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AGRICULTURE BEFORE THE SETTLERS

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The environmental changes that occurred at the end of the Pleistocene-Quaternary geological time period, since the end of the Pliocene, there are 2,59 million years old until the beginning of the Holocene, for years – were probably 11,700 years old – the most important factors for the beginning of agriculture. During this period, because of the retreat of the polar ice caps, expressive climate change occurred at the end of the last glacial period, accompanied by decreases in populations of hunting large animals and increased human population in new areas of habitat.

Archaeological evidence suggests that the hunter-gatherer groups of the species *Homo sapiens*, during the Holocene-age of Quaternary geologic timescale, since the end of the Pleistocene, there are 11,700 years old until the present – began the process of domestication of plants and animals in 24 regions of the Earth. The beans were the focus of domestication in 13 of these regions. The domestication of plants includes at least nine independent origin centers, of which the oldest are in Asia (10,500 years old), in Africa (7,000 years old), and the Americas (between 4,500 and 8,000 years old). There are also suggestions about other independent Center in South America, East of the Andes and South of the Amazon, and other centers will still be mapped with the advancement of research.

Anyway, people without contact with each other in relatively close periods, have developed the beginnings of agriculture, which has spread to revolutionize the rest of the world. The advent of agriculture and herding changed radically the modus vivendi of the human species. The human animal, that is part of nature and that depends on it is not resigned to live forever at the mercy of the fruits and spontaneous shoots, which became scarcer as – environmental and human factors – before mentioned you occurred.

That way, the search for solutions to adapt to this new condition led to consolidation of the agriculture and animal creation. This in turn has contributed to promote among other things, the end of nomadism, the establishment of property rights on root (land) goods and perishable (animals, implements, etc.), greater security in daily life and the strengthening of family links formed this revolution.

This change was well observed by the German philosopher Friedrich Hegel (1770-1831) in his work of 1830 "The Philosophy of history", commenting on the original contribution of Asia to the world history, *"in agriculture is involved ipso facto abandonment of wandering life; She demands foresight and helpful for the future: reflections on a general conception is thus awakened, and it lies the principle of property and productive stage "*.

In fact, the creation and management of animals, on the other hand, assume a considerable element of caution and foresight in protecting and providing feed the flock, in the maintenance of physical strength, of procreation, and finally to its use. The cultivation of the soil, in turn, requires measures to prepare the planting area of seed selection, cultivation, harvest, storage and deliberation on alternative uses of the crop (not only for future planting as storage for consumption throughout the year). In both cases, the expansion of the time involved in the production process means that the activity would become unworkable in the absence of a minimum of predictability and certainty about the rights of ownership over the means of production and of the fruits of work.

The combined effect of these changes is twofold: expanding the horizon of time that society was formed and the movement of the pendulum of time preference towards the future. The agriculture and animal creation entailed a comprehensive upgrading of the values, beliefs, institutions and ways of life to its methods and requirements. Between the events of world history that permanently altered the habits of mind of man, it would be hard to find any that could rival the impact of the transition to the basic agricultural and pastoral society across the way we perceive and deal the temporal dimension of practical life.

This process of change in human behavior, from the domestication of external nature demanded an enormous commitment to the domestication of the inner nature of man, resulting in a vast upgrading of the values, beliefs, institutions and ways of life to its methods and requirements, modifying your perception of inter-temporal exchange, that is, the here and now of the nomadic society gathering and hunting at plant today and reap tomorrow.

Becoming a temporal cut in this process and coming to the American continent, can illustrate the importance of this revolution in people who lived here, mostly by the cultivation of cassava and maize. These people arrived about 15,000 years old, had a fairly old pattern of domestication of plants. The people who inhabited the Amazon domesticated cassava (*Manihot esculenta* Crantz), second most conclusive evidence, about 8,000 years old. These people had, prior to European colonization, at least 138 plants with some degree of domestication in different systems of crops, of which 83 were native and exotic from 55 other tropical regions, as Mesoamerica and the Brazilian Northeast.

In the early colonial times, the cassava looked like an alternative feed to replace wheat. However, it didn't take long for that root to conquer the palate of the Portuguese colonist. In 1587, Gabriel Soares de Sousa considered "*the pancakes very tasty, healthy and good digestion*". In the three centuries of colonization was the main responsible for the survival of Brazilian food in many circumstances. In the history of Brazil, since the colonial era, there are many references to cassava and its by-products.

Cassava cultivation, simple and good resistance to pests and diseases, became, in the colonization, the food of the poor, and of the slaves. A plague that it occurred was the Ant attack, but that the Indians knew control by the annihilation of the anthills. Antonil advised farmers to have always a crop of that product, and so expressed himself: "*In every device with a large number of slaves are needed many plots 1,000 graves of cassava*".

Corn (*Zea mays* L) was domesticated approximately 7,500 years in Central America. Maury the terms social plan because according to him: "*the most precious gift that the Saxon race received from America, without which it is not conceived as the vast continent could be so quickly conquered the savages*". According to Manuel Velasques and Angel Maldonado in: "*Contribución al la estudios de la media peruana*", was Christopher Columbus who brought him to Europe. Jean de Léry refers to the cultivation and use of corn between indigenous peoples of Brazil. Gabriel de Sousa Sores also referring to this cereal says: "*there is another keeping in all Brazil, natural, which the Indians called ubatim, which is Guinea corn, which in Portugal called zaburro*".

On the other hand, the importance of cassava and maize in the colonization of Brazil was intense, without these products would not be possible to colonize the new land so far from Europe, where the food crisis was extremely serious character.

In Brazil very little is done in relation to its cultivation and industrialization of the cassava roots since the colonial period. This situation began to change in the second half of the last century. Agronomic aspect with the creation of the unit of Empresa Brasileira de Pesquisa Agropecuária (Embrapa) with your thematic unit of Cruz das Almas (BA), Embrapa Cassava and Fruit, created in June 1975, which was started in February of 1976, aiming to enable technologies for the sustainability and productivity of cassava cultivation. In the industrial aspect emerged in 1991, in the State of Paraná, the Brazilian Association of Producers of Cassava Starch (ABAM, acronym in Portuguese), with the mission to develop the economic activity, promoting the spirit of cooperation and union of cassava starch producing undertakings in Brazil.

As for the corn, its domestication was from a plant called teosinto, which was initially classified in a genus other than that of corn because of morphological differences. With the studies related to genetics and molecular biology, it was possible to establish the close relations between the two species. One of the morphological differences are established is the fact the teosinto present long branches with the tassel on the ends, while corn has the branches with spikes at the ends. The "ear" of teosinto is a poor when compared with the corn ear. In Brazil, Embrapa works with the corn research in its unit Embrapa Milho e Sorgo, in Sete Lagoas, Minas Gerais.

In this new context of society graduate from the domestication of plants and animals, the agricultural revolution will continue. The methods of artificial selection produced in the 20th century, the high-yielding varieties that assists in the production of foods in more than enough to feed, since then, the human overpopulation. The lack of food in many parts of the planet Earth is certainly not a problem of production, and if it is, it's certainly not a problem of the technology be applied or searched.