EDITOR'S FORUM

"THE HORROR" RECONSIDERED: AN EVALUATION OF THE HISTORICAL EVIDENCE FOR POPULATION DECLINE IN HAWAI'I, 1778-1803

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> Even after the tabus were abolished [in 1819] the land was well populated from Hawaii to Kauai with high chiefs, the favorites of chiefs, lesser chiefs, the children of chiefs, and commoners. The land was well filled with men women and children. It was a common thing to see old men and women of a hundred years and over, wrinkled and flabby skinned, with eyelids hanging shut. One does not see such people today.
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> --S. M. Kamakau, 1867

In his extended essay, ***Before the Horror: The Population of Hawai'i on the Eve of Western Contact,*** David Stannard argues that all previous estimates of Hawai'i's precontact population, including those made by modern demographers and historians as well as first-hand observers, were far too low and that, in fact, what he calls the pre-***haole*** (foreigner, today refers to Caucasians) population was at least twice the size of any of the earlier estimates, that is, a minimum of 800,000 people.

Stannard's essay, which draws upon information from a variety of disciplines including demography, paleo-demography, epidemiology, archaeology and history, and which includes impressive supporting documentation, is powerfully argued--so powerfully argued, in fact, that

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it has been accepted uncritically by a large number of readers here in Hawai'i. At the time of the essay's publication in 1989 I welcomed its appearance because I believed that it would result in an upward revision of the commonly cited precontact population figure of 250,000 (Hawai'i 1987:12), which I believe is too low, and because I expected that it would renew debate about this important issue in Hawaiian history. Instead debate has been decidedly muted, and ***Before the Horror*** has provided a new orthodoxy for many who are either unable or unwilling to critically evaluate its assumptions.

One significant factor that has undoubtedly limited public debate on the issue is the fact that Stannard has carefully staked out the moral high ground (1989:142-143), invited others to respond to his arguments "in specific scholarly detail," and then branded those attempts in advance as "politically motivated" (1990a:299). This is unfortunate, for the magnitude of population decline in Hawai'i and its impact on the Hawaiian people are issues of primary concern for scholars interested in the history of these islands and should be the subject of public discussion.

Moreover, conclusions about the size of Hawai'i's precontact population and the scale and pace of its subsequent decline will be of interest to scholars at work in other areas of the world. Alfred Crosby (1992) has already suggested that Hawaiian depopulation be used as a model for the Amerindian experience (although he confines his study to the nineteenth century when census data is available), and Stannard himself has used the Hawaiian experience as a model for the demographic collapse of native populations generally. In doing so, he posits a precontact Hawaiian population of "probably at least 800,000" without so much as a footnote, as if the number was agreed to by all (Stannard 1990b).

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Stannard begins his argument in ***Before the Horror*** by reevaluating what scanty censal information is available for Hawai'i in the period of early ***haole***-Hawaiian contact. He starts where all modern demographers have, with Lieutenant James King's estimate of 400,000 Hawaiians, calculated following his two visits to Hawai'i in 1778-1779 with Captain James Cook. Stannard then revises these figures upward to 800,000-plus, in contrast to modern demographers who have revised King's figures downward. Stannard's reasoning will be discussed below.

Modern demographers have revised King's figures downward, primarily because other eighteenth-century estimates of the islands' popu-

lation were uniformly and substantially lower than that of King. William Bligh, for example, also with Cook in 1778-1779, estimated the all-island population at 242,200. Stannard rejects this figure because Bligh provides no methodology with which to explain his count, although the very "unroundness" of the number suggests that there was some method used to determine it. Also with Cook was John Ledyard, whose 100,000 estimate for the island of Hawai'i, 50,000 less than King's Hawai'i Island estimate, is not mentioned by Stannard although Ledyard does provide a rudimentary methodology and claims to have consulted with Hawaiians in determining it (Munford 1963:129). (It should be noted that Ledyard's journal is notoriously inaccurate, but his tendency when dealing with numbers of Hawaiians was to exaggerate rather than underestimate, as his figures for canoes, people, and houses at Kealakekua Bay all attest [Munford 1963:103, 128-129].) Similarly, Cook's own estimate of 30,000 (based on 60 villages each containing 500 people) for the island of Kaua'i (Dixon 1968:267) compared with King's 54,000 is not discussed by Stannard. Admittedly, Cook saw only the southern and western coasts of this island, but contrary to Stannard's assumption the leeward coast of Kaua'i probably had a somewhat larger population than the windward side of the island. This will be discussed later.

Seven and eight years later, George Dixon, who was also with Cook in 1778 and 1779, returned to Hawai'i and as a result of his observations at that time (and perhaps drawing upon his recollections of his previous visit), estimated the total islands' population at 200,000. Stannard dismisses Dixon's estimate for the same reason that he dismisses Bligh's: it lacks methodology. But he also dismisses it because the calculation was made eight years after the Hawaiians first came into contact with the outside world and thus, from Stannard's perspective, after many thousands of Hawaiians had already died of introduced diseases. It must be noted that Dixon's ***Voyage*** was actually written by a man named William Beresford, who accompanied Dixon on his two trips to Hawai'i in 1786-1787, and the extent to which he consulted with Dixon with regard to his population estimates is unknown. Beresford did have the opportunity to view large portions of the coasts of Hawai'i and O'ahu as well as the southern coast of Kaua'i, so his estimate certainly would have taken into account these other observations even if the calculations were based primarily on Kaua'i:

> What number of inhabitants these islands contain is impossible for me to say with any degree of certainty. Captain King com-

> putes them at four hundred thousand, but, with all defference to such reputable authority, I cannot help thinking this account greatly exaggerated, and indeed this is pretty evident from similar passages in the same voyage. Captain Cook, when at Atoui [Kaua'i] in the beginning of the voyage, estimates that island to contain thirty thousand inhabitants, and from a supposition that there are sixty villages on the island each containing five hundred people. This calculation is certainly in the extreme, but Captain King makes it still greater, and concludes Atoui to contain fifty-four thousand inhabitants, which is surely too many by at least one-half. If therefore we deduct from the remainder of his calculations in the same proportion, and reckon the whole number of inhabitants at two hundred thousand, I am persuaded it will be much nearer the truth than Captain King's calculation, which seems to be founded on opinion merely speculative, rather than the results of close observation. (Dixon 1968:267)

With regard to disease, Beresford's observation of a single case of a skin infection, cited by Stannard to support his argument that Hawaiians were already dying by the thousands in 1787 (1989:7), is hardly overwhelming evidence for such mortality. (Stannard suggests that a young chiefs skin infection could have been tuberculosis, which is possible. However, it was much more likely to have been ringworm [Hawaiian ***tane*** or ***kane]*** or scabies--both uncomfortable but not often fatal disorders.) More discussion of disease will come later.

In any event, four independent observers, three of them (Cook, Bligh, and Ledyard) on the first expedition to the islands before Old World diseases could have influenced the population in any way, produced estimates, either for individual islands or for the group as a whole, that were lower than King's count. Although none of them provides a testable methodology and all of them may have been underestimates, they indicate a range more in keeping with King's estimate than with Stannard's and deserve consideration when trying to determine a precontact Hawaiian population.

Lieutenant King arrived at his estimate of 400,000 Hawaiians by counting the number of houses at Kealakekua Bay, ascertaining the average occupancy of the houses, and thus determining the population at the bay. In this way King deduced that the population of Kealakekua was about 2,400 people, providing a density of 800 per coastal mile. King then proceeded on the assumption that the population density of

Kealakekua was typical of the entire island chain and multiplied this average by the total coastal mileage of the archipelago (excluding one-quarter of the coastline that he assumed to be uninhabited) to achieve his figure of 400,000.

While accepting King's methodology as useful, Stannard challenges several of King's assumptions. First, he believes that King underestimated the permanent population of Kealakekua Bay by undercounting the houses and by underestimating the number of people who lived in each house. Second, he asserts that King was wrong in assuming that the population density of Kealakekua was typical of Hawai'i's coastline in general--Stannard argues that the leeward coasts were "much less densely populated than windward areas" (1989:23) and, of course, Kealakekua Bay is on the leeward side of Hawai'i Island, "surrounded by a huge and notoriously dry landscape" (ibid.:17). Third, Stannard believes that King was wrong in assuming that one-quarter of the islands' coastlines were uninhabited, and finally, that King erred by assuming that inland populations did not exist.

Stannard is probably correct in claiming that there were Hawaiian populations living inland from the coast, although as University of Hawai'i anthropologist Terry Hunt has pointed out, the extent to which these inland settlements were permanent is unclear. For example, the two best-studied areas on the island of Hawai'i, at Lapakahi and Waimea, "appear to have been only temporary in nature" (Hunt 1990:259).

Stannard's other criticisms of King's assumptions seem less valid. Kealakekua Bay was, in fact, an important population center. Ledyard claims that Hawaiians informed him that the bay contained the two largest towns on the island (Munford 1963: 129). Edward Bell, on his third visit to Hawai'i in 1794, referred to Kealakekua as "the London of the islands" (Dec. 1929:81). Archaeologist Hunt also disputes Stannard's view of Kealakekua's relatively low population density and points out that its settlements were supported by "massive dry-land field systems" that were cultivated above the bay (Hunt 1990:259). These fields were seen by members of Cook's expedition and are described by King (Beaglehole 1967, 3:521).

The population of Kealakekua Bay was, of course, hugely swollen in 1779 by thousands of Hawaiians who came from all over the island to welcome Captain Cook, whom they believed to be their god Lono (Kamakau 1961; Daws 1968; Sahlins 1981). A variety of circumstances, including the time of Cook's arrival, his clockwise circuit of the islands, and the shape of his sails, all contributed to the Hawaiians' belief that

this was one of their greatest gods, returned to participate in his most important ceremony, the Makahiki (Daws 1968:26). The Hawaiians "knew" beforehand that Cook/Lono would end his circuit of the islands at Kealakekua Bay, "for Kealakekua was the home of that deity as a man" (Kamakau 1961:98), so thousands were waiting for him on his arrival at the bay. It is certainly possible, in fact quite likely, that a substantial portion of the island's population visited Kealakekua that year as it was the Makahiki season, and who wouldn't travel for many miles to be present for the arrival of a god? Captain Charles Clerke, Cook's second in command, noted that many of their greeters "were assembled from various parts of the Isle, and some I know came from the isle of Mow'we" (Beaglehole 1967, 3:593). In 1794 hundreds of Hawaiians traveled from Waiakea (Hilo) to Kealakekua to greet Captain Vancouver and he wasn't a god (Bell, Dec. 1929:85-86).

King understood that the Kealakekua Bay numbers were much larger than normal, so when he devised his method of estimating population he attempted to compensate for the influx by counting houses, not people. But King assumed that the houses were permanent, when Hawaiian houses actually were easily built and easily torn down. In 1794 when Archibald Menzies climbed to the top of Mauna Loa, the Hawaiians accompanying him erected a temporary village halfway up the mountain: "The natives having pitched upon a clear spot overgrown only with strong tall grass, they all set to work and in the course of two hours erected a small village of huts sufficient to shelter themselves and us comfortably for the night. The huts, though finished with such hurry, were neatly constructed and well thatched all over with long grass" (1920: 189-190).

Likewise Edward Bell, with Vancouver in January 1794, observed that as the late-arriving chiefs and their retainers entered Kealakekua Bay, they set up new houses to live in: "the Bay began now to resume its thronged appearance, large tribes of people coming from all quarters every day and particularly from Whyatea [Waiakea/Hilo] soon altered the appearance we remarked on our first coming in and temporary huts were erecting on every vacant spot of ground in the Village of Kakooa [Kealakekua] and Kowrawa [Ka'awaloa]" (Bell, Dec. 1929:85-86). One can be sure that similar house building went on at Kealakekua Bay in 1779, but most of it would have gone undetected by Cook's men since the crowds of people arrived before, not after, the ships. Consequently, counting houses would not likely have been an adequate corrective for the much larger than usual population of Kealakekua in January and February of 1779, and, when used as a means of estimating population

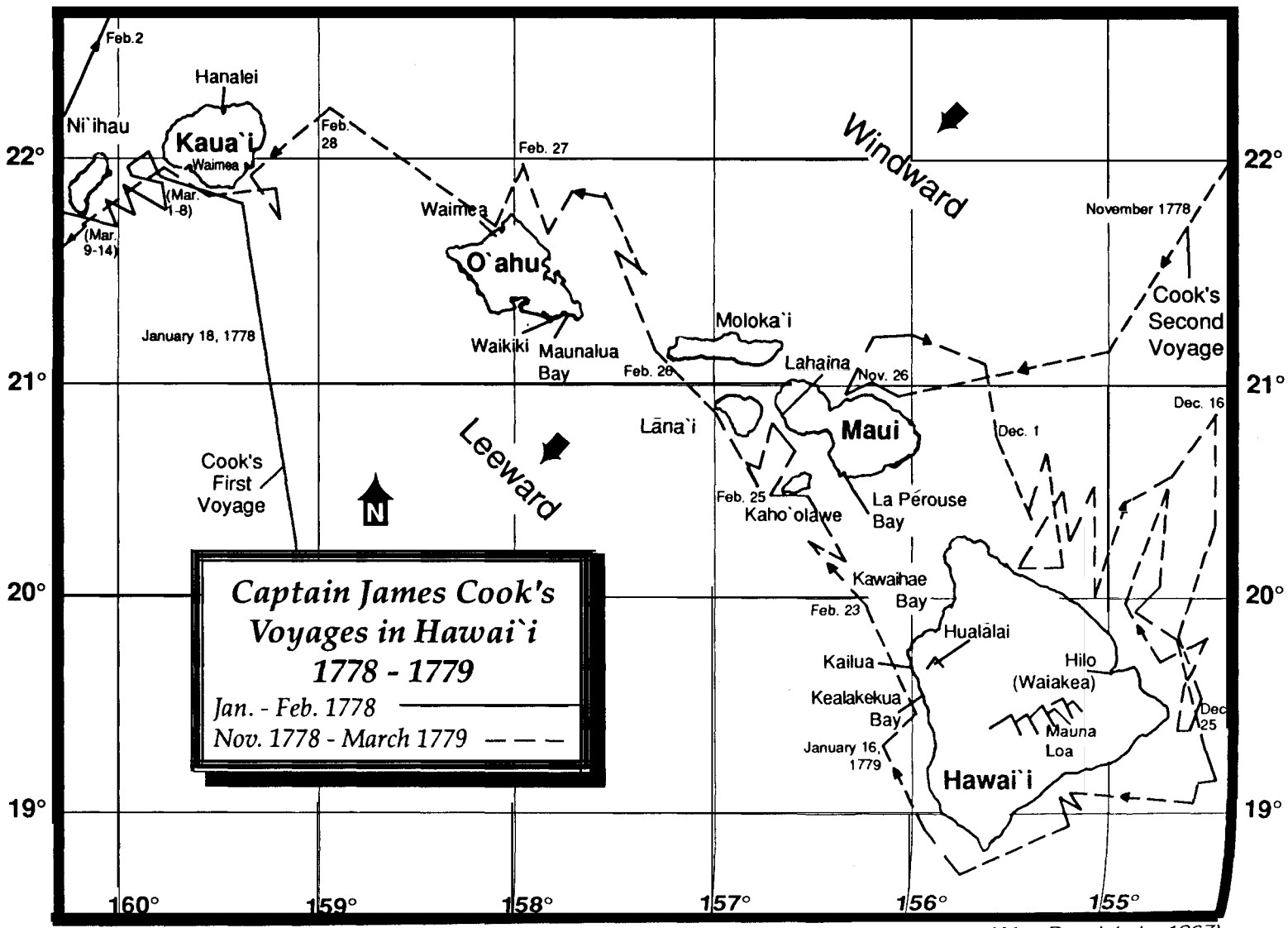
density for the islands as a whole, could have resulted in highly exaggerated figures.

A second problem in using houses for estimating Hawaiian population is that as a result of the ***kapu*** system (system of rules governing Hawaiian society), each family was required to utilize at least three houses: a men's eating house, a women's eating house, and a sleeping house. Stannard addresses this issue in his argument, but we really don't know if King did so in making his calculations. The evidence suggests that he did not since nowhere does any member of the expedition discuss the difference between sleeping and eating houses, a cultural practice that almost certainly would have been discussed had it been recognized.

Stannard also argues that the really heavy population densities of all the islands were on the windward coasts; that King had got a "close look" at only the leeward areas including Waimea on Kaua'i, "in the heart of the one district (Kona) that was arid and thinly populated" (1989:22); and at Kealakekua Bay on Hawai'i. If by "close look" Stannard means coming ashore, he's correct, but the expedition had excellent views of the windward coasts of much of Hawai'i Island and Maui and was impressed by their populousness and high level of cultivation. The ships also sailed past O'ahu's windward coast--at some distance--and landed there at Waimea Bay, which they found highly cultivated. King, therefore, was not unfamiliar with the population densities of windward coasts. In fact, the most extensive coast that he failed to see at close range was the relatively barren southern coast of Maui. (See chart of Cook's ships' movements.)

Stannard may argue that the discrepancy in population densities between windward and leeward coasts was greater in pre-***haole*** times, but the earliest census data--from 1831-1832--indicate that the four windward districts of Hawai'i Island were only slightly more heavily populated than the four leeward districts (57 percent to 43 percent), and on Kaua'i in 1853, when the first district breakdowns are available, Stannard's "dry and arid" Kona district (the modern districts of Waimea and Koloa) contained 54 percent of the island's population as opposed to 46 percent for the three windward districts (Schmitt 1977:12). These data, while distant in time from 1778, would not yet be influenced significantly by economic changes such as the development of the sugar industry, and thus should be reasonably reflective of the pre-***haole*** settlement patterns. Waimea was certainly a major population center on Kaua'i in the precontact period (Hunt 1990:259).

With regard to coastal settlement, Stannard may be correct in arguing that less than 25 percent of the coast was uninhabited, but he would



(After Beaglehole 1967)

be wrong in arguing that most of the coast was as densely populated as Kealakekua Bay. Undoubtedly, coastal settlement varied widely with few places being completely deserted, and some, but not many, places more densely populated than Waimea on Kauaʻi or Kealakekua on Hawaiʻi. In other words, using Lieutenant King's methodology and the assumptions presented above, one could come to the conclusion that King considerably overestimated the population of the islands.

In his chapter 2, Stannard asks if it would have been possible for the population of Hawaiʻi nei to have reached 800,000, given what is known about the first settlement of Hawai'i, the carrying capacity of the islands, growth rates, and other conditions such as the health of the Hawaiian people. Given the assumptions that Stannard makes about arrival times (first century A.D.), the remarkably healthful conditions that existed here, Hawaiian sexual mores, attitudes toward children, and Stannard's conclusion about the carrying capacity of the islands, it appears that there ***could*** have been many more than one million Hawaiians here in 1778. Why only 800,000? Or 300,000? A definitive answer to this question is unknown. It is possible that the Hawaiians themselves limited their numbers or nature imposed her own limits.

As Hunt points out in his review (1990:259-260), carrying capacity is ultimately determined by the numbers that can be sustained under the worst conditions. We know from both mythological (see Beckwith 1970: 96-97) and historical evidence that Hawaiians suffered from occasional droughts and that these droughts sometimes resulted in famines. John B. Whitman reported a severe drought that affected Maui in 1806 and that "great numbers of natives perished literally of starvation and thirst" (1979:65). Other early visitors to the islands reported severe droughts in the Kawaihae area of Hawaiʻi Island--no rain in four years before February of 1811 (Franchére 1969:61)--and on Niʻihau (1793), which resulted in the emigration of many Niʻihauans to Kauaʻi (Menzies 1920:219). Hawaiian historians Kamakau and ʻIʻi likewise report on famines (Kamakau 1961:105; ʻIʻi 1959:77).

Another argument Stannard uses to support his 800,000 figure is the very compelling one of comparison. He looks at what happened to other peoples who after long periods of isolation were suddenly exposed to infectious diseases imported from the Old World. Invariably, the result was that substantial percentages of these "virgin populations" succumbed to epidemic diseases. Exactly what percentages died and at what times in different populations is hotly debated. Stannard cites a long list of authorities to support his position. The reader should know, however, that many of these estimates are highly controversial. For

example, the eight million estimate made by Cook and Borah, and cited by Stannard, for Hispaniola's precontact population is the high extreme. A more recent estimate, although not necessarily a more accurate one, is only l00,000-120,000 (Thornton 1987: 16).

The scholar whom Stannard appears to rely most heavily upon is Henry Dobyns, who, along with Cook and Borah, has been most instrumental in revising upward the population estimates for precontact peoples, particularly in the Americas. Stannard suggests that a model developed by Dobyns based on contacts between Europeans and American Indians--which assumes that in the first 100 years of contact 95 percent of the "virgin population" will have disappeared, a depopulation ratio of 20:1--is standard (Stannard 1989:49). He then applies this model to Hawai'i. Although such depopulation ratios, and some that were worse, did occur within certain populations, a standard of 20:l is hardly accepted by most demographers. Even Dobyns's supporters such as William Denevan, who postulates a New World population of only a little more than half that of Dobyns's, balk at applying such a ratio to all populations:

> While Dobyns' total population figure of 90,000,000 [for the New World] may not be unreasonable, his rough rule of thumb for arriving at it, an average 20:l ratio of depopulation from contact to nadir, is not satisfactory for many specific regions, because as Dobyns has clearly indicated the actual ratio did vary considerably from region to region. Some declines were much greater than 20:1, and some seem to have been much less. (Denevan 1966:429).

Other historical demographers stimulated by Dobyns, such as Ann Ramenofsky and Russell Thornton, are likewise skeptical of applying such ratios across the board, and their conclusions about the size of the precontact North American Indian populations are substantially smaller than those of Dobyns (Ramenofsky 1987:162; Thornton 1987: 23-25). Dobyns's critics, on the other hand, some of whom arrive at estimates far smaller than his, are contemptuous of his use of the historical record. For example, David Henige, in his examination of primary sources used by Dobyns, argues "that Dobyns has been derelict in his use of sources and thereby forfeits his right to have his arguments accepted' (1986:293). William Cronon, in his review of Dobyns's widely acclaimed ***Their Number Become Thinned*** (1983), illustrates

clearly the shoddy scholarship upon which Dobyns's conclusions are based.

> Dobyns, whose principal work has been in demography, lacks a historian's suspicion of his evidence, so that he all too often is willing to stretch his very limited sixteenth century data beyond the bounds of credible inference. He shows little hesitation, for instance, in using the famous but unreliable De Bry engravings of Jacques Le Moyne's 1565 trip to Florida to calculate everything from the number of warriors in a chiefdom to the percentage shares of various food sources in Indian diets: If an engraving shows thirteen animals drying over an Indian fire and if two of them are alligators, then perhaps alligators contributed two thirteenths of Indian meat supplies! The number of deer in the Everglades in 1974 becomes the basis for assuming an equivalent number of deer throughout Florida four centuries earlier; moreover, Dobyns goes on to assume (without evidence) that the number of deer and turkeys in Florida was about equal, so the turkey populations are easily calculated as well. When Dobyns wants to estimate the number of warriors in twelve Florida chiefdoms and when data are available for only two of the twelve, he appeals to a supposed "principle of military parity" to argue that chiefdoms must have equal numbers of warriors to survive; two bits of data are thus leveraged into doing the work of twelve. (Cronon 1984:375)

The preceding criticism of Dobyns's work is not intended to denigrate all of the conclusions of this influential revisionist school. Most modern historical demographers recognize the contributions of Cook, Borah, and Dobyns, and the general trend is the upward revision of aboriginal population estimates; in some instances the 20:l model proposed by Dobyns may be useful and appropriate.

However, the application of a "standard" depopulation ratio for all areas without considering other variables and without carefully testing the conclusions against the historical record would be irresponsible. The actual impacts of disease on virgin populations would depend upon many factors including, most importantly, the specific infections introduced to them, but also the timing of these introductions, the density, overall health, and sanitation practices of the receiving communities, and numerous other variables. In the case of Hawai'i, many of the dis-

eases that were so deadly to the American Indians when they came in contact with Europeans for the first time did not arrive in the islands until long after 1778. The main reason for this was that the extended ocean voyage from Europe or the East Coast of the United States served as a natural quarantine.

Smallpox, measles, mumps, influenza, cholera, rubella, typhus, bubonic plague, as well as the common cold and other diseases, are all listed by Francis L. Black of the Yale University School of Medicine as being either impossible or unlikely candidates for early introduction into Hawai'i (1990:272-275). (Black specifically denies Stannard's contention that influenza was among the diseases introduced into Hawai'i by Cook's expedition, explaining that it was "not possible" as a result of the length of the voyage.) Not until shorter trips were common between China and Hawai'i or between the islands and large population centers on the North American West Coast (centers that were not yet established in the eighteenth century) would Hawai'i be at risk for these diseases. It needs to be pointed out that Black provides an equally long list of diseases that ***could*** have been introduced by Cook's expedition or other early visitors to the islands. These include syphilis, gonorrhea, venereal ***Chlamydia,*** tuberculosis, diphtheria, typhoid fever, new strains of pathogenic entero-bacteria, and several others (Black 1990: 275).

Please note, however, that of the six epidemic diseases that Dobyns claims to have documented as sweeping across North America in the sixteenth century (see Thornton 1987:46), and which he believes to have been largely responsible for the decimation of the American Indian people, five (smallpox, measles, typhus, bubonic plague, and influenza) are on Black's list of unlikely early introductions to Hawai'i. Only typhoid fever, the sixth of Dobyns's epidemics, is not on Black's list, and not surprisingly, it is the most likely culprit as the first explosive epidemic disease to occur in Hawai'i, the infamous ***ma'i 'oku'u*** of 1804 (Bushnell 1993). The others did arrive, but none of them, except possibly influenza, seems to have arrived here before 1836 (Schmitt 1970:363; Black 1990:274-275). This, in itself, is a good argument for not applying the 20:1 depopulation ratio to Hawai'i as Stannard seeks to do.

This is not to say that Hawaiians were not dying of introduced diseases before 1800. The venereal diseases were certainly taking their toll as, almost certainly, were tuberculosis and probably a variety of other infections as well. In general, these killers worked more slowly than did smallpox and measles, but they did their damage nonetheless, and because of the effect that venereal diseases had on the reproductive

capacity of those infected, they probably contributed most to the long-term decline of the Hawaiian population. The point here, however, is that even if a 20:1 population decline rate were a reasonable ratio to apply to some American Indian populations, Hawai'i's isolation would make it an inappropriate model for these islands.

Finally, as we shall see the historical record does not support the "die-off," the disappearance of 50 percent of the precontact population (400,000 people), that Stannard's model requires during the first twenty-five years of contact (1778-1803). People aboard dozens of ships passed through Hawai'i after 1786 and before 1804, but not one of them made mention of a major epidemic (except that venereal disease was noted by a number of visitors). Let us now take a look at this record, starting with the islands' "discovery" in 1778.

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Captain James Cook's expedition first made contact with native Hawaiians on 19 January 1778. On the twentieth his two ships anchored off Waimea, Kaua'i. The ***Resolution,*** his flagship, lost its anchorage on 23 January, but the ***Discovery,*** commanded by Captain Charles Clerke, remained off Waimea for another two days. Clerke then followed Cook to Ni'ihau where the two ships remained until 2 February 1778 when they left for the northwest coast of America. In all, Cook and his men had contacts with islanders for fourteen days. Sailors went ashore, as did Cook himself, on Kaua'i and Ni'ihau. Despite Cooks precautions--he did not allow sailors with recognizable cases of venereal disease ashore and forbade all sexual contact with Hawaiian women (Beaglehole 1967:265-266)--there is little doubt that venereal disease was introduced into Hawai'i by Cook's men in 1778.

Upon the expedition's return to Hawai'i from the Arctic Ocean in November of 1778, a number of Hawaiians appeared off Maui with venereal infections, and according to Lieutenant King, "[t]he manner in which these innocent People complained to us, seem'd to me to shew that they consider'd us the Original authors" of the disease, having left it with them on Kaua'i ten months earlier (ibid.:498). According to Samwell, some of them seemed to have come out to the ships specifically to request treatment (ibid. : 1152). Captain Clerke, Midshipman Riou, and Ship's Surgeon John Law also record that Hawaiians complained to them that the disease was introduced by the expedition on Kaua'i (ibid. : 576, 475, 576n). Apparently, because "the venereal" was already widespread, there was no longer any effort made to keep the sailors and

Hawaiian women apart, and from this time on, both Hawaiian men and women were in close contact with the crews of the ships. A number of Hawaiians, including the future King Kamehameha, slept on board the ***Resolution*** off Maui, and chiefs from both Maui and Hawai‘i islands visited the ships in Maui waters.

For the next month and a half, from 27 November 1778 to 17 January 1779, the two ships sailed off the coasts of Maui and Hawai‘i Island, sometimes close to shore, at other times far from the coasts, trading for supplies with the hundreds of men and women who paddled off to greet them and searching for a safe harbor in which to anchor. That harbor was finally located on 17 January at Kealakekua Bay along the southwest coast of Hawai‘i. As described earlier, thousands of Hawaiians were there to greet them, probably 20,000 or more, although no estimate is provided for all of those within the bay and the hills surrounding it. It was an appropriate reception for their god Lono.

For the next nineteen days the ships remained in the bay, often crowded with Hawaiians of both sexes during the day and usually with women at night. Two young Hawaiian chiefs were appointed by Kalani‘opu‘u, the ruling chief of Hawai‘i Island, to preserve order on the ships. They and other Hawaiian chiefs were in regular contact with the ***haole*** sailors. Apparently most, if not all, of the crew were allowed on shore at various times, and those on shore mixed easily with Hawaiians, entering their houses and attending their games and ***hula*** dances. One group traveled inland for five days, and a shore party remained encamped at the Hikiau ***heiau*** (temple or religious site), which functioned as an observatory.

On 4 February the ships left Kealakekua but returned a week later, on the eleventh, as the ***Resolution*** had sprung her foremast and needed repairs. Friendly, if somewhat strained, relations were resumed, and as William Samwell put it, “[m]ost of our old sweethearts came to see us” (ibid.:1191). Then on 14 February Cook was killed and from that point on, contacts between ***haole*** and Hawaiian were hostile and distant, except that a number of “sweethearts” remained aboard the ships and at least seven of them accompanied the ships when they left the bay for good on 22 February. The women traveled with the crew to O‘ahu, where they were left at Waimea Bay on 28 February.

From Waimea on O‘ahu the expedition proceeded to Waimea, Kaua‘i, where once again it was greeted by several thousand Hawaiians. As at Kealakekua, many of the Hawaiians who met the ships were not from Waimea. Because the ships arrived at night, Samwell was not

able to observe the scene that he described a year earlier, in January 1778, when "the whole island seemed to be in motion, a prodigious crowd of natives assembling from all parts & running along shore a Breast of the Ships" (ibid.:1082). The expedition remained at Waimea from 1 March to 8 March, and once Kamakahelei, the ruling chiefess, arrived, relations were friendly and Hawaiians and ***haoles*** interacted congenially. Finally, from 8 March through the fifteenth, the ships lay anchored off Niʻihau and once again Hawaiians and ***haoles*** interacted both on the ships and ashore. On 15 March 1779, the ships weighed anchor for the last time, and, as far as is known, the Hawaiian Islands were not visited by another Western ship for seven years.

As we have seen, by the time Cook's expedition left the islands, venereal disease was firmly established--"universal among the Islands to Windward," according to Samwell (ibid.:1225). We can be quite sure that both syphilis and gonorrhea were here and probably chlamydia as well. Because several of Cook's crew were consumptive, it seems reasonable to assume that tuberculosis was also transmitted to the Hawaiian people, although contrary to Stannard's assertions (1989:70, 99), this is not an established fact. It is certainly ***possible*** that the Hawaiians escaped this plague, at least temporarily. In any case, there is no evidence before 1819 of any widespread infection with tuberculosis (Freycinet 1978:58), and, as we will see, only two individuals were reported by Western observers before 1819 who exhibited symptoms clearly associated with this disease. My own view is that it probably was introduced early, either by Cook's crew or soon thereafter, that eventually it became a major killer of Hawaiians, but that it was not the fulminating epidemic that Stannard suggests could "have cut the population [of Hawaiʻi] in half before the next group of Europeans arrived in 1786" (1989:71). A raging epidemic of this nature hardly would have disappeared by 1786, and nothing in the records left by the numerous visitors to the islands during the ensuing decades suggests that it occurred.

Stannard also claims that Cook's ships brought "an influenza virus or some other deadly upper respiratory infection" (1989:70). In support of this he cites William Ellis, another of the ships' surgeons. Ellis has the following to say about the incident:

> In general they seem to be very healthy, and we observed several who appeared to be of great age. As to diseases we saw none who labored under any during our stay, except the vene-

> real complaint; coughs and colds, indeed were pretty general, and one man died. From what we could learn of his disorder from the natives, it was a violent griping or colic. (Ellis 1969: 151)

Note that Ellis does not claim that the man died from a respiratory infection but "from a violent griping or colic," that is, from what was probably an intestinal disorder of some kind. King's report of the incident says that they were attracted to the house of the dead man by the "mournful cries" of a woman and her daughter, and that they found "the body of an elderly man" (Beaglehole 1967:623). Samwell, who was also impressed by the mournful wailing, described the man as "middle aged" (ibid. : 1169-1170). Neither Samwell nor King described the cause of death, but it is important to note that the man died on 26 January 1779, nine days before their first departure from the bay and seventeen days before the break in friendly relations occasioned by Cooks death, If this were the beginning of a deadly epidemic as suggested by Stannard, where is the record of other deaths? If others had died, the ships' crews certainly would have heard the wailing of the mourners as they did, very clearly, following the deaths of Hawaiians who died in the violence surrounding Cook's death. Surely, if any significant number of Hawaiians were dying from an explosive epidemic of influenza or of any other disease, the evidence would have been there for men like King and Ellis to record. In fact, King and other members of the crew can only be described as ***niele,*** curious, or even nosey with regard to the death and burial customs of the Hawaiians, both before and after the death of their commander (ibid.:621-623).

When the expedition returned to Kaua'i in March 1779, the Hawaiians again complained of the venereal disease that had been introduced among them the previous year and that had already resulted in several deaths (ibid.:586). They made no mention, however, of an explosive epidemic of any kind, as one would expect they would had such a disease been introduced, and none of the crew members recorded any evidence of such disease. Following the ships' departure from Ni'ihau, King summarized his observations:

> We shall finish our account with their diseases. The Venereal is certainly now the Worst, . . . The next in fatality to this is the disorder arising from their debaucherys in the excess of the Kava [***'awa,*** a mild intoxicant]. In these People the Skin looks as if parched by the weather, it is of a blackish appearance, but in

> its excess, it is mixt with a whiter Cast, and Scales peel off the Skin; the Eyes are red, inflamed, & very sore, the body is Ememecat'd & infirm, & it makes them very stupid.
>
> Boils are very general, & we supposed these foul humours to arise from too much Salt which they eat with flesh & fish. (Ibid.:629)

Seven years passed before the next recorded European visitors touched at the islands, and then in the space of less than a week, four vessels appeared in Hawaiian waters: two English merchant ships engaged in the fur trade, commanded by Nathaniel Portlock and George Dixon, and two French vessels on a voyage of exploration under the command of J. F. G. de La Pérouse. Although the French arrived several days later than the English ships, I will deal with their observations first because they remained in Hawaiian waters for less than forty-eight hours, during which time they made only one brief stop on the southern coast of Maui.

As his ships sailed along the east Maui coast in 1786, La Pérouse was delighted by the waterfalls and the populous villages that lined the shore. The Hawaiians who paddled out to his ships impressed him with their energy and water skills. However, he was neither delighted nor impressed by the Hawaiians who greeted him when he went ashore at what is now called La Pérouse Bay. He found them friendly and docile but was appalled at the wantonness of the women, whom he found "little seductive, their features had no delicacy and their dress permitted us to observe, in most of them, the ravages of venereal disease" (La Pérouse 1968, 1:341). M. Rollin, the ships' physician, provides us a more graphic and more clinical description:

> The beauty of the climate, the fertility of the soil, might render the inhabitants extremely happy, if the leprosy and venereal disease prevailed among them less generally, and with less virulence. These scourges, the most humiliating and most destructive with which the human race are afflicted, display themselves among these islanders by the following symptoms: buboes, and scars which result from their suppurating, warts, spreading ulcers with caries of the bones, nodes, exotoses, fistula, tumors of the lachrymal and saliva ducts, scrofulous swelling, inveterate ophthalmiae, ichorous ulcerations of the tunica conjunctiva, atrophy of the eyes, blindness, inflamed prurient herpetic eruptions, indolent swellings of the extremeties, and

> among children, scald head, or a malignant tinea, from which exudes a fetid and acrid matter. I remarked, that the greater part of these unhappy victims of sensuality, when arrived at the age of nine or ten, were feeble and languid, exhausted by marasmus, and affected with rickets.
>
> The indolent swelling of the extremeties . . . is nothing more than a symptom of an advanced state of elephantiasis. . . .
>
> The nature or quality of the food may concur with the heat of the climate to nourish and propagate this endemic disease of the adipous membrane; for the hogs even, the flesh of which forms the chief part of the food of the inhabitants of Mowee, are many of them extremely measly. I examined several, and their skins were scabby, full of pimples, and entirely destitute of hair. On opening these animals, I found the caul regularly sprinkled with tubercules, and the viscera so full of them, that, in the least delicate stomach, the sight could not but have produced nausea. (Ibid., 2:337-338)

M. Rollin was almost certainly wrong in attributing any of these symptoms to leprosy or elephantiasis, but he obviously viewed a very diseased population--so diseased, in fact, that it was not until the establishment of the leper settlement at Kalawao in the 1860s that an entire Hawaiian community could be described in a similar fashion. Before the 1860s, individual Hawaiians were depicted with some of the symptoms Rollin describes (Freycinet 1978:57-58; Chapin 1839:252-262), but the overall picture that he paints is so completely at odds with the observations of every other visitor to Hawai'i that we are left with an enigma. Did Rollin get it wrong? Had the Hawaiians established their own quarantine settlement--a development for which there appears no precedent and that would have been culturally unlikely? All we can say with certainty is that what Rollin observed was not reflective of Hawaiian health elsewhere in the islands either at that time or in the future. If it had been, we can be sure that other visitors would have described similar scenes. Incidentally, despite the purchase and slaughter of thousands of hogs by ***haole*** sailors in the ensuing decades, there is not a single mention of a diseased animal, nor of a sailor nauseated by tubercule-marked viscera.

Portlock and Dixon, who inaugurated the fur trade between the northwest coast of North America and China, had both served under Captain Cook during his visits to Hawai'i in 1778-1779, so they were familiar with the islands. Altogether they spent almost six months in

Hawai'i, divided among three visits from May 1786 to October 1787. Much of their time in Hawaiian waters was spent aboard ship, but they and William Beresford (who actually wrote what is called Dixon's ***Voyage),*** went ashore on a number of occasions on O'ahu, Kaua'i, and Ni'ihau. Kealakekua Bay on Hawai'i Island was also visited. While at anchor off the various islands, their ships were visited by hundreds, if not thousands, of Hawaiians of both sexes.

Portlock repeatedly describes "amazing numbers of natives" (Hawai'i), "vast numbers of natives" (O'ahu), or "vast multitudes of inhabitants" (Kaua'i) who came to greet the ships (1968:62, 71, 167). Clearly the novelty of Western ships and their goods had not worn off. On Portlock's second trip to O'ahu in December 1786, he was informed that Waikiki was virtually deserted as most of the inhabitants "were come to the bay where we lay [Maunalua Bay--off today's Hawai'i Kai], led either by business or curiosity" (ibid. : 164).

Portlock was an observant reporter and was not uninterested in the impacts of disease. While on the northwest coast of North America, he observed the effects of scurvy on American Indians and also reported what he believed to be scars caused by smallpox (ibid.:252, 271). He made no mention of disease in Hawai'i, and all of his descriptions of the Hawaiians suggest that they were active and in good health. He records no signs of depopulation except possibly on Ni'ihau, where in January 1787 he reported: "The country seemed very poorly cultivated, and Abbenoe [Opunui, a chief] told me, that since we took our stock of yams in, the people having in great measure neglected the island, barely planting enough for their own use; and that some had entirely left the island, and taken up their future residence at Atoui [Kaua'i]" (ibid.: 184). Portlock seems not to have considered the possibility that, as his ships took away eighteen tons of yams and other produce from the island in the previous June, many of the Hawaiians may have left for Kaua'i to ensure they would have enough to eat.

Beresford, with Dixon on the ***Queen Charlotte,*** also had a good deal to say about population. We have already seen that he believed Lieutenant King's estimate of 400,000 to be too high "by one half." He made careful observations of the coasts he saw, which did not include the windward sides of Maui or O'ahu, and apparently not Hanalei Valley of Kaua'i, although he says he had "an opportunity of viewing the north coast of Atoui [Kaua'i] or that part of the island directly opposite Whymoa [Waimea] Bay . . . where he saw . . . not any level ground, or the least sign of that part of the island being inhabited, at least by any considerable number of people" (Dixon 1968: 135). He also saw both the

windward and leeward sides of Hawai'i Island, although not its rugged eastern coast.

Unlike Portlock, Beresford does discuss diseases in Hawai'i. We have already commented on his mention of the young chief suffering from a skin infection on his leg. He also writes:

> The inhabitants of these islands appear subject to very few diseases, and though they doubtless have been injured by their connection with Europeans, yet so simple is their manner of living, that they pay little regard to this circumstance, and seem to think it of no consequence.
>
> I am inclined to think that most of their disorders proceed from an immoderate use of ava; it weakens the eyes, covers the body with a kind of leprosy, debilitates and emaciates the whole frame, makes the body paralytic, hastens old age and no doubt brings on death itself. (Ibid.:276-277)

The first paragraph above in all probability refers to venereal disease, an affliction of greatest consequence for the Hawaiian people in the long run, but not by itself likely to halve the population of the islands in twenty-five years. The second paragraph refers to the drinking of ***'awa*** or kava, a mild intoxicant that, contrary to Beresford's belief, was unlikely to have any serious long-term consequences (Bushnell 1993: 122), although it was often noted by early visitors who believed it to be very debilitating. Beresford described a Hawaiian chief, the previously mentioned Abbenoe, who gave up ***'awa,*** and between June 1786 and January 1787 "his condition had improved dramatically," and even "his eyes [which] seemed weak," in 1786, "looked fresh and lively" (ibid.:118).

Beresford also noted that agriculture was expanding on Oahu:

> A spirit of improvement seems to animate the people to a very great degree; and it is really astonishing to see the different aspect many parts of the island now wear to what they did the first time we anchored there. The bay we lay in [Maunalua], and Whitittee [Waikiki] bay in particular, are crouded with new plantations, laid out in the most regular order and which seem to be in a most flourishing state of cultivation. (Ibid.: ***265-266)***

This improvement was probably not the result of an expanding population but more likely the result of rebuilding after a major conflict on

O‘ahu in which, first, Kahekili, the high chief of Maui, conquered the island, probably in 1783, and then suppressed a major revolt against his rule in late 1785 and early 1786. Samuel Kamakau describes these battles as bloody (1961: 136-140), and according to historian Lilikala Kame‘eleihiwa "the destructive forces of war . . . in Hawaiian terms always meant ravaging the land by cutting down cocoanut trees, destroying taro patches and breaking down the walls of fishponds" (Dorton 1986:95). The "new plantations," however, suggest that population was not declining in any significant way.

"C. L.," probably William Colin Lauder, a young Scottish surgeon (C. L. 1984: introduction, n.p.), who accompanied Dixon, and John Nicol, who was with Portlock, have also left accounts of these voyages. Both include descriptions of the Hawaiian people, but neither makes mention of disease other than the results of drinking ***‘awa*** (ibid.:57; Nicol 1937:95-99).

Other British and American fur traders who arrived in the late 1780s have left accounts of their visits. These include John Meares (1967), James Colnett (1940, n.d.), and George Mortimer (1975). Meares made no mention of disease on his three trips to the islands, during which he visited Hawai‘i, O‘ahu, Kaua‘i, and Ni‘ihau. Mortimer, who was in the islands for only a few days, left a description of Kamehameha, which includes one of the earliest descriptions of a skin ailment that assailed the Hawaiians. "His majesty is one of the most savage looking men I ever beheld, and very wild and extravagant in his actions and behaviour: his body, in common with many of his subjects, was full of small ulcers; which may be occasioned by drinking awa, and their eating a great quantity of salt and salt fish" (Mortimer 1975:52). Lieutenant King's previously cited observation that "boils are very general" leaves open the question of whether this ailment was new to Hawai‘i. In any case the disease was not by itself life-threatening; Kamehameha, for example, lived for another thirty years.

James Colnett, who claimed "some little knowledge of the language," having visited Tahiti twice before, felt threatened off O‘ahu when he was "surrounded by Near a Thousand Indians in double and single canoes," manned by physically impressive Hawaiians whom he described as "the stoutest & most powerful men I ever saw & our crew in general but small; as to myself some of the stoutest of them requested I would sit in the palm of their hands, & many of the Crew they carried about in their arms as Children" (n.d.:150-151). Although most of Colnett's comments indicated that the Hawaiians he dealt with were in good health, he was aware of the presence of venereal disease, mentioning it in both of his accounts (he visited the islands twice). But one of his

observations is of particular interest because it provides an idea of how benign many Euro-Americans considered the disease.

> Both crews left those isles [Hawai'i] in perfect health, except those who had been so unfortunate as to catch the disease left by the first discoverers, but its become of no consequence; constitution & method of diet have almost eradicated it; most of those who caught it had it so gently they were in a little time cured, not above two or three obstinate cases. (Ibid. : 181)

A good picture of the islands in those years is provided by six different accounts (Minson 1952; Ingraham 1918; Bartlett 1925; Fleurieu 1969; Howay 1941 [Boit and Harwell]), all the results of visits in 1791-1792, along with the records from the Vancouver expedition that will be discussed below. Warfare on Maui between the forces of Kamehameha and Kahekili dominated politics, and a civil war on Kaua'i resulted in first Ka'eo and then Ka'umuali'i being installed as "king" (Minson 1952: 82). Joseph Ingraham claimed that Kahekili had assembled 20,000 fighting men on Maui and had a fleet of 700 war canoes. He didn't see all the fighting men but described the beach "covered with canoes to a vast distance which we could see by the help of our glasses" (Ingraham 1918:23-24). All six visitors saw impressive numbers of Hawaiians and several commented on the high state of cultivation that they observed, although Manuel Quimper (Minson 1952:76) and Ingraham (1918:27) both reported difficulty in procuring hogs because of the war. None of these visitors mentions disease, but it must be pointed out that only two of them remained in the islands for more than two weeks.

Between 1792 and 1794, George Vancouver led a British expedition into the Pacific that visited Hawai'i three times. Altogether, his ships were in Hawaiian waters for more than four months, and four extensive written accounts survive from the expedition, two from Vancouver's flagship ***Discovery*** (Vancouver 1967; Menzies 1920) and two from the ***Chatham*** (Bell 1929-1930; Manby 1929). Vancouver, Thomas Manby, and Archibald Menzies had all been in Hawai'i before--Vancouver with Cook in 1778-1779 and Manby and Menzies with Colnett on the ***Prince of Wales*** in 1788--so each of them brought some perspective to their accounts as well as some familiarity with the Hawaiian language.

Problems of communication between ***haole*** and Hawaiian certainly existed, but by this time a number of white men were living in the islands, including John Young and Isaac Davis (from 1790), who served as interpreters and business agents for the ruling chiefs. Most of those

who recorded their visits to the islands, starting with Vancouver and Menzies, report on discussions with Young or Davis or with two other foreigners who established themselves on Oʻahu in the 1790s, Don Francisco de Paula Marin and Oliver Holmes. Additionally, a number of Hawaiians had signed on as sailors aboard trading ships and had learned a smattering or more of English. For instance, Vancouver's expedition returned one Hawaiian from Europe, who had been away from the islands for four years and who functioned as an interpreter in 1792 (Menzies 1920: 15-16).

The observations recorded by the Vancouver expedition are particularly important because they have provided the basis for most claims of significant early depopulation in the Hawaiian Islands. Most nineteenth-century historians, and Vancouver himself, blamed the apparent depopulation on warfare. Stannard is the first to argue that disease was responsible for a catastrophic number of deaths in the eighteenth century. Let us look at what Vancouver and his men have to say.

In 1792 his ships spent two weeks in the islands. Only the ***Chatham*** entered Kealakekua Bay, so Vancouver did not see the "swarms of Inhabitants" reported by Bell (Sept. 1929:11). Vancouver did meet with several Hawaiian chiefs, including Keʻeaumoku and Kaʻiana, off the Kona coast of Hawai'i Island, and from them he learned about the state of war that existed between Kamehameha of Hawaiʻi and Kahekili on Maui. After proceeding to Oʻahu at Waikiki, he learned that both Kahekili, the "king" of that island, and Kaʻeo, the ruling chief of Kauaʻi, had departed for Molokaʻi (on the way to Maui) with most of their warriors.

> This in great measure seemed to account for the small number of inhabitants who visited us and the wretched condition of their canoes, and the scanty supply of their country's produce which they brought to market. On the shores the villages appeared numerous, large and in good repair, and the surrounding country pleasingly interspersed with deep though not extensive valleys; which with the plains near the seaside, presented a high degree of cultivation and fertility. (Vancouver 1967, 1: 161-162)

Menzies, who accompanied Vancouver on shore, reported:

> On landing we were surprised to find so few inhabitants, and on enquiring into the cause, they told us that Kahekili, the king of the island, with all his warriors, numerously attended, were

> at Molokai, on their way to Maui to join Kaeo, king of Kauai, in preserving these islands from the rapacity of Kamehameha and Kaiana . . . and indeed we had no reason to doubt this information from the small number of indifferent canoes which visited the ship, and the scanty supply of refreshment we received in comparison to the fertile and cultivated appearance of the country. (Menzies 1920:23)

At Waimea on Kaua'i the expedition was met by relatively few inhabitants. Menzies was informed that all the chiefs and warriors had departed for Moloka'i for war (ibid.:27). Vancouver, too, was convinced that "incessant warfare" was the problem:

> If we may be allowed to decide by comparing the numerous throngs that appeared on the first visits of the Resolution and Discovery, and which were then constantly attended on all our motions, with the very few we have seen on the present occasion the mortality must have been very considerable. It may however be objected that the novelty of such visitors having, at this time, greatly abated, is sufficient to account for the apparent depopulation. But when it is considered, how essential our different implements and manufactures are now become to their common efforts, that reason will not apply; as every individual is eager to bring forth all his superfluous wealth on the arrival of European commodities in the market. . . .
>
> At Whyteetee, I had occasion to observe that, although the town was extensive and the houses numerous, yet they were thinly inhabited, and many appeared to be abandoned. The village of Whymea is reduced at least two-thirds of its size, since the years 1778 and 1779. In those places, where on my former visits, the houses were most numerous, was now a clear space, occupied by grass and weeds. That external wars and internal commotions had been the cause of this devastation, was further confirmed by the result of my inquiries on Owhyhee, when it did not appear that any of the chiefs, with whom I had been formerly acquainted, excepting Tamaahmaaha was then living; nor did we understand, that many had died a natural death, most of them having been killed in these deplorable contests. (Vancouver 1967, 1: 187-188).

Thomas Manby, on the same 1792 visit to Waimea cited by Vancouver above, had occasion to follow the Waimea River several miles inland

and commented that "the Back Country in the Valleys as far as I went was cultivated in a very superior state of Industry" (Manby n.d.: entry under 9 March 1792), suggesting that the apparent depopulation was, as at Waikiki on Oʻahu, primarily the result of warriors and their families going off to Maui. Lieutenant King, with Cook's expedition, had described a similar circumstance in 1779 at Waimea on Oah'u, "where we found but few of the Natives," and although "Wooahoo [Oʻahu] was as beautiful as any Island we have seen, & appear'd very well Cultivated and Popular [populous]; they told us here that most of the Men were gone to Morotoi [Molokaʻi] to fight" (Beaglehole 1967:584-585).

Clearly the Hawaiian chiefs were capable of mobilizing large numbers of men to conduct their wars: Manby was informed that Kahekili had an army of 10,000 warriors on Maui (Manby, June 1929:19); as we have seen, Ingraham was told he had 20,000. At least hundreds more must have been engaged in supplying those armies, for as Kahekili informed Vancouver, Kamehameha's warriors had so "ravage[d] . . . Maui and the neighboring islands" that "they were at that time under the necessity of collecting provisions from Woahoo [Oʻahu] and Attowai [Kauaʻi], for the maintenance of their numerous army" on Maui (Vancouver 1967, 2:186).

Stannard claims that "the language barrier made communications with the Hawaiians difficult" and that, as a result, Vancouver "conjectured that the great decline [in population] was caused by warfare" and not "(as the Hawaiians had claimed all along) to disease and a disastrously plummeting birth rate" (1989: 135). (Note that what Stannard [ibid.] claims to be " 'intirely abandoned' villages" are houses in Vancouver's account, not villages, and are easily explained by the absent "warriors, numerously attended"--precisely as Menzies said. Vancouver's description of Lanaʻi quoted by Stannard, as "a 'deary and desolate' place of 'apparent sterility' with but a few scattered miserable habitations" was made as a result of observations off the southwest coast of Lanaʻi. Although King had described Lanaʻi as "very pleasant . . . and full of villages," as Stannard says, he had the advantage of seeing the northeast coast of that island. Captain Clerke, in 1779, described the western shore as "not in the least cultivated" [Beaglehole 1967:570]. Stannard [1989:10] also states that a Hawaiian chief claimed "that before 1778 both Lanaʻi and Kahoʻolawe had been 'fruitful and populous islands' [and] that in just 15 years [they] had become 'nearly overrun with weeds, and exhausted of their inhabitants.' " However, Stannard does not explain that the chief blamed this occurrence entirely upon eleven years of war and that this [Maui] chief was merely confirming what Vancouver had learned from other chiefs on the island of

Hawai'i [Vancouver 1967, 2:179-180]. None of the Hawaiians with whom Vancouver, or any other early visitor to the islands, talked ever blamed disease or a declining birthrate for depopulation.)

As we will see, there is good reason to believe that Vancouver greatly overestimated the decline of the Hawaiian population, and, in fact, he confirmed with his own eyes what the various chiefs had told him about the destructiveness of Hawaiian warfare. In March 1793 he was taken on a tour of Lahaina on Maui:

> The taro was growing among the water, but in a very bad state of culture, and in very small quantities. To the ravage and destruction of ***Tamaahmaah's*** wars, the wretched appearance of their crops was to be ascribed; of this they grievously complained, and were continually pointing out the damages they had sustained. The despoiled aspect of the country was an incontrovertible evidence of this melancholy truth. Most of the different tenements in the lands formerly cultivated, were now lying waste, their fences partly or intirely broken down, and their little canals utterly destroyed; nor was a hog or a fowl any where to be seen. By far the larger portion of the plain was in this ruinous state, and the small part that was in a flourishing condition, bore the marks of very recent labour. (Ibid., 2: 198)

In 1796 William Broughton, who had been with Vancouver in 1793 but was now in command of his own ship, visited Lahaina. His report shows clearly how temporary was the kind of devastation observed by Vancouver three years earlier.

> Our excursions on shore were frequent, and the natives civil. The cultivation was excellent; and the extent of the ground made use for that purpose reminded us of the scenery of our native country. There were numerous productions of tarro, sweet potatoes, melons, sugar canes, gourds, and pumpkins, amidst groves of breadfruit trees and cocoanuts. . . . As the village was the residence of a Chief, since dead, it had been entirely destroyed on the arrival of Tamaahmaah, and presented a spectacle of wretched hovels which sheltered the inhabitants, who occasionally lived there, till the conqueror had made a distribution of the island among his followers. (Broughton 1967:37)

Meanwhile, the journals of Vancouver's expedition provide us with good evidence that depopulation was not yet a significant problem in Hawai'i in the 1790s. In February 1793, when the expedition returned for its second visit, the ships were greeted at Kealakekua Bay with a reception that rivaled that of Captain Cook fourteen years earlier.

> On the following morning long before day broke, canoes began to assemble around us; they flocked into the bay from all parts; by noon you could scarce see the water in any part of the bay as the Canoes formed a complete platform. The number of people then afloat could not be less than thirty thousand. The noise they made is not to be conceived everybody loudly speaking and being assisted by the musical cries of some scores of Hogs and Pigs absolutely stunned us on board the Brig. The shores in every direction were lined with people; and such was the curiosity to approach the Vessels that many hundreds swam off to us, holding up [in] one hand a little pig, a fowl or a bunch of Plantains. (Manby, July 1929:41)

Manby no doubt overestimated the number of Hawaiians, but even Vancouver admitted to being "stunned" by the reception (1967, 2: 130). Edward Bell didn't provide a number but he painted a similar picture:

> The multitudes of the Natives who came off to the Ships surpass'd anything I had an idea of. The Canoes were so thick and numerous, that they fairly covered the surface of the water a considerable distance around us,--and I believe I may safely say that I might have walked over them from the Chatham to the Discovery; the Shoals of people that came swimming off, particularly women, were immense, but the utmost good humour and orderly behaviour was preserved. (Bell, Oct. 1929: 66-67)

And Menzies: "We were at this time surrounded by the greatest concourse of natives in their canoes that we ever saw collected afloat in these islands. Upon the most moderate computation we were pretty certain their numbers could not be short of three thousand, besides the beaches being lined with vast crowds gazing from the shore" (1920:67).

A reception like this was unusual. What made it possible was a combination of factors. Most important was the fact that Vancouver was in command of two warships and he represented the British government.

Vancouver had made this clear to Keʻeaumoku and Kaʻiana, two of Kamehameha's most important subordinate chiefs, on his visit the previous year. Second, when he returned to Hawai'i on this occasion, Kamehameha and many of his followers were already collected at Kealakekua. Finally, due to contrary winds, Vancouver's ships spent more than a week slowly closing in on the bay, allowing time for Hawaiians from all along the coast to assemble there. That Kamehameha considered the occasion important is illustrated by the formal welcome he gave to Vancouver: dressed in his brilliant feather cloak and helmet, he stood upright in the first of fourteen double-hulled canoes, his own paddled by forty-six men. The procession circled the ships three times before Kamehameha boarded the ***Discovery,*** where he made Vancouver a present of eighty hogs and other produce (Manby, July 1929:41).

The following year (1794) at Kealakekua, the crowds were even greater as all the chiefs congregated to discuss a treaty of cession of the island of Hawaiʻi to Great Britain in exchange for British protection. While on shore one day, Edward Bell attended a ***hula*** performance, of which he recorded "many of the chiefs declared that since Captain Cook's time they had never seen such a concourse of spectators at any one entertainment on the island, nor such an assemblage of their nobility collected in one place" (Jan. 1930:124). Later that year at Waimea on Kauaʻi, the same village that in 1792 had appeared "reduced at least two-thirds its size," Vancouver wrote of a ***hula*** performed by 600 dancers and that the "spectators were as numerous" as on Hawaiʻi Island, where he had estimated the crowd at not less than 4,000 (1967, 3:76-77, 41). The point is simply that where there may have been some reason for Vancouver's belief that the islands were suffering severe depopulation in 1792, there was none in 1794.

Moreover, if diseases had been actively contributing to population decline in Hawaiʻi, there is good reason to believe that Vancouver or Menzies would have noticed it. Both men were interested in diseases and looked for their effects on native peoples. While in Tahiti before sailing to Hawaiʻi, Vancouver commented upon the effects "the lamentable diseases introduced by European visitors" had had on Tahitians (ibid., 1:147), and, like Portlock before him, he noted on a number of Pacific Coast Indians the "indelible marks" of smallpox, which he believed was "very fatal amongst them" (ibid., 1:242).

Menzies, the ship's surgeon, observed several cases of minor illness in Tahiti and noted that Omai, a Tahitian whom Captain Cook had returned to the Pacific after spending several years in England, had

> died of a disease . . . which particularly affects the throat with soreness and tumours and it is said to be brought to these islands by a Spanish vessel in the year 1773. Though I wished much to see the symptoms & appearances of this disorder which is said to have made great havoc among the natives, yet I must confess that my feelings were equally gratified in finding that it is now a rare occurrence, for I did not observe a single case of it in all my esccurtions [***sic***] during our stay at Otaheite. (Menzies n.d.:120)

It is significant to note that Tahiti was in direct contact with diseased population centers (i.e., cities) on the Pacific coast of South America--where the Spanish came from--and thus suffered earlier and more seriously from the effects of contagious epidemic diseases. Similar dense populations did not yet exist on the Pacific coast of North America. Thus, a disease such as smallpox could, and apparently did, race through the Indian tribes of the North Pacific coast, but the population density there did not allow the disease to become endemic (see McNeill 1976:49-76). Thus, unless a Euro-American ship happened to be on the coast at precisely the time that smallpox was present, and the ship had on board sailors who had not yet had the disease, and the ship then sailed with dispatch for Hawai'i, it is unlikely that smallpox could have reached Hawai'i from the American West Coast until relatively large urban centers had been established there. This is precisely what seems to have happened, as smallpox first reached Hawai'i in 1853, shortly after the gold rush turned San Francisco into an urban center.

The Vancouver expedition did encounter several cases of disease during its four months in Hawai'i between 1792 and 1794. Enemo (Inamo'o), an important Kaua'i chief, was described by Manby in March 1792 as "upwards of fifty . . . his person very disgusting from the quantity of Ava he had swallowed, his eyes inflamed to a violent degree, and his skin sore and scaly" (June 1929:23). The following year Vancouver described the chief's situation in terms that suggest that he may have been suffering from more than ***'awa*** drinking:

> His limbs no longer able to support his aged and venerable person, seemed not only deserted by their former muscular strength, but their substance was also entirely wasted away, and the skin, now enclosing the bones only, hung loose and uncontracted from the joints, whilst a dry white scurf, or rather scales, overspread the whole surface of his body from head to

> foot, tended greatly to increase the miserable and deplorable appearance of his condition. (Vancouver 1967, 2:223-224).

In 1794, however, we find "Enemo still alive, and though in a somewhat better state of health than when we left him [in 1793], he was yet in a most deplorably emaciated condition." Indeed, in the intervening year Enemo showed that he was still filled with vitality as "he had attempted to acquire the supreme authority" on Kaua'i by leading a rebellion against Ka'eo (ibid., 3:74).

Similarly, Kalanikupule, a son of Kahekili and the ruling chief of O'ahu, in March 1794 was described by both Vancouver and Menzies as being very ill, so ill that he could not walk and had to be lifted aboard Vancouver's ship in a chair. Menzies described him as "very weak and emaciated from a pulmonary complaint that now provided hectic symptoms" (1920:125). Menzies's editor in 1920 captioned this section of his account "Kalanikupule, A Sufferer From Tuberculosis," although the original journal made no mention of consumption (Menzies n.d.: 286) and Kalanikupule was far from dead. A year and a half later, he led his army into battle against Kamehameha, and following his defeat, escaped into the mountains of O'ahu, where he wandered for another year before he was finally captured and sacrificed to the conqueror's war god (Kamakau 1961: 172). One other case of what may have been tuberculosis was reported by Menzies, who described a young wife of Kahekili whom he had met in 1788, "as now [in 1794] indeed wonderfully altered, she was in appearance far gone in a consumption, and the bearing of two or three children, had wrought such a change in her features for the worse, that added to ill health, the cares and anxiety of her married state, gave her the appearance of a woman advanced in years" (1920:88). We have no record of her fate.

The only other mentions of possible ill health by Vancouver's associates were that, twice, Menzies noted groups of Hawaiian men coughing. On both occasions, however, the Hawaiians were at very high altitudes, accompanying Menzies on his ascents of Hualalai and Mauna Loa (ibid.:158, 191). The fact that he observed such coughing only on the mountain heights and not on the lowlands suggests that coughs were not common in Hawai'i at this time. These observations also indicate that Menzies was very alert to the possibilities of illness. If disease had been ubiquitous in Hawai'i, he would have noticed it.

As mentioned previously, William Broughton returned to Hawai'i on a voyage of discovery in 1796. He visited twice that year, spending a total of two and a half months in the islands. His reports are particu-

larly interesting because his visits followed soon after Kamehameha's conquest of Oʻahu, so he saw that island in turmoil. His first stop was at Kealakekua Bay on Hawai'i Island, where in early January he was informed, apparently by John Young, that Kamehameha was on Oʻahu with 16,000 men and most of his chiefs (Broughton 1967:34). At Lahaina, Maui, as described above, he observed the fields that had been destroyed several years before in an "excellent" state of cultivation, But on Oʻahu he found chaos as a result of the recently concluded conflict. "The situation of the natives was miserable, as they were starving," he said, adding, "as an additional grievance [they were] universally infected with the itch [scabies]" (ibid.:40). Moreover, food was doubly scarce because Kamehameha was requisitioning everything to feed his army, which was preparing to invade Kauaʻi.

Kauaʻi, too, was affected by affairs on Oʻahu. Broughton reported that "a chief from Wohahoo [Oʻahu], named Taava [Keawe], had taken up arms against Tamoerrie [Kaʻumualiʻi], the son of Tayo [Kaʻeo], and at present possessed the district of Wymoa [Waimea]" (ibid.:44). In July, on his second visit, rebellion had spread to Hawaiʻi Island, although he found the Kona district prosperous and "everything was plentiful" (ibid.:70). On Oʻahu, though, the devastation had not yet been repaired, and

> the island, in respect to provisions, was worse than ever, for all the hogs had been destroyed when the inhabitants [the losers in the conflict] left to go to Atooi [Kauaʻi]; and we could procure no vegetables, as they had perished through neglect of cultivation. This scarcity had caused the destruction of many of the unfortunate natives, who, through absolute want, had been induced to steal whatever came in their way. For these thefts they were murdered by their chiefs in the most barbarous manner, and many were burnt alive. It was computed that Tamaahmaah had lost six thousand of his people by the conquest of this island, and subsequent calamities. (Ibid.:71)

It is not clear whom Broughton received this information from nor how accurate it was, but there obviously had been considerable suffering and mortality. Broughton made no mention of disease as a factor in this devastation. He did note, once again, that scabies was a problem, along with the venereal diseases. "The people were generally affected with the itch, but triflingly so with venereal complaints" (ibid.:70). These are his only mentions of disease.

Captain Peron, who visited the islands in late 1796 and early 1797, made no mention of disease and found the Hawaiians ***"en general d'une beaute remarquable, ils sont robustes et alertes; leur physionomie est douce et pleine d'expression; leur taille elevée surpasse celle des Europeens; toutefois ils sont moins grands que les habitants desiles des Amis, mais leur caractere et plus gai, plus loyal et plus communicatif"*** (1971: 149). Neither did he make mention of the destruction occasioned by Kamehameha's wars of conquest, although he was impressed by the conqueror himself.

Ebenezer Townsend stopped at both Hawai'i Island and O'ahu in 1798. By then he found the lands of O'ahu "in the highest state of cultivation" (Townsend n.d.:19). On his trip from Hawai'i Island to O'ahu he was accompanied by Isaac Davis and two other white men in the employ of Kamehameha. From them he gleaned considerable information about Hawaiian culture, which he described with a good deal of understanding, considering his short stay. He also had something to say about population decline: "Owhyhee [Hawai'i Island] was calculated to contain one hundred and fifty thousand inhabitants [Lt. King's estimate] when visited by Capt. Cook; at this time I do not believe it contains over one hundred thousand; it probably has been reduced considerably in the late wars" (ibid. :24-25). Townsend provided no explanation as to how he arrived at his computation of the 1798 population or whether he saw any evidence of depopulation, so it is impossible to say whether the island's population had declined significantly or not. Given his discussions with Davis, who had been in the islands since 1790, his failure to mention disease suggests that no explosive epidemic had contributed to population decline in recent years.

Townsend's portrait of the Hawaiians certainly is not that of a people who are living through a demographic holocaust. He describes them as "an active and well made people," "very happy people," "as happy as any people on earth," and "These people are so happy that I reflect much on the subject" (ibid.:25, 26, 30, 31). Finally, he notes that neither Kamehameha nor his people were addicted to alcohol. "They are naturally averse to drinking spiritous liquors" (ibid.:29). This statement is in dramatic contrast to later descriptions of Hawaiians, who took to drinking alcohol in excess as their culture collapsed around them and they began to experience demographic disaster.

Richard Cleveland, in 1799, described a similar healthy and happy population: "The contrast which their cleanliness forms with the filthy appearance of the natives of the Northwest Coast, will not fail to attract the attention of the most unobserving. Nor have they less advantage

over their Northwest neighbors in the size, shape and gracefulness of their persons, and in the open, laughing, generous and animated expressions of their countenances" (1855: 110). On neither this visit nor on his return in 1803 did Cleveland mention disease. Similarly, the logs of the ***Eliza,*** the ***Caroline,*** and the ***Hancock,*** all of which visited Hawai'i briefly at different times in 1799, make no mention of disease in the islands. Amaso Delano, who was in Hawai'i for ten days in 1801, left the islands with several Hawaiians in his crew whom he made sure were inoculated for smallpox in China, but he made no mention of any disease in Hawai'i.

Finally, John Turnbull, an Englishman who had spent some months in Tahiti, arrived in Hawai'i in late 1802 and remained in the islands for more than a month, leaving in early 1803. Turnbull was very much aware of the terrible depopulation that the Tahitians were experiencing. He blamed their losses on infanticide, disease, and ignorance. Infanticide was the worst, while ignorance made diseases that, to Turnbull's mind, should not have been serious into deadly killers (1813:334-335, 366-369). Turnbull's own ignorance and bigoted perspective may have blinded him to a clear understanding of what was happening, but not to its results. In Hawai'i he saw a very different picture:

> The Sandwich Islands are extremely well peopled, all circumstances of their nature and fertility being considered; and the women, according to Mr. [John] Young's account, are said to be more numerous than the men, whereas in Otaheite the women are not reckoned to amount to more than one-tenth part of the population.
>
> The striking difference in the population of these two spots may in great measure be imputed to the absence from Owhyhee of the horrid practice of infant murder. The increased population of the Sandwich Islands has had one good effect; it has compelled the natives to exert themselves in assisting nature by the more careful cultivation of the soil, and other branches of industry. (Turnbull 1813:229-230)

The Hawaiian people were "strong, hardy and capable of enduring great fatigue," according to Turnbull (ibid.:234), in contrast to the Tahitians who lacked both industriousness and the will to resist disease.

Meanwhile, between 1796 and 1804, Kamehameha moved to consolidate his power throughout the windward islands and to prepare for the conquest of Kaua'i. Late in 1796 he returned to Hawai'i Island to sup-

press a revolt against him there. Its leader was caught and Sacrificed early in 1797. Following his priests' advice, Kamehameha had left no chief of rank on O'ahu who might rise up against him but returned to Hawai'i with all his chiefs (Kamakau 1961:173-174) and almost certainly with the bulk of his army. He remained on Hawai'i, preparing for the conquest of Kaua'i by building a fleet of more than 800 ***peleleu*** canoes-- double-hulled vessels rigged like sloops. In late 1802 he left Hawai'i with his fleet and stopped at Lahaina, Maui, "where they remained about a year feeding and clothing themselves with the wealth of Maui, Molokai, Lanai, and Kahoolawe" before moving on to O'ahu in 1803, "the whole company, including Kamehameha's sons and daughters with their households, and those of his brothers and sisters, his counselors and chiefs, and over a hundred in each household" (ibid.: 187-189).

* * * * *

The year 1803 marked twenty-five years since Captain Cook inaugurated contact between Hawaiians and the outside world. During this time, as we have seen, dozens of ships touched at the islands and a significant number of accounts were written describing Hawai'i, its people, and their society. Some writers were neither well informed nor observant, but others were remarkably perceptive. Most of what we know about eighteenth-century Hawaiian culture and history derives from their writings and from the later works of a handful of Hawaiian scholars who based their accounts largely on oral traditions.

The picture of Hawaiian society that emerges at the beginning of the nineteenth century is one that appears to be remarkably healthy, both physically and culturally. Hawaiians were at war throughout most of this period, but although warfare may have been altered somewhat with the introduction of firearms, it was a traditional activity. Stannard and anthropologist/historian John Stokes agree that mortality from warfare was probably not a significant factor in causing population decline (Stannard 1989:137). Moreover, after 1796 Hawai'i was at peace even if preparations for war continued.

According to Stannard, this same twenty-five-year period was a time of horror during which the population of the islands was cut in half from at least 800,000 to 400,000. It was a time when epidemics raged through Hawai'i and tens of thousands were "slaughtered" by disease. In fact, there was at least one serious epidemic that probably did result in the deaths of thousands of Hawaiians before 1803: venereal disease.

Visitors to the islands often reported it, although they usually underestimated its impact. More important than the lives cut short, from a demographic perspective, were the number of children not born as a result of sterility or miscarriage.

Stannard is probably correct in arguing that tuberculosis was introduced early. It would become a serious killer as well, although the historical evidence does not indicate that it was widespread: serious catarrhs or diseases involving coughing are not reported in the literature until 1818 (Marin 1973:227) and not described as widespread until 1819 (Freycinet 1978:58). Even writers who spent months or years living with Hawaiians, including Don Francisco de Paula Marin, Archibald Campbell (1967), John B. Whitman (1979), and William Shaler (1935), did not report any serious illnesses before 1818.

It could be argued that disease was so common a feature of "civilized" societies that its existence in the islands was considered unremarkable and therefore went unnoticed. It is quite likely that some visitors did not notice coughs or colds or felt them unworthy of comment, but we have seen that other observers did notice diseases among other native peoples (for example, Portlock, Vancouver, Menzies, and Turnbull; see also Shaler [1935:57-58]) and felt them worthy of comment. The Hawaiians, too, certainly would have noticed if diseases were destroying them with the vengeance that Stannard maintains. Tahitians knew they were dying of foreigners' diseases and they complained about it vociferously, even blaming specific European visitors for their various ailments (Turnbull 1813:336) in much the way Hawaiians complained to Cook's men about the introduction of venereal disease in 1778 and 1779.

Then in 1804 the Hawaiians did experience a major, explosive epidemic in which thousands of people died, the ***ma'i 'oku'u:***

> It was a very virulent pestilence, and those who contracted it died quickly. A person on the highway would die before he could reach home. One might go for food and water and die so suddenly that those at home did not know what had happened. The body turned black at death. A few died a lingering death, but never longer than twenty-four hours. If they were able to hold out for a day they had a fair chance to live. Those who lived generally lost their hair, hence the illness was called "Head stripped bare" (Po'okole). (Kamakau 1961: 189)

And, predictably, the Hawaiians did notice it and did complain. Word of its virulence reached Urey Lisiansky at Kealakekua Bay on Hawai'i

while it was still raging on O‘ahu, so he canceled his planned stop in Honolulu (1968: 111-112). William Mariner heard of it when he was refused permission to anchor his ship in the inner harbor at Honolulu in 1806 because he had a sick man on board. The chief of the island refused Mariner’s ship entry “for fear of introducing disease into the country, which they said happened on a former occasion, from an American ship” (1827:56). Isaac Iselin was informed in 1807 that one of the reasons for the “want of hands” needed to cultivate the fields around Kealakekua Bay “was a kind of epidemic or yellow fever, said to have been brought to these islands a few years ago, and which made dreadful havoc amongst the natives” (n. d. : 68).

For the Hawaiian historian Samuel Kamakau, it became “the pestilence” that he refers to repeatedly in his history, ***Ruling Chiefs of Hawaii.*** John Papa ‘I‘i, another Hawaiian historian, spoke of “the great death rate among chiefs and commoners in the year 1806, perhaps owing to the terrible ***‘oku‘u*** disease, when the epidemic spread among all of the chiefs and commoners of these islands” (1959:46). David Malo claimed, “In the reign of Kamehameha, from the time I was born until I was nine years old, the pestilence, (mai ahulau,) visited the Hawaiian Islands, and the majority (ka pau nui ana) of the people from Hawaii to Niihau died” (1839: 125).

Stannard has used Malo’s statement to support his contention that half of the population of Hawai‘i had disappeared ***before*** the ***ma‘i ‘oku‘u*** struck Hawai‘i in 1804 (Stannard 1989:57). Stannard argues that since Malo was born in 1793, he would have been nine in 1802 before the ***‘oku‘u*** arrived. However, no one knows exactly when Malo was born (Malo 1976:vii). Hawaiians did not record dates nor did they calculate ages. (This will also explain why ‘I‘i, writing many years later and looking back to the period of his earliest youth, could only have guessed that the ***‘ōku‘u*** occurred in 1806, instead of 1804 as confirmed by Western sources.) Malo’s ***ma‘i ahulau*** (the generic term for pestilence) was clearly the same epidemic that he and others elsewhere referred to as the ***ma’i ‘oku‘u.*** In the same paragraph from which the above quotation is taken, Malo says, “there have been no seasons of universal sickness since [the ***ma‘i ahulau***], men have died but not in an uncommon degree” (1839:125). Yet in another publication, probably written in the following year, 1840 (Malo 1976:xviii), Malo specifically refers to the ***‘oku‘u:*** “After that Kamehameha sailed for Oahu and the pestilence in truth made its appearance, raging from Hawaii to Kauai. A vast number of people died and the name ***okuu*** was applied to it” (ibid.: 245-246).

We know from other sources that Kamehameha was on Hawai‘i and

Maui in 1802 and 1803--Richard Cleveland introduced Kamehameha to horses at Lahaina in June 1803 (1855:208-209)--and that he did not move his army to O'ahu until late 1803 or early 1804. We know from Lisiansky that the ***'oku'u*** was in progress in June 1804 (1968: 111-112). Finally, we may assume that Malo was using exaggeration for effect when he claimed that a "majority" of the people died from the ***ma'i ahulau.*** In concluding his 1839 paper, "On the Decrease of the Population on the Hawaiian Islands," where the claim was made, he lists the "principal evils" that had contributed to the decline in numbers of Hawaiians:

> 1. The illicit intercourse of Hawaiian females with foreigners.
> 2. The sloth and indolence of the people at the present time.
> 3. The disobedience of the chiefs and people to the revealed word of God. (Malo 1839: 130)

Significantly, he does ***not*** list the ***ma'i ahulau.***

In the years following the gathering of Kamehameha's army on O'ahu and the ravages of the ***ma'i 'oku'u,*** several foreigners began to notice deserted fields. William Shaler was the first:

> In the true spirit of despotism, it is well understood that no chief of the least consequence can reside anywhere but near the person of the monarch, and, as he migrates through his dominions, he draws after him a train more destructive than locusts. Everything is abandoned to follow the sovereign, the country being deserted by all who have an interest in its cultivation and improvement of the lands, they are of course neglected. I have observed many fine tracts of land lying thus neglected, even in the fertile plains of Lahyna: the ruined enclosures and broken dykes around them were certain indications of their not having been always in that state. (Shaler 1935:82-83)

In 1807 Isaac Iselin, as a result of an excursion to the fields above Kealakekua Bay, commented on the fertility of the area and the variety of crops being grown. "But upon the whole, the country exhibits a great want of hands to improve it. The depopulation is evident and may in some manner, be accounted for, by the absence of the chiefs and warriors, and still more for an epidemic or yellow fever, said to have been brought to these islands a few years ago, and which makes dreadful havoc amongst the natives" (Iselin n.d.:68).

These observations tell us a good deal about what was happening in

Hawai‘i during these years. There can be little doubt that diseases and not just the ***‘ōku‘u*** were contributing to the number of deserted fields, but this was not the whole story as both Shaler and Iselin concluded. Kamehameha was in the process of settling his army on O‘ahu. It is no coincidence that the deserted fields observed by Iselin (on the Kona coast above Kealakekua Bay) and Shaler (at Lahaina) were located in those areas that Kamehameha’s army had abandoned as a result of its deployment to O‘ahu. We do not know how large his army was, but we do know that it was numerous enough, particularly as family members joined the fighting men on O‘ahu, that extensive new lands had to be brought under cultivation on that island. Kamakau tells us that Kamehameha “made the great (taro) patches at Waikiki called Keokea, Kalamanamana, Kualulua, and cleared the land at Waikiki, Honolulu, Kapalama, Kapa‘uiki, Keone‘ula, Kapa‘eli and all the other places; and when all the lands were under cultivation he cultivated ***mauka*** [toward the mountains] in Nu‘uanu as far as Keawawapu‘ahanui” (1961: 192).

From other sources, including native testimony during the Māhele land division of the 1840s and archaeological research, we know that new land and irrigation systems were opened at Anahulu Valley on O‘ahu to provide sustenance for Kamehameha’s warrior chiefs and their retainers. This expansion continued into the second decade of the nineteenth century (Kirch 1985:235-236; Kirch and Sahlins 1992:36-54, ***passim).*** It seems very unlikely that such expansion, including the arduous labor of creating completely new irrigation systems, would have been necessary if half of O‘ahu’s population had perished by 1803, as Stannard contends. (Archaeological evidence from Waimea-Kawaihae and other parts of the Kona coast of Hawai‘i Island suggests that Hawaiian populations in these areas did not begin to decline significantly until about 1835 [Clark 1988:27]. Again, immigration may have influenced settlement in these areas as Kamehameha returned to Kona to live in about 1812, accompanied by a number of his retainers and, no doubt, their retinues [Kamakau 1961:197-198]. However, Kamehameha’s return to Hawai‘i does not appear to have precipitated the massive resettlement that had taken place on O‘ahu during the preceding decade.)

Several foreign visitors to O‘ahu during this period commented on the extensive cultivation, particularly in the area around Honolulu. Archibald Campbell, who lived on O‘ahu for more than a year, was carried (he was crippled) to lands he was given behind Wai Momi (Pearl Harbor) about twelve miles west of Honolulu in March 1809: “We passed by footpaths, winding through an extensive and fertile plain, the whole of

which is in the highest state of cultivation. Every stream was carefully embanked, to supply water for the taro beds. Where there was no water, the land was under crops of yams and sweet potatoes" (1967: 103). Ross Cox, in Honolulu for about two weeks in 1812, made an excursion "between four and five miles from Honaroora" into "the interior" of O'ahu. "In the course of this tour we did not observe a spot that could be turned to advantage left unimproved. The country all around the bay exhibits the highest state of cultivation, and presents at one view a continued range of picturesque plantations, intersected by small canals, and varied by groves of cocoanut trees" (Cox 1957:34),

Neither Cox nor Campbell, nor Samuel Patterson (1967), George Little (1846), Stephen Reynolds (1970), Gabriel Franchere (1969), nor Alexander Ross (1966), all visitors to the islands before 1812, nor John Whitman (1979), who was a resident of O'ahu from 1813 to 1815, reported any incidence of disease during their time in Hawai'i. In fact, the only people to report any diseases at all, from the time of the ***'oku'u*** until 1818, were Otto von Kotzebue in 1816 and Don Francisco de Paula Marin who, in the early 1810s, mentioned in his journal several individuals who were ill (Kotzebue 1821, 1:342; Marin 1973:200, 202, 213). (Marin's journal ***is*** full of references to widespread sickness but only from the end of 1818 and into the 1820s. Several of these infections were deadly to large numbers of Hawaiians [Marin 1973:227, 231, 237, 259, 260-262, 272-273, 286-293].) As late as October 1818, Captain Vasily Golovnin could say "epidemics and infections are unknown to the inhabitants" (1979:219). Golovnin was in Hawai'i for only ten days but was accompanied by an interpreter, Eliot de Castro, a long-time resident of the islands, and got additional information from Marin. Both Marin and Castro, incidently, were "physicians" of a sort.

None of this is an attempt to argue that depopulation was not taking place. Indeed, Hawaiians must have been dying faster than they were being born even if they were not subject to major, explosive epidemics. In what was probably 1815, as John Whitman traveled around the island of O'ahu, he noticed that some areas "on the eastern side of this island" were deserted. "The natives say that the islands were much more populous in former times than at present, and the traces of cultivation in lands that are now waste, and other signs of population visible in many places, render it probable that they are correct" (Whitman 1979:86).

Similarly, Kotzebue in 1817 saw uncultivated fields that he believed were unattended because the natives were "obliged to fell sandalwood," but he also believed that the population was diminishing as a result of

both vices (liquor and tobacco) and the "many bad disorders" brought by Europeans (Kotzebue 1821, 2: 199-200). Other Euro-American visitors in the 1810s noticed signs of serious social dislocation including, but not limited to, the widespread drinking of alcohol and the use of tobacco by children. Both Peter Corney and Adelbert von Charmisso were amazed by the "indecorous sport" with which Hawaiians treated their gods (Corney 1896:102; Kotzebue, 3:249). Others, such as Golovnin, were appalled at the treatment that chiefs accorded commoners (1979:208). In 1816 Samuel Hill decided that ***haole*** influence had not been good for Hawaiians, whom he found "degenerated in character, conduct and morals" compared with his earlier visit to the islands in 1810 (1937:366). Hawaiian culture was far from collapse, but it was beginning to show signs of strain, probably both a symptom of and a contributor to further demographic decline.

* * * * *

Since the number of Hawaiians inhabiting the Hawaiian Islands in 1778 will never be known with certainty, any estimate of that number will have to be based upon hypotheses. David Stannard's ***Before the Horror*** marshals a number of hypotheses and argues with impressive logic for a precontact population of at least 800,000 people. On the basis of logic alone Stannard's conclusions may appear irrefutable, particularly to individuals who are unfamiliar with all of the disciplines upon which his argument is based.

This essay has tried to show that Stannard's hypothetical arguments are far from convincing and that the available historical record does not support the demographic collapse that his theory presents. In fact, the record shows that the Hawaiian population did not decline by 400,000 people between 1778 and 1803. Except for the ***ma'i 'oku'u,*** explosive epidemics responsible for the deaths of large numbers of people--the kind Stannard's theory requires--did not occur in Hawai'i until at least the 1820s.

Hawaiians did die of newly introduced diseases before 1803, including venereal diseases, tuberculosis, gastrointestinal infections, and even common colds. Lacking exposure to Old World diseases, they undoubtedly were particularly vulnerable to many of these alien infections, but their geographic isolation and perhaps other factors, such as their remarkable cleanliness, excellent diet, and healthful environment, resulted in an experience with diseases that was very different from that of many parts of the New World, where such killers as smallpox, mea-

sles, influenza, and bubonic plague occurred early after Europeans arrived, and sometimes often.

Still, the Hawaiians died and, as Stannard has reminded us, for the Hawaiian people it was a time of "horror." From a historian's perspective this demographic collapse, continuing as it did throughout the nineteenth century, is the most important "fact" in Hawaiian history. As disease destroyed their numbers, it destroyed the people's confidence and their culture; finally, it was the most important factor in their dispossession: the loss of their land and ultimately of their independence. Consider how different the fate of Hawai'i would have been if the numbers of Hawaiians had remained undiminished from what they had been in 1778, whether those numbers were 300,000 or 400,000 or more --instead of the fewer than 40,000 who remained alive in 1893.

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