CIVILIZATION

What archaeologists and historians call 'civilisation,' is a very recent phenomenon in man's immensely long cultural development appearing only in the last four-hundredth part of his known history. Yet in his brief moment mankind has managed to dominate all other living matter and has transformed the earth.

Of the many cultural preconditions for the emergence of civilisation, none was more fundamental than the so-called agricultural revolution. The domestication of plants and animals, we now know, came about gradually and was carried forward in a variety of ways by human groups living in several different places. At least, 12,000 years ago, for example, in upland areas between the Nile and the Tigris and Euphrates, men began to harvest wild wheat and other grasses. It then became easier for populations to rise because a storable food surplus could be accumulated. Animals were no doubt attracted to the grain-rich fields, to be either killed off or tamed. Loose settlements sprang up, and over a period of several millennia a whole series of plants and animals were domesticated (wheat, barley, sheep, goats, pigs). By 8,000 years ago villages made their appearance. New techniques and tools were invented—hoes, ploughs, irrigation—and each resulted in increased productivity.

One way in which the technical or economic efficiency of a system can be evaluated is by calculating the ratio of caloric output to input (in the form of work). This index has improved seriously from below 10 (the case of Bushmen) to 200 (in the case of mechanised agriculture).

With every improvement of this ratio man has always had two choices: to reduce input in terms of work done or to raise population size and density, thereby allowing him to increase the number of non-productive dependents. The choice has always been population increase.

Historically, with larger populations came social differentiation and the appearance of classes and categories—peasants, priest, soldiers, artisans, aristocrats. And with stratification came ownership and exploitation–of land and of men–and at the same time warfare. Thus agriculture produced the base, and much of the incentive for the development of civilization.

The prime importance of agriculture to the growth of civilization was its capacity to produce a sufficient surplus so that others, not agriculturalists themselves, could live off the surplus, carrying on ways of life different from that of the peasants. Yet the term 'civilization' is not easily accounted for. The word is ultimately derived from the Latin '*civitas*,' the community, which gave the townsman the polish and refinement lacking in his barbarous contemporaries. The idea of the city has always clung to the term. But there were some

ancient civilizations that never had cities as we think of them. By the mid-nineteenth century AD, archaeologists and anthropologists had become familiar with the ancient and literate civilizations of the Near East, and writing became the criterion by which they distinguished 'higher' from 'lower' cultures, separating the disciplines of prehistory—the study of preliterate culture—and history. Again, this criterion is not entirely satisfactory. One important civilization, the Inca, had no writing whatsoever.

Thus, rather than on technology or even literacy, we might better place our emphasis on features of social and ultimately political organisation. It is no accident that the earliest known 'high' cultures in both hemispheres arose in exactly those areas in which food production had first taken place: Mesopotamia, the Yellow River Valley of China, Mesoamerica (Mexico and Central America) and the Andes of South America; for advanced social and political organization was the only means by which these cultures could cope with the problems raised by their own spiralling populations.