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A World Of Domesticated Landscapes

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Recent research on the historical role of humans in shaping the global environment spurs us to reconceptualise the nature–culture divide. The concept of domestication is central to this understanding. This paper is a short summary of an oral presentation, based on a reading of some recent work that I find provide an important background for such a reconceptualisation. My approach to this problem is through my work with a project entitled Mapping Global Agricultural History. This project takes its departure from a critique of some of the recent attempts to reconstruct global croplands from a historical perspective. By back-casting from recent cropland distributions, these studies tend to project a Eurocentric and colonialist perspective on past land use, especially in Africa and the Americas. Furthermore, they depict the development of human landscapes as the spread of croplands and pastures into previously undisturbed natural biomes (Goldewijk 2001; Pongratz et al 2008) and therefore presents a biocentric view of the world in which humans are only late intruders. In our project on mapping global agriculture, we hope to provide a less Eurocentric and less biocentric understanding of the world’s environments during the last 1000 years (Widgren 2010).

Anthromes instead of Biomes

A recent and thought-provoking contribution to the field of mapping global environments is the paper by Erle Ellis and Navin Ramankutty (2008) entitled *Putting People on the Map: Anthropogenic Biomes of the World*. The authors argue against the established view of the environments of the

world as consisting of a series of naturally and climatically determined biomes. They argue: “Human-dominated ecosystems now cover more of the Earth’s land surface than do ‘wild’ ecosystems” (Ellis & Ramankutty 2008, 439). According to them, only 22 percent of land consists of ‘wild’ nature. Moreover this wild nature contributes to only eleven percent of net terrestrial primary production. The conclusion is that ‘nature’ is now embedded within human systems. It is no longer possible to conserve nature by avoiding human interaction. The authors accompany their argument with an interesting map based on a categorisation of areas of the world into different types of anthrome, or human biome.

If we add an historical dimension to the work done by Ellis and Ramankutty, we have to ask when nature became embedded in human systems? Is this a situation that occurred during the twentieth century in response to population increase and urbanisation, or does it go further back in time? What, if anything, does constitute pristine nature? Was there ever such a thing as pristine nature? The common sense answer would be that the rift between nature and culture occurred with the introduction of agriculture. The modification of plants and animals through domestication and the subsequent changes in the landscape that agriculture and early urbanism entailed, is thus alternatively seen as the birth of civilisation, or, from a green standpoint, as the beginning of the environmental destruction of pristine nature. Regardless of these moral implications, many authors do agree on the huge impact on human–environment relations. For example Peter Atkins, Ian Simmons, and Brian Roberts write in their textbook (Atkins et al 1998, 13): “No other single change in human history can have had a greater effect on the landscape than the domestication and global spread of plants and animals.”

When it comes to the geographical aspects, our understanding of this process of Neolithisation and the first agriculture has advanced very much in the last fifty years. While according to previous understanding, the hearth of agriculture was in the Middle East, it is now widely recognised that we have to understand this process as multi-centred. Again, going back to textbook knowledge, Ian Simmons (1989) summarised the evidence by pointing out four major regions of domestication: Three in Eurasia and one in South America, while acknowledging that there were also other locations. Neil Roberts (1989) shows eleven ‘hearth areas’ of plant domestication.

New Views on Plant Domestication

There is now strong empirical evidence to re-evaluate not only the geographical distribution of domestication, but also the very nature of the domestication of plants. Based on archaeological research, Michael Purugganan and Dorian Fuller (2009, 845) conclude:

…”[...] the origins of domesticated plant species were not single events but an extended multistage process in which traits arose sequentially over several thousand years to create the phenotypic assemblage that characterises domesticated species today.

The archaeological results do contrast with the molecular evolutionary studies that have assumed rapid, single origins. Purugganan and Fuller (2009) also argue that domestication can be seen as only one aspect of plant–animal co-evolution, acting much in the same way as natural selection. It is merely in type and intensity that the human–plant relationship, resulting in domestication, differs from natural selection and from other plant–animal co-evolution, such as the way that ants and beetles can be said to have ‘domesticated’ some fungal species. In their mapping of the geographical areas of this human–plant co-evolution, they point out more than twenty areas on all continents except Australia. Thus, all continents have contributed to the globally significant crops of today, such as the sunflower of the native North Americans, the potato of South America, the sorghum of Africa and the banana of New Guinea, to mention just a few. Instead of the former image of a single-centred origin of agriculture in the Middle East, we can thus now see a polycentric origin of the world’s domesticated plants. Domestication occurred independently in different places and regions and in different time periods stretching from 13 000 BP for wheat and barley in the Middle East to perhaps 3000 BP (or even later) for African rice.
The Domestication of Landscapes

The specific case of plant–animal co-evolution that domestication entails includes a series of different actions from humans and has for the Americas been described by Clark Erickson (2006, 241) as involving “planting, transplanting, tending (‘husbandry’ or ‘mothering’), cultivation, weeding, transport outside natural habitats, and the use of fire as a management to enhance survival of economic species”. Erickson also comments on how Amazonian peoples, as they move in the landscape, are “constantly gardening the forest, weeding and pruning here and there” (op cit).

All these activities thus play an important role in the domestication of plants, but moreover, as Erickson (2006) argues, it is also possible to broaden the concept and think of those activities as leading to the domestication of the whole landscape. The domestication of landscapes thus encompasses all non-genetic, intentional and unintentional practices and activities of humans that transform local and regional environments into productive, physically patterned, cultural landscapes for humans and other species.

Thus, irrigation systems, anthropogenic soil, managed forests are all part of the domesticated landscape. Erickson (2006, 236) also proposes the hypothesis that Amazonian peoples invest more energy in “domesticating landscapes as a whole than in domesticating individual species of plants and animals”.

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Through these recent works it is now possible to examine the nature–culture dichotomy in a new way. It is clear that we have to allow for the several thousand years of human–environment interaction that have lead to the development, not only of a few domesticated plants and animals but also of anthropogenic biomes or domesticated landscapes. There is more and more evidence showing that what was previously seen as ‘wilderness’ may in fact represent the results of different types of historical human–environment interaction. The simple cropland–wilderness dichotomy that is used in some modelling obviously gives a poor representation of the landscapes of the world’s past. It is also clear that the domestication of landscape, and the domestication of plants and animals, represent two alternative ways of producing food beyond the subsistence level. This understanding also has implications not only for the way we understand the nature–culture dichotomy, but also, and perhaps even more challengingly, for how we see the forager–farmer dichotomy that has played such an important role in our understanding of the development of prehistoric natural resource management.

References


Pongratz, J., Reick, C., Raddatz, T. & Claussen, M. (2008) A reconstruction of global agricultural areas and land cover for the last millennium, Global Biogeochemical Cycles 22 (3) PAGE RANGE REQUIRED.


