

Traditional Marquesan agriculture and subsistence: General ethnobotany, animal husbandry, the use of pork and European-introduced animals

Part IV of IV

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EARLIER INSTALLMENTS of this series on traditional Marquesan agriculture as seen through the eyes of early European visitors dealt with topics concerning subsistence economy. This final installment covers general ethnobotanical notes, animal husbandry, the use of pork, and European-introduced animals.

GENERAL ETHNOBOTANY

While this section is not exhaustive, I have tried to include enough passages to gain a sense of what is in the early sources.

Crook describes *Thespesia populnea*¹:

“The Meyo [*mi'o*] grows crooked, and resembles the Faou in appearance. Its wood is white on the outside, and red at the heart. Its leaves resemble our Lilac. It bears a bud, from which a Yellow juice is pressed out, used to rub Children in parts where the Skin frets. Utensils and paddles are made of the Wood.” (Crook 1952:cxxxii)

And the *vahake* or *vahane* palm²:

“Another species of palm, called in America the Brab Tree and here called Vanane and Vahaka, [1] grows like the Cocoa Nut, but is perfectly strait; and little more than 30 ft. high. From its top, diverge leaves; which are deeply and narrowly indented, and about 4 feet in their largest diameter. The Hocrratimo is here called Fekke, but its heart does not at all resemble a Cabbage, as has been asserted.” (Crook 1952:cxxxii)

Crook (1952:cxxxii-ii) also describes the following plants: *puahi*, *tia'e*, “Reia”, *kenae*, “Gouke”, *toa*, “Mae or Koacke”, *temanu*, “Buatai”, “Kepinne”, “Tutu”, “Heappo”, “Silk Cotton or Havavi or Pokeho”, “Pematte”, “Pope”, *papa* vine, reeds, and grasses. Crook (1952:cxxxii) and Roberts (1974:248) both state that the fruit of the 'eva tree (*Cerbera manghas*) is a poison taken for suicide.

Lisiansky states:

“*Kenai* [*kenae*]. A soft tree, used for small ca-

noes, and other unimportant works: it takes root as easily as our willow.

“*Pooadea* [*pu'atea*, *pukatea*]. This is the largest tree on the island. Its trunk, I was told, measures in some instances thirty feet in circumference: the branches, which are only allowed to be cut for religious ceremonies, spread wide, and are well adapted to give shade to burying-grounds.” (Lisiansky 1814:91)

Thompson describes:

“Banian. Does not *grow* here to perfection; large ones are seldom seen; the inner bark of the young shoots is beat into a thick coarse kind of cloth, generally worn by the men. ...

“Calabashes. Grow spontaneously; they are large and are prized by the natives as *dishes* to hold *popoi*, etc. An opening is made at the top and the shell is slung in a network made for it; they are very useful and look well; the lids which are made of timber is carved. ...

“Castor Oil Plant. Grown as a weed; it is turned to no account.

“Cotton. Is not endigenous, although it grows in many parts of the Islands; when Missionaries came here it was only found at Vaitahu. It is used by the natives to make tinder to light their pipes, as such it is highly prized. Natives say it was introduced by a seaman turning out the contents of his bed, which being cotton, contained a few seeds still retained in the vegetating principal. ...

“Tobacco. Was probably introduced by Cook, he having introduced it into Tahiti and other islands; it is occasionally planted.” (Craig 1980:16-9)

Jardin (1862:52) describes “Mouku” (his “*Cyperus macreilema*, M. Steudel”) as a meter or more high sedge that is mainly found in the “tribe of Akapua, Controller’s Bay, and in that of the Naikis.” It was used for straining kava and coconut milk. He also (ibid.) writes that four species of “*Fimbristylis* (*nukahivensis*, *separanda*, *tertia*, *marquesana*)” all known as “*haiki*” were for covering the sleep-

¹ Latin binomials follow the usage of the Germplasm Resources Information Network (GRIN) taxonomic database.

² Elsewhere, Crook spells it « Vahake » and « Vahane » (1952:cxli, clxxvii).

ing area of houses. Crook (1952:cxxxii), in describing grasses, mentions that “another, Hieke, is fine, although 4 ½ feet long; and is strewed for bedding over which the principal people lay a mat.” Jardin (1862:54) also mentions that several species of fern were used to cover the sleeping area. (see Addison 2006:672-9 for discussion of plants used in traditional Marquesan house building).

Delmas (1927:37) names “Neui” as the mother of “plants and bushes” and “Hinateuhi” as the goddess of plants (ibid.:48). “Tuotuoo” was the mother of reeds (ibid.:37).

Hau/Fau

Crook (1952:cxxxii) comments on the utility of *Talipariti tiliaceum*³: “Of the trees which do not produce fruits, the Fau (or Purou of Otahite) is the most common at the Marquesas. It is used for numerous purposes, and especially in building houses, and making outriggers for canoes.” Thomson concurs:

“Syrian Mellon. Is one of the most valuable trees in the Island; its bark is used in the manufacture of rope, strings, and to make nets, etc., its young shoots make excellent rafters for houses, and its trunk affords good timber very suitable for boat building.” (Craig 1980:18)

Christian (1910:208) writes: “*Fau, Hau*. The hibiscus of which there are four varieties. ... *Fau-tea, Fau tua-panu, Fau kua* [these three are] also [called] *Fau-Fee*.” It is not clear if these three are the varieties that he is talking about or whether there are four regular *hau* varieties and these three varieties of *hau-he'e*.

Lisiansky (1814:92) describes “*Fow*. A tree of middling size, from the bark of the branches of which threads for fishing-lines and nets are made.” Fanning (1833:212) “purchased many fathoms of their fishing line and ropes, made from the bark of a tree, both of which were very neat articles; the last we found answered as running rigging very well indeed.”

'Ama (candle nut)

Crook (1952:cxxxii) describes *Aleurites moluccana*:

“The Candle nut Tree is here called *Ama*. Its nut, instead of being flatter, is rounder than a Chesnut. It is contained in a shell, like that of a Wallnut; which requires to be scorched, that it may be broken.” Robarts (1974:247-48) writes: “There is a tree which bears a nut exactly like a wallnut. Ther Kernels are used in lieu of candles. They are strung in fine twigs of different lengths. The smoke of this nut, when confined, makes a fine soot or powder, which the natives

use as ink in tattowing their bodies. It leaves a fine blue impression on the skin.” However, Langsdorff (1813:107) mentions simply that it was used “in place of candles.” Lisiansky (1814:92) describes it as: “*Eama* [*e'ama*]. The fruit of this tree answers the purpose of candles. It resembles small chestnuts, which, when peeled, stuck one upon another on a stick, and set on fire, burn in succession, and give an excellent light.”

Porter (1970:131) writes:

“The fruit, formerly mentioned as resembling a walnut, and producing much oil. It appears they were eaten by the Spaniards, and by Captain Marchand’s crew at St. Christiana, and were found to be of an excellent flavour, although they were much relished, they were found to be a pernicious fruit, occasioning all those who had eaten of them, violent retchings, or violent colics, followed by strong purging. It is attested that the natives ate of them without experiencing these effects. At Nooaheevah they are never used but for the purpose of ripening bananas, agreeably to that method formerly mentioned, (they possessing a heating quality) except when baked and used as candles. They give a brilliant light, but require a person to attend them constantly, as one will not burn more than two minutes.”

According to Thomson:

“Candle nuts. Are the only lights used by the natives in houses, (torches made of reeds are used in the open air). The kernels are strung upon splinters of bamboo, or rib of a cocoanut leaflet, and used as candles. They are totally ignorant of any other use to which they may be put.” (Craig 1980:17)

'Imu (algae)

Jardin (1862:57) that several kinds of *'imu* (probably marine algae – seaweed) were collected from the rocks to eat as condiments with *popoi*: “...ils vont recueillir sur les roche les imu nanie, imu veve, imu kanatoi (mousse salée), imu topua, pour les manger avec la popoi en guise d’assaisonnement.” Christian (1910:211) lists “*Imu-topea, Imu-omiha*” as “Varieties of sea-weed.”

Koku'u (soapberry)

Crook writes of *Sapindus saponaria*:

“The Kogu abounds so much that some of the Vallies are filled almost entirely with it, either in large timber, or underwood. It has a curious leaf,

³ Synonym, *Hibiscus tiliaceus*.

apparently consisting of several smaller leaves, some of which serve as stems to others. It produces a black round berry, resembling a marble, which [is] bored and strung upon the strings by which their gourds are suspended. It is also thought to be used in dying as a Colour." (Crook 1952:cxxxi)

Thomson (Craig 1980:18) adds details about its use as a "colour:" "Soap berry. The berry is grated upon a stone, and the juice mixed with turmeric, is used to besmear their persons; the timber is what is generally given to the shipping for fire wood." Lisiansky (1814:91-2) describes "*Cogoo*. This tree is used for fire-wood. It bears a black berry, which is mixed with a certain odoriferous root, and used for painting the skin yellow."

Kohe (bamboo)

Langsdorff (1813:107) writes: "Their houses are built with bamboo canes, or with the calabash-tree." According to Thomson (Craig 1980:15): "Bamboos. Grows spontaneously, are of great value to the natives as vessels for water, rafter for houses, and the small ones are used as lath, upon which breadfruit leaves are strung for thatch." On Nuku Hiva, in 1853-4, Jardin (1862:53) found bamboo used to transport water from the river to houses in places where European material was hard to get. Delmas (1927:37) names "Pakakina" as bamboo's mother.

Mai'i (tropical almond)

Robarts (1974:246) describes *Terminalia catappa*: "A Kind of Almonds is here also. The body of the tree makes very fine canoes, which last many Years." Lisiansky (1814:91) probably refers to this same tree: "*Toomoomyee* [*tumu ma'i'i?*]. Of this tree the common canoes are made."

Temanu (Borneo mahogany)

Robarts (1974:246) describes *Calophyllum inophyllum*:

"There is another fine lofty tree called *Te'man'nu*. The leaves are of an oval form, bright green color. This tree makes fine canoes, some 55-60 feet long. Four men could sit on each seat. I had two war canoes when fitted together ready to go on an expedition would carry 140 warriors with the sail set in a good breeze. The *Te'man'nu* is a hard wood and very durable."

Lisiansky (1814:91) writes: "*Timanoo*. A firm strong tree, growing sometimes to nine feet in circumference. It is only used for building war-canoes, and is forbidden to be cut for any other purpose." And Thomson (Craig 1980:19) states: "Temanu. Is valued highly for making the bottom part of their canoes."

Hutu

Crook (1952:cxxxi) writes of *Barringtonia asiatica*: "The nut of the Hutu, is used here, as elsewhere, for stupefying fish, in order to catch them." Robarts (1974:246)

mentions "*Hu'tu*," (and he is clearly describing *Barringtonia*); he used it as a skin medicine and he says nothing about it as a fish poison.

Toa (ironwood)

Robarts (1974:246) describes *Casuarina equisetifolia*: "the *To'ah* grows just like the fir or Pine, its leaves & bud (or fruit) the same, the body round, straight and lofty. When it is fully grown [it] is very hard, like Iron wood or Lignavita. Of this wood the natives make their Implements of war." Langsdorff (1813:107) affirms that *toa* was used for "javelins, clubs, and other warlike weapons," as does Lisiansky (1814:92) "*Toar* [*toa*]. A tree of which all the implements of war are made, on account of its hardness." Thomson (Craig 1980:17) provides the technique of coloring the wood: "Ironwood. Grows in abundance, and is used in the manufacture of instruments for war, clubs, spears, etc. It is stained nearly black by steeping in water."

Puahi (sandalwood)

Robarts (1974:246) writes that the "Sandall tree grows in great plenty on the mountains of *New'ka'hea'va*. ... This wood is very highly scented, is an excellent perfume." Forty years later it was scarce: "Sandal Wood. Has once been plentiful here, but large quantities having been exported, and being slow of growth, little now remains. It is used by the natives, grated down and mixed with their clothes to give them an agreeable smell" (Craig 1980:18).

DOMESTIC ANIMALS AND ANIMAL HUSBANDRY

Lisiansky (1814:65) writes of Nuku Hiva:

"[1804] I showed them fowls and pigs; the fowls they called *moa*, and the pigs *boaga*, intimating by signs that there were plenty of both on shore; but, from their surprise at the sight of our sheep and goats, I inferred that they had never till then seen such animals."

Eight years later in the same anchorage, Porter (1970:11) noted that the "natives...expressed much surprise at the sight of the goats, sheep, dogs, and other animals..." Porter (ibid.:127) notes that, "The only quadrupeds we found on the island were hogs, rats, cats, and dogs."

Thomson writes:

"[ca. 1840] Ships have introduced cats and dogs, which are now alike numerous and troublesome. Upon the Island of Tahuata, [14] the English Missionaries have introduced black cattle and goats; these are not numerous but increasing. The French Missionaries brought two female sheep about two years ago, to which the captain of *H.M. Samarang*, kindly added a male; they are doing well. Upon Nuuhiva there are several goats, and a short time since there were a breed

of cattle, but they have been taken away by (I blush to say) a ship carrying a British pennant! Several years ago cattle were upon Uapoa, but the Natives, afraid that the cattle would do them injury, soon destroyed the breed." (Craig 1980:13)

Fifty-some years later, Christian (1910:124) enthusiastically commented on the results of these introductions: "Butchers bills never fall due in this happy land. Goats and wild cattle roam the hills, pigs run both wild and tame in the valley."

Puaka (swine)

Swine, their husbandry, and their display at feasts were hugely important in traditional Marquesan society. As one of the premier currencies of prestige and power, the use of hogs was surrounded by rules/tapu. The role of swine in traditional Marquesan society is a rich topic deserving a far more comprehensive treatment than time and space permits here. Below are a few passages relating to the abundance of swine, their husbandry techniques, and aspects of their use.

The earliest European visitors had little idea of members of the English expedition of 1774 noted that swine were the only domestic quadrupeds. Cook (1961:376) reports: "Hogs were the only animals we saw ..." J. R. Forster (1982:490) writes: "They have but few & small pigs, the only domestic Animal." Swine were found associated with houses. It is not clear if they were in pens, tethered, or running free. At Hanamiai, "I ... came to the House which we were told belonged to the man we had kill'd; there were Six Piggs *in* it which we were told belonged to the deceased[s] Son ..." (Cook 1961:367, italics mine). George Forster (1968:358) noted swine at Vaitahu on a hike inland: "About the houses we frequently saw hogs ..."

Three decades later, Porter (1970:57) saw that, on Nuku Hiva, "Their hogs are wandering in every part of the valley..." Also, his comment that "their smaller and more delicate plants, as well as their roots, have only a wall to prevent the depredations of hogs" implies that a fair amount of swine ran loose (Porter 1970:57).

Fleurieu (1801:90) compares the French and English experiences of hogs at Vaitahu:

"The hog is the only quadruped: I do not speak of the rat which, to the great detriment of the inhabitants, has multiplied excessively in the island. The species of hog is small, but the flesh is delicate and very well-flavoured. To give an idea of its smallness, Captain Cook says that forty or fifty were scarcely sufficient to give his crew (consisting of one hundred and ten men) a fresh meal." It appears however, that the size of this animal varies; for George Forster observes that some *large hogs* were purchased for pieces

of the mulberry-bark, covered with red feathers, which had been obtained at the island of Tonga-Taboo: but the size is relative; and this observation could not fix our opinion, did not Captain Chanal inform us that the weight of these animals is between eight and twelve pounds: he asserts too, that, no where, has he eaten such good suckling pigs as those of La Madre de Dios; and we should be tempted to imagine that it was with these animals, torn from the nipple, that Captain Cook fed his ship's company. Although the French could procure but a small quantity of hogs, yet the species appeared rather numerous; these animals were seen in great numbers in all the houses, but the inhabitants declined to sell them. The English, however, had obtained some with no great difficulty, and in tolerably large quantity."

Crook mentions such husbandry practices as tethering, confinement of sows after giving birth, and castration:

"They are of a small breed, but feeding almost wholly on vegetables, are delicately flavoured.⁴ They wander about, but are tame, and belong to individuals. They are not plentiful as they are not managed for breeding, nor even reared properly; it being common to take the pigs, while very young, away from their dam, for the sake of being distributed among different families who feed them, and confine them by one leg. ... A hog is never cut up, till after it is baked. This valuable article of food is always reserved for sacrifices, or social feasts; and only partaken of by friends who are invited on the occasion. There is a kind of Sacrifice called Avve biewe which consists of eating a hog in honour of a deceased person, to whom alone it is considered as offered up. Unfortunately for their stock, they have the art and practice of castrating hogs, and spaying sows. At their feasts, or particular occasions, they destroy so many of their hogs, as to be in want long afterward. Some of the principal families do not possess a pig, and the richest have not a score. The only care they take, is to put a Sow that has farrowed, into an inclosure. At other times, the animals seek for their food wherever it is to be found." (Crook 1952:cxxviii)

Robarts (1974:249) writes:

"In the south seas there has been native hogs, but I saw none at the Marquesas Isles. I saw one at *Oteheita*. Their fore and hind quarters are close

⁴ Jardin (1862:68) remarks that Marquesan "pouaka" tasted better than European hogs.

to each other. There is little or no loin to these hogs." (It is unclear what he is referring to).

At Hakau 'i on Nuku Hiva, the Russians saw "a number of hogs" and noted that swine "constituted their chief wealth" (Krusenstern 1813:131).

Porter liked Nuku Hiva pork:

"The hogs of this island are generally of a small and inferior breed, but there are many as large and as fine as those of any part of the world. The practice of castrating the boars, at which the natives are very dexterous, greatly improves their size and appearance, as well as their flavour. The pork is remarkably sweet and delicate, many of the smaller kind of hogs were brought to us, which we rarely killed, the larger ones were brought in such numbers toward the latter part of our stay, as to enable me to feed my people entirely on fresh provisions. Of these last, six were found fully sufficient to furnish an ample daily supply to four hundred men."⁵ (Porter 1970:49)

Hogs were an important part of the "tribute" that Porter received while on Nuku Hiva: "On my return to the camp, I found a large supply of hogs, cocoa-nuts, bananas, bread-fruit, tarra, and sugar-cane, with several roots of kava, partly the plunder of the Happahs, but chiefly the contributions of the tribes of Tieuhoy" (Porter 1970:48). Porter (1970:67) found that "Temaa Tipee, of the valley of Shoueme [Ho'oumi], had not been so punctual as the other tribes in sending in his supplies," but after Porter warned him, he came with "six large canoes laden with hogs and fruit." Porter (1970:106) writes that after "defeating" Taipivai, they sent 400 hogs as tribute. Porter had received so many hogs from all over the island and "had net property" that, in addition to marking and turning loose 500 head, his "ships were all full, no more could be taken on board, and a sufficient stock was reserved in the enclosure to supply us as long as we should remain here."

These numbers, even if inflated by Porter, give an idea of the productive potential of Nuku Hiva. They also suggest the devotion of substantial amounts of surplus crops to hog production. Presumably these swine would normally be saved up and used for feasts. Porter (1970:23) gave Kiatonui⁶ "a fine large English sow." He also distributed "English hogs of a superior breed, which they were very anxious to procure" (Porter 1970:109).⁷

Delmas (1927:37) writes that the mother of swine was "Iimaa" and the father "Kiimaá" (but 1927:49 lists "Kiimaa" as the mother).

Specific occasions of eating pork

The following passages illustrate specific occasions at which hogs were presented, killed, or eaten. It is evident that hogs were important for a broad range of activities.

Robarts' account is replete with occasions during which he was feasted with pork. At nearly every new spot he visited, he mentions hogs being killed. If he is not exaggerating, it suggests that this was the common way of showing hospitality to important visitors. On arriving on Tahuata (at Hapatoni) from Nuku Hiva "A fine hog was roasted for me and two more at other houses for my passengers" (Robarts 1974:150). The next day, at Vaitahu he was given hogs (ibid.:151). While traveling on Hiva 'Oa, he was invited to stay with a chief and "Next day a hog was roasted" (ibid.:92). And, on arriving in Hana 'iapa, "I had not been long at the house before a fine hog roasted was served up with plenty of other food" (Robarts 1974:89). Upon his arrival at A 'akapa on Nuku Hiva:

"A large hog was got ready with plenty of fish and other food. ... The hog, fish & other food being ready and laid on the alter, I ascended the alter in company with the Chieftain, and at my request he invited the principle men and a number of warriors to the feast. Food was brought from all quarters in abundance. After we had eaten our repast, the Dance commenced again. The weopens of war was laid in the alter. No females are allowd to come near the alter. Several days passed in rejoyceing." (Robarts 1974:111)

On preparing to return to Taioha'e from A 'akapa "A large hog was caught, & ripe bread fruit & cocoa nutt [were put aboard the canoe]" (Robarts 1974:111-112).

In spite of these numerous instances of hogs served to passing visitors, Robarts (ibid.:252) contends that, "They eat pork only at their festivals." He adds that at a wedding "A good Hog is roasted, and fish is brought for the Guests with everything suitable. Plenty of food is brought from the Ladys several relations." (ibid.:27)

Lisiansky (1814:87) notes that pork was "rather a scarce article ... which seldom makes its appearance but on occasions of festivity." Langsdorff enumerates some of the occasions for such feasts:

"The animal food of these islanders consists in man's and swine's flesh, in fish and poultry. The two latter are not held of any great account; but the flesh of swine, with, alas! that of their fellow-creatures, form very essential articles in their political economy. On the birth of a child, on a wedding or a funeral, on the tattooing of a person of distinction, at any dance, festival, or

⁵ Compare to Cook's 40-50 to feed a crew of 110.

⁶ Haka 'iki (or chief of) Taioha'e.

⁷ And, interestingly, "many Galapagos turtles."

ceremony, swine are always killed in greater or lesser number, according to the circumstances. They are roasted in ovens such as have been described for the bread-fruit, and eaten without salt: the latter is unknown among these islanders; it is only sometimes compensated by the use of sea water. ...

"Every new-built house must be consecrated by a priest or magician, or whatever he may be called; he makes an oration upon the occasion, which is given in a language wholly incomprehensible to the people at large. He must be feasted with swine and other good things, over which he makes strange ceremonies, and sleeps the first night in the new house; by these means it is for ever protected from evil spirits." (Langsdorff 1813:125-8)

Tuhuka patu tiki (tattooing specialist) received hogs:

"The [tattoo] artist is sent for, and the agreement made with him that he is to receive so many hogs as his pay; the number is commonly regulated according to the wealth of the person to be tattooed, and the quantity of decoration bestowed is regulated by the pay.⁸" (Langsdorff 1813:118)

Langsdorff further elaborates on hogs involved with tattooing and the role of tattoo in feasting clubs:

"Sometimes a rich islander will, either from generosity, ostentation, or love to his wife, make a feast in honour of her, when she has a bracelet tattooed round her arm, or perhaps her ear ornamented; a hog is then killed, and the friends of both sexes are invited to partake of it, the occasion of the feast being made known to them. ... This is one of the few occasions when women are allowed to eat hog's flesh. If, in a very dry year, bread-fruit, hogs, roots, and other provisions, become scarce, any one who has still a good stock of them, which commonly happens to the chiefs, in order to distribute his stores, keeps open table for a certain time to an appointed number of poor artists, who are bound to give in return some strokes of the tattoo to all who chose to come for it. By virtue of a *taboo*, all these brethren are engaged to support each other, if in future some happen to be in need, while the others are in affluence. This is one of the most rational orders of Freemasonry upon the globe." (Langsdorff 1813:121)

⁸ Langsdorff (1813:120): "The poorer islanders, who have not a superabundance of hogs to dispose of in luxuries, but live chiefly themselves upon bread-fruit, are operated upon by novices in the art, who take them at very low price as subjects for practice ..."

⁹ Porter's distinction here of "English hogs" might suggest the degree to which European porcine genes had been incorporated into the local population, even at this relatively early date.

Swine figured in feasts from birth to death. A hog was killed at the birth of a child and at the day its navel-string falls off (Langsdorff 1813:152). Hogs were used as payment during circumcision (ibid.:158) and swine were killed at marriages of elites:

"If the daughter of a person of distinction marries, a number of swine are killed, and all the friends and acquaintance are invited to the feast. Every guest at the nuptials has then a right, with the consent of the bride, to share the pleasures of the nuptial night with the bridegroom. The feasting commonly lasts two or three days, till all the swine are eaten, and from that time the wife must abstain from all intercourse with any other man except her husband." (ibid.:153)

Thomson (Craig 1980:26) mentions wedding feasts "given for the whole valley, and consists of pigs, breadfruit, *popoi*, etc." (ca. 1840). Hogs were given to *tau'a* when a person was sick from having transgressed a taboo (Langsdorff 1813:157) and to pay for removing the effects of sorcery (*nani kaha*) (ibid.:156).

On someone's death, "At least half the swine belonging to the deceased are then killed and roasted" and after drumming and chanting "the guests then begin to eat the swine, the *popoi*, and the breadfruit, and do not discontinue the banquet till every morsel is dispatched" (Langsdorff 1813:154).

Porter (1970:116-117) affirms that swine were generally reserved for feasts:

"The men and women are both remarkably fond of pork, and from their desire to eat it one would suppose that it was an article of great rarity among them, as in fact it is. For although the island abounds in hogs, the natives seldom kill them for the use of their families, but keep them for their feasts; and, on such occasions, the will frequently kill five or six hundred at a time. If a relation dies, they have a feast on the occasion; and they will save their hogs for years in order to make their feast abundant, in which consists of its chief splendour."

Porter (1970:117) writes that Kiatonui planned on slaughtering one hundred "English hogs" for a feast for his mother.⁹

Thomson (Craig 1980:35) writes of human sacrifices: after the body was brought to the *tohua* where "All the inhabitants of the valley, both males and females, attend as spectators. A pig is killed to make a feast for the principal individuals." He also notes payment of *tau'a* for healing: "The doctor is often brought from a distance and rewarded for his attendance by receiving a pig" (ibid.:37).

Jardin (1862:68) writes that swine were saved for

feasts, when there was a true slaughter: "Le cochon est une précieuse ressource pour les étrangers qui relâchent aux Marquises, car les indigènes n'en mangent que dans leurs fêtes publiques; mais alors ils en font un véritable carnage."

Moa (domestic fowl)

There is a fair amount of agreement among the sources that chickens were not numerous and were prized for their feathers. Their observations on size vary. Cook (1961:376) writes that "Cocks & Hens [were] the only tame fowl [we saw]." George Forster (1968:358, italics mine) reports that "About the houses we frequently saw hogs, and fowls of a large sort" while hiking inland at Vaitahu.

Fleurieu (1801:91) thought chickens not very important to Marquesans:

"...fowls are not common; it may even be said that they are scarce; and we should imagine that the inhabitants rear them only for the sake of plucking the cocks, whose large tail feathers, assorted for forming plumes, are employed in shaping their head-dresses. Cocks and hens are the only tame animals that were seen in the habitations. It will not be a matter of surprise that a careless people, whose principal food consists of fruits, to which, during a great part of the year, is added the easily taken produce of the coast abounding with fish, cannot determine to pay particular attention to the breeding of poultry, which to them are almost useless."

He continues that, "Captain *Chanal* says that the poultry are of a size of ours; and *G. Forster* that they are of a larger species" (Fleurieu 1801:91). Fifty years later, Thomson (Craig 1980:13) estimated them smaller: "Fowls have been introduced here very early; they are small, and not numerous. Ducks have been introduced by the English Missionaries." At the end of the nineteenth century Christian (1910:124) observed "There are fowls enough of a kind, with queer ragged plumage, for ever clucking around after coconut shavings ..."

Crook (1952:ccxxviii) writes that birds, including chickens, were not very important in the diet. Langsdorff (1813:126) reports that "fowls are rather kept for the sake of their feathers than as an article of food."

Porter's observation of sex ratios seems bizarre:

"We found here the common dunghill fowl, in small numbers, which appear to be esteemed only for the plumage of the cocks. Three or four were brought to me as presents by the chiefs of the tribes, but the tail feathers of all had previ-

ously been plucked out. Hens we saw none – either in our valley or that of the Happahs; and although several cocks were seen in the valley of the Typees, no hens were among them. This scarcity of hens seems somewhat unaccountable, and had I not seen some of the cocks very young, I should be induced to believe, they were brought for traffic from some other islands. ... The hens are, perhaps, disregarded, and permitted to run wild, or are killed and eaten, while the cocks only are preserved for the beauty of their plumage." (Porter 1970:129)

Delmas (1927:37) names the mother of chickens and turtles as Pukepukeone¹⁰ and their fathers "Kautakauu" and "Oohutu." "Oohatu" was the god of chickens (Delmas 1927:48)¹¹.

Kio'e (rats)

J. R. Forster (1982:490) notes that, "The rats are likewise common." G. Forster (1968:358) writes that at Vaitahu, "About the houses we frequently saw hogs, and fowls of a large sort, and now and then some rats." Crook (1952:cxxx) mentions one of the effects of rats: "Sugar Cane, called To, is cultivated and plentiful; but the lower part containing its sweetness, is greatly destroyed by the Rats." Crook (1952:cxxxviii) writes that, "Some of the poorest people are, at times, induced by scarcity, to eat them [rats]."

Robarts affirms that:

"Rats are very numerous. Here are two sorts. The rats which live on the Hills and feed on grass, seed & flowers are very good grild, equal to snipe or sparrow. The other rat¹² [which] lives among the houses is not so good. My fair reader may think I romance, but I ashure him. In time of fish being scarce, I have often gone with a party in an afternoon a hunting the Mountain rat."¹³ (Robarts 1974:248)

Langsdorff (1813:176) reports that rats were caught by hand and fed to hogs, and "In times of scarcity they are eaten by the people themselves, and are very well flavoured."

Birds

Robarts (1974:248-49) describes several kinds of Marquesan birds:

"Great numbers of sea fowl inhabit the rocks of these Isles, Viz., the sea Gull, Piteral, Curlue, & topic birds, commonly calld by seafareing people

¹⁰ Possible translation: piles of sand.

¹¹ The difference between "Oohatu" and "Oohutu" could easily be in transcription or typesetting.

¹² *Rattus exulans* was a Polynesian introduction. Quite probably, other rat species had been introduced by Robarts' time (ca. 1800).

¹³ Robarts associated with elites, so his mention of frequently going rat hunting suggests that rat may have been a more widely eaten food item than Crook asserts.

the Boatswain bird owing to his tail, when flying, resembling a marling spike ... There are two sorts: the one, his tail is of a fine red: the other is white.

"There is several Kind of small Birds. There is also a Brown Dove, and on the Mountains there is game to be got, the size of a good pigeon. There is also a green Dove whose mourning I have often stopt in the woods to hear. Morn^g and even^g, I used to have the company of a fine stout bird, something like a thrush, his voice strong and clear. He would warble out his *Twe Jug Jug* so sweetly he could not fail in rendering his company agreeable. He seemd to sooth the sorrows of the unfortunate."

Robarts (1974:110) describes arriving somewhere between Taioha 'e and A 'akapa (maybe Haka 'ehu):

"There being no fish to be got [she] sent a party of men to go and catch wild birds on the sides of the rocks & Mountains, as they were at roote in their holes - this they do with torches - and in the course of two hours was brought a good repast of wild birds."

Thomson writes that:

"In the group there are about twenty species of sea and forest birds; but only one of beautiful plumage, and one of song, the note of which resembles that of a thrush. In all the Islands, there are wild pigeons, and we have a pair of English, but they do not breed." (Craig 1980:13)

Jardin (1862:72) notes twenty-two bird names and quotes Jouan as counting thirty-six. Christian (1910:124) mentions that, "Doves, green and grey, are plentiful among the trees in the upper clefts of the dale."

Dogs

Dogs were not present in the Marquesas when Europeans arrived, but are known archaeologically. Crook (1952:cxliii) writes that ca. 1798 "The latter Island [Nuku Hiva] has the preeminence of possessing a Dog, which was left there with Mr. Crook by Capt. Fanning of the *Betsy*." Robarts reports a May 1803 conversation that probably pertains to the same dog:

"After supper, Capt Brinell & a M^r E. Mix, a supercargo, askd me if I had ever seen a dog named Pato. I told [them] yea: the dog is well: he was at the Kings house. He said he could wish to

recover the dog. I enquired how he came to leave the dog. He then informed me that he left the dog with a M^r Crook, whom he had pickt up at *Towatta* and had brought to *Tio foie*, and [who], at his own request, was left with King Cato. ... He was the property of a wine Merch^t at Newhaven and was found guilty of sheep stealing about the year 1797 and was banished for the above crime, but was recalld June 8th, 1803. Capt. B. gave two other dogs in his room."¹⁴ (Robarts 1974:124)

Apparently they were not a breeding pair, and dogs remained scarce on Nuku Hiva. Porter writes:

"Of dogs I only saw two, and they belonged to Mr. Maury and the people with him. But I was informed that there were one or two more on the east side of the island; neither of these animals appeared to be held in any kind of estimation by the natives. ... they are much afraid of the dogs, particularly the two large mastiffs belonging to us." (Porter 1970:127)

But dogs seem well established on Hiva 'Oa by the 1890s. Christian (1910:127) reports that the eastern valleys eat dog and western ones barely touch it in times of famine. He was served baked dog at Hanapa'aoa (Christian 1910:144), and in describing the abundance of food in the Marquesas at that period, writes that, "baked dog is always obtainable at the shortest notice" (Christian 1910:124).

Cats

Crook writes that:

"[ca. 1798] Tahouatta now abounds with Cats; a couple which Capt. Wilson left there having run wild, multiplied, and greatly diminished the bread [sic] of Rats. The Chief claims the Cats as his exclusive property. They have not yet been transported to the other Islands; and if they had not taken to the Woods, would have been rendered as unproductive as other animals at these Islands have been, by the improvidend curiosity of the Natives." (Crook 1952:cxliii)

Robarts (1974:249) confirms Crook on the original source of cats introduced to the Marquesas: "There is no native animals of any Kind, except rats. There is cats, but they are an English breed, from three cats which was left by the Ship *Duff* that landed the first Missionaries on the Island."

¹⁴ Jardin (1862:66) from his 1853-4 visit to Nuku Hiva notes that dogs were called "peto." This is the current Nuku Hiva word for dog. It seems that this word derives from Pato, the exiled Newhaven sheep killer. Crook's (Crook, Greatheed, and Te'ite'i 1998:37) dictionary has an entry for "núwhe" (dog, *nuhe*). Dordillon (1904:51, 189, 198) lists *peto*, *nuhe*, *moho'io*, and *mohokio*.

Porter offers a interesting bit of Marquesan oral history:

“Cats I did not see, but I was informed they were to be found wild in the woods, where they had retired from the dwellings of the natives. ... The cats appeared familiar to them ... Agreeable to the tradition of Gattanewa,¹⁵ who is, perhaps, the greatest historian among them, cats were first brought to St. Christiana about forty years since by a god named *Hitahita*, and thence some of the breed were brought in canoes to this island.”¹⁶ (Porter 1970:127)

Jardin (1862:67), perhaps using Porter as his source, thought cats (his “potou”)¹⁷ were introduced in 1777 at Tahuata by Cook.

Goats

Crook (1952:cxliii) writes that “a male and female kid, produced by a Goat which Capt. Wilson left there, and which was killed by the Islanders, have been separated, one being still at Tahuata, and the other removed to Nuguheva.”¹⁸ Porter (1970:109) gave away male and female goats on Nuku Hiva in 1813. Dalton (1995:780) lists how much fresh food they bought on a 1828 trip; it includes 2 goats, so apparently by this time they were common enough to be traded to shipping. Jardin (1862:69) mentions that the Americans introduced goats in 1813. In 1853-4 they were wild in the mountains on Nuku Hiva. Of the 1890s, Christian (1910:184) writes that wild goats were used for food on Nuku Hiva. He also notes that, “Many goats, sheep, and cattle in a semi-wild state roam over the mountain slopes around Hanatefa and Hana-Ei, deserted valleys in the neighborhood [of Hana’iapa, Hiva ‘Oa] ...” (Christian 1910:111). Likewise there were wild goats on the cliffs of Ua Huka in the 1890s (*ibid.*:156).

Sheep

Jardin (1862:69) notes that sheep had a hard time because of the heat, but that there were some wild ones on Tahuata. In 1888, Stevenson (1971:5) noted sheep on “Anaho peninsula.” He also mentions an old man, Tari (Charlie) Coffin “a native of Oahu,” was living somewhere at the east end of Anaho. He had been left by a New Bedford whaler (as a young man?) and had a frame house at the

“top of the den.” He was “shepherd of the promontory sheep” (Stevenson 1971:22-23).

Cattle

Jardin (1862:69) writes that cows first arrived in 1836 with protestant missionaries, but that the French seriously started importing them in 1842-3. By Jardin’s time (1853-4), there were two hundred on Tahuata. Christian (1910:156) noted wild cattle on the cliffs of Ua Huka in the 1890s, and a herd of wild cattle on the trail between Taioha’e and Hakau’i (Christian 1910:177).

Reactions to foreign food

After describing the French reaction to eating raw fish, Fleurieu (1801:115) writes that the “natives of Santa Cristina ... experienced none [disgust] in eating dishes dressed in our manner; they accommodated themselves extremely well to French cookery.” He also mentions that the Marquesans didn’t like wine but did like brandy (Fleurieu 1801:116). Roblet confirms that they didn’t like wine but were fond of liquor (Robley n.d.:6).

On 13 May 1804, Kiatonui ate dinner aboard the *Neva*. Lisiansky notes that, “Of our several dishes he preferred that of pancakes with honey, which he relished so much, that the whole of what was served up was dispatched in an instant” (Lisiansky 1814:74-75). The Russians found that Kiatonui could drink “port wine, glass for glass, with us” (Lisiansky 1814:75). Porter (1970:109) writes of the passion that Taioha’e people had for fresh-baked bread once he set up a bakery ashore (an enthusiasm that shows no signs of diminishing).

SUMMARY

European visitors to the Marquesas were fascinated with breadfruit—their misconception of being able to pick one’s daily fare from “the hanging bower without sweat or toil” seemed utopian. Despite this fascination with arboriculture, they also describe a diverse cultigen inventory and a set of agricultural practices. The characterization of traditional Marquesan agriculture as dependent on breadfruit is probably not wrong; however, there were likely important local variations in the importance of breadfruit. Individual valley microclimates may have been the pertinent variable. There was probably change in the relative role of breadfruit over the course of the nineteenth century with more reliance on it as populations crashed.

¹⁵ Kiatonui.

¹⁶ Porter speculates this was Cook’s 1774 visit, and I think that it is plausible. Crook (1952:cliii) “In January 1798 ... Mr. Crook ... resolved upon building a house on the Stone platform, which from the period of Capt Cook’s Visit, has been called Hetehe’s pipi.” “Ohitehidae [Hitihiti]” (J. R. Forster 1982:482)—a relative of a Borabora chief “Opunee”—whom they picked up at Ra’iatea on 17 September 1773 (see Rensch in *Observations* J.R. Forster et al. 1996:384-85) accompanied the English to Tahuata.

¹⁷ *Potu* is also the current name, and the one listed in Dordillon. Crook’s dictionary has “bu’áka [*puaka*=hog] káta, a Cat” (Crook et al. 1998:15).

¹⁸ Crook (1952:clviii) provides more detail on the eating of the mother goat.

Husbanding swine was an important part of the agricultural system and was directed more towards public display at feasts (*ko'ika*) than daily subsistence. Fishing, both offshore and near shore was practiced, the sea provided the bulk of daily non-vegetable protein. Regardless of European estimates, Marquesan canoes were seaworthy enough for regular inter-island travel.

Introduction of foreign cultigens and domestic animals began early in the contact period. New breeds of swine were also introduced.¹⁹ Some became established rapidly, whether tended or feral; others took longer and required repeated introduction. By the mid-1800's, goats, cattle, and horses appear to have been fairly common, and a wide array of introduced cultigens is apparent.

¹⁹ Also new cultivars of Marquesan cultigens, though the dating is not yet documented

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