

BOOK REVIEW

Two Oxen Ahead: Pre-Mechanized Farming in the Mediterranean. By PAUL HALSTEAD. Wiley Blackwell, 2014. Pp. ix + 372. Hardcover \$102.95. ISBN 978-1-4051-9283-5.

Our knowledge of the technology of food production in the classical world comes from artistic and literary references, artifacts, and the archeology of towns and villas. Paul Halstead's book *Two Oxen Ahead: Pre-Mechanized Farming in the Mediterranean* adds to these sources a fine-grained study of family (or bachelor) farming around the Mediterranean just before and after the Second World War. It is based on oral histories from the elderly, both men and women, compiled since the 1970s. Informants report from a variety of locations around the Mediterranean but mainly in Greece (4–5). Their experience, though relatively recent, extends backward in time insofar as pre-mechanized agricultural tutelage was intergenerational in families and between households. The personalities of his informants, conveyed by Halstead with wit and respect, enliven accounts of the unceasing drudgery of manual labor that constitutes small-scale farming.

Some might be surprised that anything from the twentieth century could shed light on ancient agriculture. The history of agricultural technology, however, has always turned on a few of the five “powers” (Hero of Alexandria)—simple machines, in particular the *zeugon*, or yoke (balance), and the *arotron* or plough (wedge). Halstead's research is part of the broad tradition established by Fernand Braudel's pioneering work on the *longue durée*. Although the term has come to mean simply taking a long view or describing grand themes in history, Braudel's *longue durée* tracked the constants of geographically situated subsistence culture, which outlive battles and the rise and fall of empires.

Halstead's research fosters caution concerning expansive hypotheses about cultural change in pre-history (329–330, 336–338). He does not think that significant changes in agricultural technology, like the introduction of draft animals to the plough, can be made the sole drivers of other cultural changes in pre-history, like economic and social inequality (58–61). The evidence available from subsistence and cash crop farmers working without engines or seed

catalogues, i.e. Halstead's twentieth century informants, provides a more nuanced and complex picture of how farmers used different techniques on different terrains all at the same time.

Halstead's portrait starts with breaking the ground (chapter 2) and proceeds through planting and harvesting (chapter 3) to the threshing floor or stook (a bound stand of sheaves in the field; chapter 4). Each chapter presents a dense account of traditional practices, tools, and environmental constraints in the Mediterranean. To give an example, how many times a field is plowed between plantings depends on the purpose of the field in the next round of planting and in what season it will be planted. Each plowing is in a different direction from the preceding one. Halstead continues:

In March to May, some fallow fields were planted in summer crops (e.g., maize, sesame), and once these were harvested, the fields should be plowed again. The number of plowings grew as Alexis [the informant] warmed to his theme. Other elderly villagers claimed that earlier generations had plowed *nine* times, citing a false folk etymology for *niáma*, the word used in many parts of Greece to denote tilled fallow or the first plowing of the fallow period. However exaggerated, these accounts underline the value placed on repeated plowing of fallow—echoed by the Cretan and Cypriot term for tilled fallow (*kalourgía*, *kalourká*), which literally means 'good working.' (12–13).

Good working made for a cleaner crop, which saved labor in harvesting and could increase yield (335). Careful tilling also carried social benefits—the admiration of one's neighbors and a reputation for high quality crops. Halstead interweaves diverse themes in each area he treats, creating a more complex picture of basic agriculture than would be possible without these testimonies.

He points out that the "agricultural regime" described in most ancient literary sources reflects experience on large land-holdings (60–61). His modern informants testify, however, to the advantage held even on a small scale by a household well enough off to own oxen, the strongest pull animals, or cattle. Draft animals are for both tilling and carting the crop to safe storage at harvest time. It is possible for the use of draft animals to outstrip human ability to reap the benefits of large-scale planting. Sheer time is a factor in harvesting, a problem ameliorated by having either a large family or hired help (chapter 6).

In his concluding Chapter 7, Halstead evaluates the method of “analogy” to still-existent traditional practices for its contribution to knowledge of ancient culture. He points out that oral tradition shows that Mediterranean farmers understood crop rotation, irrigation, and terracing (chapter 5). They combined reasoning with close observation to become adequate or master farmers. Cost-benefit analysis calculated with the measure of bags, stooks or grains per sheave is part of folk agronomy (344–45).

This book by a seasoned expert makes a substantial contribution to the study of what is “off the grid” of ancient archeology. It is, however, also of value to any scholar of antiquity interested in the *context* of literate ancient culture. Halstead’s informants raised the same crops mentioned in ancient texts and quite probably in the same terrains and for the same purposes. No one who reads this book can think of Heraclitus’ bitter vetch or Aristotle’s grain ruined on the threshing floor in quite the same way again.

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