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Author(s): William A. Lessa

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AN EVALUATION OF EARLY DESCRIPTIONS OF CAROLINIAN CULTURE*

William A. Lessa

University of California, Los Angeles

It is my purpose to call attention to certain documentary sources pertinent to the ethnology of the Carolinian archipelago; to evaluate their reliability; to consider their usefulness to historians, human biologists, demographers, ethnologists, folklorists, linguists, and others; and to derive from them implications concerning cultural stability and change.

The documentary sources in question were usually not at all intended as contributions towards a science of man, and predate the beginning of systematic ethnological research in Micronesia. Such research came late and may be said to have begun in 1868, when Johann S. Kubary, a Pole employed by the Museum Godeffroy in Hamburg, arrived in the islands where he remained for many years, especially on Ponape, which

S. H. Riesenberg, Curator, Division of Ethnology, U. S. National Museum, Washington, D. C., has served as guest editor of this and other papers which will appear in ETHNOHISTORY from a symposium on ethnohistoric problems in the Pacific area presented at the TENTH PACIFIC SCIENCE CONGRESS of the Pacific Science Association, held at the University of Hawaii, Honolulu, Hawaii, U.S.A., 21 August to 6 September 1961, and sponsored by the National Academy of Sciences, Bernice Pauahi Bishop Museum, and the University of Hawaii.

became his home. He was an untrained but nevertheless perceptive and reliable field worker. For the period prior to his arrival, the only records are the ones under discussion; therefore, since trained anthropologists began their operations only after the native culture had begun to change perceptibly, especially in some areas, we have to rely heavily on these earlier commentaries for certain kinds of information.

I have selected the year 1850 as a more or less arbitrary terminal date, rejecting any writings based on observations made after then, with one or two exceptions. While I have consulted most of the literature, I have stressed materials that I have used in my own research and therefore feel more competent to judge. Moreover, since my evaluation is of general character and refers to specific documents only by way of illustration, complete coverage is unnecessary.

The Sources

The earliest accounts come from Portuguese and Spanish navigators, such as Diogo da Rocha, Alvaro de Saavedra, Ruy Lopez de Villalobos, and Alonso de Arellano, all of whom date back to the heroic age of Iberian history; but they are so meager that often they are not very useful for our purposes. However, they do establish the fact that four centuries ago and more, Europeans had made sporadic contacts with the natives of the Carolines.

Rocha's route reflects the contest between Spain and Portugal in the efforts of these two nations to circumvent the blockade of the Turks against access to the spices of the East Indies. A Portuguese captain who had reached the Moluccas by way of Africa, he was driven 300 leagues to the east while returning in 1525 to Ternate from Celebes. He was the second European to sight the Carolines, one of Magellan's ships having

caught a glimpse of Sonsorol in 1522. There is some dispute to this day as to whether Rocha's "Islands of Sequeira," as he termed them, were Yap or Ulithi; but it is noteworthy that the navigator and his crew remained for almost four months.¹

Saavedra had some fleeting contacts with the eastern Carolines. He left Mexico in 1527 with three ships in search of the remnants of Magellan's party, but two of his ships became lost and he went on to the Philippines and the Moluccas in his own vessel, after stopping in the northern Marshalls. Twice he tried unsuccessfully to return to Mexico by sailing eastwards. In 1528, on his first trip, he encountered some atolls to the south of Ponape but their identity is not sure. In 1529, on the second trip, he sighted Ponape and Ant in the eastern Carolines.² His voyages do not hold much of ethnological content.

In 1537-1538, one Francisco de Castro is said to have been sent to the Yap area from the Moluccas by Galvão, Portuguese governor of the Moluccas, in order to proselytize the islands discovered by Rocha, but it is possible that he himself did not actually reach there, and that others under his authority did.³

Villalobos, sailing westward from Mexico, appears to have been the next European to have reached the Carolines. In January of 1543 he sighted an island that was probably Fais, and was greeted in Spanish by the natives. Continuing on without landing he sighted what must have been either Ulithi or Yap. Again, he did not disembark, but proceeded to the Philippines.

One of the most successful voyages of Pacific discovery was performed surreptitiously by Arellano and his pilot, Lope Martin, in the tiny 40 Spanish-ton vessel, the San Lucas.

These men accompanied the small fleet commanded by Legaspi on his way to the Philippines from Mexico, but apparently detached themselves purposely from it in order to seek their own fortune. During their run to the west in 1565 they discovered

some of the Marshalls, and then Oroluk, Truk, Pulap, Sorol, and Ngulu in the central and eastern Carolines. After reaching the Philippines (ahead of Legaspi), they sailed back to America, being the first to make the west to east crossing of the Pacific. Arellano has left us a good account of the nautical aspects of their voyage, as well as something of ethnological content.⁵

As a result of the voyage made by Pedro Fernandez de Quiros with the great explorer Mendaña, who died during his second trip into the Pacific, we have some meager notes on contacts made in 1595 with Ponape and nearby atolls.

After a century of quiescence the Spaniards began to renew the exploration of the Carolines as a result of missionary pressure. In 1710 Francisco Padilla set sail in the Santissima Trinidad as part of a Jesuit effort to discover and proselytize islands rumored to be east of the Philippines. His pilot, Josef Somera, has left us a record of the voyage, which includes some observations on the natives at Sonsorol and Palau. In 1712 Bernardo de Egui visited Ulithi and Palau in the Santo Domingo.

Our best reports for the earlier centuries come from Jesuit missionaries themselves. Many of their accounts appeared in the famous Lettres édifiantes et curieuses, comprising notices sent in by Jesuits in foreign lands throughout the world. For us the most important writers were Paul Clain and Juan Antonio Cantova, two men who practiced what in current terms has been called "culture at a distance." That is, they wrote brief but general ethnographies without having set foot on the islands whose people they reported on. Some missionary accounts appeared outside the Lettres. Aside from the two men mentioned, information was supplied by such other Jesuits as Charles Le Gobien, Andres Serrano, Cazier, Victor Walter, and J. B. Du Halde. Owing to the murder of

the missionary parties that went to Sorol in 1710 and Ulithi in 1731, the Jesuits quickly ceased to furnish accounts, higher authorities discouraging any further plans to convert the Carolines.

With one exception there are no contributions from Protestant missionaries, who of course did not attempt to proselytize in the area until the last century. When the London Missionary Society vessel, Duff, was homeward bound in 1797 after having established stations at Tahiti and Tongatabu, it stopped briefly at Satawal, Lamotrek, Elato, Ifaluk, and Woleai, none of which had previously been discovered by Europeans. It stopped also for two days at Palau. Captain James Wilson (who is not to be confused with Captain Henry Wilson of the East India Company) and members of his party have left brief observations contained in a book assembled by William Wilson, chief officer of the Duff. 9

We do not get detailed information again until the publications of the systematic explorers of the early 19th century, such as Otto von Kotzebue, Louis de Freycinet, Louis Isidor Duperrey, Fedor Petrovich Lütke, and Jean Sebastien César Dumont d'Urville. Commissioned by the governments of great European nations or by wealthy patrons, they operated in the tradition of James Cook, having aboard specialists in the various sciences and arts, such as Chamisso, Choris, Arago, R. P. Lesson, Kittlitz, Mertens, and Postels. The records they have left to posterity are often in the form of multi-volumned publications, usually of great size.

Sometimes it is possible to make good use of the accounts of traders and castaways. Ibargoitia and MacKenzie have little to say, but Captain Benjamin Morrell, who was a trader with considerable experience in the Pacific, has left us some good commentaries. His wife, Abby Jane, accompanied him on some of his voyages. The Morrells were religious people who

maintained a sympathetic attitude towards the natives even when they were attacked by them. Another trader, Andrew Cheyne, unfortunately does not enjoy a similar reputation, but at least he has given us a useful body of information. Of the castaways, we have Wilson's account of the Palaus, 2 O'Connell's story of his long residence on Ponape, 3 and Holden's narrative of his enslavement on Tobi with Benjamin Nute. Other castaways, as well as beachcombers and deserters, have left scattered information incorporated in the writings of various authors. One of these men was William Floyd, an Englishman who had been put ashore on Murilo by the captain of his ship, his comments being included in the works of Lütke 15 and Kittlitz. 16

The Nature of Their Content

As one might expect, there is considerable variation in the content of the documentary materials, depending for the most part on the backgrounds of the commentators.

The earlier voyagers were mostly involved with compiling information relative to exploration, and usually made no more than incidental and impressionistic observations concerning the people with whom they came in contact. However, some of their accounts of encounters with hostile or rapacious natives afford us much information of specific character going all the way back to Arellano's travails in the Carolines in 1565.

The documents of the missionaries are mostly in the form of reports to ecclesiastic superiors. Having a vital interest in the people as potential converts to Christianity, they have provided us with the most detailed accounts. Two of these are in the form of well known letters, and it is worth describing the backgrounds and content of each.

The first is a report by Father Clain on some Carolinians who had arrived at the island of Samar in the Philippines in

1696.¹⁷ The missionary interviewed them and made observations concerning their encounter with a storm and their subsequent drift westwards. He inquired into the islands with which they were familiar and made notes on their comportment and appearance, as well as diverse aspects of their culture. Supplementary remarks to Clain's letter are contained in a report made in 1709 by Zabalburu, the governor of the Philippines, and a map is reproduced which indicates the names and positions of a large number of the islands of the Carolines.¹⁸ Still further remarks are contained in another document prepared by Clain and appended to Zabalburu's report.¹⁹

The other major letter is the one drawn up on Guam by Father Cantova on the basis of information supplied by natives who in 1721 had drifted there in two canoes from the Carolines. One information is contained in it than any other historical document prior to the 19th century. In his interviews, Cantova obviously had in mind the possibility that he might convert the natives of the western Carolines to Christianity, and to this end placed much stress on acquiring geographical information, which he translated into a map.

The first direct and authentic accounts of Ulithi Atoll come from the navigator, Bernardo de Egui, 21 who anchored there in 1712, and from Cantova himself, 22 who managed after many tribulations to reach the islands in 1731. Egui does not provide us with much information about the people, for he was mostly interested in capturing men to guide him through the Carolines. But Cantova, writing from Ulithi itself, where he was soon to be martyred, tells us something of the islands and the people living there, although his chief concern was to acquaint his superiors on Guam with his evangelical activities. He prepared a map of the atoll. 23 Associated with his report is a group of documents written by a fellow missionary and various officials and soldiers, who corroborate the details of the

original arrival at the atoll and the subsequent mission activity, and trace the facts, as they were later ascertained, surrounding the murder of Cantova and his party.²⁴

Mention should be made of a manuscript written by Luis de Torres, second in command of the Spanish establishment at Guam. He was born on that island and apparently had an unusually sympathetic interest in the Carolinians, making a friendly visit to Woleai in 1804. I have not seen this document and have no idea if it is extant; but portions of it have been printed in the works of Freycinet and Kotzebue, who visited with Don Luis on Guam during the early part of the last century. Torres collected data of a general character, including some mythology. Arago, who was Freycinet's draftsman, has recorded in an anecdotal but useful book some information given him by Torres.²⁵

The systematic explorers endeavored to prepare accounts and records relative to hydrography, meteorology, geology, botany, zoology, ethnography, and even physical anthropology. Some of them were painstaking, especially when entrusting the gathering of data to specialized professionals who accompanied their expeditions. The reports of the expeditions run from one to more than a dozen volumes, usually oversized. To be sure, only a small portion of these concerns Micronesia, but the coverage is nevertheless considerable.

The expatriates, castaways, and beachcombers tended to write personal accounts, and these are not without value as they embody the more human aspects of native life and thought. Thus, the account of three months spent by Captain Henry Wilson and his crew on Palau, where they were engaged in building a small vessel to take them back to civilization after their packet, the Antelope, had been grounded, reveals a good deal about the attitudes, emotions, problems, and actions of a king, Abba Thule, and his close associates. Holden, in

narrating his degradation and enslavement on Tobi, gives us a kind of insight into everyday brutality that more formal reports could never convey.²⁷ O'Connell tells us what it was like to be the son-in-law of a prominent Ponapean chief.²⁸

Cheyne's book²⁹ is in a category of its own. Essentially, it is a book of sailing directions for traders, and at the same time tries to make itself further useful by commenting on the "productions, manners and customs of the natives." Cheyne was an unscrupulous trader who was hated by Europeans and Carolinians alike and came to a gruesome end at the hands of the people of Palau. In his comments on the natives he shows a paranoic tendency to label them as perfidious thieves; yet he makes other observations bearing much merit. He wrote at a time when White men had begun to settle among the natives in substantial numbers, thereby influencing the course of events—for worse. Cheyne's book was published in 1852, the latest document to which we shall have recourse, albeit sparingly.

The Accuracy of the Documents

Considering the times and the circumstances, the sources in question are surprisingly good. The men who wrote the reports, books, and letters, show more objectivity than one would expect, and sometimes they made their statements under oath. Occasionally, the missionaries reveal their impatience with the paganism of the natives, and the navigators manifest a certain amount of arrogance, but for the most part they refrain from belittling or otherwise evaluating. In fact, throughout these documents there is a stronger overtone of sympathy than of deprecation, the only exception being the book by Cheyne.

Undoubtedly, some of this was due to the prevailing idealization of "natural man." Chamisso, the naturalist and poet who accompanied Kotzebu on his voyages of exploration in the

Pacific, shows this in his extravagant characterization of Kadu, a castaway Woleaian picked up in the Marshalls by the Russians. 30 On the other hand, the American trader, Morrell, despite numerous provocations, seems to have been inspired by an almost incredible patience and forbearance stemming largely from his Christian ideals. 31 The same is true of his young wife, who accompanied him on his fourth voyage through the Pacific and manifested a humanitarianism born of religious fervor. 32 Keate's account of the Palauans, 33 as compiled from the journals and communications of the officers of the East India Company stranded in their islands for three months. seems over-idealized not only because of his obvious inclination to see the natives as free men of nature, but also because of Captain Wilson's deep gratitude for having been aided rather than murdered by the natives. Arago³⁴ is ecstatic in his admiration for the Carolinians he met in the Marianas, partly since he seemed to see them as close to nature, especially by comparison with the demoralized and corrupt people of the Marianas, but partly as the result of the fact that one of them leaped into the ocean one night and saved his life. As for the explorers, often their admiration stemmed from appreciation of the wonderful physiques of the men, their courage in battle, and their maritime skills, these being the qualities that had an immediate bearing on themselves.

Due to an understandable cultural bias, the early commentators tended to translate native forms and ideas into those that had meaning to them as Europeans. The political structure was largely seen in terms of the monarchical principles with which they were familiar. They spoke of kings and nobles where these hardly existed. Torres, a devout Catholic, saw the Carolinians as believing in one God in three persons—the father, son, and grandson. But while it is true that three major deities of the west central Carolines are Ialulep, Lugeilang, and Olofat, three

males lineally descended, it is rash to suppose they constituted a kind of Christian Trinity.

Ignorance of the language undoubtedly served to create errors, although it is astounding how much was accomplished through sign language. Often, interpreters of a sort managed to be available. A Carolinian was with Padilla and Somera when the Santissima Trinidad discovered Sonsorol in 1710. Before that, when Clain interviewed the castaways from Fais on Samar he had the services of two earlier castaways who spoke the language. Captain Wilson had in his party at Palau a man who spoke Malay and thus could talk to a Malay who had been living on Palau some time after he had been wrecked there. When the ship, Mentor, was wrecked on Palau in 1832, its beleagured survivors were amazed to meet an Englishman who had been living there several years, although the survivors did not rely entirely on him, for they set about learning the language as soon as possible. Father Cantova composed his remarkable first letter without benefit of interpreters, having had to learn as much of the language of the castaways as possible, using sign language where necessary. Interestingly enough, after he went to Ulithi and had the services of an interpreter he had taken with him, he did not compile as much information as previously. Undoubtedly, this was due to his preoccupation with other matters.

One way of ascertaining the accuracy of the documents is through the maps associated with them, especially those made by interviewing castaways on Samar and Guam. The earliest map was drawn up by Father Serrano from interviews with shipwrecked Carolinians on Samar after Clain had left the village where they were staying. Clain made use of it by appending it to a <u>testimonio</u> or affidavit which he gave to Governor Zabalburu for inclusion with the latter's report to the king of Spain. Although the draftsman dates what seems to be the

first copy at 1705, apparently it was actually first published in 1723 in a communication by Father Le Gobien which appeared in the Lettres édifiantes, in which he discusses Clain, and also Serrano's trip to Europe in 1705 in search of financial support. Eighty-seven islands are depicted, as contrasted with the mere 32 that Clain had recorded from his interviews. As one might expect, there are many inaccuracies both in juxtaposition and relative distances. Thus, some of the constituent islands of the atoll of Ulithi are shown as independent of it and placed east of Fais instead of west of it. The Philippines and the Moluccas are shown as if they were close neighbors of the Carolinian archipelago. Undoubtedly, some of the mistakes are due to the limitations of the informants.

The next map was prepared by Somera in 1710 on Sonsorol. Somera was the pilot of the Santissima Trinidad, a missionary vessel that brought the first priests to the Carolines, where they were quickly martyred. It apparently was buried in the archives at Seville until Krämer uncovered and published it. There are many mistakes, such as placing Palau and Sonsorol at much higher latitudes than warranted; but the general plan of the Carolines is not seriously faulty, considering that Somera's ship visited no other islands except the Palaus. Incidentally, the map has depicted on it some drawings of male and female natives of Sonsorol, three naked men from Palau, and a sailing canoe with outrigger.

Cantova, interviewing Carolinians stranded on Guam in 1721, made a remarkable list of all the islands of the Carolines, dividing them into five "provinces." This list, and a map of less detailed nature "be which he apparently prepared or inspired as the result of the interviews, remained a standard reference for some time, being consulted by later navigators. Considering that at this point Cantova had not yet been to the Carolines, one must admire his tour de force.

After Cantova got to Ulithi, he made a map of the atoll in which 35 islands are not only well oriented and drawn to scale, but more accurately labelled than some current charts. The original is in the Archivo de Indias in Seville, but has been reproduced. This opportunity to check on Cantova's reliability substantiates the high opinion previously expressed of his work.

One can conclude from this survey of the maps that while the positions and relative sizes of the islands are often inaccurate, the general plan on the whole is good—not good enough to guide a navigator but good enough for an interested person to gain some fair indication of what lay beyond the seas to the south of the Marianas.

In checking on the accuracy with which such tangible things as dress, ornamentation, tools, plants, and animals, are described, we discover that the mistakes are few—it is only the incompleteness of the accounts that is regrettable. This lack, however, is not to be seen in the descriptions and sketches of the Carolinian canoes, or "flying proas," as they are called; apparently the Europeans who observed them were so struck by their efficiency that they were moved to describe them in detail. It is here that the documentary evidence is most accurate.

Much of value is depicted in the engravings contained in the enormous atlases published by the three great exploratory expeditions. The dress, ornaments, and tattooing are rendered with complete fidelity, although the same cannot be said for the natives themselves, whose faces and bodies are moulded to suit the stylized portraits of the early 19th century.

The missionaries were of course especially interested in the pagan religion, and here we find that Cantova's account, written from his interviews with the castaways, captures the essence of things. He did not fail to observe that in addition to the gods the natives were concerned with ancestral spirits.

Often, modern ethnologists have failed to take proper recognition of the presence of ancestor worship in the Carolines.

The outright inaccuracies are usually of minor character. Thus, Clain says of the castaways from Fais who arrived on Samar in 1697: "Their language is different from that of the Philippines, as well as that of the Marianas. Their manner of pronouncing words is something like that of the Arabs."41 Later, he says that the pronunciation resembles that of the inhabitants of the Coromandel coast, "who are called Lascazes here."42 Considering the state of affairs of 250 years ago, we can overlook these misleading linguistic impressions, which are amusingly awry. A questionable judgment made by Lütke is that the Ulithians and Faisans lacked skill in navigation in that they handled their canoes awkwardly. 43 Admirers of Carolinian seamanship have protested this statement as being contrary to the facts. It represents an unusual lapse on the part of the explorer, who otherwise is highly reliable. Lütke is also wrong in saying that "war is unknown among the natives of the low islands."44 Turning to Holden, an engraving in his book depicts two Tobi canoes going out to meet a ship, 45 but the sails. hulls, and outriggers are so patently and outrageously wrong that the error could only be due to the artist and not the author. A questionable statement is made by Rocha in saying the canoes on the island where he stopped were fashioned with fish spine tools.46 He may have meant shark's teeth or segments of the huge tridacna shell, especially since he says that his men "were able to use them like iron." Fish spines hardly qualify for such strength. Another example is Torres' report that on Woleai brothers and sisters not only marry one another but prefer such marriages, 47 but it is to the credit of this reliable observer that he acknowledged his information might be incorrect. Finally, the estimate made by the missionaries on

the <u>Duff</u> that there were probably about 3,150 souls on Woleai when they stopped there for a day in 1797 is based on a formula that assumed half the men and all the women and children of the atoll had not come out to greet them. The figure is wholly preposterous, though well intentioned.

The Usefulness of the Documents

There is no doubt in my mind that these sources can shed light on contemporary problems of demography, human biology, folklore, ethnology, and other disciplines. One could not construct a modern ethnographic account from them, but if for some reason the culture of this area had been irrevocably lost before modern anthropology had had an opportunity to record it, the lacuna would be partially filled by recourse to the writings of these early commentators.

Aside from their cultural content, the documents are particularly useful in providing time markers for testing the credibility or veracity of certain kinds of hypotheses or allegations. Chronology enters into the investigation of such diverse matters as population dynamics and cultigen movements, culture change and legendary history, migratory routes and social evolution. The effectiveness of these time markers will be brought out here and there in the course of this presentation.

In order to demonstrate the high value that I place on Carolinian documents, I have selected examples from certain areas of interest. It is regrettable that this means the data must be presented piecemeal, but in the interest of space there is no alternative. Furthermore, no attempt will be made to present a complete coverage as this would not only be too vast an undertaking but beyond my competence to render good judgments. My purpose is mostly to call the attention of interested persons to the rewards that can come from consulting good documents.

Navigation and Travel. Recently, there has been an intensification of interest in the navigational accomplishments and routes of the Oceanic peoples, particularly because Thor Heyerdahl⁴⁹ has revived Zuñiga's old theory of an east to west migration of American Indians into Polynesia, and Andrew Sharp⁵⁰ has insisted that the settling of the Pacific was due to accidental voyages rather than deliberate excursions.

Documentary evidence can be crucial to contributing to an understanding of the peopling of Oceania, and as far as Micronesian data is concerned, there is no doubt that the natives travelled frequently, often became lost when making comparatively short trips between islands, and finally arrived in distant places after keeping themselves alive for weeks or even months while at sea. Many times women and children were passengers, and usually the canoes travelled in fleets, frequently of great size.

Father Andres Serrano tells us that in the year 1664 alone, 30 canoes drifted to the Philippines from the Carolines, and that in the 37 years since his arrival as a missionary he had seen boats drift in on eight occasions.⁵¹

Perhaps the first documentary account of a party lost at sea is in Clain's letter of 1697,⁵² and it illustrates many of the aforementioned points. When he was on a tour of inspection of the village of Guivam on the island of Samar in the Philippines, he came upon 29 Carolinians who had been blown to the west in two canoes. They had become lost when trying to return to Fais from Lamotrek, to which they had gone in two canoes. Making use of two women as interpreters who were part of an earlier group of castaways on Samar, he ascertained the following concerning their voyage:

They had embarked, thirty-five persons in all, to go to a neighboring island, when there arose a wind so violent that they were not able to gain the island where they wished to land, or any other in the vicinity, and were carried out to the open sea. They made many efforts to land on some shore or some island known to them, but without avail. They sailed thus at the will of the winds for seventy days without being able to make land. Finally losing all hope of returning to their land, and seeing themselves half dead with hunger, without water and without food, they decided to abandon themselves to the mercy of the winds, and land on the first island they could find towards the west. Scarcely had they made this decision when they found themselves in sight of the village of Guivam on the island of Samal.⁵³

Five of the natives died during the run to the west, and one died soon after reaching Samar. Of the survivors, 19 were males and ten females, some of them being mere children, for three were still at the breast and two not much older. But apparently tragedy struck soon after. In an affidavit dated 1709 and appended to a "Testimonio" by Governor Zabalburu of the Philippines Father Clain wrote:

After they had stayed there for several months, they secretly started out for home but a piece of wood found on the beach indicated that they had all perished in a storm at sea. A few of the group died during the stay here. Thus the only one to survive is a girl who grew up in the house of the principal of this community.⁵⁴

Still another appendix to the "Testimonio" was prepared by Father Clain and Captain Francisco de Padilla, head of the Spanish infantry and the Pampanga, or native sea troops, and tells of a group of Carolinians stranded even before 1696 on the island of Minay, which faces the bay of Rio de Palapag, Samar. Clain got most of his information from a young man named Olit and his father, a chief. The story of this earlier party parallels that of the later one of 1696. Four canoes left Fais to trade on Ulithi and on their way back to Fais encountered a strong northeastern wind that blew them out of sight of all islands. Three canoes were lost at sea, there having been six men on the first, five men, a woman, and a boy on the second, and three men on

the third. Olit's canoe reached Minay with nine men and two women, one man having perished at sea. One man died in the Philippines, and of the remaining eight, four surreptitiously set sail for home and nothing more was heard of them.⁵⁵

It should not be assumed that these four men necessarily lost their lives at sea; the report merely states that they were not again heard from, which need not be surprising, communication being what it was. Moreover, there is no certainty that even the natives who landed on Samar in 1696, and later started out for home, were wrecked. The "piece of wood" found on the beach might have belonged to another vessel.

The fact is that there are ample numbers of accounts concerning successful return journeys. Young Olit told Clain about some natives stranded in the Philippines who indeed made the return voyage home.

He told us that six natives from Eap [Yap] Island had once been stranded in the Philippines and then returned to Eap, and that their voyage lasted ten days. When they returned to that island they told the natives there that they had been there for five months, and that there were many islands there; that there was a great deal of food, rice, coconuts, <u>Gabi</u> [taro]; that they had seen Fathers there, and that the people from these islands had looked at their hands when they arrived and told them that they were good people. 56

This leads to the question of the navigational ability of the Carolinians. It had been contended by Sharp⁵⁷ that without instruments the natives of the Pacific were at the mercy of set (the displacing effects of current) and drift (the deviational effects of winds) as soon as they got out of sight of land and had proceeded more than about 350 miles. Although it is true, he says, that they had a well developed knowledge of winds, ocean currents, stars, the flight of birds, and so on, this would not be enough to overcome being carried unwittingly off course, unless the distance were short.⁵⁸ His arguments are formidable, but is there any factual evidence to counteract them?

A partial refutation can be seen in the maintenance of a trade route to the Marianas by some Carolinians. Although Sharp acknowledges that this existed, we ought not to let it go at that, for it is worth summarizing and interpreting the facts in the case, because even though the distance involved was not what one usually thinks of as a truly long voyage, it was mastered in very quick time. In 1787 three chiefs from Lamotrek arrived in the Marianas after ten days at sea. There were 13 men in two canoes, and the pilot was Luito. The trip was deliberate—not the result of accident. Luito then sailed home and returned the following year with four canoes. 59 Certainly this is testimony to the navigational sophistication needed to negotiate such difficult waters over so many miles.

In point of fact, the Carolinians were not altogether mastering a new route.

They told Torres that they had previously had a commercial intercourse with the inhabitants of this island [Guam], and only given it up on hearing of the settlement of the white men, and having themselves been witness of their cruelty. In 1788, after a long time had elapsed, they undertook this expedition to barter for iron. Torres asked them how they had found their way here, as the distance from Ulle [Woleai] to Guahan is above three hundred miles; they answered, that the description of the way was preserved by them in their songs, and after this their pilots had found it. 60

Sharp is skeptical of such tradition, feeling that the natives learned about Guam from Cantova, as well as others who had lived in the Marianas. True, they certainly knew about the place from such sources, but this is not the same as saying they were thus enabled to make the voyage so deliberately and accurately. The "songs" mentioned by Torres were mnemonic devices to aid navigators. I have heard such chants in Ulithi and can testify that they are very detailed and are memorized with exactness because the success of a voyage depends on them.

Unfortunately, on the second voyage home the four navigators disagreed on the route to be taken, so they separated, only to be lost at sea; ⁶¹ but we must not conclude from this and similar accounts of native crafts which were never again heard of that the tragedies resulted simply from men losing their courses. The doldrum of the west Pacific is notoriously treacherous; gentle and steady winds are often replaced suddenly by storms and heavy seas. In such events, it is irrelevant whether a canoe is on course or not.

At any rate, when Luis de Torres went to the Carolines in 1804 as a passenger on the Boston ship, Maria, he inquired of the natives on Woleai as to the reason they had discontinued their trading voyages to the Marianas, for Luito himself had asked the governor on Guam if his people could not make annual voyages. He was told that the natives thought the people had been murdered by the Spaniards on Guam. He persuaded the Carolinians that such was not the case and that they ought to resume their trips, which they did.⁶² Chamisso writes,

Since the voyage of Don Luis, no new misfortune has interrupted the communication. The Carolinians coming to Guahon become yearly more numerous. Their fleet of boats from Ulea and the surrounding groups, consisting of Lamureck and Setoan, collects at Lamureck. The voyage is undertaken thence in the month of April; the distance of Fayo, the desert island, where they stop for some days, is reckoned to be two days' voyage, and from Fayo to Guahon three days. They return likewise by way of Fayo and Lamureck. Their time to return is May, at the latest in June, before the west monsoon, of which they are much afraid, sets in. 63

Although this statement attests to the skill of the seamen it is not as important as it appears, for Kotzebue made the common error of identifying "Fayo" as West Fayu Atoll, which indeed is only about 45 statute miles from Lamotrek. For this reason he indicated in a footnote to the above comment that there seems to be an error—Fayu should be reached in a day.⁶⁴

Actually, Fayo or Fayu is the island known to us by its Yapese name, Gaferut, and is located further to the north than West Fayu, so that the two days mentioned for the trip is reasonable. His mistake in identification causes Kotzebue to fall into further errors when he states that

the voyage from Fayo to Guahon, a distance of about seven degrees, or 360 miles, is performed in three days, or seventy-two hours at the rate of five knots; that is, five miles an hour.⁶⁵

The distance is less, so that the rate of speed is less than he estimated. But even so, the voyagers had to travel about 250 statute miles over open water. Kotzebue tells us that the fleet in 1814 "consisted of 18 sail." 66

A long expanse of water mastered by Carolinian mariners was that between Yap and Palau, almost 300 statute miles to the southwest. Until the arrival of Captain O'Keefe on the scene in 1872, they had for centuries hauled large pieces of aragonite back to Yap on rafts, a difficult task. They also procured limestone on Guam in the same manner. As far as I am aware, on neither trip were there stops on the way, such as at Ngulu on the Palau voyage, or Ulithi, on the Guam trip.

What of voyages to the Philippines and back? There is no early documentary evidence that these trips were made purposely, except, as we have noted, that mariners stranded in the Philippines would often attempt to return to the Carolines by heading in the general direction of the east, traveling 700 miles and more. The same element of accident apparently entered into voyages between the Carolines and the Marshalls. A German named Otto Finsch expresses the skeptical viewpoint thus:

Chamisso's casual remark that the clever Caroline seafarers find their way eastwards as far as the Marshall islands (1680 sea miles), westwards to the Philippines (1150 sea miles) and "back", which

extends their voyages more than 2800 sea miles (almost the whole width of the Atlantic Ocean) are not therefore simply to be repeated, as has here-tofore been the case. What was involved in these distant voyages (as, for example, in the case of Kadu) was nothing more than the involuntary voyages of storm-driven travellers.⁶⁷

Finsch's main thesis is much like that later expressed more elaborately by Sharp; short, purposeful voyages were made, but not long, controlled ones.

On the other hand, there is one account of a deliberately made long voyage. When F. Jagor was on Samar in the Philippines in 1859 he met some Woleaians who had reached Mindanao.

In Guiuan [Guinan] I was visited by some Mikronesians, who for the last fourteen days had been engaged at Sulangan on the small neck of land south-east from Guiuan, in diving for pearl mussels (mother-of-pearl), having undertaken the dangerous journey for the express purpose.⁶⁸

He states that they had sailed from Woleai in five boats, each with a crew of nine men, and carried 40 gourds full of water, with coconuts and sweet potatoes. During the day they were guided by the sun, and at night by the stars. Two canoes were wrecked in a storm. The men who survived reached Mindanao, where for weeks they worked in the fields for hire, and then went to Guiuan on Samar, reaching it in two days with an easterly wind. 69

Even those who minimize the distances of uninterrupted voyages readily acknowledge that very long trips with the aid of way stations or guide posts were remarkable and frequent. Arno Senfft points out,

Until a few decades ago, the chief of Gatschabar [in Yap] of that day traveled to all his tributary islands, took with him some representatives from each of them, traveled from Ruk [Truk] to the

island of Saipan in the Marianas, to which several hundred Ruk natives had immigrated a long time before, and returned with all these companions to Yap. This is a distance of 2,300 sea miles, an achievement that certainly speaks of courage and skill in navigation. 70

There is ample early documentation to illustrate that as part of this tributary system the natives for about 700 miles east of Yap annually arrived in great fleets to bring tribute and carry on trade. They would stop along the way.

The Carolinian evidence, then, in the current controversy stirred up by Sharp, can be used two ways, and one need not preclude the other. There can be no doubt that many voyages, both long and short, were accidental; but at the same time mariners had to have great skill to maintain routes that we know ranged up to 360 miles—much more if we include the Philippines. The documentary evidence cannot tell us specifically if even these routes were originally due to deliberate voyages of exploration or migration; we must infer that often they were accidental and only afterwards became established with time. It is always possible that in the remote centuries prior to documentation the Carolinians, as well as other Oceanic peoples, did indeed make enormously long, deliberate voyages, but there is no way to prove this. The evidence of the Marianas routes is encouraging for those who are inclined to feel that the Micronesians had great navigational resources that could carry them along in planned trips of several hundred miles without interruption. If the modern evidence of the Philippines is accepted, then the skeptical viewpoint need not be tenable; the Carolinians in the last century merely began to draw upon their already existing potential for voyages up to 1,000 miles.

Concerning Carolinian canoes themselves, it has sometimes been assumed that the earliest description of note is one

given by Francis Fletcher, 71 who accompanied Sir Francis
Drake around the world, but one could argue that Drake never
was in the Carolines. 72 The Portuguese, Rocha, merely mentions without description that he saw proas at the island where
he stopped in 1525. 75 On the other hand, Arellano makes some
mention of the lateen sail of the canoes he saw in 1565 at Truk,
and remarks on the speed of a canoe that came out to meet the
San Lucas. 74 Somera mentions the sail and outrigger of the
canoes seen at Sonsorol in 1710. 75 Cantova provides an authentic description of the Faraulep canoes and tells us that
the sails were of fine palm leaf mats, the prow and the stern
raised "in the shape of a dolphin," the cabins located in four
places—one at each end and one each on the jutting platforms—
and the planks joined by a kind of twine. 76

Detailed descriptions and numerous sketches of Carolinian vessels have been provided by Choris, 77 Freycinet, 78 Morrell, 79 Dumont d'Urville, 80 Lütke, 81 Paris, 82 and others, who in most instances based their observations on canoes from the central Carolines which they saw in the Marianas while carrying on trade or acting as couriers for the Spaniards. The features of modern proas are seen to have been wholly present in the early days, including the oceanic lateen sail, outrigger, asymmetrical hull with its characteristic black and red designs, forked headpieces, and, on large canoes, the rudder and two storage huts. If anything in the Carolines has remained steadfast over the centuries, it is the artfully contrived and universally admired flying proa. It is as if near-perfection had been so achieved that it would be sacrilegious if not foolish to tamper with the design.

Were it not for documentary sources—a single one, in fact—we would have no evidence that the double canoe had ever been known in Micronesia. A good description of this type of vessel has been left us by Morrell, 83 who noted it in Truk, where

it was a war canoe propelled only by paddles. To be sure, three models of Trukese double canoes are owned by the Hamburg Museum für Völkerkunde, and one by the Smithsonian Institution in Washington, D.C., but their meaning would be obscure or unverified without Morrell's comments.

Human Biology. Geneticists and others must take into account that the Caroline Islands long ago began to receive European elements into the population. Granted, our real concern is with the evaluation of descriptions of Carolinian culture, yet it is not irrelevant to consider the matter of miscegenation at this point, and later on to emphasize the transculturative aspects of contact.

When the explorer Villalobos in 1543 reached what appears to have been the island of Fais, he was greeted in Castilian with cries of "Buenas dias, matelotes!" by some natives who made the sign of the cross. We may presume that any Europeans who tarried long enough to teach the natives these things must also have left behind some gravid women. Rocha earlier had been in the vicinity for four months waiting for a favorable wind to take him back to the Moluccas, and we know that he and his men got along very well with the natives. But it has been suggested that Francisco de Castro, sent to the area from the Moluccas by Galvão, played the role in question.

A better document relative to miscegenation is Father Clain's letter, in which he mentions that Olit, a young man from Fais stranded on Minay, told him seven White men had landed on Ulithi in 1684, half dead from lack of water.

The natives took them in and restored them with food, treating them kindly so that they remained on the island. Five of them married native women, the other two remained single.⁸⁷

There is a fair degree of blondism in Ulithi and nearby

Fais, where many inhabitants have a strong European cast of

features. Documentary evidence such as this, as well as accounts concerning White visitors on nearby islands—for instance, six Whites who stayed on Yap—leads me to conclude that most likely the blondism is not, as has been suggested to me, traceable to a Murrayian source in aboriginal Australia. Certainly, for the more easterly Carolines there are abundant examples of whalers and others who either stopped for short periods or actually made some of the islands their homes in the last century. A typical example is that of William Tucker and John Connelly, who in 1797 deserted the missionary ship Duff to live with the natives on Satawal. On the following day, one of the company of the same ship, a Swede named Andrew Lind, deserted to live on newly-discovered Lamotrek. These restless men were enticed by the apparent ease of life that they envisioned would be theirs.

We must also consider the fact that some Carolinians show strong Mongoloid features. The temptation is to jump to the conclusion that this is due simply to an ancient Asian source, yet while this may be true in part, it does not tell the whole story. For one thing, we know that Filipinos in the service of the Spaniards were brought to various islands of the Carolinian archipelago. Thus, when Cantova arrived on Ulithi in 1731 he had with him 13 Filipino soldiers and cabin boys. 89 We know, too, that Carolinians often went to the Philippines themselves, and some of the returning women among them might easily have become pregnant by Filipino men. There are indications that trading ships coming to the Carolines often had Filipino or Malay crews. For example, Morrell had 66 Filipinos in his crew when he revisited Truk in 1830.90 Wilson had 16 Chinese in his party when stranded for three months on Palau in 1783.91 Two Malays were living there at the time, and one of them, named Soogel, fathered four or five children. 92 Later, some Chinese were left on Palau "to instruct the natives in the

cultivation of the land and rearing of cattle," and they remained a few years. 93 About 1855 a European boat was cast adrift off Fais, and four Malayans, whose names have been preserved, lived in the home of a host for about a year, when they were picked up by a ship and taken to Yap. 94

Similarly, any facile explanation accounting for the presence of Negroid elements in the Carolines must contend with what seem to be admixtures of relatively recent nature. Cantova wrote of the Carolinians marooned on Guam, "there are several mestizos and some Negroes or mulattoes among them who serve as domestics." 95 He surmised that they came from New Guinea. Of course, we would like to have been told more about these people; but if Cantova is right and they were indeed used as servants, it would imply that they were a people apart and not Carolinians. Certainly, there are ample records of incursions by New Guineans as late as the last century, but since the sources are usually those of eye witnesses who gave verbal accounts at a much later date we must exclude this type of evidence from our consideration. The same applies to verbal accounts of deliberate voyages to New Guinea; there is no documentation, unless it can be found in sources pertaining to Melanesia with which I am unfamiliar.

Demography. Often, we get population figures or leads from documentary sources, and these can be valuable for demographic theory. Sometimes the data are obviously in error, especially in providing overestimates, but usually they are good approximations. When Cantova, interested in counting the souls he had saved or was going to save on Ulithi, stated that his head count for the atoll came to 592 on eight inhabited islands in the year 1731, we must give the figure serious consideration. It does not do violence to later censuses, and is supported by the number of baptisms which he carefully reports

among the children—he avoided giving the adults the sacrament on the grounds that they might become backsliders unless properly indoctrinated over a period of some time. Cantova's figures are closely approximated in affidavits provided by his men who had returned to Guam for supplies. 97 In the early part of the present century the total population as ascertained by the Germans was as high as 797. 98 After a decline to 402 in 1946, there has been a recent sharp upward turn. 99 This seems to bear out the contention made by demographers that island populations are very unstable.

When Lesson was on Kusaie in 1824 he noted that the population was sparse, there being only about 1200 inhabitants, almost half of whom lived in the village of Lele. He thought that the people seemed to be diseased and, to a certain extent, subdued and without gaiety. He also saw a preponderance of the aged. One might speculate that the great prehistoric typhoon of circa 1775-1780 was the cause of the state of affairs, but Lesson's comments on Mokil, which he visited the same month, shows that there the people, who had been struck hard by the same typhoon, were active and cheerful, even though there must have been relatively few people on the atoll (only ten men came out in proas). Joseph Weckler estimates that only 25 to 30 people had survived the catastrophe, 100 concerning which the verbal traditions are remarkably vivid and partially backed by a source appearing in an American journal in 1850. My view of the matter is that while Kusaie and Mokil were decimated by the typhoon, it was disease which made the Kusaieans listless. Apparently, Ponape and Pingelap were struck by the same wind, yet all the evidence is that when Lesson was in the area, these islands, too, had inhabitants who were vigorous and of high esprit de corps.

Even though population estimates may err on the side of liberality, they cannot be ignored on that account. In estimating

that there were "between three and four hundred souls" on Tobi when he was there as a captive in 1832-34, Holden¹⁰¹ cannot have been too far wrong even though we know that a hundred years later the figure was only 171.¹⁰² On the other hand, he was probably too conservative in saying that there were about 2000 people on Babelthuap in the Palau group.¹⁰⁵

Aside from population figures, it can be important merely to know whether or not an island was inhabited at some given time. Thus, when Arellano sailed by Ngulu in 1565 he made no mention of canoes or other signs of habitation. If there indeed were no inhabitants then, it would tend to discredit the assumption made by some writers that Drake stopped there in 1579 and was attacked by a large number of natives. It would also help, albeit in a small way, to substantiate a Carolinian folktale concerning the original discovery and settling of the atoll by a Ulithian and his Yapese wife; it would at least indicate that the event was more recent than the year indicated, and therefore might truly have been perpetuated orally.

Documents also shed some light on sex taboos as a possible factor in depopulation. It has been suggested that some of the recent decrease in population in the western Carolines may have resulted from the numerous taboos against coition. Such a hypothesis would hold water only if the taboos were new. Should it be possible to demonstrate that they were already in effect when native populations were running high, the argument would be invalid. Cantova offers partial refutation of the taboo theory by reporting that over two centuries ago women were isolated from their husbands for three months after the birth of a child, and that women at the onset of their period had to live in a menstrual house. While Cantova gives no further information, he says enough to indicate that probably recent taboos were in as full force then as they were until about a decade ago. These taboos, as I noted them in the course of

field work in 1948, also include an injunction against intercourse between husband and wife until their last born child is able to walk to the shore and dip his head into the water. Kadu says much the same thing in commenting that cohabitation is forbidden between a man and wife when they have a child at the breast. Cantova makes no mention of other taboos associated with supernatural beliefs, especially surrounding magical and religious specialists; but the general manner in which early commentators have referred to Carolinian religion makes me feel that sexual taboos were about the same in the past as they were when depopulation set in. I admit that this is only a surmise.

<u>Folklore</u>. Traditional narratives, especially in the form of myths and historical legends, sometimes appear in the documentary records. They contribute useful material to folkloristic theory.

Some of the tales recorded at the time of early contact show affinities with stories recorded elsewhere in the world, and even Cantova could not help but suspect "incredible traces of Homeric poetry." My feeling, after reviewing the documentary sources, is that we need not invoke an hypothesis of recent European contact to account for the similarities which some Carolinian stories have to western tales. For this reason, I am strongly inclined to accept the swan maiden and Oedipus tales in the Carolines as being of some antiquity, 108 and I would say the same for such major motifs as open sesame, inexhaustible object, posthole murder, Atalanta type obstacle flight, and birth from a person's head. 109

Cantova contributes a brief sketch of the famous demi-god trickster, Olofat. A lengthier version collected in 1804 on Woleai by Luis de Torres and published from his notes by both Kotzebue and Freycinet is remarkable for its closeness

in outline and detail to a version I collected a century and a half later on Ulithi. In fact, the modern Ulithian myth differs more from its contemporary versions elsewhere in the Carolines than it does from the old one. Among the lessons to be learned from this type of evidence is that sacred tales are indeed persistent and relatively unaltered through space and time. The preservation of verbal literature over a period of many years is testimony not only to the ability of nonliterate peoples to memorize accurately, but also their will to do so. This is of course generally assumed by scholars, but the opportunity to verify it is not always available. From this we may deduce that when tales from different locales are seen to have close resemblance, it may not necessarily be due to recent differentiation but more properly to the conservative force of sacred tradition, at least where myths are concerned.

Folklorists have of course long debated the question of the relationship of folklore to historical events, and it is interesting to see what light our documents shed on the euhemeristic view that actual events are incorporated in traditional narratives. Speaking in general, it is extremely hard to verify that the persons and actions in folktales ever truly existed. The very nature of folklore militates against it, for traditional narrative flourishes most in a climate alien to documentation. There are three ways of looking at the problem, and I have arranged them in the form of three questions: Do folkloristic accounts receive substantiation in the documents? Conversely, to what extent are documented events known to enter into folklore or to be excluded from it? How much presumptive evidence is there that undocumented events can be perceived in folklore? Obviously, these questions are interrelated, but they can be considered separately.

Folkloristic accounts are indeed substantiated by documents, but only rarely. Written records usually come into

being only after the events in the nonliterate era of a society have become matters of the dim past. Thus, to take the example of Ulithi, with whose tales I am familiar. I have been almost wholly unable to locate any literature that indisputably depicts the verbally transmitted events and personages. At one point I felt I might have had a folkloristic account of the cutting off of a ship as mentioned in a book by Chevne, 114 the trader and adventurer; but the recorded event seems to have taken place much too early. As an example, however, of the occasional verification of a native account, we cannot do better than consider an incident occurring on Mokil that has found documentation in missionary records. According to an oral tradition collected on that atoll by Weckler, a king of that atoll whose name was Sharkiben, finding himself in danger of his life and at the same time wishing to put a stop to the bloody feuds among his people, made a journey to Ponape to promote Christianization. Through purely verbal sources, Weckler estimated the time to have been between 1862 and 1864. Later he ascertained that in the records of the American Board of Commissioners for Foreign Missions there was an entry concerning the arrival in 1862 of the king and queen of Mokil, seeking to have a missionary sent to their land. 115 I can cite a good example involving the young child, Marespa, who was born on Ulithi about 1875, and quickly underwent apotheosis. He later became the subject of some tales and songs that have persisted until today. Brief mention of him was made in the literature prior to my field work. 116

The answer to the second question we have posed is that, oddly enough, known historical events which one would imagine would make excellent folkloristic material are usually not incorporated in oral forms—at least if we are thinking especially of events involving Europeans. It is remarkable that such happenings as the recorded visits of explorers in their great

vessels, the drifting of canoes to Spanish-held Guam and the Philippines, the murder of Fathers Dubenton and Cortil on Sonsorol in 1710 and of Cantova on Ulithi in 1731, do not appear in modern Carolinian folklore. All this is part of a puzzling phenomenon, in which we find that the corpus of folklore of a given society will always omit not only all or most known historical information, but ethnographic facts as well which on the face of it would seem to warrant inclusion. In other words, the thing that strikes one is not so much that tales do reflect culture, but rather that they do so quite incompletely. As yet we do not understand the causes for such omissions, except where they may be concerned with the trivia of everyday life; but lately there have been some content analyses endeavoring to explore this problem. The answer to our question, then, is that some documented events are known to enter into folklore but from the point of view of the Westerner much excellent material is omitted.

As for our third question, there is often excellent presumptive (undocumented) evidence that events depicted in a narrative did indeed occur. A matter of judgement is involved; we are speaking of circumstantial instead of positive evidence. Although the following legendary account from Ponape is not specifically mentioned in the written records bequeathed to us by Europeans, it would be hard to reject it as a figment of the imagination.

...a foreign ship anchored at Nalap, at the entrance to the harbor of Roi-en-Kiti. The natives thought them to be gods and brought them kava as a sacrifice. But when some of the members of the crew landed, they must have become conscious of their human nature. Because the sacred welcome was soon followed by a hostile one. Immediately at the mouth of the Kiti river behind the bar the foreigners went on land. The landing place of the foreigners, where the store of Nanpei is now located, is still called Sakar en iap. They were clad in iron and had along a man in a black

garment and a crucifix. Due to a misunderstanding, a fight started, in which many people of Ponape lost their lives; the foreigners were invulnerable because of their "solid skins," but eventually it was possible to subdue them anyway by spiking them in the eyes through their visors. 117

This event must have taken place well over three centuries ago. Saavedra discovered Ponape in 1529 but the account of his visit does not mention this skirmish. All that happened was that a native split a plank of the Florida by throwing a heavy stone at it from a canoe containing four or five men, and that after this Saavedra ordered an escopeta to be shot at the men, whereupon the ship proceeded on its way without anyone having landed or been hurt on either side. 118 When Quiros stopped at Ponape in December, 1595 he noticed that some natives came out to his ship in canoes, some under sail and others under paddle. They were not able to cross the reef, and simply made signs with their hands. Later, a sole native came out around the end of the reef in a canoe, but he remained at a distance and did not approach the ship when he was called to. 119 The only other visits we know of did not occur until 200 years later, so that it is not possible to give verification to the Ponapean tale. It is altogether plausible that some stray Spanish or Portuguese vessel did indeed experience the skirmish in question but left no record of it.

A great typhoon playing a major role in Mokil legendry is believed by Weckler to have occurred between 1770 and 1780, a period he estimated while in the field through the use of genealogical information. Later, he ascertained that in the next century, about 1855, there was reported in the literature an account of a much earlier and great typhoon on Ponape and Kusaie, between which Mokil lies, and he feels that this was the same typhoon. The written account, it should be noted, is in turn based on oral sources, but it has plausibility in that

it occurred during the childhood of the oldest living inhabitants of Ponape and Kusaie, they being the source of the story.

Weckler also has good presumptive evidence that a legend concerning a shipload of white men who stopped at Mokil during the reign of either a king named Sinipo or his successor, Watakwa, who came into office about 1825, actually portrays the arrival of Duperrey's <u>La Coquille</u> in 1824¹²¹—an exception to my insistence that historical events documented in the literature seldom enter into Oceanic folklore.

In the above discussion I have not dealt with the plausibility of verbal accounts that have no known connection with documentary materials. But the latter may have some indirect significance in helping to decide credibility even though the nexus is not direct. For instance, a story from Ngulu¹²² and a cognate from Ulithi¹²³ describe how a man from Ulithi took his Yapese wife on a voyage and discovered the atoll of Ngulu, which they populated with their descendants. As we have already noted, Kotzebue informs us that about 30 persons were living there early in the last century, 124 so the discovery would have had to have taken place before then, although not necessarily much before. If Arellano's failure to report signs of habitation on Ngulu when he passed it in 1565 is an indication that it had not yet been discovered by natives, then we have a bracketing of the time of occupation by the man and wife. Admittedly, documentary support for tales not directly involved with recorded material is tenuous, although this should not discourage inquiry along these lines.

Obviously, I am averse to believing that Lord Raglan is right in his contention that no primitives ever invent myths but merely borrow them from higher centers of civilization, and that no historical event is preserved beyond 150 years unless it is committed to writing. The Carolinian documents we have been discussing are samples of the sort of information that can be useful in deriving a sound theory of folkloristic content.

Ethnology. Some of the questions that we would like to have documentary material throw some light on are concerned with evolution and diffusion, rules of residence and descent, land tenure, political organization, social stratification, kinship, social control, conflict, religion, the life cycle, and all the other traditional problems of the ethnologist and social anthropologist. One must understand, however, that at the time period in question there was no science of anthropology and if useful data are available in early records they are crude and incidental. Thus, there seem to be no sources that might help us solve certain basic problems of social organization and evolution. Virtually nothing useful concerning the highly complex rules of land tenure which prevail in the Carolines has been recorded, although Wilson does make the valuable observation, however, that on Palau

the natives only possessed a property in their work and labour, but no absolute one in the soil, of which the King appeared to be general proprietor. 125

We have some information on the sexual division of labor. On Truk, the women made all the clothing, fishing-lines, and nets; cooked the food, and cared for the children. On Palau, while the men worked the gardens, cut wood, made nets, fishing tackle, weapons, domestic utensils, hatchets, rope, and small cords, and built houses and canoes, the women looked after the yams, did the weeding about the causeways, manufactured mats and baskets, "attended to their domestic chores," and did the tattooing. Cantova's earlier statement on these matters is in line with the preceding.

The main occupation of the men is the construction of boats, fishing, and cultivating the land. The business of women is to cook, help their husbands sow the land, and make ready a species of wild plane tree and another tree which is called <u>balibago</u>, in order to make cloth from them.¹²⁸

O'Connell's information for Ponape is consistent with the above but he indicates that the negroid "slaves" did all the "servile" work, including tilling the land, fishing, cooking, and pounding of kava. 129

We have enough information on settlement patterns to know that the people lived in villages. When Cantova was on Ulithi he noted: "these people. . . live in villages near the beaches with their houses close together."130 In 1830, in Truk, according to Morrell, 131 the houses were "arranged in clusters, or small villages; standing in regular rows, with streets between them, about fifty fathoms wide," with the residence of the chief in the center of each village. When Wilson was on Palau in 1783 the villages were neatly laid out around a central plaza. 132 and an engraving appearing in his book bears out his statement. Holden says that the people of Tobi lived in "three villages, situated on the shores."133 Cheyne, reporting on Yap as it was in the 1840's, states: "the villages are situated near the shore" and are regularly laid out in streets, which are neatly paved."134 In view of these statements it is curious that some writers have maintained that the native pattern was that of the neighborhood. and that villages came into being only as the result of European influence.

The records emphasize the importance of kinship ties in the islands, but they are not specific enough on this score. The early writers were not familiar with unilinear kin groups, such as the lineage, sib, and moiety, so they have left us precious little to go by. All we gain is an impression that there was probably no difference from contemporary patterns.

An interesting phenomenon reported in the documents is that of institutionalized friendship among men. I became familiar with this on Ulithi, and so did Lütke, who writes,

Our guests were friendly and decent as always; each one of them chose his special friend among us, according

to the custom, and the bond was sealed when the two interlaced their fingers and then pulled hard in opposite directions. 135

Kadu stated that the institution was common throughout the islands, and that a chief and a commoner could conclude such a bond between them. The obligations varied. On Yap, he says, a man must stand security for his friend and take revenge if he should be injured or killed. On Woleai, such friends lend out wives when one is visiting the other; but this is not done on Fais and further west, according to him. My interpretation of the function of this arrangement is that it provides a much needed outlet from the rigid demands of the kinship system, particularly since the choice of a friend is purely voluntary. The "friends" have many of the rights and obligations of brothers without feeling caged in by them.

Social stratification occupied the attention of early observers. One gains the impression that despite an understandable tendency to translate the facts into European systems of social and political organization, there was a considerably stronger pattern of stratification on the low islands than has been observed in modern times. Thus, Clain says of the castaways of 1696 that from the bearing of two of them there were "superiors or nobles among the group." Cantova's description of the tamol, or chief, is not that of a kindly kinsman or father figure:

his words are so many oracles that are venerated; a blind obedience is rendered to his orders, and when some favor is asked of him his hands and feet are kissed.¹³⁸

The information given to Chamisso by Kadu further supports the view that rank was strong in the old days. As for the high islands, there is every indication that stratification was marked, and manifested itself in the political hierarchy. Wilson has given us a detailed description of this for Palau. 140

O'Connell provides some unreliable information for Ponape, where he asserts that about 40 percent of the people were made up of two classes of light skinned people—the chieftains and the freemen—whereas 60 percent belonged to a lower caste of "Nigurts." He seems to be in error in asserting that intermarriage between castes was forbidden, and that in warfare the castes fought on a segregated basis so that an upper caste fighter would not do battle with a lower caste enemy, and vice versa. 141 Lesson has named and described five classes or castes as he observed them on Kusaie in 1824 when he was there on Duperrey's La Coquille. The first consisted of the king and nobles, the next the skilled artisans, the third a kind of bougeoisie, the fourth the workers, and the last a vague group that he concedes may merely have been a doubtful collection. The urosses or nobles were haughty and exacted much deference. They were superior in education, and were distinguished not only by their arrogance but tattooing and hairdress as well. Each class used special vocabularies. 142

Apparently, certain islands held wider political power over other islands than we know of from contemporary situations. As far back as 1696 Lamotrek, even though an atoll, had a superordinate position over a large number of islands. including Ulithi, Fais, Sorol, Eauripik, Woleai, Satawal, Ifaluk, Faraulep, Etal, and Elato. 143 Actually, the list given us is longer than this and may be an exaggeration, but it is interesting that no reference is made to Yap and its dominance over the whole area; yet shortly afterward Cantova wrote: ". . . these islands [Ulithi] like so many others of this archipelago are subjects of the king of Yap."144 In this instance, one political system may have flourished within a larger one. Later writers have mentioned the domains of other chiefs but they have been at such variance that we must either conclude that their information was inaccurate or that alignments easily shifted.

As one would expect, the larger islands, with the notable exception of Truk, had far more complexity in their political structure than did the low islands. Palau, for instance, had political heads and councillors comparable to kings, ministers, and nobility, 145 and the various individual islands as well as some of the districts within them had independent chiefs or kings. 146 On Ponape the priests constituted an important hereditary class of powerful chiefs. 147 Kusaie had a single powerful king and several high chiefs who formed a caste of their own. 148 Certainly, the larger islands were comparable to many Polynesian ones in political complexity.

Early information on succession to chieftainship is meager and unsatisfactory, but it appears that matrilineal principles prevailed then as now. Although Lütke erroneously writes that on Murilo succession was not hereditary, he gives us the needed information to support matriliny when he says a son cannot succeed his father, but that a chief can be succeeded by his own brother (who would of course be of the same lineage) or one of "his best friends," whatever the latter may imply. 149 Matriliny also seems to have been the rule on Ponape, where we are told that succession to the chieftainship never went directly from father to son but usually to his brother or the next chief in rank, 150 but O'Connell is not explicit enough on this point. I am skeptical of Torres' observation that on Woleai when a king dies "his power always passes into the hands of his son, if the oldest among the chiefs, who never quits him, decides that he is worthy of the sovereignty," but I would agree with his added remark: "neither the wife nor sister of the King has ever succeeded to the royal dignity." 151 Not being familiar with the exotic phenomenon of matrilineal descent, it is understandable that European observers could not precisely interpret the inheritance of rank even when they were close to native life.

Social control was generally informal and of the sort we would call customary rather than legal, with kinship factors playing a considerable part. Incipient law may be seen in the larger islands, where chiefs systematically and impersonally exercised force in the name of the state, as it were. Witness the way in which Abba Thule, the king of Palau, adjudicated disputes and meted out punishment. O'Connell tells us that on Ponape chiefs exercised force to punish offenders. Kadu's information shows that preventive measures rather than a punitive philosophy prevailed in the islands he knew, which were mostly atolls, and he gives an excellent anecdotal account from Ulithi. Students of jurisprudence who support the notion that law is never present among so-called primitives, except either incipiently or unequally in the various aspects of law (code and procedure), have grist for their mills here.

We are made aware that ingroup conflict was not unusual in the low islands, and assumed major proportions in the high ones. But the promotion of harmony was more prized than vengeance. The causes of discord are not clearly defined but often seemed to stem from political ambition, although we must assume that land disputes, marital strife, and the like were present then as now.

With the pacification of the Carolines, warfare among the native populations now seems so alien as to suggest it may have been trivial in the past, but from native traditions and written sources we know that the stereotype of an idyllic life of peaceful simplicity is erroneous. However, there seems to have been a marked difference between the high and low islands. Writes Lütke,

While those of the high islands, with the single exception of Ualan [Kusaie], are engaged in everlasting wars with their neighbors, we behold those of the low islands enjoying the most perfect peace; they busy themselves only with the cultivation of the soil, with commerce, and also with industrial labors. 156

If we accept as a truism that warfare is more likely in societies with greater wealth and population mass than those with relative impoverishment and small, kin-based membership, there is nothing unexpected in this observation. However, it is not altogether true that the coral islanders enjoyed "the most perfect peace." When Arellano discovered the atoll of Pulap in 1565 he found that the hostile natives had an abundance of weapons—spears, slings, and clubs—and knew how to use them, and that even the natives of little Sorol were armed. Cantova's castaways told him something about internal warfare in the west central atolls as it existed 250 years ago. 158

Nevertheless, there are numerous comments by early observers to substantiate Lütke's above statement concerning the high islands, for they not only clashed internally but carried warfare to other islands.¹⁵⁹ Yap was especially in turmoil on account of the many petty chiefs.¹⁶⁰ Morrell has given us a glimpse into the ritualistic aspects of fighting on Truk, showing that there were many rules to be followed, somewhat in the spirit of European chivalry.¹⁶¹ Information supplied by Kadu indicates that procedures of this sort were also used in hostilities among the Yapese.¹⁶² O'Connell gives similar details for Ponape.¹⁶³ From details supplied by Cantova we know that even the low islands followed the same pattern.¹⁶⁴ From all this we must conclude that warfare was part of the way of life throughout all of the Carolines, even though the atolls waged it less intensely.

The numerous clashes between natives and Europeans must be seen in this light. Often the vessels of the foreigners were set upon without much conscience. A clear pattern of motivation does not emerge. Some initial contacts may have been due to fear of the strangers, as when Saavedra's Florida was threatened in 1529 at Ponape, 165 where Europeans had never

been. The crew of Arellano's <u>San</u> <u>Lucas</u> had two skirmishes at Truk, another at Pulap, where some of the men were killed, and a preventive encounter off the tiny atoll of Sorol¹⁶⁶—all being places previously unvisited and therefore not sensitized to Spanish aggression. Theft was attempted but seemed subordinate to fear.

On the other hand, as the years went on, word got around concerning the valuable goods carried by ships, particularly iron tools, and the motivation for attack was dominated by a desire to acquire these wonderful things. When Padilla and his pilot, Somera, discovered Palau in 1710 in the San Trinidad, some natives came abroad and tried to steal everything they could lay hands upon, after which 80 men in six canoes quickly assaulted the vessel. 167 There is other evidence that a frenzied desire to loot the ships of their iron and other valuable materials had replaced fear as the dominant motive for these aggressions. When Padilla arrived at Sonsorol some natives quickly came on board and one of them proceeded to make off with a saber, 168 and in this instance the islands seem to have been already sighted or visited by Spaniards in 1522. When Holden was shipwrecked on Palau the people attacking his party did so from larcenous design rather than fear, for the Europeans were cowed and helpless. 169 Even though an attack might not take place, theft might occur. When the mission ship Duff discovered Satawal in 1797, the natives were very friendly but immediately began to strip the vessel of some of its iron, so that the captain of the ship was forced to fire some small shot among them to frighten them away. 170

A usual pattern in these attacks was for the native to show initial friendship, often apparently sincere, and then to use this as a screen for sudden attack. This is what happened on Nomoi (Mortlocks) to the trader, Morrell, who was at first amiably greeted on land by a man and a woman who seemed

to be his wife. He was then presented with garlands by two young and attractive, as well as completely nude, young women. But within less than an hour, Morrell and his men were fleeing for their lives from 300 well armed men lying in ambush. 171 On Truk, where Morrell seemed to have established deliriously pleasant relations during his second visit to the islands, he decided after three days that perhaps he had better set sail, for 400 war canoes with a large supply of weapons had surrounded his ship and he was not sure he should accept the natives' explanation that they were really about to attack some enemies elsewhere. 172 It was in these same islands that Dumont d'Urville was attacked in 1838, 173 and that the San Lucas had been assaulted without much ado in 1565. 174

The earlier Europeans especially were in no position to seek trouble. Usually they came upon an island when in pitiful condition. Arellano tells us that when he reached the Truk area with the 20 men remaining in his crew he was woefully lacking in supplies because of the spoilage of what little food he had taken aboard in Mexico, for he was dependent on other ships in the Legaspi expedition to provide supplies;¹⁷⁵ but of course he became detached from them. One account after another tells a similar story—men weak or dying from thirst, hunger, and disease, seeking to recuperate from long months at sea. It is all the more notable that when Rocha discovered the "islands of Sequeira" (Yap or Ulithi) and stayed there for four months while awaiting a favorable wind, he got along well with the natives, and since this happened in 1525, with a small ship, we cannot think that he had cowed the natives by force.

Later Europeans were usually well armed and well provisioned, leading them to take a more aggressive attitude, although there are many records of pleasant contacts, such as those of Duperrey, Lütke, and Mackenzie. Of course, history does not record the natives' side of the picture in all the years

of conflict, and we know that the crews of foreign ships were often made up of ruffians and misfits whose commanders had only tenuous control over them, but even so the circumstances usually were such that they were not looking for a fight. We must conclude that in the era prior to the arrival of whalers and traders it was the longing for iron and tools that often tipped the scales in favor of hostility rather than tractability. O'Connell's attempt to understand the Ponapean's thefts is one that merits serious consideration. He analyzes it from the natives' point of view: sharing between unequally endowed people is a social good that should transcend personal covetousness. 176

Numerous descriptions of the weapons of the Carolinians have been recorded, and from them it is apparent that the spear, club, and sling were the great favorites. On the basis of these weapons the Carolinians are allied with the Polynesians. In the Mortlocks and Nukuoro the bow and arrow was more than the toy it was in Polynesia, for Morrell tells how he was attacked with it there in 1830.177 O'Connell reports it for Ponape. 178 Duperrey has given us a drawing of a bow without specifying its exact provenance. 179 Of course this weapon is fairly typical of Melanesia. It may be of some interest that the spear thrower has been reported for Yap, the dart being thrown in an arc "with the assistance of a hollowed piece of bamboo, in which the unarmed end of the weapon is held and receives the impulse."180 A similar device was reported earlier for Palau by Wilson. 181 One gathers from all the accounts that the natives of the Carolines were skillful and courageous in the use of their weapons.

Cannibalism has sometimes been imputed to the Carolinians, but not by first hand witnesses, except O'Connell, who asserts he saw it on Mokil. Choris states that Kadu knew of cannibalism taking place after a battle on Yap, 183 and this

assertion may have some merit. O'Connell thinks that the hearts of some enemy chiefs killed in battle on Ponape which he saw being passed around were to be eaten, although he admits he did not see them consumed. But the natives who informed Cantova and Clain that the Palauans were maneaters probably were reporting mere rumor, and Wilson specifically refutes claims for its existence. Arellano thinks it took place on Pulap after he had had a skirmish with the natives and some men were killed on both sides. A canoe came out, says Arellano, and removed some bodies. From what we saw we understood that the canoe took some of the dead to eat. 188 If cannibalism did occur in the archipelago, it surely was of limited practice and was not of the gustatory variety.

From documentary accounts we know that the religion of the Carolinian natives at an early time was essentially the same as it was when it broke down under missionization. It consisted of a mixture of beliefs and practices relative to gods, nature spirits, and ancestor worship, each fairly distinct from the other but co-existing harmoniously. One celestial deity usually stands out as predominant to a mild degree over the others, 189 and in this respect there is no firm suggestion of Christian influence, or of Wilhelm Schmidt's theory of primitive monotheism. One gains the impression that the religion of the gods was not as important or ingrained as that of the ancestors. Kadu told Chamisso that in all the Carolines, "nowhere do they make the figures of gods,"190 an assertion that appears from modern evidence to be true for the most part, although Holden tells us that on Tobi there were "rudely carved images" of Yarris, or Spirit. 191 Kadu professed to know little of "the theosophy of his people," 192 indicating that perhaps the cult of the gods was not the religion of the ordinary man, whereas ancestor worship with its utter simplicity could very well have been, as in recent times. Cantova was aware of the attention given to ancestral ghosts,

whom he termed "patron saints," and he makes mention of the male and female mediums who communicate with them for help. 193

The deification of progenitors was widespread, and we have good data for Ponage. 194 On Kusaie, the chiefs became objects of profound veneration expressed through a cult. While writers are not explicit on the matter, it would appear that the deification of ancestors was ordinarily reserved in some places for those of high rank. There is reason to believe that some of the gods known to us through anthropological research were the apotheosis of actual ancestors. Documentary accounts do not throw much light on this problem, but I would like to illustrate how they may be of some help in determining the plausibility of the process. Ulithians say that of their ancestral spirits, two stand out above all others-Iongolap and Marespa-these having been actual human beings. I have done some research on the historicity of Marespa and am convinced that he actually lived and underwent a process whereby he not only became a great ancestral spirit but was well on the way to becoming a great deity until Christian influence began to be felt a few decades ago. However, since his career postdates that of the documentary accounts with which we are here concerned it is necessary to turn away from him. This leaves us with Iongolap, who from all evidences is an older ancestor whose transformation into a deity went so far along on its course that most natives and scholars would hardly recognize him as having been an ancestral ghost. Apotheosis is always hard to prove, and it may be that Iongolap, who is a major deity on Yap, where his mother is said to have come from, is a native invention. Invention or not, we can use time markers to suggest the period within which he became ascendant. He seems to have been more recent than 1722 for Cantova fails to include him in the list of deities he drew up from the Carolinians of the Woleai area, although it is possible that he may have been unknown there at the time

but worshipped already in the Yap area. He was well known at the time of Kadu, who told Chamisso a century later that he was of high importance on Yap, Ulithi, Ngulu, and Fais. 196 If the Ulithians are right in their assertion that Iongolap actually lived, it would mean that memory of his existence is at least 144 years old, this being the number of years from the time Kadu spoke of him in 1817 until the last time, 1961, that I heard about him while doing field work on Ulithi.

Totemism has not been a strong phenomenon in the Carolines, so we need not be surprised at the rarity with which it has been hinted at, yet O'Connell's description of the great anguish caused the Ponapeans when they discovered the remains of some fresh water eels that had been eaten (by him and his friend George Keenan) is very touching.

When we reached the hut, we found men, women, and children kneeling or completely prostrate, beating their breasts, and rocking to and fro, or rolling on the floor. . . For two or three days was the lamentation continued; it flew from place to place and from hut to hut; on every side was weeping and lamentation. 197

The fresh water eel in the Carolines is ancestral to more than one clan, and in Ponape it is the totem of the Lasialap clan, which is the senior clan of the small state of Uh.

Nature spirits have not been given much notice in the literature, old or modern. The only one who seems to have paid any attention to them was Cantova, who not only describes them but tells how after he arrived on Ulithi he dramatically defied them before the people by chopping down a tree where one of them was believed to have his abode. Certainly the nature spirits of the Carolines, who are important in everyday life for their role in accounting for disease and misfortune, deserve to have been given more space than is the case, and the reason why they have been neglected is probably that they have always been vague and never the subject of a cult.

I have often pondered the question of the possible influence of Christianity in Carolinian concepts of an afterworld in which there is differential punishment and reward. Such concepts are widespread, attesting to their age. Cantova wrote of the Carolinians stranded in 1721 on Guam: "They believe that there is a Paradise where good people are rewarded, and a Hell, where bad ones are punished."199 Morrell found in 1830 that the natives of Truk believed the good went to live on some beautiful islands after death, while the bad were transported to a rocky, desolate island. 200 But it cannot be ignored that the natives of Fais were making the sign of the cross as far back as 1543, and that when Rocha was in the "Islands of Sequeira" for four months in 1525-1526 he was on friendly terms with the natives and might have imparted some notions of a dual afterworld to them. Notwithstanding these considerations, my feeling is that this dualism antedates the Europeans, especially since no other possible Christian elements can be detected, except for a Saint Peterlike god named Lugeilang who admits the souls of the dead to the sky world and there interrogates them so that the chief god, eavesdropping, can decide their fate.

Of magic and divination we are told little. A hint of its importance comes from O'Connell, who describes the work of Ponapean priest-doctors and assures us that "almost all their remedies are spells and incantations." The practitioner rubs a mixture of oil and "curry" (turmeric) over the body of the patient, and has him take the stuff internally, too; then he recites a spell or prayer addressed to the ancestors.²⁰¹

Carolinians have much insecurity regarding the sea but we have only scant information regarding magical measures to combat dangers. When Arago was transported in proas from one island to another in the Marianas by Carolinians, he made the following observations, which stand out for their rarity:

When a squall appears in the horizon, they crouch on their heels, clap at intervals, make signs to the cloud to keep off, and pronounce in a low voice, with much devotion, and great rapidity, certain words that recur periodically; which shows at least that they have an idea of a superior power, capable of listening to their prayers.

Small prayers—or rather spells—of this sort are commonly used by men at sea in order to raise a wind or make the fish bite. Words of these and other spells are usually high in what Malinowski has called the "coefficient of weirdness."

Some information concerning black magic has trickled down to us. Cantova tells of a hostile sorcerer who tried to drown him by raising a hurricane. Early in the last century the Yapese were frightening the people of Ulithi and Fais with threats of storms created through their black arts. Such threats have been used to this day to help the Yapese maintain their domain to the east. Because we have no documentary evidence to show that Yap maintained its empire through military force, we must conclude that if its control was originally imposed by force of arms it must have been exercised at a remote time. I have been interested in this matter because certain myths allegedly have been instrumental in maintaining subjugation, whereas I maintain that magic is the real threat wielded by the Yapese.

Divination has often been reported, especially a type involving the tying of knots in palm pinnae. The use of knot oracles is old, having been described by Cantova, 204 Chamisso, 205 and Freycinet. 206 The last-named saw Carolinians in the Marianas practicing the art before setting sail. Since knot divination, or bwe, when looked at superficially seems to be an idle and meaningless practice, it is a tribute to some of the old writers that they recognized its importance. It is my belief that the special hazards of wind and sea made the Carolinians heavily dependent on prognostication to give them the strength to sail on their distant voyages.

From anthropological research conducted in modern times we know that magic plays an important part in native Carolinian society, and if more attention has not been paid to it we may attribute the omission to the understandable propensities of practitioners to conceal their art. In addition, it would be expecting too much of the earlier explorers to have recognized and recorded magical rites while they were engaged in pursuing their hazardous missions in the Pacific.

Of the life cycle we are not told a good deal, yet the indications are that recent patterns were present well over a century ago. Premarital sex relations were freely indulged in, with no feeling of guilt. Morrell has given us information on this score for Truk, and also indicates that a young man preferred marriage to a girl who was pregnant and thereby able to give "incontrovertible evidence of her ability to build him up a family." ²⁰⁷

Girls went to the menstrual house at the onset of the menarche, and during her period a woman was surrounded with many taboos. When Cantova finally got to Ulithi in 1731, he made some observations that hold almost word for word until very recently for that atoll.

In each village there are one or two houses separated from the rest, where the women go to give birth, and they remain there three months. Those that suffer the usual onset of menstruation also retire there, separated a few days from all communication with the men; no man positively can pass near such houses, nor eat anything that has been cooked for those women, under penalty of becoming ill or dying.²⁰⁸

The virtual absence of a marriage ritual in the Carolines is not new, as testified to by several writers. However, a marked but suspect exception has been reported for Ponape, where procedures allegedly could be very elaborate among the upper caste people, although weak for the Nigurts, or lower caste people. 210

There is every indication that women held a position of respect and consideration. On Palau, Wilson found that "the attention and tenderness shewn to women was remarkable." ²¹¹ Of the women of Truk, Morrell says,

They are very kind and affectionate to their husbands; and the latter in return treat their wives with a delicacy and respect that might put some Christians to the blush.²¹²

He adds that "to strike a woman is justly considered by the natives of Bergh's Group [Truk] as an unnatural and unmanly act, whatever may be the provocation." Lesson thought that the treatment given women on Kusaie was "remarkable." Cheyne says that on Ponape, "much respect and attention is awarded to the females at this island; and they are not made to do any work but what rightfully belongs to them," and that on Yap on the whole they "appear to be well treated." Mertens makes similar generalizations for the Carolines when he writes,

one cannot refrain from doing justice to these islanders for the extreme care they take of their women; it is impossible to form any idea of the attentions they lavish upon them, and their least desires are very laws which they carry out with the utmost dispatch. 216

Mertens observed that polygyny was permitted on Murilo in the Hall Islands,²¹⁷ and the same has been asserted for other islands, too, by several writers going back to Cantova.²¹⁸ However, except for Ponape, it could not have been common, and Torres even denies its existence in the Woleai area.²¹⁹ The levirate existed at the time when Cantova interviewed the castaways from Faraulep and Woleai, although apparently this was true only if the original couple had no children.²²⁰ The sororate existed on Ponape when Cheyne visited there in 1844.²²¹

Divorce was as easy and simple in the old days as in more recent times, the couple merely parting by mutual agreement,²²² with the father retaining the right to keep the child.²²³

Late weaning was practiced in the old days, as now.²²⁴ We are told by Torres that on Woleai, which may be taken as very characteristic of the west central Carolines, from the time children are weaned they never sleep in the same room with the father, and that the girls are always kept separate from the boys.²²⁵ This statement is consistent with our knowledge of the strong brother-sister avoidance patterns that extend throughout later life, in this area at least.

Children went about naked. 226 At this point we may make a digression on the subject of nudity. It was not much of a matter of shame among adults, so long as the genitals were covered. Complete nudity was possibly more common than is usually supposed. Palau is not the only place where the men, and occasionally the women, wore no clothing. Napoles tells us that the natives seen by Saavedra at Ponape and Ant were "bearded, naked, with cloaks of palm leaves."227 I assume that the cloaks were only for protection against the elements, not for modesty. Most of the men who came out to the missionary ship Duff at Woleai in 1797 were naked. 228 Torres observed that of the women he saw on Woleai, "some of them go entirely naked."229 Arago has given us a colored plate in which are depicted a Carolinian chief with his wife and child in the Marianas, the woman being wholly nude. 230 It will be recalled that Morrell tells us of two naked girls who put garlands of welcome around his shoulders on Nomoi. But it should be cautioned that to early commentators the word "naked" did not always mean complete nudity.

Children are reported to have been well behaved, and treated with gentleness. Morrell remarks that on Truk their mothers raised them "with exemplary care, attention, and tenderness." Holden, despite his understandable bitterness towards the people of Tobi, who had enslaved and starved him for two years, was able to say of the children:

Their parents treat them on the footing of equality; they are generally well behaved, and are never punished, except occasionally when impatient for their food.²⁵²

Modern psychologists have provocative clues in evaluating these evidences of permissiveness in shaping Carolinian personality.

The system of naming on Tobi is typical of the Carolines in general. Holden tells us that personal names were not those of animals or other objects, were never the same for two persons, and were used by children in addressing their parents.²³³

Then as now death was attended with much lamentation on the part of those close to the deceased. Torres gave Arago some details of the funeral of a Woleaian king named Melisso to which he was eyewitness. There was much weeping, tearing of the hair, cries of despair, and beating of the breasts; but the superficial nature of such ritualistic mourning, which continues today in some of the Carolines, is proven by the fact that the next day the people had hardly any recollection of the tearful and violent event that had taken place. 234 O'Connell tells how on Ponape mourners would begin their laments before the person was dead. They howled and fought to embrace him, so that he was at least sure to die of suffocation if nothing else. Before burial, the defunct would be carried from house to house on the shoulders. At the house of each friend and relative, the procession tarried about ten minutes, and the same outcry was made as in the dying room. Except for chiefs and their families, both male and female mourners cut off their hair but did not maim or disfigure their bodies. 235

Disposal of the body in the Carolines was usually by inhumation or sea burial, with some islands following one procedure to the exclusion of the other, while others were influenced either by considerations of rank or personal choice. The indications are that sea burial used to be more widespread

in older times than in more recent periods. Holden shows that on Tobi all except young children were put in a canoe and set adrift when they died.²³⁷ Morrell reports that on Truk at the death of a king, or a principal chief, human sacrifices of men, women, and children would be made, the proud victims being buried with the king.²³⁸ O'Connell tells us that on Ponape the dead were either buried in grounds set aside for that purpose or near the hut where they used to live, a paddle being placed with a male corpse and a spindle or distaff with a female one. The only mention of cremation with which I am familiar comes from Arago, whose source is an eyewitness account supplied by Torres after his visit to Woleai.²³⁹ Kittlitz describes some house-like tombs that he saw on Lukunor, but they were only for chiefs or otherwise distinguished persons.²⁴⁰

The Carolinian abhorrence of suicide has been noted by some writers. When Chamisso questioned his Woleaian informant, Kadu, on the subject, the latter "thought he had heard wrong, and it appeared to him the most ridiculous thing we had ever told him." However, there is a strong presumption that suicide occasionally took place.

All indications are that the Carolinians were a gay rather than somber people, and that they placed great stress on sports, games, singing, and dancing. Cantova, ²⁴² Lütke, ²⁴³ and O'Connell ²⁴⁴ have noted their prevalence. The descriptions of the dances conform closely to those given by anthropologists, including the customary segregation of men from women, and slowness of the movements, and the lack of instruments. Arago gives us a description of dances put on by Carolinians on Guam, ²⁴⁵ and supplies details of the intricate stick dance known throughout most of the Carolines. He mentions a dance with which I am unfamiliar.

They took each other by the hand, ran round in a circle, and made a good many ridiculous gambols; each placed his foot on the thigh of his neighbor. . . . 246

Of their singing, as he heard it on Guam, he says,

The songs with which the Carolinians accompanied their dances were all of the same tone, and consisted only of two or three notes more or less articulated. I have not heard one for two voices; and our concords do not appear harmonious to them. We inquired in vain the meaning of the words they sang: they were unable to inform us; but they said these songs had been transmitted to them by their ancestors, and that probably the language had changed. The Major of Agagna has however translated one, which he pretends is expressive of the sweet pleasures of maternity. I should not be surprised to learn hereafter that it was a war cry. 247

Linguistics. Word lists have been given us for Tobi, 248
Palau, 249 Yap, 250 Satawal, 251 Ponape, 252 Kusaie, 253 and "Carolinian." 254 The question arises as to how useful these may be in glottochronology in its effort to derive historical inferences through the study of rate of change in language. 255 Linguists cannot utilize them for lexicostatistics because the lists are not only too small but do not go back more than 175 years.

Moreover, we have no assurance that the words that have been compiled are unequivocal equivalents of the words that make up the test lists used in glottochronology. But even though the vocabularies of early voyagers are not now very useful, it should be remembered that lists such as theirs, compiled throughout the wider Pacific, in 1706 gave Reland the first glimmerings of an Austronesian language family and permitted others to strengthen the hypothesis.

The role of language in supporting rank and status differences is seen in some of the documents. Special vocabularies used in connection with rank have been described for Kusaie, 256 and one cannot escape the conclusion that the resemblance of such an arrangement to similar ones in Samoa and other parts of Polynesia is too close to be a matter of coincidence. A language of etiquette, still used in parts of the Carolines, was

reported to Lütke by the Englishman, Floyd, who lived on Murilo for 18 months.²⁵⁷ He observed that there was a strict taboo against the utterance of certain terms in the presence of women, even though the euphemisms used instead conveyed substantially the same idea.

<u>Transculturation</u>. Documents can show both the time and nature of historic influences on native peoples, giving depth to transculturation studies.

By moving people, plants, and animals about, Europeans were not only instrumental in promoting the westernization of the islands but in spreading native elements themselves. The literature is full of specific accounts involving simultaneous acculturation and diffusion.

In some instances we have the actual names of natives who came under strong European influence and then were left to live among their own people or others in more distant islands of the Carolines.²⁵⁸ Thus, among the natives stranded either on Guam or the Philippines, a certain Digal stands out. He accompanied Cantova to Ulithi in 1731, and the missionary wrote glowingly and extensively about him in two letters. 259 Digal was on the way to Yap in 1725 in a fleet of 35 canoes sailing from islands in the east, when his vessel became separated from the others by a side wind. He was taken aboard with three other youths by a patache in which General Argulles was going to the Marianas to become governor. He served him four years, and after the general's death he went to serve the priests. He became a catechumen and eventually was baptized by Cantova. As an interpreter he was of inestimable aid to the missionary. Unfortunately, the story has an ironic denouement, for when later a search was made into the manner in which Cantova met his death, a Ulithian branded Digal as the principal "traitor." 260 Digal surely must have had an important role in

transculturation, as did numerous others, such as the three youths mentioned above, who returned to their homelands after sojourns in European-held lands.

Earlier than this, some natives from Fais and Woleai who had drifted to the Philippines in 1708 and then accompanied four missionaries who sought unsuccessfully to find the Carolines in 1709, set sail the following year with Fathers Duberon and Cortil in the patache, Santissima Trinidad. Among them when they reached Sonsorol was a chief from Fais named Moac, who apparently took part in the killing of the priests and the members of their party who had been dropped off by the ship. He had with him his wife and two of his children. He shad with the spaniards when they went to Sonsorol.

Three Palauan women lived two years in Bombay, to which they had been taken by a Captain McCluer, who had earlier resigned from the East India Company in order to live on Palau, but quit it after fifteen months. These women were part of a larger group of men and women, and their names were Reemo, Cockilla, and Cocathey. They were generously returned in 1798 by the East India Company to their homeland via Macao. 262 One can imagine that they had a good deal to tell their compatriots.

Probably the Marianas were the greatest single source of transculturative influence. The Carolinian colony there consisted of natives from Pulusuk, Puluwat, Pulap, Satawal, Woleai, Olimarao, and Lamotrek. Travel between the Marianas and the home islands was frequent. Luito is the name of the first pilot who reached the Marianas late in the 18th century, and the documents mention the names of others who were potential agents of culture spread.

Europeans who stayed on various islands for protracted periods of time had influence in shaping events, often in war

and in politics. When Holden and the beleaguered survivors of the Mentor came ashore on Palau they were astonished to meet an Englishman named Charles Washington, who had been living there for 29 years and had become a chief. Soon after that they met two other Englishmen who had also been there for several years.²⁶³ Before that, in 1793, the survivors of the Antelope had remained for three months on Palau and taken part in four battles on the side of Abba Thule, their host, and when finally they sailed off in the small vessel they had built they left behind at his earnest entreaty a young seaman named Madan Blanchard, 264 who soon died fighting with British arms against one of the warring factions of the natives. 265 O'Connell lived five years on Ponape as the son-in-law of a chief, whose daughter bore him two children. 266 Later, in 1846, 60 Europeans were resident on Ponape, but Cheyne gives it as his opinion that because there were 1500 muskets on the island, warfare was completely discouraged. We have had frequent cause to mention the sustained contact of Rocha and his crew on Yap or Ulithi in 1525-1526, waiting for favorable winds to return to Ternate, but we know nothing of the manner in which they may have exerted influence.

The role of Europeans in spreading plants and animals throughout the Pacific in general and the Carolines in particular must not be underestimated. Luis de Torres brought plants from Woleai back to Guam which were unknown there, 268 although it must be conceded that this is an imperfect example because the plants went out of the Carolines. Cantova informs us that the sweet potato and the seeds of other useful plants were introduced into the Carolines by some islanders who had been blown from Yap to the Philippines, where they were given the potatoes by some missionaries to take back with them on their return. That the sweet potato had not been known in this part of the world seems borne out by the fact that the not

so distant island of Fais is said not to have had the tuber until about 1850, when it was introduced by a Yapese named Thagofel, thus ending the famines of the past.²⁷⁰ However, it was present on Palau at least half a century before that, being called by the usual term, "com-mu-tee," or camote. 271 Morrell tells how he furnished the people of Truk with a variety of seeds, such as apple, pear, peach, plum, melon, pumpkin, yam (sweet potato?), potato, onion, cabbage, beet, carrot, parsnip, bean, and pea.²⁷² Of course, Morrell did not know that growing conditions for most of these were such as to doom them to failure. Two ships of the East India Company brought cattle, sheep, goats, pigs, geese, ducks, chickens, doves, and parrots to Palau in 1791. 273 Rice had never been grown in the Carolines but experience with it was acquired as far back as 1696 among the castaways on the Philippines. 274 It was served to the people of Palau by the Englishmen stranded there in 1783, who introduced its growth.275

It is puzzling that when Lütke stopped at Fais in 1828, "almost all of them asked for tobacco." Tobacco grows very well on this phosphate rich island, which is one of the heaviest growers of the plant in the west central Carolines. Senfft says that in 1904 there were extensive areas planted with tobacco, which he understood to have been introduced from the Marianas some time ago. If this last statement is correct, either the Faisans had little or no tobacco at the time, or merely wanted the European brand. More understandable is the comment made by Lütke when later on he visited nearby Ulithi that "more than any other place where we had been, they asked us for tamakho [tobacco]." The shortage of tobacco on that atoll is chronic, even today. The fact that the natives begged so urgently for it would seem to indicate they had become habituated to it.

The spread of European tools and materials was even more dramatic and rapid, and apparently was a great stimulus to trade among the natives themselves, for the literature is full of accounts of Carolinians sailing to this or that island, offering or seeking iron, glass beads, cloth, and so on. Trade between Guam and the Carolines was motivated by the great desire for European goods, as indicated by Luito's voyage and that of his later compatriots. Some of the goods acquired from Europeans, especially in the early Spanish days, came through theft, but most of it was obtained as gifts or trade goods offered in exchange for water and food. The Carolinians worked the iron to meet their own needs but were awkward at this. The governor of the Marianas once sent a blacksmith to the Carolines to teach the natives the art of working in iron.

... but by some incomprehensible negligence his ambassador went away without his tools. His voyage was not, however, quite useless. By his skill and knowledge, he in part compensated for his forgetfulness ... 279

Words of European origin, as one might expect, found their way into the vocabularies of the Carolinians at an early time. Fais is an island difficult of access and therefore more isolated than most, yet we have noted that when Villalobos arrived there in 1543 he was greeted with a Spanish phrase. The same people knew how to count in Spanish up to four, and very inadequately up to ten, when they were visited much later by Lütke. Radu reported that on Yap, Ulithi, and Woleai there were natives who could count up to ten in Spanish. On Tobi Holden found that occasionally the men wore a broad hat that they called a shappo, and sometimes a shambaráro, obviously derived from the Portuguese chapeo or French chapeau and the Spanish sombrero. Despite these facts, however, there is no evidence that the acquisition of Indo-European words

was any more than shallow. A lingua franca based on English grew up in the last century but even it had very limited currency.

Conclusions

There is, then, a reasonably ample body of documentary data pertaining to the Caroline Islands, and much of it contains reliable ethnological information. But the materials cannot be used by the inexperienced; they must be restricted to those already so skilled in the anthropology of the area that they know how to evaluate and interpret them. Perhaps their main value is as an adjunct to researches pertaining to navigation and travel, human biology, demography, folklore, ethnology, and transculturation. They are of limited use for linguistics, kinship theory, comparative education, and personality theory.

The conventional historian of course uses such primary sources as these in fashioning his accounts of events of the past, although the fascinating episodes revealed by the documentary sources perhaps deserve more attention than they have received. The culture historian, who must resort to a certain degree of conjecture in order to fill in the gaps that appear so inevitably in the kind of reconstructions with which he is concerned, will find time markers that are of much usefulness in the solution of theoretical problems bearing on such matters as diffusion, process, evolution, invention, ecology, and cultural stability.

A special comment is appropriate regarding the marked cultural equilibrium which the documentary sources indicate prevailed prior to the impact of effective domination by foreigners. Much of this must have been due to the relative isolation of these islands, contact with Malaysia, Melanesia, Polynesia, and even the rest of Micronesia (the Marianas, Marshalls, and Gilberts), having been sporadic and mostly accidental in the

last four centuries, at least. This isolation must have been due in part to geographic factors discouraging travel over hazardous stretches of ocean. It must also have been promoted by a gradual process of withdrawal from the exploratory and fluid condition characteristic of a people settling one of the last remaining uninhabited regions of the world. Insofar as contact with the Europeans is concerned, foreign influence was really not effective until the early part of the last century. The Carolines were shunned for years, partly because they did not have a great deal to offer the exploiters and partly because of the notorious reputation they acquired for thievery and aggression. Missionaries, for example, tried in 1710 and 1731 to establish themselves in the archipelago, only to be murdered, and it was not until the 19th century that they finally ventured back into the area and succeeded in establishing their first lasting foothold. Actually, it was not a question of waiting for the pacification of the islands. The people were not bloodthirsty; they merely reacted in confused fashion to a new situation and were more content to accept foreign intercourse when they found means of accommodating to it. Stability of culture was due not only to geographical considerations and isolation, but the limiting effects of the habitat as well. Most of the islands are coralline atolls, and even the others are limited in area and resources. The environmental potential being so small, the chances for cultural elaboration were restricted. Cultural homogeneity is another aspect of Carolinian life revealed by the documents. Institutions, beliefs, and artifacts, and to a lesser extent language, varied little from place to place. This is not surprising, for we know that movement within the area was always frequent and sustained. The records show the routineness with which voyages were made, and an analysis of the provenance of the passengers in a given fleet would indicate the composite character of the fellow travelers.

Nevertheless, the documents show there were differences, and these manifested themselves mostly between the high islands and the low ones. They were reflected in economics. social organization, and political domination. One way of interpreting this is to acknowledge the suggestion that the high islands were settled much earlier than the low ones, the last immigrants being forced to settle in the less desired atolls. This theory has merit. But there can be no doubt that much of the contrast between high and low islands was simply a matter of size and resources. An atoll, with poor soil and little living space, shapes the lives of the people living on it in a way much different than a high island with good soil, minerals, timber, and other superior resources. The historical documents seem to show that the social systems of one type of island as compared with the other were functions of population concentration as much as anything else. The face to face social interaction of the atoll, the heavy reliance on kinship as an organizing principle of behavior, the lack of specialization -all these were less possible where populations numbered in the thousands instead of the hundreds.

The documents reveal that in the past as in the present the low islands were satellites of the high ones. Whatever other reasons may have militated to bring this about, the most important one was economic. We see from the records that the natives of the lesser islands eagerly sought to trade with the people of the greater ones. They did not have a good deal to offer in return but we know that in part they compensated for their poverty by cultivating the fields of their overlords, making weapons and other artifacts for them, and transporting people and goods in their canoes.

The stability and homogeneity of the Carolinian way of life probably owed much to the fact that a satisfactory equilibrium had been reached. Life, although jarred every so often by conflict, was good. Population pressures existed, but they were relieved periodically by migration, warfare, and natural catastrophes. Adjustments in culture and social life then, were not especially needed, and the adaptation to the limited environment was reasonably successful. Commentator after commentator, from the Spaniards on, tells of the gaiety of the natives, their exuberance, their vigor and good health. The documents reveal them to be well adjusted in personality. True, they are seen to run the gamut of human frailties and emotions, but one does not gain a picture of them as restless and brooding. It was only with the introduction of European iron, cloth, and trinkets that the Carolinians began to feel some stirrings of desire for change; yet even this took considerable time to make itself felt on a serious scale. diseases of the foreigner, previously unknown and therefore inoperative as instruments of great demographic and other changes, helped finally to break up the customary pattern of stability. But it should be recalled that the Carolinians, especially in the west, were among the last native peoples to undergo westernization on a serious scale.

Notes

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1. Galvão, Tratado dos descobrimentos antigos e modernos, p. 68; Barros, Da Asia de João de Barros e de Diogo de Couto, vol. 5, pp. 492-494; Krämer, Palau, p. 4.

- 2. Navarette, Coleccion de los viages y descubrimientos, vol. 5, pp. 465-475, 476-486; Napoles, Relacion . . . del viaje que hizo la armada que Hernan Cortés envió en busca de las islas de la Especieria, vol. 5, pp. 68-96.
- 3. Galvão, Tratado dos descobrimentos antigos e modernos, pp. 95-96.
- 4. Alvarado, Relacion del viaje que hizo desde la Nueva-España a las islas del Poniente Ruy Lopez de Villalobos, p. 119.
- 5. Arellano, Relacion mui singular y circunstanciada hecha por don Alfonso de Arellano Capitan del Patax San Lucas . . ., pp. 1-76. In a later voyage, Martin sailed as pilot on a ship, the San Jeronimo, which had been sent out in an attempt to join Legaspi, but he killed the captain with the aid of some fellow conspirators, who then turned on Martin and abandoned him and some of his men on the atoll of Ujelang in the Marshalls. This voyage is mentioned here because it is generally assumed that Martin was left on one of the Carolines, but Sharp (The Discovery of the Pacific Islands, p. 41) has shown that this is not so.
- 6. Markham, The Voyages of Pedro Fernandez de Quiros, pp. I, 114.
- 7. Somera, Relacion en forme de journal, de la devouverte des Isles de Palaos, ou Nouvelle Philippines, pp. 75-91.
 - 8. Krämer, Palau, pp. 74-87, 89-93.
- 9. Wilson et al., A Missionary Voyage to the Southern Pacific Ocean, pp. 298-308.
 - 10. B. Morrell, A Narrative of Four Voyages.
- 11. Cheyne, A Description of Islands in the Western Pacific Ocean.

- 12. Keate, An Account of the Pelew Islands . . . from Journals . . . of Capt. Henry Wilson, 1783.
- 13. O'Connell, A Residence of Eleven Years in New Holland and the Caroline Islands.
- 14. Holden, A Narrative of the Shipwreck, Captivity and Sufferings of Horace Holden and Benj. H. Nute.
- 15. Lutké, Voyage autour du monde, vol. 3, pp. 151-152, 162-164.
- 16. Kittlitz, Denkwürdigkeiten einer Reise nach dem russischen Amerika, nach Mikronesien und durch Kamtschatka, vol. 2, pp. 83, 104.
 - 17. Clain, Lettre du Père Paul Clain, pp. 112-136.
 - 18. Krämer, Palau, pp. 18-26.
 - 19. Ibid., pp. 27-32.
 - 20. Cantova, Lettre du P. Jean Cantova, pp. 188-247.
 - 21. Krämer, Palau, pp. 74-87, 89-93.
- 22. Carrasco, Carolinas: Descubbrimiento y descripcion de las islas Garbanzos, pp. 263-270.
 - 23. Ibid., 320 f.
 - 24. <u>Ibid.</u>, pp. 270-279.
 - 25. Arago, Narrative of a Voyage round the World.
- 26. Keate, An Account of the Pelew Islands . . . from Journals . . . of Capt. Henry Wilson, 1783.
- 27. Holden, A Narrative of the Shipwreck, Captivity and Sufferings of Horace Holden and Benj. H. Nute.

28. O'Connell, A Residence of Eleven Years in New Holland and the Caroline Islands.

- 29. Cheyne, A Description of Islands in the Western Pacific Ocean.
- 30. Kotzebue, A Voyage of Discovery into the South Sea and Beering's Straits, vol. 3, pp. 100-110.
 - 31. B. Morrell, A Narrative of Four Voyages.
- 32. A. J. Morrell, Narrative of a Voyage. Captain Morrell's later years were clouded with accusations against his character, and he may in fact have become mentally erratic, but it is noteworthy that a strong defence of his honesty came from an educated young man who had sailed under him.
- 33. Keate, An Account of the Pelew Islands . . . from Journals . . . of Capt. Henry Wilson, 1783.
 - 34. Arago, Narrative of a Voyage round the World, passim.
 - 35. Ibid., vol. 2, p. 16.
 - 36. Le Gobien, Epistre, pp. i-xxx.
 - 37. Krämer, Palau, p. 71.
 - 38. Cantova, Lettre du P. Cantova, pp. 209-220.
 - 39. Ibid., 188 f.
- 40. Carrasco, Carolinas: Descubbrimiento y descripcion de las islas Garbanzos, p. 320 f.
 - 41. Clain, Lettre du Père Paul Clain, p. 127.
 - 42. Krämer, Palau, p. 21.
 - 43. Lutké, Voyage autour du monde, vol. 2, pp. 309-310.

- 44. Ibid., vol. 2, p. 344.
- 45. Holden, A Narrative of the Shipwreck, Captivity and Sufferings of Horace Holden and Benj. H. Nute, p. 114 f.
- 46. Barros, Da Asia de João e de Diogo de Couto, vol. 5, p. 494.
- 47. Arago, Narrative of a Voyage round the World, vol. 2, pp. 17-18.
- 48. W. Wilson et al., A Missionary Voyage to the Southern Pacific Ocean.
 - 49. Heyerdahl, American Indians in the Pacific.
 - 50. Sharp, Ancient Voyagers in the Pacific.
 - 51. Krämer, Palau, p. 14.
 - 52. Clain, Lettre du Père Paul Clain.
 - 53. Ibid., pp. 115-116.
 - 54. Krämer, Palau, p. 25.
 - 55. Ibid., pp. 27-32.
 - 56. Ibid., p. 31.
 - 57. Sharp, Ancient Voyagers in the Pacific.
- 58. So much has been written about the maritime skills of the Carolinians that it is not necessary to say more, except to point out that these skills were acquired from teachers. Torres tells us that throughout the archipelago there were schools of navigation under the direction of the most skilful pilots, and that no Carolinian was allowed to marry until he had given proofs of his dexterity in steering a canoe. For this an examination was conducted when the sea was rather rough, and the candidate, surrounded by reefs and in the midst of foaming waves,

had to manipulate the proa in such a way as to cause it to travel a certain distance without allowing the float to touch the waves. (Arago, Narrative of a Voyage round the World, vol. 2, p. 16.)

- 59. Kotzebue, A Voyage of Discovery into the South Sea and Beering's Straits, vol. 2, pp. 240-241, vol. 3, pp. 83-111; Freycinet, Voyage autour du monde, vol. 2 (1), p. 84.
- 60. Kotzebue, A Voyage of Discovery into the South Sea and Beering's Straits, vol. 2, pp. 240-241.
 - 61. Sharp, Ancient Voyagers in the Pacific, p. 203.
- 62. Kotzebue, A Voyage of Discovery into the South Sea and Beering's Straits, vol. 2, p. 242.
 - 63. Ibid., vol. 3, pp. 114-115.
 - 64. Ibid., vol. 3, p. 124 fn.
 - 65. Ibid., vol. 3, p. 124.
 - 66. Ibid., vol. 3, p. 116.
- 67. Finsch, Ethnologische Erfahrungen und Belegstücke aus der Südsee, p. 186.
 - 68. Jagor, Travels in the Philippines, p. 253.
- 69. <u>Ibid.</u>, pp. 253-254. On the face of it, it would appear that the voyages had indeed been purposeful. If so, the men traveled over a thousand miles between Woleai and Mindanao, and even if they stopped along the way or used some Carolinian islands as guideposts, they still had to negotiate a distance of about 450 miles of open water. One wishes, however, that Jagor had given more details to assure us that this is not merely another instance of men wrecked at sea and drifting to the Philippines. The shell fishing may have been an expediency for the men to support themselves, just as they had worked for two weeks in the fields.

- 70. Senfft, Ethnographische Beiträge über die karolineninsel Yap, p. 58.
- 71. Vaux, The World Encompassed by Sir Francis Drake, pp. 134-135.
- 72. I am completing a manuscript on this controversy, using ethnological clues.
- 73. Barros, Da Asia de João de Barros e de Diogo de Couto, vol. 5, p. 494.
- 74. Arellano, Relacion mui singular y circunstanciada hecha por don Alfonso de Arellano Capitan del Patax San Lucas, p. 12.
- 75. Somera, Relacion en forme de journal, de la decouverte des Isles de Palaos, ou Nouvelle Philippines, p. 79.
 - 76. Cantova, Lettre du P. Jean Cantova, pp. 194-195.
- 77. Choris, Voyage pittoresque autour du monde, "Iles Radak," pl. 18.
- 78. Freycinet, Voyage autour du monde, Atlas, pls. 50, 51, 52.
 - 79. B. Morrell, A Narrative of Four Voyages, pp. 422-424.
- 80. Dumont d'Urville, Voyage de la corvette l'Astrolabe, vol. 5, pp. 261-262, Atlas, pls. 180, 203, 240 bis.
 - 81. Lutké, Voyage autour du monde, vol. 2, p. 75.
- 82. Paris, Essai sur la construction navale des peuples extra-Européens, pls. 106, 107, 108.
 - 83. B. Morrell, A Narrative of Four Voyages, pp. 422-423.
- 84. Alvarado, Relacion del viaje que hizo desde la Nueva-España a las islas del Poniente Ruy Lopez de Villalobos, p. 119.

85. Galvão, Tratado dos descobrimentos antigos e modernos, pp. 492-494.

- 86. Ibid., pp. 95-96.
- 87. Krämer, Palau, p. 27.
- 88. W. Wilson et al., A Missionary Voyage to the Southern Pacific Ocean, pp. 299-300, 300-301.
- 89. Carrasco, Carolinas: Descubbrimiento y descripcion de las islas Garbanzos, p. 263.
 - 90. B. Morrell, A Narrative of Four Voyages, p. 417.
- 91. Keate, An Account of the Pelew Islands . . . from Journals . . . of Capt. Henry Wilson, 1783, p. 2.
- 92. Hockin, A Supplement to the Account of the Pelew Islands, p. 17.
 - 93. <u>Ibid.</u>, pp. 56, 58.
 - 94. Krämer, Palau, p. 370.
 - 95. Cantova, Lettre du P. Jean Cantova, p. 244.
- 96. Carrasco, Carolinas: Descubbrimiento y descripcion de las islas Garbanzos, p. 265.
 - 97. Ibid., pp. 270-279.
- 98. Senfft, Bericht über den Besuch einiger Inselgruppen der Westkarolinen, p. 196.
- 99. Lessa and Myers, Population Dynamics of an Atoll Community.
 - 100. Weckler, MS, p. 42.
- 101. Holden, A Narrative of the Shipwreck, Captivity and Sufferings of Horace Holden and Benj. H. Nute, p. vii.

- 102. Hydrographic Office, U.S. Navy, Sailing Directions for Pacific Islands, vol. 1, Western Groups, p. 683.
- 103. Holden, A Narrative of the Shipwreck, Captivity and Sufferings of Horace Holden and Benj. H. Nute, p. 47.
- 104. Arellano, Relacion mui singular y circunstanciada hecha por don Alfonso de Arellano Capitan del Patax San Lucas.
- 105. Carrasco, Carolinas: Descubbrimiento y descripcion de las islas Garbanzo, p. 268.
- 106. Kotzebue, A Voyage of Discovery into the South Sea and Beering's Straits, vol. 3, p. 210.
 - 107. Cantova, Lettre du P. Jean Cantova, p. 227.
 - 108. Lessa, Tales from Ulithi Atoll, pp. 120-167, 172-214.
 - 109. Ibid., pp. 334, 356, 393, 403, 412.
 - 110. Cantova, Lettre du P. Jean Cantova, pp. 225-226.
- 111. Kotzebue, A Voyage of Discovery into the South Sea and Beering's Straits, vol. 3, pp. 197-203.
- 112. Freycinet, Voyage autour du monde, vol. 2 (1), pp. 108-111.
 - 113. Lessa, Tales from Ulithi Atoll, pp. 15-19.
- 114. Cheyne, A Description of Islands in the Western Pacific Ocean.
 - 115. Weckler, MS, pp. 63-64.
 - 116. Müller, Yap, pp. 376-377.
 - 117. Hambruch, Ponape, p. 4.
- 118. Napoles, Relacion... del viaje que hizo la armada que Hernan Cortés envió en busca de las islas de la Especieria, vol. 5, p. 91.

119. Suarez de Figueroa, Hechos de don Garcia Hurtado de Mendoza, cuarto marques de Cañete, p. 174; Zaragoza, Historia del descubrimiento de las regiones Austriales hecho por el general Pedro Fernandez de Quiros, vol. 1, p. 155; Markham, The Voyages of Pedro Fernandez de Quiros, vol. 1, pp. 114, 156.

- 120. Weckler, MS, p. 42.
- 121. Ibid., p. 53.
- 122. Eilers, Westkarolinen, p. 214.
- 123. Lessa, Tales from Ulithi Atoll, pp. 45-46.
- 124. Kotzebue, A Voyage of Discovery into the South Sea and Beering's Straits, vol. 3, p. 133.
- 125. Keate, An Account of the Pelew Islands . . . from Journals . . . of Capt. Henry Wilson, 1783, p. 297.
 - 126. B. Morrell, A Narrative of Four Voyages, p. 425.
- 127. Keate, An Account of the Pelew Islands . . . from Journals . . . of Capt. Henry Wilson, 1783, pp. 331, 332.
 - 128. Cantova, Lettre du P. Jean Cantova, p. 237.
- 129. O'Connell, A Residence of Eleven Years in New Holland and the Caroline Islands, pp. 132-133, 135, 197. These "slaves" undoubtedly were not a separate class of negroids but people darkened by greater exposure to the sun.
- 130. Carrasco, Carolinas: Descubbrimiento y descripcion de las islas Garbanzos, p. 266.
 - 131. B. Morrell, A Narrative of Four Voyages, p. 431.
- 132. Keate, An Account of the Pelew Islands . . . from Journals . . . of Capt. Henry Wilson, 1783, p. 104-105 and plate.

- 133. Holden, A Narrative of the Shipwreck, Captivity and Sufferings of Horace Holden and Benj. H. Nute, p. 83.
- 134. Cheyne, A Description of Islands in the Western Pacific Ocean, p. 143.
 - 135. Lutké, Voyage autour du monde, vol. 2, p. 309.
- 136. Kotzebue, A Voyage of Discovery into the South Sea from Beering's Straits, vol. 3, pp. 211-212.
 - 137. Krämer, Palau, p. 19.
- 138. Cantova, Lettre du P. Jean Cantova, pp. 234-236 et passim.
- 139. Kotzebue, A Voyage of Discovery into the South Sea from Beering's Straits, vol. 3, pp. 207-208.
- 140. Keate, An Account of the Pelew Islands . . . from Journals . . . of Capt. Henry Wilson, 1783, pp. 290-297.
- 141. O'Connell, A Residence of Eleven Years in New Holland and the Caroline Islands, pp. 125-126, 147-148, 170, 220.
 - 142. Lesson, Voyage autour du monde, vol. 2, pp. 489-492.
 - 143. Clain, Lettre du Père Paul Clain, p. 125.
- 144. Carrasco, Carolinas: Descubbrimiento y descripcion de las islas Garbanzos, p. 264.
- 145. Keate, An Account of the Pelew Islands . . . from Journals . . . of Capt. Henry Wilson, 1783, pp. 290-297.
- 146. Hockin, A Supplement to the Account of the Pelew Islands, p. 32.
- 147. O'Connell, A Residence of Eleven Years in New Holland and the Caroline Islands, p. 160.

- 148. Lesson, Voyage autour du monde, vol. 2, p. 490.
- 149. Lutké, Voyage autour du monde, vol. 3, pp. 154-155.
- 150. O'Connell, A Residence of Eleven Years in New Holland and the Caroline Islands, p. 126.
- 151. Arago, Narrative of a Voyage round the World, vol. 2, p. 19.
- 152. Keate, An Account of the Pelew Islands . . . from Journals . . . of Capt. Henry Wilson, 1783, pp. 292-293.
- 153. O'Connell, A Residence of Eleven Years in New Holland and the Caroline Islands, p. 177.
- 154. Kotzebue, A Voyage of Discovery into the South Sea from Beering's Straits, vol. 3, pp. 208-209.
- 155. <u>Ibid.</u>, vol. 3, p. 208; Lutké, Voyage autour du monde, vol. 3, pp. 154, 158-159.
 - 156. Lutké, Voyage autour du monde, vol. 3, pp. 144-145.
- 157. Arellano, Relacion mui singular y circunstanciada hecha por don Alfonso de Arellano Capitan del Patax San Luis, pp. 20-24, 27.
 - 158. Cantova, Lettre du P. Jean Cantova, pp. 242-243.
- 159. Kotzebue, A Voyage of Discovery into the South Sea from Beering's Straits, vol. 3, p. 212.
 - 160. Choris, Voyage pittoresque autour du monde, p. 19.
 - 161. B. Morrell, A Narrative of Four Voyages, pp. 429-430.
- 162. Kotzebue, A Voyage of Discovery into the South Sea from Beering's Straits, vol. 3, p. 213; Choris, Voyage pittoresque autour du monde, p. 19.

- 163. O'Connell, A Residence of Eleven Years in New Holland and the Caroline Islands, pp. 217-222.
 - 164. Cantova, Lettre du P. Jean Cantova, pp. 242-243.
- 165. Napoles, Relacion... del viaje que hizo la armada que Hernan Cortés envió en busca de las islas de la Especieria, vol. 5, p. 91.
- 166. Arellano, Relacion mui singular y circunstanciada hecha por don Alfonso de Arellano Capitan del Patax San Luis, pp. 11-27.
- 167. Somera, Relacion en forme de journal, de la decouverte des Isles de Palaos, ou Nouvelle Philippines, pp. 86-88.
 - 168. Ibid., p. 80.
- 169. Holden, A Narrative of the Shipwreck, Captivity and Sufferings of Horace Holden and Benj. H. Nute, pp. 32-37.
- 170. W. Wilson et al., A Missionary Voyage to the Southern Pacific Ocean, p. 299.
 - 171. B. Morrell, A Narrative of Four Voyages, pp. 390-391.
 - 172. <u>Ibid.</u>, pp. 421-435.
- 173. Dumont d'Urville, Voyage au Pole Sud et dans l'Oceanie, vol. 5, pp. 150-156.
- 174. Arellano, Relacion mui singular y circunstanciada hecha por don Alfonso de Arellano Capitan del Patax San Luis, pp. 12-16.
 - 175. <u>Ibid.</u>, pp. 18-19.
- 176. O'Connell, A Residence of Eleven Years in New Holland and the Caroline Islands, pp. 178-179.
 - 177. B. Morrell, A Narrative of Four Voyages, pp. 391, 436.

178. O'Connell, A Residence of Eleven Years in New Holland and the Caroline Islands, p. 217.

- 179. Duperrey, Voyage autour du monde, Atlas Historique, pl. 58.
- 180. Kotzebue, A Voyage of Discovery into the South Sea from Beering's Straits, vol. 3, p. 213.
- 181. Keate, An Account of the Pelew Islands . . . from Journals . . . of Capt. Henry Wilson, 1783, p. 314.
- 182. O'Connell, A Residence of Eleven Years in New Holland and the Caroline Islands, pp. 181, 182. Probably this is an error, and Pakin is the place in question.
 - 183. Choris, Voyage pittoresque autour du monde, pp. 19-20.
- 184. O'Connell, A Residence of Eleven Years in New Holland and the Caroline Islands, p. 221.
 - 185. Cantova, Lettre du P. Jean Cantova, p. 218.
 - 186. Krämer, Palau, p. 27.
- 187. Keate, An Account of the Pelew Islands . . . from Journals . . . of Capt. Henry Wilson, 1783, p. xi.
- 188. Arellano, Relacion mui singular y circunstanciada hecha por don Alfonso de Arellano Capitan del Patax San Lucas, p. 24.
- 189. Cantova, Lettre du P. Jean Cantova, p. 223; Kotzebue, A Voyage of Discovery into the South Sea from Beering's Straits, vol. 3, p. 198; B. Morrell, A Narrative of Four Voyages, p. 428; Lutké, Voyage autour du monde, vol. 3, pp. 187-191; Holden, A Narrative of the Shipwreck, Captivity and Sufferings of Horace Holden and Benj. H. Nute, p. 84.
- 190. Kotzebue, A Voyage of Discovery into the South Sea from Beering's Straits, vol. 3, p. 195.

- 191. Holden, A Narrative of the Shipwreck, Captivity and Sufferings of Horace Holden and Benj. H. Nute, pp. 85-86.
- 192. Kotzebue, A Voyage of Discovery into the South Sea from Beering's Straits, vol. 3, p. 195.
 - 193. Cantova, Lettre du P. Jean Cantova, pp. 230-231.
- 194. O'Connell, A Residence of Eleven Years in New Holland and the Caroline Islands, pp. 162-163.
 - 195. Lesson, Voyage autour du monde, vol. 2, p. 494.
- 196. Kotzebue, A Voyage of Discovery into the South Sea from Beering's Straits, vol. 3, p. 196.
- 197. O'Connell, A Residence of Eleven Years in New Holland and the Caroline Islands, pp. 144-146.
- 198. Carrasco, Carolinas: Descubbrimiento y descripcion de las islas Garbanzos, pp. 267-268.
 - 199. Cantova, Lettre du P. Jean Cantova, p. 230.
 - 200. B. Morrell, A Narrative of Four Voyages, p. 428.
- 201. O'Connell, A Residence of Eleven Years in New Holland and the Caroline Islands, pp. 165-166.
- 202. Carrasco, Carolinas: Descubbrimiento y descripcion de las islas Garbanzos, p. 268.
- 203. Kotzebue, A Voyage of Discovery into the South Sea from Beering's Straits, vol. 3, p. 205.
 - 204. Cantova, Lettre du P. Jean Cantova, pp. 233-234.
- 205. Kotzebue, A Voyage of Discovery into the South Sea from Beering's Straits, vol. 3, p. 204.
 - 206. Freycinet, Voyage autour du monde, vol. 1 (2), p. 114.

207. B. Morrell, A Narrative of Four Voyages, p. 428.

- 208. Carrasco, Carolinas: Descubbrimiento y descripcion de las islas Garbanzos, p. 268.
- 209. Hockin, A Supplement to the Account of the Pelew Islands, p. 33; Kotzebue, A Voyage of Discovery into the South Sea from Beering's Straits, vol. 3, p. 210; Holden, A Narrative of the Shipwreck, Captivity and Sufferings of Horace Holden and Benj. H. Nute, p. 49; Lutké, Voyage autour du monde, vol. 3, pp. 155-156.
- 210. O'Connell, A Residence of Eleven Years in New Holland and the Caroline Islands, pp. 148-154.
- 211. Keate, An Account of the Pelew Islands . . . from Journals . . . of Capt. Henry Wilson, 1783, p. 331.
 - 212. B. Morrell, A Narrative of Four Voyages, p. 425.
 - 213. <u>Ibid.</u>, p. 427.
 - 214. Lesson, Voyage autour du monde, vol. 2, p. 486.
- 215. Cheyne, A Description of Islands in the Western Pacific Ocean, pp. 117, 145.
 - 216. Lutké, Voyage autour du monde, vol. 3, p. 150.
 - 217. Ibid., vol. 3, p. 155.
- 218. Cantova, Lettre du P. Jean Cantova, p. 232; Keate, An Account of the Pelew Islands . . . from Journals . . . of Capt. Henry Wilson, 1783, p. 320; Hockin, A Supplement to the Account of the Pelew Islands, p. 33; Kotzebue, A Voyage of Discovery into the South Sea from Beering's Straits, vol. 3, p. 210; O'Connell, A Residence of Eleven Years in New Holland and the Carolines, p. 154.
- 219. Arago, Narrative of a Voyage round the World, vol. 2, p. 17.

- 220. Cantova, Lettre du P. Jean Cantova, p. 233.
- 221. Cheyne, A Description of Islands in the Western Pacific Ocean, p. 119.
- 222. Cantova, Lettre du P. Jean Cantova, p. 232; Hockin, A Supplement to the Account of the Pelew Islands, p. 34; Lutké, Voyage autour du monde, vol. 3, p. 155.
 - 223. Lutké, Voyage autour du monde, vol. 3, p. 156.
 - 224. Ibid., vol. 3, p. 157.
- 225. Arago, Narrative of a Voyage round the World, vol. 2, p. 17.
- 226. Holden, A Narrative of the Shipwreck, Captivity and Sufferings of Horace Holden and Benj. H. Nute, p. 84; Dumont d'Urville, Voyage de la corvette l'Astrolabe, vol. 5, pp. 128-129.
- 227. Napoles, Relacion... del viaje que hizo la armada que Hernan Cortés envió en busca de las islas de la Especieria, vol. 5, p. 91.
- 228. W. Wilson et al., A Missionary Voyage to the Southern Pacific Ocean, p. 303.
- 229. Arago, Souvenirs d'un aveugle voyage autour du monde (1817-20), vol. 2, p. 17. He also speaks (vol. 2, p. 11) of an "absolutely naked king."
 - 230. Freycinet, Voyage autour du monde, Atlas, pl. 57.
 - 231. B. Morrell, A Narrative of Four Voyages, p. 425.
- 232. Holden, A Narrative of the Shipwreck, Captivity and Sufferings of Horace Holden and Benj. H. Nute, p. 91.
 - 233. Ibid., pp. 90-91.
- 234. Arago, Narrative of a Voyage round the World, vol. 2, pp. 18-19.

235. O'Connell, A Residence of Eleven Years in New Holland and the Caroline Islands, pp. 166-167.

- 236. Cantova, Lettre du P. Jean Cantova, pp. 228, 229-230; Kittlitz, Denkwürdigkeiten einer Reise nach dem russischen Amerika, nach Mikronesien und durch Kamtschatka, vol. 2, p. 104; Kotzebue, A Voyage of Discovery into the South Sea from Beering's Straits, vol. 3, p. 211; Lutké, Voyage autour du monde, vol. 3, pp. 203-204.
- 237. Holden, A Narrative of the Shipwreck, Captivity and Sufferings of Horace Holden and Benj. H. Nute, p. 105.
 - 238. B. Morrell, A Narrative of Four Voyages, p. 428.
- 239. Arago, Narrative of a Voyage round the World, vol. 2, pp. 16, 18.
- 240. Kittlitz, Denkwürdigkeiten einer Reise nach dem russischen Amerika, nach Mikronesien und durch Kamtschatka, vol. 2, p. 104.
- 241. Kotzebue, A Voyage of Discovery into the South Sea from Beering's Straits, vol. 3, p. 195.
 - 242. Cantova, Lettre du P. Jean Cantova, pp. 238-240.
 - 243. Lutké, Voyage autour du monde, vol. 3, pp. 180-181.
- 244. O'Connell, A Residence of Eleven Years in New Holland and the Caroline Islands, pp. 175-176.
- 245. Arago, Narrative of a Voyage round the World, vol. 2, pp. 8-9.
 - 246. Ibid., vol. 2, p. 8.
 - 247. <u>Ibid.</u>, vol. 2, p. 15.
- 248. Holden, A Narrative of the Shipwreck, Captivity and Sufferings of Horace Holden and Benj. H. Nute, pp. 121-127.

- 249. Keate, An Account of the Pelew Islands . . . from Journals . . . of Capt. Henry Wilson, 1783, pp. 365-378; Cheyne, A Description of Islands in the Western Pacific, pp. 196-198.
 - 250. Ibid., pp. 194-195.
- 251. Dumont d'Urville, Voyage de la corvette l'Astrolabe, vol. 13, pp. 182-189.
- 252. O'Connell, A Residence of Eleven Years in New Holland and the Caroline Islands, pp. 260-265; Cheyne, A Description of Islands in the Western Pacific, pp. 190-193.
- 253. Dumont d'Urville, Voyage de la corvette l'Astrolabe, vol. 13, pp. 175-181; Lesson, Voyage autour du monde, vol. 2, pp. 514-522.
- 254. Arago, Narrative of a Voyage round the World, vol. 2, pp. 283-290.
- 255. A recent and valuable summary of the field of lexicostatistics has been provided by Dell H. Hymes, Lexicostatistics So Far, Current Anthropology, vol. 1, pp. 3-44, and has been used as a guide in judging the value of the word lists in question.
 - 256. Lesson, Voyage autour du monde, vol. 2, pp. 492, 509.
 - 257. Lutké, Voyage autour du monde, vol. 3, pp. 162-164.
- 258. While Kadu, the stranded Carolinian found living in the Marshalls by Kotzebue, does not fall within the geographic scope of our discussion, because he was not transported there by Europeans and did not return to the Carolines, he is an example of the type of transculturative agent in question. He accompanied the Rurick to Kamchatka, the western coast of North America, Hawaii, and back again to the Marshalls, where he chose permanently to remain rather than return to his home in Woleai. He was entrusted by the Russians with the perpetuation of the plants and animals they had brought to

the Marshalls from Hawaii for the benefit of the natives. Kadu entertained the Marshallese with accounts of his experiences and distributed among them the presents he had collected in the course of his travels.

- 259. Murillo, Historia de la provincia de Philipinas de la Compañia de Jesus, p. 382r; Carrasco, Carolinas: Descubbrimiento y descripcion de las islas Garbanzos, pp. 265-266.
- 260. Murillo, Historia de la provincia de Philipinas de la Compañia de Jesus, p. 381r.
- 261. Somera, Relation en forme de journal, de la decouverte des Isles de Palaos, ou Nouvelles Philippines, p. 84; Du Halde, Aux Jesuits de France, ii-[xix]; Cantova, Lettre du P. Jean Cantova, pp. 219-220; Murillo, Historia de la provincia de Philipinas de la Compañia de Jesus, 379r-380v; Callander, Terra Australis Cognita, vol. 3, pp. 15-21.
- 262. Hockin, A Supplement to the Account of the Pelew Islands, pp. 53-58.
- 263. Holden, A Narrative of the Shipwreck, Captivity and Sufferings of Horace Holden and Benj. H. Nute, pp. 56, 60.
- 264. Keate, An Account of the Pelew Islands . . . from Journals . . . of Capt. Henry Wilson, 1783, p. 229.
- 265. Hockin, A Supplement to the Account of the Pelew Islands, p. 13.
- 266. O'Connell, A Residence of Eleven Years in New Holland and the Caroline Islands, p. 122.
- 267. Cheyne, A Description of Islands in the Western Pacific Ocean, pp. 110, 120.
- 268. Kotzebue, A Voyage of Discovery into the South Sea from Beering's Straits, vol. 3, p. 184.
 - 269. Cantova, Lettre du P. Jean Cantova, pp. 215-216.

- 270. Krämer, Zentralkarolinen, p. 330.
- 271. Hockin, A Supplement to the Account of the Pelew Islands, p. 17.
 - 272. B. Morrell, A Narrative of Four Voyages, p. 431.
- 273. Hockin, A Supplement to the Account of the Pelew Islands, p. 15.
 - 274. Clain, Lettre du Père Paul Clain, p. 119.
- 275. Keate, An Account of the Pelew Islands . . . from Journals . . . of Capt. Henry Wilson, 1783, p. 190; Hockin, A Supplement to the Account of the Pelew Islands, p. 54.
 - 276. Lutké, Voyage autour du monde, vol. 2, p. 306.
- 277. Senfft, Bericht über den Besuch einiger Inselgruppen der Westkarolinen, p. 192.
 - 278. Lutké, Voyage autour du monde, vol. 2, p. 312.
- 279. Arago, Narrative of a Voyage round the World, vol. 2, p. 12.
- 280. Lutké, Voyage autour du monde, vol. 2, p. 305. While this writer (idem) gives it as his opinion that the Carolinian word lios, used as an entreaty, farewell, and expletive, is derived from the Spanish dios, he is on less sure ground when he states that the word for navigator, pelu, is derived from the word pilot. Old Carolinian myths refer to a god named Pelulap, or Great Navigator, and it is not likely that they would have borrowed a European word for the name of this deity.
- 281. Kotzebue, A Voyage of Discovery into the South Sea from Beering's Straits, vol. 3, p. 187.
- 282. Holden, A Narrative of the Shipwreck, Captivity and Sufferings of Horace Holden and Benj. H. Nute, p. 82 fn.

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