Historical references to banana and plantain are many and varied. The earliest written reference to banana is in Sanskrit and dates back to around 500 BC. Ancient Greek records of Alexander the Great’s campaign in India of 327 BC describe bananas and the Arabs have long been familiar with the banana palm which they called by its Indian name, pala. The Romans also used this name and Pliny the Elder refers to pala in his Natural History. Later, in the Middle Ages, the banana was thought, by both Moslems and Christians, to be the forbidden fruit of paradise.

This led to the belief that the edible banana plant originated in continental South and Southeast Asia. However, botanical research and collecting missions carried out this century by E. Cheesman, N.W. Simmonds, Allen and others, discovered that the story was far more complex.

Domestication

The centre of origin of the wild banana stretches from India to Papua New Guinea and includes Malaysia and Indonesia. Within this area, some diploids, possibly hybrids, acquired the capacity to produce more pulp and became progressively seedless. Human intervention may have played a role in the generation of edible bananas, as reports on banana cultivation in settlements close to forests in Papua New Guinea describe seedless diploids growing in the gardens of the settlements, wild diploids growing at the edge of the forests and semi-wild variants growing in areas between the two.

Seedless edible bananas could only have reached other parts of the world via the transplantation of suckers by human beings. Therefore, the history of banana varieties is closely linked to that of human populations in the tropics. History, archaeology and anthropology can all help to interpret the history of banana cultivation.

Historical indications

The history of many popular banana cultivars is relatively simple. From about the 5th to the 15th century, and perhaps earlier, the Indian Ocean was navigated by traders from Arabia, Persia, India and Indonesia. Banana varieties from Southeast Asia, including Indonesia and India were, by this means, distributed over the coastal regions of the Indian Ocean. These varieties are a broad mixture of genomic combinations and include Red (AAA), Silk and Prata (AAB), Pisang Awak (ABB), and even AA’s and AB’s, and some plantains.

From the 16th to the 19th century the Portuguese and the Spaniards carried bananas all over tropical America. In fact, the name pa-coba, which is used in Brazil for (Horn) Plantain probably derives from the word koba, which is used in Sao Tomé and in the coastal zones of Southeast Africa, where that form of the name probably originated. The linking factor is clearly the Portuguese trading. Dutch, British, French and German traders also played a role in the distribution of the popular banana cultivars ‘Gros Michel’ and the Cavendish group to West Africa, Latin America and the Caribbean.
Beyond history

In the African continent a hundred or more different cultivars of Plantain grow deep in the rainforest. In the countries bordering the Great Lakes region in Africa, more than sixty different cultivars of the Highland Bananas - also called “Mutika/Lujuriga” group, can be found (INIBAP, 1995). Cultural history and tradition point to the presence of the crop in these areas since time immemorial.

The history of the “Maia Maoli/Popoulu” group of banana in eastern Polynesia, and maybe also those on the west coast of South America and in Ecuador, is equally old.

Research has established few certainties and relies for the most part on indirect evidence which has come to light through the study of archaeology, linguistics and ethnology, plus speculation and common sense.

Maia Maoli/Popoulu

The history of the “Maia Maoli/Popoulu” group of bananas is closely tied to that of the Polynesian people. Archaeological, linguistic and genetic research on human populations in the Pacific has made much progress during the last two decades and the following general pattern of population movement has become apparent. The origin of the Austronesian-speaking people should be sought in Taiwan, many of whose inhabitants moved to the Philippines and then to eastern Indonesia, about 5500 years ago, taking their horticultural skills with them. A millennium later, one or several groups of these people navigated eastwards and established colonies along the northern coast of Papua New Guinea, in the Bismarck and Solomon islands. Approximately 2000 years ago, these people colonised the whole of Polynesia from Fiji, and may even have reached the Ecuadorian coast. These people became known as Polynesians.

During their odyssey, the Austronesians came into contact with the original inhabitants of the Philippines, Indonesia, Papua New Guinea and Melanesia, from whom they learned how to cultivate crops such as taro and banana. It is now known that Melanesians grew vegetatively propagated crops 30,000 years ago. The question of whether the Melanesians and not the proto-Polynesians were the first occupants of West Polynesia and the manufacturers of the famous Lapita pottery, is a matter of current debate.

As the ‘Maia Maoli/Popoulu’ cultivars, which are considered to be AAB hybrids, clearly belong to the acuminata-balbisiana complex, they must have been carried eastwards by the proto-Polynesians from somewhere in or near the Philippines more than 4000 years ago.

The African Highland bananas

Recent historic-linguistic studies show that banana cultivation became progressively very intensive in the Great Lakes area of Africa between the 5th and the 10th century. As Plantain does not easily grow at high altitudes the varieties that were developed must have been the AAA-Highlands bananas. The result is the existence of more than 60 cultivars which appear to be unique to this area as they have not been found anywhere else in the world. This area of secondary diversity of banana is clearly the work of East-Bantu speaking people.

Fascinating research still remains to be done to explain how these cultivars exactly came into being. Are they mutants of a basic cultivar that reached East Africa? Or did they develop within East Africa from edible diploids, of which a few have been found eastward of the Great Lakes region, towards the Indian Ocean coast? Even a wild acuminata seems to exist on the island of Pemba.

The origin of the African Plantain

The existence of numerous Plantain cultivars in the middle of the African rainforest is intriguing. The plant was - and still is in some remote places - a key component of cultural life.

It has been explained elsewhere (De Langhe et al., 1996) that Plantain probably reached Africa more than 3000 years ago. However, the identity of the people responsible for growing Plantain during that remote age remains a mystery. They were certainly not relatives of the inhabitants of Madagascar, who reached and colonized that island at a much later date, about 1500 years ago. Neither are the ancestors of the Bantu- or Cushitic-speaking peoples likely to have been the growers.

Further research is needed on the oral traditions of the Chagga and other Highland people who tell of their ancestors finding on their arrival a forest-living “Bakinongo” people, who although hunter-gatherers also cultivated banana. It is evident, however, that once the Plantain spread to the more humid forest climates, it underwent an intensive diversification by the West-Bantu speaking people.

It is equally difficult to identify the people responsible for carrying Plantain from South and/or Southeast Asia to Africa. The earliest historical traces of a cultural contact between East Africa and India date from not more than 2000 years ago.

Is it possible that people with a limited technology could have crossed the Indian Ocean, carrying with them planting material such as plantain suckers in order to establish themselves in a new territory? Is there any evidence in South or Southeast Asia for the existence of such a people?

Such evidence does exist and can be derived partly from botanical considerations and partly from the recent progress made in understanding the prehistory of the Melanesians.

The very remote past of Plantains

Plantains are as rare in Asia as they are in East Africa. Diversity of Plantain varieties is found only in some parts of South India, and in remote areas in Luzon, in the Philippines. In the latter case, they are cultivated by the Aeta’s who until recently practised itinerant agriculture.

The evidence suggests that Plantain must have been widespread at sometime in the whole of the humid tropics of South and Southeast Asia and that they have been replaced by various triploids which came into existence after Plantain but within the same huge area of origin. Many of these triploids are more robust and more resistant to drought and disease.

It is believed certain that a population of hunter-gatherers established themselves in Indonesia and Melanesia some 60,000 years ago; a people who were not afraid to navigate long distances to reach Papua New Guinea and Australia. This region is precisely the area of origin of the edible diploid banana and probably of Plantain and Maia Maoli/Popoulu as well. However, since the latter is not found in West Indonesia where Plantain was cultivated, it was probably generated at a later date than Plantain.

In all probability, this is the area where the Melanesians started itinerant agriculture by vegetatively propagating wild taro and banana, leading to the domestication of these plants. The present population of Papua New Guinea is well known for tropical agriculture which derived from the above type of agriculture.
If proto-Polynesians were able to colonize islands thousands of miles to the east, then another group from the same region may have tried to use the currents of the Indian Ocean in search of new territory to the West. These people could have reached the East African coast, bringing with them and planting taro, edible diploid bananas and Plantain. As dry suckers of taro and banana plants can be preserved for several months and still keep their capacity to grow out into normal plants, the long duration of the voyage across the Indian Ocean is no objection per se.

Plantain, the oldest fruit crop?

Such a hypothesis fits with the finding that Plantain must have reached Africa more than 3000 years ago. However, it is unlikely that any archaeological evidence for this ‘visit’ by a group of navigators will ever be found.

This hypothesis also explains why the word huti is used to denote bananas in Melanesia, for example in the Solomon Islands, as well as by the Shamba’a and Bondel tribes, of Northeast Tanzania, for a group of bananas which includes French Plantain, found close to the coast in Northeast Tanzania, but nowhere else in Africa. The Madagascan word, \( (h)ontsy \), is of Austronesian origin, as is \( futi \) in Western Polynesia.

Even if the above hypothesis regarding the domestication of banana and plantain is accepted, and this may also apply to taro, the question still remain as to why people were interested in the vegetative propagation of the original wild relatives of banana, whose seedy fruit was inedible. Two practices may provide the key.

The corm, which is the underground part of all banana plants as well as taro, is starchy. In fact, tars is grown as a source of starch. It has been repeatedly recorded that in times of famine, the banana and plantain corms are eaten in Africa and in Asia. Moreover, the plants of the genus \( \text{Ensete} \), which are morphologically very similar to those of the genus \( \text{Musa} \) - to which all wild and edible bananas and plantains belong - are cultivated in Ethiopia for the corm and for the starchy part of its leaves.

This would hint of a time when wild bananas were grown and propagated for their corms and not for the seedy, and therefore unattractive, fruits. Vegetative propagation may have started when the people responsible for cultivating bananas settled in areas where wild diploids were not grown nearby. They would soon have found out that suckers and buds of corms were good planting material just as with tars.

Another clue was provided forty years ago by the ethno-geographer C.O. Sauer who drew attention to the fact that some fishermen in Southeast Asia use dried banana pseudostems as fibres to weave around bamboo stems to form a type of raft, used for fishing along the coast. Vegetative propagation of bananas near the villages would have been a simple means of supplying a source for this material.

What is known is that after long millennia, vegetative propagation eventually led to fleshy and seedless fruits which became an attractive food source. This practice is also responsible for the seed sterility of many cultivars.

If the term ‘crop’ signifies a plant that can be grown for subsistence, then the plantain and the edible diploid bananas which originated many millennia ago may indeed have been the first fruit crop, at a time when hunting and gathering were still the main means of procuring food.

References


