Sandalwood: a Natural and Cultural Heritage of the Marquesas Islands

Stephanie Sears

Sandalwood represented a valuable article of trade which attracted foreign ships to the Marquesas islands during the nineteenth century. The local sandalwood – a red wood identified by Fosberg and Sachet as *Santalum marchionense* and *Santalum deckeri*, varieties of *Santalum insulare* (Fosberg and Sachet 1985: 462; Shineberg 1967: 7) – was better known by the Marquesans as *kouina* or *puahi*.[1]

These small trees which grow generally to three or four meters in height, sometimes to eight meters and often in clumps, are still found at an altitude of 800 to 1000 meters, in dry mountain ridge areas. For the *enata/enana* or Marquesans themselves, *puahi* was always a useful and favourite natural resource used regularly in ritual, medicine and for beautification, but did not have the extreme scarcity value it held for early traders who travelled immense distances, often risking their lives to gather it. Nor did it have the tremendous commercial value it began to acquire at the beginning of the nineteenth century.

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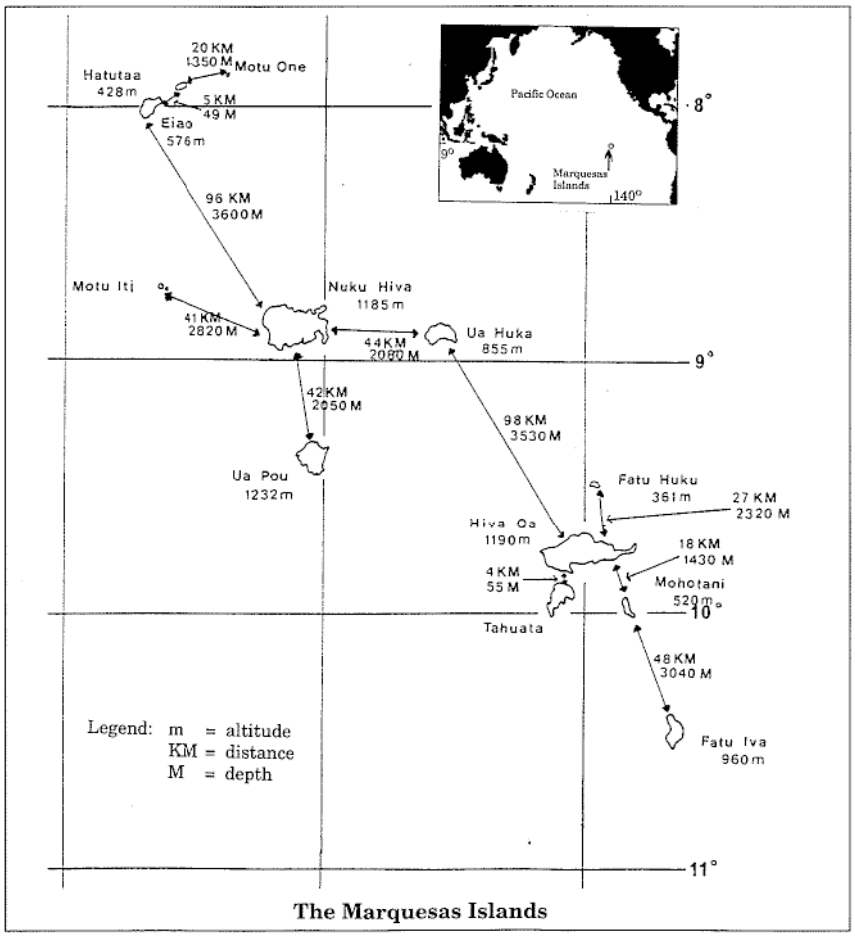
The passion of the English and the Australians for tea created a need for exchange which could be met by the Chinese demand for sandalwood. The traders, mostly from America and Australia acquired in their own days a universal reputation, if not always justified, for roughness and unscrupulousness because of men, such as Captain Michael Fodger who held a chief on Raivavae as hostage in exchange for a ransom of 1.5 tons of sandalwood (Maude and Crocombe, 1962: 34). Their expeditions were of a purely commercial nature, with the need to load cargo with utmost rapidity. From



The Marquesas Islands

"Nuku hiva" festival: women wearing sandalwood necklaces and crowns
F. Sears

1811 on, a feverish dilapidation of Marquesan sandalwood ensued. On the island of Ua Pou, however, local political concern probably restrained trading and forest depletion.

The rarity of sandalwood trees today appears to the inhabitants as an important loss for the environment and for Marquesan cultural resurgence. The interaction between local tradition, artistic expression and the search for a cultural identity is impeded because sculpture using sandalwood appears as a salient traditional element in Marquesan culture and has gained a new role as a source of cash. But its success at the same time endangers the last sandalwood trees.

Use of Sandalwood in the Past

In the past, sandalwood used by the Marquesans in medicine/ritual had particular value as an exorcising agent; the burning wood exuded a scented smoke detested by evil spirits which could only survive near stench. The smoke also healed ear infections (Petard, 1974: 156). Grated and mixed into coconut oil to become *pani, huhe, poa panu*, the latter being distinguished by Handy as being used both on the head and the body – (Handy, 1923: 292), it was used in massage, on newly-born babies, the sick, the dead for embalming and for healing cuts, like the ginger called *kokopu* in Taiohae (Nuku Hiva). Inhaling vapour from boiled sandalwood powder treated the ailment *takoke*, which caused a rash, a fever and temporary paralysis of hands and feet – 'rheumatismal pain' in Dordillon's dictionary (Lemaitre, 1988).

In fact, the Marquesans' frequent and specialised use of sandalwood led them to distinguish different aspects of a single variety:

- The *puahi* on Nuku Hiva is a tree with white blossoms, a rough dark gray bark, a white, hard sapwood with a very fragrant, deep red heartwood;
- The *puahi kua* on Nuku Hiva is a tree with fragrant olive green blossoms and a light, reddish-brown heartwood;
- The *puahi fiti* is an ubiquitous tree on Tahuata and has thick dark brown bark with fine scoring; the sapwood is hard and white, the heartwood hard and yellow;
- The *puahi avava* is much like the *puahi fiti* except that its heartwood is very fragrant and very much in favour for rituals (Petard, 1974:156).

The Sandalwood Trade

The search for sandalwood, described by Shineberg as a sort of gold rush, required that a captain keep secret his destination. The expression 'clearing for Guam' was used to disguise a captain's intention (Shineberg, 1967: 30). Even though competition was keen, the financial benefit justified only to a degree the risks undergone by the traders (Shineberg, 1967:136; Dodge, 1965:182)[2]. Risks of being robbed or killed, either to the native or to the sandalwooder, were more or less the same throughout the Pacific, though Melanesia seems to have been more dangerous than the Marquesas Islands.

Westerners, however, tried to avoid conflict as much as possible, for they needed the help of the natives to uproot the trees, cut, carry and clean the wood, particularly as its increasing sparseness forced them to search for it further and further towards the interior of the islands. Traders travelled to Fiji (1805 to 1820), then Hawaii (1811 to 1828) and the Marquesas (1811 to circa 1820), to Erromango in the New Hebrides (towards the end of the 1820s), New Caledonia, Pine Island and the Loyalty Islands (in the 1840s), Espiritu Santo (in the 1850s); the trade continued in Melanesia until about 1865 (Shineberg, 1967: 7). The trading history of Marquesan sandalwood began when Captain W. Rogers arrived in the archipelago in 1811 on the ship Hunter. Edward Robarts who lived in the Marquesas from 1797 to 1806, mentioned in his journal that sandalwood grew in great quantities on Nuku Hiva and that he regretted not having known its commercial value when living there (Robarts, 1974: 247).

Glass beads and other such trinkets could not be exchanged for sandalwood in the Marquesas as they were in Melanesian islands such as Erromango and New Caledonia. Axes, knives, red cloth, fish-hooks, tobacco, guns and powder were the usual articles of trade but the greatest demand in the Marquesas was for spermwhale teeth (Pritchard, 1866: 332)[3]. Guns and powder came only second in preference.

Problems occurred when Marquesans realized that Capt. Rogers was trying to trick them with ivory carved in the shape of spermwhale teeth. Even without pretexts of this kind, other conflicts and casualties occurred: four sailors of the 'Pennsylvania Packet' were killed in 1812; Camille de Roquefeuil mentions the incident when he was almost hit by a Marquesan club during an exchange of sandalwood for gun powder (Roquefeuil, 1823: 289-290). Nonetheless, for a time, the trade proceeded at a brisk pace and the American commander David Porter noted that with ten large spermwhale teeth, he could fill a 300 ton ship (Porter, 1922: 22). This trade indicates the extremely high value placed by the Marquesans on whale teeth as ornaments (*hei* or *takiei* worn by chiefs or *haka'iki* and members of chiefly families) and not the low value of sandalwood.

The English ship 'Seringapatam', captured by Porter during the British-American war known in the United-States as the 'War of 1812' was recaptured in 1814 by the seamen on board and taken to Australia where news of the Marquesan sandalwood was spread. In the course of the year 1815, five ships would go to the Marquesas for sandalwood, among them, the first voyage of the Australian based trader William Campbell. On his third trip to the Marquesas, he was still able to collect over 50 tons of the wood (Maude and Crocombe, 1962: 48). But the trade was already in a decline in the Marquesas when the French fur merchant Camille de Roquefeuil stayed at Nuku Hiva between December 1817 and February 1818. He met two Americans, one named Ross who had been residing on the island for several years as negotiator in sandalwood between the natives and the trading ships, and C. Person from Boston, who was trying to do the same, but was to leave the archipelago after the Marquesans stole his trading supply of guns and powder (Person then went on to Fiji where he attempted the same trade). Roquefeuil also met Captain Sowle who in five months time, succeeded in collecting 60 tons of sandalwood throughout the archipelago. In a month, Roquefeuil himself loaded only ten to twelve casks of sandalwood (Roquefeuil, 1823: 292). The terms of trade by that time were 500 pounds of wood for a gun or a 100 pounds for two and a half pounds of gun powder or one spermwhale tooth (Roquefeuil, 1823: 297).

The trade trickled on and in 1832 the missionary W. P. Alexander met the Englishman Morrison who had been on Nuku Hiva for six years as a sandalwood dealer (Alexander, 1934:117). Upon his arrival on the Venus in 1838, Abel du Petit-Thouars found only remnants of the sandalwood forest. He noted with a certain chagrin that neither traders nor Marquesans thought of protecting the forests in view of future trade (du Petit-Thouars, 1841: 364-365). In fact, Roquefeuil had mentioned that a *tapu* had been laid on sandalwood on the island of Ua Pou (Roquefeuil, 1823: 333). In this case, the outlawed trade may, as suggested by Goldman (Goldman, 1970: 135), have been the result of the greater chief's authority and centralization, with a consequent sanctity of the land and trees owned by the chief. The chief or king would thus have prevented the disruptive effect of trading for firearms on tribal unification. Though sandalwood was regularly used in medicine and as a cosmetic by Marquesans before Western trade, they probably did not need great quantities of it. But once introduced, trade was passionately indulged in on both sides and most chiefs ignored the destruction of sandalwood forests. This was the case throughout the Pacific, particularly in Hawaii.

Recent Years

Although the Marquesans' overall efforts in cultural renewal of these past fifteen years have been successful (Sears, 1993), today they are thwarted in the traditional use of native sandalwood through lack of the raw material. By its rarity, the fragrant wood has acquired added value as a symbol of the wrongs done to the Marquesans in the past; as a result, it has caused destructive bitterness among some Marquesans and a rift between those who want to protect the remaining wood and those wanting to use it at any cost.

One Marquesan reports that until the 1930s, red sandalwood could still be found in abundance on Tahuata and that large pieces were still available to everyone (that is, for local consumption and small scale commerce). The wood was usually gathered while hunting feral pig, a favourite activity in the Marquesas.

Marquesan sailors working on shuttle schooners were in the habit of asking their families to find them some wood which could then be sold in Tahiti. Robarts noted in his journal that sandalwood in Nuku Hiva was the best and it does appear today that Nuku Hiva has suffered more from the depletion of sandalwood than other islands. From 1958 to 1987, anyone wanting to cut down a sandal-

wood tree was required to obtain an authorization by the forestry service. But in 1987 only dead sandalwood was distributed. Since 1989, even this limited distribution has ceased, since poachers have continued to uproot trees in the uninhabited areas of the islands, jeopardizing the survival of the few remaining, (trees today have an average diameter of 8 to 15 inches, more rarely, up to 35 inches).

In addition to the uses previously mentioned, round bowls or *ko'oka* were made from logs in the 1930s. The small quantities of sandalwood still procured are used in traditional medicine, to make perfumed coconut oil (*puahi pani*) all year round (Sears, 1993:136)[4], for necklaces from shavings worn at dancing performances, or sold to Marquesans and tourists, (a sandalwood necklace is a symbol of wealth: *e taetae nui*) and for little curios such as *tiki* statuettes; sometimes pieces are sent to Tahiti, to a parent or a friend, usually for commercial purposes.

Contemporary Value

In the present situation, three main factors will contribute to the final destruction of Marquesan sandalwood if not checked:

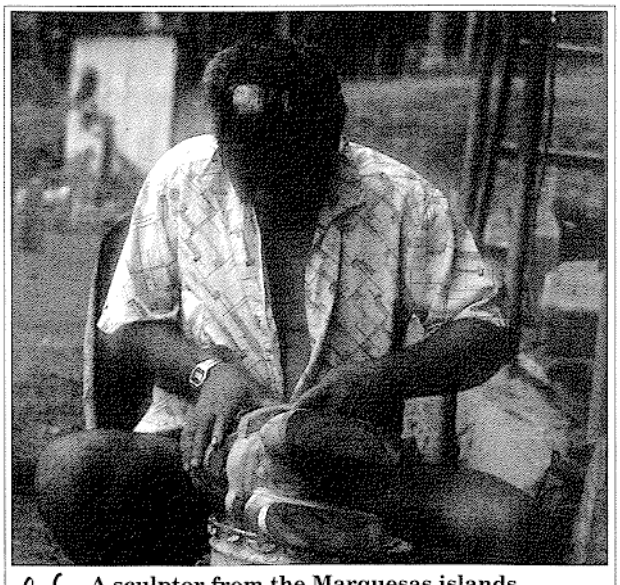
- inadequate preservation of the remaining trees;
- poaching by local inhabitants;
- the absence of specific technical research on environmental conditions for the reintroduction of Marquesan sandalwood in its natural surrounding.[5]

Its disappearance would not only impoverish the natural environment, but also affect the content of a restored and reinvented Marquesan tradition.

The reconquering of tradition, in the sense in which it is meant by Hanson, as 'self-conscious identity' (Hanson, 1990: 3), has brought sculpture and carving to the forefront in the Marquesas. This art has become both a major vehicle of cultural identity and an aid to economic autonomy in contemporary Marquesan society. Tourism has had a determining role in the success of sculpture in both cultural and economic aspects, yet it still has a local functional use, essentially in the form of containers, as wedding gifts, sometimes as furniture (church chairs, religious statuary), ordered by Catholic priests *in situ* or in Tahiti, or again as part of public buildings (posts, doors).

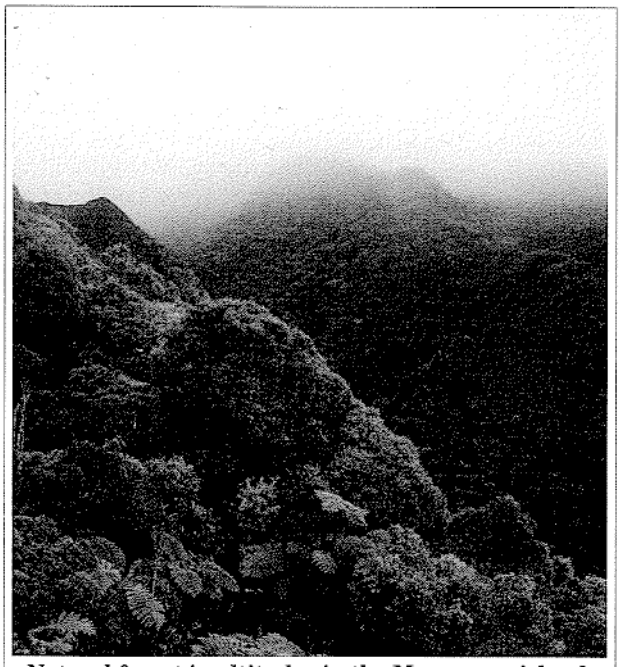
The majority of sculptors keep to the Marquesan style of the past illustrated in books such as 'Tattooing in the Marquesas' by Willowdean Handy, (a Frenchman living on Fatu Hiva for several years made several photocopies of the drawings in this particular book and distributed them to local sculptors to help them regain knowledge of the traditional patterns); Karl von den Steinen's 'Die Marquesaner und Ihrer Kunst' is less frequently used by Marquesans only because this is harder to obtain. Contrary to the foreign influences found in contemporary Samoan sculpture noted by Philip J.C. Dark, some of which is Marquesan (Dark, 1990: 260), sculpture in the Marquesas is most often typically local in style owing both to help from the books and to the distinctiveness of traditional art and its complexity which offers diversity to the artists. Foreign influence is usually limited to a few Christian motifs.

Sculptors belong traditionally to the prestigious category of Marquesan specialists – an important social category found throughout Polynesia – called *tuhuka* in the North, *tuhuna* in the South who controlled all domains of skill in the past. Some talented sculptors are still recognized by that term today, (*tuhuka ha'a tiki*). They are unquestionably main vectors of a recovered Marquesan identity after a long and painful epoch of epidemics, war and general cultural apathy (*Official Journal of the French Republic*, January 1989).[6] After the disastrous effect of various epidemics, intensified warfare, alcoholism and a general loss of motivation in life with the disappearance of a social structure, the Marquesan population is reduced from estimated 50,000 to 100,000 at the end of the eighteenth century to a mere 2,075 in 1929. This dramatic depopulation is considered the worst example in French Polynesia with Tubuai in the Australs. Population today is



S. Stat sculptor from the Marquesas islands

around 7.358. Sculptors are numerous because sculpture has been found to be an efficient way of earning money ever since tourists have begun to visit the Marquesas. Sculptors usually learn their skills from someone in their family or from a friend, or become apprentices at the CETAD (Centre d'Education aux Technologies Appropriées au Développement) created in 1973. But here the student sculptor earns a diploma as an accomplished artisan rather than as an artist. Wood carving is also favoured by Marquesans because it allows the artist to work at home, which besides the benefit of working in familiar surroundings, has the practical advantage of permitting attention to domestic chores.



Natural forest in altitudes in the Marquesas islands

Among woods used for carving, some of which are native to the islands, *mi'o (Thespesia populnea)* and *tou (Cordia subcordata)* are far more common than sandalwood. Much of the sculpture made from *mi'o* or *tou* is destined to tourists, since it makes possible repetitive production of the same type and size in fairly large quantities; other woods such as Cedar (*Cedrela odorata*) and American mahogany (*Swietenia macrophylla)* have been imported to add to the wood resources for sculpture and cabinet work but are still more rarely available. Sandalwood (*puahi*) is the rarest and allows for no such repetition in the manufacture of objects as *mi'o* or *tou*. Sculpture made from *puahi* is necessarily small: in 1988 the author had to resign herself to a *tiki* statue 15 centimetres in height and one hairpin made from a single piece of sandalwood. The sculptor had only the one piece and he made the most of it by carefully carving out the two objects. The precious quality of sandalwood owing to its scantiness adds a more personal dimension to the relation between client and sculptor and a greater value to the finished object. The artist knows that he is expending a rare raw material which will be hard to replace, while the client understands that the sculptor must be particularly skilful to avoid spoiling the precious wood. Both know that the exchange is not likely to be repeated. This is particularly true for carving but less so for the sale of sandalwood scented coconut and necklaces.

Considering the great attraction of sandalwood objects for both inhabitants and tourists, its rarity is felt increasingly as a distressing limitation by sculptors. They are frustrated in both the fulfilment of their cultural tradition and in their current economic interest.

Accordingly, some Marquesans prefer to continue cutting sandalwood illegally, feeling that its rarity is not their fault and that the wood is theirs to use as long as some is left. Others have a more positive approach and think only to protect the last of their heritage in the hope that organised reforestation will replace the loss. Public sentiment in this case, is not only against past destruction (which is perhaps seen by this group as the joint fault of Westerners and Marquesans at the time of sandalwood trade) but also against Marquesan poachers. This last seems to be the opinion of a majority of Marquesans. But the existence of even a minority of poachers can make irreversible damage considering the few trees left; if sculpture does serve in the case of the Marquesas to 'prove historical continuity and cohesion' (Kneich, 1990:166), it also acts, through the need for sandalwood, to create a rift in the population between the poachers and the non-poachers. However, reforestation with pine (*Pinus caribea*) an 'outsider' tree, which has been extensive on Nuku Hiva and Hiva Oa, has irritated both sides of the rift. Reforestation with pine is seen as one more foreign intrusion, detrimental to their native trees since the pine is said to impoverish the soil.[7] There is persistent antagonism between the governmental authorities managing forests and sandalwood poachers in which economic considerations are strongly linked with a cultural possessiveness of natural resources. Poachers regard sandalwood scarcity as the fault of for-

eigners and an impediment to the improvement of individual revenue and to Marquesan cultural autonomy.

Marquesans consider sandalwood to be an essential aspect of their culture and in the context of a Marquesan cultural 'renaissance', as a determining element of national identity even more than it was in the past. As this 'renaissance' develops and forges a society more assured in its tradition and in its needs, Marquesan opinion may become less willing to overlook losses in its heritage, knowing that these can be recovered. Today's lack of sandalwood is not resented solely as the fault of a few Marquesans but symbolises for most natives the great destruction inflicted on their culture in the past. A reforestation programme of Marquesan sandalwood will therefore mark a sharp break with that past and show support of the cultural resurgence.

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Notes

1. The most fragrant and precious part of the tree is the heart of the wood and its perfumed oil is concentrated near the root which explains the necessity to uproot the tree; unfortunately, though the tree itself grows fairly fast, the heart grows slowly
2. The average price of South seas sandalwood was £40 to £50 for a ton. Shineberg notes that important profits were few and she mentions the Australian Robert Towns as an exceptionally successful trader with a profit of £1000 a year. Dodge, on the other hand, speaks of the fortunes made in New England through the trade of sandalwood, sea otters, seals, bêche-de-mer and pearl shell. One may wonder if the Australian commerce wasn't more exclusively focused on sandalwood and tea than American trade which was probably more diversified.
3. Pritchard remarks on the importance of sperm whale teeth in Fiji as an important agent of diplomacy.
4. Some perfumed coconut oils can only be made certain months: on the island of Fatu Hiva pandanus flowers can be used for *pani* only in December; a multi-flowered *pani* is made in July(Sears/thesis1993:136).
5. The *Economie Rurale* has successfully grown sandalwood by planting seeds and by layering and replanting in pots or directly in the ground; however, in the first case, the gathering of the ripe fruit with seeds is very difficult to time as the blossoming period is extremely variable, though the peak is known to be around December. Furthermore, growth is slow and subject to a high percentage of failure. In the case of layering, results are highly successful and the new tree easily replanted in the ground. More research is necessary however to know if the tree will be in satisfactory condition later on. Piping has been very unsuccessful though with more research, a solution could be found. Sandalwood has to grow as a parasite of host plants: a part of its roots sucks nutrients from neighbouring host-plants; some of these have been identified on Tovii on Nuku Hiva: *Heua (Metrosideros collina); Purau(Hibiscus tiliaceus); Puu (Fagraea berteriana); Toa (Casuarina equisetifolia); Pine (Pinus caribea var hondurensis).* Further research would clear the problem of planting sandalwood in a natural environment where it could thrive, which is not the case at present according to an informant from the *Economie Rurale.*
6. After the disastrous effect of various epidemics, intensified warfare, alcoholism and a general loss of motivation in life with the disappearance of a social structure, the Marquesan population is reduced from estimated 50, 000 to 100,000 at the end of the eighteenth century to a mere 2,075 in 1929. This dramatic depopulation is considered the worse example in French Polynesia with Tubuai in the Australs. Population today is around 7,358.
7. *Pinus caribea* has been found however to be a host plant of the sandalwood. ■