

The Beginnings of Sugar Production in Hawai'i

Robert L. Cushing

The sesquicentennial of sugar production in Hawai'i is being observed in 1985 because Ladd & Co. initiated its sugar operation at Kōloa, Kaua'i in 1835.

Successors to the Ladd & Co. enterprise have continued to grow sugarcane on some of the same lands, and the cane has been milled in factories located near the same site as that of the first mill.

While the Ladd operation is reckoned as the beginning of sugar production in Hawai'i, there are reports, most of them fragmentary, of other even earlier efforts. One report says, "Old residents speak of sugar and molasses of a coarse quality having been manufactured here in sufficient quantities for ordinary domestic consumption in 1828."¹

Reports of the early attempts are scattered, most are documented poorly, if at all, there are inconsistencies among them, and there has never been a comprehensive summary of them.

It is the purpose of this paper to review and compare the reports of sugar making in Hawai'i prior to 1835.

SUGARCANE IN HAWAII

FIRST INTRODUCTION

Sugarcane is not indigenous to Hawai'i. Its center of origin is in the Indonesian Archipelago, where abundant variation can still be found in the genus *Saccharum*.² Long before there was recorded history, sugarcane was distributed throughout the lands of the South Pacific. It also moved, but somewhat later, to India, China and, eventually, to the lands of the Mediterranean Sea.³

Sugarcane was among the food crops brought by the Polynesians from islands to the south, who settled in Hawai'i a thousand or more

Robert L. Cushing is Director Emeritus, Hawaiian Sugar Planters' Association Experiment Station. The Hawaiian Journal of History, vol. 19 (1985)

years ago. There were apparently several varieties introduced, and these, with variants of them, survived into the 19th and 20th centuries. A report in 1872 listed 12 "Hawaiian" varieties, one in 1883 listed 17, and one in 1932 listed 34.⁴

In Hawai'i, as in the other Pacific islands, sugarcane was not processed but was used by chewing the juicy stalks.

COOK

The first written record of sugarcane in Hawai'i is that of Captain James Cook, the European discoverer of the Hawaiian Islands. Having sighted the Island he later found the natives called "Atooi" (Kaua'i), Cook's ships approached and, on January 19, 1778, ranged along the southeast side. He records that, "We saw no wood, but what was up in the interior part of the island, except a few trees about the villages; near which, also, we could observe several plantations of plantains and sugar-canes. . . ." Later, having been ashore, Cook says, "The potatoe fields, and spots of sugar-canes, or plantains, in the higher grounds, are planted with the same regularity; and always in some determinate figure; generally as a square or oblong. . . ."⁵

It is probable that the southeast coastal area, along which Cook ranged on January 19, included that from which Kōloa, site of the Ladd venture, is only about two miles inland.

On all his voyages of exploration, Cook fought a successful battle against scurvy, and one of his weapons was beer. It is not surprising, therefore, that Cook made some beer from Hawaiian sugarcane. After the stop at Kaua'i, Cook continued on his assigned mission, to explore the west coast of North America and to search for the Northwest Passage. By November 1778, he had returned to the island group he had found in January and, on the 26th, sighted "Mowee" (Maui) and, on the 30th, "Owhyhee" (Hawai'i).

For the next several weeks Cook sailed along the windward coasts of these two islands, trading for pigs, fruits, and roots, which the natives brought out in their canoes. On December 7, 1778, Cook records: "Having procured a quantity of sugar-cane; and having, upon a trial, made but a few days before, found that a strong decoction of it produced a very palatable beer, I ordered some more to be brewed, for our general use. But when the cask was broached, not one of my crew would even so much as taste it." Characteristically, Cook did not attempt to force the beer on his crew; he simply ordered that they should be served no grog. But, "I myself, and the

officers, continued to make use of this sugar-cane beer, whenever we could get materials for brewing it. A few hops, of which we had some on board, improved it much."⁶

Cook's use of "decoction" suggests that he extracted juice from the cane by essentially the same process used in some places even today, called "diffusion." He doesn't say how he prepared the cane for boiling in water, but he may well have used the same method Lavinia (referred to later in this paper) is reported as having used some 40 years later—simply macerating the cane stalks by pounding them.

REPORTS OF SUGAR MANUFACTURE PRIOR TO 1835

With a few exceptions, reports of sugar production in Hawai'i prior to 1835 were recorded long after the events were said to have occurred. The Marin diary and diaries and logs kept by sailors who called at Hawai'i were essentially the only written records until after 1820.⁷ Thus, the reports of early sugar making are based largely on the recollection of persons who were in the Islands at the time.

There is nothing new to add to previous accounts, but it seems useful to bring them all together, to compare them, and to provide as much documentation as can be found.

1802—CHINESE ON LĀNA'I

Almost every history of Hawai'i, or of sugarcane in Hawai'i, includes a report of a Chinese who made sugar on the Island of Lāna'i in 1802. Examples are: Whitney,⁸ Thrum,⁹ Agee,¹⁰ Morrow,¹¹ Hobbs,¹² Vandercook,¹³ Deerr,¹⁴ Kuykendall and Day,¹⁵ Adler,¹⁶ Char,¹⁷ and Glick.¹⁸ Some of these authors give a source; others do not. Of those that do, all trace back to the same place, *The Polynesian* for Saturday, January 31, 1852. The newspaper printed, in full, a paper read before the Royal Hawaiian Agricultural Society by Mr. L. L. Torbert, who was a member of the Society. The only mention of the Chinese sugar maker on Lāna'i is in this paragraph:

Mr. John White, who came to these islands in 1797, and is now living with me, says that in 1802, sugar was first made at these islands, by a native of China, on the Island of Lanai. He came here in one of the vessels trading for sandal wood, and brought a stone mill and boilers, and after grinding off one small crop and making it into sugar, went back the next year with his fixtures, to China.¹⁹

Who was John White and would he have been in a position to know about an attempt to make sugar on Lāna'i in 1802? Torbert

says White was living with him, presumably on Maui, where Torbert then lived. Girvin says John White was Torbert's father-in-law, reiterates his arrival in 1797, says he had attached himself to Kamehameha I and "traveled over the group in his retinue." With respect to the Chinese sugar maker on Lāna'i, Girvin says he had "the same facts from another source, and read it also in an English magazine published in 1827."²⁰ Unfortunately, he does not tell what magazine.

The facts about John White given by Torbert and Girvin are confirmed by Mr. White's obituary, published August 13, 1857:

A VETERAN GONE TO HIS REST—We learn by an arrival yesterday from Lahaina of the decease on Sunday afternoon last of old Mr. White, who was familiarly known as 'Jack White.' He was, we believe, the oldest foreign resident in the Islands, having landed at Lahaina in 1797—sixty years ago. He must have been near ninety years of age. There are but few of the old stock left; few who can speak of the good old days of Old Tammy, when things were better managed than now; few who can [tell?] of the battles they had seen or the [changes?] that civilization has hastened on and which [some?] will scarce admit have been for the improvement of the natives, at least so far as industry and honesty are concerned. They are 'passing away' and soon the sod will be green over the grave of [—?] 'olden time,' Mr. White was from Devonshire, England. His funeral was attended at 11 o'clock on Tuesday by nearly all the foreign residents of Lahaina.²¹

Under the "Great Mahele" of 1848, John White was awarded three parcels of land by the Board of Commissioners to Quiet Land Titles in the Hawaiian Islands. Two of them (61.22 ac. and 0.85 ac.) were at Honokowai, in the district of Kā'anapali, Maui, and one (11.00 ac. 44 faths.) was at Pola Iki, in the district of Lahaina, Maui.²² No record has been found as to where Mr. White was living and what he was doing, in 1802, that would have put him in a position to observe what was going on on Lāna'i. However, the fact that he is reported to have landed at Lahaina, that he was granted land near Lahaina, and that he died at Lahaina suggests strongly that he spent most of his life in Hawai'i in or near Lahaina. If so, he would have been as close to Lāna'i as one can get without being on the Island.

Different authors have given varying levels of credibility to Mr. Torbert's paper reporting what Mr. White had told him. For example, Thrum says, "The fact of Mr. T. giving credence to the above [Mr. White's account], and his presenting the same before the Agricultural Society, is proof sufficient in the minds of many that the same is correct; yet there are a large number who place no reliance on the statement, and look to a later period for its [sugar production] establishment."²³

Whitney says, "We must take Mr. Torbert's unsupported word

for this, for the earliest otherwise authenticated record of sugar-making is that of a Don Paulo Marin. . . .”²⁴ Vandercook writes, “If he [the Chinese] really did come, and by some mischance really did choose Lanai. . . .”²⁵

Morrow and Morrow, however, confidently say, “It has been proven beyond doubt that a Chinese who came to the islands in 1802 on a vessel trading for sandalwood brought a stone mill and boiler with him and set them up on the island of Lanai.”²⁶ Yet no proof is offered nor even a reference cited.

There is the curious emergence of a name for the Lāna‘i sugar maker. Char writes, “His name, given as Wong Tze-chun, has not been verifiable in Chinese or other records.”²⁷ Char’s reference is to Adler, who wrote, “From 1778—when Captain Cook found cane growing wild in the islands—to 1825, only a few persons tried to grow sugar commercially and to process it: a Chinese, Wong Tze Chun (1802); a Spaniard, . . .”²⁸ None of the sources cited by Adler provide a name for the Chinese sugar maker. There are two inaccuracies in Adler: (1) Cook did not find cane “growing wild” in the Islands, for his journal indicates clearly that it was cultivated; (2) Torbert does not say that the Chinese tried to “grow” sugarcane, only that he “ground” it.

Glick writes, “According to an account published in 1852, the first Chinese sugar maker, Wong Tzu-Chun, arrived in 1802. . . .”²⁹ His citation is Torbert, but Torbert gave no name.

A paper by Ah Jook Leong Ku, prepared for a publication observing the 50th anniversary of the Honolulu Chinese Chamber of Commerce, is the earliest report found that provides a name. She writes, “Wong Tze Chun is credited with setting up the first mill on Lanai in 1802. He planted a small crop and ground what is believed to be the first sugar manufactured in Hawaii.”³⁰ Here is a name, spelled the same way Adler spelled it, and a statement that the Chinese “planted” a crop. It looks as if Ku’s paper may have been Adler’s source, although he does not cite it.

What about the name, Wong Tzu-chun? It seems best to concur with Char that it is not verifiable.

What about the validity of the report of a Chinese sugar maker on Lāna‘i?

Even though many writers have repeated the report, their sources, with one exception, all trace to Torbert, who reported what his father-in-law, White, had told him. The exception is Girvin, who

said he had the same facts from another source and had read them in an English magazine.

There seems to be no reason why Torbert and White would fabricate the report given by Torbert. It seems certain that White was in Hawai'i and in a position to have known about the Lana'i venture in 1802. Torbert, who died August 17, 1871, at age 55, was a native of Newtown, Pa.³¹ It is not known when he came to Hawai'i, but he was farming at Honua'ula, Maui, in early 1846, for in February of that year he was charged, along with one of his employees, with shooting a man named Aki.³² In a two-day jury trial in the "Court of Oahu," concluded only two weeks after their arrest, Linton L. Torbert and Benjamin Furbush were found guilty of manslaughter. They were sentenced to four years in jail but, under the existing law, the sentences were commuted upon payment of a \$200 fine for each.³³

The circumstances of the shooting, described in the newspaper account of the trial, suggest that there was some provocation, that it was to some extent accidental, and that Torbert and Furbush provided as much assistance as they could to Aki, in spite of which he died. The account also says, "Torbert had lived several years in the district and bore among all classes an excellent character. [He] had, by his good habits and friendly conduct won the esteem of the natives. Furbush was a recent comer but nothing evil was known of him."³⁴

There appears to be no reason *not* to accept at face value Torbert's report of what White told him.

Is it possible that a Chinese visitor *did* process sugarcane and make sugar on Lana'i in 1802? Yes, unlikely as it may seem to us now!

The Chinese visitor probably did not plant and grow a crop of cane. For one thing, the Torbert report says only that he ground it. For another, the account suggests he was not in the Islands long enough to plant a crop and bring it to maturity. However, sugarcane was being cultivated by the Hawaiians at many locations in the Islands, and there could have been some on the windward coast of Lāna'i, improbable as that may seem.

Of the larger Hawaiian Islands, except for Kaho'olawe, Lāna'i would be the last choice as a place to grow sugarcane, mainly because it is dry. Sitting in the lee of East Moloka'i and West Maui, the tradewind clouds have dropped most of their water by the time they reach Lāna'i. The wettest spot on the Island, Lāna'ihale, has a median annual rainfall of about 38 inches. The windward areas which, except for the "lanai" in the center of the island have the

only land suitable for cultivation, have even less. Keōmoku, for example, has a median of about 11 inches.³⁵ Even so, about 100 years after the reported Chinese visitor, an attempt was made to establish a sugarcane plantation at Keōmoku. A railroad was built, remnants of which can still be found, and cane was planted, but the Maunalei Sugar Co. was out of business in 1901, two years after it was founded. The cause: “. . . lack of water and the poor sugar content of the cane.”³⁶

Assuming there could have been some cane growing on Lāna‘i, is it sensible to believe that a Chinese would attempt to make sugar there? Persuasive evidence that it is can be found in the fact that in Guangdong (Kwangtung) Province, in which Guangzhou (Canton) is located, sugarcane was processed by itinerant sugar makers. A 1797 report describes the practices:

The cane plantations in China belonging to individuals, were of very little extent; and the expence of erecting sugar mills too heavy to have one upon each plantation. The business of extracting the juice of the cane and boiling it into sugar is, there, a separate undertaking from that of him who cultivated the plant. The boilers of sugar travel about the country, with a small apparatus sufficient for their purpose, but which a West Indies planter would consider as inefficacious and contemptible. It is not a matter of great difficulty to travel with this apparatus, as there are few plantations of which some part is not accessible by water-carriage. A few bamboo poles and mats, are deemed sufficient for a temporary building; within which, at one end, is fixed a large iron cauldron, with a fire-place and flue, and about the middle a pair of cylinders or rollers, fitted vertically into a frame. These are sometimes of hard wood, and frequently of stone.³⁷

Torbert's report has the Chinese coming in one of the vessels trading in sandalwood. Guangzhou, then Canton, was the Chinese port through which the trade in sandalwood was carried out. It is plausible to suppose that word of sugarcane in "The Sandalwood Mountain Islands" reached one of the itinerant sugar makers and that he arranged to go to the Islands in one of the trading vessels. He could have been persuaded by one of the traders, or he could have decided to go "on spec," that is, on the chance that he could pick up some jobs and make some money. If so, it could have been bad advice or just bad luck that took him to Lāna‘i instead of a more favorable location.

The sugarcane milling and boiling operation just described is very much like the one illustrated in the report of Admiral Perry's voyage to the China Seas and Japan in mid-19th Century (fig. 1).³⁸ The mills in this illustration are of wood, but some were of stone and Chinese stone mills are known to have been brought to Hawai‘i.

A set of such stone mills is now installed in front of the building in A'iea that houses the offices, laboratories, and library of the Hawaiian Sugar Planters' Association (HSPA). They were recovered from the ruins of the Wilder and Judd sugarcane mill at Kualoa, O'ahu, where they had served as bases for centrifugal machines. They were loaned to HSPA by Mrs. F. M. Swanzy, daughter of C. H. Judd, and were set up at the HSPA grounds, then on Ke'eaumoku Street, in 1934.³⁹ When HSPA moved from that location to A'iea, in 1975, Francis S. Morgan, grandson of Mrs. Swanzy, kindly agreed to continue the loan so the mills could be displayed (fig. 2).

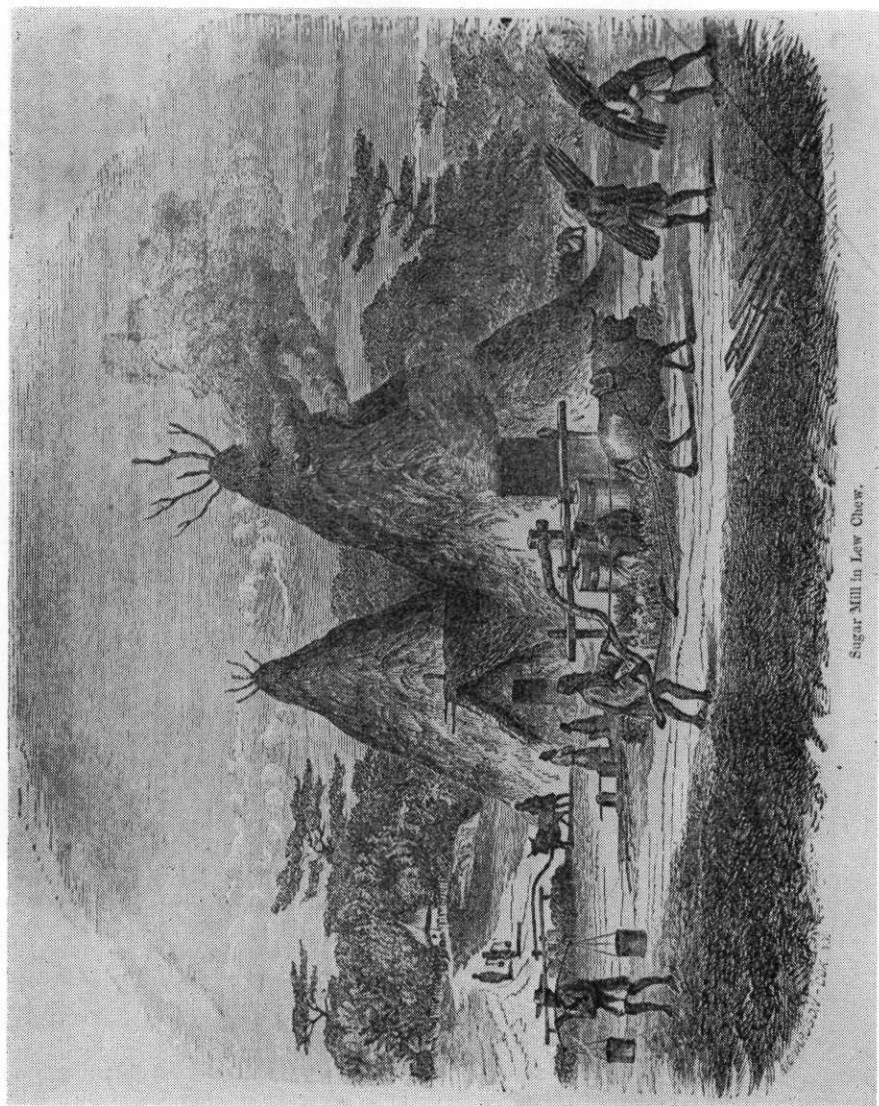
There is no hard evidence of a Chinese sugar maker on Lāna'i in 1802, no written records, and no artifacts. Yet it seems implausible that John White would have made up the account attributed to him by Torbert. Perhaps White's memory was not completely accurate. Maybe it wasn't in 1802 and maybe it wasn't on Lāna'i, but it seems possible that there was an itinerant sugar maker from China who came to Hawai'i in the early years of the 19th Century, with his equipment, ground some cane already grown by the Hawaiians, made some sugar, and then returned to China.

1811—THE KING'S MILL

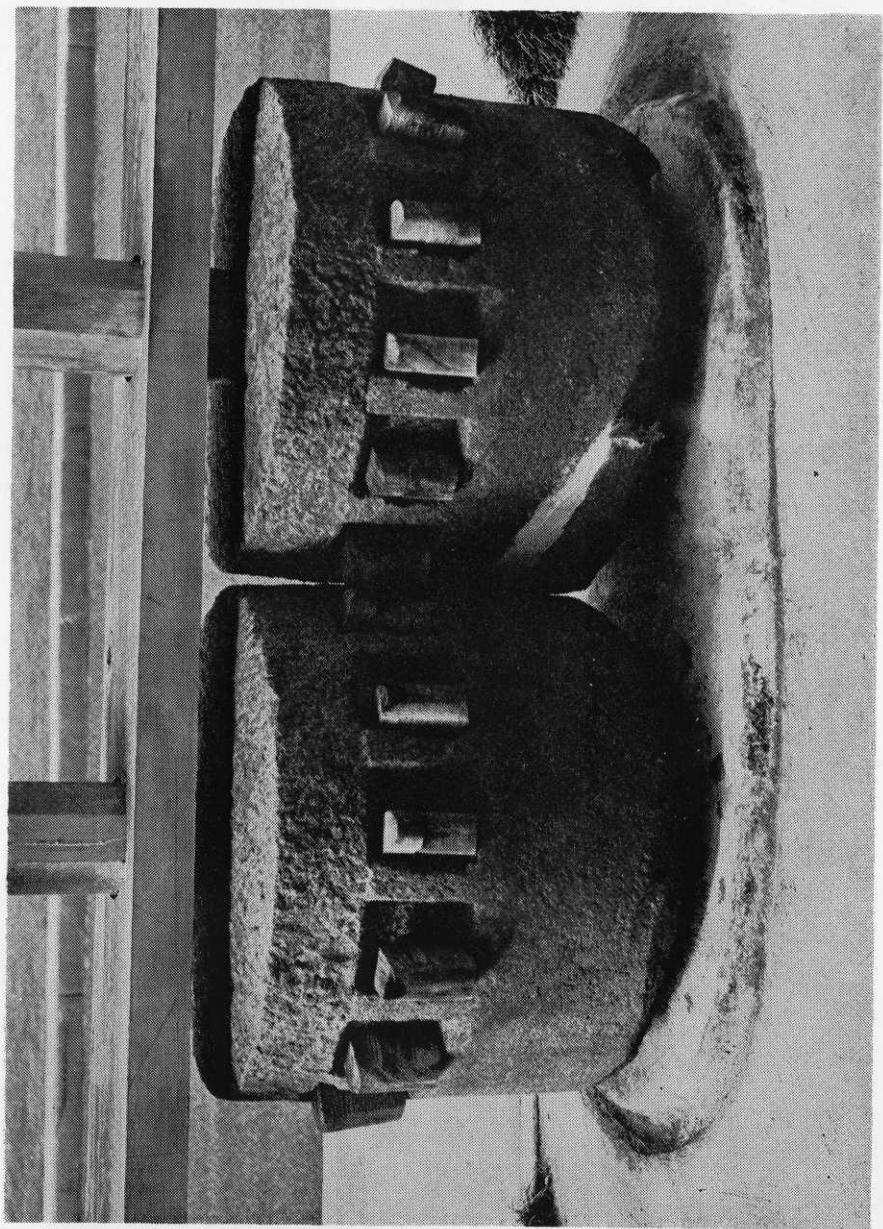
The sailing vessel *New Hazard* made a voyage from Boston to the Hawaiian Islands, the Northwest coast of North America, and China, and returned during the period October 1810 to December 1813. Stephen W. Reynolds, a member of the crew, kept a diary which was edited and published in 1938. On March 1, 1811, the *New Hazard* anchored at Karakakooa (Kealakekua), its first stop in the Islands. On the 3rd, the ship left, headed for O'ahu, which was reached on the 5th. The ship was anchored, presumably off Honolulu.

Reynold's diary entry for March 5, 1811, includes: "Sent a boat ashore after water. Went ashore in cutter with captain; saw the King's cane mill and boiler, ship—a small one hauled up of about 175 tons, fort, etc."⁴⁰ That is all, but it indicates clearly that there was equipment for making sugar in Honolulu at that time.

FIG. 1. Sugarcane milling and juice boiling at Lew Chew (Luchu) or Ryuku Islands (Okinawa), as observed by Commodore Perry in 1853. (*Narrative . . .* 1856 engraving.)



Sugar Mill in Lew Chew.



On August 12, 1850, Robert Crichton Wyllie, read an address to the Royal Hawaiian Agricultural Society in which he reviewed the beginnings of agriculture in Hawai'i, the introductions of plants and animals, especially the contributions of Don Francisco de Paula Marin. Wyllie said:

His journal, kept in Spanish, and consisting of several volumes, is in my possession. The volumes are much dilapidated, and as the first entry is dated 14 November, 1809, there is reason to believe that several volumes have been lost.⁴¹

Subsequently, the volumes then in Wyllie's possession were also lost. All that survived is the Wyllie manuscript of the portions he translated to English. This was edited by Agnes Conrad and published in 1973.

In his address Wyllie quoted only one Marin journal entry concerning sugar, "On the 25th of February, 1819, he was engaged in making sugar."⁴² There are, in fact, eight additional entries that mention sugar or molasses, and these are now available in Conrad's edition of the Wyllie translation:

- 1813 15 February. This day I sent to the King a box of sugar.
- 1817 [No date under heading 'Marin's occupation']
... making molasses ...
- 1819 17 February. Capt. [torn] aking sugar.
25 Feby. Today [torn] to Pearl River, & we [torn] of cane juice.
7 March. This day I was grinding cane and I made 45 gallons.
19 March. This day Captain Jel [Hill] paid to Poqui 10 pieces of canvas for 30 hogs—40 pounds of sugar for 2 hogs—and 10 pounds as a present.
28 April. Poqui sent a coffee-pot, sugar & tea.
28 December. This day Don Antonio [Herrera] bought 6 hogs for 9\$ & 4 a 7\$—100 lb. sugar at 18 ciencias the lb and 50 lb coffee a 30 ciencias the lb⁴³

The journal entries for February 15, 1813, and for March 19, April 29, and December 28, 1819, show that sugar was available, that it was traded and was used as a gift. What is not known is whether the sugar was produced in the Islands or had been imported.

Until Conrad's edition of Marin's journal was published in 1973, the only entry generally available was the one quoted by Wyllie. Thus the authors of Hawaiian histories or of sugarcane histories who

FIG. 2. Granite sugarcane mills from China, now at A'iea, Hawai'i, time of transport unknown. (Robert Cushing photo.)

mention Marin and sugar making, have all apparently relied on Wyllie,⁴⁴ or on Thrum⁴⁵ who quotes Wyllie without acknowledgment. As a result, some of them give scant credence or minimize Marin's sugar making efforts.

For example, Thrum writes, "Don Paulo Marin recorded in his journal of making sugar in Honolulu in February 1819; but no other allusion is made thereto."⁴⁶ As can be seen in the journal entries quoted above, there are several other "allusions." Vandercook writes: "But certain it is that one Don Francisco de Paula y Marin noted in his diary on a day in February, 1819, that he 'made sugar'. . . . However, since Marin, an incurable amateur, at once went on to such other jobs as doctoring the Monarch, pickle making and a bit of musket repairing, his sugar making made no special stir."⁴⁷ Marin was not an "amateur;" he was a skilled horticulturalist, a wine-maker, a brewer, and a distiller. Moreover, if sugar making caused no "special stir" perhaps it was because it was a fairly routine, commonplace activity.

Taken all together, the journal entry for 1817 and the first four entries in 1819, quoted above, indicate that Marin was engaged in milling sugarcane, boiling the juice, and making sugar and molasses. Note that Marine records that he was *grinding* cane. He was not, as Whitney wrote, having "the cane mashed on large wooden platters (poi boards) by the natives with their stone poi pounders. . . ."⁴⁸ Whitney gives no source for this statement, and Marin's journal makes no reference to pounding cane to extract the juice.

It is frustrating not to know what the missing (torn) portions of the journal contained. For example, "the captains were repairing the [what?] for cane." There is a temptation to say the missing word is "mill." Who was the "Capt. [torn] making sugar" on Feb. 22? What or why did Marin "[torn] to Pearl River & [torn] of cane juice?"

Could Marin have had a cane mill? Why not? Recall that Reynolds reported seeing "the King's cane mill and boiler" in 1811. Considering Marin's relationship with the King and his skill and knowledge, is it not likely that he would have had some responsibility for using the mill and the boiler?

There are no artifacts, Marin's journal is sketchy, and parts of it are missing, so the evidence is circumstantial. But there is enough to support a conclusion that Marin milled sugarcane and made appreciable amounts of sugar in the period from about 1812 to 1825.

Thrum writes: "Sugar was made in Honolulu about 1823, by Lavinia, an Italian, who had the cane pounded or mashed on huge wooden trays (*poi* boards) by natives with stone beaters, collecting the juice and boiling it in a small copper kettle."⁴⁹

Whitney uses almost exactly the same words, but attributes the process to Marin instead of Lavinia. He writes, "a Don Paulo Marin, who had the cane mashed on large wooden platters [*poi* boards] by the natives with their stone *poi* pounders, and then collecting the juice, boiled it in a small copper kettle."⁵⁰ Whitney is in error, because it is clear from the portions of Marin's journal quoted above that he did not "mash" cane; on the contrary, he records "grinding" it.

Thurston⁵¹ and Girvin⁵² both mention Lavinia but give no source for their information. Girvin adds a detail that none of the other reports include, namely, that the *poi* boards were made of *koa* wood.

Agee includes Lavinia in his account by quoting Thrum in full and acknowledging the source.⁵³

It appears that all references to Lavinia derive from Thrum who cites no authority for his report. It is strange that neither Wyllie nor Torbert, reporting some 25 years earlier than Thrum, include Lavinia in their accounts of early sugar making in Hawai'i. Even so, it is possible that there was a Lavinia, and that he did make sugar in the manner described, because at about that time there appears to have been a spate of sugar making.

1823-28?—CATALINA, SILVA, HUNGTAI

Several reports refer to one or more of the sugar makers named above, but the dates vary and are not very specific in any case.

Whitney, having said there was sufficient sugar for domestic consumption in 1828, goes on to say: "In that year, extensive fields of cane were grown in and about Honolulu, and mills were erected in Nuuanu Valley and at Waikapu, Maui. At the latter place, a Portugese, named Antonio Silva, is spoken of as the pioneer sugar planter."⁵⁴

Thrum writes: "About this same time [referring to Lavinia in 1823] Antone Catalina is also claimed by some to be the founder of the industry by making excellent syrup at Waikapu, Maui—the site of the present Waikapu mill—and Hungtai, a Chinaman, is said to have established the first mill at Wailuku."⁵⁵

Thurston, perhaps drawing on both Whitney and Thrum, writes that in 1828 there was sufficient sugar for domestic consumption

and then: "A sugar mill was then in operation in Nuuanu Valley, Honolulu, and a Portuguese named Antonio Silva had a plantation and mill at Waikapu, Maui, while a Chinaman named Hungtai established the first mill at Wailuku. Antone Catalina is also said to have had a syrup factory at Waikapu at this time."⁵⁶

According to Girvin, "Antone Catalina, a Portuguese, made an excellent syrup at Waikapu, Maui, about the same time [referring to Lavinia and 1823]; and a Chinaman named Hing Tai also established a sugar mill at Waikapu, which mill, a crude stone affair, the author has often seen."⁵⁷

Thrum and Thurston both give the Wailuku miller the name "Hungtai," while Girvin has changed it to "Hing Tai." Agee, supposedly quoting Thrum exactly, has changed it to "Jungtai."⁵⁸ Deerr, characteristically, adds to possible confusion by writing, "On Maui the first recorded producers were a Portuguese, Antonio Catalina or Silva, at Waikapu, and a Chinese, Jung Tai, at Wailuku, both of whom were working before 1828."⁵⁹ He uses the name "Antoine" instead of "Antonio" or "Antone," and he implies that Catalina and Silva were the same man. He puts still another variation on the name of the Chinese, changing the "Jungtai" used by Agee whom he cites, to "Jung Tai."

Ah Jook Leong Ku, after discussing the Chinese sugar maker on Lānaʻi in 1802, writes, "More than 20 years later—in 1823 Hung Tai built another mill at Wailuku, Maui."⁶⁰

Wai-Jane Char says that the Wilkinson plantation (to be discussed later) was abandoned after his death in 1827 because no one knew how to convert cane into sugar. She then writes, "The South China sugar manufacturers soon filled this gap with the establishment of the Hungtai sugar works at Wailuku, Maui in 1828."⁶¹ It is difficult to see how the establishment of a sugar mill on Maui would help fill "the gap" because the Wilkinson planting was in Mānoa Valley on Oʻahu, and there were plenty of people who knew how to boil sugar.

Both Wai-Jane Char and Tin Yuke Char help clear up the matter of the name, "Hungtai," although they differ slightly on one detail. Wai-Jane Char says, "Hungtai was the name made up of the names of the merchants Chun *Hung* and *Atai* (full name unknown)."⁶² Tin Yuke Char writes, "A sugar mill was started by Hungtai Co. in Wailuku, on the island of Maui, in 1828. It was a partnership of two men, Ahung and Atai."⁶³ Whereas all the writers previously had assumed that Hungtai was an individual person, the two Chars indicate clearly that this was the name of a partnership or a company.

Whitney and Thrum were the first to mention the development of sugar making on Maui, but neither give a source for the information reported. It is impossible to know whether the subsequent reports simply repeat what they said or represent independent corroboration. The year of starting is given as 1823 in some reports; as 1828 in others. But this is often indefinite, as, "about this time" or "in that year."

Additional details crept into two of the reports, but in the absence of documentation they do not add much in the way of corroboration. Girvin says he had "often seen" stone mills, such as those operated by Hungtai, but it is not certain that he refers to the very ones or some like them.⁶⁴ Ah Jook Leong Ku writes that the Hungtai mill was still in operation in 1839, under contract to grind cane grown on lands belonging to Kamehameha III.⁶⁵

Even with the unsatisfactory documentation of these reports of activity on Maui, it is reasonable to conclude that the basic facts are true. By 1823 to 1828, when these developments were reported to have occurred, there was a trade in sugar, there was a significant amount of sugarcane being grown in the Islands, and the rudimentary technology for grinding cane and boiling the juice to make sugar was available.

1825—WILKINSON

By about 1820 there was a developing awareness in Hawai'i of the desirability of an export product to take the place of the dwindling trade in sandalwood. One indication of this can be seen in the Wilkinson enterprise.

In 1825, Boki, Governor of O'ahu, returned from England on the *H.M.S. Blonde* with the remains of the King and Queen, who had died in London. "Tatler" records: "when the Blond [*sic*] frigate arrived . . . there was a Mr. John Wilkinson who had made some arrangements with Governor Boki while in England."⁶⁶ Wilkinson was an agriculturalist who had some experience in the West Indies. Under Boki's sponsorship, but apparently with his own funds, Wilkinson started an extensive plantation in Mānoa Valley in July or August, 1825. The crops were to be sugarcane, for which the propagating material was available on the Island, and coffee, for which the propagating material was obtained and taken on the *Blonde* at Rio de Janeiro.⁶⁷

There were many difficulties. Wilkinson lacked implements adequate for plantings on the scale attempted. For tillage and plant-

ing he had to depend on the sharpened stick called *oo* used by Hawaiians. Boki had promised "many natives to work on the plantation."⁶⁸ But the natives did not like the idea and refused to work. Moreover, even at 25 cents pay per man-day, Wilkinson's funds were soon gone. Even with the difficulties, "In eighteen months (he) had nearly 30 acres of cane planted. He made a small quantity of sugar and a [———?] molasses which were of first quality."⁶⁹

Wilkinson was ill almost from the time of his arrival, and his relationship with Boki is confirmed in Elisha Loomis' journal entry for September 17, 1826, noting his death:

Boki called after dinner for some medicine to take to Mr. Wilkinson the English planter lately established at Manoa, he being near his end. . . . But the poor man was insensible when Boki reached his house, and expired shortly after.⁷⁰

By the time of Wilkinson's death, there were more than 100 acres of sugarcane growing in Mānoa Valley. Boki wanted to save it, so William French, John C. Jones, John Ebbets, and Stephen Reynolds "took an interest in the plantation."⁷¹ Boki was also still involved because Reynold's journal records that on July 4, 1827, "Boki making sugar at his new mill with fine success."⁷² But the success was shortlived: "After the first cutting, the plantation dilapidated and wasted away for want of protection."⁷³ Another version of the fate of the plantation is that Queen Regent Ka'ahumanu "caused the cane fields to be destroyed" because the cane was to be used for making rum.⁷⁴ The coffee trees were left, uncared for, and occasional coffee trees, which could be remnants of the Wilkinson planting, can be seen in upper Manoa Valley today.

The Wilkinson plantation was based on grand plans, had Governor Boki's support, and had an ambitious beginning. But with Wilkinson's death and flagging government support, if not downright antagonism, it failed.

1829—GOODRICH

Mr. Joseph Goodrich, Licensed Preacher, was a member of the second company of missionaries, which arrived at Honolulu April 27, 1823. He and Mrs. Goodrich were sent to Hilo where, with Mr. Ruggles, they established the mission station on January 24, 1824.⁷⁵ On January 9, 1829, Goodrich wrote of having "finished milling a year's supply of sugar and molasses . . . the mill being one of my own construction consisting of 3 upright wooden cylinders about 14 inches in diameter . . . turned by hand."⁷⁶ "Tatler" says Goodrich

“perservered [in making sugar] but was adjudged unprofitable in the field of missionary labors”. . . .⁷⁷ Goodrich’s knowledge and skill in sugar making were apparently sought by Ladd & Co. because Goodrich “decided against entering into a contract to manage Koloa Plantation because of the disapproval of the American Board and, instead, left with his family . . . January 26, 1836.”⁷⁸

1835—FRENCH

William French had been involved with Jones, Ebbets, and Reynolds in trying to salvage the Wilkinson plantation for Governor Boki. He continued to look for an opportunity to get in the sugar business and found one on Kaua‘i:

In the fall of 1835 Wm. French brought out from China a number of Chinamen, who were skilled in the art of making sugar . . . he (French) at length engaged with Kaikuoewa [sic], Governor of Kauai that the Chinamen sugarmakers should go to his island, carry their mill and apparatus, grind all the cane that was ripe and fit for making sugar, upon equal shares. The growers were to deliver the cane to the mill.⁷⁹

French is reported to have spent time in Canton, China in the years 1820–25 and “was familiar with the capabilities of the Chinese in sugar production.”⁸⁰ He had, undoubtedly, learned of the itinerant sugar millers and boilers who moved their equipment from place to place by water carriage in the south China cane growing areas.

French is reported to have shipped to the United States “8,000 pounds of sugar and as many gallons of molasses.”⁸¹ Certain it is that in September and November, 1839, Wm. French, the trader, was advertising: “[he] Has for sale, for cash, barter or approved credit the following goods: . . . 20,000 lbs. Sandwich Island Sugar . . . 1000 gallons Sandwich Island Molasses.”⁸²

French was dependent on sugarcane grown by others and had hopes of obtaining land, but he was unsuccessful. He “found himself in hopeless competition with the Kōloa enterprise of Ladd and Company, and in 1838 carried his mill back to Oahu.”⁸³

1835—LADD & CO.

Ladd & Co., a partnership of Peter Allen Brinsmade, William Ladd, and William Hooper, started out as a commission and mercantile business in Honolulu. The partners wanted to expand and saw opportunities in agriculture. They were successful in negotiating a lease with Kamehameha III for a tract of land at Kōloa, Kauai, thus obtaining something that had eluded French.

Hooper went to Kaua'i to manage the new sugar operation, though he had no experience in agriculture or engineering, a fact he noted with regret in his diary from time to time. The actual start of the plantation was September 12, 1835, when Hooper "laid out" 12 acres for cane cultivation. The mill, water-powered and with wooden rollers, was first operated on November 14, 1836.⁸⁴

Ladd & Co. has the distinction of being the first commercial sugar making operation in Hawai'i, and sugarcane has been grown continuously at Kōloa since Hooper's first planting and cane has been processed in a mill at or near the original site every year since Hooper got his wooden mills operating.

NOTES

- ¹ Henry M. Whitney, appendix, *History of the Hawaiian Islands*, by James J. Jarves (Honolulu: Henry M. Whitney, 1872) 204, HSPA Library. All archival sources are at the HSPA Library unless otherwise noted.
- ² Nils Berding and Hideo Koike, "Germplasm Conservation of the Saccharum Complex: A Collection from the Indonesian Archipelago," *Hawaiian Planters' Record* 59-7 (1980): 87-176.
- ³ Noel Deerr, *The History of Sugar*, vol. I (London: Chapman & Hall, 1949) 12-18.
- ⁴ W. W. G. Moir, "The Native Hawaiian Canes", Bulletin 7 (1932), International Society of Sugar Cane Technologists, Fourth Congress 1-8.
- ⁵ James Cook *A Voyage to the Pacific Ocean—in His Majesty's Ships the Resolution and Discovery; in the years 1776, 1777, 1778, 1779 and 1780*, vol. II (London: G. Nicol and T. Cadell, 1784) 192-193 and 244.
- ⁶ James Cook, *A Voyage* 531-534.
- ⁷ Agnes C. Conrad, ed., "The Letters and Journal of Francisco de Paula Marin," *Don Francisco de Paula Marin*, by R. H. Gast (Honolulu: UP of Hawaii for the Hawaiian Historical Society, 1973).
- ⁸ Caspar Whitney, *Hawaiian America* (New York: Harper and Brothers, 1902) 186.
- ⁹ Thos. G. Thrum, "Notes on the History of the Sugar Industry in the Hawaiian Islands", *HAA* (1875) 34-35.
- ¹⁰ Hamilton P. Agee "Hawaiian Agriculture Prior to 1860." *Hawaiian Planters' Record*, 31 (1927): 154-163.
- ¹¹ Alice Clare and Jack Morrow, *Maui: A Few Facts About the Valley Isle* (n.p., 1930) 33.
- ¹² Jean Hobbs, *Hawaii: A Pageant of the Soil* (Palo Alto, CA.: Stanford UP, 1935) 49.
- ¹³ John W. Vandercook, *King Cane: the Story of Sugar in Hawaii* (New York: Harper and Brothers, 1939) 9-10.
- ¹⁴ Deerr, *History of Sugar* 174.
- ¹⁵ Ralph S. Kuykendall and A. Grove Day, *Hawaii: A History* (Englewood Cliffs, N.J.: Prentice Hall, 1961) 92.
- ¹⁶ Jacob Adler, *Claus Spreckels: The Sugar King in Hawaii* (Honolulu: U of Hawaii P. 1966) 4.
- ¹⁷ Tin-Yuke Char, *The Sandalwood Mountains* (Honolulu: UP of Hawaii, 1975) 54.

- ¹⁸ Clarence E. Glick, *Sojourners and Settlers: Chinese Migrants in Hawaii* (Honolulu: Hawaii Chinese History Center and UP of Hawaii, 1980) 2.
- ¹⁹ L. L. Torbert, "Paper Read Before the Royal Hawaiian Agricultural Society", *P*, 31 January 1852.
- ²⁰ James W. Girvin, *The Master Planter or Life in the Cane Fields of Hawaii* (Honolulu: Hawaiian Gazette, 1910) 195.
- ²¹ Obituary, *PCA*, 13 August 1857.
- ²² Charles T. Bailey, *Indices of Awards by the Board of Commissioners to Quiet Land Titles in the Hawaiian Islands* (Honolulu: Commissioner of Public Lands, 1929) 214 and 248.
- ²³ Thrum, "Notes" 35.
- ²⁴ C. Whitney, *Hawaiian America* 186.
- ²⁵ Vandercook, *King Cane* 10.
- ²⁶ Morrow, *Maui: A Few Facts* 33.
- ²⁷ T. Y. Char, *Sandalwood Mountains* 54.
- ²⁸ Adler, *Claus Spreckels* 4.
- ²⁹ Glick, *Sojourners and Settlers* 17.
- ³⁰ Ah Jook Leong Ku, "First Chinese Came Before Vancouver," *The Chinese in Hawaii*, ed. Robert W. Lee (Honolulu: Advertiser, 1961) 22.
- ³¹ Obituary, *F*, 1 September 1871: 69.
- ³² "L. L. Torbert and B. Furbush brought to Honolulu and held in the Fort, following arrest on Maui," *P*, 14 February 1846.
- ³³ "Report of trial of Torbert and Furbush in the Court of Oahu," *P*, 28 February 1846.
- ³⁴ "Report," *P*, 28 February 1846.
- ³⁵ William J. Taliaferro, *Rainfall of the Hawaiian Islands* (Honolulu: Hawaii Water Authority, 1959) 254-256.
- ³⁶ Jesse C. Conde and Gerald M. Best, *Sugar Trains: Narrow Gauge Rails of Hawaii* (Felton, CA.: Glenwood, 1973) 205.
- ³⁷ George Staunton, *An Authentic Account of an Embassy from the King of Great Britain to the Emperor of China*, vol. II (London: G. Nicol, 1797) 461.
- ³⁸ Francis L. Hawks, *Narrative of the Expedition of an American Squadron to the China Seas and Japan, 1852, 1853 and 1854, Under the Command of Commodore M. C. Perry, U. S. Navy* (Washington, D.C.: Congress of the United States, 1856) 313.
- ³⁹ T. T. Waterman, "An Ancient Hawaiian Sugar Mill," *PP* (September 1934) 29-32.
- ⁴⁰ F. W. Howay, *Voyage of the New Hazard to the Northwest Coast, Hawaii and China, 1810-1813*, ed. Stephen Reynolds (Salem, MA.: Peabody Museum, 1938) 8.
- ⁴¹ Robert C. Wyllie, "Address to the Royal Hawaiian Agricultural Society," *RHAS* 1 (1850): 46.
- ⁴² Wyllie, "Address" 47.
- ⁴³ Conrad, *Letters and Journal of Francisco de Paula Marin* 208-228.
- ⁴⁴ Wyllie, "Address" 47.
- ⁴⁵ Thrum, "Notes" 35.
- ⁴⁶ Thrum, "Notes" 35.
- ⁴⁷ Vandercook, *King Cane* 10.
- ⁴⁸ C. Whitney, *Hawaiian America* 186.
- ⁴⁹ Thrum, "Notes" 35.
- ⁵⁰ C. Whitney, *Hawaiian America* 186.
- ⁵¹ Lorrin A. Thurston, "Sugar: Its Status and Development," *PCA*, 2 July 1906: 31.

- ⁵² Girvin, *The Master Planter* 195.
- ⁵³ Agee, "Hawaiian Agriculture" 157.
- ⁵⁴ H. Whitney, *Commercial and Agricultural Conditions* 204.
- ⁵⁵ Thrum "Notes" 35.
- ⁵⁶ Thurston, "Sugar" 31.
- ⁵⁷ Girvin, *The Master Planter* 195.
- ⁵⁸ Agee, "Hawaiian Agriculture" 157.
- ⁵⁹ Deerr, *History of Sugar* 254.
- ⁶⁰ Ku, "First Chinese" 22.
- ⁶¹ Wai-Jane Char, "Chinese Merchant-Adventurers and Sugar Masters in Hawaii; 1802-1852," *HJH*, 8 (1974): 3-9.
- ⁶² W.-J. Char, "Chinese Merchant-Adventurers" 7.
- ⁶³ T. Y. Char, *Sandalwood Mountains* 54.
- ⁶⁴ Girvin, *The Master Planter* 195.
- ⁶⁵ Ku, "First Chinese" 22.
- ⁶⁶ "Tatler," *Sandwich Island Mirror & Commercial Gazette*, 15 March 1840.
- ⁶⁷ Stephen Reynolds, "Reminiscences of Hawaiian Agriculture," *RHAS* 1 (1850): 49-53.
- ⁶⁸ "Tatler," *SIM*, 15 March 1840.
- ⁶⁹ "Tatler," *SIM*, 15 March 1840.
- ⁷⁰ Elisha Loomis, *Journal*, 17 September 1826, ts., HMCS Library.
- ⁷¹ Reynolds, "Reminiscences" 50.
- ⁷² Reynolds, *Journal*, 4 July 1827.
- ⁷³ Reynolds, "Reminiscences" 50.
- ⁷⁴ Ralph S. Kuykendall, *The Hawaiian Kingdom*, vol. I, 1778-1854 *Foundation and Transformation* (Honolulu: UP of Hawaii, 1938) 173.
- ⁷⁵ *Missionary Album* (Honolulu: HMCS, 1969) 7 and 102-103.
- ⁷⁶ Kuykendall, *Hawaiian Kingdom*, vol. I: 173.
- ⁷⁷ "Tatler," *SIM*, 15 April 1840.
- ⁷⁸ *Missionary Album* 103.
- ⁷⁹ "Tatler," *SIM*, 15 April 1840.
- ⁸⁰ W.-J. Char, "Chinese Merchant-Adventurers" 5.
- ⁸¹ Deerr, *History of Sugar* 254.
- ⁸² *Sandwich Island Mirror & Commercial Gazette*, 15 September and 15 November 1839.
- ⁸³ Kuykendall, *Hawaiian Kingdom*, vol. I: 175.
- ⁸⁴ Arthur C. Alexander, *Koloa Plantation 1835-1935 a history of the oldest Sugar Plantation* (Honolulu: Honolulu Star-Bulletin, 1937) 5-8.