

## Section I: Dynamics of the Past

### Introductory Remarks

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In my generation, the forest was understood as a place that produced wood. Professional foresters came to produce the largest volume of wood they could from the forest. In more recent times we have realized that forests are a source of many other things, from recreation, to wildlife habitat, to control of water hydrology. Professional foresters have changed their emphasis from managing forests for increasing wood production to managing forests for the production of this wider range of services. Nevertheless, one of the principal uses of wood has been for fuel and for construction materials. Consequently, wood production remains an important issue, particularly, perhaps, in countries where mineral fuel resources are scarce. Wood fuel thus has an enormous role in both industrial development and domestic life.

One of the industries that attracted a certain amount of notoriety for the ways it used the forest was iron smelting. People in North America blamed forest destruction on iron works. In fact, most of the destruction resulted from clearing land for agriculture, but nevertheless the iron industry got a bad name. The roots of this “bad press” are deep. Historically in Europe (and particularly in Britain), there was intense competition between the needs of shipbuilders for timber and other needs. Henry VIII’s desire to re-arm his country against possible invasions by installing fortifications produced a large increase in smelting, which in turn created a large increase in the demand for wood.

That raised an interesting question, since Britain’s forest resources were not adequate to meet both those demands. The solution that emerged is one that has been frequently used since, namely, to manage the forest for sustained production. The earliest northern European evidence of this approach goes back to the 16<sup>th</sup> century, at an abbey in Great Britain, where the iron works divided their forest land into twenty plots and cut only one plot per year. At the end of twenty years they had enough timber on the first plot to cut there again.

In North America, people used that same technique after they had first mined out the forest resources that were available here. Even before the arrival of Europeans, these forests were used heavily, though for different purposes. Settlers arriving in northwestern

Connecticut, for example, were surprised and dismayed to find very few trees in some zones, due to the North American Indian practice of burning to flush out deer to be slaughtered. So we find complex, layered forest uses that go back a long, long time. That, no doubt, is one of the more important themes to emerge in this section of the volume.

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Selected bibliography:

1990. *American Iron: 1607-1900*. Baltimore: Johns Hopkins University Press.

1993. w. D. Killick. Adaptation of technology to culture and environment: bloomery smelting in Africa and America. *Technology and Culture*. 34: 243-270.

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We develop policies of rainforest protection in part based on our images of forests and the history of interaction between human beings and the natural environment. Some people see the rainforest as a pristine environment that should remain untouched. Others see it as a disease-infested, hostile environment that repelled humans, or at least “civilized” ones, until recently and should be tamed and exploited through modern technologies. In these views formed by outsiders, forest dwellers are often seen as anomalies who have remained outside the mainstream of human history. Most of these views, unfortunately, derive from ethnocentrism and ignorance of past human occupation and cultural ecology of forested areas.

Only recently have scholars realized that the vast Amazonian forest, for example, fostered a long history of human settlements, including relatively developed complex societies. The study of Guatemalan and adjacent rainforests may be more advanced than that of some other forest sites, owing to popular interest in Mayan temples and inscriptions. Still, many people, including locals, view the Classic Maya as a “lost” civilization. Yet debates about Mayan civilization are relevant to the present. Some argue that the Classic Maya “collapse” was caused by the over-exploitation of fragile rainforests, teaching a lesson we should learn from this history. Others, however, contend that the ancient Maya successfully adapted to their environment for a long period, and that some of their strategies can be applied to the modern situation.

It appears that our understanding of human occupation in the African tropical lowlands is even more limited. In both Africa and Amazonia, archaeology does not address current problems directly, but rather provides information relevant to the philosophy and policies of forest preservation. The question of “what” to protect cannot be detached from understanding the history of interaction between humans and the natural environment.

At a more practical level, archaeology is not unrelated to rainforest protection. In Guatemala, national parks are often developed around archaeological sites. I believe that archaeological sites are worth protecting for their own value, but ruins can also add to motivation for the creation of protected areas. The Sangha River area may not have such spectacular sites as Maya ruins. Neverthe-

less, emphasizing archaeological remains and cultural heritage may be an effective strategy when we talk to a wider international audience about conservation efforts.

The general public tends to support the protection of things they feel close to or can relate to. The protection of whales and dolphins has received popular support partly because they are attractive, intelligent animals that can communicate with humans. Protection of the Amazonian forest drew wide international attention, partly because of the indigenous people who live there. Archaeology may offer images of forests with cultural and historical value, making them more compelling to people who are being mobilized to protect them.

At an even more pragmatic level, I would like to comment on ecotourism. Through my archaeological work, I have been involved in tourism development in Guatemala and Honduras. Although I am somewhat skeptical about the economic benefit of ecotourism to local people, I strongly support the development of ecotourism. What is important in my view is that ecotourism gives visitors an opportunity to experience and learn about rainforests and other protected areas. As mentioned above, popular images of rainforests are often formed without much knowledge of their past or present status. Ecotourism probably helps people from various parts of the world to understand the rainforest, the people who live there, and their history. Conveying this knowledge is a slow process, yet is essential for successful environmental protection in the long run.

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Selected bibliography:

1997. Inomata, T. The last day of a fortified classic Maya center: archaeological investigations at Aguateca, Guatemala. *Ancient Mesoamerica* 8: 337-351.
1998. Inomata, T. and L. Stiver. Floor assemblages from burned structures at Aguateca, Guatemala: a study of classic Maya households. *Journal of Field Archaeology* 25: In press.

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