FORUM

HISTORY AND ARCHAEOLOGY

The evidence of monumental megalithic constructions, with reliefs of a wide range of wild animals, at Göbekli Tepe, a paleolothic site and a pre-agricoltural world, and the ongoing discussion between archaeologists and anthropologists on the origins of agriculture, permit a re-reading of Marshall Sahlins' *Stone Age Economics* and his more radical thoughts on «The Original Affluent Society». The essay focuses on the implications for received classical concepts of social and technological evolution, the distinction between foragers and farmers, simple versus complex, egalitarian versus hierarchical, and the dominant narratives of the modern world. The major aim of this essay is to find a common ground for history and archaeology, to examine historical and theoretical questions in a dialogue between the present and the past, and to explore unifying themes that cut across chronology and address historical narratives. Both archaeological and historical evidence (material remains, visual art, and written sources, texts and artefacts) are the traces of social actions and practices. The dialogue is based on the idea history and archaeology are parts of the same intellectual enterprise, concerning the dynamics and evolution of societies and human behaviour.

«Quaderni storici» hopes to provide a forum for historians, archaeologists and anthropologists to join the discussion with comments, criticisms and suggestions.

Keywords: Social evolution, The Original Affluent Society, Neolithic Revolution, Gobekli Tepe

ON THE CONDITION OF DIALOGUE BETWEEN SISTER DISCIPLINES

FORTY-FOUR YEARS AFTER MARSHALL SAHLINS' *STONE AGE ECONOMICS*

1. In a work published in the journal «Culture & Agriculture» in 1998, E.P. Durrenberger[1] reflected «twenty-five years later» and partly in autobiographical form on the success of the challenge set by Marshall Sahlins in his 1972 *Stone Age Economics* «to perpetuate the possibility of an anthropological economics by a few concrete examples», an intention described by Sahlins as «modest»[2]. The 1970s were characterised by critical, often heated, controversy between formalists and substantativists, and the work of Sahlins was a culturalist variation on the themes of substantivism of Karl Polanyi, on the «embedded» character of the economy or the economy as a function of society. In Sahlins, the «anthropological economics», as distinct from «economic anthropology», was a «culturalist study» by which the economic conceptions of primitive man could be studied[3]. Upon the conclusion of the heyday of economic anthropology of the 1970s[4], the field of study was then left to cultural anthropology. However, the challenge posed by Sahlins continued to be anchored to the idea that cultural forms influence concrete human activities, and cultural anthropology has roots and interpretive frameworks in the culturalist study of Sahlins[5].

The excavations directed by the late Klaus Schmidt at Göbekli Tepe, in the Southeastern Anatolia, in the last fifteen years, and the extensive discussions amongst Neolithic archaeologists, permit a re-reading of Sahlins' work after forty-four years and in particular his more radical and provocative thoughts on the Stone Age economy as an economy of abundance, «the original affluent society», with emphasis on the «original»[6]. The principal objective of these notes is to try and see whether the ongoing discussions between archaeologists, and archaeologists and anthropologists, can also interest historians, as well as being an attempt to encourage debates amongst these related disciplines. Whilst anthropologists and archaeologists have read and discussed the work

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of Sahlins, the same cannot be said about historians. However, there is also another question: why is there no dialogue between archaeologists and modern and contemporary historians? This question will be returned to in due course.

Göbekli Tepe is a collection of monumental remains of a pre-Neolithic society (c.12000-9000 BP), a hunter-gatherer society with complex and articulate social structures. The settlement at Göbekli Tepe was built by a pre-agricultural society, and was possibly a ritual center or a central place for various groups scattered over tens of thousands of square kilometres, which declined with the development of agriculture[7]. The result is a vastly changed picture of the Neolithic Revolution. The archaeological record of Göbekli Tepe could destroy, perhaps definitively, primitivism, the idea of development in stages, the belief that human development is progressive and directional.

2. This evolutionist model was established by Lewis Henry Morgan in the 1870s[8]. The subtitle of the book published by Morgan in 1877 contained the idea of «greatest success» in a field of study between archaeology and anthropology at the end of the nineteenth century, but in reality, as we can see, until the 1950s. Morgan's theme of research stood «in the lines of human progress from savagery through barbarism to civilisation»: an extraordinarily optimistic vision of evolution[9]. The vulgarisation of Engels, who worked on Marx's notes, then tried to give a logical coherence to the work of Morgan with the idea of building a periodization (with intermediate stages) based on the modes of production, and founded materialistic evolutionism[10].

In Morgan, the stages were in effect technological («Progress of Mankind from the Bottom of the Scale – illustrated by Inventions, Discoveries and Institutions»). It is worth quoting in full a passage from the preface of *Ancient Society*:

> It can now be asserted upon convincing evidence that savagery preceded barbarism in all the tribes of mankind, as barbarism is known to have preceded civilization. The history of the human race is one in source, one in experience, one in progress. Inventions and discoveries stand in serial relations along the lines of human progress, and register its successive stages; while social and civil institutions, in virtue of their connection with perpetual human wants, have been developed from a few primary germs of thought. They exhibit a similar register of progress. These institutions, inventions and discoveries have embodied and preserved the principal facts now remaining illustrative of this experience. When collated and compared they tend to show the unity of origin of mankind, the similarity of human wants in the same

stages of advancement, and the uniformity of the operations of the human mind in similar conditions of society[11].

The interpretation of Morgan was in part based on fieldwork (Iroquois and Indian remains in the state of New York)[12], and was directly or indirectly influenced by Charles Lyell (*The Geological Evidence of the Antiquity of Man*, 1863), John Lubbock (*Pre-historic Times*, 1865), Edward B. Tylor (*Researches into the Early History of Mankind and the Development of Civilisation*, 1865) and John Ferguson McLennan (*Primitive Marriage*, 1865), or rather the cultural climate of the late nineteenth century[13]. However the paradigms constructed within this cultural climate, and concerning the theme of the antiquity of man, maintained for some time and inspired the interpretations of Vere Gordon Childe, the most influential archaeologist of the twentieth century.

In *The Dawn of European Civilisation* (1925), whilst Childe referred to Morgan and Morgan's idea of the material and spiritual substrate («cultural heritage») common to Europeans, the Chinese and the Aborigines of Australia, the theme of this work was «the foundation of European Civilisation as a peculiar and individual manifestation of the human spirit»[14]. The distance between Morgan and Childe, or the original character of Childe's work, is in the idea of *European Civilisation*, and in the close chronological connections with the Middle East. Childe started from the «survivals of food-gatheres» (chapter 1) between the Palaeolithic and Mesolithic, and mainly working on secondary sources, fixed a finer chronology hinged on two revolutions, namely the Neolithic and the Urban[15]; two «industrial revolutions» with a meaning similar to that of the Industrial Revolution[16]. Childe's model was based on indirect sources, and was mainly an interpretative model that dominated until the «new archaeology» of the 1960s. The significance of revolution (Neolithic and Urban) in Childe's work is connected to the idea that «despite a startling refinement of industrial equipment and a masterly graphic art Pleistocene Europe altogether lacked civilisation in the economic sense». The hunter-gatherers could have cultivated the arts, but remained fundamentally dependant on what the environment offered. Neolithic migration from the Middle East replaced the Mesolithic hunter-gatherers in Europe: «the sole unifying theme was the irradiation of European barbarism by Oriental civilisation»[17]. The influence of Childe was not so much in the field of research, but rather in terms of interpretation and synthesis, as explained in his own words:

The most original and useful contribution that I may have made to prehistory are certainly not novel data rescued by brilliant excavation from

the soil or by patient research from dusty museum cases, nor yet well founded chronological schemes nor freshly defined cultures, but rather interpretative concepts and methods of explanation[18].

It is perhaps for this reason that, beyond archaeological research, an idea of evolution was so pervasive and consolidated between Morgan and Childe: the idea of the original characters of the European culture and civilisation, with a particular emphasis on the Neolithic and the model of the «farmer» as opposed to the «hunting and foraging ways of life»[19]. Such an evolutionary model has permeated other social sciences, and in particular perhaps even history.

Evolutionary anthropology has shared with archaeologists of the Neolithic Revolution the idea that Palaeolithic people lived in a state of subsistence or one of precarious survival, «starvation». Anthropologists worked on small groups that survived the two revolutions, or three including the Industrial. This is the area on which Sahlins worked. However, Sahlins sought to prove the groundlessness of the idea of «starvation» from research on the survivors.

3. Sahlins presented the idea of the «original affluent society» at the conference «Man the Hunter», held in Chicago in 1966, questioning the idea that «hunter-gatherer societies were always near the brink of starvation and continuously engaged in a struggle for survival»[20]. In particular, Sahlins commented on Richard B. Lee's presentation on the !Kung San (Bushmen) of the Kalahari[21]. This idea was translated in a work published in French two years later, when Sahlins worked at the Laboratoire d'Anthropologie Sociale of the College de France, directed by Claude Lévi-Strauss[22]. The background of the ideas and work of Sahlins was the book of Melville J. Herskovits published in 1952[23]. The original version was published in 1940 under the title *The Economic Life of Primitive People*. The reason for the change of title, with the removal of the word «primitive», was explained in the *Preface* of the 1952 version, with reference to the development of studies, as well as the new political sensibilities[24]. This was an important book because it was written in the name of collaboration between different social sciences, and Herskovits was the most important academic and scientific authority in America. The book was based on the distinction and opposition between «machine societies» and «non-machine societies» («non-industrial societies»). However, in the two versions of the book, a compendium that established a new discipline, the «non-machine societies» were constantly threatened by «starvation/survival»[25].

Sahlins started from Herskovits and overturned the «classical» interpretation of anthropology[26]. The most interesting point is that evolutionary anthropologists and in part also archaeologists had constructed their theory and interpretation on the survivors and the remains[27]. Before or during excavations, the antiquity of man was reconstructed and interpreted on the basis of survivors. The provocative interpretation of Sahlins was also based on survivors, but ignored archaeology.

Until the 1960s, archaeologists (from Childe to Robert Braidwood) looking at different interpretations and chronologies of domestication, considered the invention of agriculture to have been a major step in the history of humanity, a transformation by which food security, wellbeing and leisure time were secured. However, Sahlins did not explicitly engage in dialogue with archaeologists. Yet, the hypothesis favoured by Sahlins was in the air. During the same years in which he planned *Stone Age Economics*, Lewis Binford founded the «new archaeology»[28]. In the 1960s, Binford had contested the dominant ideas in archaeology and, based on ethnographic materials, argued that the Neolithic revolution had brought about a dramatic increase in working time[29]. Based on fieldwork, Binford supported the possibility of interpreting the prehistorical archaeological material remains in light of the material culture of hunter-gather «survivors»[30]. It was in fact a conference organised by Binford in Denver in 1965[31], and the dialogue between Lee, DeVore and Binford, that lay behind the organisation of the «Man the Hunter» conference.

Against the pessimistic view of anthropologists that he traced back to an overlap between the «Neolithic ethnocentrism» and «bourgeois ethnocentrism», Sahlins described the economy of hunter-gatherers as one of economic affluence, characterised by an institutionalised modesty of material needs, founded on easy access to natural resources, supported by demographic containment and pronounced mobility.

The survivors on which Sahlins' interpretation was based were the Australian aborigines, the Bushmen, and in particular the Hazda of Tanzania with their explicit rejection of the Neolithic Revolution. The resistance to the Neolithization involved the rejection of accumulation, wealth and property, an ascetic conception of material wellbeing in the name of prodigality. Rather than the model of Galbraith on the gap in the market economy between infinite needs and limited means, Sahlins proposed a type of original model, a Zen road to affluence, in which the material needs were limited and technical means were very simple but adequate: «adopting the Zen strategy, a people can enjoy unparalleled material plenty – with a low standard of living»[32]. This emphatic and complacent presentation was followed by a critical presentation of an-

thropological documentation, and the conclusion that Neolithization was the beginning of a process of material and moral decay.

4. In what, in my opinion, is the best book in philosophical anthropology, Ernst Gellner reconstructed the three fundamental ecological stages in human history (hunting/gathering, agriculture and industry) in relation to fundamental human activities (production, coercion, cognition)[33]. The hunter-gatherer stage was not central to this work, simply serving as «a kind of starting point», a «kind of contrast or baseline», used to determine «what could *not* have happened then»[34]. However, Gellner addressed the central problem of the relationship between archaeological evidence, interpretations and reconstructions. Gellner started from the idea that «primitive man lived twice: once in and for himself, and a second time for us, in our reconstruction», and compared the ideas of Friedrich August von Hayek and those of Sahlins. The political spectrum between the right of Hayek and the extreme of Sahlins, with Veblen in the centre, was made possible by the lack of conclusive evidence, the incomplete and ambiguous character of evidence such as archaeological and ethnographic[35].

As already noted, the interpretation of Sahlins was built entirely on the Palaeolithic remains, on the few hunter-gatherers societies that survived, perhaps those that were quite atypical for the very fact that they had survived, and in marginal areas, in ecological conditions that were presumably worse than those of the Palaeolithic. Sahlins was aware of the fact that the anthropology of hunter-gatherers was in prone to such an anachronism: the survivors were «refugees, deported». For Gellner, they could also have been generated by agricultural, complex society.

However, there was another more central question, one that concerned the social morality of savages, immune from the ethics of work and free of abstract and impersonal norms, a social morality condemned by Hayek and praised by Sahlins. As observed by Gellner, at a factual level, these two positions were not «so very much in disagreement».

The thesis of Sahlins was nevertheless taken seriously by Gellner: it was not easy to refute because the survivors were «suspect witnesses», and especially since the archaeological evidence was ambiguous or incomplete[36]. Therefore whilst the question remained open, Gellner had no doubts regarding one point:

> What does, however, remain obvious is that, prior to the agricultural revolution, there simply was no possibility of a growth in scale and in complexity of the division of labour and social differentiation. These alone set the

scene, and the problems (in very different forms) for agrarian and industrial man, for *us*[37].

5. Schmidt's discovery gives new evidence, but perhaps above all revolutionises the understanding and periodization of the antiquity of man, removing a «philosophical-archaeological construction» that dated from the nineteenth century[38]. Göbekli Tepe is archaeological evidence of the social complexity before the so-called Neolithic Revolution. What questions can this pose to historians?

The history of the excavations of Göbekli Tepe and the interpretation of the data are contained in a work that has informative value and high scientific quality. Göbekli Tepe documents the material culture of hunter-gatherers. The excavated artefacts, the gigantic monolithic T-shaped pillars with bas-reliefs images of a wide range of wild animals, perhaps depict a symbolic system, probably a ritual center, most likely a central place or an aggregation site. The material remains are surely the traces of a stratified pre-agricultural society that was based on the division of labour, a society characterised by social and professional differentiation. The question posed at the end of the book is:

> What did mean to organise men in a place and to focus their work force for a long period of time in the production of a work and the achievement of a goal?[39]

The cultural interpretation and attempts to give full meaning to the megalithic structures and bas-reliefs present another set of problems, and, in my opinion, open a space for dialogue between archaeologists and historians, starting from sources and documentary traces. The idea of Schmidt (and many other archaeologists) is that the material source is objective, but also that the material sources are very different to written sources:

> Whilst men that speak to us through ancient written sources are immediately understandable, if all that remains is made of stone artefacts, however much we strive the message of a culture that disappeared about ten thousand years ago still remains elusive[40].

The difference between written and archaeological material sources is perhaps partly due to voluntary or non-intentional character of the documentation; however in both cases there are traces of a reality that can be reconstructed and interpreted. In any case, the engravings and

bas-reliefs of Göbekli Tepe, as well as cave paintings and carvings, are entirely intentional documents and monuments. In every case the fundamental analytical problem is that of the production of the sources[41].

Göbekli Tepe was probably a ritual site (or a central place?), but we do not know what they did there. Amongst other, as yet no burials have been found, and as we know, graves are documents and objects that contain the highest concentration of archaeological information. The excavated artefacts are perhaps the material traces of rituals. There are three ways of exploring the issue of belief: the use of other contemporary evidence, by comparison or as analogy, in a regressive way (for example by starting from the temples of ancient Greece?). This is in part the interpretive trail followed by Schmidt, from archaeological research to «personal impressions»[42]. However, can it be said that the excavated remains reflect the birth of religion or belief? Or that Göbekli Tepe is a «mountain sanctuary» and the T-shaped pillars are «the first monumental depictions of Gods»?[43]

The bas-reliefs of animals on the great circular T-shaped pillars pose problems similar to those concerning wall paintings, such as those, for example, in the Chauvet cave, in the Ardèche Valley, the oldest (Upper Palaeolithic) and richest prehistoric bestiary. Mesolithic bas-reliefs, as well as Upper Palaeolithic cave paintings, must have been preceded by thousands of years of figurative activities. As observed by Ernst Gombrich, contrary to nineteenth century evolutionary ideas, prehistoric painters and engravers operated on the basis of schemes and corrections[44].

Within a 200km radius of Göbekli Tepe, the intensive exploitation of wild cereals, the defence from animals, intentional selection and subsequent cultivation, could have been connected to the needs of the constructors and users of Göbekli Tepe. However, similarly, the traces of domestication and agriculture, uncovered and interpreted by archaeologists, could have been informed by thousands of years of empirical knowledge.

Göbekli Tepe is therefore an ending, not a beginning. It is a fundamental testimony of discontinuity, but a discontinuity different to that hypothesised by Morgan and by Childe.

The transition from hunting-gathering to food production is not determined by the necessity of survival imposed by nature or by climate change. Instead it is closely related to the construction of large centres that are also self-representations of elite hunter-gatherers. The transition from hunting-gathering to agriculture is determined by complex causes that are predominately social and cultural[45]: Sahlins' idea that cultural forms guide concrete human activities?

Göbekli Tepe, on the margins of the Fertile Crescent, is perhaps the product of abundance (vegetation, wild cereals, annual seeds crops, and associated herbivores) rooted in the climate changes of the Late Glacial Maximum: an abundance that would shortly have become materially and culturally depleted[46]. At the start of the eighth millennium (BP) the site was abandoned and intentionally buried, whilst at the same time Pre-Pottery Neolithic settlements were established in the lower valley. As thought by Childe, Neolithization was a revolution with a dramatic development, but in a different direction, at which point we can return to Sahlins.

6. In the Zen model of Sahlins (based on the «modern survivors»), social stratification and the division of labour are not important or were not present; pre-Neolithic society is characterised by egalitarian abundance[47]. As noted by Gellner, new archaeological evidence demonstrates that the survivors are perhaps «suspect witnesses». The element that has most impressed and intrigued many archaeologists and some that have resisted the recognition of the revolutionary character of Schmidt's discovery is the idea of social stratification in pre-Neolithic society. In the long debate concerning Neolithic Revolution, archaeologists have sought to explain how the social hierarchy and division of labour was the result of the introduction of agriculture and the accumulation of surplus, moving from an egalitarian to a stratified society[48].

Concerning the interpretation of this point, Schmidt is in agreement with Sahlins, but does not make reference to his work. The *Dark Age* of Pottery Neolithic, with the increase in working time, social inequalities, declining health, «gracilisation» (documented by archaeologists and paleopathologists), coincides with the Sahlins' idea of material and moral decay. It also coincides with the idea of Paradise lost (*Genesis*, 3, 22-24)? This idea perhaps explains the great importance of the discovery of Göbekli Tepe, and prehistoric archaeology in general, for a large audience.

7. Childe's idea of a Neolithic Revolution has had a long lasting influence on archaeology and anthropology and, in my opinion, has had an influence equally large, but largely hidden for historians. Independent of Göbekli Tepe, recent discussions of the Neolithization process has involved archaeologists and anthropologists. Could historians also be interested? Or, returning to the initial question: why is there no dialogue between archaeologists and historians, particularly modern and contemporary historians?

A part of this discussion took place between 2009 and 2013 in three monographic issues of «Current Anthropology»[49]. The discussion focused on the new data and new questions to existing information, but also concerning the refinement and transformations of interpretative paradigms («our theoretical thinking»). The editorial that opened the discussions underlined, not surprisingly, the long path since Childe's Neolithic Revolution of the 1920s, but also the discordant interpretations concerning the domestication of plants and animals[50].

In the introduction of *The Origins of Agriculture*, T.D. Price and O. Bar-Yosef reconstructed the transformation of the paradigms, from the hypothesis of climate change to the oases hypothesis, to the demographic interpretation of Lewis Binford (readdressed and refined by Mark Cohen)[51], to the idea that agriculture is «a form of coevolutionary adaptation of humans and wild plants»[52], to the cultural and religious explanations of Jacques Cauvin[53], to the perspective of evolutionary ecology (behavioral ecology)[54]. A concluding section on the «state of play» commented that:

> The simple fact is that we do not yet have a good grasp on the causes for the origins of agriculture. The how and the why of the Neolithic transition remain among the more intriguing questions in human prehistory[55].

Returning to Gellner we might say «in human history».

What is the cause of a very important event in the cultural history of mankind? Archaeology can describe the origins of agriculture but cannot explain it?[56] The most obvious, in different hypotheses, is the research of a single cause. The long debate on the cause can be summarized in two ways, from external causes (climate change and population growth) and internal causes (social change and religion). Obviously there is not a single cause, but all hypotheses concerning the transition from hunting-gathering to farming agree on the fact that the existence of «non-food specialists» is only possible with agriculture, a point on which Gellner was in no doubt. Göbekli Tepe seems to deny such certainty.

However, again the central theme is still that of the origin of agriculture, an idea that can be explored with two questions: «Why do hunters become farmers? Why is agriculture so dynamic in changing human adaptation and behaviour?». Focusing on the second question, hunter-gatherers return to the background[57]. The idea that hunter-gatherers left few visible archaeological traces is a significant problem: the cultural processes are dynamic phenomena, archaeological evidence is static[58]. This is also a conspicuous problem for historians. The new archae-

ological evidence published in the pages of «Current Anthropology» demonstrated that agriculture (the domestication of plants and animals) was independently established in a number of places (at least ten different places around the world, 11000-5000 BP), particularly in areas rich in resources and population, in contexts of plenty (such as the area around Göbekli Tepe), and not in poor, marginal zones. However, there is no shared consensus, rather an open discussion between «generalists» and «particularists», with many hypotheses and a great many questions, including the old question whether agriculture could have been «the worst mistake in the history of the human race» or an inevitable stage in the evolution of human society[59]. This is a question partly reminiscent of those posed by C. I. Jones concerning the Industrial Revolution[60].

The new questions and the refinement of interpretative paradigms in research documented by the special issues of «Current Anthropology» have also been made possible by new, highly sophisticated, extremely expensive research techniques (molecular approaches, mitochondrial DNA, Y-chromosome analysis), and by the close collaboration between archaeologists, archaeozoologists and archaeobotanists, genetists. However, for me, the most interesting element is the way in which discussions have been reopened. The discussions on the origins of agriculture have involved archaeologists and anthropologists, but not historians:

> Our symposium has emphasized the importance of a multidisciplinary approach to such large questions in order to assemble as much information as possible. We anticipate that the results and consequences of this symposium will have long-term ripple effects in anthropology and archaeology[61].

The dialogue between archaeologists and anthropologists is also based on the idea anthropology and archaeology are parts of a singular intellectual enterprise[62]. The attempts of anthropologists to engage in discussions are based on the idea that there is a central fundamental theme (for all social scientists) of human behaviour and cultural transformations. Does the lack of dialogue in the relationship between archaeology (prehistoric archaeology) and history depend on the self-sufficiency of archaeologists or the laziness of historians? I believe it be common knowledge that there is dialogue between archaeologists, ancient historians and medieval historians, albeit not on the issues at the centre of this essay. Ancient historians have come to terms with the devaluation of archaeology (from classical archaeology to industrial archaeology) by Moses Finley[63], but the dialogue is open particularly from the point of view of historical archaeology. I believe it to be a similar

in the case of medieval history, with discussions opened by historical archaeologists on written documentation and material culture[64].

8. Göbekli Tepe documents the material culture of a vast pre-Neolithic society characterised by professional and social differentiation. The theme of the «emergence of the non-food specialists» was addressed by J.L. Weisdorf in a 2003 discussion paper[65]. As a historian (not an archaeologist) I am interested in this point of view as Weisdorf, an economic historian with a strong interest in «economic growth theory» engaged in dialogue with Sahlins, but also with Ester Boserup, Douglass C. North, Robert Paul Thomas, Nils-Petter Lagerlof, and Charles I. Jones and constructed a theoretical model explaining any whatever type of economic growth, particularly the Industrial Revolution. Weisdorf's economic model, anchored to anthropological and archaeological literature, is built on the internal cause:

> We challenge the idea that external pressure is needed to have hunters and gatherers embarking upon time-costly agricultural techniques. Instead, we argue that organizational change in the form of a division of the labour force into food and non-food specialists, driven by exogenous improvements in food procurement technology was the prime factor behind the shift. The reason is that the goods produced by the non-food specialists compensated for the loss of leisure associated with the adoption of more productive but also more time-costely food procurement methods[66].

Obviously, the «non-food specialists» produce «non-food goods»: consumer and luxury goods, goods for the body and soul, goods which compensate the increase working time associated with agriculture[67].

Weisdorf challenges the classical distinction of prehistoric archaeology (starting from Morgan) between hunting-gathering and agriculture: the hunters and gatherers «are in fact able to influence the size of their food supply»[68], and therefore «the lines between the techniques that belong to foraging and those that belong to farming becomes somewhat blurred»[69]. Knowledge preceded the manifestations of morphological changes (markers of domestication) that can be regarded as the archaeological evidence of the domestication of plants and animals[70]. In the transition from hunting-gathering to agriculture, the transformation is perhaps the intermittent result of a long tension between empirical appropriation and the transmission of knowledge, and the techniques, and resistance to the introduction of agriculture that required an increase in the intensity of work. Weisdorf is in agreement with Sahlins[71], but also explains the very long time frame (thousands of years) that

in many cases elapsed between the understanding of the behaviour of plants (and perhaps some techniques for their domestication) and the rise of agriculture[72].

Hunting-gathering co-existed with agriculture for thousands of years and after the Neolithic Revolution, until the contemporary age. Foraging and farming, land clearance and intentional burning, tilling and watering, sawing, transplanting plants or replanting seeds were (and are) complementary techniques[73].

Perhaps unsurprisingly, to my knowledge, the most interesting ideas are of an archaeologist who worked on hunter-gatherers from the past to the present, from prehistoric archaeology to ethnography. Sensitively and with a very wide vision that had been matured in the cultural climate of anthropology and ethnography at the end of the 1960s, Marek Zvelebil demonstrated the co-existence of hunter-gatherers and farmers. Zvelebil highlighted the articulate and complex nature of pre-Neolithic society and the exchanges between «hunting-gathering communities» and «farming societies», the transformation of hunter-gatherer society in relation to the Neolithic society and in autonomous modes, but also the resistance to the adoption of agriculture and livestock husbandry in the north of Europe: the transition from the perspective of hunter-gatherers, with material culture at its' centre[74].

This is the theme of research of considerable interest to many historians, as well as being Weisdorf's concluding idea:

> If the adoption of more productive food procurement methods went hand in hand with the emergence of non-food specialists, the rise of agriculture bore the seeds for the later process of industrialisation and thus for economic growth[75].

Can we rethink the Industrial Revolution or question the grand narratives of English historiography? Can we reopen the ongoing discussions concerning take-off or preconditions? Or can we pose new questions to the subject of proto-industrialisation that have dominated economic history (and parts of social and demographic history) of the 1980s? Or, can we re-read after thirty-five years a book by Arno Mayer on the economic, social, cultural and political dominance of the landed gentry in the century of the second Industrial Revolution?[76]

Another theme of interest to historians, that discussions of the Neolithic Revolution sheds light on, is the interaction between animal and vegetation species and human agency. The interactions preceded the Neolithic Revolution and have influenced the entire subsequent history right up to genetically modified organisms. This is not so much the

idea of a «deep history», but rather, in my opinion, the possibility of identifying questions and refining analytical procedures that can possibly be shared by archaeologists, anthropologists, historical ecologists and historians[77]. Generalization is not in the answers, but rather in the questions that can have general significance and produce different answers in different contexts[78].

The dialogue between anthropology and archaeology is based on the clear fact that since Morgan, archaeology has made acquired and learned its sociological concepts from ethnography and anthropology. Alain Testart has indicated the reasons for the invisibility of the practice and social structures in the archaeological record, that are only material objects. However, even on this point Testart distinguishes too sharply archaeological, ethnographic, and historical sources, perceived entirely as written sources[79].

Archaeology and history are concerned with questions about the past. Perhaps the central theme that should interest historians of any period very much, and could encourage a denser dialogue between archaeology and history, is that of material culture[80], or material traces - in other words the ways in which different social groups shaped things, objects, utensils, buildings, machines, plants and animals, and landscapes - in the reciprocal interaction with different environments[81]; or, how the familiar world around us came to be[82].

9. The idea of the «original affluent society» was developed in the cultural climate at the end of the 1960s, and was in part inspired by Binford (archaeology as anthropology and ethnoarchaeology, with material culture and the practices of use of the land as a central feature) and by the fieldwork research of Woodburn, Lee and others. The interpretation of Sahlins perhaps was a Rousseauian idealization of hunter-gatherers[83]. In recent years, Sahlins and the hunter-gatherers have been recuperated by «sustainability science» and by discussions of «sustainable development», but also by evolutionary anthropology.

In a high level scientific publication in «Nature» in 2012 the following statement can be read:

> Studying modern foraging populations who depend on tools and resources similar to those of our ancestors is one of the few means we have of gleaning certain kinds of insight into the past[84].

Focusing on the reconstruction of Hazda relational networks (the various parameters of the networks: degree distribution, degree assortativity, transitivity, reciprocity, geographic decay, homophily), this art-

icle proposed to relate empirical regularities of social networks with the evolutionary process, based on the idea that the Hazda represent our late-Pleistocene ancestors:

To discover the possibly adaptive origins of human social networks, and their relationship to cooperation, we wanted to examine network features in an evolutionarily relevant setting, that is, in a population whose way of life is thought to resemble that of our early ancestors. Although cooperation is widespread in human societies, modern hunter-gatherers possibly exemplify this feature best – extensively sharing food, labour and childcare. It is likely that the high levels of cooperation observed in modern hunter-gatherers were also present in early humans.

Primitive man continues to live, «once in and for himself, and a second time for us, in our reconstruction»[85].

10. The conclusion of the celebrated work *Stone Age Economics*, contained a self-critical note: «All the preceding discussion takes the liberty of reading modern hunters historically, as an evolutionary base line. This liberty should not be lightly granted»[86]. In a highly critical, highly intelligent re-reading of the idea of the «original affluent society», Peter Rowley-Conwy observed that the idea and concept are needed by archaeologists to classify hunter-gatherers, between archaeology and ethnography, when centred on the problem of social complexity. Based on post-Sahlins archaeological and ethnographic literature, Rowley-Conwy arrived at the following conclusions:

There is no archaeological evidence that hunter-gatherers display an inherent trend from simple to complex. […] Archaeology provides sufficient examples to demonstrate that change can go either way: simple to complex, or complex to simple. Directional change towards incremental complexity is not supported by the empirical record.

The complexity is the (temporary?) result of «adaptive necessities». In fact, the concept of the «emergence of complexity» presupposes an earlier stage of «universal simplicity». Rowley-Conwy therefore challenges the sometimes implicit assumption that «change towards complexity is a step towards agriculture». Archaeological and anthropological literature on hunter-gatherer societies has highlighted extraordinary flexibility in form and variation. In my opinion, the general conclusion of Rowley-Conwy is splendid:

The flexibility, mobility and social equality of the Original Affluent Society may be the most remarkable and specialized social form that humans have ever evolved. It has no claim to be the original human condition[87].

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Notes

1 E.P. DURRENBERGER, *A Shower of Rain: Marshall Sahlins's* Stone Age Economics *Twenty-five Years Later*, in «Culture & Agriculture», 20 (1998), pp. 102-6.

2 M. SAHLINS, *Stone Age Economics*, Chicago 1972, p. xii.

3 A distinction and concept outlined by N.N.B. GRAS, *Anthropology and Economics*, in W.F. OGBURN, A.A. GOLDENWEITER (eds), *The Social Science and Their Interrelations*, Boston 1927, pp. 10-23, quoted by S. COOK, *«Structural Substantivism»: A Critical of Marshall Sahlins' Stone Age Economics*, in «Comparative Studies in Society and History», 16 (1974), pp. 355-79, p. 356.

4 One of the theoretical sources of microhistory? See E. GRENDI, *Polanyi: dall'antropologia economica alla microanalisi storica*, Milano 1978. I attempted a reconstruction of the historical genesis of microhistory in *Microstoria e microstorie*, in G. GALASSO (ed.), *Storia e politica*, Roma 2013, pp. 806-11.

5 See M. SAHLINS, *Culture and Practical Reason*, Chicago 1976.

6 The title of the first chapter of *Stone Age Economics* cit.

7 K. SCHMIDT, *Göbekli Tepe, Southeastern Turkey. A Preliminary Report on the 1995-1999 Excavations*, in «Paléorient», 26 (2000), pp. 45-54.

8 L.H. MORGAN, *Ancient Society*, London 1877.

9 This book contained in ex-ergo an excerpt from Joseph Kaines: «Our wondrous civilization is the result of the silent efforts of millions of unknown men, as the chalk cliffs of England are formed by contribution of myriads of foraminifera» (*Anthropology*, London 1873). This idea could perhaps still explain the extraordinary success of prehistoric archaeology.

10 F. ENGELS, *The Origin of the Family, Private Property and the State* (1884). The sequence outlined by Engels is as follows: savagery = appropriation of natural products; barbarism = knowledge of cattle breeding and land cultivation; civilisation = industry and art. «In the infancy of the human race [the lower stage], man still lived in his original habitat […], dwelling, at least partially, in trees».

11 MORGAN, *Ancient Society* cit., pp. v-vi.

12 ID., *The League of the Ho-de-no-sau-nee or Iroquois*, Rochester 1851. «Since mankind were one in origin, their career has been essentially one, running in different but uniform channel upon all continent, and very similarly in all the tribes and nations of mankind down to the same status of advancement. It follows that the history and experience of the American Indian tribes represent, more or less nearly, the history and experience of our own remote ancestors when in corresponding conditions»: *Ancient Society* cit., p. vii.

13 See E. TOOKER, *Lewis H. Morgan and His Contemporaries*, in «American Anthropologist», 94 (1992), pp. 357-75, based on the Morgan Papers, University of Rochester Library.

14 G. CHILDE, *The Dawn of European Civilisation*, London - New York 1925, Preface.

15 Quoted from the fully revised sixth edition - New York 1958, p. 15: «Stock-breeding and the cultivation of cereals were revolutionary steps in man's emancipation from dependence on

the external environment. They put man in control of his own food-supply so far that population could – and did – expand beyond the narrow limits imposed by the naturally available supply of wild fruits and game». This first revolution faciliates the «second revolution» based on the establishment of cities and new forms of social stratification.

16 See C. GAMBLE, *Origins and Revolutions: Human Identity in Earliest Prehistory*, Cambridge 2007.

17 V.G. CHILDE, *Retrospect*, in «Antiquity», 32 (1958), pp. 69-74, p. 70.

18 Ivi, p. 69.

19 M. ZVELEBIL, *Farmers our ancestors and the identity of Europe*, in P. GRAVES BROWN, S. JONES, C. GAMBLE (eds), *Cultural Identity and Archaeology*, London 1995, pp. 145-66.

20 R.B. LEE, I. DEVORE (eds), *Man the Hunter*, Chicago 1968 (second edition, Chicago 2009).

21 M. SAHLINS, *Notes on the original affluent society*, in *Man the Hunter* cit., pp. 85-9.

22 ID., *La première société d'abondance*, in «Les Temps Modernes», 268 (1968), pp. 641-80.

23 M.J. HERSKOVITS, *Economic Anthropology. A Study in Comparative Economics*, New York 1952

24 *Preface*, pp. v-ix: «The change in title represents a reorientation in point of view that goes far beyond the question of mere terminology. Ten years ago, the word "primitive" came easily to the lips. It is only with the rapid development of communications of the past decade, and the growing integration of peoples of the most diverse cultures into the world scene, that the essentially pejorative and tendentious character of this designation, like others such as "savage", or "early", when applied to any functioning way of life, became apparent».

25 Chapter IV: «Getting a living». Also see «Map of tribal and place-names», I e II, pp. 548-50, with cited example of ethnography.

26 SAHLINS, *Stone Age Economics* cit., p. 14: «A good case can be made that hunters and gatherers work less than we do; and, rather than a continuous travail, the food quest is intermittent, leisure abundant, and there is a greater amount of sleep in the daytime per capita per year than in any other condition of society».

27 This appears to be an idea based on that of Morgan. See above note 12.

28 See L.R. BINFORD, S.R. BINFORD (eds), *New Perspective in Archaeology*, Chicago 1968.

29 See L.R. BINFORD, *Post-Pleistocene Adaptations*, in *New Perspective in Archaeology* cit., pp. 313-41.

30 L.R. BINFORD, *Nunamiut Ethnoarchaeology*, New York 1978, with the wonderful ethnographic reconstruction of the practices of caribou hunting and butchering. The theoretical fundamentals of «new archaeology» in ID., *Archaeology as Anthropology*, in «American Antiquity», 28 (1962), pp. 217-25, with a citation of M. SAHLINS, *Social Stratification in Polynesia,* Seattle 1958.

31 «The Social Organization of Prehistoric Communities». The papers presented at the conference were published in *New Perspective in Archaeology* cit.

32 SAHLINS, *Stone Age Economics* cit., p. 2.

33 E. GELLNER, *Plough, Sword and Book. The Structure of Human History*, London 1988.

34 Ivi, p. 275.

35 Ivi, pp. 25-35. The texts are as follows: F. VON HAYEK, *The Three Sources of Human Values*, London 1978; T.B. VEBLEN, *The Theory of the Leisure Class*, New York 1899.

36 Gellner's interest probably began with dialogue with James Woodburn, author of the classic work on the Hazda: *Hunters and Gatheres: The Material Culture of the Nomadic Hazda*, London 1970. A work by Woodburn (*Hunters and Gatheres Today and the Reconstruction of the Past*) was published in 1980 in a volume edited by Gellner: *Soviet and Western Anthropology*, New York 1980. See GELLNER, *Plough, Sword and Book* cit., p. 33 and note 16. Gellner dicussed the hypothesis of Woodburn on the links between the origins of agriculture and an attempt

to create and consolidate a series of long-term obligations (agriculture as work with a delayed return) or transition from an «immediate return» economy to a «delayed return» economy.

37 Ivi, p. 37.

38 K. SCHMIDT, *Costruirono i primi templi. 7000 anni prima delle piramidi*, Sestri Levante 2011 (original version: *Sie bauten die ersten Tempel. Das rätselhafte Heiligtum der Steinzeitjäger*, München 2006). The expression «philosophical-archaeological construction» is of Roberto Maggi, a prehistoric archaeologist who encouraged the Italian translation of this book.

39 Ivi, p. 236.

40 Ivi, p. 10; R. MAGGI, *Il passaggio del testimone*, in R. CEVASCO (ed.), *La natura della montagna*, Sestri Levante 2013, p. 43 (in general, and in particular with reference to environmental archaeology).

41 It seems somewhat different to the perspective of Alain Testart, which clearly distinguishes between archaeological, ethnographic and historical sources: A. TESTART, *Avant l'histoire. L'évolution des sociétés, de Lascaux à Carnac*, Paris 2012, chapter IV.

42 From the *Introduction* of 2007, in the Italian translation, p. 10. Schmidt's interpretation is critically discussed by E.B. BANNINGS, *So Fair a House. Göbekli Tepe and the Identification of Temples in Pre-Pottery Neolithic of the Near East,* in «Current Anthropology», 52 (2011), pp. 619-60, with an appendices Comments. Bannings criticised the «ethnocentric distinction between sacred and profane spaces», based on Durkheim.

43 K. SCHIMDT, *Göbekli Tepe-the Stone Age Sanctuaries*, in «Documenta Archaeologica», XXXVII (2010), pp. 239-56.

44 E.H. GOMBRICH, *Art and Illusion. A Study in the Psychology of Pictorial Representation*, London 1960, II, ch. 3, «Pygmalion's Power».

45 O. DIETRICH *et al*., *The role of cult and feasting in the emergence of Neolithic communities. New evidence from Göbekli Tepe, south-eastern Turkey*, in «Antiquity», 86 (2012), pp. 674-95. Citation of the abstract of this work: «At the dawn of the Neolithic, hunter-gatherers congregating at Göbekli Tepe created social and ideological cohesion through the carving of decorated pillars, dancing, feasting – and, almost certainly, the drinking of beer made from fermented wild crop».

46 Thanks to Roberto Maggi for introducing me to this apparent paradox.

47 On the egalitarian society see the classic work of J. WOODBURN, *Egalitarian Societies*, in «Man», 17 (1982), pp. 431-51.

48 On the theme of the «emergence of complexity» T.D. PRICE, J.A. BROWN (eds), *Prehistoric Hunter Gatherer: The Emergence of Cultural Complexity*, New York 1985.

49 Vol. 50, 2009: *Rethinking the Origins of Agriculture*; vol. 52, 2011: *The Origins of Agriculture: New Data, New Ideas*; vol. 54, 2013: *Alternative Pathways to Complexity*.

50 M. ALDENDERFER, *Editorial: The Continuing Conversation about the Origins of Agriculture*, in «Current Anthropology», 50 (2009), p. 585.

51 M.N. COHEN, *The Food Crises in Prehistory. Overpopulation and the Origins of Agriculture*, New Haven 1977: an extension of the theory of Ester Boserup?

52 D. RINDOS, *Symbiosis, Instability, and Spread of Agriculture. A New Model*, in «Current Anthropology», 21 (1980), pp. 751-72; ID., *The Origins of Agriculture: An Evolutionary Perspective*, London 1984.

53 J. CAUVIN, *Naissance des divinités, naissance de l'agriculture: la révolution des symboles au Néolithique*, Paris 1994.

54 See, for example, K.J. GREMILLON, D.R. PIPERNO, *Human behavioral ecology, phenotypic (developmental) plasticity, and agricultural origins*, in «Current Anthropology», 50 (2009), pp. 615-9.

55 T.D. PRICE, O. BAR-YOSEF, *The Origins of Agriculture: New Data, New Ideas. An Introduction to Supplement 4*, in «Current Anthropology», 52 (2011), p. S168.

56 F. GIUSTI, *La nascita dell'agricoltura*, Roma 1996.

57 «Even the must complex hunter-gatherer adaptations did not modify the landscape to a large extent or leave many traces that are visibly on the surface of the earth today»: PRICE, BAR-YOSEF, *The Origins of Agriculture* cit., p. S171.

58 *Ibidem*.

59 Ivi, p. S168; other questions opened on p. S172. The notion of «the worst mistake» is included in the title of the celebrated work by Jared Diamond (*The Worst Mistake in the History of Human Race*, in «Discover Magazine», 8, 1987, pp. 64-6). Diamond does not cite Lee nor Sahlins, even if he surely plagarised Lee. This is also the style of his most famous work, *Guns, Germs, and Steel. The Fate of Human Societies*, New York 1997.

60 C.I. JONES, *Was an Industrial Revolution Inevitable? Economic Growth over the Very Long Run*, in «Advances in Macroeconomics», 1 (2001), pp. 1-43.

61 PRICE, BAR-YOSEF, *The Origins of Agriculture* cit., p. S163. The dialogue perhaps has roots in BINFORD, *Archaeology as Anthropology* cit.

62 On anthropology and archaeology as parts of the same intellectual enterprise, T. INGOLD, *Editorial*, in «Man» (N.S.), 27 (1992), pp. 693-6, and from a more analytical perspective, ID., *The Temporality of the Landscape*, in «World Archaeology», 25 (1993), pp. 152-74.

63 M.I. FINLEY, *Archaeology and History*, in «Daedalus», 100 (1971), pp. 168-86, reprinted in ID., *The Use and Abuse of History*, London 1975.

64 A. ANDRÉN, *Between Artifacts and Texts: Historical Archaeology in Global Perspective*, Austin 1990; J. MORELAND, *Archaeology and Text*, London 2001; J.M. HALL, *Artifact and Artifice: Classical Archaeology and the Ancient Historian*, Chicago 2013. It appears that the theoretical and methodological discussions are dominated by archaeologists: for example the works of Richard Hodges in the 1980-90s, and perhaps in *Dark Age Economics* (London 1982) there was an echo of *Stone Age Economics*. Amongst the most recent works, R. GILCHRIST, A. REYNOLDS (eds), *Reflections: 50 Years of Medieval Archaeology 1957-2007*, Leeds 2009; J.G. SCHRYVER (ed.), *Studies in the Archaeology of the Medieval Mediterranean*, Leiden 2010.

65 J.L. WEISDORF, *Stone Age Economics: The Origins of Agriculture and the Emergence of Non-Food Specialists*, University of Copenhagen, 2003; see also ID., *From Foraging to Farming: Explaning the Neolithic Revolution*, in «Journal of Economic Surveys», 19 (2005), pp. 561-586.

66 ID., *Stone Age Economics* cit., p. 3.

67 Ivi, p. 10: «non-food goods may also consist of protection and salvation». I have taken the idea of the «physically and spiritual goods» from R. AGO, *Il gusto delle cose. Una storia degli oggetti nella Roma del Seicento*, Roma 2006 (english translation *Gusto for Things*, Chicago 2013).

68 Weisdorf cites the example of the use of fire (Australian aborigines); also see S.J. PYNE, *Fire in America. A Cultural History of Wildland and Rural Fire,* Princeton 1982 and F. SIGAUT, *L'agriculture et le feu. Rôle et place du feu dans les techniques de préparation du champ dans l'ancienne agriculture européenne*, Paris 1975.

69 WEISDORF, *Stone Age Economics* cit., p. 7. This problem is discussed in original form by T. INGOLD, *From Trust to Domination*, in ID., *The Perception of Environment: Essays on Livelihood, Dwelling and Skill*, London 2011, pp. 61-76, where Ingold criticises the conventional dichotomy between «wildness» and «domestication». Ingold also discussed Sahlins and Woodburn.

70 Wild grains, cereals and legumes were probably cultivated for a long time before undergoing morphological transformations reavealed by archaeological and archaeobotanical research: D. STORDEUR, G. WILLCOX, *Indices de culture et d'utilisation des céréales à Jerf el-Ahmar*, in *De Méditerranée et d'ailleurs… Mélanges offerts à Jean Guilaine*, Toulouse 2009, pp. 693-710. See M. ZEDER, *The Origins of Agriculture in the Near East*, in «Current Anthropology», 52 (2011), pp. S221-S235: «a long period of human management preceded the manifestation of archaeologically dectable morphological change».

71 WEISDORF, *Stone Age Economics* cit., p. 2: «Considering the fact that cultivation techniques are time-costly, meaning that hunters, contrary to common belief, worked less than early farmers, and that the transition to agriculture involved little or no increase in standard of living, the reluctance to take up farming is hardly surprising».

72 M. ZVELEBIL, *Who were we 6000 years ago? In search of prehistoric identities*, in M. JONES (ed.), *Traces of Ancestry. Studies in Honour of Colin Renfrew*, Cambridge 2004, pp. 41-60.

73 A. SHRYOCK, D.L. SMAIL, *Deep History. The Architecture of the Past and Present*, Berkeley 2011, p. 147. On the ambiguity of this «broad middle ground between wild and domestic», see ZEDER, *The Origins of Agriculture* cit., p. S231.

74 M. ZVELEBIL (ed.), *Hunters in Transition. Mesolitic Societies of Temperate Eurasia and Their Transition to Farming*, Cambridge 1986; M. ZVELEBIL, P. ROWLEY-CONVY, *Transition to farming in Northern Europe: a hunter-gatherer perspective*, in «Norvegian Archaeological Review», 17 (1984), pp. 104-28. For the reading of the work of Schmid, and the cultural interpretation of Göbekli Tepe, is relevant M. ZVELEBIL, P. JORDAN, *Hunter-fischer gatherer ritual lanscapes*, in J. GOLDHAHN, *Rock Art as Social Representation*, BAR International Series 794, Oxford 1999, pp. 101-27.

75 WEISDORF, *Stone Age Economics* cit., p. 19.

76 A. MAYER, *The Persistence of the Old Regime: Europe to the Great War*, New York 1981.

77 It appears that this point is not the considered centre of the so-called «deep history»: SHRYOCK, SMAIL, *Deep History* cit.

78 Perhaps the most important acquisitions, but least understood, of microhistory (especially in the work of Giovanni Levi).

79 TESTART, *Avant l'histoire* cit., pp. 157-63; ID., *Comment consevoir une collaboration entre anthropologie sociale et archéologie? à quel prix? et pourquoi?*, in «Bullettin de la Société préhistorique de France», CIII (2006), pp. 385-95.

80 See SHRYOCK, SMAIL, *Deep History* cit., chapter 9, «Goods».

81 The theme of reciprocal interaction and of the «form-giving process» is central to the work of Tim Ingold: for example *The Perception of Environment* cit., particularly, for the theme discussed here, *Hunting and gathering as ways of perceiving the environment* (pp. 40-60).

82 M.A. ZEDER, *Central Questions in the Domestication of Plants and Animals*, in «Evolutionary Anthropology», 16 (2006), p. 116.

83 COOK, *Structural Substantivism* cit., pp. 361-2.

84 C.L. APICELLA *et al.*, *Social Networks and Cooperation in Hunter-Gatherers*, in «Nature», 481 (2012), pp. 497-501, an example of network study on the previously cited example of the Hazda of Tanzania. In general, cfr. F.W. MARLOWE, *Hunter-Gatherers and Human Evolution*, in «Evolutionary Anthropology», 14 (2005), pp. 54-67, p. 54: «the ethnographic record of foragers provides the only direct observations of human behaviour in the absence of agriculture, and as such is invaulable for testing hypotheses about human behavioural evolution». This idea is similar to that of Binford: ethnographic research is a way of understanding and interpreting archaeological data. The Hazda, as we have already seen, were an important ethnographic example for Sahlins.

85 GELLNER, *Plough, Sword and Book* cit., p. 22.

86 SAHLINS, *Stone Age Economics* cit., p. 38.

87 P. ROWLEY-CONWY, *Time, Change and the Archaeology of Hunter-Gatherers: How Original is the «Original Affluent Society»*, in C. PANTER-BRICK, R.H. LAYTON, P. ROWLEY-CONWY (eds), *Hunter-Gatherers. An Interdisciplinary Perspective*, Cambridge 2001, pp. 39-72, pp. 52-3, 58, 64-5.

COMMENTS

SOME REFLECTIONS FROM THE PREHISTORIAN'S ANGLE

The author of this contemplative paper focuses on (for the most part) missing common thinking between archaeologists and historians. Sister disciplines should be, indeed, in continual dialogue – so, thanking for the possibility, I have been gladly making thoughts on the piece by Osvaldo Raggio, a historian colleague. Setting the scene into questions of the turn to food production and sedentary life, he focuses on two specific points, as if they were two nails in between he intends to expand the discourse about the Neolithic transition. In this short reflection note I shall summarize some arguments that can be set parallelly or can be considered as an alternative to Osvaldo Raggio's premise. My reactions are clearly coming from a prehistorian's angle, and as to the question of Neolithic transition, some of my examples come from the Danubian Valley in South East and Central Europe. Further, as a special flavour, I shall also make a small detour in the archaeology behind the one-time iron curtain, in order to make the pitfalls of the mere economic approach even more clearly.

One of these «nails» is the work by M. Sahlins, titled *Stone Age economics* that was published forty-four years ago. Sahlins' main statement about the «The Original Affluent Society» leads the reader through an extended contemplation on hunter-gatherer societies, their natural and social environment. This *economic anthropological* approach, along with the forty-four years that passed since the publication of his work *Stone Age economics* is one starting point of this essay.

It must be noted that this work alone had no ground-breaking effect on the major part of research into the earliest Neolithic, certainly not the research of the first farmers' history in Europe. Sahlins, along with a series of representatives of the «new archaeology», put important questions to a specific issue, related to the big question, the Neolithic transition. The first key questions of the transition – actually pri-

or to having made any thoughts about the appearance of social competitiveness and the formation of social ranking – at least that South Eastern, Central and West European archaeologists were focusing on, were those about the peopling of the Neolithic villages. Archaeologists were deeply engaged with questions like «Does this emerge with migrant farmers, was it rather an adaptation of local hunter-gatherers who seemed to be culturally "ready" for adapting the Neolithic inventions – or can we speak about a constantly changing mixture between these two extreme scenarios»[1]? The «migrationist» and the «indigenist» approach proved to be somehow connected with the type of the archaeological material that happened to be investigated. The pottery experts argued for a migration, since the crafting of clay pots, the know-how, the *chaîne-operatoire*, the types and their decoration are all rooted in the South East, in the Balkans, in the Aegean, further in Anatolia and originally in the *Fertile Crescent*. Other experts who dealt with the stone implement types, the provenance of their raw materials and the long-distance networks that can be drawn on the basis of these data, are mostly arguing for the continuity of hunter-gatherer population into the Neolithic. According to these archaeologists, the late Mesolithic foragers must have turned to the sedentary life with the help of their own invention, maybe triggered by adopting some knowledge through exchange networks, but basically without any groups of foreign people coming in. This is a clear consequence of the Mesolithic chipped stone implement types that were often used on continuously for several generations after they had been settled and became farmers. Certainly, the European geographic region investigated played a crucial role in this sharp distinction: the more northwest archaeologists would search for the elements of the early Neolithic, the less important the original Balkan «clay world» became and the larger proportion was preserved from the hunting and gathering lifestyle.

Within this debate, some help arrived from the hard sciences. The exact radiocarbon chronology (nowadays evaluated with the Bayesian statistics, in order to gain more precise dates) became decisive: now we can follow the decade-long micro-histories of some of the complicated the neolithisation processes. After a long and heated discussion about a DNA analysis: whether or not they are a valid method for making inferences for the prehistoric past, recent archaeogenetic results made on prehistoric skeletal samples decided the question: a vast majority in the first farmers' gene pool comes from Anatolia, so we have to reckon with a massive migration from South East Europe in the 7th-6th Millennium BC[2]. Meanwhile, the proportion of Mesolithic haplogroups grows considerably in groups of farmers over more northerly and west

lying regions of Europe[3]. A third fact is that after three or four generations of the Neolithic farmers' life, in several cases a certain increase of hunter-gatherer genetic traces can be observed, this phenomenon becomes visible e.g. in Central Europe, in the Carpathian basin and in Moravia. This latter phenomenon is, on the rule, explained with the rather timid reaction of Mesolithic foragers at the arrival of the first farmers. The hunter-gatherer groups may have withdrawn to higher, wooded and mountainous areas where they could carry on with their original way of life. The later increase can be explained with the exchange of goods between them and sedentary farmers, so that shortly after the establishment of exchange networks, genetic mingling through marriages apparently also occurred[4].

This broad – integrationist – picture is hardly questioned any more. Yet, it has become clear that countless environmental and social circumstances made this process – perhaps described as simple – enormously compound.

Migration or innovation/adaptation has become only a part of archaeological discourse in the last decades. Environmental, climatic and geographic arguments on the one hand, statements on the health status and demographic changes, on the mental (cognitive) changes and on their social organisation including e.g. ritual paraphernalia within the early farming groups has been also thoroughly investigated. It may be an economic argument or any other: focusing on just one facet of this extremely many-faced transitional period of European prehistory can be perhaps understood as picking one single piece of straw from a pile. This, according to what the essay suggests, might sometimes highlight an attitude that tells us about a progressive human development: from the simple toward the complicated, from the primitive towards the more developed.

This intriguing thought was remarkably typical of some of the 20th century, let alone of the Marxist philosophy, or, in a broader sense, the official socialist ideologies behind the iron curtain. Osvaldo Raggio is right to quote V.G. Childe, who was influenced by Marxist thought and who implemented it for the beginning of sedentary life with such a ground breaking effect that it emerges even today: «The escape from the impasse of savagery was an economic and scientific revolution […] this was the first step in the Neolithic revolution, and suffices to distinguish barbarism from savagery»[5]. Childe[6], equated true knowledge mainly with technological advances at the time ultimately regarded by prehistorians the world over as a progress in economic strategies, spread mainly by colonisation[7]. According to this view, i.e. that the process can be seen as a response on merely environmental circumstances, or specif-

ically economy in Sahlins' sense had an impact on thinkers of processual archaeology, of both the cultural historical and, later, the cultural ecological perspective[8]. Binford, following Childe, also focussed on the economy as a whole, the access to resources, considering this the only really significant criterion in the process[9]. Marxist archaeologists saw the Neolithic revolution as a *gloire* of human creativity.

These reasons, among others, put the Neolithic transition interpreted mainly from the view of the changes in subsistence and economy, in the background. While Sahlins' ideas deserve consideration, they are not much of a help to the better understanding of the complexity of the turn to sedentary life. The idea of proceeding from simple and primitive towards the more developed cannot be maintained on a general base.

And here is the small detour. The thought of the «Neolithic revolution» seen as from the perspective of «Socialist» research history, can also add some interesting facets to this economic approach. The theory of the rapid adoption of a sedentary life-style and of food production, regarded not only as a revolutionary but also as an evolutionary step, seems to have correlated well with basic tenets of Socialist propaganda on Man's glorious conquest of Nature, and with narratives on the progress from primitive towards technological advancement. The parallels between prehistoric research and the political targets of socialism raises the question of whether some prehistorians writing on the transition to the Neolithic had deliberately bowed to the ruling ideology, or whether this was part of the *Zeitgeist*, i.e. of a broader trend in time and space, implying that the proponents of revolutionary change genuinely believed in what they wrote.

For Soviet archaeologists, the idea of the spread of agriculture was principally seen as evolutionary in the Darwinian sense[10] whilst it was revolutionary regarding its vision of being a rapid, singular event, which had an irreversible impact on the entire later course of (pre)history. Clearly, the idea of man's conquest of Nature was one of the key concepts of the Socialist world, an ideology taught from elementary school onward as reflecting human development and evolution, which harmonised with the Marxist idea of progress from the primitive towards the more developed. This premise turned into a series of economic and political actions including arbitrary, human-induced changes to natural biotopes and habitats, which caused major destruction in natural landscapes[11].

The process into the food producing, Neolithic way of subsistence may not even have been unidirectional. Let me give an example for this, again from the Middle Danube Basin. Our current view on the first farmers' life is now clearer, and it has led to the perception that

farming and a sedentary life-style was not fully advantageous. In the area where the Bandkeramik (LBK) was formulating, in the western Carpathian basin, for the time span of some generations it was not quite clear, whether local foragers would turn to farming – or if immigrant farmer groups, having arrived to a marginal zone where the Balkan way of Neolithic lifestyle became difficult, would rather revert to foraging. There are several archaeological signs for this lingering of «uncommitted» times: small and scattered early LBK settlements on riverine and lacustrine landscapes that were feasible for traditional Mesolithic activities like fishing, collecting shells or hunting, rather than for ploughing the bad soils for cultivating domestic plants. The chipped stone instruments also reflected a rich scale of activity, instead of concentrating just a few types, which would serve for harvesting corn or peeling animal skin. Generally, prehistorians try to set out from firm archaeological data, but in some cases, like while trying to understand the choice of these first farming communities in the Lake Balaton region, there cannot be any doubt that these interpretations reflect a certain deconstruction. It is something like tracing back the intentions of small groups, perhaps of individual agents. The necessity for this brings in the thought of relativeness of major strands of archaeological narratives – a sign of postprocessual (postmodern) thinking. New interpretations of the Neolithic transitions blend various ideas and definitions adopted from anthropology and other strands that are alien to purely archaeological methods, but exactly through this, are ready to get involved with other sister-disciplines, including later historic approaches.

Knowing that the idea of the Neolithic revolution was the target of a similar deconstruction as several other processual ideas and came under heavy postmodern (and sometimes nationalistic) critique, the tentative answer will be influenced by the growing awareness that our perception of prehistory is influenced by our own era and cognition.

When contemplating on the nature of the neolithisation process, Osvaldo Raggio brings a newly discovered preneolithic archaeological site into the discussion, which, according to him, «could destroy, perhaps definitively, primitivism». His second «nail» that serves to fix his thoughts to expand, is the north Mesopotamian site Göbekli Tepe. This superb site was found and excavated by German experts (as a project of the German Archaeological Institute, headed by the late Klaus Schmidt), and now, as a highlight of Turkish archaeology in the Şanliurfa region near the Syrian border, became somehow a symbol of the surprisingly and incomprehensively high social organisation by preneolithic people. In this context, two factors have to be emphasised.

First, the majestic site of Göbekli Tepe was not standing alone. In fact, there are several sites in the vicinity, partly similar to Göbekli, partly, however, rather «normal» settlements with houses. The so-called Pre-Pottery Neolithic, which has an early (A) and a later (B) phase, is best known from the northern and western part of the *Fertile Crescent* region, i.e. from the Euphrates Valley and the Levante. Taking into account a series of sites like Hallan Cemi, Nevali Çori, Cayönü, Göbekli Tepe, Abu Hureyra, Mureybet, Nemrik, Jerf el Ahmar etc.[12], one can challenge the thought that becoming committed to a certain place and large-scale communal efforts were not induced by changing of subsistence, the turn to sedentary life and agriculture, but by building central and ritual places. In other words, the social systems might have changed before, not as a result of, the shift to farming.

Further strong examples for symbolic thinking even beyond architecture, like the Ain Ghazal site with large figurines which had cowri snails placed for their eyes, can be added to this vision. These sites all show up a stunning symbolic florescence. Hence the new questions, that were put by the present author too: how is such a highly developed organization without the achievements of the settled life and agriculture conceivable? Experts of Near Eastern and archaeology and anthropologists turned to the cognitive aspects of the Neolithic transition[13] and also, to the possible – and probable – symbolic contents[14]. According to these thoughts, the power to organize people and to build monuments must have been initiated by the wish for ceremonies, thus, again and more clearly, the symbolic thinking predated any economic changes. A kind of social will must have emerged first, a need to act together, which has roots in the transitional, epipalaeolithic and pre-pottery Neolithic times of the Near East.

In a broader European perspective, over vast regions in the West and the North, there are places of megalithic monuments (to which, after all, Göbekli Tepe also belongs as its huge stone monuments are erected to stand for eternity), where earlier traces of human activity are traced back. Besides or under the megaliths often the imprints of wooden posts are found, indicating that important ritual scenes might go back to Mesolithic times[15]. While it has to be emphasized that Göbekli changed our view in terms of the creation of human-made environment, much before the Neolithic transition, it becomes also beyond doubt that many facets of the Göbekli people, such as the constant manipulation with the pillars and stone circles, the intentional backfillings, the ritual use of animal bones, fragmented human remains and some of their stone depictions are parts of ritual paraphernalia that foreshadow the millennia long lasting similar habits over the whole of farming Eu-

rope, from Çatalhüyük in Central Anatolia, until monuments building like Stonehenge in southern Britain[16].

Clearly, by the time the achievements – and now we know, the people along with them – reach the Aegean coasts and follow the major Balkan river valleys until their descendants reached the Danube and Central Europe, this previously existing symbolic thinking melted with other facets of the Neolithic «package». Yet, it is clearly present in the thousands of small clay figurines, house models, anthropomorphic vessels. This is South East European, South Danubian Neolithic world: the houses, thousands of pottery and hundreds of small cult objects so the majority of the materiality and also the monuments of symbolic thinking are made of clay.

Following the Neolithic lifestyle northwards, it becomes apparent that reaching central Europe, this symbolic system of clay changes for more wood and more stone. Central places are not any more in the middle of houses built in a circle. Instead, the inhabitants of several villages make joint efforts to put up huge, mostly empty circles, divided from the rest of the landscape by small and shallow ditches that cannot be interpreted anything else but symbolic. The number and abundantly corpulent clay figurines and the other objects fade away, in Central and Northern Europe the symbolic thinking seeks for other forms for epiphany.

The above briefed sequence had firm and heavy economic causes and effects. Just to name an example, after the few generations of transition mentioned above, the early Danubian LBK communities changed their architecture. From the smaller clay wattle and daub they began to construct buildings to a majestic timber structure of often 30 meters long. This was a necessary response to the cooler and more rainy, snowy climate, which would melt the clay while actions that make a larger group of people closely working together became of key importance. Adaptation, the sober mind, experience, the actions of creative individuals and smaller groups (agency – a postmodern word for this) are all facets, which cannot be overemphasized in the process of the spread of the Neolithic in Europe. The question can be posed, which was first, and which can be regarded as more important in the Neolithisation process. We are surely on the wrong path if we take as the leading factor exclusively one or the other, the *Stone Age economy*, or the power of the cognition, symbolic interpretations of phenomena in the house, in the settlement, in the landscape and in the world around. For an archaeologist, the process can be seen as a coherent system of many faces, as an enormous pile that offers countless small details to investigate. Yet, even when scrutinizing the tiniest find type or phenomenon, the sight

of this big pile, i.e. the compound nature of the transition to farming and settled life, must not be lost. Is this, perhaps, a good parallel to any later periods, to be studies by historians?

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ACADEMIC CATEGORISATION AND HUNTER-GATHERER PRACTICES

Studies of the transition from hunter-gatherers to farmers raise a number of intriguing issues related to the categorisation of communities, be they prehistoric, ethnographic or academic. The discovery of the many large ritual enclosures at Göbekli Tepe[1] in Southeastern Turkey pre-dating farming and domestication was a huge surprise also to the academic community. The questions are: why was it such a surprise, and what may be learned from this?

Revisiting Marshall Sahlins' *Stone Age Economics* (1972[2]) and contemporary publications by Richard Lee (notably *Man the Hunter*[3]) and Lewis Binford, Osvaldo Raggio[4] contemplates how this research in the late 1960s and -70s changed our perceptions of the development from hunter to farmer. These publications initiated a remarkable cross-disciplinary re-orientation in the recognition of the social and economic situation and capacities amongst hunter-gatherers. The traditional evolutionary view had portrayed early and contemporary foraging communities as intellectually, socially and economically inferior, albeit not completely without potential for innovative developments, which in a few unique cases led to development and the assumed higher living standard achieved through farming and herding. The new neo-evolutionary perspective acknowledged hunter-gatherers as different, but on an equal basis with any other economic way of life, and in some cases emphasized some arguable advantages of this life style, such as greater social equality and fewer work hours needed to meet basic subsistence requirements. Since then, research has confirmed that domestication was not the invention of a single particularly gifted individual or society, but has taken place independently many times and many places[5], yet another recognition of the general developmental potential in these groups.

While hunter-gathers and farmers are now considered equals in ethically and politically correct models and evolutionary schemes, they are however, still set apart from farmers, herders, chiefdoms and states in almost all such categorising attempts. Beyond archaeology and anthropology there is limited knowledge of hunter-gatherers and rather conservative perceptions of these societies are often presented in grand theories of human evolution. More worrying is perhaps the fact even scholars researching hunters and farmers tend to discriminate the former by continuing this categorisation and the many associated explicit and implicit defining elements. As a result a different set of research topics

has seemed appropriate for foragers, a fact perhaps most easily demonstrated for archaeology. Until the turn of the millennium, most studies of hunter-fisher groups (Mesolithic or later) concentrated on subsistence and technology, and only in the last two decades has a broader suite of studies investigating social and ritual aspects emerged[6]. While this may be argued to be due to the often more limited archaeological remains from hunter-gatherers, recent publications demonstrate that new theoretical perspectives and new approaches does allow a much wider study of early pre-farming groups.

In the same way that there is a list of defining criteria for archaeological and historical societies to be accepted as states, there is a list of traits strongly associated with hunter-gatherers: they are small-scale nomadic peoples organised in bands which follow certain patterns of dispersal and aggregation, they are egalitarian, and individual property is limited[7]. In addition it is generally accepted that any work division is based on gender and age only, that their dwellings and other structures are ephemeral, and that they do not invest in the environment as farmers or herders do. However, some groups practice a degree of delayed-return economy[8], as food may be collected and stored. Typically their cosmology is considered associated with animism and/or shamanism. While such a list may appear unproblematic at first glance, it also boxes in these societies and render understanding of development from one category to another difficult.

What hunters do: economic organisation

The most basic criterion for distinguishing between hunters and farmers is their economy, which may be perceived as a very straightforward and unproblematic issue. However, as both archaeologists and anthropologists are aware matters are more complicated than that. For one thing distinguishing between wild and domestic species in a distant past is challenging, and new research has lead to some revision of the earliest dates[9]. More importantly, some scholars argue that «humans were actively modifying local ecosystems and manipulating biotic communities»[10] at least a thousand years before accepted morphological traits associated with domestication is documented, and that intensive exploitation of selected resources may be an ancient practice. We also know that many hunter-gatherer-fishers (past and present) do in fact intervene in their environment, albeit in different ways than agriculturalists and herders. They may construct and maintain pit falls or fences to hunt large mammals, they may build contraptions of wood or stone

to catch (and keep) fish, they may consciously burn patches of grassland to encourage new growth[11], and they keep dogs for hunting and to raise alarm and ward off predators. As a caveat, it should be noted that at present we know little about when such intervening practices started or about their extent. It is possible that the scale of such environmental management increased with later interaction with farmers, as a new perception of interrelationship with the surroundings emerged[12]. On the other hand there are indications that in many cases these practices were long-term stable elements in hunter-gatherer practices over centuries or millennia, in other words, they do not represent a transitional stage between foraging and farming[13]. While we know that initial cultivation did lead to many later social and economic developments, it is less clear whether the concrete practice of sowing and harvesting a small amount of grain is in itself significantly different from other practices more common amongst hunter-gatherers to be such a key criterion in our categorisations. With our retrospective view, do we perhaps overemphasize the uniqueness of agriculture?

Göbekli Tepe certainly differs dramatically from constructions otherwise known from animistic and shamanistic societies. However, prehistoric religion is not – yet – a major theme in archaeology. Due to the long prevailing focus on economy and adaption to the environment, it is as good as absent in hunter-gatherer archaeology apart from rock art studies. Here there is an overemphasis on ethnographic and historical information (and retrospective analogy), which again may lead to negligence of prehistoric diversity and practices. Frankly our knowledge of late glacial ritual practices in the Middle East is very limited.

It is clear that these enclosures at Göbekli Tepe could not have been built by a handful of persons, and would therefore have required aggregation of a larger group of people for some time. In principle these could have been many smaller nomadic bands, exploiting separate areas some distance away, but meeting up at particular times of year. There is no reason to assume that the building process was continued all year round, in fact, as argued below, it is more likely to have been a prolonged process over many years. Dispersal and aggregation is a very common feature amongst hunter-gatherers, often linked to seasonal exploitation of specific resources. The reason for aggregation may be economic, such as collaboration in hunting or simply meeting at locations with seasonal plentiful resources, or predominantly social and cultural. It certainly requires either plentiful resources at the location for aggregation or previous collection and storage of supplies.

Storage is not an uncommon phenomenon amongst hunter-gatherers[14], particularly where there is marked seasonal variation in resource availability. One may distinguish between generalists or specialists at each end of a continuum, where specialists not only exploit a limited number of resources more intensively, but as a result of this often develop specialist equipment or tools to help them pursue the selected species. Needless to say, specialisation also affects settlement and mobility patterns, as well as work organisation, either of the hunting/fishing/gathering itself or of the later processing of the catch/harvest.

With regard to work division, Raggio perceives the societies that constructed Göbekli Tepe as stratified with non-food specialists[15]. However, there is no reason to assume a priori that the individuals building at the site did not contribute fully to the subsistence in the group. It is likely that the construction took place in periods where they could either live on storaged food, or where resources in the vicinity were so plentiful that little time was needed to provide for the group (although all those not directly involved in building, may have been occupied with processing the food). No doubt some individuals had particular roles in the construction, or in the ritual activities that followed, but this need not have been their main position in the group, nor a permanent one.

The requirements for Göbekli Tepe with regard to economic organisation and work division to allow food and work force time all link in with what we know from other archaeological and ethnographic information on hunter-gatherers, and do not set the Göbekli Tepe groups apart from others. But what were the motivations for the monumental constructions?

Aggregation: communal activities or rituals?

Aggregation is in hunter-gatherer societies not tied to subsistence patterns only, but also to many other important activities, such as gift exchange, information exchange, finding partners, risk reducing networking, games and rituals[16]. It has long been argued by some (and from very different theoretical perspectives) that factors such as feasting and surplus accumulation may have been the most significant as drivers of the development of full scale farming societies[17]. Without commenting directly on that debate, there are other crucial activities that may have been as significant for the participants. Not surprising, one of the most publicised elements at Göbekli Tepe are the representations of humans and animals. However, parts of the figures on the

large T-shaped pillars were hidden by ring walls or benches[18]. There is clear evidence that pillars were reused in such a way that some figures were hidden, and that figures were removed or replaced with others[19]. Another fascinating aspect of Göbekli Tepe is that the enclosures were filled in or buried not long after their construction, certainly within the same archaeological period. The large number of structures, the re-building of structures, the destruction of parts and the final filling of the enclosures, all indicate that rituals within the enclosures were just one element of a series of repeated practices at the site. These repetitive practices, the processes of building, re-building and destroying suggest that collaborative, manual work were such an important element of Göbekli Tepe, that continued ritual use of the first structure did not suffice. Similar observations have been made for other prehistoric sites based on ethnographic evidence. Inspired by previous Neolithic research Colin Richards argues that for some monuments the long term processes of construction may have been the primary social focus[20]. Importantly he also points out (with references to John Barretts work[21]) that social differentiation may be an outcome rather than a prerequisite for such labour intensive projects. This is clearly in line with interpretations of the emergence of farming that favours socio-economic factors.

Domestication and agriculture emerged separately at least 10 different places, demonstrating that such a transition is not unique and suggesting that there are one or more inherent elements in human hunter-gatherer societies that may lead to this shift. It seems that there must be a variety of commitments and investments, be they social or economic, which in these cases bind communities to certain practices and organizational patterns, and accelerate the development. But for some reason similar practices and patterns either do not appear or do not accelerate in other societies. What are the constraints and the catalysts?

Many of the socio-economic processes required for monumental constructions such as Göbekli Tepe may be found in hunter-gatherer societies. However, the categorization of pre-industrial societies and broad evolutionary stages, that continues despite the re-orientation initiated by Sahlins, Lee and Binford, tends to direct our attention towards distinct and somewhat stereotyped ways of life, and takes the focus away from diversity and series of unfolding socio-cultural choices. While this to some extent may have caused the discovery of Göbekli Tepe to surprise the world, there can be no doubt that the site was part of a unique, unparalleled development. Gaydarska has recently cautioned scholars studying ancient cities to distinguish between factors behind the emergence of pioneering cities and cities that appear and function in a realm where an urban way of life is recurrent experience[22]. Similarly, we may

have to accept a more particularistic interpretation of the monumental structures at Göbekli Tepe, and similar first-time occurrences of a variety of phenomena.

As the above emphasizes, a narrow focus on distinguishing farmers from hunters easily leaves us with two categorical boxes, which is unhelpful for the investigation of human development. The accepted criteria for foraging communities may restrict our research questions and lead us to underestimate practices amongst hunter-gatherers. If we acknowledge instead the inherent potential for driving change that many foraging practices entail, we re-direct the focus to identifying processes and socio-economic aspects that either constrain or accelerate major developments.

Academic disciplines and sibling rivalry

While at times a helpful heuristic device the categorization of prehistoric or ethnographic societies and their implicit association with evolutionary stages in many circumstances turns out to have a delimiting effect on our understanding of human diversity and development. The very uniform categorization of academic disciplines may unfortunately have a similar negative effect. It is appropriate to term archaeology, anthropology and history sister disciplines. But as so often amongst siblings there is frequently a good deal of bickering and competition going on, and often a lack of appreciation of qualities in the sibling. In the present case, discussions typically concentrate on the quality, objectiveness and potential of the source material (texts, material culture, participatory observation). The current political and financial climate generally has negative effects for the humanities and related disciplines, and this sharpens competition at the institutional level. In addition archaeology has recently turned to archaeological science and collaboration with natural sciences. While this has resulted in many exciting new results, it should not let us neglect the many mutual interests between disciplines in the humanities and social sciences such as (modern) history, linguistics, religious studies, sociology, and human geography to name a few. As for archaeology, anthropology and history, they share a fundamental interest in human diversity and development in the widest sense, and the variation in sources and temporal perspectives should be explored as complementary rather than competitive approaches. Prehistoric archaeologists would certainly benefit looking beyond the excavation trenches and should more frequently aspire to contribute to wider academic debates. This would necessarily include recognition of

the insights other disciplines can provide also to the understanding of early human societies. And perhaps disciplines working predominantly with modern societies may benefit from the insights gained from studying economy and organization in a diversity of societies and in a real long-term perspective. Academic categorization of disciplines and sibling rivalry is not clearly helpful in advancing academic knowledge.

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THE DEATH OF PREHISTORY

Göbekli Tepe is the death of prehistory. Its megalithic circles with their T shaped pillars carved with distinctive art confound archaeological expectations of what was possible 11,000 years ago[1]. The site is unforgettable. I visited it during the first workshop of the *Our Place in the World* project held in Şanliurfa, South-eastern Turkey, in 2012, funded by the Templeton Foundation and organised by Trevor Watkins and the late Klaus Schmidt. We lingered long at the site and we saw much. While we debated Göbekli Tepe's purpose, and learned about its excavation, on Turkey's southern border artillery fire was exchanged with forces in Syria. In the streets outside the conference hotel the UNCHR trucks went up and down and talk was of refugees and the destruction of Aleppo, one of Şanliurfa's trading cities to the south. As in history, context is everything in archaeology.

1. How should archaeologists and historians read Göbekli Tepe? Its name translates as potbelly hill and this hill is its most extraordinary feature. It is entirely artificial. As I understand the time-sequence the circles were built and then deliberately back-filled, covered in a great mound of chipped stone flakes, tools and animal bones. One circle needed 450 tons of cultural material to cover it. There are thought to be at least 20 circles covered in this way which means that in excess of 10,000m^3 material was hauled up to bury them and create the hill. This figure is impressive. But it is small when compared to Silbury Hill in Wiltshire. Here an artificial mound was created on a floodplain from some 325,000 m^3 of chalk dug from the encircling ditches. But Silbury is almost 7000 years younger than Göbekli Tepe, a Neolithic rather than a Palaeolithic hill. Monuments such as Silbury, while remarkable, are nonetheless expected because they are believed to be underpinned by farming. Among the cultural material at Göbekli Tepe no traces of domestic animals have been found. Neither are there any charred cereal grains. Pottery and querns are also absent. How long the circles stood open is unclear. Large numbers of people are inferred. But where did they live and how long did they gather at Göbekli Tepe? Where did they then go?

2. Göbekli Tepe pronounces the death of prehistory because its evidence challenges so many narratives based on archives of objects alone. Several of these have been outlined by Osvaldo Raggio and I will

not repeat them. But the historical narrative which these finds so clearly refutes is that the modern world starts with farming and settled life, in short the Neolithic Revolution[2]. This has always been presented as the great hinge in human history separating, as Raggio outlines, a past of modest achievements which apparently rejected accumulated capital, from one of monumental works and the first building blocks towards civilisation, written history and the modern world. Marshall Sahlins in 1972 provocatively turned the historical image of hunter gatherers on its head[3]. Twenty years before the Australian-born archaeologist Gordon Childe had written, with obvious relief, about the «escape from the impasse of savagery» into the Neolithic[4]. Sahlins was riding with the times. He was not alone. I remember archaeologist Lewis Binford roundly declaring in a public lecture that «the farmers were the failures»; his evidence bad teeth, poor diets, infant mortality, increased violence and backs deformed by grinding grain and clearing fields. It seemed that there had to be a very good reason for people to abandon the survival tactic of mobility that had served hominins well for the last two million years. It is mobility that adjusts people to resources, solves disputes by walking away from the problem and which in Australia, the continent of hunters and gatherers (until Dirck Hartogh's arrival on the coast of western Australia in 1616) was characterised as a life of tracks, travel, trespass and trade. Such mobility is never unfettered but it is part of the human ability to go beyond in time and space; a skill that allows our social lives to dwell in the imagination. The Neolithic, as argued by Colin Renfrew[5] brought benefits by living together. But these benefits would always have looked different depending on vantage point; those living in the palace on the hill and those serving in its shadow. These dichotomies have been examined recently by David Wengrow and David Graeber[6] following Marcel Mauss' model of public and private times of the year among hunters and gatherers[7]. In their contribution I find support for the work of Peter Rowly-Conwy and Marek Zvelebil quoted with approval by Raggio. Wengrow and Graeber's point is that hunters and gatherers oscillate between egalitarian and hierarchical political structures. And like their mobility, these political forms can vary on a seasonal basis. Seasonal aggregations display all the features of a complex society with police, laws and enforcement while the same people at another season seem as free as air in the sense implied in Sahlins' affluent society. As a result Göbekli Tepe might represent the complex phase while at another season of the year the people who built it fissioned and adjusted their social life accordingly.

3. The division of hunters and gatherers into an evolutionary sequence that went from simple to complex, or as anthropologist James Woodburn[8] characterised it between immediate and delayed systems of return, no longer has any merit as a way to structure deep history. The implication has always been that today's complex hunters live in bountiful environments. It is this bounty, seen along the extensive North West Coast of North America that gives them the affluence to escape the simple grind of their desert counterparts elsewhere in the world. Furthermore there was the issue that what seemed to be a historical pathway was instead the product of colonial encounters. The desert adaptations of the Kalahari, the affluent societies in Sahlins' formulation, were changed societies encapsulated by neighbouring herders, farmers and European colonists. By contrast, the un-encapsulated societies of the North West Coast were free of agriculture and to some extent colonial trade. Warfare, villages, massive food storage and slaves were evident. So too were practices which destroyed wealth, the potlatch, in order to gain prestige and status, apparently the antithesis of the Neolithic mind-set. But one continent, Australia was problematic for Woodburn's scheme and his historical reading of what type of society was original. The continent of hunters and gatherers was clearly un-encapsulated. It should, on his scheme, have had delayed return systems. But in terms of accumulation and consumption of resources most of the societies in the continent had immediate systems. Moreover these contrasted markedly with the horticulture of the Torres Strait Islands and Papua New Guinea and which sustained much larger populations. Woodburn extricated himself from the complexities of his own scheme by claiming, in an infelicitous phrase, that in Australia the men «farmed the women». They did this through their control of marriage systems and where the women represented the delayed return. However, most mobile societies at the economic level of hunting and gathering display a similar control over female reproduction by males; control that is irrespective of the return system.

4. And here is the interesting historical point for the two disciplines which Raggio wants to bring together. The question that emerges if we start, as he persuasively argues, to weave the perspectives of archaeologists with those of historians is not the arrival of the Neolithic or the transition to farming as a herald to the modern world. If that is the question then why, and indeed how, did Australia resist the horticulture from its neighbours to the north? Rather the question we should be addressing concerns how males came to control resources? Here is a historical problem and answering it makes the case for a deep history[9]. The

study of non-human apes and monkeys shows that the human pattern where males, as in Australia, control the distribution of resources and hence female reproduction is unusual, indeed unique. Since females disproportionately bear the costs of reproduction the socioecological pattern which dominates is that they follow the best resources and the males tag along behind. Cooperation within and between the sexes is based on finding, securing and defending those all-important foods from competitor groups. Evolution is about female choices not male desires. The historical question we need to ask is how and when humans broke with the ancestral primate socioecology? Neolithic storerooms provide an obvious example but not necessarily the oldest examples. The basis of inequality is not predicated on the type of return system, as Woodburn argued, but instead on which sex controls resources and hence the structure, in terms of space and time, of that society. When socioecology was structured by fission and fusion and varying degrees of mobility the accumulation of food as a resource was problematic and its defence even more so[10]. However, what I call the granary route whereby males came to control resources is only one possible scenario. I have also identified a treasury route[11]. Here it is not food that people accumulate but rather the cultural stuff that is essential for social reproduction to take place. The interest in raw materials such as shell, jet, animal teeth, ivory, ostrich egg shell and many others lies in the role they play in the accumulation and consumption of social life. They are transformed into beads, ornaments and collected and consumed as sets of things which also act as nets linking people across large regions. These items flow through networks of exchange and alliance. The items are valueless in themselves. But they are a form of cultural capital that transformed social life. They cannot be eaten and archaeologists see only value when they are carved into figurines or buried with bodies in graves[12]. But these small items are available for manipulation, their collection imperative to participate in chains of connection that fundamentally changed the socioecology of humans. Such objects take us back into the Palaeolithic, back to at least 200,000 years ago in Africa while in Europe the most intensively studied regional archive such objects are found with Neanderthals, long before people looking like us left Africa[13].

5. From this perspective the locale of Göbekli Tepe truly does spell the end of prehistory. It can be read as Wengrow and Graeber argue as a complex society without having to argue that they have escaped simplicity and embraced the helping hand of history towards the present day. It supports Daniel Smail and Andrew Shryock's[14] argument that

by keeping the pre- in prehistory we continue to regard those archaeological periods which use archives of things as nothing more than the plinth for modernity. Pre-history has served its purpose and the candidate to replace it is Deep History[15] where the object of enquiry can be the things which unite all humans such as the brain and its cognitive constraints to social interaction and an individual's social complexity[16]. Göbekli Tepe is one of those monuments and objects like Babylon's Cyrus Cylinder, the Hoa Hakananai'a of Rapa Nui or the Stonehenge bluestones of England that brings us up short and makes us question the history that currently we produce. A history of things is as important as a history of the written word. The challenge now, as set out by Raggio, is to harness their combined power to develop new historical structures so that a fresh understanding of history can emerge.

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Notes

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FROM PRIMITIVISM TO A CONTEMPORARY VIEW OF PRE-HISTORY: A NEW TALE

In the occurrence of the 44th anniversary of the publication of *Stone Age Economics*, the editorial board of Quaderni Storici launches a new reflection about the relation between historical disciplines and archaeology[1].

I will focus here particularly on the relation between History and Prehistory. The attempt to find a common ground for the dialogue is important, particularly because the distance separating the fields roots in the story of the discipline itself. The awareness of the depth of the time came relatively late in the history of humankind, only after the «Origin of Species»[2] (1859) and definitely after Lubbock's «Prehistoric Times»[3] (1865). At the same time, the abandon of the prehistory from historians mostly comes from the architecture herself of historical reasoning and its narrative[4].

Moreover, a strictly linear understanding of the human history is challenged by the multiplicity of the historical narrations. The many temporalities and several historical contexts tangle a rigorously linear understanding: shall we then speak about «histories»? Would it be wise to hierarchize the modes and timing of this narration?

It is worth reminding that the Historical sciences and the Archaeological ones, while sharing a common intent in seeking to explain the human past, are methodologically very different, and this establish the first significant and immediate gap. The archaeologists build their interpretation on the material culture, and collect their data mostly in the field. This led some historians to grow a diffidence for the reconstruction proposed by the archaeologists, relegating the discipline to a role of substitute in the absence of historical sources, hence considered more reliable[5]. This similarly led some archaeologists, to suspect serious biases in the narration made through historical chronicles, and classifying as problematic the archaeology built as an attempt to produce «imitation history books»[6]. This lack of constructive dialogue long tarnished the possibility to improve both disciplines through a common effort, and this is the starting point for this reflection.

In the absence of written sources for the remote times, the prehistory has a peculiar place among the archaeological sciences, and it has not an immediate correspondence in the historical sciences, as does the Classical Archaeology, for example. In the most ancient human past, there is no «history», or, at least, there is not the possibility to build a

narration directly after the tales of people who lived at that time. In addition, most or many archaeologists have the presumption to consider the material sources objective, and this led to some debate, either with the «Pompeii premise»[7] argument or with the behaviourist perspective of Michael Schiffer[8].

The distinction of an historical narration made on objects (archaeology) or text (history) is, however, considered sterile by some scholars, and the proposal to cancel the term prehistory in favour of history *tout court* has some followers[9]. I will come back to this point further.

The direct dichotomy between written and non-written sources should ground a smoother relation between History and Prehistory, with respect to Classical Archaeology, although it actually does not, for several reasons, and first, for the extremely tight relation that Prehistory has with Anthropology. The relation between the narration made on the objects (Prehistory) and the one made on the people (Anthropology *sensu lato*) is, on another hand so deep[10] that originates in the Marcel Mauss' statement that «souls are mixed with things; things with souls»[11] and Colin Renfrew's talks about «material engagement» between humans and objects[12].

Recently, the largely accepted dichotomy between pre-history and history has been challenged by some scholars. Clive Gamble, for example, has an «ontological» objection to the term pre-history, because it makes a partition in the historical continuum and in his view, the «pre» implies that what is important in history is modernity: «The past should be more than some origins land for the present»[13]. Gamble's solution to this problem stays in the abolition of the term «pre-history» in favour of «deep history». The «pre», in the way it is actually perceived, is not a historical era but rather «the domain of tradition, nature, stasis, childhood, rawness, simplicity, enchantment and superstition»[14]. Gamble' suggestion to replace prehistory[15], is to use «deep history», a term inspired by geologists and their investigation of the notion of deep time and remodelled in an anthropological way to stress the relational as well as the rational character of human history.

The triangulation between Prehistory and Anthropology, and History is currently in favour of the formers. I will particularly focus here some points, going from 1) a critics of primitivism, trough 2) the necessity for a historical approach to the hunter-gatherers and concluding with the 3) claim for a concept of global History including the prehistory.

Prehistory as a discipline is historically linked with primitivism[16]. The use of ethnographic information for the interpretation of unknown

artefacts is older than archaeology as a structured discipline[17], since the knowledge about indigenous people was connected with the colonialism. Based on the evolutionist point of view, the similarities between prehistoric artefacts and ethnographic ones were considered as homologues, and the indigenous people therefore considered «primitives». At the opposite end of the ideal chain where modern (and Western) *Homo sapiens* is the higher point of Evolution, lay the idea of the primitive man. Is the primitivism definitely out to date? Or is human development still considered as progressive and directional? Are we still aligned with Morgan's idea that «Ancient society inventions and discoveries stand in serial relation along the lines of human progress»[18]?

The primitivism is one of the themes that O. Raggio[19] puts forward in its questioning on Göbekli Tepe: the interpretation of this site is itself enough to destroy primitivism, and the related idea that there is a directional progress in human behaviour, because this shows an unexpected social complexity before the so called Neolithic revolution[20]. The Neolithic revolution itself establishes the academic division between the «primitive» and ideal world and the «modern» one, since *Stone Age Economics*[21], so the idea of a stratified society before that key moment in the history of humankind is somehow revolutionary.

This issue, however, is not as innovative as it could be, because, in the most recent years the archaeological interpretation has become more and more fluid, with the awareness of the existence of a grey zone, the one of transitions, in between the «major Ages» as they were described at the beginning of the discipline. In Italy, particularly informative about the mechanisms of the discipline, is the discovery in September 1991 of the Similaun man[22], bearing a copper axe at a date when traditionally in northern Italy the Chalcolithic had not started yet[23], and moreover the axe itself, having a classical shape of the Bronze age ones[24]. This example alone leads us to question about 1) the directionality of the advancement in human technology; 2) the attribution to a particular «Age» on the basis of single elements/behaviour, such as the use of metal, or writing, or symbolic behaviour; 3) the strict link between an object and its «culture».

Traditionally, the achievement of the modernity has been in the background of the prehistorical narration, such in Gordon Childe's *Man makes himself*[25], Grahame Clark's vision of *World prehistory*[26], and the more recent Colin Renfrew's *Prehistory: making of the human mind*[27]. In the most recent debate about the origin of *Homo sapiens*, the notion of so-called behavioural modernity is the foundation of most models and interpretation[28]. The achievement of modernity stems from our perspective, since we exist at the end of this very long process, and

we now turn backward. As G. Bailey points out[29], there is a double perspective in archaeology: the idea to understand the present from our past, but also (more problematically) the necessity to model the past starting from the present.

On one side, then, as Shryock and his colleagues claim[30], we have to be ready for an anthropological way of thinking about the past, linking people, places, and artefacts in order to fit the «shallow history of the modern world in the narrative currents of deep history». Nevertheless, taking our point of observation at the end of the story and putting ourselves, as *Homo sapiens*, as the necessary output of millions of years of Evolution, is definitely out to date. On another end, cultural evolution proceeded by different steps of innovation, and each and every innovation was necessary to the achievement of the following. This has no relation, for me, as an evolutionists, with the necessity or directionality of the Evolution itself, that, coming as a series of adaptations, does not follow a coherent design. This is also the conclusion hold by Rowley-Conwy[31] (very appropriately cited by O. Raggio, in this volume) that there is no established directionality in the trend from simple to complex held by hunter-gatherers. The change can go either way, from simple to complex, and backward, form complex to simple.

Moreover, both the biological and cultural evolution are extremely patchy and discontinuous in space and time[32]. The discoveries of human being other than us[33], surviving until recently in diverse areas of the planet[34], could metaphorically be the biological counterpart for the «primitive» *Homo sapiens* who still use stone tools in historical times. However, all of those occurrences, are part of a temporal process, hence a historical process, and in any case can be considered as living fossils. Instead, all the social sciences should profit much in becoming Darwinian in a modern perspective, using the «set of assumption, methods, tools, and theories that the evolutionary biologists use to explain the diversity and complexity of life on earth»[35].

The question of the relation with «primitive» people arose again in prehistory with the advent of the new Archaeology, whose models of interpretation are largely based on ethnographic data[36]. The beginning of the systematic deconstruction of the idea of primitive man was the conference «Man the Hunter»[37], in 1966, where Marshall Sahlins questioned the idea that hunter gatherer societies were always on the edge of starvation, and struggled for survival[38].

This new attention of the archaeology to the ethnographical record expressed herself in two ways: turning on the living communities[39] and/or using ethnographic analogies to model the archaeological data[40]. The

symbols of those people somehow resisting against the so-called Neolithic revolution were the Aborigens, the Hadza, and the Bushmen.

The challenge to the traditional artefact based interpretation, culminated in papers such as *Millie's camp*[41], where after the archaeological interpretation on an abandoned contemporary Indian campsite in the central Canadian Rockies, the chronicle of a living person, Millie, who previously inhabited the camp with her family, revealed the inexactness of the archaeological inferential interpretation, ending with a claim for caution. On another side, who can be completely sure about the truthfulness of Millie's memories? As in other historical documents, the subjectivity of the narration could originate as much problems as the subjectivity of the data interpretation.

The relation of Archaeology with Anthropology went then from Archaeology *and* Anthropology[42], to Archaeology *as* Anthropology[43], and finally to the recent Archaeology *is* Anthropology[44].

Despite the call for rigorous procedures made by the New Archaeology, however, the reliability of models based on modern hunter-gatherers is one of the possibly critical aspects in this approach, some of which have been pointed out by the post-processual archaeology[45]: no living foragers are a perfectly good model for our foraging ancestors[46].

I think that the question of primitivism is, methodologically speaking, one of the issues where the historical disciplines might come in help to the prehistorical ones. The perspective of our ancestor's past as directly reflected in modern traditional societies, it far too simplistic in a complex, modern, view, where even our cousins the primates start being attributed recognized cultures[47]. The notion that the hunter gatherers on which we base our models have been involved in historical processes, and the knowledge about these processes, would give us a better time depth, allowing our model to be more accurate and to assess better predictions. The prehistory is certainly not the projection in the past of something that we see in the present, and the contemporary population are not living fossils.

The claim for an «understanding of relational dependence that specifies how and in what respects cultural responses are constrained or determined by material conditions»[48] opens for the role that the historical sciences could play in prehistory. A historical reconstruction of the living population of hunter-gatherer could shed light on the processes that led to their current lifestyle, and greatly improve the choice of the right variables for the modelling. As O. Raggio points out, in this volume, one of the best attempt to link the archaeological and historical interpretation on hunter gatherers comes from Gellner[49], about the relationship between the archaeological evidence and the interpretations

and reconstructions, underlying that the hunter gatherers lived twice, first in their time and then in our reconstruction.

Another point to consider is the time perspectivism: the scale of prehistory to history is a millennia to moments one, as pointed out by Bailey[50]. The increase in time depth dilates the resolution of the analysis and points out to phenomena only visible at a large scale of observation; deep and shallow context should reshape each other[51]. The deep chronology of the prehistory it is not the history as we are used to. One analytic path could be, as suggested by Bailey[52], the examination of temporal awareness of past people, their sense of past and future and how this influenced their behaviour.

Prehistory mostly studies traditional societies that have a different concept of time and different time depth, where time is principally circular, and linear only for some very short periods. In western societies, the historicization of time through the written chronicles has dramatically changed this perspectives. Hence we are in a different human History than traditional societies, and at the same time we participate differently to the writing of this collective history. Therefore, what differ it is not only the way we study the past, but also the way that the society we are studying perceives themselves and consequently the structure of the narration that we can make out of it.

How shallow is the anthropological view of time[53]? The first to point out the perception of time in traditional people and the narrowness of the time horizon was Evans Pritchard[54] «[...] one might reckon time in sets to an indefinite period, but in fact Nuer generally know only the latest of the sets the members of which are all dead or, if they know the names of several vanished sets, are uncertain of their order and do not use them for purposes of time-reckoning». Irvine[55] points out that time is a system of collective representation. Here arises the question of the dichotomy between linear time (the historical one) and circular time (the ethnographical). What would be the impact of the knowledge of deep time in traditional population?

The circular perception, linked to seasonality, plays an enormous role in the Palaeolithic interpretation, both at the site and the regional scale, since the famous paper from L. Binford[56], where the life of the Eskimo is summarised in the seasonal oscillation between the willow smoke (camp) and the dog tails (moving):

> An old Eskimo man was asked how he would summarize his life; he thought for a moment and said, «Willow smoke and dogs' tails; when we camp it's all willow smoke, and when we move all you see is dogs' tails wagging in front of you. Eskimo life is half of each».

Hence, the archaeological interpretation of the prehistory, based on ethnographic analogy, often points out these cycles of lives, instead of simple instants; this is one of the element making hard to synchronise the interpretation in prehistory and the historical one.

The problem of the connexion between History and Anthropology, is then the fundamental synchronicity of the latter. Often the Anthropology lives in an eternal present, ahistorical by definition, frequently assuming that those societies are not in connection with broader historical processes (with the exception of some noteworthy analyses) – and this is of course impossible. I agree with Barnard when he writes «most of social anthropology has been stuck in a synchronic quagmire»[57].

However, some attempt in combining anthropology with the ethnohistory is currently ongoing; I cite as an example the Journal of social archaeology, in South Africa[58]. In a context where there is no historical record before very recent times and the arrival of western people, the link between archaeology, anthropology and history can be articulated in a different and innovative way. In this example, the colonial past of the Western Countries can be used in a historical perspective, and connected with the anthropology and the history of the colonised populations.

Roux and Courty[59] include into this discussion a distinction between scenarios, models and mechanisms of change. The historical scenarios and the narratives that they originate from and to, are specific to particular situations, while in prehistory, scholars describe the ways – from a qualitative and quantitative viewpoint – by which A becomes B, hence mechanisms of change.

The distinction proposed here between continuous and discontinuous change echoes Braudel's sociological approach of three historical times – long, medium and short[60]. The *longue durée* includes the prehistory and it is situated at the opposite of the event, where the History lays.

As a conclusion, I think that the claim for a «histoire totale» (as in the *Annales* approach) has to include the prehistory, making useless the distinction between the pre and the story: there is a continuum between the present and the past, since any boundary is arbitrary. However, despite the attractiveness of this perspective, it has to be finalised methodologically, arising a challenge in the structure and processing of the data[61]; reformulating the structure itself of the «total history»[62]. One of the possible solutions is going back to the four-field approach to social sciences. Social sciences should explicitly include history as a part of the original model by Pitt Rivers in 1882, then reformulated by Boas[63].

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Notes

1 I wish to thank A. Torre and O. Raggio to invite me to contribute to this discussion. This paper is dedicated to the memory of Amilcare Bietti, who taught me hunter-gatherers.

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