

# From Mental Progress to the Domestication of the Self

## A Voyage through “the Origins of Agriculture”

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### Abstract

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This article deals with how different views on the human being, on society, and on historical prime movers affect the choice of source materials, methods, and interpretations in archaeology. A central archaeological problem, the origins of agriculture and domestication, is investigated in a historical perspective, beginning with scholars of the Enlightenment and ending with archaeological works published in the early 1990s. It is argued that explanations for the origins of agriculture generally focus on human nature, on the nature of society, or on external forces in nature. A recurring theme is also the differing views of the significance of women in the transition to agriculture.

It is concluded that a 19th-century cultural optimism, which saw the human being as “naturally” progressing towards agriculture and domestication, was replaced by cultural pessimism during the 20th century, emphasizing more or less compelling forces in society or in nature. Accompanying several archaeological interpretations of the transition to agriculture is the idea that technological and economic progress is coupled with a decline in human sociability and ethics. Contemporary social and existential issues serve as inspiration in archaeological interpretations of the mythically charged problem of why human beings began to cultivate the soil and domesticate animals.

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## Introduction

With this article I would like to invite reflection upon how differing views on the human being, on society, and on historical prime movers affect the choice of source materials, methods and interpretations in archaeology. In order to discuss these issues, I have chosen a particular archaeological problem: the origins of agriculture and domestication.

From time to time this problem has been in focus in Western archaeology. The questions asked, the source materials and methods chosen, and the interpretations of this transition have varied over time and also, of course, among individual archaeologists.

In the following I will discuss different ideas

of how and why the “wild” hunter became the “tame” cultivator. To start with, I find it justified to suggest that, on a general level, causes of social change are generally located within one of the following three spheres or levels:

- in *human nature*, i.e. that change is due to inherent qualities within the human being
- in *the nature of human society*, i.e. that change is enforced or made possible by qualities within human society
- in *nature*, i.e. that change is enforced or made possible by some external force in nature

Archaeologists usually try to connect factors in nature, society, and within the human being in

their explanations, but often one sphere or level is emphasized more than the others. In the following account, the focus is on the origins of agriculture in the Old World. Sometimes the works of individual scholars are presented and sometimes, particularly regarding the late 20th century, general trends of research are described, exemplified by only a few individual scholars. To begin with, however, I would like to focus on the 18th century and on certain ideas concerning the emergence of agriculture and domestication, presented by two influential social philosophers.

### The four stages – subsistence in focus

Around 1750 the Scottish economist and philosopher Adam Smith and the French theologian, philosopher and historian Anne Robert Jacques Turgot presented their respective and similar Four Stages theories (Meek 1971). Central to this theory (which I subsequently treat as one, although aware of differences and later developments) are a few related ideas that were constituent for the emergence of the social sciences; i.e. the apprehension of human society as an object of study. The most important ideas in the context of agricultural origins are the following: (a) the one factor that ultimately decides the development of a society is its *mode of subsistence* and (b) human society has a *universal history*. Society is seen as developed through certain stages, or “ages”, defined by the mode of subsistence (Eriksson 1988, pp. 143 ff.).

All “nations”, as the terminology went at the time, have the same potential for progress, it was stated, but different natural environments affected the degree of realization of these advancements.

I would like to summarize, in short, the basic ideas of the Four Stages Theory, as this theory, in different shapes, became so important within the social sciences and archaeology. In the origi-

nal human society, it was held, hunting – and sometimes also fishing – was the most important subsistence, partly supplemented by gathering. The human beings did not have any permanent settlement, but were forced to move because of herd movements or because of reduced prey due to intensive hunting. War was common in these societies, the argument continued. According to Smith, gathering could not be regarded as labour, whereas, of course, hunting was. The next stage was that of the shepherd. People who lived in areas where domesticable animals were present, domesticated these animals because it made their life more convenient. With this subsistence base, ideas about property started to emerge among people and therefore the accumulation of wealth was initiated. Shepherds who lived in fertile areas eventually started to cultivate the soil. Smith claimed that more skill was needed for the cultivation of plants than for the domestication of animals. Also hunters could initiate cultivation, but in that case longer time was required, as hunters did not have the aid of domestic animals. Cultivators were settled, the argument continued, and they could accumulate even more wealth than the shepherds. Agriculture triggered explosive developments as it produced a larger surplus than before. Eventually cities emerged and started to dominate over the rural areas and people became increasingly inclined to seek power. With agriculture the exchange of goods between people was commenced, and when this exchange was extended to the level of “nations” the “age of commerce”; i.e. civilization, had arisen (*ibid.*, pp. 176 f.).

The source materials of the Enlightenment scholars were earlier and contemporary ethnographic accounts concerning natural environment, customs, and subsistence of different human societies, and Classical and Biblical texts and myths describing different “wild”, “savage”, or “barbarian” people. The purpose of using these sources was to place human societies in a scale, defined primarily from the mode of sub-

sistence, a scale that eventually was conceived in chronological terms. The ultimate goal of the theory was to explain why contemporary European society had reached such a high level of civilization and why other societies had not. European intellectuals compared their own society with primitive societies in order to understand how far from an "original" state their civilization had risen – or fallen, depending on their valuation of the different stages and of their own society.

Among the Scottish economists, similarities in lifeways were considered to stem from similarities in circumstances, particularly in the natural environment. Montesquieu's *L'esprit des lois* (1748) is usually considered to have played a significant role in the development of Smith's version of the Four Stages Theory.

Turgot stated that all development followed "the general advancement of the *mind*" (Meeke 1973, p. 69, quoted in Eriksson 1988, p. 161, italics mine). However, he also stated that the subsistence system influenced people's minds, hence a more materialist view.

Smith emphasized that the development through the "ages" was towards a more comfortable life. According to him, population increase was the reason for the transitions between the stages. Although this idea reveals an attempt to explain social changes by way of disequilibrium in the relation between resources and population – an idea advocated by Malthus later during the 18th century – the proponents of the Four Stages Theory did not develop this idea further. Instead population increase was primarily seen as an *effect* of social changes, and the transitions between the stages were explained by reference to changing needs and aspirations within people's minds (Eriksson 1988, pp. 225 ff.; Malthus 1985).

For the subsequent discussion of archaeological theories concerning the emergence of agriculture, it is worth noticing that the Four Stages Theory, and the later archaeological periodizations (although more implicitly), generally

assumed a wholly male universe where only men and their presumed occupations and actions led history forward.

## Sven Nilsson – spiritual development and the tools of savages

The first archaeologist I would like to mention is Sven Nilsson (1787–1883). He built on the Four Stages Theory when he wrote *Skandinaviska Nordens Ur-invånare* (Nilsson 1838–43). This book was later translated by Lubbock and published in 1868 with the title: *The Primitive Inhabitants of Scandinavia* (Daniel & Renfrew 1988, p. 57). In this book Nilsson states: "All peoples have had or have four stages to pass through, before they gain their highest social education: it reveals itself either as Savage, as Nomad, as Agriculturist, or as owning written language and coined money in addition to the labour divided between the members of society" (Nilsson 1838-43, p. V, my transl.). Savage and Nomad societies were considered by Nilsson to be particularly conservative and enduring, and they used only stone tools and did not have the knowledge of metal work, except perhaps the cold hammering of copper (*ibid.*, pp. VI & 93). Thus Nilsson added technological criteria to the definition of the stages.

To elucidate the characteristics of each of the four stages Nilsson used as a metaphor the life cycle of the man. The Savage was the child with its "amiable innocence", "unconscious disposition", and inarticulate speech. He was primarily defined from what he lacked in relation to the subsequent stages. The Nomad was the young man with his generosity, fool-hardiness, and love of freedom and poetry (!) and the Agriculturist was the adult man who had "the courage to protect his own right and the right of others" and who had seriousness, power, and the ability to act. Civilization was represented by the old man who was more structured and planning and who took good care of his property (*ibid.*, p. IV, my transl.).

The transition from the Savage stage to the Nomad stage was realized because the Savage permanently suffered from starvation. Agriculture was initiated, according to Nilsson, either because the Nomad became tired of roaming about or because of population growth and diminishing pastures for the herds. The barter that emerged with agriculture soon became inconvenient and this led to civilization; i.e. to the creation of money, written language, monumental architecture, advanced divisions of labour, etc. (ibid., pp. V ff.).

To Nilsson, as to Smith, social development was about increasing bodily comforts, but the main factor behind this development was in fact the mental progress of the human being. All developments in nature were in essence immaterial and spiritual, according to Nilsson. Thus, it was in the body that the need for change was experienced, but it was in the mind that development and change first occurred (ibid., p. I).

Nilsson's primary source materials were ethnographic accounts and Scandinavian prehistoric artefacts, and he used the former to render social meaning to the latter. He used a comparative ethnographic method, and he focused on tools and monuments as well as on "customs". By establishing how modern savages used different kinds of tools and by comparing these observations with prehistoric tools from Scandinavia, Nilsson drew conclusions as to lifeways and the degree of "cultivation" with different prehistoric peoples – often identifying them with peoples described in ancient written sources and myths. He placed these peoples in one of the preconceived stages (Rodden 1981, p. 64). It is therefore hardly correct to claim that he "arrived at" the classification of cultural stages by the comparative study of existing peoples (Daniel & Renfrew 1988, p. 57).

In the introduction of the book, Nilsson defined the Savage stage as the stage of the hunter-gatherer. The Savage was thus primarily defined by his subsistence base. However, Nilsson added

a technological criterion when stating that the "oldest hunting tools [i.e. stone tools] in each country are contemporary with the first appearance of the Savage" (Nilsson 1838–43, p. V). Later on he stated that both Savages and Nomads make only stone tools, and perhaps solid copper tools (ibid., p. VI). In the first chapter, Nilsson explicitly identified stone tools with Savages and in his ethnographic account he only chose for comparison contemporary peoples "on the lowest level of human cultivation"; i.e. hunter-gatherers and fishers (ibid., p. 58). In the subsequent text, therefore, the Savage – and the Nomad – became primarily stone-tool-users and the subsistence theme became less pronounced (ibid., pp. VI&1). Due to the identification of the stages with certain tool technologies and due to his selection of ethnographic examples, Nilsson was prevented from detecting the possibility of contemporary agriculturists using stone tools.

Nilsson's transfer of criteria from subsistence system to technology, for archaeological purposes, while emphasizing the subsistence criteria along with certain social and mental characteristics of the four stages, produced a conceptual ambiguity, both in regard to the definition of the stages and in regard to the classification of contemporary peoples. This ambiguity served the following scholar in his "primitivization" of contemporary savages and "modernization" of the European ancestors.

### John Lubbock – general advancements with technology in focus

In 1865, the English archaeologist John Lubbock (1834–1913) coined the term "Neolithic" (and the term "Palaeolithic"), in his famous book *Prehistoric Times as illustrated by Ancient Remains, and the Manners and Customs of Modern Savages*, to designate the age of the "new"; i.e. the polished, stone – a technological criterion (Lubbock 1878, pp. 2 f.). The title of Lubbock's

book reveals what were his source materials and methods. According to Lubbock, the origin of agriculture was a sign of general human progress, but he did not delve deeply into the problem. To him, a “grand revolution” was effected in nature when “the first skin was used as covering, when the first rude spear was formed . . . , the first seed sown or shot planted” because with all of these inventions “a new being had arisen who was no longer necessarily subject to change with changing universe, – a being who was in some degree superior to nature”. According to him, human history was generally a story of progress within several fields. Ultimately this progress was about “an advance in mind” that “taught him [i.e. man] to govern and direct nature to his own benefit, and make her [i.e. nature!] produce food for him when and where he pleased” (ibid., p. 606). In another book he sees population increase as a sign of progress rather than as a factor causing social change (Lubbock 1870, p. 322).

Not one chapter in *Pre-historic Times* is devoted to prehistoric subsistence. Contemporary savages may, according to Lubbock, have pottery, agriculture, domestic animals, and metal tools, and these improvements are not seen as appearing in any particular chronological order (Lubbock 1878, p. 564).

We find in Lubbock’s book that the classification of contemporary non-European peoples as savage (or barbarian) does not build on subsistence criteria or on technological criteria – they were savages (or barbarians) irrespective of their subsistence and technology. The European forefathers are classified by technological criteria and, although to a lesser degree, by subsistence criteria. This thinking, embedded in the racism of the time and in ideas of European supremacy, reveals that the political images of “us” and “the other” were given priority over the labels that *ought* to have been given, had the same criteria been used and brought together with the empirical observations.

The result of this reasoning was that contemporary peoples were primitivized by the applica-

tion of the term “savage” (or “barbarian”) – irrespective of their technology and subsistence – in relation to the European forefathers, who were, in turn, modernized and brought into the sphere of social evolution by the application of technological criteria and a new technological terminology.

In the final chapter of the book, Lubbock reveals his view of the miserable, uncomfortable and “uncultivated” life of savages: “the *true* savage is neither free nor noble; he is a slave to his own wants, his own passions; imperfectly protected from the weather, he suffers from the cold by night and the heat of the sun by day; *ignorant of agriculture*, living by the chase, and improvident in success, hunger always stares him in the face, and often drives him to the dreadful alternative of cannibalism or death” (ibid., p. 609, italics mine).

## H. Ling Roth – the intellectual progress of woman ?

In the article “On the Origin of Agriculture”, H. Ling Roth treats the issue of agricultural origins in a different manner from the preceding authors (Roth 1887). He complains about the unwillingness of archaeologists and anthropologists to discuss the origin of agriculture and he criticizes the fact that anthropologists prefer to study “warfare and warlike preparations” of savages before “the peaceful art of agriculture”. This is due, he says, to a contempt for agriculturists among contemporary scholars and also because these scholars have not had anything to do with agriculture and therefore have come to lack “the fellow feeling” for this activity (Roth 1887, p. 103).

According to Roth, agriculture cannot have emerged due to the experience of starvation, because to admit that the savage could have been able to change his subsistence because of this experience, or because of changes in natural conditions, would be to credit him “with a power of immediate adaptation to circumstances which

he does not possess" (ibid., p. 118). The explanation for the origins of agriculture must be, he says, that it was a consequence of improved intellectual capacity within the human being.

Roth ascribes the initiative in cultivation to women. He says that women among savage peoples collect vegetable food and that the men therefore (!) look down on them and treat them badly. It is probable that it was the women who first noticed that seeds from wild cereals sprouted on the paths around the settlement. Eventually they started to tend these plants by working the soil and by planting the seeds. Hence, it should also have been among the women that the intellectual capacity increased, although this consequence is not explicitly formulated by Roth.

Roth's source material consists of ethnographic accounts and his method is comparative. He claims that the lifeways of contemporary savages directly reflect prehistoric lifeways. It is important to note that Roth criticizes the social evolutionary ideas of his time and that he considers both society and human nature to be mainly conservative and rigid. This is the reason for the very slow development of agriculture, he says. Thus, Roth represents the first modest critique of social evolutionism, although combined with the idea that social development ultimately depends on the growth of human intelligence. A directed and progressive evolution is still seen as inherent in human (female ?) nature.

In his discussion of probable areas where agriculture could have emerged independently, Roth was much more empirical and tangible than were his predecessors. He discerned four areas of probable emergence of agriculture: the South Sea Islands, America, Africa and Asia-Europe. These areas were chosen as they were areas of origin of different agricultural systems, based on different plants (ibid., p. 124). Thus, a new source material was introduced here: the geographical distribution and areas of origin of cultivated plants.

## Raphael Pumpelly – the spur of Necessity

The American geologist and archaeologist Raphael Pumpelly initiated explorations into the inner parts of Asia during 1903–4. The specific purpose of these travels and explorations was to investigate the origins of agriculture, particularly its geological, geographical, and climatological conditions, by interdisciplinary methods. Pumpelly took as a starting point this particular problem and he sought to solve it by archaeological excavations and scientific methods. The ultimate purpose, however, was – as usual during this time – to investigate the origins of Western civilization (Pumpelly 1908, p. 66). He concentrated his investigations on the area southeast of the Caspian Sea, to the oasis Anau. The results of these investigations were published in three volumes entitled *Explorations in Turkestan* (Pumpelly 1905 & 1908).

Pumpelly represents a more consistent critique of social evolutionism. He claimed that human society and human nature were inherently conservative and that if change occurred it must be due to some external force – because time alone does not bring about change in itself. The term "evolution" was, however, used by Pumpelly in a particular sense: "we see here [in inner Asia] man under the spur of Necessity, the relentless goddess of evolution, building in village communities, in agriculture, and in the essential industries, the foundations of civilizations" (Pumpelly 1908, p. 66). This "spur" or external force, should, according to Pumpelly, be sought in the natural environment; i.e. in the drought that was considered to have hit inner Asia during, and shortly after, the withdrawal of the glaciers. Because of this drought, people, plants, and animals were forced together at the oases. Similar natural conditions produced similar social changes, he stated.

Pumpelly's source material was the excavated material from Anau, particularly cereal seed impressions in pottery and in burnt clay, and bones.

He was able to confirm, through stratigraphic analysis, that cultivation had preceded the domestication of animals at Anau. This result contradicted the general idea at the time; i.e. that the domestication of animals preceded agriculture. Later, however, the osteological material from Anau has been re-evaluated, and it is now held that domestic pigs were contemporary with the first agriculture at Anau (Flannery 1983, p. 168). According to Pumpelly, the emergence of agriculture was not a sudden event, but a protracted process. He also dared to date the emergence of agriculture in Asia to "long before" 8000 B.C. (Pumpelly 1908, p. 67).

### Gordon Childe – aggressive attitudes and absent-minded women

Gordon Childe does not require a closer presentation, and the content of his "oasis hypothesis", which he (to say the least) borrowed from Pumpelly, is well known. His labelling of the emergence of agriculture as the "Neolithic Revolution" was founded on the idea that this event was similar to the Industrial Revolution in Western Europe. Childe based his theories on evidence from archaeological excavations, on geological knowledge, on art history, and on written sources. His theories and ideas concerning historical process and causality were not unequivocal and they changed with time. As it is not possible here to enter deeply into his many discussions of the "Neolithic Revolution", I have chosen to focus on a few of his interpretations of this process, interpretations which have not, to my knowledge, been much discussed.

In *The Dawn of European Civilization* (first ed. 1925), Childe says the following about the emergence of agriculture (Childe 1973, p. 50, italics mine): "In such an environment [i.e. where wild cereals and domesticable animals occur naturally] human societies could successfully adopt an *aggressive attitude* to surrounding

nature and proceed to the active exploitation of the organic world". It is here a change in mentality that explains the possibility of agriculture and domestication. This is hardly a statement one would expect from someone who was, at least in certain contexts, a Marxist-influenced materialist.

In another famous book, *Man Makes Himself*, Childe speaks, extraordinarily enough, about the activities of men and women in connection with the origins of agriculture. He states that the emergence of agriculture was not a sudden event, but rather a protracted process and that the first cultivation was "an *incidental activity of the women* while their lords were engaged in the really serious business of the chase" (Childe 1951, in: Struiver 1971, p. 19, italics mine). He also describes how the agriculturist (who is suddenly the man) learns to domesticate the animals: the cultivator offers the "stubble of his freshly reaped fields" as grazing for the animals in the oasis, he studies their habits and protects them against predators, and he realizes the advantages of having grazing herds in the vicinity. By this behaviour he is "on his way to domestication" (*ibid.*, p. 16).

When women contributed to social change, they did it "incidentally", by accident, absent-mindedly; when men contributed to social change they behaved like scientists, they studied and learned and acted from their acquired knowledge. My interpretation of Childe's statements is as follows: by new source materials and stratigraphic accuracy Pumpelly had shown that cultivation had preceded the domestication of animals. As cultivation was held to have been initiated by women (according to Roth), cultivation could no longer be apprehended as the most difficult endeavour, and the domestication of animals could no longer be apprehended as the easier task, because this view would have put women at the front of social developments. Although the emergence of agriculture was conceived as a thorough and magnificent revolution, the initial cultivation became a haphazard



event because it was said to be an activity of the women, while the domestication of animals by men became a scientific endeavour. Thus women became visible in social events but the intellectual leadership in social developments was still tied to men and to male activities.

## Post-war archaeology and the transition to the Neolithic

Since the 18th century, southwestern Asia and/or Egypt were established as areas of origin of true culture and cultivation in the Old World. This tradition rested ultimately on the Biblical narrative and on the later historical profanation of the Bible that sought material evidence of its historical accounts. After the Second World War, the archaeological interest in agricultural origins focused mainly on southwestern Asia. During the 1950s it became increasingly evident that the criteria that had been used to define the Neolithic period; i.e. agriculture, domestic animals, polished stone tools, and pottery, were no longer tenable. Settlements yielding evidence of agriculture but without evidence of pottery had been investigated. The traditional labelling of the Stone Age periods was questioned. Economy was emphasized, and the emergence of agriculture became more and more apprehended in terms of ecology and environmental constraints.

Scholars from, or trained in, Great Britain, France, and Germany had until now dominated research into agricultural origins and the civilizations of southwestern Asia and the Mediterranean (Maisels 1993). After the Second World War the American interest in the origins of agriculture was much increased. The nations that dominate the world seek also the discursive control over research concerning “the origins of civilization” – and therefore also over the origins of agriculture. This phenomenon reveals the strong mythical content of these issues and also that they concern the search for roots and identity in the present (Friedman 1989, p. 120).

## Braidwood and Howe – “settling in” in the natural habitat

During the late 1940s the Iraq-Jarmo project was initiated by the Americans Robert Braidwood and Bruce Howe. Their central question was: “How are we to understand those great changes in mankind’s way of life which attended the first appearance of the settled village-farming community?” (Braidwood & Howe 1960, p. 1). The project was partly inspired by Pumpelly’s investigations at Anau about 50 years earlier. The archaeological source material chosen for the investigation of the relation between cultivation, domestication, and the emergence of village farming, was everyday refuse from small villages and settlements. These sites should be located within the “natural habitat” of those domesticable species – plants and animals – that for millennia had dominated Western agriculture, i.e. within the Fertile Crescent. The project was multidisciplinary, focusing on climate, geology, soil processes, palaeobotany, and palaeozoology. Stratigraphic observations, of course, became very important.

The investigations resulted in the rejection of Childe’s (Pumpelly’s) “oasis hypothesis”. There was no evidence of late- or post-glacial drought in the area, it was held. Another result was that the natural conditions permitting the emergence of agriculture had been present in the area for a long time, *without* the emergence of agriculture. The conclusion was that nature, the environment, had *not* forced people to cultivate the soil. Due to this, the explanation for the emergence of agriculture was subsequently sought in cultural factors. Herbert Wright, who was the geologist on the project, expressed the view thus: “It seems to the writer that the gradual evolution of culture, with increasing complexity and perfection of tool technology, may have been a more potent factor in bringing about this economic revolution than was the climatic change at the end of the glacial period” (Wright in Braidwood & Howe 1960, p. 97).



During this time the minute division and determination of successive stages in the transition to agriculture also commenced, e.g. distinctions were made between “manipulation” and “incipient” cultivation or food production. Sedentariness was increasingly emphasized as a prerequisite for, rather than as a consequence of, agriculture. The emergence of agriculture was also seen as a protracted and undramatic process and it was connected to an increasing intellectual capacity within the human beings to effectively use the environment for their purposes.

The emergence of agriculture was apprehended by Braidwood as the result of a social and cultural maturation among small groups of people in the “natural habitat”. People “settled in” in the environment both mentally and materially (Braidwood 1960, p. 131).

## Population pressure and natural selection

Braidwood’s explanation was much criticized by Binford and considered to be sheer idealism or vitalism. Binford stated that such explanations could not be tested empirically and he argued for testable hypotheses focusing on the environment, more precisely on disturbances in the relation between human populations and resources in specific ecosystems. Natural environment, technology, and the efficiency of energy transformations, along with social complexity, became factors that were used to classify contemporary and prehistoric societies and to understand change (Trigger 1993, pp. 345 ff.).

With the publication of the volume *Man the Hunter* in 1968, the image of “the happy savage” was revived within Western archaeology (Lee & DeVore 1968). Hunter-gatherers were now seen as “the original affluent society” with abundant food resources, positive sociability, and lots of “leisure time”. In this perspective cultivation was regarded as something that must have been *forced upon* hunter-gatherer societies. People

would not initiate the laborious cultivation by their own free will, it was held – in any case such a hypotheses could not be tested. Cultivation was apprehended as an enforced response to disequilibria between population and resources in several different areas. Several different population pressure theories were presented (e.g. Binford 1968; Flannery 1973; Cohen 1977).

Natural selection is seen as the force behind the emergence of agriculture by several contemporary archaeologists (Harris & Hillman 1989). In general terms this idea states that populations that adapted to changing circumstances by initiating cultivation survived and reproduced more successfully than hunter-gatherers – although they were perhaps not as “happy” as their predecessors. Agriculturists had more offspring and this gave them a competitive advantage in the struggle over resources. Scholars with this theoretical understanding of the emergence of agriculture focus on investigating source materials that may reveal changes in the relation between population and food resources. Evidence of intensification in the gathering of plant foods is sought, e.g. features that may be interpreted as storage facilities. Ecological, palaeobotanical, and osteological investigations are central. The purpose is to investigate and specify the “evolutionary continuum of people–plant interaction” (Harris 1989), to specify the selective mechanisms operating on undirected variations of human behaviour, and to criticize ideas of intentionality in the context of agricultural origins (Rindos 1989).

The origin of agriculture was increasingly apprehended as a scientific (i.e. natural science) problem and at the same time the idea of one “cradle” of origin, the Levant, was thoroughly questioned. Binford wrote in 1968 (Struiver 1971, p. 48): “We would like to note in passing that the *post hoc* evaluation of some ‘beginnings of cultivation’ as ‘most important’ (because of the ultimate economic significance of the crops produced) and the limitation of question-asking to these instances has served to prevent the

recognition of the general conditions under which cultivation may have been initiated". The idea of the transition to the Neolithic as *one* phenomenon in a specific area was dissolving from the late 1960s onwards, and arguments against the traditional "cradle-explanations" came from scholars of both the natural selectionist stance and from scholars of a social science perspective.

## Society – exchange and power

The critique of "scientification" within archaeology; i.e. the search for causes in natural environment and ecological circumstances, was increasing during the 1970s onwards. This critique was founded on social science perspectives and particularly on the much debated issues of the growth of social power and the social consequences of relations based on exchange and trade. It was within this realm that the causes behind the emergence of agriculture ought to be sought. It should be noted that, although social explanations were favoured, they often implied a weaker or stronger emphasis on forceful mechanisms – although not external forceful mechanisms of nature, but instead social forces from within human society.

Barbara Bender made a critical review of published material concerning the origins of agriculture in southwest Asia, Central America, and Peru in her book *Farming in Prehistory: From Hunter-gatherer to Food-producer* (Bender 1975). In this volume she claimed that exchange and trade were probably important factors behind the growth of the new economy. Cultivation, she stated, had emerged independently in many different natural and cultural environments, and therefore it was wrong to look for monocausal explanations (Bender 1975, p. 215). Instead research should focus on specific processes in specific areas. Bender also criticized the dominant trend within this research to look for the earliest cultivation in areas with similar geographical and climatological conditions; i.e. in

arid or semi-arid areas where cereals or cereal-like plants had grown naturally. This tendency, she claimed, had resulted in the ignoring of other areas and of other kinds of plants, and the generalizations that resulted had therefore favoured certain ecological environments at the cost of others. The intense investigations of small tell-settlements had also distorted the results and the interpretations. What one should look for instead was larger settlements and possible centres of trade.

Bender also found that the quality of the different excavations had varied highly. Due to this it was difficult to make comparisons between excavation results. Bender proposed local palaeoenvironmental and more problem-oriented studies. She found the population-pressure models to be, in general, based on too meagre evidence, and that the attempts to quantify population densities and population pressure suffered from many shortcomings (*ibid.*, pp. 210 ff.). She admitted that ecological changes may have resulted in changing subsistence systems, but this factor could not explain all the different transitions to cultivation around the world. A great variety of strategies were possible in the confrontation with changing environments, e.g. nomadism, changes in predation, cultivation, and exchange. That cultivation became the dominant strategy, she claimed, was probably because exchange and trade favoured a fast diffusion of both crops and domestic animals to areas outside of "the natural habitat" in southwestern Asia. Strategically placed trade centres could have played a significant role for the penetration of cultivation.

Another contemporary archaeologist with a social perspective is Brian Hayden. In the article *Models of Domestication*, Hayden criticizes different population pressure models and he finds a probable explanation of the emergence of agriculture in "competitive feasting"; i.e. a social competition mediated through the giving of feasts (Hayden 1992). Hayden uses both anthropological and archaeological sources in support

of his hypothesis. The idea is, in general terms, the following: food-production occurs when the compulsory sharing of food vanishes because of changes in the resource base and when individual ownership of food is no longer considered to be an abomination. This happens, he continues, only when food resources are abundant and reliable and when the plants are resistant to heavy exploitation. The social competition with food as a resource took the shape of feasts by which individuals could gain control over labour, loyalties, and debts. Hence, the purpose of this feast-giving was to control labour, and this control became a symbol of success and power. If cultivated food and domestic animals were desirable products, although more labour-intensive, it is probable that domestication and cultivation developed through competitive feasting. According to Hayden, there is empirical support for this idea in the archaeological material from the Levant. The oldest agriculture, he claims, started in resource-rich areas and within socially complex societies. Neither traces of population stress nor storage facilities have been proven, and the latter were not a necessary invention in the context of agricultural origins as the surplus was consumed in feasting.

## Hodder – the domestication of the self and changing views of the home

The subject of Ian Hodder's book *The Domestication of Europe* is the spread of agriculture to and within Europe rather than its original emergence (Hodder 1990). In spite of this, Hodder makes some general statements concerning the transition to a Neolithic way of life. Hodder's source material is the published sources concerning this transition, and he re-interprets the evidence according to his specific theoretical understanding of its characteristics. He introduces the term *domus*, which signifies the "home" and, in his definition, the care of cultivated plants in a

female world of "warmth, shelter, and nourishment" (Hodder 1990, p. 68).

The concept of the *domus* was used, he claims, at the time of the transition to agriculture, as a metaphor for the domestication of society and it also denoted the very mechanism of change. The process was a drama that created the urge to control "the wild". This urge also grew to the control of the self and of the relations between people in society. Social control and the regulation of society, which, according to Hodder, can be seen in the planned villages, was created through a particular mechanism: agriculture. Dominant groups in society took advantage of the dependencies that were built by the more intensive production technology of cultivation. The opposition between nature and culture was emphasized in order to gain control over people. The new subsistence was thus a sign of, or a metaphor for, a mental and social change. *Domus* was not only a way of thinking about society, it was also "the source of desire" (ibid., p. 41).

Hodder's idea bears similarities to both Bender's and Hayden's in the focus on social power, but it is also akin to Nilsson's idea about the historical forces. In Nilsson's case social development is about an increasing social order, viewed in positive terms, while in Hodder's case it is about an increasing urge for power and about increasing internal and external control of people. Agriculture is to both the material expression of a new mentality.

In Hodder's interpretation it is mainly woman who transforms the wild to the domesticated, particularly wild plants. Animals are connected to the male sphere. The *domus*, however, does not equal the "private", in the traditional 19th-century sense; instead Hodder places the "public" within this very sphere. It is from the concept of the *domus* (the home) – the centre primarily associated with female characteristics and tasks – that all later social units are created, he claims (ibid., pp. 68 f.). Thus Hodder argues against the traditional view that the home is, and always has been, a static hub with "eternal and unchang-

ing” qualities such as female caring, nourishment and warmth, in which the man could find relief from his culture-building project in the “public” sphere, but at the same time he sees the caring and nourishing features as characteristic of the *domus*. With such an interpretation the *active* participation of women in this “project” is admitted and women are no longer necessarily passive and unconscious inventors of cultivation. In this way women become equal to men in the creation of society, a position, however, that is scarcely a flattering one, as society is seen as driven by the urge for power and control. The idea is characteristic of the late 20th century “unmasking” of social rationality.

Hodder’s implicit reasoning seems to be something like this: society is about power relations and the traditional view is that society was created by men, but as we today admit that women are equal to men intellectually, we must conclude that also women participated actively in the construction of society. I find two possible interpretations of this “activation” of women. One interpretation is that the introduction of active women in the construction of society emerges at a time when society is apprehended as a rather miserable project. Another interpretation is that the introduction of active women in prehistoric social life is a reflection of women’s increasing active participation in *contemporary* social life and as a reflection of the fact that some men today engage in domestic work and thereby gain another understanding of this “sphere”.

According to Hodder, then, it is with the emergence of agriculture and domestication that the opposition between nature and culture arises in people’s minds (*ibid.*, p. 11). The ancient Western myth about human culture as *both* progress and degeneration, and about nature as *both* dangerous and paradisiacal – as something to control and as something to surrender to – emerged at the time when cultivation and domestication were initiated.

## Concluding remarks

What, then, have we learned from this, somewhat casual, voyage through “the origins of agriculture”? That our images of contemporary phenomena are used in our construction of images of the past is well known, as is the fact that our images direct us towards certain questions and particular source materials and methods. Natural progress in spiritual and mental qualities, the capacity to learn in favourable environments, compelling forces of nature, a more or less compelling urge for power – all of these factors (and there are more) have been applied by archaeologists in order to explain and understand why people initiated cultivation and domestication.

We may discern a general trend over time in the view of the origins of agriculture. The 19th-century optimistic view of the human being as progressing along the path of civilization is successively replaced by cultural pessimism, bringing forth forceful mechanisms, placed in nature or in society, as explanations of changes in subsistence. Although this general trend is evident, there is also an ambiguity among archaeologists in the view of social change. The emergence of agriculture becomes an image of both progress and decline – progress in material and civilizational matters and decline in human sociability and ethics. The origin of agriculture is only one of several archaeological subjects, although perhaps a particularly mythically charged subject, that becomes a projective image of what we experience in our own time. Archaeological ideas and interpretations may be seen as existential statements about what is important in human life, and as all such statements they are complex, ambiguous, and individual and simultaneously created within particular social and cultural contexts that make them available to generalizations and historical analysis.

I do not wish to conclude, however, that our search for knowledge about the past is merely an egocentric reflection of our own, more or less

culturally constructed, existential problems, but rather that existential problems are sources of inspiration in archaeological research, inspirations through which new questions, source materials, methods, and interpretations are investigated.

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