of Neolithic Europe compromised, for a long time, any serious consideration of settlements in discussions about the way Neolithic societies were constituted, while the primacy accorded to Economy in the definition of the Neolithic led to a disregard of the settlement, seen as a sign of the accomplishment of the neolithization process. The development of a sedentary way of life and the construction of perennial settlements are nevertheless the first signs of neolithization in the Middle-East and it is through structured village societies that this new way of life was disseminated to the Mediterranean shores. Taking into account settlements while discussing neolithization leads us to consider all dimensions of the process, and not only through the economic prism. It reveals that the neolithization process is not only the acquisition of farming and herding techniques, but also corresponds to the diffusion of an ideal village society, structured around exchange and a collective procurement of goods. Whether the first impacts of the Neolithic have been expressed by single emblematic tools, by domestic species, by ceramics and/or by long rectangular buildings, the neolithization process has only been fully accomplished when the model of the village society has been developed.*

#### Keywords

*Household, neolithization, Europe, village, society, exchange, settlement.*

## Introduction

In Europe, Neolithic societies are characterized by a production economy (farming and herding), a sedentary lifestyle (around hamlets and villages) and the implementation of new technologies (polished stone tools and ceramics). Among these three criteria, the forms of habitations have always been seen as secondary. The characterization of how people occupy their living spaces is systematically used to describe those societies that are considered as Neolithic, but it is never a criterion used to justify the nature, Neolithic or not, of a prehistoric society.

And yet, the house is a central place in the construction of social relations, and it is also a monumental demonstration of the society that built it. Whether related to Neolithic communities or those groups still considered as Mesolithic, the form of the house was the most obvious expression of the identity of the group that built and lived in it.

This lack of interest in forms of habitation is explained primarily by the conviction among researchers of the primacy of the economy in the structure of society. In Europe and the Middle East, the production economy criterion is considered to be predominant in the recognition of prehistoric societies as Neolithic. In the 19<sup>th</sup> century, as shown by the literal meaning of the neologism “Neolithic”, it was on the contrary new techniques that served to define and identify the period. Lubbock’s Classification of 1865 distinguished, within Thomsen’s Stone Age, a “chipped” Stone Age and a “polished” Stone Age. At that time, however, knowledge of Neolithic societies was still largely theoretical, based on biblical stories more than the results of excavations which were then mainly a collection of objects, without context or stratigraphy. The progressive importance of Marxist models later led to a paradigm shift. In 1935, Childe proposed to classify societies as Neolithic from the time they are engaged in agriculture and livestock rearing. Economic change in the form of food production is indeed regarded as paramount and as leading to other changes in society such as sedentarization and new technologies.

This association between the Neolithic and domesticated species, whether animal or vegetable, at least had the merit of establishing a close relationship between European Neolithic societies and those in the Middle East. Most domesticated species documented in Europe during the Neolithic are absent from wild strains present on the European continent, but are present in the Near East (Clutton-Brock, 1999; Willcox, 2014). In addition, the study of domesticated species, including those with wild ancestors in both Europe and the Middle East (cattle and pigs), has showed that the Neolithic herds were descended from Near Eastern stock, and so there was no local domestication in Europe (Troy *et al.*, 2001; Rowley-Conwy, 2003; Chaix, 2004). The focus on the economy established the dependence of Neolithic Europe on the Middle East, one of the cradles of the Neolithic revolution.

This lack of interest in habitation structures is also due to uneven knowledge of the forms of European Neolithic settlement. Neolithic settlements were in the great majority built with perishable materials (mud and wood), the traces of which has been severely affected by millennia of erosion processes. It is exceptional to find elevations of Neolithic structures still preserved today. Their foundations themselves are indeed often shallow, and it is not uncommon that their corresponding cuts have not been preserved, or that bioturbations have rendered them invisible to archaeologists. Documentation is therefore minimal compared to that on the economy or material culture. It is also very unevenly distributed in space and time. In south-eastern Europe, in the Balkans, the stability of house structures and the rebuilding of successive buildings *in situ* have generated artificial hills that preserve architectural remains and household objects surprisingly well. In the German-Polish plains, from the Paris Basin to the west of Ukraine, Linear pottery culture Neolithic houses were built with hefty structural posts, the postholes of which are frequently preserved, despite the erosion of soil levels. In the southwest of Europe, on the contrary, around the western Mediterranean Sea it is very rare that the remains of buildings can be observed and habitat is generally characterized by studying structures that are installed more deeply such as storage pits and hearths (Gascó, 1985). The development of developer funded or CRM archeology since the signing of the Valetta Treaty (European Convention on the Protection of Archaeological Heritage) in 1992, and the exponential increase in extensive open area excavations, has however reduced the imbalance of documentation. In addition, greater attention to less obvious structures and the adaptation of soil analysis techniques to archaeological sediments, including micromorphology, have helped reveal the presence of earthen architecture, house floors, and other discreet features such as post packing that previously escaped the trained eyes of archaeologists. Although the ensemble of data available might seem sparse to prehistorians working in regions less affected by taphonomic processes, it is now possible to observe and describe the forms of Neolithic settlement in areas where hitherto it was thought that perhaps the same agro-pastoral communities may have practiced a form of nomadism. The discoveries of recent years show quite the opposite, firmly

established earthfast architecture whose forms often refer to models from the Eastern Mediterranean. Parallels between early Neolithic villages in the far east of Europe and the rectangular house plans that we are beginning to uncover at the other end of the continent leads us to believe that house forms may have been subject to diffusion. Just as it is possible to trace the spread of domesticated species or new technologies such as ceramics and polished stone, it also seems possible to observe the Neolithic in terms of the distribution patterns of the various forms of houses.

## **1 - The early Neolithic in the Near East and its spread to the southeast of Europe**

### **A - The formation of village societies in eastern Anatolia and their expansion to the shores of the Mediterranean Sea**

In the Middle East, the original home of the European Neolithic, agriculture and livestock appeared in societies that were already settled ([figure 1](#)). For millennia, the hunter-gatherers of the Levant, the Natufians, had built and inhabited circular buildings with foundations of stone. The knowledge of the construction of these houses thus preceded the transformation of the economy. The appearance of megalithic sanctuaries such as Göbekli Tepe in southern Anatolia (Schmidt, 2010), around 9500 cal BC, which required the shaping, transportation, layout and erection of thousands of blocks of stone, is contemporary with the earliest farmers of the Pre-Pottery Neolithic A (PPNA). This mastery of the art of building is found in domestic housing. The morphology of the habitat remains circular in plan, but is accompanied by a variety of building types (variety of sizes, differences in the depth dug out), resulting from the variety of functions (housing, storage, specialized activities).

After a millennium, however, around 8500 BC, the circular house plans are gradually replaced ([figure 2](#)) by quadrangular and rectangular layouts (Özdoğan, 2010; Stordeur, 2014). The reasons for this transformation in domestic habits are unclear. It could be that foremostly there are technical reasons related to the changes in the way floors were structured within the buildings (Özdoğan, 2010). Once they had mastered the rectangular building construction techniques, this type of architecture became almost the exclusive household architecture in the Middle East, whether in the Levant, Mesopotamia or southern Anatolia. On many sites, this architecture takes the form of a modular or agglomerated habitat, the most famous example of which is the village of Çatalhöyük in Central Anatolia (Turkey), excavated by James Mellaart (1967) and later by Ian Hodder (2014), occupied from 7200-6200 cal BC ([figure 3](#)).

Shortly after 7000 cal BC, towards the end of the PPNB, the Neolithic extends beyond its initial core zone (and Cyprus, which constitutes its immediate periphery). To the west, the first agro-pastoral communities of the Aegean coast of Anatolia (Ulucak) construct villages grouping quadrangular buildings with mud walls and floors built with lime, identical to those of Central Anatolia ([figure 4](#)). In the earliest phase, and unlike Çatalhöyük, buildings are independent of each other. These early Neolithic villages on the shores of the Mediterranean are most likely founded by populations from Central Anatolia as a result of the crisis of the late PPNB, which sees the abandonment of most sites in Central Anatolia and an impoverishment of the few villages that continue to be inhabited. The material culture is indeed similar to that of the final PPNB sites in Central Anatolia and the only differences with the core region are the lack of collective and cult buildings. Everything indicates that the highly structured and hierarchical society of the Central Anatolian PPNB collapsed (Özdoğan, 1997), and that part of the population emigrated with their technical skills, but without conveying the markers of social inequalities, such as objects of worship and prestige objects made by specialist craftsmen.



- ★ Obsidian sources
- ★ Sources of honey-coloured flints flaked by pressure or by indirect percussion
- Round or oval buildings with monochrome ware
- Round or oval buildings with impressa / cardial ware
- Rectangular buildings from anatolico-balkan traditions
- ▭ Long rectangular buildings with linear pottery
- Other sites mentioned in the article

Figure 1 - Map showing the sites appearing in the article (CAD: K. Gernigon, F. Tessier).

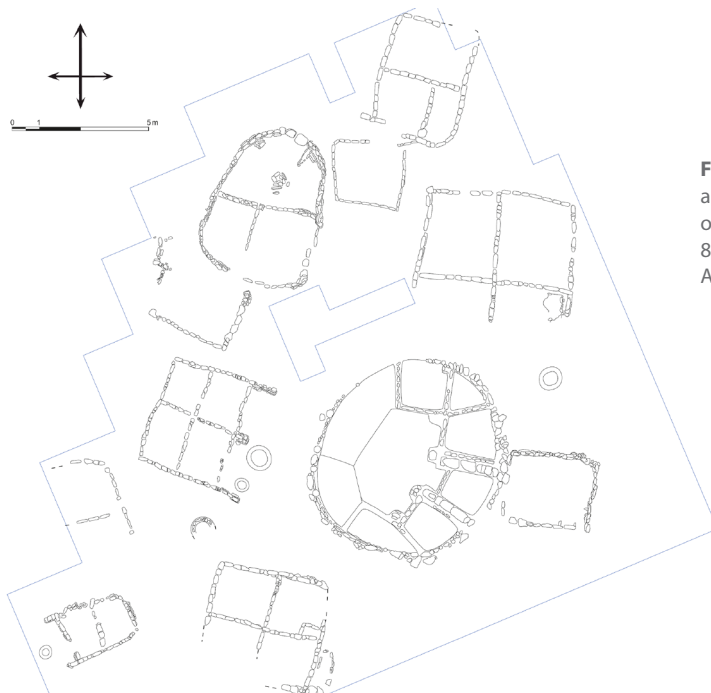
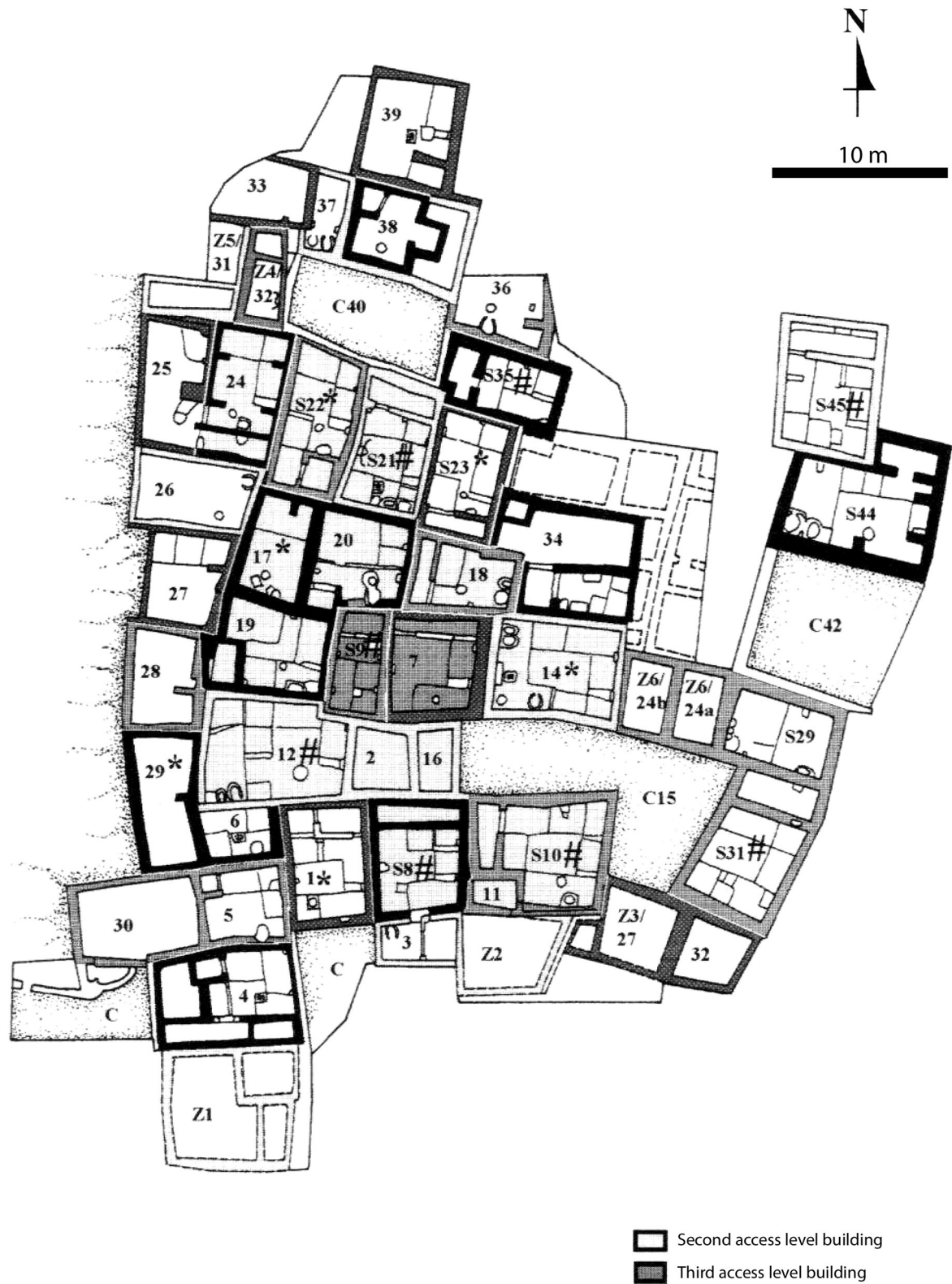


Figure 2 - Example of transition from the first circular architecture to the rectangular architectures, the site of Jerf-el-Ahmar (Euphrates valley, Syria), around 9000-8700 cal BC (after Stordeur, 2014; CAD: E. Régagnon, Archéorient, CNRS).





**Figure 3** - Rectangular buildings and a densely built settlement around 6700-6500 cal BC in Eastern Anatolia, the example of Çatal Höyük, level VII (Turkey) (after Düring, 2001).



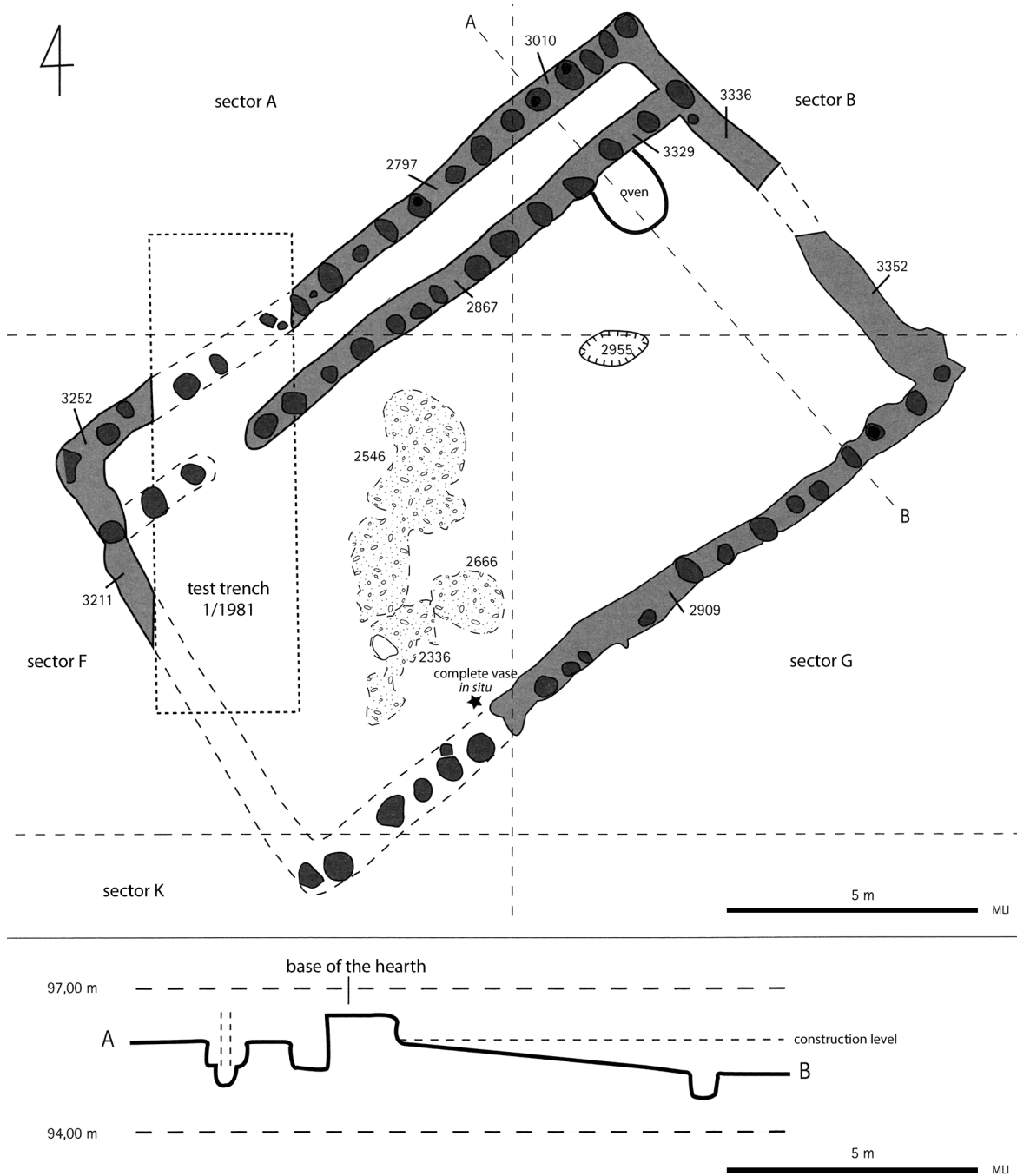
## B - Early evidence of the Neolithic in Europe

It is possible that some of these populations also crossed the Aegean Sea early. Archaeological evidence of agriculture, livestock and ceramics appear in fact between 7000 and 6700 cal BC on the Greek islands and the Peloponnese, especially at Franchthi cave (Perlès, 2001, 2009). This corresponds to occupation levels that contain evidence of domesticated species, both animal and plant, and some blades made by pressure technique, though the settlement pattern and the dominant economic practices are similar to those of the previous Mesolithic groups. Brought to light at a time when the Neolithic of Western Anatolia was largely unknown, these indications have been used to develop a Neolithic model in which the Middle East's contribution is limited to domesticated species, while the cultural foundations were fully developed on the European continent, in southern and central Greece, before spreading to the rest of the Balkans and the shores of the Adriatic. The reliability of this data and interpretations is, however, disputed by some (Reingruber, 2011). The corresponding levels at Argissa or Franchthi are very limited in horizontal extent and it cannot be excluded that they correspond to mixtures of both Mesolithic and Neolithic layers.

It is undoubtedly around 6400 cal BC that the Neolithic began on the European continent, with the construction of the village of Hoca Çeşme, on the Aegean coast of Thracian Turkey. The material culture discovered shows that the occupants of this site probably originate from the Anatolian plateau. The ceramics (Karul, Bertram, 2005), stone tools, bone industry and female statuettes all represent a well-known material culture from the Anatolian Plateau (Özdoğan, 1997). These early Neolithic groups came with their domesticated animals and cereals, but oddly they did not construct rectangular buildings in use at that time in Anatolia. The three buildings unearthed are perfectly circular huts, with a diameter of approximately 4.5 m, constructed with posts inserted in the rock. The site is bounded by a wall of stone. This first population wave is still poorly known because the material culture rarely enables archaeologists to distinguish it from the following phases. Its main characteristic is monochrome red pottery and the absence of painted ceramics which, given the extreme rarity (approximately 3 to 5 %) of painted pottery in the later horizons, can make it hard to assign these artifacts to one phase or the next (Krauss, 2011). The recurrence of these ceramics along with other more discrete artifacts such as vertically perforated buttons, not only at Hoca Çeşme but also Koprivec and Krainici in neighboring Bulgaria, Grncarica in Republic of Macedonia (Kanzurova, Zdravkovski, 2011) and at Sidari on the island of Corfu in north-western Greece (Berger *et al.*, 2014), make a case for the reality of this phase, which remains poorly known. None of these sites has rectangular architecture. The site of Sidari on Corfu has abundant fragments of daub or cob, but no indication of corresponding architecture.

This first foray was followed closely by a second wave around 6400–6200 BC, this time characterized by rectangular buildings. A series of villages is located in the extreme southeast of the Balkans, Turkish Thrace (Asagi Pinar), Bulgaria (Kovačevo) and in Greek Macedonia (Mavropigi). They have been produced by societies considered to be fully Neolithic because they practice agriculture and animal husbandry, produce ceramic containers and make polished stone tools. The similarities of their material culture with the sites of eastern central Anatolia such as Tepecik-Çiftlik and Köşk Höyük suggest that they might be the product of a new wave of migration, probably caused by the aridification of Anatolia (Özdoğan, 2011). Like the Anatolian communities, their tools are manufactured from imported materials with a homogeneous texture and appearance, requiring the implementation of complex technologies (pressure blade technique, polishing, etc.). The buildings are delimited by a rectangular foundation trench, wherein are located the posts. The walls are made of wattle and daub and it is common for floors to be lime-covered. The proportions and dimensions can vary, depending probably on the internal architecture. At Kovačevo the building is 16.5 × 10 m (Lichardus-Itten, 2012) and is divided by a longitudinal inner wall, producing

a narrow shed (figure 5). Each building includes an oven, generally placed alongside a wall. As in Anatolia and Mesopotamia, the houses are regularly rebuilt in the same place, which leads to sediment accumulations creating artificial hills or tells. Therefore, the earliest phases of these villages are generally the least accessible and it is the more recent phases, dated to the 6<sup>th</sup> and early 5<sup>th</sup> millennium, which are well documented. These early villages spread quickly in all the Western Balkans. From 6000 cal BC approximately (Karanovo Phase I), they cover the whole of Bulgaria, Thrace, Macedonia and Thessaly. The large number of villages and the speed of their establishment are probably related to a large population that we imagine arriving from Asian Turkey.



**Figure 5** - Plan and section of the house 3383 at Kovačevo (Bulgaria), one of the very first villages of the European Neolithic, around 6400-6000 cal BC (after Lichardus-Itten, 2012).



Beyond the core area, the spread of the Neolithic household is interrupted and uneven. This is not really reflected in the documentation because researchers, following Childe, have chosen to focus almost exclusively on the economic aspects of the Neolithic. Studies of this period have until now focused almost solely on the diffusion of the subsistence economy, and have considered as just so many reinventions the more or less successful attempts to transfer a village society model to areas that do not meet weather and soil conditions for the reproduction of a village lifestyle similar to that bordering the Black Sea.

## **2 - The first Neolithic societies and the northern European environment**

### **A - The spread of the Neolithic to non-Mediterranean environments**

At the beginning of the 6<sup>th</sup> millennium the distribution of tells is strictly limited to the lower plain of the Danube, where the climate is Mediterranean, and to the north of Greece. Beyond this climatic limit, the Neolithic is also noticeable, but it is first manifested in iconic objects before being materialized in technology, economy or forms of habitations. In the immediate periphery of the settlement area of the first tells, the gorge of the Iron Gates which sees the Danube leave the Pannonian plains to reach the Black Sea yields a series of sites which are all examples of these successive stages of the Neolithic. The oldest are Vlasač on the Serbian bank and Schela Cladovei on the opposite bank in Romania. These sites are occupied from the Mesolithic, well before the arrival of the first Neolithic communities on the European shores of the Aegean Sea or the Black Sea, and thus reflect the characteristics of Aboriginal communities before the time of contact (Radovanović, 1996). The first impacts of the Neolithic, towards 6200-5900 BC, occur on these sites (particularly in Lepenski Vir and Padina) in several forms: the application to the floors of the traditional trapezoidal huts of a similar coating to that of Neolithic houses, the production of a painted pottery type called Starčevo, and the appearance of polished stone axes and long honey-coloured flint celts of so-called Balkan flint (Borić, 2002; Borić, Dimitrijević, 2007). It is only during the succeeding phase, Lepenski Vir III, that these groups will raise animals and practice agriculture. The dissemination of the emblems of a new lifestyle have preceded the actual practice of a new economy.

After 5900 BC, the signs of the Neolithic way of life spread beyond the Iron Gates. In less than two centuries, tens of Starčevo and Körös sites cover almost all of the Pannonian plain, bounded by the Carpathian Mountains to the east and north, by the first Alpine foothills to the west and by the Dinaric chain to the south. The occupants of the Pannonian sites use the same ceramics as in the lower valley of the Danube, are supplied from the same sources of honey-coloured flint and obsidian, and raise animals, but they do not raise tells. In addition, the few rectangular houses known from Starčevo and Körös contexts in the Pannonian Plain, are rare and smaller than those of the Lower Danube tells. The largest measure only 3 × 2.5 m (barely larger than the Mesolithic huts of the Iron Gates). They are built, as in the Lower Danube, on posts with walls of wattle. Early Neolithic sites of the Pannonian Plain frequently have large pits that are several square meters in size with relatively flat bottoms, surrounded by posts in the ground and in which an oven was built (Minichreiter, 2001). These pits were often interpreted as sunken huts, but also sometimes as the place where specialized activities took place, sheltered by the semi-subterranean pit. The scarcity of rectangular houses, their small size and the presence of these depressions that could have served as habitations indicate that the house model imported from Anatolia and implanted in the lower valley of the Danube, was not suited to the environment of the Pannonian Plain. This

area is isolated from the Mediterranean climate of the shores of the Black Sea by the Carpathian Mountains and the Balkan houses were probably not technically able to withstand the harsh winters and snowfall of a more continental climate. Despite these difficulties, the occupants of the Pannonian Plain do not seem to have sought to develop an alternative residential model.

## B - The Linear Pottery culture alternative

Not until 5500 cal BC do we see a different kind of building more suited to the climatic conditions of Central Europe (Bánffy, 2013). These buildings are also built using posts, but they differ Mediterranean buildings by setting up rows of posts within the internal space (figure 6), thereby supporting a gabled roof more suitable for snow. This break is certainly not only architectural. It occurs in the most peripheral area of the Pannonian Plain, beyond Lake Balaton, in an area where the Neolithic settlement was episodic and where social control would be less pronounced. The builders of these new homes quickly distinguish themselves from the Körös and Starčevo traditions. They abandon the honey-coloured flint imported from Bulgaria, stop painting their ceramics, and most significantly no longer manufacture anthropomorphic or zoomorphic statuettes. They continue to favor flint that is fine enough to produce blades and still produce fine ceramics that are carefully decorated, but the technical knowledge is reduced from the levels seen in the Balkan communities. The values are not the same and this break will not be restored or reestablished. It will enable these groups called *Linearbandkeramik* in German (LBK) or Linear Pottery culture (named for the linear incised decoration on their pottery) to rapidly spread throughout the northern Alps. After finalizing the new house model around 5400-5300 cal BC (Coudart, 1998), they will take less than three centuries to reach the shores of the Baltic Sea in the north and those of the English Channel to the west. They will in turn totally abandon the territories already occupied by the Körös and Starčevo communities.

Whether the product of settlers or local people, the Starčevo-Körös Neolithic of the Pannonian plains and the LBK Neolithic of the German-Polish plains constitute adaptations of the Balkan model to soil conditions that are different from those of the Mediterranean. The rapid expansion of Neolithic LBK groups across the plains of northern Europe shows that this adaptation was completely successful. Yet despite this success, the model of society represented by the Linear Band culture will be supplanted in its area of origin, from 5200 cal BC, by the Balkan model. From 5200 cal BC, Neolithic groups in the Pannonian plain begin to construct tells, similar to those existing for the 6<sup>th</sup> millennium in the lower Danube plain. The reasons for this expansion of tells outside of their original settlement area is not very clear. It coincides with a renewal of material culture, first perceptible in the most southern parts of the Pannonian Plain, now known as the Vinča culture. In areas where the Linear Band groups originate like Transdanubia and the Alföld plain, in the neighboring Starčevo and Körös areas, and also in the north-Carpathian area, Slovakia, Moravia and southern Poland, there is an archaeological culture that develops called Lengyel which is a local transcription of the Vinča culture of south-Balkan origin. It is distinguished by the absence of tells and the decoration of its ceramics, but also resembles the Vinča culture in the ceramic forms used, by the adoption of copper metallurgy, by the use of pressure blade techniques on obsidian and honey-coloured flint, by constructing houses on foundation trenches, and by abandoning cemeteries in favor of individual burials associated with houses.

The characteristics of the Lengyel culture certainly show that it is not the result of a new migration from the South Balkan region, but also that the model upon which it is constructed is the same one that prevailed in the first regions to be neolithized and therefore constitutes the abandonment of the Linear Band model. The differences in the decoration of the ceramics demonstrate the absence of any filiation with neighboring populations. The absence of tells can probably

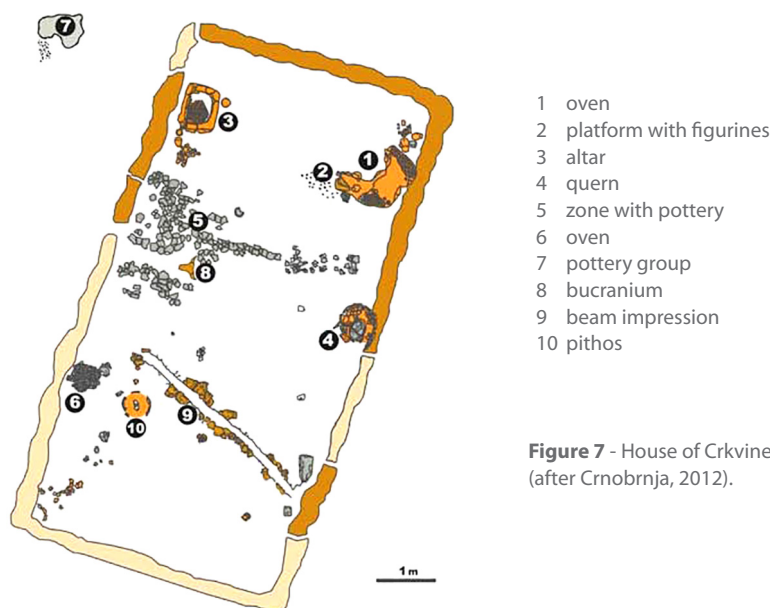


**Figure 6** - Plan of the Linear Pottery culture village of Bischoffsheim (Bas-Rhin, Alsace, France), around 5200-5000 cal BC (after Lefranc, 2014).

be explained by the necessity for regular crop rotation and therefore the regular displacement of houses. The similarities are structural and reflect shared values, while the Linear Band groups represent a break from the Balkan model.

### C - The expansion of tell architecture

The groups remained in the Pannonian Plain maintained a close relationship with the communities of the Lower Danube. Around 5200 cal BC, they finally started to construct tells, but their architectural model did not change. Houses are still constructed from posts arranged in a linear fashion only along the walls. Construction techniques have, however, become more efficient as shown for example in the use of boards (figure 7) at Crkvine, Serbia (Crnibrja, 2012). The houses are also smaller than their Mediterranean counterparts. The average dimensions are around 10 × 5 m, while the first houses of the European Neolithic were generally 15 × 10 m. These architectural aspects are still insufficiently studied, even though they certainly played a leading role in the development of these Neolithic societies. Nevertheless, the adoption of a tell architecture is certainly the culmination of centuries of close contact between the Pannonian communities and communities in the Lower Danube. The material culture of the communities bordering the Black Sea reflects their growing prosperity and it is this wealth that benefits their neighbors. The 5200-4500 cal BC period represents the culmination of these Neolithic societies. The ceramics reflect an accomplished technical mastery which presumes the existence of specialized potters, and the refined decor is at the same level as the technical production. The chipped stone industry continues to be systematically based on imported materials, obsidian and honey-coloured flint, knapped into standardized blade supports using pressure or indirect percussion. Imports also include shells, alabaster and the first objects made of native or smelted copper. Many products, including decorative objects, the bone industry and others, testify to the almost systematic intervention of craft specialists in the production circuit. This society is characterized by the systematic use of objects for which the production requires the implementation of complex technologies, and / or are manufactured with materials that are difficult to obtain.



**Figure 7** - House of Crkvine in Serbia, around 4800-4600 cal BC (after Crnibrja, 2012).



The collective nature of the supply of these objects suggests that we should consider these wealthy societies as egalitarian, but we would need to conduct a comparative study of the material culture in each household within a tell. Some tells contain up to 200 houses, and therefore this type of study should be possible but the available data are too fragmentary to do it successfully for the time being. We are therefore limited to anecdotal evidence, and we are unable to derive a general model. The best published houses, those of Crkvine in Serbia (Crnobrja *et al.*, 2009), of Herpály (Kalicz *et al.*, 2011) and Polgár-Csöszhalom in Hungary (Raczky *et al.*, 2007), have two or three rooms, and sometimes a first story (figure 8). The floors are coated with lime. The walls are also covered with lime and it is possible sometimes to identify fragments of geometric decoration similar to those adorning the pottery. Each house contains an oven and a hearth, and a device to grind grain. A kind of sink is interpreted as a possible altar. The inventory of household objects always includes a bucrane and small anthropomorphic and zoomorphic statuettes. The range of ceramics includes vessels for storage, cooking and presentation of food. Tools include the knapped stone industry, polished axes and bone industry. Personal ornaments and decorations are always present. Although the quality of some of the products implies the existence of craft specialists, the few houses that are published show no specialized activity areas. It is not possible to say whether these activities took place in other houses, in outdoor areas or on other sites.



**Figure 8** - Houses from the Herpály tell, in Hungary, around 5000-4500 cal BC (after Kalicz *et al.*, 2011).

### 3 - The Mediterranean expansion

#### A - Early Neolithic evidence on the shores of the Mediterranean

The cultural character of the Neolithic is probably more visible, but also more complex, in the Mediterranean. This Neolithic current is called Impressa-Cardial based on the ceramic style. The decor is characterized by the exclusive use of impression and incision, using in particular the Cardium type of shell. This pottery appears around 6000 cal BC on the western and eastern shores of the Adriatic Sea and then accompanies the distribution of domestic species in the western Mediterranean. The Impressa-Cardial current is therefore considered to be the origin of the development of Neolithic societies in the western Mediterranean and its margins. Its spread was extremely fast. From Greece, the distribution of Impressa/Cardial ware had reached southern Italy (Sicily, Apulia, Calabria) around 6000 cal BC, then skirted the west of the peninsula to reach the Gulf of Genoa and the south of France by 5800 cal BC, and the Spanish and Portuguese coasts by 5600-5400 cal BC.

Unlike what was observed in the Pannonian Plain and the German-Polish plain, the origin of this cultural current is almost certainly not a phenomenon of imitation / transcription of Balkan village society. It is possible in fact that it is related to the first wave of the European Neolithic, the so-called monochrome ceramics which are observed at Hoca Çeşme, Koprivec or Grncarica. The origins of the current that conveys the first Neolithic to the northern coasts of the Mediterranean may be in this horizon of monochrome ceramics. The oldest archaeological evidence dates to 6050-5960 cal BC and is located on the Greek island of Corfu where the corresponding layer overlies a monochrome ceramic layer dated to 6450-6220 cal BC (Berger *et al.*, 2014). It is therefore possible that the first ceramics on the shores of the Adriatic and the western Mediterranean originated in these monochrome ceramics, marking a Neolithic expansion preceding that of the Balkan villages.

Nonetheless, the oldest Impressa sites, those in southeast Italy (Puglia and Basilicata), correspond to the image of fully developed Neolithic societies with an agropastoralist type of economy. Besides the fact that their livelihoods depend heavily on the exploitation of domestic animals and plant species, their houses express clear sedentary characteristics, or at least a marked permanence. The sites in these regions are delimited by an open circular ditch, of which many examples are known (in Passo di Corvo and Coppa Nevigata in particular), or by stone wall enclosures like at Trasano. At Torre Sabea, ditches filled with stones may correspond to the establishment of such an enclosure. The enclosed area includes many storage structures, and elaborate hearths and ovens. Probably the most remarkable element is the hearth packed with heated stones. These features are to become very common throughout the Mediterranean Neolithic and later periods, and are most reminiscent of the types of hearths known from earlier European Mesolithic contexts.

The buildings are on the other hand poorly preserved. Based on the available ground plans, they seem to be very diverse both in their form and their construction methods, but this is undoubtedly reinforced by the reduced potential for archaeological observation and the diachronic nature of the archaeological record. Many of the buildings identified on Impressa sites in southeast Italy indeed seem to date from a later phase of occupation wherein the material culture presents similarities with that of the Balkan villages. Only the house at the site of Favella can be dated to the earliest phase of the Impressa culture (Tin , 2009). According to the excavators, the building was of post in ground construction, though the post packing has not been identified, with earthen walls. It was rectangular in shape with an apse on one end, but this has essentially been inferred from the analysis of the distribution of daub elements, not from the analysis of the features *in situ*.

The remains of walls have been partially identified on other sites and seem to outline rectangular or apse house plans. At Ripa Tetta, buildings are built on a quadrangular foundation trench, but their early dates are not certain. At Passo di Corvo, a house plan that is very partial presents an apse perhaps, but it is the product of a later phase of the site's occupation (Tin , 1983). Elevations appear to be based on a footing made of stones among which one can make out the beginning of an apse and a portion of a straight wall. On sites with curvilinear trenches, each of the spaces defined by the trench appears to contain only one building.

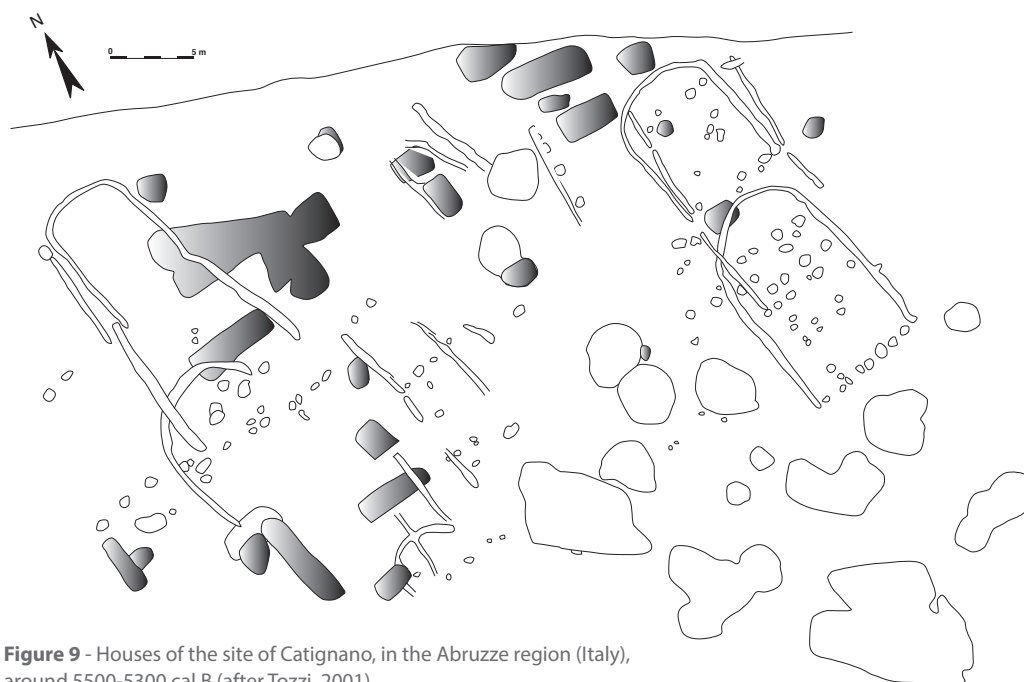
The Impressa sites northeast of the Adriatic coast in Dalmatia have houses with similar characteristics (Podrug, 2013). The forms of the buildings are just as difficult to reconstruct, and excavators generally propose oval or circular house plans. The boundaries of the house are sometimes delimited by a trench like at the site of Smil i  (Batovi , 1966).

This type of household reflects a permanent occupation of the territory and groups that are fully engaged in an agro-pastoral economy. Their origin, however, is unclear. The similarities in cooking practices and the morphology of the pottery which contain features of the monochrome ceramics, or the delimitation of the household by a trench-fence, in a manner similar to the Hoca  e me stone wall, are in favor of an Eastern origin for these populations. The use of stone in the function of the hearths is on the other hand a sign of possible affiliation with the Mesolithic populations that are poorly known in southern Italy.

## B - The appearance of rectangular buildings in Italy and on the eastern shores of the Adriatic

Starting around 5500 cal BC, the architectural record is less ambiguous. During an early phase, roughly from 5600-5300 cal BC, most of the building plans have one end in the form of an apse. After 5300, strictly rectangular shapes dominate.

At Catignano (Abruzzo), a central Italian site occupied around 5500-5300 cal BC, the two rectangular buildings end in apses (figure 9) and are associated with polished and painted ceramics, which succeeds the Impressa ware in this region (Tozzi, 2001).

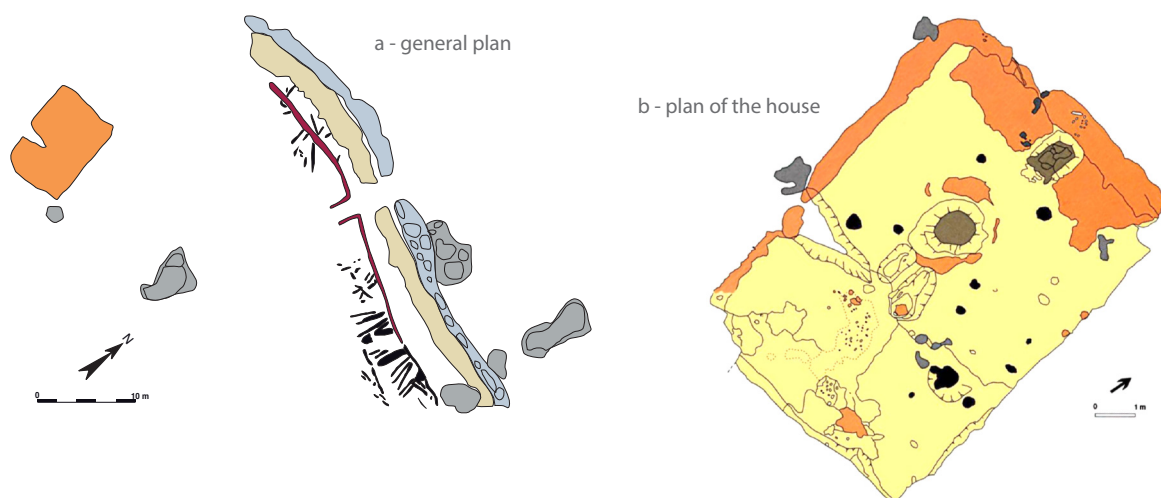


**Figure 9** - Houses of the site of Catignano, in the Abruzzo region (Italy), around 5500-5300 cal B (after Tozzi, 2001).



In central Italy, the rise of the water level of Lake Bracciano, near Rome, preserved in outstanding detail the village of Marmotta (dated by dendrochronology to 5690-5230 BCE). The buildings are of wooden architecture but built on stone bases and with extensive use of earth for cladding the floors and walls. The plans are difficult to interpret but appear to consist of short rectangular buildings (6-8 m long), aligned in rows. This would be the oldest and the best example of the diffusion westward of rectangular domestic architecture. This diffusion is accompanied by a profound renewal of the material culture (Fugazzola Delpino *et al.*, 1993). The Impresa-Cardial ceramics are still present, but they are in a minority. The majority of assemblages consist of a fine thin pottery, sometimes painted or incised. Obsidian, whose presence was anecdotal in Impresa villages, makes up 6% of the stone tool industry and excavators have also noted the presence of a gray-blond flint of unknown provenance.

In northern Italy too, the first rectangular building constructions appear along with the polished surface ceramics, complex vessel shapes and geometric decorations, of the Fiorano type. This is the case on the site of Fornace Gatelli in Lugo di Romagna, Emilia-Romagna (Steffè, 1996). This site, dated by radiocarbon to the interval 5284-4949 cal BC, is exceptional for its state of conservation. Destroyed by fire, it was then covered by extremely thick alluvial deposits (14 m), which have remarkably preserved the site. It consists of two small rectangular buildings (10 × 7 m) located behind a small ditch and a double palisade (figure 10). The best preserved of the two buildings presents wattle and daub architecture. The only posts identified are located in the inner area and probably correspond to a feature related to the central hearth. The floor consists of a layer of clay 10 cm thick. As in the Balkan villages, the internal space is divided in two parts (one third and two thirds) by an internal partition. The smaller room was used for storage (it is here that were found most of the ceramic vessels), while the domestic area was in the larger room. Outside the building, near the southeast corner, there was an excavated silo. The ceramics are related to the Fiorano culture, which is the first phase of the development of ceramics with polished surfaces and geometric patterns in northern Italy. The pottery from Fornace Gatelli has relatively complex shapes (drinking vessels with marked shoulders, necked vases), polished surfaces and ornamentation of incised chevrons.



**Figure 10** - House and ditch of Fornace Gatelli, at Lugo di Romagna, in Emilia-Romagna (Italy), around 5300-4950 cal BC (after Degasperis *et al.*, 1998).



At Lugo di Grezzana (Verona, Veneto) a series of aligned rectangular buildings dating from the 2<sup>nd</sup> half of the 6<sup>th</sup> millennium (5300-5050 cal BC) was identified thanks to the burial of the site by slope deposits (Cavulli *et al.*, 2015). This allowed the preservation of the Neolithic occupation level at the surface of which were identified six sandy loam rectangles that were almost sterile, which were certainly the floors of six buildings measuring 7 to 8 m in length and 3.5 m in width, parallel to each other. Each of these buildings included one or two hearths, one in a central position. The ceramics are attributable to the Vhò group, an archaeological culture that has some forms showing Impressa origins, but also includes Fiorano style cups.

The newer buildings, dating from the 5<sup>th</sup> millennium, all present rectangular plans, including the best known examples of Quadrato di Torre Spacata near Rome (Anzidei, Carboni, 1995), Botteghino in Tuscany (Mazzieri, Dal Santo, 2007) and le Mose and San Andrea di Travo (figure 11) in Emilia Romagna (Bernabò Brea *et al.*, 2000, 2003; Becching *et al.*, 2009). These houses may be based on load bearing posts, as in Botteghino, or constructed on foundation trenches.

The emergence and development of rectangular architecture in Italy occurs concomitantly with a renewal of material culture, integrating features similar to those of the Balkan villages, such as the use of obsidian, pressure knapping techniques, and the production of fine ceramics with polished walls decorated with geometric patterns that are painted or incised. In Bosnia and Dalmatia, the sequence appears to be the same. The first rectangular buildings appear at the end of the Early Neolithic, around 5800-5600 cal BC, in particular at Crno Vrilo (Podrug, 2013), and the material culture of the occupants show the same tendencies towards an increase in fine decorated ceramics with geometric patterns, the use of obsidian and pressure knapping, compared to older sites like Smilčić. These trends are fully confirmed by 5300 cal BC, on sites like Danilo (Korošec, 1964), or on the first Bosnian tells such as Okoliste (Hofmann, 2013). The chipped stone industry is now commonly made on obsidian or honey-coloured flint and is in the form of standardized blade and micro-blade blanks made of flint, while the pottery is of very high quality, very fine, with polished surfaces, carefully painted or incised with intricate geometric patterns. The forms are very clearly Balkan in inspiration, which is shown in particular by the appearance of vases with a high pedestal foot.

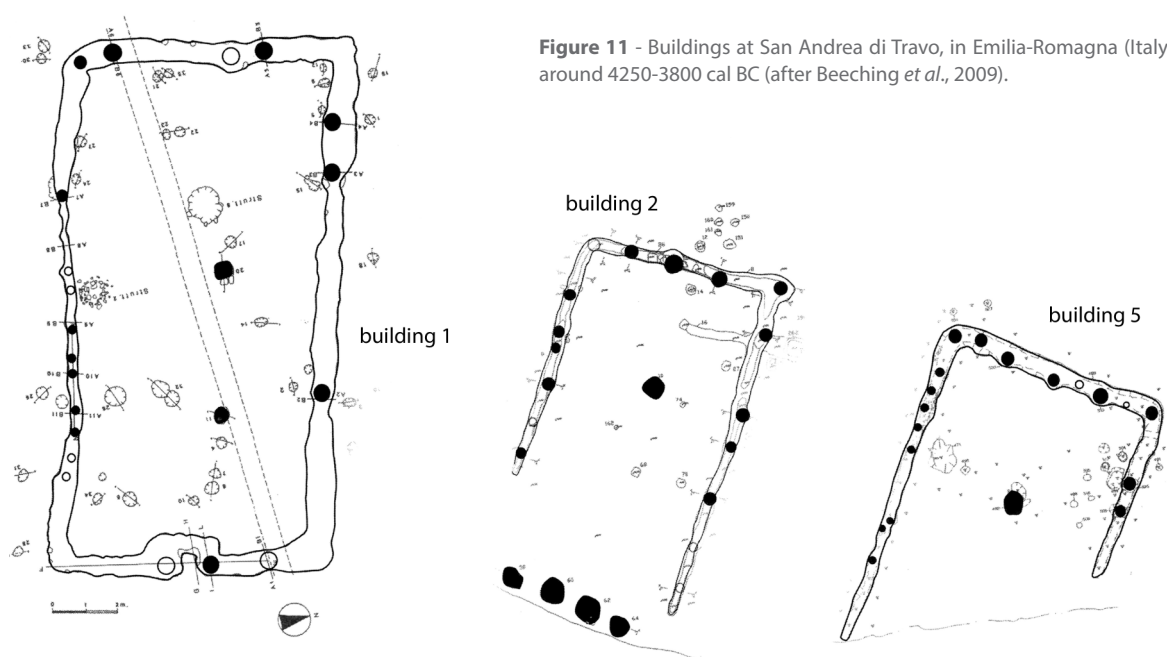


Figure 11 - Buildings at San Andrea di Travo, in Emilia-Romagna (Italy) around 4250-3800 cal BC (after Becching *et al.*, 2009).

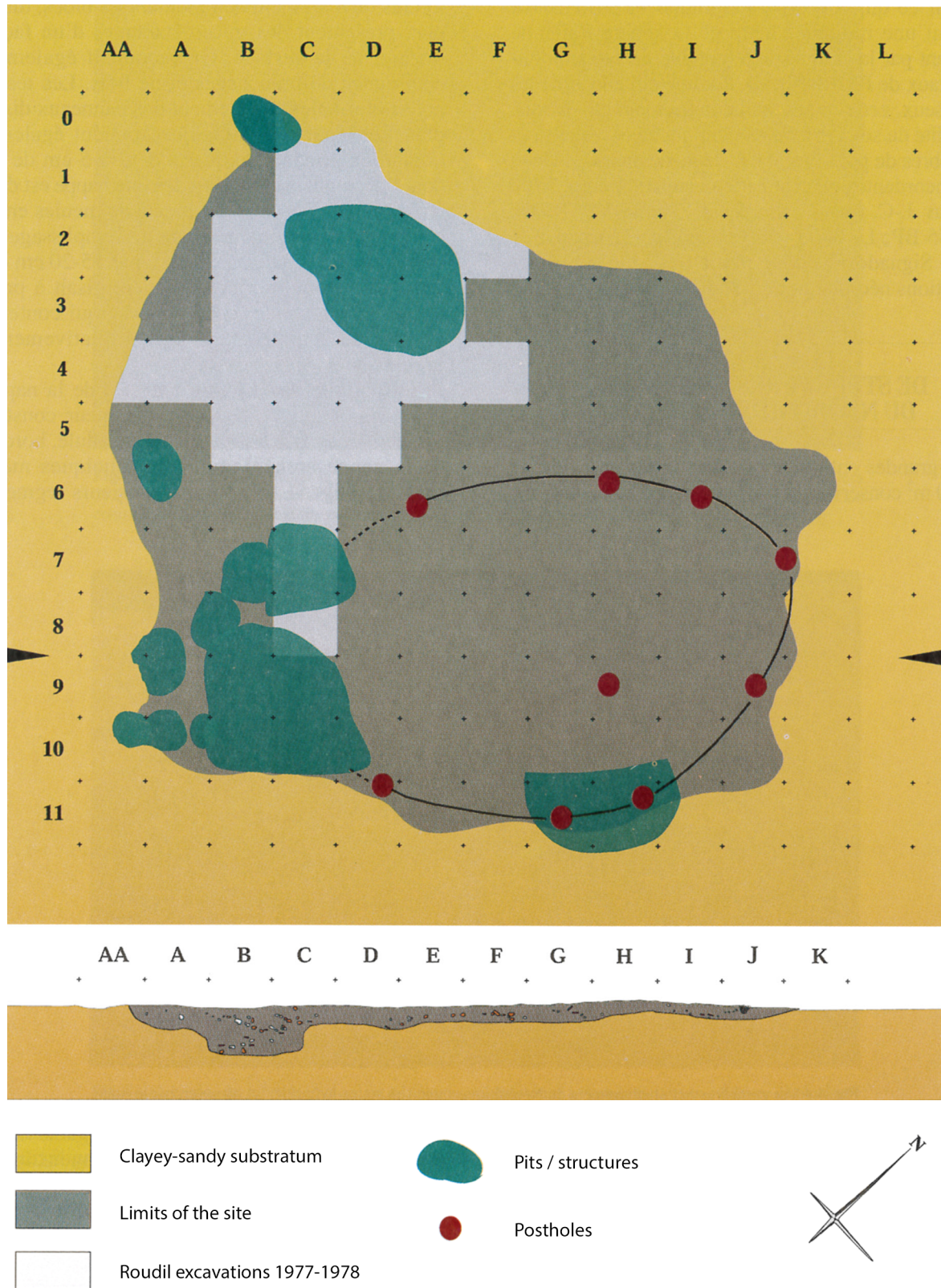
This new similarity with the Balkan villages is certainly not the result of an independent development as there are too many similarities, but neither does it mean that this is evidence of a migration. Clues as to cultural continuity abound. The gradual increase of Balkan characteristics within assemblages shows that no rupture marking the influx of a new population can be detected. The continuity of the use of heated stones packing hearths also shows that eating habits were maintained. The phenomenon thus appears to be cultural. Local Neolithic populations adopt the model of Neolithic society that is in vogue in the villages of the Balkans.

### C - The French case

The phenomenon is the same in the south of France and its long duration makes it easier to identify. The oldest Neolithic indicator is dated to about 5800 cal BC. It is a small Impressa camp, founded by settlers from the Tyrrhenian coast of central Italy (as shown in the ceramic style and the obsidian they brought with them). This site, Peiro Signado located in Portiragnes, Languedoc, comes in the form of a set of postholes drawing an oval plan 8 m in maximum length and 5 m wide (figure 12) that surrounds a shallow depression filled with a silty sand deposit full of charcoal and rich in artifacts including daub residue (Briois, Manen, 2009). It is not excluded that some of the walls within the oval space were straight as an accumulation of small quartz pebbles draws a straight line. After the pioneer phase with no clear successors, it takes until 5500 cal BC for the Neolithic to become really established. It is now the Cardial, so named because of the shell whose imprint decorates the ceramics. Only two sites of this early Neolithic period yielded traces of architecture (a possible third was identified in a cave). At Baratin (in Courthézon, Provence), between 5380 and 5080 cal BC, several plans of oval buildings have been identified (Sénépart, 2009). The first building is sub-circular in shape (5 × 4 m). It is built with posts and is also bounded by the extension of a pebble area (figure 13). A second building is bounded only by the oval distribution of quartzite pebbles and fragments of sandstone. Its length (at least 5 m) is not properly delimited. It includes several superimposed hearths in the center. A third building was constructed on a nearby molasse bank. It is materialized by a series of postholes dug into the substratum and its dimensions are 10 m long by 4 m wide. On the site of Espéluche in Lalo, in the middle Rhone valley, two sets of post holes, dating from 5269-4996 cal BC, reveal oval plans (Beeching, 2009). The best preserved house measures 11 m long × 7.5 m wide (figure 14). It possessed no hearth, but a feature of this type was excavated 5 m to the west of the building.

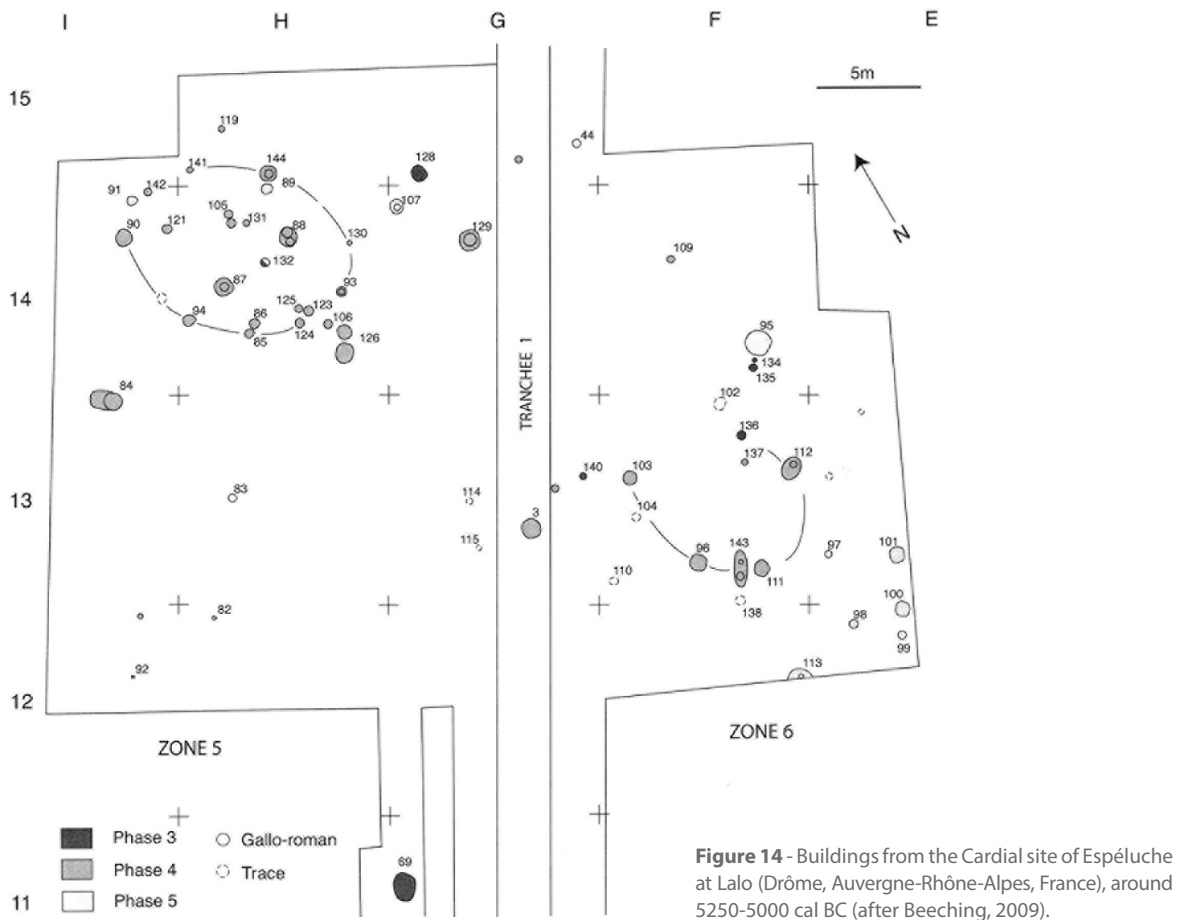
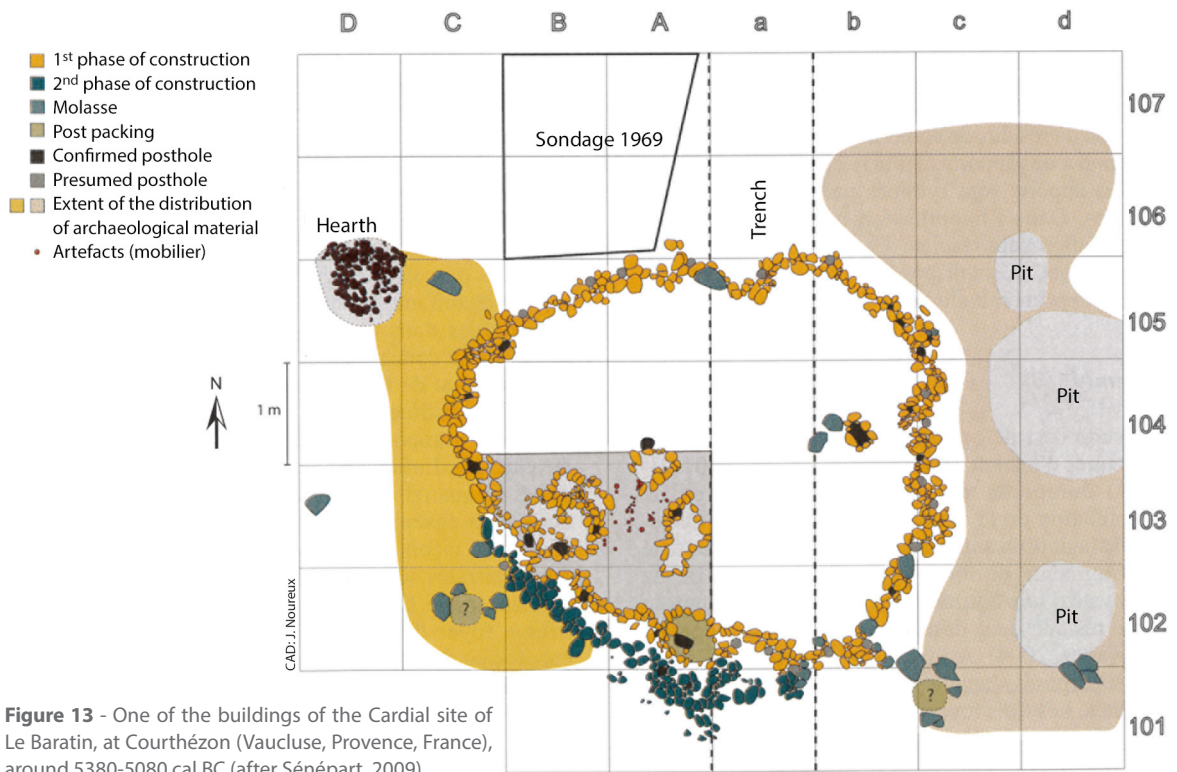
Not until the middle of the 5<sup>th</sup> millennium do rectangular houses make their appearance in the south of France. It is in Auvergne, at Vertaizon, that we find between 4600 and 4300 cal BC the oldest rectangular buildings (Saintot, 2014). The two biggest exceed 10 meters in length and are 5 m wide (figure 15), ending in an apse. They are accompanied by a trapezoidal building 7 m long and four smaller oval buildings, 3 m to 6 m in length. They are all earthfast and the larger ones have preserved their post pads.

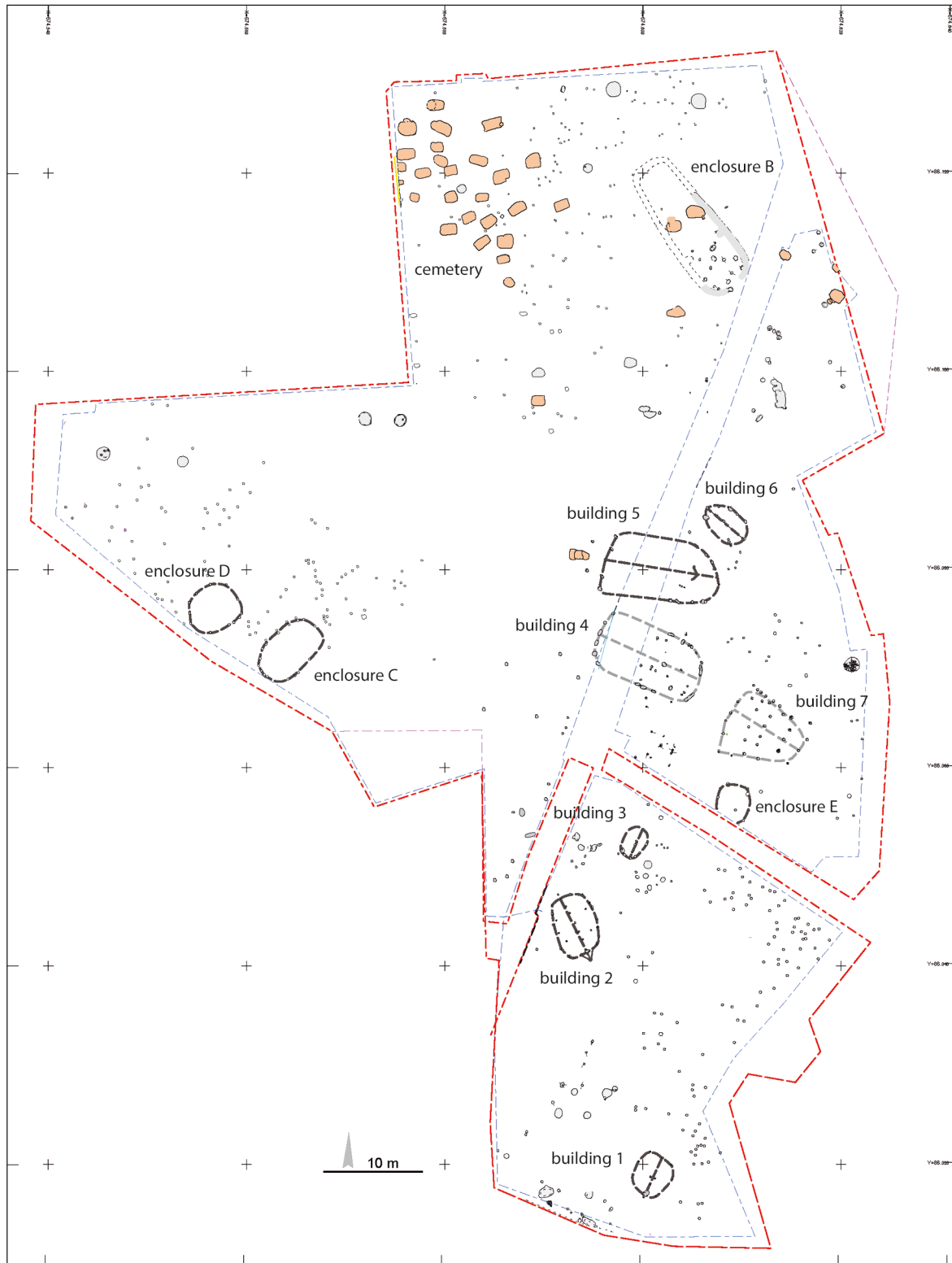
Over the following centuries, this diversity of house plans is no longer documented, although the extreme rarity of Middle Neolithic building plans forces us to remain cautious about any interpretations. The more recent buildings seem to prefer the rectangular shape with one or both ends in apses. This is the case of the Blagnat building in Montmeyran, in the middle Rhone valley, dated to about 4000 cal BC (Saintot, 1997). It is 20 m long and 10 m wide and ends in an apse form (figure 16). It is therefore much larger than those of Vertaizon, and larger than the contemporary buildings in northern Italy (such as those at San Andrea Travo, Emilia-Romagna, which are 15 × 7.5 m). Built around the same time but using posts with much smaller diameters, the Roucadour building (Thémines, Lot) seems to respect the rectangular plan (figure 17), but the reduced size of the excavation does not enable us to delimit the full extension of the building, or to determine its shape,



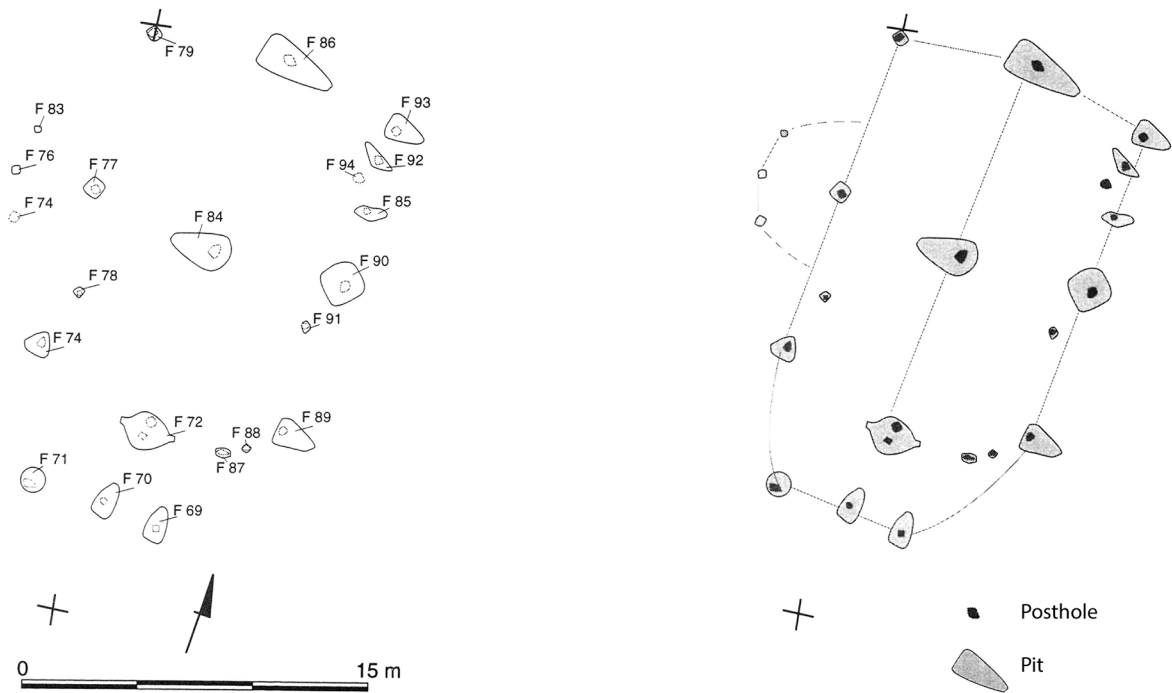
**Figure 12** - The oval Impressed building from Peiro Signado, at Portiragnes (Hérault, Occitanie, France), around 5800 cal BC (after Briois, Manen, 2009).



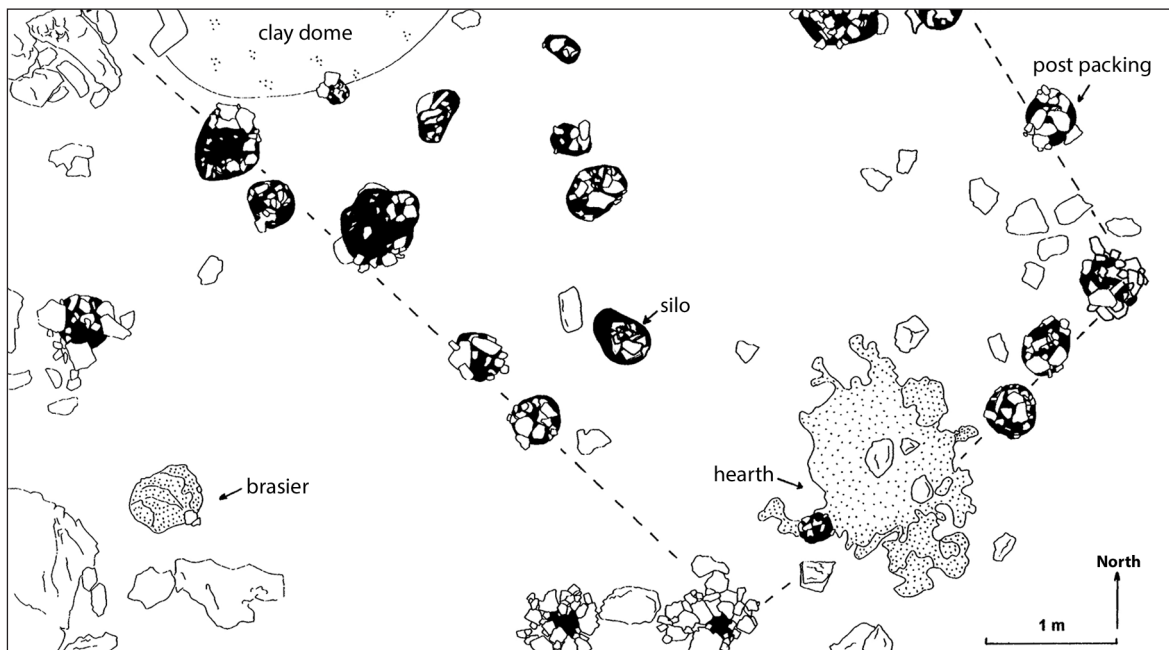




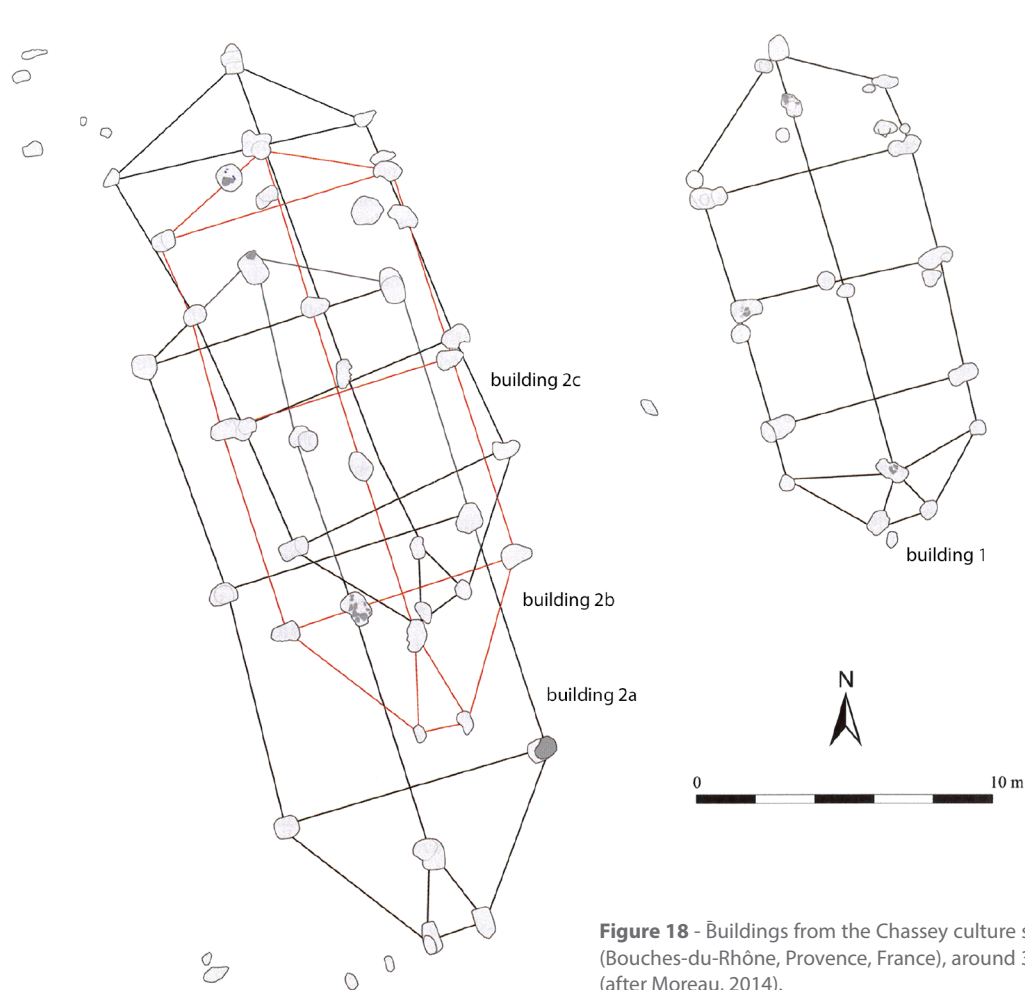
**Figure 15** - Buildings from the site of Vertaizon (Puy-de-Dôme, Auvergne-Rhône-Alpes, France), around 4600-4300 cal BC (after Saintot, 2014).



**Figure 16** - Buildings from the site of Blagnat, at Montmeyran (Drôme, Auvergne-Rhône-Alpes, France), around 4000 cal BC (after Saintot, 1997; topography: J.-M. Petit, D. Ruf, P. Sarazin, CAD: G. Macabéo).



**Figure 17** - Buildings from the site of Roucadour at Théménes (Lot, Occitany, France), around 4000-3800 cal BC (after Gascó, Muller, 2009).



**Figure 18** - Buildings from the Chassey culture site of Vernègues (Bouches-du-Rhône, Provence, France), around 3900-3700 cal BC (after Moreau, 2014).

rectangular or with an apse (Gascó, Muller, 2009). It is in any case certainly smaller, but the marginal position of the site in relation to the networks at the time does not allow us to consider it as representative. The buildings recently brought to light at Vernègues, Provence (Moreau, 2014), dated to 3800 cal BC, seem to confirm the trend towards gigantism exemplified by the Blagnat building. They are almost as long and have two apse shaped ends (figure 18). This is not the case of more recent buildings (ca. 3900-3500 cal BC) like those at Champ Madame in Beaumont, Auvergne. These are 11 m long and 8 m wide and have a strictly rectangular shape.

This passage from oval to rectangular house plans was without a doubt progressive taking place at a time of profound renewal of the ceramic traditions and stone industries. The exuberant Cardial and Epicardial decorations disappear after 4700 cal BC, to make way for ceramics with carefully polished surfaces and uniform colors. This continues during the following centuries by with the adoption of some rare forms, decorated plates and vases essentially, the prototypes for which come from the other side of the Alps, in northern Italy. The rest of the repertoire remains in line with local ceramic traditions, using fairly simple spherical forms. It then gradually becomes more complex and from 4000 cal BC onwards presents a range of shapes as extensive as those found in the north of Italy, while the decoration becomes simpler and extends to a greater number of forms. This is actually the same process that which took place in Italy in the Early Neolithic period, whereby the eastern component represented by painted ceramic in the south and Fiorano in the north, gradually replaced the Impresa wares.

The lithic industry experienced a more dramatic renewal. Trade increases at the beginning of the Middle Neolithic, both in the quantity of objects and in the distances involved, and some of these objects are made only to be hoarded. This is particularly the case of large polished stone axes fashioned from green rocks extracted from the Alps and disseminated as far the British Isles. The populations of southern France also import obsidian blades from the Lipari Islands, southern Italy, and begin to use pressure techniques to knap the honey-coloured Bedoulian flint outcrops of Vaucluse in Provence, and thus obtain the same regular honey-coloured blades as found in northern Italy or the Balkans. In the early Middle Neolithic, before 4200 cal BC, imported objects are still a minority and have a special status, as shown by the fact that they are rarely used and they are frequently part of ritual deposits, found isolated or placed in burials. Probably due to the increased demand, the total volume that is manufactured and distributed then becomes more important. To do this, the craftsmen produce smaller objects, adopt more efficient knapping methods (heating the raw material and changing striking platforms), and change their raw material when the distance to the source is too great or access is too complicated (replacement of Lipari obsidian with Sardinian obsidian, initiate the exploitation of green cinerites from Requista in the Massif Central). The rule appears to be that the polished axes must be green, and that the flake blanks used for the lithic industry must be standardized and made of obsidian or honey-coloured flint. After 4000 cal BC, this democratization of access to imported items is such that in the better positioned villages within distribution networks, almost all of the chipped stone industry is made of Bedoulian flint from the Vaucluse, regardless of the distance in kilometers between the village and the source.

Three steps can be distinguished within the Neolithic process in the southern half of France. After a first episode of Impressa ware colonization with no apparent successors around 5800 cal BC, the Neolithic manifests itself from around 5500 or 5400 cal BC, by the widespread adoption, all along the Mediterranean coast, of ceramics, the practice of agriculture and the raising of livestock (Binder, 2013). Continuities in the style of arrowheads show that these are indigenous people who incorporate these new practices into their lifestyle (Valdeyron *et al.*, 2013). Farther inland, where the climate is more mixed, evidence for the Neolithic is rarer, more discreet and often later, around 5000 cal BC. In both areas, the adoption of a production economy does not appear to fundamentally change the way of life of local societies, which were already using storage practices during the Mesolithic (Valdeyron, 2013; Verjux, 2014). The environment remains the same, the territories exploited are similar and concentrated in a small radius of a few kilometers around the habitation site, and trade is limited to a few ornaments. The only difference is the increased number of open air sites, but it is questionable to what extent this does not result from the greater visibility of sites for archaeologists due to the presence of ceramics.

No doubt starting around 4900-4800 cal BC, and certainly from 4700 cal BC, the situation changes. Populations of western Europe show signs of fierce social competition. Burial of a few individuals takes on monumental proportions. The larger tombs, burial mounds several meters high, can reach hundreds of meters long. The emblematic objects of village society originating in the Balkans and coming from Italy are imported several hundred kilometers to be placed in tombs or deposited intact, far from any inhabited area. The most dramatic manifestations of these phenomena are visible around the Breton peninsula, the westernmost point of the continent, where the first burial mounds reproduce, as in the rest of the north European plain, the shapes of longhouses and sometimes occupy the same locations as the longhouses of the Linear Band groups, and where indigenous communities have access to the coast, and the ability to produce and export salt. In southern France, these ostentatious manifestations are less spectacular, as if hierarchies were less pronounced there. In the absence of Linear Banded traditions, long barrows are unknown. The mounds are circular and correspond to a later form of the megalithic monuments. They are also significantly



smaller than the circular mounds of the Atlantic seaboard. The preferred form of burial is in a trench or in a burial chest without a mound. The importation of objects emblematic of village society is also evident and relates to a wider range of objects. The large polished greenstone axes from the Alps, the Iberian variscite ornaments and the pedestal vases are now accompanied by etched ceramic plates and spoons and blades made of honey-coloured flint and obsidian. The construction of the first rectangular buildings, including those of Vertaizon, certainly involved this desire for ostentation, because they without doubt are the most obvious sign of the link with village society which spread to Italy and is present beyond the Alps.

This ostentatious phase seems to end at the turn of the 4<sup>th</sup> millennium. In northern France, there is no longer any trace of contact with village society, not even in the form of any southern stylistic influence. It seems that a new type of society is taking form, a more self-sufficient society in which the domestic unit plays a greater role and where relationships are much more local. In southern France, on the contrary, this is the period of integration into the sphere of village society and the adoption of its rules. Rectangular architecture becomes the norm. In the villages, the collective provisioning becomes the norm relying heavily on imported goods produced by specialized craftsmen (implementation of complex technologies and/or manufactured with imported materials of homogeneous colour and texture). It is the same for the subsistence economy, since the organization of livestock is based on site specialization, which implies an exchange between different pastoralist groups (Bréhard *et al.*, 2010). As in the southeastern Balkans and the Adriatic coast, and then in Italy, this is a society that takes root and which is structured around exchange.

## Conclusion

Analysis of the diffusion of Neolithic architecture in Europe requires rethinking the Neolithic process. Considered since Childe's time as a purely economic phenomenon, it has thus far been analyzed only in terms of the spread of agriculture and animal husbandry, as if the concerns of the societies at the time were solely focused on the question of their livelihood. This led archaeologists to amalgamate a number of processes of socio-cultural transformation that were very different from each other while essentializing and opposing concepts of hunter-gatherers and farmers. In this context, the Neolithic was considered complete as soon as communities were practicing agriculture and raising livestock (Dennel, 1985; Zvelebil, 1998). The subsequent development of tools, housing and the subsistence economy was perceived as the "normal" result of the evolution of local Neolithic societies, who either reinvented their own model of the Neolithic (Sherratt, 2006), or as the diffusion of a set of innovations specific to a later period, the Chalcolithic (Lichardus, 1991). These scenarios do not take into account the similarity of the technical, economic and social characteristics of the second Neolithic societies, with those of the older communities from the core area of the Balkans, and were constructed on a lack of knowledge regarding the chronology of those characteristics typically ascribed to the Chalcolithic such as the beginning of milk production, copper metallurgy and craft specialization (Schier, 2014).

If we cease to focus solely on economic data and consider all productions of Mesolithic and Neolithic societies, in particular the household, the diffusion of the Neolithic in Europe appears to reverse these linear models, and is seen as a very long process during which the European communities tried different ways to implement a lifestyle that was considered ideal.

The oldest form of these attempts at neolithisation is the Mediterranean current. This best matches the economic prism privileged since Childe because change takes the form almost exclusively in subsistence. It is indeed a broadening of the spectrum of potential food resources through the adoption of domesticated plant and animal species. For indigenous societies this implies incorporating

new technologies, but in a simple form and without upsetting their lifestyle. Even with ceramics, a few polished axes and small herds, populations continue to exploit small territories where they know all the resources. The most that can be said is that the practice of agriculture implies greater sedentism for at least part of the group. Even houses have circular and oval forms similar to those of the European Mesolithic. It is undoubtedly this flexibility and apparent continuity that explain the very rapid spread of the Neolithic markers along the northern coasts of the Mediterranean. This current probably originates from a first pulse of the Neolithic around 6500 cal BC, which precedes the appearance of village societies and is recognizable by the presence of red monochrome ceramics. To the west of Greece, the diffusion of Neolithic markers can be seen in the spherical forms of ceramics decorated with impressions which rapidly spread along the Mediterranean coast via sea routes. The great distances that were the result of this rapid spread led to the severing of ties with the village societies of the eastern Mediterranean and the development of a particular form of Neolithic society, which ended with the expansion of village societies.

The dominant neolithization model is that of the villagers' world. It is characterized by the importance of the community which takes precedence over the household. The habitat consists of rectangular and quadrangular houses grouped into a village. The economy is organized to generate strong links between individuals and between family units. Procurement is collective and based on a specialization of tasks, thanks to the importation of distant raw materials and the implementation of complex technologies. This partnership model was developed in Central Anatolia during the PPNB and spread during the second half of the seventh millennium to the shores of the Aegean and the southeastern Balkans (Thrace, Macedonia, Thessaly, lower Danube valley) conveyed by massive population displacements. Beyond the core area, the dissemination of this model slows down. In the Pannonian Plain, on the other side of the Iron Gates that separate the lower and middle Danube valleys, diffusion is fast but during the first centuries it only involves the circulation of manufactured goods, animal herds and some cereals, while habitation sites are at best composed of a few isolated small rectangular houses, or indeed pithouses. The data do not enable us to determine if this neolithization of the Pannonian Plain is carried by a colonizing group or if it is the local Mesolithic populations that adopt the emblematic signs of this new type of society. The Pannonian Plain is in any case for several centuries the limit of the expansion of village society and the spread of the Neolithic towards the center of the continent takes an alternative form, that of the Linear Pottery culture. A new phase of expansion is noticeable from 5300-5200 cal BC. It is probably made possible by adapting farming techniques to a wider variety of environments, but is most certainly due to the economic and demographic development of the villages at the heart of this society. The sites of this time, and until about 4500 cal BC, show unprecedented wealth that certainly supported the spread of village society. This expansion, therefore, is probably not the result, or if so only marginally, of a population migration. It is most likely the adoption of a new model of society by neighboring populations. This diffusion is indeed evident in the import and/or imitation of objects considered as markers of village society, and then, in a second phase, by the full adoption of the lifestyle that characterizes village society. This model of society spreads westward to southern France, where it arrives around 4200-4000 cal BC, at the same time as it is being replaced in the Balkans by the Chalcolithic, a model of society based on the exaltation of the richest individuals.

The third form of the Neolithic consists of an alternative model of society to the previous, the Linear Pottery culture. It was developed around 5500 cal BC north of the Pannonian Plain, at a time and in areas where the village model was no longer functional, because of the remoteness and the climatic and environmental conditions that were so different from the shores of the Black sea. This model is characterized by an architecture adapted to the environment of the German-Polish plain, greater flexibility of community organization, village cells reduced in size (at least

initially) and the organization of trade on a smaller scale, that of the micro-region. For Mesolithic communities in northern Europe, the Linear Pottery culture was certainly the archetype of Neolithic society. It was nevertheless replaced around 5200 cal BC, in those same regions where it had taken form, by the village society of Balkan type in the form of the Tisza and Lengyel cultures. Further west and north, its successors were gradually impregnated with the values of local Mesolithic societies, eventually creating new societies like the Michelsberg and Funnel Beaker cultures (TRBK) whose subsistence strategies were more suited to the environmental capacity of northern Europe.

Of the three forms of the Neolithic, the village society model represented the archetype of Neolithic society and this is what explains its success and wide distribution. It is the different characteristics together that make up this model of society that communities wishing to adopt the Neolithic will try to adopt, or adapt to new environments. During the first phase of this process, there is the acquisition or adoption of some of the most iconic elements of the lifestyle of the village societies of southeastern Europe and their use in strategies of ostentatious display and social competition. We observe the distribution of polished axes and adzes among groups that are still considered Mesolithic, and then the appearance of large, fully polished celts, imported over hundreds of kilometers and buried in monumental tombs and in ritual deposits. The predominance of the ox and the axe as motifs in megalithic art, which develops on the western margins of the Neolithic world, is also a sign of this process of attempting to imitate village society by groups that know and practice agriculture and raise livestock. In a second step, which occurs as soon as conditions permit, the Neolithic is no longer limited to a few symbolic elements and the lifestyle of the village societies is implanted into a new territory, where the tools, houses and the subsistence economy become fully aligned with those in force in the oldest neolithised regions. The start of the second phase is determined by adjusting the technical knowledge to the resources, climate and geology of new territories, and probably also by internal factors in the core zone, such as wealth accumulation, from which it derives its power of attraction and its ability to export the technical expertise required for the development of new territories.

The development of fully agropastoral societies in Europe is not the result of the evolution of the first neolithised societies, whether Impressa-Cardial or Linear Pottery, but the result of the spread of a societal standard or norm. Faster in their initial expansion, due to their less constraining character, the first Neolithic societies of western Europe had the weakness of being less complete, less perfect from a Neolithic viewpoint, and were prey to increasing social competition and sometimes deadly conflict, which made them less desirable over time. Village society on the other hand had the distinct advantage of extreme coherence.

Within these three types of societies, the household is of variable importance, but is never the central element in the organization of a community. Even within the Linear Pottery culture, where differences between households can be seen within the same village, the autonomy of each domestic unit is limited by respect for community standards and the importance of interaction between the components of the village, and between nearby and complementary villages.

It is ultimately only very late in the Neolithic that the household will grow in importance in the organization of society. Starting around 4100-4000 cal BC in the north of Europe, and from 3700 cal BC along the Mediterranean coast, a new model of society begins to develop that is centered on the exploitation of smaller territories. Although trade does not stop, it covers a smaller range of objects and is carried out on smaller scales. Villages are more independent of each other and households have more autonomy in how they are supplied. This stronger anchor or attachment to the territory is the mark of Neolithic societies that can now be qualified as peasant societies and for whom the household becomes a relevant lens for analysis.

## Acknowledgments

I would like to thank Adrian Burke and Claude Chapdelaine for inviting me to participate in the colloquium for which this paper was prepared. It was a great occasion to discover many aspects of Québec archaeology. I also would like to thank Adrian Burke and Nicola Coulthard for the translation and the improvement of the English version of this paper.

## Bibliographic references

- Anzidei A.P., Carboni G., 1995 - L'insediamento preistorico di Quadrato di Torre Spaccata (Roma) e osservazioni su alcuni aspetti tardo Neolitici ed eneolitici dell'Italia centrale, *Origini*, 19, 55-225.
- Bánffy E., 2013 - Tracing the Beginning of Sedentary Life in the Carpathian Basin. The Formation of the LBK House, in Hofmann D., Smyth J. (eds.), *Tracking the Neolithic House in Europe*, New York, Springer, 117-149.
- Batovič Š., 1966 - *Stariji Neolit u Dalmaciji*, Zadar, Arheološko Društvo Jugoslavije, 248 p.
- Beeching A., 2009 - Les maisons ovales du Néolithique ancien de Lalo à Espeluche (Drôme), in Beeching A., Sénépart I. (dir.), *De la Maison au Village. L'habitat néolithique dans le Sud de la France et le Nord-Ouest méditerranéen*, Marseille : 2003, Paris, Société Préhistorique Française, 39-48.
- Beeching A., Bernabò Brea M., Castagna D., 2009 - Le village de Travo près de Piacenza (Emilie-Romagne, Italie) et les structures d'habitat du Néolithique d'Italie septentrionale, in Beeching A., Sénépart I. (dir.), *De la Maison au Village. L'habitat néolithique dans le Sud de la France et le Nord-Ouest méditerranéen*, Marseille : 2003, Paris, Société Préhistorique Française, 123-141.
- Berger J.-F., Metallinou G., Guilaine J., 2014 - Vers une révision de la transition méso-néolithique sur le site de Sidari (Corfou, Grèce) : nouvelles données géo-archéologiques et radiocarbone, évaluation des processus post-dépositionnels, in Manen C., Perrin T., Guilaine J. (dir.), *La Transition néolithique en Méditerranée*, Toulouse : 2011, Arles, Errance, 213-232.
- Bernabò Brea M., Castagna D., Occhi S., 2000 - Le strutture dell'abitato del Neolitico superiore a S. Andrea di Travo (Piacenza), in Pessina A., Muscio G. (dir.), *La Neolitizzazione tra Oriente e Occidente*, Udine : 1999, Udine, Museo Friulano di Storia Naturale, 257-267.
- Bernabò Brea M., Castagna D., Cremona M.G., Ferrari E., Maffi M., Mazzieri P., Occhi S., 2003 - Strutture e aspetti culturali dei siti Chassey-Lagozza nel Piacentino, in Ferrari A., Visentini P. (dir.), *Il Declino del Mondo Neolitico. Ricerche in Italia centro-settentrionale fra aspetti peninsulari, occidentali e nord-alpini*, Pordenone : 2001, Pordenone, Museo delle Scienze, 379-402.
- Binder D., 1998 - Silex blond et complexité des assemblages lithiques dans le Néolithique liguro-provençal, in d'Anna A., Binder D. (dir.), *Production et Identité culturelle*, Arles : 1996, Antibes, APDCA, 111-128.
- Binder D., 2013 - Mésolithique et Néolithique ancien en Méditerranée nord-occidentale entre 7000 et 5500 cal. BCE : questions ouvertes sur les dynamiques culturelles et les procès d'interaction, in Jaubert J., Fourment N., Depaepe P. (dir.), *Transitions, Ruptures et Continuités en Préhistoire. Actes du XVII<sup>e</sup> Congrès préhistorique de France*, Bordeaux / Les Eyzies : 2010, Paris, Société préhistorique française, 341-355.

- Binder D., Gratuze B., Vaquer J., 2012 - La circulation de l'obsidienne dans le sud de la France au Néolithique, *Rubricatum*, 5, 189-199.
- Borić D., 2002 - The Lepenski Vir Conundrum: a Reinterpretation of the Mesolithic and Neolithic Sequences in the Danube Gorges, *Antiquity*, 76 (294), 1026-1039.
- Borić D., Dimitrijević V., 2007 - Apsolutna hronologija i stratigrafija Lepenskog Vira, *Starinar*, LVII, 9-55.
- Bréhard S., Beeching A., Vigne J.-D., 2010 - Shepherds, Cowherds and Site Function on Middle Neolithic Sites of the Rhône valley: an Archaeozoological Approach to the Organization of Territories and Society, *Journal of Anthropological Archaeology*, 29, 179-188.
- Briois F., Brossier S., Gernigon K., Vaquer J., 1998 - Polymorphisme des industries chasséennes en silex entre le Rhône et l'Aquitaine, in d'Anna A., Binder D. (dir.), *Production et Identité culturelle*, Arles : 1996, Antibes, APDCA, 129-144.
- Briois F., Manen C., 2009 - L'habitat néolithique ancien de Peiro Signado à Portiragnes (Hérault), in Beeching A., Sénépart I. (dir.), *De la Maison au Village. L'habitat néolithique dans le Sud de la France et le Nord-Ouest méditerranéen*, Marseille : 2003, Paris, Société Préhistorique Française, 31-37.
- Brukner B., 2002 - Die Vinča-Kultur in Raum und Zeit, *Godišnjak*, 30, 61-103.
- Cavulli F., Angelucci D., Pedrotti A., 2015 - Nuovi dati sui complessi strutturali in elevato di Lugo di Grezzana (Verona), in Leonardi G., Tiné V. (dir.), *Preistoria e Protostoria del Veneto*, Firenze, Istituto Italiano di Preistoria e Protostoria (Studi di Preistoria e Protostoria, 2), 593-597.
- Chaix L., 2004 - L'Europe a-t-elle contribué à la domestication animale ?, in Guilaine J. (dir.), *Aux Marges des grands foyers du Néolithique. Périphéries débitrices ou créatrices?* (Séminaire du Collège de France), Paris, Errance, 239-253.
- Chambon P., Thomas A., 2014 - Approche structurale des nécropoles monumentales du V<sup>e</sup> millénaire dans le bassin Seine-Yonne, *Bulletin de la Société Préhistorique Française*, 111 (2), 275-290.
- Chancelerel A., Desloges J., 1998 - Les sépultures pré-mégalithiques de Basse-Normandie, in Guilaine J. (dir.), *Sépultures d'Occident et Genèses des Mégalithismes (9000-3500 avant notre ère)*, Paris, Errance, 91-106.
- Childe V.G., 1935 - Changing Methods and Aims in Prehistory Presidential Address for 1935, *Proceedings of the Prehistoric Society*, 1, 1-15.
- Çilingiroğlu Ç., 2011 - The Current State of Neolithic Research at Ulucak, İzmir, in Krauß R. (dir.), *Beginnings - New Research in the Appearance of the Neolithic between Northwest Anatolia and the Carpathian Basin*, Istanbul: 2009, Rahden / West., Marie Leidorf, 67-76.
- Clutton-Brock J., 1999 - *A Natural History of Domesticated Mammals*, Cambridge, Cambridge University Press, 238 p.
- Coudart A., 1998 - *Architecture et Société néolithique. L'unité et la variance de la maison danubienne*, Paris, Maison des Sciences de l'Homme (Documents d'Archéologie Française, 67), 234 p.



- Crnobrnja A. N., 2012 - Investigations of Late Vinca House 1/2010 at Crkvine in Stubline, *Starinar*, 62, 45-64.
- Crnobrnja A. N., Simić Z., Janković M., 2009 - Late Vinča Culture Settlement at Crkvine in Stubline, *Starinar*, LIX, 9-25.
- Degasperi N., Ferrari A., Steffè G., 1998 - L'insediamento neolitico di Lugo di Romagna, in Pessina A., Muscio G. (dir.), *Settemila Anni fa il primo Pane*, Udine, Museo Friulano di Storia Naturale, 117-124.
- Dennel R. W., 1985 - The Hunter-Gatherer / Agricultural Frontier in Prehistoric Temperate Europe, in Green S. W., Perlman S. M. (dir.), *The Archaeology of Frontiers and Boundaries*, Orlando, Academic Press, 113-139.
- Düring B. S., 2001 - Social Dimensions in the Architecture of Neolithic Çatalhöyük, *Anatolian Studies*, 51, 1-18.
- Fugazzola Delpino M.-A., D'Eugenio G., Pessina A., 1993 - "La Marmotta" (Anguillara Sabazia, RM). Scavi 1989. Un abitato perilacustre di età neolitica, *Bullettino di Paleontologia Italiana*, 84, 181-304.
- Gascó J., 1985 - *Les Installations du Quotidien. Structures domestiques en Languedoc du Mésolithique à l'âge du Bronze d'après l'étude des abris de Font-Juvénal et de Roc-de-Dourgne dans l'Aude*, Paris, Maison des Sciences de l'Homme (Documents d'Archéologie Française, 1), 140 p.
- Gascó J., Muller C., 2009 - Architecture et fonctionnement d'une maison chasséenne à Roucadour (Thémines, Lot), in Beeching A., Sénépart I. (dir.), *De la Maison au Village. L'habitat néolithique dans le Sud de la France et le Nord-Ouest méditerranéen*, Marseille : 2003, Paris, Société Préhistorique Française, 89-98.
- Guilaine J., Cremonesi G. (dir.), 2003 - *Torre Sabea. Un établissement du Néolithique ancien en Salento*, Roma, École Française de Rome, 396 p.
- Hodder I., 2014 - Çatalhöyük: the Leopard Changes its Spots. A Summary of Recent Work, *Anatolian Studies*, 64, 1-22.
- Hofmann R., 2013 - *Okolište 2. Spätneolitische Keramik und Siedlungsentwicklung in Zentralbosnien*, Bonn, Rudolf Habelt (Universitätsforschungen zur prähistorischen Archäologie, Band 243), 639 p.
- Jédikian G., Manen C., Vaquer J., 2005 - Échanges et territoires culturels entre Rhône et Garonne, du VI<sup>e</sup> au IV<sup>e</sup> millénaire avant notre ère, in Jaubert J., Barbaza M. (dir.), *Territoires, déplacements, mobilité, échanges durant la Préhistoire*, Toulouse : 2001, Paris, CTHS, 499-511.
- Kalicz N., Raczky P., Anders A., Kovács K., 2011 - *Preserved by Ancestral Fires. Pictures of an Excavation. The Neolithic Village at Berettyóújfalu-Herpály*, Budapest, Pytheas, 72 p.
- Kanzurova E., Zdravkovski D., 2011 - Latest Archaeological Research Regarding the Neolithic Period in the Republic of Macedonia, in Krauß R. (dir.), *Beginnings - New Research in the Appearance of the Neolithic between Northwest Anatolia and the Carpathian Basin*, Istanbul: 2009, Rahden / West., Marie Leidorf, 139-155.
- Karul N., Bertram J.-K., 2005 - From Anatolia to Europe: The Ceramic Sequence of Hoca Çeşme in Turkish Thrace, in Lichter C. (ed.), *How did farming reach Europe?*, BYZAS, 117-129.
- Korošec J., 1964 - *Danilo in danilska Kultura*, Ljubljana, Univerza v Ljubljani, 108 p.

- Krauß R., 2011 - On the 'Monochrome' Neolithic in Southeast Europe, in Krauß R. (ed.), *Beginnings - New Research in the Appearance of the Neolithic between Northwest Anatolia and the Carpathian Basin*, Istanbul: 2009, Rahden / West., Marie Leidorf, 109-125.
- Lea V., 2005 - Raw, Pre-Heated or Ready to Use: Discovering Specialist Supply Systems for Flint Industries in Mid-Neolithic (Chassey Culture) Communities in Southern France, *Antiquity*, 79 (303), 51-65.
- Lea V., Gassin B., Briois F., 2004 - Fonctionnement des réseaux de diffusion des silex bédouliens du V<sup>e</sup> au IV<sup>e</sup> millénaire : questions ouvertes, in Darteville H. (dir.), *Auvergne et Midi. Actualité de la recherche. Actes des 5<sup>èmes</sup> Rencontres Méridionales de Préhistoire récente*, Clermont-Ferrand : 2002, Cressensac, Préhistoire du Sud-Ouest, 405-420.
- Lefranc P., 2014 - Les villages du Néolithique ancien en Alsace. Un état de la recherche, *Archéopages*, 40, 18-25.
- Lichardus J., 1991 - Die Kupferzeit als historische Epoche. Versuch eine Deutung, in Lichardus J. (Hrsg.), *Die Kupferzeit als historische Epoche*, Saarbrücken und Otzenhausen: 1988, Bonn, Rudolf Habelt, 763-800.
- Lichardus-Itten M., 2012 - Un bâtiment exceptionnel du Néolithique ancien à Kovačevo (Bulgarie), *Les Nouvelles de l'Archéologie*, 127, 25-30.
- Lubbock J., 1865 - *Pre-Historic Times as Illustrated by Ancient Remains and the Manners and Customs of Modern Savages*, London, Williams and Norgate, 512 p.
- Mazzieri P., Dal Santo N., 2007 - Il sito del Neolitico recente di Botteghino (Parma), *Rivista di Scienze Preistoriche*, 57, 113-138.
- Mellaart J., 1967 - *Çatal Hüyük, a Neolithic Town in Anatolia*, London, Thames and Hudson (New Aspects in Antiquity), 232 p.
- Minichreiter K., 2001 - The Architecture of Early and Middle Neolithic Settlements of the Starčevo Culture in Northern Croatia, *Documenta Praehistorica*, 28, 199-214.
- Moreau C., 2014 - Vernègues, Cazan (Bouches-du-Rhône) : découverte d'un habitat structuré du Chasséen récent, *Bulletin de la Société Préhistorique Française*, 111 (2), 341-344.
- Nowak M., 2009 - *Drugi Etap Neolityzacji Ziemi polskich*, Kraków, Instytut Archeologii Uniwersytetu Jagiellońskiego, 717 p.
- Özdoğan E., 2011 - Settlement Organization and Architecture in Aşağı Pınar. Early Neolithic Layer 6, in Krauß R. (ed.), *Beginnings - New Research in the Appearance of the Neolithic between Northwest Anatolia and the Carpathian Basin*, Istanbul: 2009, Rahden / West., Marie Leidorf, 213-223.
- Özdoğan M., 1997 - The Beginning of Neolithic Economies in Southeastern Europe: an Anatolian Perspective, *Journal of European Archaeology*, 5 (2), 1-33.
- Özdoğan M., 2010 - Transition from the Round Plan to Rectangular - Reconsidering the Evidence of Çayönü, in Gheorghiu D. (ed.), *Neolithic and Chalcolithic Archaeology in Eurasia: Building Techniques and Spatial Organisation*, Lisbonne, Oxford, Archaeopress, 29-34.

- Özdoğan M., 2011 - Archaeological Evidence on the Westward Expansion of Farming Communities from Eastern Anatolia to the Aegean and the Balkans, *Current Anthropology*, 52 (4), 415-430.
- Pavúk J., 2007 - Zur Frage der Entstehung und Verbreitung der Lengyel-Kultur, in Kozłowski J.K., Raczky P. (eds.), *The Lengyel, Polgár and Related Cultures in the Middle/Late Neolithic in Central Europe*, Kraków: 2006, Kraków, Polska Akademia Umiejętności, 11-28.
- Perlès C., 2001 - *The Early Neolithic in Greece. The First Farming Communities in Europe*, Cambridge, Cambridge University Press (Cambridge World Archaeology), 356 p.
- Perlès C., 2009 - Grèce et Balkans : deux voies de pénétration distinctes du Néolithique en Europe?, in Demoule J.-P. (dir.), *La Révolution néolithique dans le Monde*, Paris: 2008, CNRS Éditions, 263-281.
- Pétrequin P., Cassen S., Errera M., Klassen L., Pétrequin A.-M., Sheridan A., 2013 - The Value of Things: the Production and Circulation of Alpine Jade Axes during the 5<sup>th</sup>-4<sup>th</sup> millennia in a European Perspective, in Kerig T., Zimmermann A. (eds.), *Economic Archaeology: from Structure to Performance in European Archaeology*, Bonn, Habelt, 65-82.
- Podrug E., 2013 - Neolitički nepokretni nalazi na šibenskom području, *Diadora*, 26 / 27, 185-212.
- Raczky P., Domboróczki L., Hajdú Z., 2007 - The Site of Polgár-Csöszhalom and its Cultural and Chronological Connections with the Lengyel Culture, in Kozłowski J.K., Raczky P. (eds.), *The Lengyel, Polgár and Related Cultures in the Middle/Late Neolithic in Central Europe*, Kraków: 2006, Kraków, Polska Akademia Umiejętności, 49-70.
- Radovanović I., 1996 - *The Iron Gates Mesolithic*, Ann Arbor, Michigan, International Monographs in Prehistory (Archaeological Series, 11), 382 p.
- Reingruber A., 2011 - Rethinking the 'Preceramic Period' in Greece 50 Years after its Definition, in Krauß R. (ed.), *Beginnings - New Research in the Appearance of the Neolithic between Northwest Anatolia and the Carpathian Basin*, Istanbul: 2009, Rahden / West., Marie Leidorf, 127-137.
- Rowley-Conwy P., 2003 - Early Domestic Animals in Europe: Imported or Locally Domesticated? in Ammerman A.J., Biagi P. (eds.), *The Widening Harvest. The Neolithic Transition in Europe: Looking Back, Looking Forward*, Boston, Archaeological Institute of America (Colloquia and Conference Papers, 6), 99-117.
- Saintot S., 1997 - La maison chasséenne du site de Blagnat à Montmeyran (Drôme), *Bulletin de la Société Préhistorique Française*, 94 (2), 148-150.
- Saintot S., 2014 - Vertaizon, La Roussille, site néolithique, in *Bilan d'Activité 2013. Journée régionale de l'Archéologie 2014*, Clermont-Ferrand, Service régional de l'Archéologie, 88-90.
- Saintot S., Le Barrier C., 2009 - L'habitat chasséen de Champ Madame et Artière-Ronzière à Beaumont (Puy-de-Dôme). Structuration, architecture et fonction du bâtiment 3, in Beeching A., Sénépart I. (dir.), *De la Maison au Village. L'habitat néolithique dans le Sud de la France et le Nord-Ouest méditerranéen*, Marseille : 2003, Paris, Société Préhistorique Française, 99-121.



- Schier W., 2014 - The Copper Age in Southeast Europe – Historical Epoch or Typo-Chronological Construct?, in Schier W., Draşovean F. (eds.), *The Neolithic and Eneolithic in Southeast Europe; New approaches to dating and cultural Dynamics in the 6<sup>th</sup> to 4<sup>th</sup> Millennium BC*, Timișoara: 2011, Rahden / West., Marie Leidorf, 419-435.
- Schmidt K., 2015 - *Le premier Temple. Göbekli Tepe*, Paris, CNRS Éditions, 416 p.
- Sénépart I., 2009 - L'habitat néolithique ancien cardial du Baratin à Courthézon (Vaucluse), in Beeching A., Sénépart I. (dir.), *De la Maison au Village. L'habitat néolithique dans le Sud de la France et le Nord-Ouest méditerranéen*, Marseille : 2003, Paris, Société Préhistorique Française, 61-72.
- Sherratt A., 2006 - La traction animale et la transformation de l'Europe néolithique, in Pétrequin P., Arbogast R.-M., Pétrequin A.-M., Van Willigen S., Bailly M. (dir.), *Premiers chariots, premiers araires : la diffusion de la traction animale en Europe pendant les IV<sup>e</sup> et III<sup>e</sup> millénaires avant notre ère*, Le Frasnois : 2002, Paris, CNRS, 329-360.
- Steffè G., 1996 - Fornace Gattelli (Lugo di Romagna, Ravenna), in *Emilia-Romagna*, Forlì, ABACO (Preistoria i Protostoria Guide archeologica, 3 XIII UISPP), 258-265.
- Stordeur D., 2014 - Jerf el Ahmar entre 9500 et 8700 cal. BC. Un village des débuts de l'agriculture, une société complexe, in Manen C., Perrin T., Guilaine J. (dir.), *La Transition néolithique en Méditerranée*, Toulouse : 2011, Arles, Errance, 27-45.
- Thomsen C.J., 1836 - Kortfattet Udsigt over Mindesmærker og Oldsager fra Nordens Fortid, in *Ledetraad til nordisk Oldkyndighed*, Kopenhagen, Nordiste Oldstrift Delstab, 27-90.
- Tiné S., 1983 - *Passo di Corvo e la Civiltà neolitica del Tavoliere*, Genova, Sagep, 201 p.
- Tiné S. (dir.), 2009 - *Favella. Un villaggio neolitico nella Sibaritide*, Roma, Museo Luigi Pigorini, 629 p.
- Tozzi C., 2001 - Ripa Tetta et Catignano, établissements néolithiques de l'Italie adriatique, in Guilaine J. (dir.), *Communautés villageoises du Proche-Orient à l'Atlantique (8000-2000 avant notre ère)*, Paris, Errance (Séminaire du Collège de France), 153-167.
- Troy C. S., Machugh D. E., Balley J. F., Magee D. A., Loftus R. T., Cunningham P., Chamberlain A. T., Sykes B. C., Bradley D. G., 2001 - Genetic Evidence for Near-Eastern Origins of European Cattle, *Nature*, 410 (26 april), 1088-1091.
- Valdeyron N., 2013 - *Of Men and Nuts. Essai sur le Mésolithique et sur la place qu'y tient le végétal*, Mémoire d'Habilitation à diriger des recherches, Toulouse, Université de Toulouse, 1 vol., 169 p.
- Valdeyron N., Manen C., Bosc-Zanardo B., 2013 - Mésolithique récent/final et néolithisation du sud-ouest de la France : vers de nouvelles perspectives? in Jaubert J., Fourment N., Depaepe P. (dir.), *Transitions, Ruptures et Continuités en Préhistoire. Actes du XVII<sup>e</sup> Congrès préhistorique de France*, Bordeaux-Les Eyzies : 2010, Société préhistorique française, 373-390.
- Verjux C., 2014 - *Les structures en creux du site mésolithique d'Auneau « le Parc du Château » (Eure-et-Loir). Nouveau bilan et implications concernant le mode de vie des dernières populations de chasseurs-collecteurs en Europe*, Thèse de Doctorat, Paris, Université Paris 1, 396 p.

Willcox G., 2014 - Les premiers indices de la culture des céréales au Proche-Orient, in Manen C., Perrin T., Guilaine J. (dir.), *La Transition néolithique en Méditerranée*, Toulouse : 2011, Arles, Errance, 47-58.

Zvelebil M., 1998 - Agricultural Frontiers, Neolithic Origins, and the Transition to Farming in the Baltic Region, in Zvelebil M., Domańska L., Dettel R. W. (eds.), *Harvesting the Sea, Farming the Forest. The Emergence of Neolithic Societies in the Baltic Regions*, Sheffield, Sheffield Academic Press, 9-29.

**Karim GERNIGON**

UMR 5608 TRACES

Service régional de l'Archéologie de Normandie

Direction régionale des Affaires culturelles

[karim.gernigon@culture.gouv.fr](mailto:karim.gernigon@culture.gouv.fr)



**P@LETHNOLOGY**  
*Bilingual review of prehistory*