

altering them to suit at least some of them, at least for a while. The greatest such alteration, centered initially in Southwest Asia, was the development of grain farming. With farming, radically new possibilities for human life opened up and an agrarian era of deliberate, laborious food production dawned. Neither human history nor the earth would ever be the same.

II

SHIFTING TO FOOD PRODUCTION, 11,000-3,000 YEARS AGO

A few hundred domesticated species of plants and animals established a new intimacy with humankind when small groups of people, located in at least seven different parts of the earth, began to produce most (and eventually almost all) of the food they consumed by resorting to agriculture and herding. An enormous increase in the number of people and in the number of domesticated plants and animals followed, because mutual dependence allowed domesticated plants, animals, and humans to capture far more energy from the face of the earth than they had done before. Humans and some, but not all, of their domesticated animals also had to work harder, and by changing the environment more radically than before, created greater risks for themselves from famine, disease, and warfare.

Humans managed all these new relationships. Their acts and choices altered the traits and behavior of the plants and animals that submitted to domestication so radically that archeologists can usually distinguish bones and seeds of domesticated species from those of their wild relatives. Humans also altered their own behavior radically when tending gardens, fields, and herds became a daily routine; and, for all we know, some of our hereditary traits deriving from the long era of hunting and gathering may have been altered through selection for those who best endured laborious routines of farming.

Recent improvements in radiocarbon analysis allow reliable dating of even a single grain of wheat, and statistical analysis of pollen deposited in ancient bogs and lake bottoms can reconstruct ancient plant assemblages with great precision. Such methods, and careful archeological digging, have gone far to clarify the beginnings of agriculture in Southwest Asia,

