

# Book Reviews

## Prehistoric Farming Village

**Geobotanische Untersuchungen auf der Feddersen Wierde.** UDELGARD KÖRBER-GROHNE. Steiner, Wiesbaden, 1967. Textband, xii + 360 pp., illus.; Tafelband, vii pp. + 84 plates. DM 238. Feddersen Wierde, vol. 1.

Reconstruction of prehistoric environments is a painstaking and tedious task which requires the careful attention of a variety of experts in many fields besides archeology. This first volume of what is to be a five-volume series details the results of seven years of excavation and study of plant remains from Feddersen Wierde, one of the largest prehistoric village sites on the North Sea coast. Located in the coastal marsh north and east of Bremerhaven, Germany, the site was occupied from about 0 to about A.D. 300 by an agricultural people who raised flax, broad bean, and grains for food and forage for their cattle.

Animal droppings in the vicinity of the large combination barn and dwellings protected and preserved large numbers of plant fragments. Layers are separated by clay and fine sand (*Sturmflutschichte*) deposited by frequent flooding by North Sea storm tides. Körber-Grohne has undertaken a monumental task in attempting not only to detail the chronological succession of plant remains but also to reconstruct the environment of the period by plant sociological comparisons between fossil material and contemporary plant associations. Plant remains include 141 species of native herbaceous plants, 13 species of woody plants, 30 mosses (including subspecies), 11 cultivated plants, and 4 species of wild plants which were probably selectively gathered. Pollen and diatom analyses are utilized to support inferences about proximity to the coast during the time of occupation, salinity of the drainage ditches, and cultivation of coastal marshes. A standard pollen diagram with five radiocarbon dates from Ahlenberger Moor, 16 kilometers northeast of

Feddersen Wierde, indicates the presence of agricultural activity (pollen of *Plantago major*, *P. lanceolata*, and *Triticum*-type) in this area more than 1500 years earlier (younger Bronze Age).

It is not unlikely that inhospitable neighbors forced the Feddersen Wierde people to live under the somewhat marginal conditions of the coastal marshes. Certainly it is probable that these people faced frequent crop failure due to storm-tide flooding. Experiments by Körber-Grohne for two seasons in the marshes outside of the dikes (Aussendeichsmoor near Capperslei) conclusively showed the disastrous effects of immersion of field crops in salt water. An interesting observation on coastal agriculture from these studies is that, despite a vertical difference of only 10 centimeters, field plantings in the *Trifolium repens* zone of the outer marsh usually survive, whereas plantings in the next lower zone (*Juncus Gerardi*) tend to have a fatally high immersion frequency. It is not apparent that the inhabitants of Feddersen Wierde were aware of this plant sociological difference. Color photographs of prehistoric and modern plow furrows are convincing evidence of land tillage. Neither micro-fossil nor chemical analysis of the plow layers (*Ackerschollen*) indicates whether stable manure was utilized for fertilizing the Feddersen Wierde fields.

A large section is devoted to measurements of fruits and seeds of cultivated plants, and these are compared with older and younger finds from western Europe. Intensive study of the histology of stems and bast fibers of flax (*Linum usitatissimum*) indicates that although some thread material was made from flax and grass stems, the shortness of the bast fibers probably precluded their use in textiles, the inhabitants relying instead on hides and wool.

The chief value of this work for North American students of prehistory was summed up by a participant in the Fifth International Quaternary Symposium (Kiel), which visited the site in August 1962. "Excavation is destruc-

tive, and the excavator has a responsibility to record and interpret everything at the site. Once exposed, the information is irretrievably lost." Körber-Grohne's meticulous investigations at the site and his use of contemporary plant associations, pollen, seed, and diatom analysis may well provide a model for similar studies on the North American continent.

Four additional volumes in this series will include the house structures, excavation methods, and cultural history (vol. 2), ceramics (vol. 3), general cultural history of the North Sea lowlands (vol. 4), and the bone remains of Feddersen Wierde (vol. 5).

The book is printed in large format on excellent paper with detailed photographs of plant remains, histological sections, seeds, and pollen in the accompanying Tafelband. It is to be regretted that a firmer binding was not used; this reviewer's copy is already separating from the back.

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## Rice Growers

**Agricultural Change and Peasant Choice in a Thai Village.** MICHAEL MOERMAN. University of California Press, Berkeley, 1968. xii + 227 pp., illus. \$6.

There is an encouraging tendency in recent anthropological writing to grapple with changing community organization as a central problem. To attack the problem, we require quantified variables, temporally and spatially precise references, and generalizations about behavior derived from individualized data rather than from cultural assertions.

Moerman's monograph on village agriculture meets each of these requirements in describing rice cultivation among the 120 households of Lue tribesmen who occupy Ban Ping in north central Thailand (near Chiengrai). Unlike most ethnographers, Moerman rejects contextual description which would "explain" agriculture by tracing its interdependence with other institutions of the community. Instead, he prefers to tell us "everything" about the changing economic variables—land, labor, and capital—that influence the farming decisions of Ban Ping's household heads.

As the inheritors of an ancient irri-