

Series Editors' Foreword

Agricultural origins and dispersals pose two separate problems in Old World prehistory that are of great theoretical interest. The first of these has been a subject of close attention for some thirty years, and current opinion favors a long incremental process—millennia of manipulation of and experimentation with potential cultigens and animal domesticates, followed by occasional, then seasonal, and ultimately full-time incorporation of farming traits into what had begun as a broad spectrum of collecting and hunting wild foods. From its earliest steps, to the appearance of “primary” village farming communities as originally postulated by R. J. Braidwood, this transition may have taken five thousand years or more, depending on the location and regional resource availability within the Near East.

The second problem centers on the components and processes of agricultural dispersal beyond the Near East, into Asia, Africa, and Europe. The empirical base for such study is best developed in Europe, which is therefore most suited to develop a sophisticated model as to how farming spreads into new environments already peopled by hunter-gatherers. Since the early writings of V. G. Childe in the 1920s, the traditional explanation has been unconsciously flavored by the European experience in North America. It was argued that farmers, by their superior numbers and technology, progressively advanced and overwhelmed thinly settled, indigenous hunter-gatherers, eliminating or absorbing them, or expelling them to marginal areas. More recently, this model has been reformulated by A. Ammerman and L. L. Cavalli-Sforza as a progressive “wave” of migration sweeping across Europe. This is, of course, an ethnocentric perspective, reflecting the limited historic capacity of northwest Europeans and their New World counterparts to deal with “alien” peoples in a positive way. The Iberian experience in Latin America was much more complex, and in many areas it

Series Editors' Foreword

avored acculturation and assimilation of indigenous peoples, with minimal biological replacement but with a wide variety of interchanges of alternative adaptive traits. Over a span of four centuries it created a cultural mosaic, now blending into more homogeneous societies that are new, rather than European transplants to the Americas.

The antithesis to the wave-of-migration theory has been developed since the 1960s by the "Cambridge school," under the initial stimulus of E. S. Higgs. Its premise was that many of the earliest animal domesticates were not limited to the Near East but were also found in other parts of Eurasia. The transition to farming in southern Europe could therefore have proceeded independently of the Near East. This approach has been refined by G. Barker, who argues for indigenous innovation in combination with later immigration of acculturated farmers—a judicious combination that does not beg the question of why agriculture did, after all, advance from east to west and from southeast to northeast. Nonetheless, this interpretation provides little assistance in explaining the sudden and early appearance of the Neolithic on islands such as Cyprus or Crete, or the total economic discontinuity between the final Paleolithic and Neolithic on the Peloponnissos. It can only ignore the evidence of S. Bökönyi that the earliest Neolithic livestock of the Hungarian Plain represented imported breeds, while later Neolithic animals were derived from the local genetic pool of cattle and pigs, with sheep replaced by better adapted pigs in this marshy terrain.

We are then confronted with two competing general models, one favoring migration (demic diffusion), the other advocating independent innovation or stimulus diffusion, in conjunction with cultural transformation and follow-up migrations. The Iberian experience in Latin America—although at a very different level of social organization—suggests that the answer may be an intricate combination of the two, depending on time and place. This issue transcends European prehistory in that it suggests critical questions for archeologists to ask on other continents. And it goes beyond prehistory as such in that it is fundamental to understanding cultural transformation, in general, and how a repertoire of adaptive behavior is developed, in particular.

Susan Alling Gregg has focused her attention on Central Europe, particularly southwestern Germany, where village farming communities were established by 4500 b.c., and the next millennium or so saw a transition from a bicultural mosaic of Mesolithic hunter-gatherers and Neolithic farmers to a single socioeconomic strand in which a broad range of adaptive experience was combined and transformed.

She argues for protracted, mutually profitable contacts between foragers and farmers rather than expulsion or avoidance of the indigenous folk. In the process, subtle ecological readjustments adapted the Mediterranean-style agricultural system to a comparatively cool-temperate and wet environment, with repeated innovations not anticipated in the coarse-grained and deductive existing models for the "Neolithization" of Europe. Gregg builds from optimal diet models for hunter-gatherers by M. Jochim or B. Winterhalder and E. A. Smith, but she substantially broadens that framework to include farming communities as well as cultural ecological concerns such as population interactions and the complementarity between cultivated and wild resources. She offers an incisive and informed analysis of early agricultural subsistence and an illuminating discussion of diet and dietary needs.

In Gregg's robust and elegant simulation, hunter-gatherers and farmer-herders would have benefited nutritionally in the course of cooperation and competition. She suggests that large agricultural harvests could have been produced regularly. If and when poor spring weather delayed planting, farmers would have needed an additional labor force to plant their crops before the growing season was too far advanced. Local foragers probably provided a pool of emergency labor, and in exchange they would have received wheat from the farmers. A reconstruction of the foragers' seasonal schedule indicates that such cooperation could have been accomplished with few changes in the annual round of subsistence activities. Moreover, the addition of wheat to the forager diet would have reduced the need for fish—a critical, limiting resource factor in determining territory size. Cooperation may have therefore led to a reduction in the territorial requirements for foraging. Because of the periodicity of grain surpluses and the sporadic need for emergency labor, Gregg argues that goods and services were highly elastic commodities. Group interrelationships would presumably have been maintained by incorporating inelastic goods into the social organization and rituals of each.

What emerges is a powerful analytical methodology with which early Neolithic archeology can and should be investigated. The author has spent many years working with empirical data in Europe, learning about the local problems of site investigation firsthand, achieving a professional command of the issues and practical problems of research in her region and, above all, acquiring the necessary paleobotanical expertise to identify her own plant materials. The result is a sharp problem-focus and skillful

Series Editors' Foreword

theoretical interpretation that would not be possible without her thorough competence in the subject matter. This well-argued case study is tailored to the specific archeological resolution available in southwestern Germany, but could equally well serve as a framework in which to investigate and interpret the transition to early agriculture in any area where farmers depended on a selection of Near Eastern cultivars and animal domesticates. Gregg makes a particularly effective case that when foragers and farmers occupy a region at the same time, one needs to study both in order to make sense of either.

It is gratifying to have a new volume in the Prehistoric Archeology and Ecology series that deals with Europe, particularly so at a time when a wealth of Neolithic excavation data is being assembled in Germany that has so far found little synthetic interpretation and remains little appreciated in the anglophone literature. But we feel that Susan Gregg's ultimate contribution will be toward enhancing the sophistication of North American archeology students about agriculture as a systemic lifeway, and about the dynamic interactions between foragers and farmers. This is a universal problem in prehistoric interpretation, one with which archeologists excavating in the New World must also cope.

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