

## On the Probability of Pre-1778 Japanese Drifts to Hawaii\*

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Whenever striking parallels have been noted between certain cultural aspects of dispersed areas within the Pacific Basin, theories have been advanced to suggest that these parallels resulted from some very early alien contact. The cultural evolutionist, E. B. Tylor, an early proponent of prehistoric transpacific contact between Asia and America, published in 1879 a monograph entitled "On the Game of Patolli in Ancient Mexico and its Probable Asiatic Origin".<sup>1</sup> Yet until fairly recently, scholars have generally rejected such theories in favor of explanations more in line with those of convergence—"the process by which traits that were initially different come to resemble one another independently".<sup>2</sup> In 1948, for example, the American anthropologist, A. L. Kroeber, could state quite emphatically: "no specialist in American archaeology at present sees any place where there is room for a significant Old World influence in the unfolding of his story. The various theories 'explaining' the cultures of Mexico and Peru as derived from China, India, Farther India or Oceania are all views of non-Americanist scholars or the speculation of amateurs."<sup>3</sup> It was in such an adverse climate that J. F. G. Stokes, a former Curator of Polynesian Ethnology at the B. P. Bishop Museum, published a monograph in which he posited a number of pre-contact Japanese drifts to Hawaii, and *a priori* reasoned that certain notable cultural similarities between pre-contact Hawaii and contemporary ancient Japan must therefore represent manifestations of cultural transmittals by these drifts. He went so far as to state that a study of ancient Japan would be beneficial to students of early Hawaiian history,<sup>4</sup> but at the time little attention was directed towards Stokes's proposition and for the past four decades it has received scant notice within the scholarly community.

Within the last two decades or so, however, there has been a resurgence of serious interest in the possibilities of prehistoric transpacific contacts as shown

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by the recent publication of the proceedings of two symposiums on just this topic—*Man Across the Sea; Problems of Pre-Columbian Contact* (1971),<sup>5</sup> and *Early Chinese Art and Its Possible Influence in the Pacific Basin* (1974).<sup>6</sup> As C. R. Edwards, a participant in the latter symposium held at Columbia in 1967, writes, “many scholars have moved from a general position of rejecting outright any theory of pre-Columbian transoceanic voyaging to attitudes ranging from a grudging ‘wait and see’ to enthusiastic acceptance of the probability.”<sup>7</sup> The reasons stem partly from an increased acceptance of the remarkable durability of prehistoric sea-going vessels, and partly from recent archaeological finds in South America which some archaeologists suggest point to a very early contact with a boat-load of Japanese drifters.<sup>8</sup> Locally, Charles W. Kenn has received notice in pointing to certain Hawaiian legends as indications of possible Japanese drifts to Hawaii sometime in the 12th century,<sup>9</sup> and *A History of Japanese in Hawaii* published under the auspices of the United Japanese Society of Hawaii states quite unabashedly, albeit with dubious substantiation, “first of the drifters, on battered boats believed to be Japanese, went ashore at Makapuu Point on the island of Oahu, on two separate occasions in the year A.D. 1258”.<sup>10</sup> Aside from the question of historical primacy of non-indigenous groups which is raised here, this problem of pre-1778 alien contact is both an important and interesting one in as much as the potential for cultural diffusion is ever-present under such circumstances.

That Hawaii was sufficiently distinctive from the rest of Polynesia in certain points of culture as to merit a classification as a sub-area within the larger rubric of marginal Polynesia had been recognized by Ernest Beaglehole in his essay “Cultural Peaks in Polynesia”. He explains this distinctiveness in terms of an elaboration of the “underlying homogeneous cultural stratum” common to all of Polynesia, and states that “by specific institutional development, the process of which is for the most part obscure and has presumably been due to historical factors, environmental limitations and freedoms, economic causes or the influence on culture of marked personalities, certain Polynesian islands or cultures show peaks in which complexes or elements have been selected from a widespread pattern and given a formal elaboration”.<sup>11</sup> Stokes’s position on this, simply stated, is that certain such elaborations in Hawaii cannot be related to this underlying homogeneous cultural stratum of Polynesia and no known antecedents existed in other parts of Polynesia. Furthermore, he notes that these cultural elaborations show remarkable affinities with similar cultural features found in ancient Japan. In his exhaustive comparison, among others, of the tall Hawaiian *kahili* and Japanese *keyari* for example, Stokes notes that the tall *kahili* is first mentioned in published Hawaiian traditions in the generation of King Lonoikamakahiki (c. 1630 A.D.) with no known prototype, whereas the *keyari* in Japan is traceable as far back as 1190 A.D. and was in use extending to the Tokugawa Period (1600–1867).<sup>12</sup> In short, Stokes suggests that the arrival of intermittent Japanese drifts to Hawaii and the resulting diffusion of ideas may provide the best explanation for some of these uniquely Hawaiian “elaborations”. Unfortunately, this writer’s insufficient knowledge on matters pertaining to both

ancient Japanese and prehistoric Hawaiian cultures precludes an adequately critical analysis of the analogies which Stokes points to between the two cultures. Yet in this climate of a less dogmatic approach to possible prehistoric transpacific contacts within the scientific community, and in the light of some new evidence in other pertinent areas of the Pacific Basin, perhaps it would not be simply a moot exercise to re-examine the probability of such intermittent Japanese drifts to Hawaii in prehistoric times.

The crux in any assessment of the probability of inadvertent transpacific contacts is the ability to establish a credible causative relationship between drift and current. In the North Pacific the existence of a semi-permanent surface current running clockwise in a huge anticyclonic gyre has been long recognized. The sixteenth century Spanish galleons for example noted this condition quite early and used it to an advantage in their voyages between Manila and Acapulco.<sup>13</sup> Although lacking in generic nomenclature, and being alternatively referred to as the Kuroshio, North Pacific, California, or North Equatorial Current depending on the particular region through which it flows, it will be designated as the Kuroshio Current herein for the sake of simplicity. On its westerly boundary, the Kuroshio begins its northeasterly circulation along the east coast of the Philippines and becomes progressively stronger and narrower as it flows parallel to the eastern shores of Japan (attaining in August an average velocity of 36 miles per diem<sup>14</sup>) until encountering the cold Oysahio Current at 35 deg. N. At this point, the current becomes increasingly easterly, and between 160 deg. E. and 170 deg. E., the current begins a weak and diffuse flow towards the western seaboard of North America.<sup>15</sup> On approaching the easterly boundary of its circulation, parts of the Kuroshio flow along the coast of British Columbia towards higher latitudes and become incorporated into the Alaskan Current before heading southward along the Aleutian arc. The bulk, however, turns southerly and forms a broad and slow moving current roughly parallel to the coasts of California and Mexico. As the Kuroshio approaches 20 deg. N., it then becomes increasingly westerly until forming the section of the circulation commonly referred to as the North Equatorial Current. Aside from certain minimal fluctuations,<sup>16</sup> the Kuroshio generally conforms to this circular flow. Elsdon Best once referred to it as the "famous 'Black River'" whose "strong current running from the Japan seas across to the American coast" constituted one of the "rivers of the ocean and which must have performed a considerable role in the distribution of man."<sup>17</sup>

Added to this are certain meteorological considerations off of Japan during a number of months annually which drastically escalates the probability of Japanese fishing or trading junks drifting uncontrollably with the flow of the Kuroshio. The United States Navy (CINCPAC-CINCPOA) compiled in 1945 climatological and oceanographic data from representative areas in Japan which showed that the late summer months of August, September, and October recorded a predominance of typhoons. The city of Hamamatsu (latitude 34 deg., 43'N., longitude 137 deg., 43'E.) for example tabulated no less than 46 typhoons within these three months out of a total of 76 in a period of ten years.<sup>18</sup> Over the entire North Pacific, the U.S. Weather Bureau tabulated

a total of 802 typhoons over a period of 40 years from 1901 to 1940, of which 441 or 54.99% were in August, September, and October. In October for example, the region of formation of such typhoons is primarily between 7 deg., and 20 deg. N., latitude, and the Philippines and 150 deg., E., longitude. From there, the typhoons normally move rapidly northward, sweeping along the east coast of Japan.<sup>19</sup> In the winter months from December through March, monsoon winds from the north-west predominate, exceeding 20 knots in velocity 24% of the time along the east coast. In February for example, the western region of the North Pacific—i.e. from the 30th parallel north and northeast to the Aleutian Islands—experiences an exceptionally high frequency of gales (winds of at least force 8). At Greenwich Civil Noon, the percentage of gales in this region exceed 10%, reaching close to 20% on occasion.<sup>20</sup> Thus taking a hypothetical situation of a Japanese fishing or trading junk being caught too far off-shore by a sudden gale or typhoon in the late summer or winter seasons (when the probability is the highest for such an occurrence), we can see such a junk being uncontrollably carried north-eastwards by the combined forces of the wind and current. Losing its rudder and being dismasted in the process, such a junk would drift at the mercy of the Kuroshio until eventually washed ashore somewhere along the route of the current's circulation—Canada, Alaska or the Aleutians by way of the Alaskan Current to the north, California or Mexico to the south, or to the Hawaiian Islands via the North Equatorial Current. The survival rate in such a situation would depend among other factors upon the speed of the drift as determined by the wind and current velocities.

Turning now from the realm of conjecture to that of historical records in order to demonstrate the feasibility of such a hypothetical situation, we see that the causative relationship between drift and current is well substantiated, and that the survival rate is remarkably high. In this endeavor, we are indebted to Charles Wolcott Brooks who presented a compilation of documented instances of Japanese drifts in the North Pacific in a paper read to the California Academy of Sciences in 1876. Although some of Brooks' findings as regards to supposed linguistic similarities between the Japanese and coastal Native American languages and the wide-spread dissemination of Japanese racial characteristics in North America must be evaluated with solicitude, his data is nevertheless extremely informative. It encompasses a total of 60 cases of documented encounters with Japanese drifts from 1617 to 1876 (see figure 1), and of these Brooks notes:

. . . 27 wrecks were encountered at sea, and the balance stranded, as follows: On the Aleutian Islands, 8; Coast of Kamchatka, 6; Alaska, Oregon, Hawaiian and Brooks Islands, two each; Off San Diego, Acapulco, Nootka Sound, San Bonito, Queen Charlotte, Cedros, Providence, Baker's, Stapleton, Ocean and Ladrone Islands, one each.

In 23 cases where the actual number on board was named, they aggregated 293 persons; an average of  $12\frac{3}{4}$  persons to a junk; ranging from 3 to 35 in individual cases.

Where definite statistics of the saved are given, we find 222 persons saved in 33 cases; an average of  $6\frac{3}{4}$  persons in each disaster. On eight occasions, three persons each were rescued; in four cases, one person; and on four other cases, four persons; three times

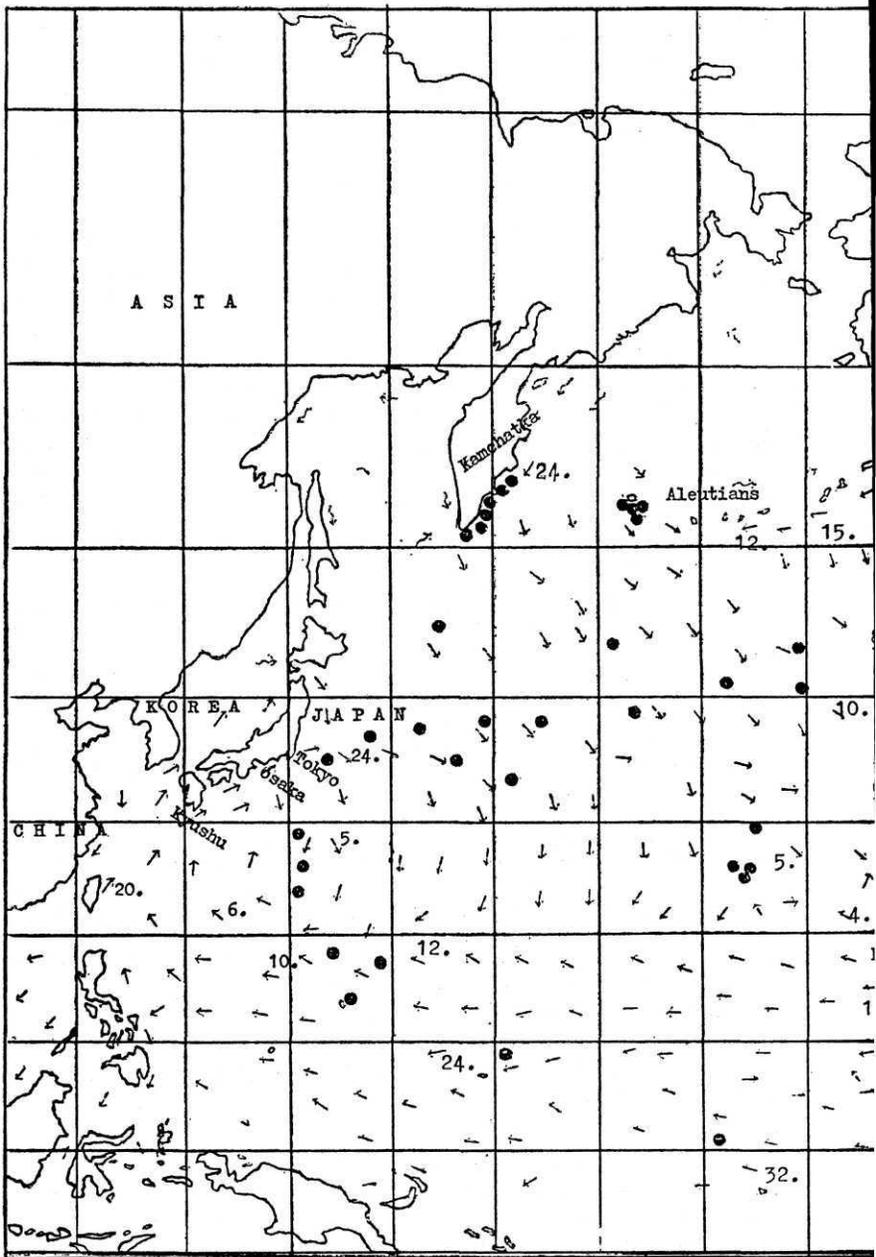
eleven were saved; and twice each, 5, 12, 15, 17; and once each 2, 6, 7, 10, 13, were saved.<sup>21</sup>

Where details are given in individual cases we find that in terms of months at sea, one Japanese junk was found in 1815 with her rudder and mast gone near Santa Barbara, California (lat., 32 deg., 45'N., long., 126 deg., 57'W) after having drifted with the Kuroshio Current for 17 months. It was enroute from Osaka to Tokyo in late October with a crew of seventeen of which fourteen eventually perished.<sup>22</sup> In terms of distance covered, a junk, after having drifted for an undetermined length of time, was cast ashore in Mexico in 1843. Although the size of the original crew is unknown, Brooks reports three Japanese survivors as having been returned to China two years later.<sup>23</sup> Of particular interest here, Brooks notes that upon examination every junk encountered disabled in the North Pacific Ocean was found to be of Japanese origin and that no records exist of there having been drifts originating from other areas of the Far East. Furthermore, there were no women reported.<sup>24</sup>

Looking more closely at the alleged incidences of Japanese drifts to the Hawaiian Islands within historic times, we find a total of possibly seven as having been cast ashore somewhere in the islands and an additional drift encountered in the vicinity. Of this total, there exists concrete documentation for only two drifts. The first was recorded in the *Hawaiian Spectator* by the missionary J. S. Emerson as follows:

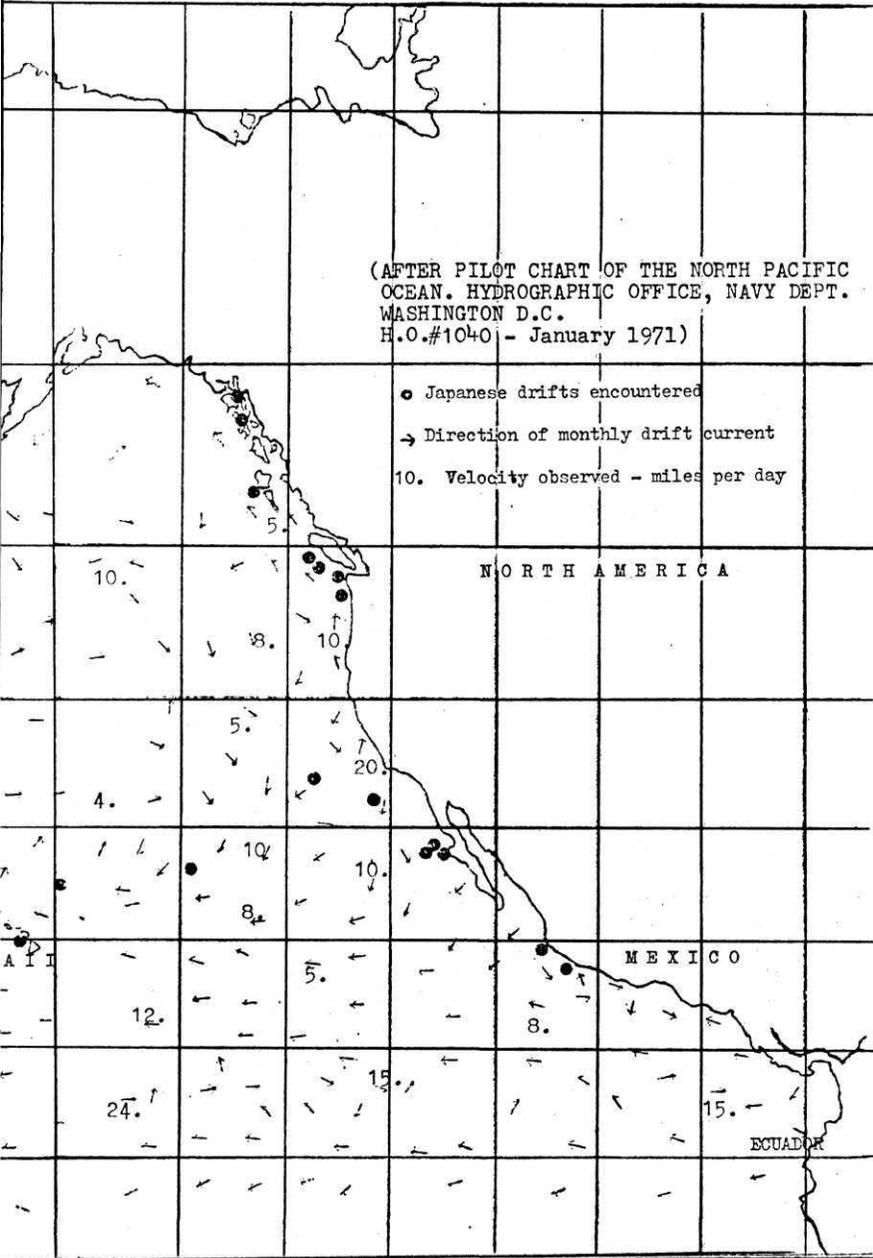
The junk made the shore and anchored near the harbor of Waialua on the last Sabbath in December, 1832. They cast anchor about mid-day, and were soon visited by a canoe, as the position of the junk, being anchored near a reef of rocks and other circumstances indicated distress. Four individuals were found on board, all but one severely afflicted with the scurvy; two of them incapable of walking and a third nearly so. The fourth was in good health, and had the almost entire management of the vessel. This distressed company had been out at sea ten or eleven months, without water, except as they now and then obtained rain water from the deck of the vessel. Their containers for water were few, adapted to a voyage of not more than two or three weeks. The junk was bound from one of the southern islands of the Japanese group to Jeddo [Tokyo], laden with fish, when it encountered a typhoon and was driven out into the seas altogether unknown to those on board and after wandering almost a year, made the island of Oahu. The original number on board the junk was nine; these were reduced by disease and death, induced probably by want of water and food, to four only.<sup>25</sup>

This account serves to illustrate the remarkable subsistence capabilities of men drifting at the mercy of winds and current for almost a year with nothing but rain water and fish for sustenance. The other drift for which documentation exists was encountered near the Hawaiian Islands in 1854 by Captain Burrows of the ship *Lady Pierce*. In a brief mention, *The Friend* reported only one out of fifteen survived after having drifted for seven months.<sup>26</sup> Unfortunately, the other six incidences of Japanese drifts to Hawaii within the historical era are based on evidence of a somewhat dubious nature. Brooks mentions that sometime between presumably 1873 and 1875, a Japanese junk was found on the windward side of Kauai and that the survivors came ashore at Hanalei Bay.<sup>27</sup> On reviewing this alleged incident, Stokes suggests that both a lack of a positive date and of local knowledge point to this as being a possible error on



(AFTER PILOT CHART OF THE NORTH PACIFIC OCEAN. HYDROGRAPHIC OFFICE, NAVY DEPT. WASHINGTON D.C. H.O.#1040 - January 1971)

- Japanese drifts encountered
- Direction of monthly drift current
- 10. Velocity observed - miles per day



Brooks' part.<sup>28</sup> The remaining five incidences are contained in Sakae Morita's *Hawaii Gojūnen Shi* (Fifty years history of Hawaii) which was published in 1919. According to this source, three men survived in 1834 a drift to Hawaii aboard the fishing junk *Choya Maru*. Then in 1841, two drifts, one under the command of Captain Setharo with three survivors, and the other the *Eiju Maru* from Nishinomiya in Settsu Province with two survivors, arrived in the Islands. Finally in 1850, the *Tenju Maru* from Hidaka in Kii Province drifted to Hawaii with an undisclosed number of men surviving.<sup>29</sup> Stokes cautions however that Morita's account lacks authoritative substantiation and is ignored by such historical writers as Sheldon Dibble and Rev. Samuel C. Damon. Upon examining what Morita alleged to have been a Japanese drift to Hawaii in 1804, Stokes found that in fact it had been a drift to Unalaska (53 deg., 30'N., 166 deg., 20'W.) in 1794 and the survivors were transported back to Japan completely hypassing Hawaii.<sup>30</sup> Yet it is difficult to totally discount such alleged incidences. As late as 1850, the entire *haole* (foreign) population in Hawaii comprised merely 1.87% of the total,<sup>31</sup> the majority residing in Honolulu. It can thus be argued that a number of Japanese drifts may have gone unreported by Hawaiians living in relatively unfrequented districts of the outer islands and therefore would have remained unbeknownst to contemporary historical writers.

Any attempt to project backwards on the basis of such alleged Japanese drifts within the historical period in order to assess the probability of similar pre-1778 drifts is naturally faced with a multitude of unknowable variables. Lacking an accurate tally of Japanese drifts to Hawaii between 1778 and 1878 compounds the difficulties inherent in such a problematic endeavor. Looking at Brooks' total of 60 Japanese drifts encountered at various points in the North Pacific over a period of 259 years (1617-1876), we find that from 1617 to 1682, there was one drift; 1683 to 1748, four drifts; 1749 to 1814, five drifts; and within the last six decades from 1815 to 1876, fifty drifts or 83% of the total. On the basis of a similar computation from a list compiled largely from Brooks' statistics, Stokes states:

The list . . . especially the portion covering the half-century 1827-76 [41 drifts or 76% of the total], is a fair indication of what was to be expected at that particular height of Japan's development in the way of ships and population. As its history is followed back, the number of drifts, as anticipated, becomes smaller.

If for the purpose of discussion, the Kauai drift [Brooks: c. 1873-5] were accepted as historical, there would be a total of two drifts for the observations of a century—1778-1876— . . . Projecting backward with these two drifts as a base, with the diminishing ratio indicated, the total number of drifts must have been small.

It is also doubtful if the drifts extended back much before 1600—the approximate date assumed for arrivals on cultural evidence.<sup>32</sup>

However, in arriving at this backward projection of a diminishing probability of drifts, Stokes failed to consider the simple fact that these historical records of known drifts represent solely those drifts encountered by Europeans and Americans and subsequently documented as such. A plausible explanation for the seemingly greater occurrence of Japanese drifts within the nineteenth

century was suggested by Brooks who—noting the rapid settlement of the California-Mexico coast in the latter half of this period—stated: “This apparent increase is not owing to their increased number, but solely to the fact, that increase of commerce on the Pacific has distributed there a large fleet, whose presence has materially increased the chance of rescue to disabled vessels, and the likelihood of receiving reports from stranded wrecks.”<sup>33</sup> Stokes’ backward projection equally reveals an inadequate grasp of pertinent aspects of Japanese political and maritime history. When these historical aspects are brought into focus, we see that the incidences of Japanese drifts most probably remained constant from the seventeenth to much of the nineteenth century, and may have been diminished only in the centuries preceding.

Although the question of the origin of the Japanese people—much like that of the Polynesians—remains insufficiently resolved, it is generally believed that a predominantly Mongolian people traversed the Tsushima Strait separating Kyushu from Korea in neolithic times and gradually migrated up the Japanese archipelago displacing the aboriginal Ainu in the process.<sup>34</sup> It is assumed that such a crossing was probably accomplished in dugout canoes, never being for long out of sight of land.<sup>35</sup> It is possible to see the island of Tsushima from the southern tip of Korea, and from Tsushima sight Kyushu. The earliest references to boats in Japanese mythology portray them as “a kind of water-proof basket in which the occupant reached his destination by some wonderful means.”<sup>36</sup> Recent archaeological excavations however have uncovered approximately sixty complete or partial canoes of which a particularly well preserved and early example is described by J. E. Kidder as follows:

[The canoe] is simply hollowed out of the log of a type of walnut tree of over 15 feet and although its own date is uncertain, it was found with Jōmon pottery of the early stages [c. pre-4500–3000 B.C.]. The bow and stern are slightly raised and angular in a way that is supposed to be more typical of the protohistoric period. By the Tomb age, however, if not already during the Yayoi period [c. 600 B.C.–A.D. 300], outrigging could be attached to each side, and five or six paddlers was not unusual.<sup>37</sup>

Excavations of Jōmon shell-mounds, although composed primarily of near shore fish bones, revealed remains of deep-sea fish such as the shark, sting-ray, whale, and shells whose habitats exceed depths of 30 feet. This, and the uncovering of harpoons in the Middle Jōmon period [c. 3000–2000 B.C.] which had developed into long and multi-barbed ones by the Late Jōmon period [c. 2000–1000 B.C.] suggests the extreme antiquity of fishing practices necessitating oceangoing capabilities.<sup>38</sup> It has been suggested by at least one anthropologist that Oceanic contacts—i.e. with the Ryukyus, Taiwan, Philippines, Micronesia, etc.—cannot be ruled out even in this early stage,<sup>39</sup> especially in view of recent studies indicating that a language of southern origin with similarities in phonetic system to that of Polynesia was in widespread use in the western region of Japan to the end of the Jōmon period.<sup>40</sup>

Within historic times, it is recorded that as early as 200 A.D., Jingu Kōgō organized an expedition against Korea, and the *Koku Shiriyaku* (Summary of

the history of Japan) reports that in 274 A.D., "Emperer Ōjin caused to be built a large ship in Idzu 10 *jō* or 100 feet long".<sup>41</sup> The date at which the art of sailing was introduced remains unresolved. On the basis of Japanese classical literature, it appears that sailing was not practiced in Japan until the end of the 9th century at which time a general diffusion of Chinese civilization to Japan occurred. In his classic essay "On Maritime Enterprise in Japan", H. A. C. Bonar states: "From what I have been able to gather on the subject, there seems little doubt but that until a far later period than the end of the ninth century rowing was all the Japanese knew about navigation; hardly any mention is made of the sail in descriptions of early Japanese ships, whereas oars and rowers are spoken of in detailed manner, which could tend that they laid hardly any stress on the use of the sail."<sup>42</sup> Recently however, excavations of probable sixth century decorated tombs in Kyushu revealed paintings of what appear to be boats under sail,<sup>43</sup> and which may point to a greater antiquity of sailing practices than had heretofore been conceded. Regardless, Japanese maritime technology lagged behind that of China and Korea for some time to come, and even voyages between Japan and Korea remained a hazardous venture undertaken only on rare occasions.<sup>44</sup> Until the thirteenth and fourteenth centuries, Japanese oceangoing capability saw little development and improvement seems to have been focused mostly on coastwise navigation.<sup>45</sup>

By the latter half of the Kamakura period and the demise of the Hōjō Regents [c. 1300-1336 A.D.], piratical activities by Japanese seamen known as the *Wako* developed along the southwestern coast of Korea and the neighboring seas, and later penetrated as far south as the Shantung and Kwantung provinces of China.<sup>46</sup> Their *modus operandi* included traveling in squadrons ranging from 50 to 100 small vessels, numbering as many as 10,000 men. This was a time which saw the rapid development of Japanese maritime technology along the lines of the Chinese sailing junk,<sup>47</sup> and drove even the Korean statesman Shen Shu-Chou to concede that the Japanese had become "adept in sailing on the ocean in small boats."<sup>48</sup> By the time the *Wako* activities were eclipsed in the latter half of the 16th century,<sup>49</sup> Japan was ready for a dramatic expansion in maritime trading activities. A licensing system for ships participating in foreign trade became codified in 1592,<sup>50</sup> and by the 17th century, "maritime transportation had advanced so far that Japanese ships were visiting ports in South China—Formosa, Singapore, Siam, Annam, etc.—where they established colonies of settlements".<sup>51</sup> Furthermore records exist of voyages across the Pacific, and it is known for example that the Japanese envoy to Rome headed by Datē Masamunē voyaged to Mexico in a ship constructed in Masamunē's own fief of Sendai in 1613 A.D.<sup>52</sup> Japanese ships of this period are described by D. L. M. Macfarlane as follows:

[they] were largely built on Chinese models but they were usually narrower in beam and did not have the high after-castle that characterized the medieval junk. The types known as the Yamato-sen and Hokuzen-sen depended on a single square cotton mainsail slung from a traverse yard. The Yamato-sen of which I take the fine model (styled "Japanese trading junk") in the South Kensington museum to be a representation,

carried a second mast forward with another smaller square sail. Larger ships for overseas voyages like the *Go Shuinbune* normally had three or more masts with topsails on fore and aft—on the mizzen. There was often also a small spritsail set under the bowsprit as was then being used in Europe. The chartered ships sailing under the tally system were selected from the largest and strongest of the coastal vessels. None the less they were unhandy in a seaway and many disasters occurred, probably owing to the shifting of cargo in the sudden gales and typhoons of the China Sea.<sup>53</sup>

From the above description it becomes apparent that often Japanese ships developed into hybrid forms incorporating aspects of both Oriental and Occidental maritime traditions following the arrival of the Portuguese merchants in 1543. Japanese overseas maritime enterprise had reached a veritable zenith in this period such as to be unequaled in the two centuries to come.

For political reasons which will not be dealt with here, the Tokugawa Shogunate abruptly promulgated a policy of strict isolationism in a series of decrees beginning in 1633. The terms of such decrees prohibited Japanese ships from leaving Japanese waters, restricted foreign ships to the ports of Nagasaki and Hirado, ordered the destruction of all foreign built ships, or ships constructed along their lines, allowed nothing but the coastal junk (no larger than 500 *koku* or 85 tons) to be built, and ordered that all ships be reduced by 1/3 of their size.<sup>54</sup> Needless to say, such developments were severely detrimental to overseas maritime activities, and effectively closed Japan to the outside from c. 1633 to 1853. However the effect such decrees had upon interstate coastwise maritime activities seems to have been less marked. The stemming of internecine strife and the advent of relative peace ushered in under the strong Tokugawa Government fostered a marked increase in inter-state commerce. This was also a period in the history of Japan when the economy passed from a locally-based to an essentially nationally-based system, and from 1619 on, maritime commerce, especially between Osaka and Tokyo, progressed dramatically.<sup>55</sup> F. Brinkley mentions that the number of such trading vessels entering Tokyo increased per diem to over 1,500 and likened these ships which “raced from port to port” to the “tea-clippers from China . . . in recent times.”<sup>56</sup> The following excerpt from Y. Takekoshi’s voluminous work on the economic aspects of Japanese history reveals some of the hazards encountered in maritime commerce under the stringent restrictions of the Tokugawa Shogunate:

At first the capacity of the ships operating between the two cities [Osaka and Tokyo] was from 250 up to 400 *koku*, but gradually increased to 500 *koku*, which was the limit permitted by the Shogunate, although, as a matter of fact, some of the ships were in reality of a bigger capacity. Starting from Osaka they called at Kishiwada, Izumi, Wakayama, Tanabe, and Tomita, of Kii; Kuki, Anotsu, Gokasho, Toba, and Koura, of Ise; at Shimoda, Ito, and Kawanatsu, of Izu; and passed Misaki in Miura before they reached Edo [Tokyo]. With more experience they ceased to cling to the coast so closely, and called only at Wakayama, Tanabe, Kumano, Toba, and Shimoda on their way to Edo. The reason why these ships had to call at so many ports was the Shogunate order of 1635 prohibiting the building of any ship of more than 500 *koku*, with a keel, or more than two masts, etc. The ships built according to the Shogunate regulations could not face the open sea. . . . Had it not been for the regulation. . . Japan’s maritime transportation would have grown much more quickly than it did.<sup>57</sup>

Indeed when the policy of isolationism was finally abandoned in 1853, Japanese sailing junks were discarded in favor of European steamships,<sup>58</sup> and inter-state maritime commerce rapidly assumed progressively greater proportions—with considerably diminished risk.

On the basis of the above historical perspective, the probability of pre-1778 Japanese drifts to Hawaii would appear to have been constant projecting backwards as far as the former half of the 17th century. The Japanese population under the Tokugawa Regime underwent negligible growth between 1600 and 1850,<sup>59</sup> and as was stated, the decrees beginning in 1633 which set a ceiling on the size of vessels and ordered the destruction of ocean-going ships were not rescinded until 1853. The route of the Osaka-Tokyo maritime trade ran right along the flow of the Kuroshio Current, and the aforementioned meteorological conditions particularly in the late summer or winter months undoubtedly resulted in numerous wrecks and drifts. According to Emerson's account of the 1832 Waialua drift, it was precisely on such a route that the junk encountered a typhoon and was set adrift. Thus even taking as a base only the 1832 drift, and excluding the other four alleged drifts to Hawaii for the historic period 1778-1853, we can project backwards and estimate the occurrence of 2.37 drifts to Hawaii between 1600 and 1778 with a high probability factor. Accepting the other four alleged drifts, this figure increases to 11.85 drifts. It is only in the centuries preceding 1600 that this probability factor diminishes. Although the 14th and 15th centuries represented a zenith of Japanese overseas maritime activity, the bulk of the trade was conducted within the Yellow and East China Seas where the currents are independent of the Kuroshio. Although on occasion such ships no doubt were blown out into the North Pacific by typhoons, and similar misfortunes befell the deep-sea fishing junks on the eastern coast of Japan, such occasions most probably diminish as we push backwards through time. One can only speculate as to how far back the potential existed for inadvertant drifts originating in Japan. However, if the archaeological evidence pointing to the deep-sea capabilities of the Jōmon people were to be accepted, this would extend it at least as far as pre-3000 B.C. Indeed such an occurrence has been posited by three archaeologists in 1965 who excavated pottery fragments in coastal Ecuador revealing remarkable affinities with those of contemporary Jōmon pottery of southeastern Kyushu.<sup>60</sup> Although touching off a veritable controversy among anthropologists and geographers alike,<sup>61</sup> the question remains unresolved.

The Hawaiian traditions of pre-1778 alien contact which were recorded by Ellis,<sup>62</sup> Fornander,<sup>63</sup> Kotzebue,<sup>64</sup> etc., have been alternately pointed to as evidence of early contact with the Spanish,<sup>65</sup> Dutch,<sup>66</sup> Chinese,<sup>67</sup> and Japanese.<sup>68</sup> These theories have already been collated,<sup>69</sup> and competently reviewed by Stokes,<sup>70</sup> and E. W. Dahlgren,<sup>71</sup> and need not be repeated here, except to state that they are sufficiently vague as to serve as "evidence" for almost any theory of pre-1778 contacts. If such traditions serve any purpose however, they tell us that whoever the aliens arriving in the islands may have been, they married into the *ali'i* class and certain cultural transmittals most probably occurred. Today, nearly 200 years after Hawaii's first documented

alien contact in 1778, the question of even earlier alien contact remains both an intriguing and important one. As Douglas Fraser points out in a discussion of transpacific diffusion, "The issues raised are of profound significance both in themselves and in their impact on problems within and outside the field of anthropology. For it DOES matter whether Monte Alban ceramics reflect Chinese art forms. It matters because questions of human inventiveness and the nature of human freedom are involved and these are pivotal for the understanding of man everywhere".<sup>72</sup>

## NOTES

- <sup>1</sup> E. B. Tylor, "On the Game of Patolli in Ancient Mexico and Its Probable Asiatic Origin", *Journal of the Royal Anthropological Institute*, Vol. 8, 1879, pp. 116-129.
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