

XI. POPULATION, LAND OCCUPANCY AND AGRI-FOODSTUFFS SYSTEM IN THE TUAMOTU ARCHIPELAGO

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Since the environment and natural surroundings of the atolls offer conditions so unfavourable to human settlement and habitation (dangerous navigation in their adjacent waters, devastating effects of cyclones, extremely poor soils, lack of water, etc.) it is - without dwelling on the origin and nature of their population - interesting to examine, in the light of history, the successive forms of land occupancy and the evolution of the agri-foodstuffs system in the Tuamotu Islands.

Whether we turn to the historical sources in the strict sense (very brief and fragmentary accounts by the early explorers and documents assembled by the missionaries and the first administrators)¹, or to the information provided by archeology and, in particular, by the entire corpus of ethnic traditions (genealogies, oral testimonies of ancestors, etc.), it is not really possible to describe in any detail the various phases of land occupancy in the archipelago. At the very most, we can attempt to sketch in broad outline the picture of an evolution which, despite large chronological differences reflecting specific historical circumstances, appears to have been the same throughout the islands.

Two major happenings can serve as reference points in this evolution:

- (a) *The arrival of the first Maori migrants*, which, if we trace it back through the ancient genealogies, must have taken place round about the year 1,000;
- (b) *The assumption of control over the Tuamotus* by the Tahitian dynasty of the Pomares at the beginning of the nineteenth century, which was to mark the starting-point of a far-reaching intrusion of European influence.

Little is known about *the very first inhabitants of the archipelago*. 'The earliest occupants of the land', writes the historian E. Caillot, who relates a number of legends, 'went almost entirely naked, slept in caves or underground hollows or in the shelter of rocks or bushes . . . lived on roots, fruits, fish and even human flesh'. Were they proto-Polynesians, similar or identical to the 'Manahune' Tahitians described by Handy, who would have occupied the archipelago at some very remote period? In the absence of any material relic of their culture - 'they knew nothing of genealogies and did not construct any marae' P. Ottino tells us - it is exceedingly difficult to judge. Is it to this ancient basis of population that we should attribute the persistence, even today, of certain physical characteristics (dark skin and frizzy hair) and cultural traits (giant clams, 'pahua' and octopuses, 'fee' are still frequently eaten) specific to the eastern Tuamotus, which are more isolated geographically and have therefore been less affected by racial mingling than the other islands in the archipelago? It is possible.

All that we can know for certain is that from the year 1,000 onwards this first wave of migrants was progressively submerged by Maori invaders spreading from the neighbouring Society, Marquesas and Gambier Islands.

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1. Many of these documents were destroyed by the cyclones of 1903 and 1906.

After the arrival of these newcomers, on every atoll where they had stepped from the large double canoes in their dozens, there began what P. Ottino calls 'the *ati* period'. Once an initial colonisation phase had passed, their descendants were undoubtedly very soon obliged to space themselves out along the periphery of the atolls in very small groups or 'ati': given their extremely rudimentary techniques of exploiting their environment, this was the only way they could make the best possible use of the meagre resources available. Each 'ati', under the leadership of its elder, constituted an autonomous socio-political unit which, becoming identified with its territory or 'mata'einaa', had scarcely any relations with the outside world, either on the matrimonial level or in the economic sphere. Living in 'long houses' each capable of sheltering 30-60 individuals under its roof (as on Rangiroa, according to Ottino) or in small huts spaced out along the edge of the lagoon (as stated by the missionaries), in order to subsist these people turned to gathering the fruits of the 'fara' (*Pandanus* screw-pine) or the 'nono' (*Morinda citrifolia*) and collecting the roots of the 'pia' (*Tacca pinnatifida*). There were very few coconut palms, originally at least, and even nowadays they are almost totally non-existent on some inhabited atolls. Fortunately, the marine environment supplied an abundance of sea-bird eggs, shellfish (particularly the 'maoa' - *Turbo setosus* - and the 'pahua' - *Tridacna maxima*, which were consumed in enormous quantities on the atolls of the eastern Tuamotus) and of course fish, which were caught in the open sea with hooks fashioned from pearl shell or captured in the lagoon with the aid of traps built from coral blocks, numerous relics of which still remain.

A gathering form of existence, characterised by shifting and extensive occupancy of their environment, was obviously not one that could engender exclusive acts of land appropriation at the level of the blood-relationship groups constituting the 'ati'. Consequently, there is nothing surprising in the fact that in the eastern Tuamotus, according to the direct testimony of elderly Paumotus, at the end of the nineteenth century the areas used for gathering still constituted the 'Tuhaa Hui raatira' (literally, 'the people's portion') which had no owners, as opposed to the 'Tuhaa tupuna' ('the ancestors' portion') which, at the end of a process of evolution that I shall now discuss, was firmly appropriated by the family groupings.

In the middle of the sixteenth century, Ottino tells us (the phenomenon must have been later in the eastern Tuamotus), the 'ati' of Rangiroa and of the atolls in the region gradually emerged from their isolation. This marked the start of the '*mata'einaa*' period. A deep-seated cause underlying this trend of development was, in my view, *growth in population*, which, in changing the population/resources ratio and multiplying the chances of contact between people, was to break down the existing spatial frameworks and radically alter the economic and social conditions of land occupancy.

The major historical fact which dominated the entire history of the Tuamotus in the two or three centuries preceding European penetration was the rapid and generalised spread of the *insecurity* caused by the warlike expeditions undertaken by the islanders of Anaa and Takoto: too cramped to find adequate resources within the confines of their respective atolls², they regularly and methodically raided the islands in the central-western and eastern parts of the archipelago. The 'ati', who until then had scarcely ever emerged from their isolation except to join battle in merciless wars which generally ended with the vanquished in the cooking-pots of the victors, found themselves obliged to silence their quarrels in order to defend themselves. As a result, there was a change in the nature of the contacts between neighbours (both within each atoll and from one island to another) which were in any case becoming inevitable because of population growth.

In the case of matrimonial customs, an 'endogamy of necessity' practised by small isolated social groups was replaced by the exchange of women; and the consequence of

2. So it can be assumed, at least, that Anaa was still the major centre of population in the Tuamotu Islands as late as the nineteenth century.

these new relations was a change in the nature of the ties between men and land: 'they acquired double rights by virtue of the marriage of their father or their mother with individuals from a different district' states Te Iho, Bengt Danielsson's chief informant on Raroia. With the intermingling of the population that ensued, the 'mata'einaa' ceased to be identified with the piece of territory controlled by an 'ati' and came to be defined in relation to a more extensive geographical area accommodating human groups which were larger in number.

As the 'ati' of origin ceased to be the obligatory dwelling place, so the pattern of habitation tended to rearrange itself, a tendency which was also accentuated by the element of insecurity. *The islanders collected together on favourable sites:* passes through the reef and 'motus' which were readily accessible and offered an abundance of groundwater. On Takapoto 'although it is known that the pattern of habitation was a scattered one, the families had to some extent formed themselves into groups near the cultivation pits . . . spaced approximately two kilometres apart' states the archeologist J.M. Chazine. On Rangiroa, by the middle of the eighteenth century we are undoubtedly at the end of a process of evolution: the atoll's inhabitants lived in villages situated near the Tiputa, Avatoru and Tivaru passes. On Takoto, a similar concentration of the population was in evidence when the missionaries arrived in 1870.

This concentration was to have important consequences for the aspect of their way of life with which we are concerned here. The gathering activities which favoured the geographical dispersion of human groups over as extensive an area as possible were joined by a *true agriculture*, which consisted in taking advantage of the presence of groundwater by digging pits ('maite') and planting 'taro' (*Colocasia esculenta*) in them. These areas of habitation and permanent cultivation, unlike the sectors used for gathering, were appropriated by the family groups responsible for their establishment. If we are to believe the missionaries, there even existed certain forms of individual ownership, since useful trees - particularly coconut palms - belonged to those who had planted them.

By 1817 - when, in response to an appeal from the people of the north-western Tuamotus (who once again had cause to complain of the extortions of the Anaa warriors), Pomare II imposed his mediation on the Paumotu chiefs and assumed control of the archipelago to the west of Hao - the islanders had developed an agri-foodstuffs system which enabled them to satisfy all their needs after a fashion, at least in times of peace. The missionaries, the traders and, from 1842 onwards, the French administrators who took advantage of the peace that had been established to install themselves in the archipelago, were to change this state of affairs. *The colonial era, the era of copra, began.*

It was slow in starting. At first, the traders were interested primarily in mother-of-pearl. Production of the coconut oil exported by the Europeans who had settled on certain islands was in fact relatively low.

There were two reasons for this: the first, which was economic and political, was the shortage of raw material. In the traditional economy, the products of the coconut palm had been used exclusively, in necessarily small quantities, for domestic purposes: food, medicinal uses, basket weaving, construction of 'fare' (houses), etc.: moreover, the insecurity that had prevailed until the early nineteenth century had not always allowed the plantations to be enlarged to keep pace with requirements.

The second reason was a technical one: the method of extracting the oil was a very laborious small-scale operation. This obstacle was removed by 1870, when the development of the process of drying the nuts marked the start of organised copra production, with the subsequent processing being carried out in the industrialised countries where there was urgent demand for the oil.

There remained the problem that there were too few productive coconut plantations and that they needed to be enlarged. For the missionaries, who deplored the extreme poverty of their flock, the important thing was that every Paumotu was to be given a plot of land on which he would plant coconut palms; for the civil-authorities, it was more a question of developing the archipelago by encouraging the colonisation of land. The achievement of these objectives entailed *preliminary recognition and registration of property rights*. Setting the cumbersome administrative machinery in motion was to prove a lengthy business; initiated in the 1890's, the procedure for declaration of ownership which finally led to the issue of formal title deeds was not to reach completion in the eastern Tuamotus until 1925-30. On a good many atolls, it was to amount to nothing more than a confirmation, allowing for the transmissions by inheritance that had intervened, of the rights already established by the missionaries.

And the latter made no bones about how they tackled this. In the case of Takoto at least, which can certainly be regarded as typical, in the areas used for gathering, the atoll was divided into straight strips running from the ocean to the lagoon, and the resultant parcels of land were allocated to individuals by drawing lots. In the areas of habitation and taro-cultivation pits, the fact of existing occupancy was observed and the apportionment of the land reflected the territorial pattern of settlement by significant family groupings (groups of brothers and sisters and their descendants). Subsequently, the administration was none the less to issue numerous individual title deeds and was to believe, naïvely, that it had based land ownership on the principles of the *Code Civil* of metropolitan France.

The reality of the situation was, of course, nothing of the kind. What had happened? The distribution of land between the family groups was followed, particularly after the abandonment of the 'maite' (see below), by a redistribution under the supervision of the elders: every adult male who was the head of a family was given a plot of land on which to plant coconuts; in doing this, he was merely acquiring rights (which were also very wide and transmissible to any of his descendants who were resident) over the plantation he created. For the Paumotus, like the other inhabitants of French Polynesia of Maori stock, drew an essential distinction, unrecognised by the *Code Civil*³, between the *collective control of land, which was essentially sociological and administered by the elders, and the purely economic rights which individuals exercised over the plantations of which they were the originators*.

This system of tenure, which led to a form of land distribution whose end result and procedures bore little relation to the principles that the *Code Civil* applies for purposes of partition (in granting, for instance, the same rights to residents and non-residents), was to remain in force, in some places at least. Except on those atolls where commercial companies and colonists had succeeded in carving out estates for themselves by petitioning the laws of France, apparent individual ownership as conceded by the procedure for declaration of title was to disappear. This misunderstanding was to give rise to the *problem of joint possession*, a problem made all the more complex by the fact that through contact with Western influences which, particularly by breaking down the structure of traditional society, helped to undermine the authority of the elders; the unwritten law of customs was no longer strong enough on the atolls nearest to Tahiti to uphold the system of tenure and the smooth progress of land exploitation and development. This is a subject that merits lengthy discussion in which the various responsibilities would need to be clearly established, and lack of space prevents me from tackling it here.

The systematic enlargement of the coconut plantations which was to continue into the 1930s did more than drastically alter the forms of land occupancy: it was also responsible

3. It makes no distinction between ownership of the land and of what exists above the land (dwellings, plantations, etc.) in its individualistic and exclusive conception of property.

for the *disappearance of the entire system of subsistence* based on the exploitation of terrestrial resources. When they embarked on copra production, the Paumotus plunged headlong into the cash economy, almost without any transition. In exchange for copra, which was their homeward cargo, the trading schooners offered the islanders goods which were soon to become essential to them. For it is easier to procure flour, rice, oil, sugar, coffee, condensed milk, tinned butter, corned beef ('pua'atoro') - and even tinned fish - than to produce taro and bananas by cultivating them in pits.

Within a very short time the Paumotus abandoned their 'maite', or rather neglected to re-establish them after the devastation of the cyclones of 1903 and 1906. As a result, apart from what the marine environment supplied they became almost totally dependent on the outside-world. And by the same token they became totally committed to the production of copra, because without it they generally had no access to the shop on board the schooner which was stocked with essential foodstuffs.

The system worked well, notably between the two World Wars, as long as copra continued to command a high purchasing power. After 1945, however, with the deterioration in the terms of trade, the situation grew steadily worse and the standard of living of the Paumotus fell lower and lower. To remedy this state of affairs, in recent years the authorities of the Territory have been paying them for copra at a rate far above that on the world markets and aligning the prices of essential foodstuffs on those of Tahiti. Such a policy, although in combination with other palliatives (especially the massive injection of credit into the island economies via the communal budgets) it certainly helps to check the rural exodus, is extremely costly and solves nothing in the long term. Maintaining a population in the Tuamotu Islands entails a *diversification of activities (happily already started)*, a *land reform* that will incorporate the positive elements of the unwritten law of custom, and the *revival of a true agriculture on the atolls*. One of the merits of this conference should be to demonstrate that the men of the twentieth century, with all the resources they have at their disposal, are capable of doing as well as their forbears.

SELECT BIBLIOGRAPHY

- Caillot, E. (1910). *Histoire de la Polynésie orientale*. Paris, Ernest Leroux.
- Chazine, J-M. (1977). Prospections archéologiques à Takapoto, *Journal de la Société des Océanistes*, 56-57: 191-215.
- Danielsson, B. (1956). *Work and life on Raroia*. London, George Allen and Unwin.
- Ottino, P. (undated). *Ethno-histoire de Rangiroa*. Papeete, ORSTOM Centre. Duplicated typescript.
- Ravault, F. (1978). *Structures foncières et économie du coprah dans l'archipel des Tuamotu*. Papeete, ORSTOM Centre. Duplicated typescript. Abstract in *Bulletin de la Société des Etudes Océaniques*, 205: 329-342.

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