The study has relied heavily on

the volumes of the Ergebnisse der Sielsee -
Expedition, 1908-10, edited by Dr. G. Thielonius,
and the most recent publications of Dr. Otto Finzsch
and Johann Klotz. Other materials on Mi'kmaq
come from a widely scattered number of
sources, largely in German publications and in
the accounts of early travelers. The more
recent field work of the Coordination of
Mi'kmaq Anthropology of 1947-48, reported by
the Pacific Science Board and National Research
Council, is only partially available, and
out the writer has obtained information from
the correspondence with a number of the participants
in this project, and has had access to several
of the reports. For Ponape the writer's own
field notes have been the primary source. The
human relations file at
A visit to the

Yale University, made possible through a grant
from the New Fund, Inc., was invaluable in
the course of other work, but information for
this study was also gathered through contacts with
the writer in untaken in the course of other
work, but an impression from the study
was gathered; several Japanese sources in
trouble are thus made available. Visits to
the American Museum of Natural History,
the American Museum of Natural History,
the Harvard Peabody Museum, the Peabody Museum
of Salem, & The Peabody Peabody Museum have
also provided information. A acknowledgment for
information from the following persons obtained in
correspondence & conversation with the following
The invaluable assistance I wish to express appreciation for the invaluable assistance of my wife, f:edl. Runcing.

...Geographical enumeration...

The names and spellings of islands in the Caroline and Marshall groups, follow, with a few modifications, those given in the Civil Affairs Handbooks, until...
CAROLINE ISLANDS

*Uninhabited in recent times
(Common synonyms in parentheses)

Southwestern Carolines
Mapia (Bunaj, Pegan, St. David)
Tobi (Togobel, Lord North, Johnstone, Nevil)
Merir (Warren Hastings)
Pul (Pulo Anna, Pur, Anna)
Sonsorol (Songosor, Sonsol, St. Andrew)

Western Carolines
Palau (Pelew, Palaos)
Angaur
Kayangel (Moore)
Yap (Ulap)
Ngulu

West Central Carolines
Ulithi (Mogmog, Uluti, Mackenzie)
Fais (Tromelin, Astrolabe)
Sorol (Phillip)
Eaurapik (Low, Kama)
Woleai (Oleai, 13 Islands)
Ifaluk (Two Sisters, Wilson)
Faraulep (Gardner)
*Gaferut (Grimes, High)
*Olimarao
Elato
*West Fayu
Lamotrek (Swede, Low)
Satawal (Tucker)
*Pikelot (Pik, Lydia, Coquille)

East Central Carolines
Pulusuk (Suk, Hok, San Bartolome)
Puluwat (Enderby)
Pulap (Tamatam, Ollap, Los Martires)
Namonuito (Ulul, Onoun, Anonyma, Bunkey, Livingstone, Los Jardines)

Hall Islands
*East Fayu (Lutke)
Nomwin (Fanunu)
Murilo (Barbudos, Los Reyes)
Truk (Ruk, Hogolu, Rough)
Kuop (Royalist)
Nama (Dumurville, San Rafael)
Losap (Duperrey, Royalist)

Ku Islands
Namoluk (Harvest, Hashmy, Skiddy)
Nomoi (Mortlock) Islands
Etal (Namolutu)
Lukunor (Lemarafat, Youngwilliam)
Satawan (Namonor)
*Oroluk (Amicitia, Baxo Trista, Jane, Larkins)
Southern Carolines
Nukuoro (Monteverde, Dunkin, Nogoru)
Kapingamarangi (Greenwich, Pikiram)

Eastern Carolines
Senyavin Islands
Ponape (Ascension, Bonabee, Faloupet)
Pakin (Pagenema)
Ant (Andema, Fraser)
Ngatik (Raven, Seven Is., Los Valientes)
Mokil (Duperrey, Wellington)
Pingelap (Macaskill, Musgrave)
Kusaie (Strong, Ualan)

The term "eastern Micronesia" is used with a less precise definitio, but may generally be understood to mean the Eastern Carolines, the Marshalls, & the Gilberts.
Southern Carolines
   Nukuoro (Monteverde, Dunkin, Nugoru)
   Kapingamarangi (Greenwich, Pikiram)

Eastern Carolines
   Senyavin Islands
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The term "Eastern Micronesia" is used with
the less precise definition, but may generally
be understood to mean the Eastern Carolines,
the Marshalls, & the Gilberts.
Gelder Island names and spellings follow those given in the Pacific Islander Year Book for 1944, published in Suva.
For Polynesia. The designations of areas are after Burrell (1938:50): central Polynesia includes, the Society Is., Tuamotus Is., Cook Is., Central Is., Rapa, and Hawaii; marginal Polynesian extent of the Margarets, Margarita, Easter Is.; New Zealand; intermediate Polynesian of Margarets, Rakahanga, Moniuhi, Pukapukan, Tohelet, Elinie Is., and Niue; and Western Polynesian of Samoas, Tonga, Futuna, and Vavau. Indonesian place names follow Kennedy (1942) and Melanesian terminology is after the Pacific Island Year Book, with some modifications taken from the work of Holdsworth (1937).

Since there is an apparent cultural connection between Melanesia and "Paramelanesia," a note about this latter area should be made. A number of islands, several uninhabited, that until recently were constituting the northern fringe of Melanesia have been reclassified as part of the genus Lapita, thus adding a third of cultural areas to Melanesia.
Introduction

Method and Scope

The purpose of this paper is to attempt a definition of "Paranimaninae". A number of islands constituting the northern fringe of Melanesia have become established in some of the German literature under the name Paranimaninae as a kind of cultural annex to Melanesia under the same Paranimaninae. The term, however, by no means implies cultural unity. Many of the islands grouped here are otherwise referred to as Polynesian outliers.

Frobenius (1893: 272), for example, divides among Java (Sumatra) and Sikka Sea (Sertar), which are Polynesian speaking communities, the Hermit (Ker, Kermadec), Ifi (Ife), Lomantau (Tahiti), Kamet (Anahite), and Ninigo (Easter). Thilenius (1902: 14, 109) includes also a number of islands in Paranimaninae, the following: to the west of Tonga are the islands of Waimuru (Maity), Aau (Taurou), Kamet, Ninigo; and to the east of Tonga, Rukumani (Tasman), Taku (Mortlock), Naguirie (Abozian, Faro), "und noch einige weitere bei den Salomon-Inseln und Neu-Gebirge."

The present writer does not use the term Paranimaninae, but it seems to denote all for...
Introduction

I. METHOD AND SCOPE

The purpose of this paper is to attempt a definition of the cultural position of Ponape within Micronesia and the rest of Oceania. The writer's interest in Ponape and his reason for making that island the focal point of the study is based on his field work there, from July, 1947, to January, 1948. His original intent was to select a large number of Ponapean traits in all the departments of culture and to trace their distribution in Micronesia. This project soon proved to be, for practical reasons, both too broad and too limited in scope. The larger the number of traits examined, the more accurate a picture of culture contrasts and similarities would undoubtedly emerge; but distribution studies have a way of consuming time and effort beyond expectation, and it became evident that some sort of boundaries would have to be imposed. It was therefore decided to limit the traits studied for the most part to those of material culture. This may or may not have resulted in a distorted picture. It is a moot question indeed whether culture area boundaries coincide in all the departments of culture. But for a comparative study physical objects lend themselves to a much readier scrutiny than non-material traits. The variations in types of pumpdrills or coconut graters, e.g., are in the literature described in precise wording and often illustrated; but type of residence or conceptions of mana are very often referred to in vague or omitted entirely from discussion. Requirements imposed by considerations of time and space thus made it convenient to eliminate the non-material traits and leave them for a later, more complete study.

At the same time distributions confined to Micronesia turned out to be obviously incomplete. It was soon apparent
that there were links with areas of Oceania in all directions which could not be ignored, and that traits did not necessarily arrange themselves in congruence with any sorts of geographical units. To study Micronesian weaving, for example, in isolation from the rest of Oceania, would result in a neat apposition of the Carolines against the rest of Micronesia but it would neglect important affinities with Melanesia and Indonesia and would greatly impoverish any historical conclusions that might be derivable. Wherever it seemed profitable to do so, therefore, items of culture were traced beyond the confines of Micronesia into Polynesia, Melanesia, and Indonesia, or even to the mainland of Asia and beyond.

The particular traits utilized in this study were chosen for a variety of reasons. In some instances it was comparative completeness of treatment in the available literature which dictated the selection, as in the cases of food hangars, coconut graters, and tapa. Some Ponapean traits for which the writer had accumulated considerable data struck him as being of special interest, and he used them even where information from other areas was not too ample. Since a true picture of Ponape's position would not emerge if only positive traits were included a number of items of culture which are absent on Ponape but occur prominently elsewhere in Micronesia were also selected for study; also a number of traits absent on Ponape appear in the rest of Micronesia. In fact, it is only in Ponape that the compiler has found so many items which seem to be an indigenous innovation, at least the ones that are preserved in Ponape.

It may be stated at the beginning that no pretensions are made for completeness in the statement of the cultural position of Ponape, even in the field of material culture to which this study is confined. So little comparative work has been done in Micronesia that it was not possible to follow which seemed promising up more than a few leads pointed out by previous students.
Introduction -3-

Cultural similarities and differences had in most cases to be worked out from scratch, and it was usually not apparent until a distribution was nearly complete what sort of scheme would emerge from it. The writer had hoped to be able to present a clear picture of regional contrast, as Burrows was able to do for Western Polynesia as against the rest of Polynesia. But for Burrows there had been considerable space-work done by previous writers, the culture areas of Polynesia were already limned, and his job consisted in large part of secondary collection of data. The position of the present writer was that of doing much of the primary work himself. It is eminently the present study must be considered as only preliminary to a broader, future work.

A purely completely empirical statement would require some method of indication of the distribution of cultural emphases. A purely purely empirical statement, for instance, from east to west in the Caroline Islands there is no convenient quantitative method of representing representing traits on this charting cultural phenomena of this type in an island by island comparison. For practical reasons, then, the present paper attempts only to show presence and, when possible, absence of traits.
I. Diffusion in Oceania

In order to understand what is involved in the spread of cultural items from one place to another, it is important to examine the apparent means of interchange between the peoples involved. In an oceanic environment, the mechanism of diffusion is essentially the study of waterborne communications. Disregarding the psychological factors involved in acceptance, rejection, and abandonment, if preferred traits, it seems obvious that in areas where considerable contact between peoples is frequent and continuous, a greater degree of cultural uniformity will be found than in areas where peoples remain relatively isolated. It is proposed now to examine this mechanism of diffusion as part of the mechanism of diffusion in Melanesia, leaving any statements as to cultural uniformity or diversity for the concluding portion of this study.
Much has been written of the navigational skill and exploratory zeal of the Polynesians, and, indeed, with justification. But the similar qualities of the Micronesians have for various reasons remained in obscurity. True, as Hornell (1936:439) points out, they made shorter voyages and to definite destinations instead of going on exploring expeditions in Polynesian fashion. But the total effect of their island-hopping method of navigation was that equally great distances were covered, contacts remained more permanent, and diffusion of cultural items was more facilitated to at least the extent observable in Polynesia. To quote Hornell while at l.c., 438), "In all the Micronesian groups of islands the design of the outrigger canoe reached a higher level of development than in any part of Polynesia, as did also the knowledge of the science of navigation possessed by certain of the islanders;" Micronesian knowledge of the principles of navigation was far more general and exact than in Polynesia.

Meinicke (1876:374) likewise refers to the natives of the Carolines and Marshalls as the foremost mariners of the Pacific, far surpassing the Polynesians in this respect. And Krämer (1926:172-3) compares Micronesian and Polynesian geographical knowledge with similar advantage to the former.

We must, however, in making such generalizations, distinguish between the races of various parts of Micronesia. On the whole, the high islands (Palau, Yap, Truk, etc., not Ponape, and Kusaie), though visited or at least known to most of the other islands of the Carolines, are occupied by more or less sessile inhabitants. Thus the兖 and Palauans, despite their fine canoes, which have the reputation of being the neatest and best in the world, do not venture on the high seas (Krämer 1926:172). Kubary (1895:268) says that Palau, like Ponape and Kusaie, has long given up seafaring for long distances. Lütke (1835a:368) states that at the time of his visit in 1824 all the natives of Kusaie had no dealings with the outside world and knew only their immediate surroundings. Hence their canoes were not as prominent sailing as the rest of the Eastern Caroline island. The sedentary nature of the Ponapeans is discussed elsewhere, in connection with the construction of their canoe. However different the situation in former times, it seems clear that in the generous environment.
Central Caroline islands named by Finesch. Lütke (1835b:295) found a man on Lukunor (in the Nomoi group) who was setting forth for Guam to trade, and a chief drew for him a map which included Guam, Rota, and Saipan (i.e., 47-9). Objects of Marianas origin were traded beyond the islands directly involved in the commerce, e.g., to Truk and Namoluk (Finsach 1900:48; Girschner 1912-3:180), who got their iron tools and tobacco from Puluwat, and knew the Marianas at least by name (Krämer 1935:105).

Lütke found early on Lubuam or, known as "fale," and no doubt obtained from the Mariana Sonsorol natives are also said to have gone to Saipan formerly (Eilers 1935:53, 87). Yapese had knowledge of and a considerable mythology concerning the land of "Sepin", which is either Hunter's Reef, to the north of Yap, or Saipan in the Marianas (Müller 1917:302). Chamiwko mentions a Truk boat as castaway on Guam in 1807. Even now (1932) there is considerable usage of Trukers to the Marianas in 1807.

Although Fais practices no high sea navigation today, relying on Ulithi for transportation, in the list of islands known to them given to Krämer (1937:369), are included Fagan and even Pajaros, the northernmost of the Marianas; and in Clair's list of islands obtained from Fais people castaway in the Philippines in the late seventeenth century (see below) there is included mention of Saipan. A Eaaurapik man in 1910 had travelled to Guam, Rota, Tinian, and Saipan in his own boat (Damm 1938:131), and the sailing courses obtained from navigators on this island include directions to the Marianas. Ulithi traditions also make mention of these four Marianas islands (1937:133), to be "Ulithi, or the people that have their head at Guam." Equal in significance to the Guam flotilla in the distribution of cultural items is the peculiar political and religious hegemony enjoyed by Yap over a large part of the Caroline archipelago to the east. This structure has recently been analyzed by Lessa (1950), though only from the point of view of Ulithi, and need be briefly characterized here. The chief of the Gagil district of Yap issues political orders, concerned primarily with the system of tribute, to the paramount chief of Ulithi. Ulithi transmits the orders internally to the various sibs, externally to Fais, Sorol, and Woleai. Woleai in turn transmits them to Eaaurapik, Faraulep, and Ifaluk; Ifaluk passes them on to Lamotrek, whence they are relayed to Elato and Satawal; Satawal then sends the orders to Puluwat, from where they go to Pulap, Puluk, and Namonuito, completing the chain of command. In response, every two or three
afforded by nature and islands of volcanic origin there is largely absent the
economic motive which impels the dwellers on coral atolls to seek new lands,
and that this condition is reflected in the stability of habitat of the high
people. Nonetheless, some idea of the verdant luxuriance which typifies the
islanders—although this is probably less true of Yap and Truk than of Palau,
and Micronesia)—can be gained from the detailed description which could
be made from a periodical environmental survey of the Caroline islands. The
affected islands, moreover, have a marked tendency to hold their position
navigational skill and the greatest geographical knowledge have existed in Micronesia in recent times.

Particularly famous is the annual flotilla of canoes from the West Central Carolines
which assembled each April on West Fayu and made the 300-mile trip thence to Guam
in eight days. Puluvat, Lamotrek, Elato, Woleai, Faraupe, and possibly Namouito
participated in this expedition (Finsch 1893:266; Chamisso 1821 III:94) mentions also Satawal, and Freycinet (1825 Ann V:267) says most of the
Carolinians who visited Guam in his time were from Satawal. On Guam the natives
usually got iron knives, beads, and cloth in return for their shells, mats, cordage, and
rinacanes, and then made the return voyage in May or June (Finsch 1900:43). In the
Marianas they soon took over the commerce between Guam and Saipan, and the Spanish
came to rely on them extensively for transport. Kotzebue (1821) mentions that the
Spanish governor of Guam had to use a Caroline canoe to come aboard his vessel, carry
the Rurik; and the Spanish authorities would employ Caroline crews to take them
as far as the Philippines. Kittlitz (1850) encountered Caroline natives in 1827,
for example on Faraupe, who already spoke fluent Spanish, though Spanish vessels
had stopped in those islands only in the early days of exploration and only for
the briefest of intervals.

These visits to Guam are stated to have begun in 1788 (Meinicke 1876:385), when
the Spanish trade goods available in the Marianas became an irresistible magnet
to the Carolinians. Actually, however, as Finsch (1893:287) implies, traffic with
the Marianas goes back to pre-Spanish times, and ceased only temporarily, when the
Spanish conquest of those islands began in 1668. Kotzebue (1821:111:93) says that
the Lamotrek native, Luyto, who initiated commerce with the Marianas in 1788, found:
his way thither by following the directions contained in an old chant.

There is also evidence that voyages to the Marianas involved more than the West
years a canoe bearing tribute from each of these islands (except for Woleai, which sends eight canoes, and Faies, which utilizes Ulithi transport) converges by arrangement on Ulithi; Pulap, Namonuito, Puluwat, and Fukusuk have since the middle of the last century given up sending canoes of their own, transmitting their tribute via Satawal. The fleet of assembled canoes, plus eight from Ulithi, then sails for Yap, where the tribute, besides religious offerings, is rendered. The Yapese make a return of various foods and articles, and in addition informal trading is carried on between individuals, so that there is considerable exchange of goods. 1

1 The exact details of this system of tribute vary in the different accounts. Krämer (1937:82) says that Lamotrek and Satawal bring their tribute to Yap indirectly, through Woleai. Eaurapik, Wx Ifaluk, and Farallap assemble their canoes on Woleai, then go to Yap together, via Sorial, Faies, and Ulithi. Woleai itself goes only to Faies (I.o.: 345), bringing objects thither from Eaurapik, and also objects which Lamotrek has fetched from Satawal. (See also Krämer 1935:259; Damm 1938:142; Damm & Serfert 1938:243.)

In the other direction Ngulu is politically subordinate, and renders tribute, to Gioror district on Yap.

The importance of this commerce in culture diffusion may be seen from the type of objects which are exchanged. Lessa mentions textiles, mate, semnit, rope, woven breechclouts, fiber loincloths, belts, coconut oil, pandanus sails, tobacco, turmeric, combs, bamboo, grass purses, certain containers, shells, canoes, paddles, wooden bowls, necklaces, and various foodstuffs. The patterns of reciprocal hospitality involved in the system also mean that considerable familiarity results with the cultures of other islands; thus sixty-five percent of all the people of Ulithi have been on Yap at one time or another.

Moreover, the tribute system goes indirectly beyond the islands thus far mentioned. Serfert's Yap informant stated that Truk and Saipan were also involved in the system, and the religious domination of Yap is stated by Iepepe to have extended east to Nukuoro, Ngagit, Ponape, Pangelap, Kusaie, Ratak, Ebon, and to a number of unidentified islands which are probably in the Marshall's, as well as to Saipan.

Yamase (in Ch. Gilbert), Rote, Tinian, Guam, and to the five Southwestern islands (Damm 1938:443, 353). Certainly these islands do not make pilgrimages to Yap today, although Ponapean traditions suggest that this may once have been the case. But objects from other islands do reach Yap, since, as will be seen below, regular commercial relations exist between islands within the present Yap "empire" and those to the east and west thereof. Haddon (1936:439).
Of all the Central Carolines the people of Fuluwat, according to Damm and Sarffert (1935:82), were the boldest seafarers; their Viking spirit was sustained both by their strong sense of relationship with inhabitants of other islands, so that they made frequent visits to their kinsmen, and by their great desire for foreign wares. A map drawn by a Fuluwat boat-captain for Sarffert shows all the islands of the Carolines, and extends to the west even to "Sawogang" (Philippines) and "Ebehal" (which Sarffert and Damm interpret as the mainland of Asia, but from inspection of the map and from logical considerations is most likely to be northern Philippines or Formosa). Eastwards it extends to the Ratak in the Marshalls and to Nauru; and north to the Marianas (Tinian, Guam, and Saipan); and south to "Iros" and "Iremedam" which are probably in the Bismarck Archipelago. Sarffert (1935)

1 de Saavedra, who in 1529 discovered the Admiralties, calls these islands "Urais" (Krämer 1917:5).

(1911:4) does not doubt that all this represents aboriginal knowledge.

The Fuluwat captains made voyages for tortoise shell as far east as "Lomonigoa" (apparently in the Marshalls), as well as to Eone, west to Faralep and Woleai, and to Yap to bring their tribute, as well as to the Marianas. Fuluwat people acted as middlemen between the small neighboring islands and Truk in the flourishing commerce in turmeric and coconut oil. Lukunor and Satawan in the Nomoi group were visited for exchange of ornaments and mats. The prominent part played by Fuluwat in the Guam expeditions has already been mentioned. The Philippines were not deliberately visited, but a number of cases are recorded of castaways from Fuluwat and Pulusuk driven thither and to "Ebehal," where "white men" live. Boats enroute to Yap with tribute were often driven to Palau, Pul, and Sonsorol, and east to Kusaie and Nauru. Fleets of as many as fifty canoes made frequent visits from Fuluwat to Pulap and Namonuito; the two hundred mile trip to Nomonui was undertaken.

In Finsch's opinion (1900:48) it was the natives of Pulusuk, near neighbors to Fuluwat, who were the best seafarers. These people also participated in the Guam flotillas, and spread the knives and axes they obtained there eastwards to Truk and
westwards as far as Woleai. Though the geographical knowledge of these people thus seems more limited than that of the natives of Puluwat, we have more information about influences from the outside world here; Damm and Sarfert (1935:107) record that a Malay boat, a boat from some unknown source but containing Negroes, another canoe from New Guinea, and one from Yap, have all come ashore on Pulusuk at various times.

From Satawal we again hear of "Iros" and "Tremedan" to the south, whither boats have been driven. A map drawn by a Satawal captain (Damm and Sarfert 1935:96) shows a knowledge of all the Carolines between the Southwestern islands and Kusaie (though omitting Nukuoro and Kapingamarang), as well as Guam, Tinian, Rota, and Saipan in the Marianas.

The other islands of the Central Carolines are hardly less active. Pulau, as already described, participates in the Yap and Guam trips. The Pulau traders buy large seagoing canoes on Ulithi in exchange for marts from Truk; on Truk they obtain the marts in trade for mosquito nets, belts, rope, etc. Pulau boats also visit Puluwat, Satawal, Lamotrek, and Elato; and the islands known to the natives here extend to the east as far as Kusaie.

The belief is widespread that the southern Carolines were inhabited by the Moche who have since ancient times made the trip to Guam to trade rope, twine, shells, and other objects. They take goods of Marianas origin to Puluwat and obtain there turmeric and red spondylus. The Pulau people have already been described as going to Guam, but according to Krämer (1937:82) they must first obtain permission from Lamotrek, for Lamotrek rules the sea from Puluwat to Ifaluk. The Fais people whom Cline (see below) encountered on Samar in the Philippines, in 181696, told him that the king of all the islands dwelt on Lamotrek. XM Chamisso (in Kotzebue 1821 III:94) mentions that canoes from Woleai and Satawal assembled at Lamotrek to form the flotilla which made the Marianas trip. In 1866 a number of Lamotrek and Elato people, in consequence of a disastrous typhoon, made their way to Saipan and settled there.

Commerce between Lamotrek and the eastern islands of Satawal, Pulusuk, Puluwat, and Truk, and with Ifaluk, Woleai, and Farsulep to the west, is also reported (Krämer 1932:95, 161, 301; Krämer 1937:82, 123-4). The Lamotrek natives know all the islands to the eastern end of the Carolines, as well as Ebon IX and Jaluit in the Marshalls, altogether beyond in the realm of fantasy. Relationships...
Laur," and the Western and Southeaster Carolines as well.

A Luminosk song (Kotzebue 1821 III:127) mentions presence of "Kusaie," a place of origin of Chamisso being "Kusaie," "Falsip" (Pohnape), "Igerig" (Nagatik), and a place farther east called "Orusolos." (Kotzebue 1821 III:127).

The Elato natives were not far behind in their geographical knowledge (Krämer 1937:124).

Woleai also was familiar with Guam; Lütke reports much commerce between these islands, and Gulick (1862) refers to a Woleai man who traveled the six hundred miles to Guam by himself, returning safely. The chief of this island went to Salipan in 1807 and was so well received that a whole colony of Woleai people established themselves there, revisiting Woleai yearly, and handling Spanish business as far as Truk. Kotzebue (1821 III:127) refers to visits of Woleai men to Truk, Nukuoro, and Lukunor, where they traded iron from the Mariana for native cloth; and Yap, Pei, and Ulithi got canoes in Woleai in exchange for turmeric.

The story of Kudu, the Woleai castaway picked up by Kotzebue in the Marshalls, is well known from the writings of Chamisso (1904). Kudu describes a regular trip from Woleai to Palau, Sorsorol, Bul, and Merir, returning via Sorol, which he himself had been on; and he had also been on trips as far east as Satawan, in the Nomoi group. Kudu gave Chamisso a long list of the islands known to him; it includes Guam, all the Carolines, the Ratak, Nauru, Tapiteua, and Arorai in the Gilberts, and a number of places of names in the west, to the south of Mapia, which can refer only to localities in New Guinea, and where cannibals were said to live. He speaks also of island names to the south of Kapingamarangi, among which Krome/recognizes Nusa, Noul, Numul, and Noul in the Bismarcks; another name is recognizable by the present writer as the Polynesian outlier of Nuguera.

Farsalep too has extensive commercial affairs; in the old days its people made trading expeditions as far as Sorsorol, Bul, Merir, Palau, and Yap to the west, to Mokil, Kusaie, Ratak, Ebon, and "Nutanu" (Niupeo?) in the east, and Tarawa was at least known by name. A number of other unrecognizable place names are mentioned as being regularly visited; one of these Damm (1938:172) interprets as being Honolulu, but this seems altogether beyond in the realm of fantasy. Relationships with Guam and Saipan were
particularly lively.

Eaurapik seems to have been nearly as active. The Eaurapik man mentioned by Damm in 1910 as having been to the Marianas had also been to all the islands between Ngulu and Satawal. Sailing courses obtained on Eaurapik give directions to the Southwestern Carolines, Palau, Yap, and all the islands eastwards as far as Ponape and Kusale; the natives seem vaguely to know the areas past Kusale, and a large land mass known to the west is no doubt the Philippines (Damm 1938:131-3).

Fais is reputedly lacking in knowledge of seafaring. Such evidences of culture contact as can be found in recent times consist of incoming influences, such as the Menado boat, containing four Malays, which was castaway here in 1855 (Krämer 1937:370).

Nevertheless it is clear that formerly there was an extensive navigational tradition. In 1664 thirty boats from the so-called Palao (the western Carolines generally) were driven to the Philippines; one of these landed on Mindanao, two in the northern Philippines. Between 1671 and 1708 Father Serrano himself experienced eight more such events (Krämer 1917:114). Father Paul Clain relates how twenty-nine people came ashore in two boats on Samar, in 1696; Krämer (loc.c., 16) considers these as castaways from Fais. One of these men had previously been shipwrecked on "Garago" (Davao) and had returned home. From these people Clain obtained a map and list of thirty-two names of islands known to them; the list includes Saipan and islands as far east as Ponape, besides unrecognizable names east of Ponape. It is evident, then, that Fais shared in the general Central Carolinian seafaring complex in former times.

Ulithi traditions concerning the religious empire of Yap have already been mentioned, and indicate the extensive geographical knowledge of the people of this atoll. The Ulithi canoes which reached Guam in 1721 have also been referred to. In addition, the Philippines are well known, for Ulithians lost at sea frequently drift thither (Lessmann 1950:49). Four Ulithi boats reached Samar in the Philippines in 1898, after going astray while enroute to Yap; they made their way home again after a 49-day journey.

The Southwestern Carolines, although they speak dialects of the Central Carolines language and traditionally trace their origins to Yap and Ulithi, are somewhat less developed in sailing proficiency and in geographical knowledge. Sonsorol natives nowadays visit only Merir and possibly other Southwestern islands; but in earlier days they obtained canoes in Fais and used to visit Saipan also. They knew Yap and Ulithi, and the map drawn by Padilla's pilot in 1710 from information from a native of Sonsorol shows, among other islands, Fais, Woleai, Ulimarao, Elato, and Satawal. Visitors from Ternate in Indonesia are also mentioned, and a story in the Olofat cycle takes this deity on a visit to Ternate. About 1800 four double-outrigger canoes came from "Gobi" to the south, bearing people whose description corresponds to that of Papuans; such canoes occur in New Guinea only in the northwestern part of that area, and no doubt this is a reference to Sobe on Geelvink Bay. Round trips to New Guinea from Sonsorol are also mentioned (Eilers 1935:3,47,49-54,68,87).

Ful has a somewhat wider knowledge of the Carolines than does Sonsorol. The scenes of several narratives legends are laid on Yap, Ulithi, Woleai, Fulasuk, Nukuoro, and Ponape, and geographical knowledge of these islands, as well as of Ifaluk, Faraulep, and Fais, is attested in our sources. Papua is also known, and the story of the invasion of the Papuans is repeated here. Between 1827 and 1957 two more canoes came from "Gobi." Sailing courses collected on Ful show routes to "Manila," Ternate, "Sabue" (Papua), Yap, and Mapia (Eilers 1935:204-9,211-20,240-3). Fritz (1907) described the wreckage of a Philippine canoe he found on Ful.

Merir traditions primarily concern Ful and Sonsorol; here
too Ulithi and Yap are considered the original home of the
people, but Puluosuk is also involved. The Papuan invaders came to this island too; and a canoe load of
five Papuan women from "Sofi," and another from Nugumi-Ninigo,
in the western part of the Bismarcks, are reported; grandchildren
of some of these people were still living in 1910. Indonesian
settlers from Ternate and Bogoato are described, as well as
an invasion of people from "Larera." Castaways from Merir to
"Manila" are also mentioned. (Eilers 1935:209, 347, 349-51, 362-4).

The lack of seafaring tradition on Palau has already been
discussed. Nevertheless Palau is well known at least as far
east as Eruk. Natives of Yap formerly visited Palau to build
boats and prepare their stone money, paying for the privilege
with turmeric, mats, shell ornaments, and services. The Palau
islanders driven to Guam in 1721 gave Cantova a list of seven
islands in the Palau group, and the aforementioned Kadu, of
Woleai, had often been to Palau, despite the fact that the group was usually avoided
because of the reputation it had for being inhabited by cannibals
and head-hunters. Palau, in its turn, knew the islands as far
as Kusaie. Keate, who describes the shipwreck of the Antelope
under Captain Wilson in 1783, refers to a Malay from Ternate
who had been castaway in Palau in earlier years. Apparently
the Chinese also visited Palau in the days before European
contact, exchanging the money which is now native currency
here for trepang, tortoise shell, and pearl shell, and a Palauan
reports that two Chinese junks made yearly visits in ancient times.
There may even have been trading trips from the Central Carolines/
to the Philippines, both direct and by way of Palau, to supply
Chinese traders in the Philippines with trepang. (Haddon 1936:

We have already indicated how the political dominion of Yap extends. With natives from so many distant islands bringing in tribute and remaining in fulfillment of social and religious obligations the Yapese necessarily have a broad knowledge of other cultures. But the natives of Yap are not entirely passive in these relationships. The trips to Kualau to obtain aragonite for their stone money are well known. Chamisso made the acquaintance in the Marshalls of a Yap chief, driven to these islands while on a journey to the Central Carolines. Kubary (1870) also describes several Yap canoes as being driven to Ebon in the Marshalls.

Chamisso's Woleai informant, Kahu, stated that he had obtained his knowledge of Ex Ralik and Ratak from an old Yap man; Yap sailors, he said, used to be castaway in the Ratak, especially on Aur, and from there make their way back home via Nukuoro and Woleai. Claim obtained information from his Fais informants of a group of six Yap people who had been driven to the Philippines the previous year (1695) and had returned to Yap.

Cole (1913:170; plate LXXII), who refers to "well verified stories of castaways on the east coast of Mindanao and adjacent islands," describes a boat load of Yap natives who were castaway in 1909 at Mayo Bay, Mindanao and neighboring islands, after a twenty-two day voyage; they had been enroute from Ulithi to Yap when overtaken by storm. Senfft (1903:58) states that until a few decades before his time the chief of Gagil on Yap would travel to all of his tributary islands, as well as to Truk and Saipan, taking with
him representatives from each of these islands. Geographical knowledge of Yap aborigines extends to the Talaut group north of the Celebes and to the Philippines; to Mapia in the south; and in the east to "Matang" and beyond. Müller suggests that "Matang" is Hawaii, but since Kusaie is known to Falausans by a similar name, "Matange rengos," no doubt is this island which is meant. (Müller 1917:302).

The East Central Carolines had a seafaring tradition of their own. Lütke says that the people of Lukunor, in the Nomoi group, are the easternmost of the Caroline navigators, and that they consider themselves the best; the chief already mentioned as being familiar with the Marianas was also able to name all the islands from Ponape to Falau, as well as "Manila," and another man could give sailing directions as far as Falau.

In modern times Nomoi voyagers go no farther than Truk, but the places list of known to them includes nearly every island in the Carolines, besides Majuro in the Marshalls. Namoluk people speak of a regular round trip which goes via Losap and Nam to Truk, thence to Fuluwat and Fulusuk and some unidentified islands, then to Nukuoro, Kapingamarangi, and south to "Etenepeitu," which must lie in the Bismarck archipelago, returning via Lukunor. Besides this they visit the Hall Islands, Ngatik, occasionally Ponape, and in former times Kusaie, and they have knowledge of most of the other Carolines, Majuro and the Rataks, "Nameneus" (Gilberts), the Marianas, and several places inhabited, reputedly, by cannibals, and apparently in Melanesia; one of these places is identifiable as Nusa in New Britain. (Girschner 1912-3:180-3. Krämer 1935:6,10-12,101-5. Kubary 1880:68 ff. Lütke 1835b:295).

The natives of Truk nowadays seldom leave their lagoon, and are less adept sailors than the atoll dwellers who are their
neighbors, as has already been mentioned. The low islanders were always more often visitors to Truk than hosts to Trukese. But their former voyages to Guam and their earlier participation in the Yap pilgrimage, or at least voyages to Yap for commercial purposes, are hardly to be doubted, and they have geographical knowledge which extends to all the islands between Salau and Fonape (Freycinet 1825 II:374; Krämer 1932:3, 227, 298-300).

No extensive voyages are undertaken by the modern inhabitants of the Polynesian outliers, Nukuoro and Kapeningamarangi; but, traditionally these islands were settled by Samoans, who came via Nukufetau, which the Nukuorans, according to Kubary (1940:76-8), consider as their principal homeland. Nukuoran legend also mentions these other Ellice localities, as Namuwa and Nanumaga, as well as Manua in Samoa, the starting point of a group of settlers who tarried enroute in Tamana (in the southern Gilberts).

The natives do not know Samoa, but speak of Savaii and Upolu, refer to as well as Tonga and Tongatabu. They also Rotuma and Rarotonga, but these are hardly likely to have been involved in the principal migrations; Rotuma might well be Rotima village on Nonutu, in the Gilberts. "Hiti" is no doubt Fiji. In Micronesia they know of Kusaie, Fonape, Fingelap, Ngatik, "Pakeini" (no doubt Fakin in the Senyavin group), and a number of Gilbertese islands, including Tarawa, Mokin, and Tapiteuea.

"Ruanwia" is most likely Liuangia (Ontong Java).

Castaways on Nukuoro include canoe from Mokin and Tarawa in the Gilberts; "Taruesi" (Jaluit) and Majuro in the Marshalls; Kusaie, Fonape, Fingelap, Namoluk, and Yap in the Carolines; "Ruanwia"; "Namunyesa," which Kubary thinks is Kanyesi in the anchorites to the north of New Guinea, but which resembles the term Girschner interprets to mean the Gilberts; Rotuma; as well as a number of other, unidentifiable place names. Of these adventurers
the crewmen of the canoes from "Hiti," the Gilberts, Majuro, Yap, Morotai, Sarsorol, and "Ruaniva" settled down and married. Most of these visitors came in small numbers, but a visit of three hundred Gilbertese is also recorded. (Kubary 1900:76-8. Eilers 1934:171-82).

Kapingamarangi is also involved in the stories of derivation from Western Polynesia. Boats from Truk, Woleai, and Tamana in the Gilberts are mentioned, and a war and intermarriage with five canoe-loads of men from Majuro and Ebon in the Marshalls, who arrived about 1875, are recounted (Eilers 1934:126-31). Kubary 1900:78-79.

The people of Mokil knew the islands of Yap, Truk, Nomoli, Kapingamarangi, Ponape, Ngatik, Pingelap, Kusaie, the Marshalls (Jaluit, Ujelang, Eniwetok), and the Gilberts (Eilers 1934:380). Moore (1858) and Meinir swims (1876) have historical accounts of Gilbert and Mokil mythology and traditions of clan origin refer to invasions from Ratak and Majuro. The population today is in part descended from Marshallese who settled there after a typhoon wiped out most of the earlier inhabitants; Weckler (1948:67-9) computes the date of this typhoon as 1770-1780. Weckler also refers to a Gilbertese trip to Mokil, and at least one voyage from Mokil to the Marshalls. The natives of Mokil are well aware that many of the elements of their culture are of Marshall origin, although the language remains basically Ponapean. Immigration from the Marshalls continued until the middle of the last century.

Although Lütke, as previously described, refers to the isolation of the Kusaians, myths and songs from their island reveal memory of a seafaring past; they make mention of various islands in the Marshalls and Gilberts, Pingelap, Ponape, Ngatik, and Yap; and an unidentifiable "Kuram," and a land to the south called "Tona," which Sarfert says is undoubtedly Tonga. In one tale the name Samoa appears. As recently as 1856 five canoes landed from the Marshalls, on warlike intent. A method of fishing on Kusaie is described as imported from Mille in the Marshalls, as is the Kusaian drum; regular

Kusai seems to be known by name to the other islands of the Carolines as far west as Palau. The natives of Ifaluk, Puluwat, Truk, Namoluk, and Nomoi have traditions of origin from Kusai (Finsch 1893:301. Girschner 1912-3:129. Krämer 1902a:170. Sarfert 1919:221). Nomwin, in the Hall group, is legendarily inhabited by Kusaians who are said to have exterminated an aboriginal population of dwarfs (Krämer 1935:165). The Nomoi people say Kusaians used to visit them regularly (Girschner 1912-3:129). The name of Kusai, in the form of Carao, occurs in the list of twenty-six island names given by the Lamotrek native, Luyto, to the governor of Guam (Lütke 1835b:322). Kusai is known in addition on Palau, Yap, Eaurapik, Satawal, Murilo, Ponape, and numerous other Caroline islands, under various names.

Marshallese seafaring ability, despite the use of the well-known stick charts in these islands, seems to have been of a less high order than in parts of the Carolines. Knowledge of the Marshalls by peoples of other islands has already been indicated; visitors from Woleai, Yap, and Lamotrek are reported, and castaways from the Marshalls to Mokil, Kusai, Lamotrek, and Yap. The Marshallese know the islands as far west as the Senyavin group, at least, as well as Nauru, Ocean, and the Gilberts, but longer voyages were not deliberately undertaken. (Finsch 1893:166. Krämer & Nevermann 1938:4, 217. Weckler 1949:67-9). Erdland (1914:12) refers also to Japanese castaways in the Marshalls.
The sea voyages of the Gilbertese are not extensive, distant trips being made only involuntarily. True trading expeditions are not undertaken, and the southern islands have no connections with the northern islands. One deliberate flight from Arenu to Ocean Island is recorded, and castaways are mentioned from the Gilberts to Nauru and the Marshalls (Finsch 1893:71). Harrisson (1937:336) also refers to two Gilbertese who drifted to the Carolines. Among the described storm-driven refugees recorded by Thilenius (1905:2-3) and Sittig (1898) is one "Rehutun" to "Rabuh", a brother from "Matulu" from Tarawa to Ponape; many other cases are mentioned involving Melanesian contacts, such as canoes from the Gilberts to Rotuma, from Tarawa to Nauru, from Ocean Island to Ontong Java, from Abemama, Nikunau, and Arorae to Buka, and from Beru to Alu. The natives of Ontong Java and Nukumanu know the islands of Tamana and Ocean (Sarfert & Damm 1929:178-81). It was the fortune of the present writer in 1948 to travel from Ponape to Guam in company with three Gilbertese who had just been rescued from Ngatik, where they had been castaway after drifting in a canoe for two months; their starting point had been the island of Arorae in the southernmost Gilberts.

From the Marquesas we have practically no information, no actual knowledge. From the Marquesas we have practically no information as to native knowledge of navigation and geography, no actual knowledge of the destruction effect of the Spanish conquest on the original culture. The Marquesas resemble the Carolines in terms of Caroline contacts in the tocumling. Setti (1890, 181, 185) speaks of frequent trips of sailors to the Marquesas. He learned from informants of a trip from Manila to Tarawa (Setti 1890 181, 185). Cultural intercourse with the Carolines has been partly illustrated, but contacts cannot have been exclusively in one direction. The ability is manifest in the fact that the Spanish Some degree of navigational ability must have been developed; this is clear from the fact that the Spanish
Although reference has been made to the geographical ignorance of modern Ponepeans, the writer collected chants which mention again and again the Ralik and Ratak chains in the Marshalls, as well as numerous other, unidentifiable, place names. One of these places, Peiti, Hambruch (1936:273) identifies as the Solomons or New Britain, though the writer considers this most questionable.

Contacts of Yap with Ponepe seem beyond doubt. The Yapese **clans to influence beyond the islands which now send tribute to them may actually be based on a former more widespread political dominion.** Certainly Yap bulks large in Ponepean legend as the source of many culture heroes and the place of origin of various culture traits. The other land of mythological importance to Ponepe, Sapani, is possibly to be identified with Saipan.

Clan traditions are also significant; the writer collected a number which indicate a considerably wider geographical knowledge than is indicated from mere compilations of known place names. The Sou'n Maraki clan, for example, traces its origin specifically to the island of Marakei in the Gilberts, and the Sou'n Tarawa branch of the Tapiw'n Wai to Tarawa in the same archipelago. The Letak say that they come from Kusaie, and the now extinct Sou'n Yap are said to stem from Yap. The Naniak say that they originated on Nanam in the Ratak chain of the Marshalls, and the Lipetan likewise claim Marshallianese origin. The Tapiw'n Men Pwetepwet claim origin in the semi-mythical Nan Air, or land of the south; on Kusaie, Jair also means south, but at the same time is a term used for the Gilberts, which may therefore be the source of this clan too.
3. Relations of Ponoape with the outside world

Like the inhabitants of most of the other high islands, Ponoapeans are, as already indicated, a sedentary people. Their longest voyages in recent times have been no farther than to Ant and Pakin, two close-lying atolls. That this was also the situation at least as long ago as 1830 is suggested by Enriquetti (1830) in a passage which he quotes verbatim from the work of ‘The inhabitants of Ponoape,’ he states, ‘are not less constant in their visits to their island than those of other parts of the world. If they be absent from the colony, it is only because they are engaged in some trade or other.’ He himself accompanied to Pakin.

Bascom (1946) states that the natives of Ponoape knew only Ngatik, Makil, Pingelep, and Kussie, apart from their traditional ties with Yap, and Kubary has also been quoted to the same effect, which coincides with the information obtained by the writer.

Nevertheless, the evidence previously presented indicates that Ponoape was known far and wide to other islands. We encountered the name of this island, in such forms as Fanupei, Falubei, etc., to the western extremes of the Carolines, and Castaways from and to Ponoape have been described. For example, Murilo, in the Hall group, has a tradition that a canoe came from Ponoape and its passengers settled in a colony there (Krum 1935:170). The shipwrecked mariner Floyd, stuck up by Lätke on Murilo in 1828, told him that five years previously a canoe had been driven by storm from Murillo to Ponoape, and then had gone on with a number of Ponoapeans to Kussie to obtain dye, mats, and mats (Lätke 1885b:33). We have seen that the people of at least Kusaik, Faraulep, Puluwat, Namoluk, Nomoi, and Kussie made voyages to Ponoape, some of them regularly; the Puluwat voyages as far as the Marshalls, in quest of tortoise shell, included Ponoape in their itinerary. We have also seen that the natives of Kusaik, Faraulep, Puluwat, Namoluk, Nomoi, Kussie, the Marshalls, and elsewhere mention Ponoape in various connections (Ellers 1935:212ff. Ellers 1936:212. Krum 1935:277. Krum & Neumann 1938:217. Kubary 1900:76-8. Sarfert 1919:219-20). A Faraulep story, for example, attributes the origin of the canoe to a man of Ponoape (Damm 1938:178). There was not entirely a

_X_ from the end of page
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Relation of Pare with outside world

Despite all this, however, it is obvious that most of the cultural exchange and intercultural contacts are rare and of recent times. Moreover, most contacts of Pare with outside cultures involve non-Pareans as the active agents in the process.

Psychological problems of acceptance and rejection have been deliberately excluded from this essay, but it would appear that the effect of cultural contact of the Parens with outside cultures, whether in recent or remote times, may have been that of an inspiring influence. The cultural evolution of Pare with the aid of the Parens and interactions of Parens with outside cultures will be demonstrated in the latter portions of this paper. It may perhaps be pointed out in support here to state that Parens are not only a conduit for mass movements of population such as in Polynesia, or even the sustained commerce of the Central Caroline to the Thulean, such influences as reached Parens from the outside world were transmitted of the same sort that Thuleans (1902:34) pointed out for the Polynesian culture. For the Polynesian culture on the north shore of the Melanesia, they came from a single source, carrying a few people, at various times and for various places, perhaps wholly through coastal travel.
The dominant position of Western Polynesia and Fiji in these tabulations is most striking. Tonga exceeds all other islands in traits shared with Rongae, and Samoa and Fiji are not far behind. When considered as an area, Western Polynesia, with Fiji, again ranks first. No doubt the number of traits associated with the kava complex has contributed to this situation; eleven of the 117 traits listed have reference to kava. On the other hand, we have also used a large number of weaving traits, eighteen in all, and none of these are present in Western Polynesia, but occur primarily in the Carolines; yet no Caroline area comes close to Western Polynesia in traits shared with Rongae.

Moreover, as far as all the islands of the Carolines, Kapingamarangi ranks next to Aussafe in revealing cultural similarity to Rongae, and Nukuro, with Truk, takes the next position; and it will be remembered that Kapingamarangi and Nukuro were inhabited by descendants of Western Polynesian immigrants. These islands, however, are exceeded only by Western Polynesia and the Eastern Carolines in showing affinities with Rongae. We also find the Western Polynesian outliers of Tongatapu, Java, and Nukumali high in our list, exceeding many of the Carolines, save Truk and Nukuro, and laying the point that we have here some traits with Pacific islands that did not appear in the high positions of Nukuro and the Eastern Carolines are not surprising, in view of geographic proximity to Rongae.

Perhaps of special interest is the fact that Truk, however, which contributes the bulk of the traits which raise the position of the Eastern Carolines to so high a level. The comparatively low position of Micronesia, Mokil, and Ngatik runs counter to normal expectation. Ngatik especially has a culture which is patently derived from Rongae immigrants, as various historical sources reveal. The low number of traits shared with Rongae can in part be attributed to the difference in environment, since these are coral atolls; but it must also be due to the meager information we have on these islands.

The number of traits shared with Truk is only expectable. Truk is the next principal island to the west of Rongae. None of the other islands of the Central Carolines, however, rank high in our list; in fact they are exceeded by the Western Carolines, farther distant from Rongae than they are, and by the Marshalls to the east. No doubt we can call again on environmental explanations, for the Central Carolines, other than Truk, are low islands, while Radu and Falu are of volcanic origin. With the group of the Marshalls, of the Central Carolines, and the Gilberts and various of the Micronesian Islands equaling them. The cultural homogeneity of the Central Carolines is quite remarkable, and suggests to the writer that these islands has been a disruption of a formerly more uniform cultural which extended between the Western and Eastern Carolines; this has been suggested already for coconut gatherer types, and may well hold for other traits.

It may well be that the traits which have been selected for examination in this study do not reflect the true cultural relations between Rongae and the other islands, but certain traits are more symbolic of this relationship than any other.
Differences in physical environment is more likely to be reflected in material culture, which is the principal subject of this study. The
in other aspects of culture. No clear if there is a social,
political, or religious nature had been included a great
difference would have been found.
(In view of this, the high rating of the culture
of the Hutterites with respect to all the more remote
tribes.)

Counted among physical similarities... Hansi, in many ways, era, at
least, some 1700 miles from Paris; yet they ensure that
not written in Sanskrit, but Manichaean in their shared.
Stat. Conclusions

study our statistical results would have been different.

But such findings relative would represent a distortion of
the true situation, there are many other traits present in, or
related to, the Central Carolinas, which are absent in Prance,
such as reliefs, sheet iron, meat products, sugar, candy,
confectionery, and various types of food. The Central Carolinas
are more urban and industrial than the Prance region. This
relies in large part on the fact that the people in the Prance
region have less access to the industrial and urban areas of
the Central Carolinas. The relatively high number of traits
shared by Prance and,

to a lesser degree, Prace with Prance, may also be accounted
for in part by other than environmental factors. The
traditional context of the Prance, Prance, and Prance have
been fully discussed, and appear to have some support in the
data for these traditions. A dramatic shift in the central
of the Central Carolinas is quite remarkable, and suggests
the idea that there has been a decrease of a more uniform culture which extended
to the Central Carolinas. They have been suggested to
explain the apparent greater convergence of culture.

When the East Central, West Central Carolinas are
considered as units (areas 82 and 83) we see that
they do share more with Prance, than do the Marshall
& Gilley areas, so that East Carolina is unique in that
areas share a distinct cultural continuum in the Carolinas. The
Southwestern Carolinas, as well as those where populations are
historically defined for the West Central Carolinas, fall into
the same pattern in their cultural continuum, but are

*9* New Central Province | (From p. 44)
Possibly, however, cultural similarity between Yap and Pang in not due entirely to closer contact between these islands. The cultural homogeneity...
More surprising than the presence of Western Polynesian is that of the New Hebrides and Melanesia in general. There is no possible explanation for, however, to account for the presence of Western Polynesia in many islands in the western Pacific, or its environmental factors. In fact, it is difficult to account for it or any groups at all. In all of Melanesia an island group, the islands are separated, and there are no real cultural or historical ties to the New Hebrides. In this respect, probably a greater emphasis would be on separate islands in the New Hebrides group, since the islands do not contain a single cultural area. However, when we examine the flora, fauna, and culture, we find that the Melanesian area as a whole also reveals a high cultural affinity with Papuans, though it is surpassed by Indonesia, but it is not apparent in New Caledonia. The various Melanesian populations from this area. No single Melanesian island, however, can be considered to be representative of the entire South Pacific, and only a part of the island, or parts of the island, are more specifically related to the Melanesian or Polynesian area. The Melanesian area has a distinct cultural area, and the island area has a distinct cultural area. The island area has a distinct cultural area. The island area has a distinct cultural area. The island area has a distinct cultural area. The island area has a distinct cultural area.
found an excessive between New Zealand & Polynesia, so
found that the high correlation is not a time one.
Of the fifteen that involved four (22, 10, 109, 114) the
greatest correlation was (196) has been interpreted as indicating
inadequately in the results. One (14) is clearly
related from the two types, type (78, 91) seem to
de from a given Polynesian trait, and others, or nearly
related, are part of the whole complex, so seem for the
most part to be derived from Western Polynesia.

The theories of other writers, based on belief in a
Melanesian culture, artistic, or linguistic element in
Melanesian culture, may perhaps be justified. But
Melanesia is represented in our table by inadequate,
as, indeed, is to be expected, in view of the

contacts on the west coast. However, the conclusion
can not be maintained in the face of evidence that
historical evidence has been most methodical of all the area
of because these were mixed in variously, as has
always been noted in the past. Certainly more than one year of influence
influence is clear. There are enough such cases of
where Polynesia also to suggest that they may
go back to the period of Polynesian migration. Other
the Melanesia Polynesian solutions are of later development.
Polynesian migration may not have been the result of the
area, probably because some of the reasons for the presence
type of a derived stage population, influence for Melanesia
must also be multiple. And indeed all this, we have
seen already that relations that were to be
through the agency of military campaigns have taken

The cultural division of temper in cedar, long.
Stat. conclusions - 1

The following key lists islands and areas as they will be used in the table to follow:

1. Pacifies
2. Moluccas
3....

40 Meriaries
41 Astra
42 Wanyaman
43 Kanier
44 Hermits
45 Amigo
46 Admixture
47 St. Mathias
48 Emiries
49 Trismeh
50 New Britain
51 New Ireland
52 New Papua
53 Nueva
54 New Hebrides
55 Solomons
56 Banks
57 New Hebrides
58 Futuna
59 Uwea
60 Tafa
61 Uvea
62 New Hebrides
63 Fiji
64 New Hebrides
65 Tonga
66 Samoa
67 Futuna
68 Uwea
69 New Hebrides
70 New Hebrides
71 New Hebrides
72 New Hebrides
73 New Hebrides
74 Portland Bay
75 Tanna
76 E. Carlin
77 Tanna
78 Manus
79 Bismarck
80 New Guinea
81 W. Carlin
82 W. Carlin
83 W. Carlin
84 New Guinea
85 W. Carlin
86 W. Carlin
87 W. Carlin
88 W. Carlin
89 W. Carlin
90 W. Carlin
91 W. Carlin
92 W. Carlin
93 W. Carlin
94 W. Carlin
95 W. Carlin
96 W. Carlin
97 W. Carlin
98 W. Carlin
99 W. Carlin

All the islands of the Carlinics are limited, as well as most of those in "Perumenesa" (the interior north of New Guinea). The Resemblance is due to the fact that the great majority of the Perumenesa islands in the interior are not. The Resemblance is due to the fact that the great majority of the Perumenesa islands in the interior are not...
TABLE

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<tr>
<th>Traits</th>
<th>Details of occurrence</th>
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<td>4</td>
<td>(Traits regarded as Pomahean traits)</td>
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TABLE

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<tr>
<th>Island</th>
<th># of Pomahean Traits</th>
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The dominant portion of Kunies in this Tabulation is only to be expected, in view of geographical proximity. This would appear to justify the notion of original organization of the Hanee and original organization of the Eastern Carib culture area in which Pomaheans and the two present islands. The comparatively low portion of Quahak, Maid, & Pongawak in the Tabulation may account to some extent; Quahak in particular, possesses a culture which is historically derived, at least in large part, from Pomahean immigrants. The low number of traits shared with Pomaheans can only be due to the merger information we have from these islands; the writer feels justified in writing them with his Eastern Caribics and, from what he knows of their linguistic position & their social organization, it must also be borne in mind that they are a tally.
The principal neighbor of Pomeo, Tabu, also rates fairly high. Probably here we have again a connection with environment, for Tabu, despite all the earliest沧沧, is of volcanic origin. A number of the islands in this area cloe to can be nearly the same size. Tabu with respect to traits shared with Pomeo.

In view of the position of the highest standing of Nakuro and Nakajamaji is remarkable; Nakuro equals Nakajamaji in number of shared traits.

We may perhaps make use of environment to explain why Pomeo and Paliw in the Western Cariboe exceed all of the Central Cariboe. That nearly all the places are also volcanic high islands. Yet one might think that climate might 6 to complicate physical differences. Nakuro and Paliw are, after all, now 1500 miles from Pomeo; yet they exceed or exceed the most distant Nauri islands in traits shared.
Conclusions

The high positions of the rest of Polynesia, Melanesia, and Indonesia in the series indicate to the writer that these geographical groupings are too large, that it would be wiser to break them into smaller component parts for purposes of comparison. Even so it is most unexpected to find that Polynesia outside of the Samoa-Tonga-Fiji area bulks very large in the distribution.

The number of traits shared with Truk is only expectable. Truk is the next principal island west of Ponape. The comparatively low position of Pingelap, Ngatik, and Mokil, however, runs counter to normal expectation. Ngatik especially has a culture which is patently derived from Ponapean immigrants, as some historical sources show. The low number of traits shared with Ponape can only be due to the meager information we have on these islands; the writer feels justified in putting them into his Eastern Carolines culture area, from what he knows of their linguistic position and their social organization.

The rest of the Carolines show only slight relationship with Ponape. It is the westernmost islands, Palau and Yap, which come out best in this comparison. This verifies another guess expressed previously, that the eastern and western islands showed greater similarity than did the central and eastern islands.

The Micronesian islands, it is to be noted, fare quite as well as the Central Carolines. Ontong Java and Nukumanu have as many traits in common with Ponape as do the near-lying Mortlocks; St. Matthias has as many as the islands just west of Truk, Lamotrek, Pulp, and Namonuito; the Admiralties come out even with the West Central Carolines; etc. It would appear that influences emanating from the west, ultimately from Indonesia, were no stronger than those coming north from the Micronesian islands, perhaps ultimately from New Guinea and Melanesia.

The logically next stage in this study is to group the Carolines into
Conclusions

Kusaie

It is not surprising, in view of geographic proximity, to find that Kusaie is culturally closer to Ponape than is any other island; this justifies the setting up of an Eastern Carolines culture area in which these are the two principal islands. What is surprising is to find Western Polynesia sharing more traits with Ponape than does any other island in the Carolines. No doubt the number of traits associated with the kava ceremony which we have used in this comparison have contributed to this situation; but on the other hand we have also used a large number of weaving traits which are entirely absent in Western Polynesia but occur in the Carolines, yet the predominant position of Western Polynesia remains. Moreover Kapingamarangi and Nukuoro, next to Kusaie, are the principal Carolinian islands showing cultural similarities to Ponape, and these two islands are speakers of Western Polynesian dialects. These facts substantiate the guesses earlier expressed by the writer that there has been considerable contact with Western Polynesia via the Polynesian outliers.
but not distributed to natives. Also 2,000.
W. P. L. 

58 & 60 Board beans & cylinder beans in ndolo (92) not distributed.
61. English beets in Northern Solonia (92) not distributed.
68. Parallel wheat nursery.
73. 74 Rafael.
79 - 87 (clothing) - 89, 90, 91, 92 not distributed.
90. 91 (raccoon, uMark & Terr) 92 not distributed.
109. Multiple houses - 89, 90 not distributed.
114. Zink houses with files 92.

43. Clear smoke bags.
44. Cotton pumps and machines 2, 5, 9, 10, & 11.
45. Jumping plates.

46. Edinburgh - pre-hill
49.
CONCLUSIONS

1. Summary of traits examined

A number of different cultural processes have been called upon to explain the distributions. As summarized in the foregoing sections, these may be roughly as follows:

1. Diffusion from Melanesia: fire plow (less likely a secondary spread-back from Polynesia); undercro seed stanchions on canoe; occasional use of multiple booms (though this might also be from Western Polynesian origin); hourglass drum (via Marshalls); mouth flute.

2. Diffusion from Western Polynesia: kava complex; tapa complex (partially via Kapingamarang); male fiber kilt (possibly); eyeshade.

3. Diffusion from Indonesia: a. warp-tying technique and warp-winding bench (direct introductions from Indonesia); hanger (possibly via New Guinea; perhaps borrowed from Rusia); coiled-ended heddle (possibly via Yap); circumcision (via Central Carolines).

4. Diffusion from Indonesia, but general to Carolines: ring-weaving; board-shaped beams; single lease rod; pair of lease laths; poncho; nose flute.

5. General to Carolines, exact origin indeterminate: rope-making by rotating balls (general to Oceania); shuttle; mosquito net (Central Carolines); tablier; two booms on canoe; indirect attachment to boat by paired stanchions; triangular outrigger frame; lee platform.

6. Probably from Yap: Ronapan deadfall; perforated pumpdrill or crossbar.

7. Local origin: springboard grater (possibly borrowed from Marshalls); developed from older, board-shaped form; breadfruit picker (developed from more widespread type with diagonal cross-piece); basketry rat trap (local development from bird and fish traps); one side of board-shaped beam rounded (possibly from Rusia); double-edged weaving sword (general to E. and S. Carolines); female tapa sarong (substituted for older plaited sarong; Artocarpus tapa; tapa poncho (substituted for woven or plaited ponches); orange-thorn tattooer and bracket tattooer; fingernail reddening (possibly from Marshalls); monohy (local institutionalization of widespread Oceanic trait); "api" booms (local development of East Micronesian trait of direct attachment); long float and lack of yoke (both generally East Micronesian).

8. Rejected or never preserved: various coconut grates; sieve; kites; other firemaking apparatus; spring trap; crossbow trap; rope-making by rotating spools or cross-stick; compass; warp-frame; female woven sarong; male sarong; women's fiber kilt; raincape; conical hat; and all other traits in Table -- which are absent on Ponape.

It appears, then, that traits have come into Ponape from all directions.

From these summaries, it seems obvious, no general scheme can be applied concerning the Ponapean culture origin. It appears that Ponapean traits should be noted in a general Carolines culture, though in many ways it is sharply set off from the related to both east and west. Culture elements have come into Ponape from all directions; some traits can be attributed to a general overall diffusion from in a bi-directional diffusion; others can only be accounted for as the result of chance or fleeting contacts. Many traits must be locally invented.

For purposes to a more detailed analysis of Ponapean cultural relations, it would be well to examine the theories of the writer on these matters.
Conclusions

2. Micronesian Origins

In all the literature on Micronesia no author seems to have attempted a broad historical hypothesis of migrations or cultural origins. There is nothing comparable to the "two strata theory" of Polynesian origins offered by Rivers, Williamson, Handy, or Stimson, or to the developmental theory of Riddington or Buck, or to the theories of Polynesian migrations of Churchill or Buck. In part this must be due to the fact that for various reasons interest in Oceania has centered on Polynesia, and that much more ethnography has in consequence been done in this area than in Micronesia. But also, the task of setting up a general scheme for Micronesia seems a much more difficult one than for Polynesia; as Burrows (1938:7) says, "Cultural diversity within both Melanesia and Micronesia far exceeds that within Polynesia." 

We have a diametrically different opinion from Linton (1946:67), who states: "Micronesian culture as a whole is much more uniform than that of Polynesia and infinitely more so than that of Melanesia." The writer, perhaps prejudiced by his more intimate acquaintance with Micronesia than Polynesia, emphatically agrees with Burrows. In passing, it may be noted that Linton's knowledge of Micronesia is quite inadequate, if one is to judge by his 1926 work.

Such historical explanations as we encounter in the sources are often in the realm of speculation, and are of an impressionistic nature; proofs are generally confined to the citing of a few similarities, real or fancied, to other regions. The writer has not set down all the speculations which he has encountered; many of them verge on the preposterous; but the following account may be considered as representative.

Speiser (1946) presents a Kulturkreis scheme for the spread of culture elements into Micronesia. For example, of the three elements which he considers Tasmanian—cremation, the fire drill, and the cord
pouch—the last two were carried into Micronesia by pre-Austronesians, who had come into contact with Tasmanians in Indonesia. The spear-thrower, an Australian element in its male form, occurs in southwest New Guinea also; on the Sepik River it became transformed into the female type, because of the change from wood to bamboo, and in this form it passed to Yap and Palau. But Reche (1913:477-8) thinks the female spear-thrower came from the Carolines into this area of New Guinea. (Speiser, unfortunately, is quite unreliable in his Micronesian data, although at the date he wrote ample materials were available).

Krämer (1914) has made a serious attempt to settle the question of cultural origins of the islands of Micronesia. The plank house, fish weirs, kite fishing, betel chewing, weaving, the conical hat, and a number of other traits, he considers, can lead only to Indonesia. But the strong class system, men's clubs, hetaerism, money, stone masonry, etc., are of Melanesian or of northern Mongoloid derivation. (It will be noted that many of these traits are confined to the Western and West Central Carolines). Krämer believes, on the basis of tradition, that the Chinese exerted a strong influence in this area before the arrival of Europeans. There is a strong Polynesian element, also, in Kusaie and Ponape, as evidenced by feudalism and kava; this came via Kapingamarangi and Nukuoro, and dates from before 6-700 B.C. A.D., when a group of Tongans was dislocated by the Samoans. It is very apparent, says Krämer, that the settling of Micronesia, and, in fact, of all of the Pacific, took place through castaways, not through seafaring; the winds and currents are evidence therefor. Only a thousand years would be sufficient for the Pacific world, apart from Melanesia, to be populated solely by such castaways.

Elsewhere Krämer (1932:407-11) reaffirms his belief that Palau and Yap are Indonesian outposts, and that Indonesian influences appear
as far as the Central Carolines, as shown by the existence of a number of such traits as cock-fighting and the use of turmeric. The house of this area, however, points to Melanesia, as do the clan organization and some clan and god names. Again (Krämer 1935:130-2), it is especially the masks of Lukunor which are evidence of Melanesian relationships, specifically with Tombara in New Britain. The peculiar taro hoe in Nomoi is related to that of Wawulu.

Eilers (1934:148-55) also finds Melanesian influences, even in Kapingamarangi, in a type of house, in burial customs, in the attachment of canoe hull to boom, and in canoe painting.

Other authorities have found links with Polynesia. Kubary (1930) tries to demonstrate that the culture of Nomoi has its roots in Polynesia, particularly in Samoa, the influences coming via Nukuoro. Krämer (1935) establishes the error of this demonstration, showing how Truk is the source of most of Nomoi culture. Lütke (1935b:333-9) also gives a list of culture traits and physical characters which he considers to link the Carolines to Polynesia, especially to Tonga. Müller (1918:172-3) considers that the late type of outrigger float connective in Polynesia was diffused from southeastern Polynesia through the Central Carolines to the Marianas. (This reconstruction, however, is based on one aberrant type of canoe from Uatawal; everywhere else in the Central Carolines the typical stanchion attachment occurs).

Another attempt to link Polynesia with Micronesia is that by Churchill (1911), who, on the basis of some scanty and unpersuasive evidence, brings Yap into his picture of a two-fold migration from Indonesia, the Proto-Samoans and the Tongafiti. Churchill, who does not believe in a Malayo-Polynesian language stock, finds that the Polynesian content in Yapese is Proto-Samoan, not Tongafiti, hence the second wave did not touch here. Kapingamarangi was one of the first stations in the original Polynesian migration from
Indonesia into the Pacific; (We know, of course, that it is actually a Western Polynesian outlier). Along the same lines is Buck's theory that the peoples of Borneo (1440) and Thelmac (1406), which link the Polynesians through the East Indies, but their hypotheses are presently unattested by the archaeological record. We may then mention the efforts of the missionaries on the Malay Peninsula in the Nineteenth Century. Thelmac, to be sure, does point out that the ocean currents do not permit access to the Caroline Islands from the Philippines, but only from Melanesia. The Caroline Sea is the area immediately adjacent to that of the present study.

Hambruch (1915:273) relates the Nauru and Gilbert methods of divination to similar methods in Polynesia. Finsch (1893:356-7) however, considers that the Gilberts, with Nauru and Ocean, show most relationship to Melanesia, least to Polynesia, and least to the rest of Micronesia.

Kubary (1880) attempts to demonstrate that the culture of Nomoi has its roots in Polynesia, particularly in Samoa, the influences coming via Nukuoro. He finds two physical types in Nomoi, one Malay, the other a more heavily bearded type, derived from a mixture of Malays and Polynesians; this second element occurs only in the Central Carolines. The clubs, canoes, and vocabularies from these islands also suggest Polynesian influences to Kubary. The error of this demonstration is established by Krämer (1935), who shows that Truk is the source of most of Nomoi culture. Quoy and Gaimard (in Dumont d'Urville Astrolabe III) also insist on resemblances in physical type between the Carolines and Polynesia; and Dumoutier and Blanchard (in Dumont d'Urville 1843 II), who describe Ponape as a Papuan area, believe that the natives of Lukunor are closest to Polynesians and also Tagalogans. Friederichsen (1901) similarly considers Carolinians as Polynesian in race.

Sarfert (1919) demonstrates, to his own satisfaction, a connection between the ornament of the Batak mats and those of the Marshalls. While this is not inconceivable, the reader loses faith in Sarfert's
logic by his further demonstration that the mats of the Northwest Coast of North America are closely related to those of the Marshalls and must be derived therefrom. Sarfert is not alone in pointing to American connections; Volkens (1901), for example, is opposed to the "accepted theory" of the origins of Micronesians from a cross between Polynesians and Papuans; he rejects any affinity with Indonesian tongues, considering that a great difference exists between Malay and Japese, and and finds closer resemblances between the languages of South and Middle America on the one hand and those of Truk and "Alau on the other.

Fragments of theMicronesian language & culture suggest to Matuaoka (1927:114) that these islands are the cradle of Micronesian civilization. Sittig (1930), who has studied the prevailing currents and winds of the Pacific and the direction of drift of castaways, infers a cultural affiliation of the Carolines with Southeast Asia. Müller (1913) is also impressed by the connections between these two areas. A less reputable authority, Brown (1914:392-5), in the course of the development of some startling theories, finds numerous Japanese influences in Micronesia. Jules de la Gravière (1884) discovers the influence of Chinese Buddhist monks and Mongol magicians in the medical practices of Ponapean healers. Michelena y Rojas (1843) likewise detects numerous Chinese features among the inhabitants of Ponape, and believes that there is evidence of an ancient Chinese or Japanese settlement here. Similarly, Lesson (1839) considers the Caroline inhabitants in general as "pelagic Mongols," and Damon (quoted in Finsch 1880) states that the Ponapeans are a mixture of Chinese and Malays.

Joest (1897) goes counter to most theories of the peopling of the Pacific in deriving the Kalawese from eastern Micronesia, and the inhabitants of the latter from Polynesia, on the basis of tattooing patterns and the presence in Ponape and Kusaie of kava and a chief's tongue. Joest postulates three population waves in Micron...
Another view, in Annette Kellerman's 1927 edition of "The Swimming Book," is that his influence on the swimming world is evidenced not only in the swimming world but also in literature. "Swimming in the Sun," a novel by Mary K. O'Hara, features a character named "Kees." This character is known to be a skilled swimmer and often competes in swimming events. Kees is portrayed as a figure who embodies Kellerman's influence on swimming, and his story is one of many that highlight her impact on the sport.
nesia; an early Tapanua wave, to which belong certain elements of speech; a second wave of northern Malays, which affected the Western Carolines to the greatest degree; and a third movement of Polynesians from the south.

A number of authors are impressed by evidences of cultural losses in Micronesia. Among these is Christian (1899b); the islanders, he believes, must once have had writing, iron, and so on. Hale (1846) and Michelena y Rojas (1843) consider that the high development of the art of weaving on Ponape is an indication of a once more highly civilized population. According to Hale (1864:74), while the Polynesians "appear to have risen from a lower condition to their present state," the Micronesians "seem to have descended from a higher grade which had been attained in some more favorable situation." The evidences for this are the sidereal navigation of the Micronesians in supposed antithesis to Polynesian dependence on aeolian constancy, the resemblance of the Micronesian weaver's shuttle to our own, the function of tattooing as a heraldic device and as a means of retaining memory of persons and events in contrast to its use in Polynesia for ornament, the complex government and the system of classes as opposed to Polynesian simplicity in these respects, and the eastern Asiatic connections in religion.

Fritz (1911:18), too, suggests that the large numbers of titles and ranks and the ceremonial complexity that characterize Ponapean political structure were introduced full-blown by conquerors, or else Ponapeans are the remnants of a once larger and more advanced people.

The archaeological remains on Ponape and Ausaie have impressed numerous writers with similar ideas of cultural degeneration, and to others have suggested theories of a former race of high culture which was supplanted by the present inhabitants. Gulick (1853:495), for example, who could get the natives to give him no or paramount race
concerning the ruins on Fonape, assumes that they were built by some unknown civilization. This is the theory of Michela
ty Rojas (1843) and de la Gravière (1843) also. Cheyne (1852)
ascribes the antiquities of Nammatal to the building of Spanish buccaneers some two or three centuries before his time, and we find this same theory in Scherzer (1862),
Cabeza Pereido (1895), and elsewhere; Cabeza Pereiro bases
his statement on the supposed impossibility of provenience of
the building blocks on Fonape.

These theories are rejected by Christian (1899b), who, however,
follows Kubary (1874) in the belief that an aboriginal Negro
race built the ruins. Kubary's theory is based on a series of
four calvaria from Nammatal; to do him justice, he later
recognized the inadequacy of these data. But he has numerous
predecessors. The first account of Fonape, that by O'Connell
(1836), describes two endogamous castes, an aboriginal Negro
population, who formed a slave group, and a stratum of overlords
descended from Malays who were later comers. No other authority
notes any racial basis for the Fonapean caste system. Lütke
(1836), however, finds physical similarities between Fonapeans and Fapuans,
in contrast with the inhabitants of Kusaie and the Central
Carolines; Kittlitz (1858&J) and Dumoutier and Blanchard (in
Dumont d'Urville 1843 II) also consider Fonape as basically
Fapuan, and Hale (1864) detects a Fapuan element in
the natives of Fonape. Sempé (1873) considers that in customs,
race, and speech the natives of Falau are a mixture of Fapuans
and Malayo-Polynesians. But Meinicke (1876) contests the
conclusions of Kubary and Hale on Fonape, and Semper on Falau,
and postulates a distinct Micronesian race.
Schmeltz and Krause (1881), like Semper, believe that Papuan and Malay admixture has taken place in the Carolines, especially on Ponape, the later Malays taking over a number of Papuan traits. As early as 1690, Cantova (in Krämer 1933:318) stated that he found in the Western Carolines many Negroid people, probably of New Guinea origin, who were living as serfs; but Krämer did not find this to be true in 1910. Mikiucho-Maclay (1877) considers that the natives of certain of the West Central Carolines resemble those of the islands to the southeast of Ceram and Kei, and are clearly mixed with Papuans; apparently the reference is to the Alfur.

According to Christian (1899a), Ponapeans resemble Malays most, but there is a small Polynesian element (less than in the Central Carolines), and the Papuan or Melanesian element in Micronesia is most strongly marked in Ponape, in speech as well as in race. Scherzer (1862) denies, for Ponapeans, Leshon's belief in a Mongoloid origin, but also the theory that they are Papuan; he states, instead, that they are true Malayopolynesians; he notes the Negro features but says that they come from American whaling ships. Krämer (1953:131) finds the Malayan physique dominant throughout the Carolines, but the aborigines, apparently Negritos, have left their mark in body build and language; the Negroid traits have been reinforced by accretion from castaway Melanesians.

The accumulation of statements of a Melanesian or Papuan strain in Micronesian physique and culture begins to look impressive. Perhaps the most reliable statement, as far as race is concerned, comes from Hasebe (1926): the Micronesians'
Support for these theories is lent by Schurig (1930:204), who equates the pottery of Palau, Yap, and the Marianas as a Paluan element. Schurig, however, Schurig (1946:42) believes this to be incorrect, because the islands are normally
with Paluan speech—Ponape, Kusaie, and Nomor—
both pottery. Frederick (1914:201) believes refer
to an old Melanesian sub-economic in Micronesia,
stronger than that in Polynesia; this is revealed
in someology and in speech; Polynesian influence in
both of these features, as well as in culture, is
most apparent in central and eastern Micronesia, and
two periods of Philippine influence may be detected
in western Micronesia.
"ortho-dolichocephaly and other osteological peculiarities.....

seem to place them in closer relationship to the Melanesians

than to their other neighbors." Yap and Palau, however, and the
Marshalls and Gilberts even more so, are inclined to mesocephaly.

Hasebe does not interpret these last facts, but elsewhere (1928:65)

he states that the people of Tobi, in the Southwestern Carolines,

have a Malayan physique, despite their West (i.e., West Central)

Caroline culture.

The linguists have been no less active and have come to as

little agreement as the speculators on cultural and physical

origins. Hanbron, Jacquinot, Blanchard, Fucharan, and Rousseau

(in Dumont d'Urville 1843 V:2) find the nearest relation of the

Caroline languages to be Tagalog. Fritz

(1911), on the basis of language, derives the natives of the

Central Carolines from Lower India and the Sunda Islands.

Bingham (1908) and Dempwolff (1914) speak of linguistic evidence of Mongolian influences in Micronesia. Thalheimer (1908) has a curious linguistic classification of Micronesian languages, based primarily on possessive prefixes and expression of number in personal pronouns; he places Palauan and Chamorro with Indonesian, but the Russian 0 yahare o pinapean to the language of Mekia.

Schmidt (1899 b: 330-43; 1912:504) discerns a Micronesian basis in the speech of Nomo, Pumeke, 0 Kumaie, 0 elsewhere (1899 a: 247) he refers to the language of Micronesia generally as

Micronesian. The clearest statement of Micronesian linguistic affinities is that of Meillet & Léchen

(1924:447): "La phonétique ..... I fini

futation from footnote on next page]....

a l'indienien."

It is difficult to imagine that the Polynesians carried no firemaking instrument with them when they left their original homeland; the absence of the plow in Indonesia and Southeast Asia, however, makes it necessary to assume that they picked up the plow and lost whatever indigenous device they may have had during their migrations. If they came through Micronesia, as the weight of opinion nowadays has it, they might have obtained the plow somewhere in that archipelago. In that case we must assume an early, plow-using population in at least part of Micronesia. They could also have obtained the implement from Melanesia, along with the food plants which Buck believes came into Polynesia after the first migrations had populated Central Polynesia. In that case the plow might have spread back into Micronesia secondarily from Polynesia; but then we must assume that the people of Eastern Micronesia had no firemaking apparatus at the time of the Polynesian movements, which would appear highly questionable from the nature of their food economy; or that they had the drill but lost it when they obtained the plow, which is unlikely inasmuch as both tools exist side by side in the Central Carolines today; or that Eastern Micronesia was unpopulated until relatively recently, but this would ignore the great linguistic diversity between Ponape, Kusaie, the Marshalls, and the Gilberts, which argues for a prolonged residence, in contrast to the homogeneity of the Central Carolines in speech, as well as the indications of archaeological depth from the megalithic remains on Ponape and Kusaie.

The theory that the language of part of Micronesia has a Father Schmidt (1895:332-43; 1912:500) discerns a Melanesian basis in the speech of Nomol, Ponape, and Kusaie, as do Meillet and Cohen (1924:47-9). However correct this may be, the possibility of a Melanesian

Meillet & Cohen (1924:47): "Le phonétique du micronésien est, dans l'ensemble, identique à celle du mélanésien....Pour la morphologie et la syntaxe, le micronésien est assez proche du mélanésien et il n'y a pas lieu d'y insister....Les langues et dialectes des îles Palau (Palaie, Pelew) et le Chamorro de l'île Saipan des Mariannes font linguistiquement partie du groupe des Philippines et se rattachent ainsi à l'indonésien."
The position of “Paramicmicia” in these speculations deserves some notice. The theory of Parkman (1907: 55-56) is that the面部 Polynesian spread first through Micronesia after leaving their original home. Then a later Polynesian group came from the west and mingled with the Polynesians already settled in Micronesia; a branch of these people went north through Nauru, Nukulaelae, Avarua, Takou, Nukumani, Ontong Java, & Sekatangara to the New Hebrides, bringing weaving with them and intermixing with a Papuan population. On the large islands they lost their cultural characteristics but in the Hermaness, Kamit, Nuijgo, & especially in Wawulu & Ana they remained closer to their original condition. Parkman reveals the presence in the speech of Ontong Java & Nukumani of a whole series of Caroline words, although Sarfert & Damm (1931) have convincingly shown that the cultural affinities of these two islands are clearly with Samuel Stafano (1933) also find that popularity the ontong javanese had their greatest affinities with Caroline micronesians, not with the tongans. (1936: 363) also shows show similarity.

The older language of Pomare, preserved in songs & epic poems, contains a number of words not in use today but current in Wawulu & Ana. Again, the hymnology, speech, & cultural practices make it clear that these two islands have felt Caroline, Melanesian, & Micronesian influences (Parkman 1908: 142). This is seen from the Caroline elements. There is a greater affinity with Micronesian culture, as shown by the meaning of plants for houses, the type of houses, the type of beads, & in wooden vessels, the form of the two culture. & so on. Similarly, by contrasts with Micronesia & Kamit (1899: 221) points to a settling of the Micronesians.
Thelemann (1902: 69; 1903: 325-7) lists a number of elements, including money, weaving, and tattooing, in buiten Java and the other Petramber Islands, part of the Bismarck archipelago, which he considers to be evidence of Micronesian influence. In the islands to the west of the Bismarcks, he detects a central Micronesian element in the which, runs through all cultures. Gardner (1909: 74ff) also points to numerous Micronesian traits in this area, but it is striking he says, that these agreements do not point to any particular place in Micronesia, but are more or less widespread over that archipelago. The assumption then is (as already mentioned in the Introduction) that Micronesian influence came as single elements at various times to that archipelago, mainly through contact.

For at least sidenew, and more
Lemic (1875) indicates a long period of influence since the appearance of these people from the Micronesian region; they are not descendents but "brothers" of the Micronesian.
Statistical Conclusions

The following table gives a numbered key to the islands and areas listed in the tables to follow. All the islands of the Caroline are listed, as well as most of those in "Faramicronesia" (the islands to the north of New Guinea), the remainder of the Bismarcks, and the Polynesian outliers. The Marianas, Marshalls, and Gilberts are indicated as groups instead of being broken down to single islands. Areas and islands in the other part of Melanesia and in Polynesia and Indonesia are listed only if they share five or more traits with Ronape; in this class falls also Astrolabe Bay, the only area of New Guinea which has sufficient traits in common with Ronape. Numbers 79 to 92 are used for larger groupings of islands and areas; these groupings include the places numbered 2 to 78, as well as others which have fewer than five traits shared with Ronape.

TABLE

<table>
<thead>
<tr>
<th>Key &amp; number</th>
<th>Areas</th>
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</thead>
<tbody>
<tr>
<td>1. Ronape</td>
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<tr>
<td>2. Mapia</td>
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<td>3. Tobi</td>
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<td>4. Merir</td>
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<td>5. Aul</td>
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<td>6. Nsoncorol</td>
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<td>7. Palau</td>
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<td>8. Iap</td>
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<td>9. Nguulu</td>
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<td>10. Ulihi</td>
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<td>11. Pais</td>
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<td>12. Sorol</td>
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<td>13. Bauapik</td>
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<td>14. Woleai</td>
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<td>15. Ifaluk</td>
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<td>16. Faraulep</td>
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<td>17. Eto</td>
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<td>18. Lamotrek</td>
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<td>19. Satawal</td>
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<td>20. Fulasuk</td>
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<td>21. Puluwat</td>
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<td>22.bullap</td>
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<td>23. Namanuito</td>
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<td>24. Hall Is.</td>
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<td>25. Truk</td>
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<td>26. Nana</td>
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<td>27. Losap</td>
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<td>28. Namoluk</td>
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<td>29. Nomol Is.</td>
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<td>30. Nukuoro</td>
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<td>31. Kapingamarangi</td>
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<td>32. Agatik</td>
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<td>33. Mobil</td>
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<td>34. Ringelap</td>
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<td>35. Kusaie</td>
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<td>37. Gilbert Is.</td>
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<td>38. Nauru</td>
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<td>39. Ocean</td>
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<td>40. Mariana Is.</td>
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<td>41. Au</td>
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<td>42. waraulu</td>
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<td>43. Amot</td>
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<td>44. Hirmis</td>
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<td>45. Minigo</td>
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<td>46. Admiralities</td>
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<td>47. St. Matthias</td>
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<td>48. Emirau</td>
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<td>49. Tench</td>
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<td>50. New Britain</td>
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<td>51. New Irelend</td>
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<td>52. Ontong Java</td>
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<td>53. Nukumaniu</td>
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<td>54. Taku</td>
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<td>55. Nuguria</td>
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<td>56. Nissan</td>
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<td>57. Sikaiana</td>
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<td>58. Tikopia</td>
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<td>59. Solomon Is.</td>
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<td>60. Santa Cruz</td>
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<td>61. Banks Is.</td>
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<td>62. New Hebrides</td>
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<td>63. Fiji</td>
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<td>64. So. Lau</td>
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<td>65. Tonga</td>
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<td>66. Samoa</td>
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<td>67. Futana</td>
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<td>68. Uvea</td>
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<tr>
<td>69. Cook Is.</td>
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<td>70. Society Is.</td>
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<tr>
<td>71. Mangareva</td>
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<tr>
<td>72. Marquesas</td>
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<tr>
<td>73. Hawaii</td>
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<tr>
<td>74. Austral Is.</td>
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<tr>
<td>75. Astrolabe Bay</td>
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<td>76. Borneo</td>
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<td>77. Sumatra</td>
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<td>78. Mias</td>
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<tr>
<td>79. Eastern Carolines (32)</td>
<td></td>
</tr>
</tbody>
</table>
Statistical Conclusions

79. Eastern Carolines (32-35)
80. Southwestern Carolines (2-6)
81. Western Carolines (7-9)
82. West Central Carolines (10-19)
83. East Central Carolines (20-29)
84. Southern Carolines (30-31)
85. "Faramicronesia" (41-45)
86. Admiralties-St. Mathias (46-49)
87. Polynesian Outliers (52-58)
88. New Guinea (Including 75)
89. Melanesia (50-51, 59-62, and elsewhere in Melanesia)
90. Western Polynesia-Fiji (63-68)
91. Central Polynesia (69-74 and elsewhere in Polynesia)
92. Indonesia (76-78 and elsewhere in Indonesia)

Table 9. to follow gives a list of the traits we have discussed and the islands and areas of their occurrence, numbered according to the key in Table 8. Also included are names of places not included in the key, some of which were not included in our study. Some of these places are represented. Some of the traits which we have discussed as occurring in the larger areas are not distributed to islands within those areas in Table 4.; for example, board beams and cylindrical beams (traits 58 and 60), which occur in Indonesia, are not distributed to individual Indonesian islands; this is because specific information on those islands has not been compiled. Some other traits have been similarly treated for another reason; for example, multiple canoes (traits 107 & 109) have not been distributed to individual islands of Melanesia; the reason for this is that they are unusual in that area, hence are not considered to be diagnostic.

All traits mentioned above with an article prefixed to the number designating them are traits occurring on Pama.
### Table 4

<table>
<thead>
<tr>
<th>Traits and areas of Occurrence</th>
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<tbody>
<tr>
<td>1. Springboard coconut grater</td>
</tr>
<tr>
<td>2. Board-shaped grater</td>
</tr>
<tr>
<td>3. Double forefoot grater</td>
</tr>
<tr>
<td>4. Horizontal</td>
</tr>
<tr>
<td>5. Tripod</td>
</tr>
<tr>
<td>6. Quadruped stool</td>
</tr>
<tr>
<td>7. Biped stool</td>
</tr>
<tr>
<td>8. Sieve</td>
</tr>
<tr>
<td>9. For turmeric</td>
</tr>
<tr>
<td>10. For arrowroot</td>
</tr>
<tr>
<td>11. Pole-handled breadfruit picker</td>
</tr>
<tr>
<td>12. Diagonal cross-piece</td>
</tr>
<tr>
<td>13. Natural fork</td>
</tr>
<tr>
<td>14. Round hanger</td>
</tr>
<tr>
<td>15. Tty kite</td>
</tr>
<tr>
<td>16. Fishing kite</td>
</tr>
<tr>
<td>17. No kites</td>
</tr>
<tr>
<td>18. Rod on kite</td>
</tr>
<tr>
<td>20. Shark bait</td>
</tr>
<tr>
<td>21. Cobweb bait</td>
</tr>
<tr>
<td>22. Fire plow</td>
</tr>
<tr>
<td>23. By men only</td>
</tr>
<tr>
<td>24. Fire drill</td>
</tr>
<tr>
<td>25. By women only</td>
</tr>
<tr>
<td>26. Board fire saw</td>
</tr>
<tr>
<td>27. Fire by percussion</td>
</tr>
<tr>
<td>28. Tinderbox</td>
</tr>
<tr>
<td>29. Kava circle</td>
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<tr>
<td>30. Ritual presentation of cup</td>
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### Statistical Conclusions

#### Table 9

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<tr>
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1, 11, 36, 40, Flores  
2-11, 13, 35-37, 42, 51-53, 55, 69, Rotuma, Ellice, 77, Celebes, Sulu,  
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