AUSTRALIAN MUSEUM SCIENTIFIC PUBLICATIONS

Ball, Eldon E., 1982. Annotated bibliography of references relating to Long Island, Papua New Guinea. *Records of the Australian Museum* 34(11): 527–547. [31 July 1982].

doi:10.3853/j.0067-1975.34.1982.293

ISSN 0067-1975

Published by the Australian Museum, Sydney

nature culture discover

Australian Museum science is freely accessible online at www.australianmuseum.net.au/publications/6 College Street, Sydney NSW 2010, Australia



ANNOTATED BIBLIOGRAPHY OF REFERENCES RELATING TO LONG ISLAND, PAPUA NEW GUINEA

ELDON E. BALL

Department of Neurobiology, Research School of Biological Sciences, Australian National University, Canberra.

This bibliography is an attempt to include all works published before 1900 which mention Long Island, as well as later studies, up to 1979, which make a significant contribution to our knowledge. Unpublished documents have proved important sources of information, and I have included those which I have seen. No doubt there are others which have been omitted. I have cited relevant newspaper articles that I knew of but there has been no systematic examination of newspapers. Citations are as given in library cataloging systems. For each entry a summary is given of information relating to Long Island. German language entries have been translated with the help of V.B. Meyer-Rochow and G. Stange.

Allied Geographical Section, 1943a. Southwest Pacific Area. Terrain Study No. 59. Area Study of Madang, Volume 1.

Overall geographical summary of conditions on the island covering: (a) offshore conditions; (b) anchorages and coastline; (c) villages; (d) tracks and movement; (e) lakes and swamps; (f) vegetation; (g) resources; (h) population; (i) administration; (j) meteorological information; (k) other general matters. The information, compiled from interviews and aerial photographs, is fragmentary and occasionally in error.

Allied Geographical Section, 1943b. Southwest Pacific Area. Terrain Handbook No. 14. New Guinea: Saidor.

Rainfall and weather data for Rai Coast and Cape Rigny. Superseded by McAlpine et al., 1975.

Anderson, M. A., 1978/79. Comments on the presence of a crocodile or crocodiles in Lake Wisdom on Long Island, north of New Guinea. *Science in New Guinea* 6(1): 6-8.

Infers that crocodiles can climb up and down steep slopes and that the species living in Lake Wisdom is 'Crocodilus [Crocodylus] porosus'. States (incorrectly) that, 'the coast of Long Island lacks suitable habitats for crocodiles'.

Australia, Parliament, 1923. Report to the League of Nations on the Administration of the Territory of New Guinea from 1st July, 1921, to 30th June, 1922. Government Printer for the state of Victoria, Melbourne.

#36 Long Island, in latitude $5^{\circ}20'$ S, longitude $147^{\circ}10'$ E, about 35 miles from the coast, is an island of low hills, with two cone-shaped craters, one of which is 2000 feet high. Its area is about 170 square miles. It has no harbours or anchorages, and is reported to be uninhabited. Crown Island is about 10 miles to the north-west of Long Island and is apparently not inhabited.

Australia, Prime Minister's Department, 1937. Official Handbook of the Territory of New Guinea Administered by the Commonwealth of Australia. Commonwealth Government Printer, Canberra: 96.

Long Island, in latitude 5 deg. 20 min. S., longitude 147 deg., 10 min. E., about 30 miles from the coast, is an island of low hills with two cone-shaped craters, one of which, Reumur Peak, is 4278 feet high, and the other, Cerisy Peak, 3,727 feet. Its area is about 160 square miles. It has no harbours or anchorages, and is inhabited*.

*A party landed on Long Island in February, 1928, and after climbing the steep sides of a mountain to a height of some 1,500 feet, looked down on the waters of a lake, about 4 miles by 5, about 1,000 feet below them. The shore natives, numbering approximately 300, are immigrants from Siassi Islands: they declare that the heights are inhabited by natives whom they have never seen, but whom they blame for the disappearance of their women from time to time. The name Lake Wisdom was given to the lake. It is interesting to note that in 1921 the island was reported as uninhabited.

- Ball, E., 1977. Life among the ashes. Australian Natural History 19(1): 12-17.
 - Popular account of the biological colonization of Motmot Island in Lake Wisdom, 1969-74.
- Ball, E. E., 1982. Long Island, Papua New Guinea European exploration and recorded contacts to the end of the Pacific War. Rec. Aust. Mus. 34(9): 447-461.
 - Summarizes European contact with and knowledge of Long Island up to the end of World War II. Includes extensive quotes from original sources.
- Ball, E. E. and J. Glucksman, 1975. Biological colonization of Motmot, a recently-created tropical island. *Proc. R. Soc. Lond. B.* 190: 421-442.
 - Summarizes the geological history of Motmot and its biological colonization 1969-72.
- Ball, E. E. and J. Glucksman, 1978. Limnological studies of Lake Wisdom, a large New Guinea caldera lake with a simple fauna. *Freshwater Biology* 8: 455-468.
 - Summarizes physical conditions and biota of Lake Wisdom from observations made 1969-1976. An approximate bathymetric map is presented along with data on temperature, water chemistry, 0_2 saturation, and light penetration in relation to depth. The relatively simple biota of the lake is described and it is suggested that this simplicity is due to creation of the lake within the past 300 years combined with the relatively long distance from sources of colonists.
- Ball, E. E. and J. Glucksman, in press. Biological colonization of a newly-created tropical volcanic island & limnological studies on New Guinea lakes, 1972-1978. *National Geographic Society Research Reports, 1972*. National Geographic Society, Washington, D.C.
 - Brief summary of the colonization of Motmot 1969-1978 and comparison of the physical properties and biotas of Lake Wisdom and Lake Dakataua (West New Britain).
- Ball, E. E. and J. Glucksman, 1980. A limnological survey of Lake Dakataua, a large caldera lake on West New Britain, Papua New Guinea, with comparisons to Lake Wisdom, a younger nearby caldera lake. Freshwater Biology 10:73–84.
 - Compares the biota and physical characteristics of two New Guinea caldera lakes; Lake Dakataua and Lake Wisdom. Hypothesizes that the simpler biota of Lake Wisdom is due to the shorter time since creation of the lake and the greater distance from sources of colonists.
- Ball, E. E. and I. M. Hughes, 1982. Long Island, Papua New Guinea People, Resources and Culture. *Rec. Aust. Mus.* 34(10): 463-525.
 - Discusses most aspects of life on Long Island with emphasis on the human history

and the relation between the people and their environment.

Ball, E. E. and R. W. Johnson, 1976. Volcanic history of Long Island, Papua New Guinea. In R. W. Johnson (ed.), *Volcanism in Australasia*: 133-147. Elsevier, Amsterdam.

Summarizes geological history of the island from geological observations, oral traditions and historical accounts.

Bamler, G., 1911. Tami. In R. Neuhauss (ed.), *Deutsch Neu-Guinea*, Vol. III: 489-566. Dietrich Reimer A. G., Berlin.

A mythical figure Panku venerated on both Long and Umboi Islands was considered by the Tami Islanders to be responsible for a catastrophic landslide from Cerisy Peak on Long Island. (This landslide is said to have been discussed by von Schleinitz in *Nachrichten aus Kaiser Wilhelmsland*, 1887, but I have been unable to locate this reference). A further mention of Long Island is (p.524-525):

On the other hand there exists a tale that in earlier days Long Island had a connection with New Guinea and that the land went down in a stormy night. Of course the natives tell this story as a tale that an old woman had cursed the land; but which natural event would not be explained by the native as supernatural interactions by evil spirits. In any case this sinking took place centuries ago.

In the legend of Panku langa and Anuto, it is stated (p. 548) that Panku was not seen again, 'until he beat the Kamalandjaleute (Long Island)'. Concerning this legend Bamler states (p. 548):

Probably this tale is a historical reminiscence. Panku was a whaler, as they frequently fished around Rook one hundred years ago. Kapi Molo also seems to be the name of a white man: Kapi = captain. The statement, 'he beat the Kamalandja people' refers to a catastrophe on Cerisy Peak on Long Island, (landslide, mountain collapse) noted by Freiherrn von Schleinitz in the journal Nachrichten aus Kaiser Wilhelmsland, 1887; 'The disaster cannot be very old, the traces are still too fresh'. Disasters of this kind were attributed to white men the same way as the disaster of March, 1888, was blamed on the white men Hunstein and von Below.

- Bamler, G., 1912. Das Erdbeben vom 14 auf den 15 September 1906. *Naturhistorische Gesellschaft Nuremberg Abhandlungen* 19:17-18
 - . . . Of large catastrophes there is only one memorized (remembered), the collapse of the volcano on Long Island. This happened during the lifetimes of the grandfathers of the oldest men now living, which is about 100 years ago. Some other reports are entirely legendary. For example that disaster on Long Island has been exploited into legends . . .
 - . . . More interesting with regard to the last earthquake is the legend that Long Island was connected to mainland New Guinea in the past. Unfortunately, I have forgotten the exact contents of the tale. I only remember it was something about a grandmother and grandchild. The grandmother was angered at something and in her anger she enchanted the country which was destroyed by a big tidal wave, that is to say the land sank.
- Bassot, J. M. and E. E. Ball, 1972. Biological colonization of recently created islands in Lake Wisdom, Long Island, Papua New Guinea with observations on the fauna of the lake. *Papua New Guinea Sci. Soc. Proc. 1971* 23: 26-35.

Presents initial observations of Motmot and of the fauna and flora of Lake Wisdom based on a visit in 1969. Superseded by Ball and Glucksman 1975, 1978.

Bennigsen, R. von, 1900. Über eine Expedition im Hinterlande von Friederich-Wilhelmshafen und Stephansort. *Deutsches Kolonialblatt* 11: 324-326.

Reports visit of 1900; 'We approached Long Island for a short time, without anchoring, because Mr Boag wished to confer with the natives about hiring them in the future. A canoe came alongside with two men in war regalia and the people were presented with many gifts on the promise that we would soon come again. The apparently fruitful and well-wooded island is only thinly populated by a tribe whose appearance indicates their relationship with the Papuans.'

Bennigsen, R. von, 1901. Reise des Gouverneures nach dem Süden von Deutsch-Neu-Guinea. Deutsches Kolonialblatt 12: 282-283.

Von Bennigsen sailed between Long Island and Lottin Island in 1900 but did not land.

Best, J. G., 1956a. Investigations of recent volcanic activity in the Territory of New Guinea. *Bur. Miner. Resour. Aust. Rec. 1956/12*. Unpublished.

Contains short sections on the physiography, structure and past volcanic activity of Long Island, and a good description of the 1953 eruption of Motmot.

Best, J. G., 1956b. Investigations of recent volcanic activity in the Territory of New Guinea. *Proc. 8th Pacific Science Congress, Manila, 1953.* Vol II Geology, Geophysics and Meteorology: 180-204.

Identical to Best, 1956a, but contains photographs.

Blong, R. J., 1975. The Krakatoa myth and the New Guinea highlands. *J. Polynes. Soc.* 84: 213-217.

Discusses the relation between 'times of darkness' as described by highlands people and known volcanic eruptions. Discards the idea that the eruption of Krakatoa may have been a significant source of ash in the highlands, and suggests Long Island, among others, as a possible source for the ash which caused the 'times of darkness'

Blong, R. J., 1979. Huli legends and volcanic eruptions, Papua New Guinea. *Search* 10: 93-94.

States that the most recent 'time of darkness' recorded in Huli legends was associated with deposition of the Tibito Tephra which was erupted 'circa 1700 AD' from Long Island. A map is presented showing the approximate location of the 1.5 cm compacted thickness isopach of the Tibito Tephra.

Blong, R. J., C. F. Pain and C. O. McKee, 1982. Geomorphology and tephrostratigraphy of Long Island, Papua New Guinea. *Rec. Aust. Mus.* 34(7): 419-426.

Covers basically the same material on the geomorphology and tephrostratigraphy of Long Island as Pain, Blong and McKee (in press), but in somewhat less detail.

Bodrogi, T., 1961. Art in north-east New Guinea. Translated by E. Racz. Hungarian Academy of Sciences, Budapest.

General description of ethnography and art styles of the islands of Vitiaz Strait and the coast of the Huon Peninsula. Long Island is incorrectly described as being uninhabited.

Bodrogi, T., 1969. Data regarding the ethnography of Umboi and the Siassi Islands. *Acta Ethnographica* 18 (1-3): 187-228.

Discusses Long Island in relation to 'Kultur C' of Schmitz and the Kilibob-Manup

legend. Argues that the Austronesian speakers now on Long Island and the adjacent islands came from the direction of Karkar Island, and that Long, Siassi and Umboi eventually became 'centres of gravity' of that culture.

Braun, F. and C. V. Sheathsley, 1937. On both sides of the Equator. Lutheran Book Concern, Columbus, Ohio: 122.

The plan was adopted to take the territory along the Rai Coast and to the Finisterre mountains, with the new station Ulap and the older station Sio adjoining, These stations with Siassi, Rook, Lotin and Long Island formed the 'Finisterre District' or American sphere of interest.

Bridge, Capt. C. A. G. to Rear-Admiral George Tryon, C. B., 1885. Supplement to the New South Wales Government Gazette No. 123. Monday, 23rd March, 1885: 2003-5.

Brief description of visit of H.M.S. 'Dart' to Long Island on January 16th, 1885, for the purpose of declaring it a British Protectorate.

14. Dull weather and heavy rains, during which dangers could not be discerned till close to, prevailed on January 16th, on which day the 'Dart' reached Long Island. After examining the eastern and south-western shores without being able to discover any natives, I directed Lieutenant and Commander Moore to return to the southern point at which I landed, and having on a bluff some 40 feet high above the sea set up a flag-staff, hoisted the British flag and read the Proclamation. A copy of the Proclamation was nailed to the flag-staff.

Carey, S. W. 1938. The morphology of New Guinea. *The Australian Geographer* 3 (5): 3-31.

The next volcanic line passes through Long and Crown Islands and is continued in a north-westerly direction as a submarine ridge. Crown Island appears to be a truncated cone nearly 2,000 feet high and about 10 miles in circumference. Long Island is a large island with a rim of steep mountains up to 4278 feet in height, surrounding an elevated caldera lake about 20 square miles in extent. Mr Nurton, Patrol Officer, who visited the island in 1932, estimated from native lore that the catastrophic explosion which formed the caldera occurred about 300 years ago. The rain of ash and debris destroyed all life on the island as well as on Crown Island 12 to 15 miles to the north-west, and deaths occurred in the Siassi Group over 60 miles away. The present inhabitants are descendants of Siassi Islanders who colonized the island three generations ago.

Chalmers, J., n.d. (1887). Pioneering in New Guinea. Religious Tract Society, London.

Account of the declaration of Long Island as part of the British Protectorate in 1885:

By 7.30 we were in the open, in a deluge of rain, steaming to Long Island. This is another of those at one time active, living volcanoes, now dead, living only in newer life and truer beauty. From the base of the highest peak — 1,500 feet — a long low ridge runs, which, when some distance off, gives the appearance of a very long island. We sailed well round it, but could see no appearance of living beings, neither house nor plantation. We could not land on the north-west side, so decided to hoist the flag on the high south side on a prominent place. We landed, and ascended an embankment of volcanic earth, about forty feet above sea-level, and there dug a small hole, close by a stump. The pole was raised and fastened to the stump, and again Captain Bridge performed the ceremony. The opportunity was favourable to address the officers and men, and in kind and well-chosen words he told them how pleased he was with the manner in which the work had been done, and what satisfaction he would have in reporting to the proper quarter respecting Captain Moore, his officers and men.

Chinnery, E. W. P., n.d. (1927?). Certain natives in south New Britain and Dampier Straits. *Territory of New Guinea*. *Anthropological Report No. 3*. Government Printer, Melbourne: 33.

Mr. Bamler has supplied a vocabulary (Appendix B) of the languages spoken at Barim. According to his notes it extends to Tolokiwa and Long Island, both of which lie west of Umboi. He goes on to say that only two of the Rook Island groups now speak this dialect. They are Barim and Alonai, a small island near Mandok. One man of Barim told me that a similar language is spoken at Kiari, near Segaba, on the Rai Coast of New Guinea.

Cooke, R. J. S., C. O. McKee, V. F. Dent and D. A. Wallace, 1976. A striking sequence of volcanic eruptions in the Bismarck volcanic arc, Papua New Guinea, in 1972-75. In R. W. Johnson (ed.), *Volcanism in Australasia*: 149-72. Elsevier, Amsterdam.

Describes the 1973-74 eruptions of Motmot in considerable detail.

Coultas, W. F. 1933-35. *Journal and letters of William F. Coultas*. Vol. IV. Whitney South Sea Expedition, October 1933-March 1935. Unpublished, in Dept of Ornithology, American Museum of Natural History, New York.

Invaluable extensive description of how the Long Island people lived in 1933. Contains information on all aspects of life including food, clothing, housing, social interactions, contacts with the outside world, etc. Valuable source concerning avifauna and other wildlife in 1933. Extensively quoted in Ball (1982) and Ball and Hughes (1982).

D'Addario, G. W., 1972. The 1968 eruption of Long Island. Appendix 2, pp. 110-112 in Johnson, Taylor and Davies, Geology and petrology of quaternary volcanic islands off the north coast of New Guinea. *Bur. Miner. Resour. Aust. Rec.* 1972/21. Unpublished.

Describes the 1968 eruption which created Motmot, the island in Lake Wisdom.

Dampier, W., 1729. A Voyage to New Holland. 1939 edition. J. A. Williamson (ed.). The Argonaut Press, London: 218-219.

Brief description of Long and Crown Islands, and their naming in 1700.

The 31st in the Forenoon we shot in between 2 Islands, lying about 4 Leagues asunder; with Intention to pass between them. The Southermost is a Long Island, with a high Hill at each End; this I named Long Island. The Northermost is a round high Island towering up with several Heads or Tops, something resembling a Crown; this I named Crown-Isle, from its Form. Both these Islands appear'd very pleasant, having Spots of green Savannahs mixt among the Wood-land: The Trees appeared very green and flourishing, and some of them looked white and full of Blossoms. We past close by Crown-Isle; saw many Coco-nut-Trees on the Bays and the Sides of the Hills; and one Boat was coming off from the Shore, but return'd again. We saw no Smoaks on either of the Islands, neither did we see any Plantations; and it is probable they are not very well peopled. We saw many Shoals near Crown-Island, and Riffs of Rocks running off from the Points, a Mile or more into the sea. My Boat was once over-board, with Design to have sent her ashore; but having little Wind, and seeing some Shoals, I hoisted her in again, and stood off out of Danger.

Deutsche Kolonialzeitung, 1897. Einiges über die Eingeborenen von Bogadjim, Astrolabebai, Kaiser Wilhelmsland. Deutsche Kolonialzeitung 10(38): 379-80.

Early version, collected by the missionary Hoffmann at Bogadjim Village, of the Kilibob-Mandumba (Manup) legend, including a description of the creation of Long Island for Mandumba.

- Deutsche Kolonialzeitung, 1910. Südsee-Expedition der Hamburgischen Wissenschaftlichen Stiftung. Deutsche Kolonialzeitung 27(6): 87-88.
 - Says that the expedition stopped at Long Island, but no details are given.
- Dexter, D. S. A., 1961. Australia in the War of 1939-1945. Army. The New Guinea Offensives, Australian War Memorial, Canberra. Pp. 522, 731.
 - Long Island was an important barge hideout for the Japanese during 1943. Describes occupation of Long Island by U.S. and Australian troops in late December 1943.
- Diamond, J. M., 1974a. Recolonization of exploded volcanic islands by New Guinea birds. *Explorers Journal* 52(1): 2-11
 - Popular account of the author's 1972 survey of the avifauna of Long Island and the adjacent islands.
- Diamond, J. M., 1974b. Colonization of exploded volcanic islands by birds: the supertramp strategy. *Science* 184: 803-6.
 - Description and comparison of avifaunas on islands in the Vitiaz Strait. Long-Island is of special interest due to its recolonization following defaunation by an eruption during the eighteenth century. It has a paucity of montane bird species but high overall bird density especially of 'supertramps' which specialize in overseas colonization and rapid breeding.
- Diamond, J. M., 1975. Assembly of species communities. In M. J. Cody and J. M. Diamond (eds.)., *Ecology and Evolution of Communities:* 342-444. Belknap, Cambridge (Mass.).
 - Discusses composition and size of avifauna of Long Island in relation to island size and time since defaunation.
- Diamond, J. M., 1976. Preliminary results of an ornithological exploration of the islands of Vitiaz and Dampier Straits, Papua New Guinea. *Emu* 76: 1-7.
 - Birds of special interest on Long Island were *Falco berigora* and *Numenius madagascariensis*. The occurrence of several other species is discussed.
- Diamond, J. M., 1977. Colonization of a volcano inside a volcano. *Nature* 270: 13-14. Good brief summary of the studies of Ball and Glucksman on the colonization of Motmot (an island in Lake Wisdom) and the limnology of the lake.
- Diamond, J. M., 1980. Reconstitution of bird community structure on Long Island, New Guinea, after a volcanic explosion. *National Geographic Society Research Reports* 1972. National Geographic Society, Washington, D.C.
 - Discusses avifaunal community structure of Long Island.
- Dumont D'Urville, J. S. C., 1832. Voyage de la corvette L'Astrolabe exécuté par ordre du Roi, pendant les années 1826-1827-1828-1829. Sous le commandement de M. J. Dumont D'Urville, Capitaine de Vaisseau. Histoire du Voyage. Vol. 4. J. Tastu, Paris: 543-544.
 - At one o'clock we were already beneath the steep and rugged flanks of Mt. Reaumur, which also appeared to have been a volcano, and we followed, at a distance of less

than two miles, the deserted beaches of Long Island.

This island was quite incorrectly named by Dampier, probably because of the first view of the island which that navigator saw, because it has a rather round shape and its circumference is not less than forty miles. The ground in the vicinity of the shore appeared more arid than all the other islands and we saw neither coconut trees nor any trace of inhabitants.

Crown Island, which is no more than seven miles to the NW of Long Island, is a plateau four or five miles in circumference and of great height. The ground, although rugged, showed no sign of the sharp ridges which caused Dampier to give it the name Crown Island. Perhaps because the irregularities had been effaced by the growth of forest with the passage of time, perhaps because that navigator, having passed closer to the island than me, was in a better position to see these things. There was no sign of smoke nor inhabitants; the sea was so calm that it is probable we would have seen a few canoes, had the island been inhabited.

Egloff, B. J., 1975. Archaeological investigations in the coastal Madang area and on Eloaue Island of the St. Matthias Group. *Rec. Papua New Guinea Museum*, No. 5.

Presents preliminary account of archaeological sites on Long Island described more fully in Egloff and Specht (1982), and refers these to his more extensive work in the Madang area.

Egloff, B. J. and J. R. Specht, 1982. Long Island, Papua New Guinea — Aspects of the Prehistory. *Rec. Aust. Mus.* 34(8): 427-446.

Description of five Long Island archaeological sites and the artefacts found there. The oldest of these sites dates from 1040±80 years bp. The significance of finds of obsidian and potsherds is discussed, especially in relation to trade connections.

Evans, G., 1940. The characteristic vegetation of recent volcanic islands in the Pacific. *Kew Bulletin* — 1939: 43-44.

Describes the coastal vegetation on the basis of a three day visit to Long Island in 1925. Did not see any evidence that the island was inhabited. Contains several erroneous statements about the island.

Feldt, E., 1946. The Coast Watchers. Oxford University Press, Melbourne.

Describes the landing of coast watchers on Long Island in October 1943, several months before the arrival of Allied troops.

Findlay, A. G., 1877. A directory for the navigation of the South Pacific Ocean with descriptions of its coasts, islands, etc. from the Strait of Magalhaens to Panama, and those of New Zealand, Australia, etc. Its winds, currents and passages. 4th edition, Richard Holmes Laurie, London.

Long Island, in lat. 5°20'S long. 147°10'E is divided by a deep valley into two parts. The southern portion rises to a high conical peak about 4,000 ft. high; the northern consists of three peaks grouped together, and not reaching to quite the same height as the southern. Crown Island, about 9 miles north-westward of Long Island, has rather a level summit, and is lower than Long, or Rich Island.

Finsch, O., 1885a. Reise nach Neu Guinea. Nachrichten über Kaiser Wilhelms-Land und den Bismarck-Archipel. Neu Guinea Compagnie zu Berlin. Heft 2: 4.

On Oct 10 [1884] we travelled along the north coast of Crown Island, which has the form of a conspicuous, thickly wooded mountain approx. 1500' high; neither coconut palms nor traces of people were to be seen. Long Island and Dampier Island [Karkar I], as well as Rich Island we saw from afar. All are thickly wooded. Here there are reefs everywhere, so that sailors must be very careful.

Finsch, O., 1885b. Aus den Berichten des Dr. Finsch über die im Auftrage der Compagnie nach Neu Guinea ausgefuhrten Reisen. Nachrichten über Kaiser Wilhelms-Land und den Bismarck-Archipel. Neu Guinea Compagnie zu Berlin. Heft 3: 5.

On the 29th [November, 1884] we travelled along the SE coast of Long Island as Dampier Strait is very dangerous because of many reefs and we had realized for a long time that one could put little or no trust in the charts. Long Island is mostly thickly wooded or covered with scrub and has no coconut palms or people; or at least it is very thinly peopled, for we saw only 2 or 3 small settlements in inaccessible bays whose inhabitants came offshore in a canoe and were difficult to persuade to come closer. The island has no harbours and hardly any anchorages.

Finsch, O., 1888a. Samoafahrten. Reisen in Kaiser Wilhelms-Land und Englisch-Neu Guinea in den Jahren 1884 u 1885 an Bord des Deutschen Dampfers "Samoa". Hirt und Sohn, Leipzig: 188-189.

Good physical description of Long Island as seen from the sea. Vegetation described as thinner than that on Karkar Island. Describes trade with the people of Long Island and some of their artefacts. Full translation in Ball, 1982.

Finsch, O., 1888b. Ethnologischer Atlas: Typen aus der Steinzeit Neu-Guineas-Samoafahrten von Dr. O. Finsch. Hirt und Sohn, Leipzig. 27; 35; 36; Plate VII-6; Plate VIII-1 & 2; Plate XVIII-4; Plate XXII-1 & 2.

Gives drawings and discussion of canoe ornaments, bracelets and 'war ornaments' from Long Island.

Finsch, O., 1891. Ethnologische Erfahrungen und Belegstücke aus der Südsee. Zweite Abtheilung: Neu-Guinea. *Annalen des K. Naturhistorischen Hofmuseums*, Band VI, Heft 1: 41.

Those 3 ethnological sections comprise the following areas:

- (1) Mitrafels to Cap Croissilles and Karkar along with the other islands (Long, Rook), the French Islands, as well as the whole of western New Britain (I pages 117, 120, 121) except for the Gazelle Peninsula. The following things are characteristic for this eastern region: particular shape and decoration of certain bracelets (Plate III, Fig. 20, 21) and chest ornaments (Plate III, Fig. 23); hair combs of bamboo; frequent usage of dogs teeth; strange (particular) braided objects of yellow stained plant fibres (Plate XXII, Fig. 3), a unique head covering (cap of tapa and hair); much wood carving (headrest benches, Plate XVIII, Fig. 1, 2), a particular kind of shield (Plate XXIV, Fig. 1, 2); little nose decoration; broad, particularly very artistically engraved tortoise-shell bracelets.
- Fisher, N. H., 1939. Report on the volcanoes of the Territory of New Guinea. Geological Bulletin 2 (Administration of the Territory of New Guinea). Commonwealth Government Printers, Canberra: 5.

Very brief discussion of the structure of Long Island. No trace of volcanic activity on the island in 1939.

Fisher, N. H., 1940. The volcanoes of the mandated Territory of New Guinea. *Proc. 6th Pacific Science Congress.* University of California, Berkeley, Vol. 2: 889-94.

Long Island, or Arop, has a large central crater lake about 6 by 8 km (4 by 5 mi.) in extent and 150 m (500 ft) above sea level with extinct cones up to 1200 m. (4000 ft) in height at the northeast and southwest ends. Crown Island is a thickly timbered remnant of a volcanic cone.

Fisher, N. H., 1957. Catalogue of the active volcanoes of the world. Part V. Catalogue of the active volcanoes and solfatara fields of Melanesia. International Volcanological Assoc., Naples: 12-13.

Summarizes knowledge of geology of Long Island, and briefly describes the eruptive activity of 1953-55.

Gill, G. H., 1968. Australia in the War of 1939-45. Navy. Royal Australian Navy, 1942-1945. Australian War Memorial, Canberra: 270-273, 344.

Describes destruction, in the Vitiaz Strait and Huon Gulf, of a large Japanese convoy sent from Rabaul to strengthen the garrison at Lae in March 1943. Brief description of the occupation of Long Island by Allied forces in December 1943.

Great Britain, Hydrographic Office, Dept. of the Admiralty, 1933, 1946, 1971. *Pacific Islands Pilot. Vol. 1. The Western Groups and the North Coast and Southeast Part of New Guinea*. Hydrographer of the Navy, Taunton, 6th (222), 7th (241-242) and 9th (246) editions.

Brief description of Long Island and its surrounding waters. The 7th edition, 1946, gives the population in 1932 as 230 persons.

Groves, W. C., 1934. The natives of Sio Island, southeastern New Guinea: a study in culture contact. *Oceania* 5: 43-63.

Sio village on the north coast of the Huon Peninsula trades with, and supplies missionaries to, Long Island. The Sio formerly used flakes of obsidian 'from Siassi and Arop' to shave children's heads. Some betel nut mortars 'carved in the form of grotesque human figures, and said to be of Arop Island origin, are of particular interest from the artistic point of view.'

Hagen, B., 1899. Unter den Papuas. Land und Leute, Thiere und Pflanzen in Deutsch Neu-Guinea. C. W. Kreidel's Verlag, Wiesbaden.

Text mentions only that Long Island is one of a string of islands off the north coast, and was sighted from a mountain inland behind Stephansort. Appendix gives Kilibob-Mandumba legend in a version similar to, but more complete than, that in *Deutsche Kolonialzeitung* for 1897.

Hammer, K. L., 1907. Die geographische Verbreitung der vulkanischen Gebilde und Erscheinungen im Bismarckarchipel und auf den Salomonen. Dissertation zur Erlangung der Doktorwürde bei der philosophischen Fakultät der Grossherzoglich Hessischen Ludwigs-Universität zu Giessen. Munchow'sche Hofund Universitats-Druckerei, Giessen.

Explains why Dampier gave the inappropriate name 'Long Island' to a circular island. States the island has three peaks: Reaumur in the north, Cerisy in the south, and Coriz in the west. Cerisy said to be the highest with an elevation of 609 metres. The peaks are described as part of an old crater wall.

Harding, T. G., 1967a. A history of cargoism in Sio, north-east New Guinea. *Oceania* 38: 1-23.

[8] The Sios also became energetic evangelists — the first party of mission helpers began work in Malalomai in 1925 — and they could later claim the eastern Rai coast and Arop Island as their own missionary field.

Harding, T. G., 1967b. *Voyagers of the Vitiaz Strait*. University of Washington Press, Seattle and London.

Describes voyages by Long Islanders and trade between them and the inhabitants of neighbouring islands. Quoted extensively in Ball (1982), Ball and Hughes (1982).

Heavey, W. F., 1947. Down Ramp! Infantry Journal Press, Washington, D. C.

Describes occupation of Long Island by Allied troops in December 1943. Similar coverage in U.S. Army, Second Engineer Special Brigade (1946) and in U.S. Army, Office of the Chief Engineer GHQ (1959).

Hornabrook, R. W., 1974. The demography of the population of Karkar Island. *Phil. Trans. R. Soc. Lond.* B. 268: 229-39.

[230] Average annual population increase for Long Island said to be similar to the 1.86% recorded in Karkar between 1925 and 1939.

Hunter, R. L., 1841. Eastern Dampier Strait. The Nautical Magazine and Naval Chronicle 10: 743-45.

According to Wichmann (1909, 50) Hunter sighted Long Island in 1840 and stated that whalers called it Crown Island.

Johnson, R. W., 1970. Seismicity in the Bismarck Volcanic Arc. *Bur. Miner. Resour. Aust. Rec. 1970/35*. Unpublished.

Long Island was a centre of deep-focus earthquakes during 1958-69.

Johnson, R. W., 1976. Late Cainozoic volcanism and plate tectonics at the southern margin of the Bismarck Sea, Papua New Guinea. In R. W. Johnson (ed.), *Volcanism in Australasia*. Elsevier, Amsterdam: 101-16.

Long Island is in the western of two late Cainozoic volcanic arcs at the southern margin of the Bismarck Sea. This western arc is associated with the boundary between the south Bismarck and Indo-Australian plates.

Johnson, R. W., G.A.M. Taylor, and R. A. Davies, 1972. Geology and Petrology of Quaternary Volcanic Islands off the North Coast of New Guinea (including an Appendix on the 1968 eruption of Long Island, by G. W. D'Addario). Bur. Miner. Resour. Aust. Rec. 1972/21. Unpublished.

At the time of its compilation, this was the most complete summary of Long Island geology. Now partially superseded by Ball and Johnson (1976), Blong, Pain and McKee (1982), and Pain, Blong and McKee (in press).

King, F. J., 1844. Navigation through St. George Channel to the westward towards the coast of New Guinea. *The Nautical Magazine and Naval Chronicle* 13: 12-13.

Antediluvian Island — 6th, made a round island about two miles in circumference, surrounded by a reef which stretched to the south-east towards Long Island, on which the Lady Blackwood struck in 1840, making a passage between the two islands. This island I called Antediluvian Island, and is uninhabited; by good observations is in lat. $5^{\circ}45'$ south, long. $146^{\circ}50'$ east. The abovenamed islands and reefs are not layed in Horsburgh's, Norie's, or any charts on board the Waterwitch, or any I have hitherto seen.

Kisokau, K., 1974. Analysis of avifauna stomach contents of Long and Crown Islands, Madang District. *Science in New Guinea* 2(3): 261-62.

Lists gut contents of nine species of Long Island and Crown Island birds.

Lawrence, P., 1964. Road Belong Cargo: a study. of the cargo movement in the Southern Madang District, New Guinea. Manchester University Press, Manchester: 268.

Cult leader Yali said by his followers to have caused the 1953 eruption on Long Island by invoking the local deities in order to express his hatred of Europeans.

Lincoln, P. C., 1976. Rai Coast Survey: First Report. Univ. of Papua New Guinea seminar paper (to appear in *Univ. of Hawaii Working Papers in Linguistics*).

States that the languages spoken in Malasanga, Singorakai and Sel could be treated as a single language and that, 'Various informants, particularly Henry Korim of Lokep, insist that the speech varieties of Lokep Is. [Tolokiwa], Arop Is., and Barim on Umboi Is. are also dialects of this same language.' Continues, 'In other words, without regurgitating the red herring of language vs. dialect, we can say that Sel, Arop, Lokep, Barim, Malasanga and Singorakai are closely related and in fairly recent times were a single speech community: we can call this the *Korap* subfamily after a distinctive word for "man" found in mainland varieties.'

Lincoln then goes on to hypothesize, on the basis of the distribution of the Korap subfamily, that in the past a third trading network existed between the Biliai trade network (centred on Madang) and the Siassi trade network.

Lincoln, P. C., 1977. Subgrouping across a syntactic isogloss.

Unpublished MS, presented at Austronesian Symposium of Linguistic Society of America Linguistic Institute, Honolulu, Hawaii, August 1977.

Only addition to 1976 paper that relates directly to Long Island is the surprising statement that Lokep and Sel materials share only 55% cognates. Quotes a Lukep [Lokep] Islander as saying that some members of the Lukep population 'speak somewhat differently' than others. It was the informant's opinion 'that the Lukep [Lokep] varieties including Arop, Sel, Barim, and Malasanga including Singorakai would all turn out to be mutually intelligible.' As pointed out by Lincoln, further work is clearly needed.

Lindgren, E., 1975. Long Island – A Preliminary Land-Use Plan. Dept. of Agriculture, Stock and Fisheries, Port Moresby. Unpublished.

Previous to this series of papers (i.e. Specht et al., 1982; Blong, Pain and McKee, 1982; Egloff and Specht, 1982; Ball, 1982; Ball and Hughes, 1982) the most complete source of general information about the island. Proposes that Long Island be made a National Park and makes management proposals. Contents include:

- 1. Preamble
- 2. A Management Plan
- 3. Overall Considerations
- 4. References
- 5. Appendices
 - a. Preliminary report-Lindgren 1973
 - b. A reconnaissance survey-Miniotas 1973
 - c. Long Island a survey Ball 1974
 - d. List of the island fauna
 - e. Map of proposed land use

Malcolmson, L. F. (ed.), 1975. National Fisheries School – Madang Province – Fisheries Survey 1975. Roneoed. Department of Agriculture, Stock and Fisheries, Madang.

Description of traditional fishing rights and their establishment; Bok, Kaut and Matapun have rights to the southern part of the island from Biliau on the west to the stone island on the east; Poin Kiau and Malala have rights to the northern part of the island between Biliau and the stone island as well as to Crown Island and the surrounding reefs. Everyone on the island is said to know these boundaries so that problems arose only when Franz Moeder picked up people from one side of the island and used them to collect shells all the way around the island. Moeder was paying 3[†]/lb for trochus in 1975. Turtles on Long Island are said to be of three types; those with a soft skin — olol, those with a medium skin — padodo, and those with a hard skin — kavariu. The local name for turtle is pon. Kavariu is the biggest of the turtles. Turtles are said to be easily caught and the only problem in marketing them is transport. The people of Long Island handline only for immediate consumption. Matapun, Poin Kiau, and Malala all have good beach-netting areas. A canoe census of Long Island found 14 big (12-15') canoes at Matapun, 30 big canoes at Bok and Kaut, 6 small (7') canoes at Poin Kiau, and 20 big and 5 small canoes at Malala.

The names of many species of fish in the local language were collected at Malala village and are given together with their equivalents in New Guinea Pidgin and English.

Manser, W., 1974. Earth Science Abstracts, Papua New Guinea, to 1971. Australian Government Publishing Service, Canberra.

Lists papers dealing with the geology of Long Island. Includes a few brief reports on volcanic and earthquake activity not included here. Entry 01-a-39 erroneously states that D'Entrecasteaux saw Long Island erupting in June 1793. This account clearly refers to an eruption of Ritter Island.

Manser, W. and N. M. Reynolds, n.d. (1976?) Earth Science Abstracts 1972-73. Geological Survey of Papua New Guinea Memoir 4, Port Moresby.

Lists papers dealing with the geology of Long Island. Includes a few brief reports on earthquake activity not included here.

Manser, W., 1978. Earth Science Abstracts 1974-76. Geological Survey of Papua New Guinea Memoir 5, Port Moresby.

Lists papers dealing with the geology of Long Island. Includes a few brief reports on earthquake activity not included here.

McAlpine, J. R., G. Keig and K. Short, 1975. Climatic tables for Papua New Guinea. *Div. of Land Use Research Technical Paper* No. 37. CSIRO, Melbourne.

Summary of Papua New Guinea weather information. Does not contain data for Long Island, but still the most useful available source as it does contain data for such nearby localities as Gizarum (on Umboi Island) and Saidor.

McElhanon, K. A., 1978. A classification of the languages of the Morobe Province, Papua New Guinea, with the linguistic situation of individual villages. Dept. of Linguistics, Research School of Pacific Studies, Australian National University, Canberra.

Contains a map on which the *Lukep* language is shown as being spoken on northwest Umboi, Tolokiwa, and Long Island.

Mennis, M., 1978. The existence of Yomba Island near Madang: fact or fiction. *Oral History* 6: 2-81.

Contains numerous interviews with Austronesian speakers from the vicinity of Madang, many of whom trace their ancestry to the island of Yomba which supposedly once existed off Madang, perhaps on the site of what is presently Hankow Reef. All of those interviewed agreed that Yomba blew up and disappeared before Arop erupted, and many of the interviews give details of the latter eruption. A time of darkness associated with the eruption of Arop was reported as lasting for differing periods, the maximum being three days. The ash fall from Arop was heavy enough to ruin the gardens and cause a time of famine. Some reported that earthquakes and tidal waves were associated with the eruption, while others denied this.

Morgan, W. R., 1966. A note on the petrology of some lava types from east New Guinea. J. Geol. Soc. Aust. 13: 583-591.

Gives a few brief comments about Long Island petrology and includes chemical analysis of one specimen of augite andesite from the east caldera wall.

Moore, W. U. to Captain Bridge, 1885. Supplement to the New South Wales Government Gazette No. 123, Monday, 23rd March, 1885: 2006-09.

Description of the itinerary of the "Dart" and of hydrographic conditions encountered during the cruise to declare portions of New Guinea (including Long Island) a British Protectorate in 1885. Contains no information not contained in Bridge (1885).

Morrell, A., 1833. Narrative of a Voyage to the Ethiopic and South Atlantic Ocean, Indian Ocean, Chinese Sea, North and South Pacific Ocean in the years 1829, 1830, 1831. J. and J. Harper, New York: 77.

On the 12th of November we left Dampier's Island [Karkar], with fair weather and a fine breeze. We sailed at the rate of thirteen miles an hour, assisted by the current, and soon reached the north of Long Island, which is less elevated than the one we had just left. We saw only a few wigwams along the shore, and some natives; but we could not conveniently land, and kept on our course until we had passed the western end of Long Island, and thence proceeded to the coast of New Guinea.

Morrell, Capt. B. Jr., 1832. A narrative of four voyages to the South Sea, North and South Pacific Ocean, Chinese Sea, Ethiopic and Southern Atlantic Ocean, Indian and Antarctic Ocean from the year 1822 to 1831. J. and J. Harper, New York: 459.

I have introduced the foregoing particulars in this place, because the reader is now to be informed, that on the 12th of November, at five, P.M., the Antarctic was on her way to this coast, from Dampier's Island [this must refer to Umboi judging by the direction Morrell was sailing, although most charts at this time applied the name Dampier's Island to the island now known as Karkar — R. J. S. Cooke, pers. comm.] sailing at the rate of thirteen miles an hour, on a sea which was smooth as a mill-pond, rendered so by the current that set through the strait towards the north-west, at the rate of four miles an hour. At six, P.M., we were within one mile of the north shore of Long Island, which is about the same size as the one we had just left, Dampier's Island, but not so much elevated. We saw a few scattering huts along the banks of the seacoast, and a number of natives about them, who made signals for the vessel to stop. But the wind coming off from the land in strong gusts, and wishing to get clear of the island before dark, we continued our course to the westward, until we had cleared the western end of Long Island; when we immediately hauled in to the south, for the north-east of New Guinea, or the island of Papua.

I feel it a duty in this place to put mariners on their guard, by stating that there are many dangerous coral reefs around the two last-mentioned islands; some of which extend several miles into the sea.

Naval Intelligence Division, 1945. Pacific Islands, Vol. IV Western Pacific (New Guinea and Islands Northward). *Geographical Handbook Series B. R.* 519C: 42, 60.

Summary of Long Island geography. In one place the last major eruption which killed all the inhabitants is said to have occurred 150 years ago; in another place this event is said to have occurred 'three centuries ago'.

Oldfield, F., P. G. Appleby and R. W. Battarbee, 1978. Alternative ²¹⁰Pb dating: results from the New Guinea highlands and Lough Erne. *Nature* 271: 339-342.

On the basis of a new assumption (constant rate of supply as compared to constant initial concentration) ²¹⁰Pb dates for the Long Island eruption were changed from 1860 to 1814. However, further more recent changes in assumptions by the same authors give a date of 1685 (R. J. Blong, pers. comm.).

Pain, C. F. and R. J. Blong, 1979. The distribution of tephras in the Papua New Guinea highlands. *Search* 10: 228-230.

Contains a map showing the distribution in the New Guinea highlands of the Tibito Tephra, which originated from an eruption of Long Island. The text states (p. 229):

The youngest tephra, Tibito Tephra, contains an area of at least $87,000 \text{ km}^2$ within the 1.5 cm isopach. This unit was erupted from Long Island 150 km east of Madang > 300 years ago (Blong, in prep.).

Pain, C. F., R. J. Blong and C. O. McKee, in press. Pyroclastic deposits and eruptive sequences on Long Island, Papua New Guinea. *P.N.G. Geol. Surv. Memoir*.

The most detailed discussion of pyroclastic deposits and eruptive sequences on Long Island. Supersedes Johnson, Taylor and Davies (1972) and Ball and Johnson (1976).

Papua New Guinea Government — Area Study; Long Island 1969, Bailey, G. E. See below.

Papua New Guinea Government — Area Study; Long Island 1973, Creagh, R. B. See below.

Papua New Guinea Government — Area Study; Long Island 1974, Spencer, J. B.

These unpublished government documents are among the most valuable sources of information about Long Island since they cover all aspects of life on the island. They were written by whoever was in charge at Saidor.

Papua New Guinea Government — Drought Survey Report — Long Island — N. Owet, Saidor; 1 November, 1972.

All villages on the island were visited, gardens were inspected and the drought problems and food shortage were discussed with the people. No immediate relief was felt to be necessary, although it was felt that the government might need to supply rice before the gardens were again producing. The abundance of protein available to the islanders was noted.

Papua New Guinea Government — Patrol Report — Anonymous, Saidor 4 of 1951/52.

The following excerpt from this report was supplied by Mr. R. B. Creagh while he was ADC, Saidor:

People very natural and eager to please and most hospitable to the patrol. Apparently this has not always been the case, because the O.I.C. was presented with a piece of grapeshot that had fallen from a dead tree — possibly the mark of a visiting ship early in the last century.

Papua New Guinea Government — Patrol Report — Bailey, G. E., Saidor 4 of 69/70.

Contains sections on Cargo Cult activities, an abortive promotional visit to Long Island by a Pacific Islands Regiment Patrol and the failure of a naval vessel to pick up a medical case from Matapun as well as much material also in the 1969 Area Study.

Papua New Guinea Government — Patrol Report — Somers, P. J., Saidor 11 of 69/70.

This patrol visited the island in November, 1969, to set up copra driers in Matapun, Bok and Malala, to explain to the people the proposed plans for copra marketing, to initiate further new plantings of coconuts and to arouse enthusiasm for economic development. According to the report the first two objectives were accomplished while the other two would require follow-up work. The patrol report otherwise contains little information not in the Long Island Area Studies.

Papua New Guinea Government — Patrol Report — Bailey, G. E., Saidor 4 of 70/71.

The patrol discussed with the Long Islanders issuance of a prospecting authority (to whom or for what is not stated). Copra production is said to have increased somewhat since the driers were introduced. Long Island is suggested as 'an excellent site for a wildlife sanctuary.'

Papua New Guinea Government — Patrol Report — Apa, G., Saidor 1 of 1978.

The purposes of this patrol were to: (1) compile the new annual census register, (2) fill out a village survey questionnaire, (3) carry out routine administration, and (4) give talks on: (a) upkeep of the community workforce, (b) misinterpretation of Pono Wildlife Refuge rules, (c) business promotion, and (d) the virtues of newly introduced cash crops. Extensive report containing much information.

Papua New Guinea Post Courier (Newspaper), Port Moresby, Thursday May 3, 1973. "A Long Island spectacular".

Much of this issue describes the eruption of Motmot on May 2, 1973.

Papua New Guinea Post Courier (Newspaper), Port Moresby, Friday May 4, 1973. "Plane crashes near volcano. 3 survive".

Description of the ditching in Lake Wisdom of a Cessna 185 piloted by Richard Leahy during a flight to view the eruption of Motmot.

Papua New Guinea Post Courier (Newspaper), Port Moresby, Monday May 7, 1973. "Volcano still erupting".

A further brief report on the continuing eruption of Motmot.

Papua New Guinea Post Courier (Newspaper), Port Moresby, Monday August 20, 1973. "Plane afloat at last".

Describes recovery, by SCUBA divers, of Richard Leahy's Cessna 185 from a depth of approximately 30 m in Lake Wisdom.

Papua New Guinea Post Courier (Newspaper), Port Moresby, Friday March 5, 1976. "Our National Parks: Each area is different".

Description of the attractions of Long Island as a proposed National Park.

Papua New Guinea Post Courier (Newspaper), Port Moresby, Sept. 1976. Independence First Birthday Souvenir Issue, "Progress Smooth".

Discussion of Madang Province includes the following:

Then there is the Long Island (Saidor District) wildlife reserve for turtles which is gradually becoming well-known. Living in the lake in the middle of a volcano in the centre of the islands is a species of turtle unique in the world. We are trying to get the place made a reserve. Catching the turtle is already restricted to local people, Mr Koibo said.

Papua New Guinea Post Courier (Newspaper), Port Moresby, Friday Oct. 28, 1977. "Tago pushes for gun laws".

Mr Tago said Long Island people had agreed to control their use of shotguns so they did not kill all the animals on Crown and Long Islands.

Papua New Guinea Post Courier (Newspaper), Port Moresby, Friday May 25, 1979. "Madang's volcanic islands".

Excellent popular summary of the volcanic history of Long, Karkar and Manam Islands.

Papua New Guinea Post Courier (Newspaper), Port Moresby, Friday June 15, 1979. "Yomba-PNG's Lost Atlantis".

Greatly abbreviated version of the information given by Mennis in *Oral History* 6: 2-81. Contains several mentions of Long Island.

Parfitt, R. and A. D. Thomas, 1975. Phosphorus availability and phosphate fixation in Markham Valley soils. *Science in New Guinea* 3(2): 123-130.

Considers Long Island a possible source for unusual components of an ash soil at Umi, in the Markham Valley.

Powell, W., 1884. Visits to the Eastern and North-eastern Coasts of New Guinea. In: Further Correspondence Respecting New Guinea, The New Hebrides, and other islands in the Pacific (*In continuation of (C. 3691) July 1883, and (C. 3814) August 1883*). Colonial Office, London. Pp. 13-19.

Cook Island is extinct, but has the appearance of not having been long so; as are also the craters of Lottin, Long and Crown Islands.

Reche, O., 1914. Dampier's Route längs der Nordküste von Kaiser-Wilhelms-Land. Petermann's Geographische Mitteilungen 60: 223-225.

Deals mainly with the identity of Karkar and Bagabag Islands, but useful for sorting out Dampier's figures of other islands on the north coast of New Guinea as well.

Reche, O., 1918. Abel Janszoon Tasman's Reise längs der Küste von Kaiser Wilhelms-Land im Jahre 1643. Mitteilungen der geographischen Gesellschaft in

Hamburg 31: 195-196.

Reche feels that Tasman saw both Crown and Long Islands in 1643, but that he mistook the latter for part of the mainland.

Reche, O., 1954. Nova Britannia. Ergebnisse der Südsee Expedition 1908-1910. II Ethnographie. A. Melanesien, Band 4, 1 Teilband. Ludwig Appel, Hamburg. 18: 89-90.

Repeats claim that Tasman saw Long Island in 1643. Gives very useful account (with photos) of people and conditions encountered during a one-day visit to Long Island in May, 1909. A full English translation is given by Ball (1982).

Reina, P., 1858. Ueber die Bewohner der Insel Rook, östlich von Neu-Guinea, nebst einigen Notizen über Neu-Guinea und benachbarte Inseln. Zeitschrift für allgemeine Erdkunde (N.F.) 4: 353-365.

Account of Father Paul Reina's stay (1852-55?) on Umboi Island as a missionary for the Institute of Foreign Missions of Milan. There are discrepancies in different accounts concerning the period which the missionaries actually spent on Umboi. Most accounts state that they left in 1855 or 1856, but this paper seems to indicate that Reina was still there in 1857. The only mention of Long Island is:

The people said that 25 or 30 years before (that is, when the approximately 40 year old son of an old headman was a boy) a ship appeared from [the direction of ?] Long Island, an island lying between Rook and New Guinea, against whose crew the inhabitants made a fierce attack, so that one of the white men was wounded in the eye. At this the white men landed, burned down a village and killed the inhabitants.

Riesenfeld, A., 1950. The Megalithic Culture of Melanesia. E. J. Brill, Leiden: 362-370, 671-673.

After reviewing myths and legends relating to Long Island (taken mainly from Bamler [1911] and Hagen [1899]) he proposes to identify two migrations to the island: one from Karkar via Astrolabe Bay, the other via Rook (Umboi) Island.

Robson, W., 1911. James Chalmers – Missionary and Explorer of Rarotonga and New Guinea. New Edition. S. W. Partridge and Co. Ltd., London.

Mentions Chalmers' visit to Long Island on H.M.S. Dart in 1885.

Salomonsen, F., 1966. Preliminary descriptions of new honey-eaters (Aves, Meliphagidae). *Breviora Mus. Comp. Zool. (Harvard)*. No. 254: 1-12.

[3] Describes a new subspecies of honey-eater, Myzomela nigrita nigerrima, from Long Island.

Sapper, K., 1910. Beiträge zur Kenntniss Neupommerns und des Kaiser-Wilhelms-Landes. *Petermann's Geographische Mitteilungen* 56: 256.

Long Island has, at the north and south ends, a high and no longer active volcano.

Schleinitz, G. E. G., Frhr. von, 1889. Beschreibung der Nordküste von Kaiser Wilhelms-Land von Kap Cretin bis zu den Legoarant-Inseln. *Nachrichten über Kaiser Wilhelms-Land und den Bismarck-Archipel*. Neu-Guinea Companie zu Berlin. 5: 48-87.

[86] Long Island, an island of smoothly rolling hills, has at each end conical mountains with double peaks, which are presumably the remnants of destroyed crater walls. According to the British Admiralty Charts the island has three such mountains; however, on many passages, admittedly at a great distance, only two peaks have ever been visible, of which the northern and western appear very similar regardless of the direction of viewing. It is, therefore, not unthinkable that the island has only two higher peaks.

Schmitz, C. A., 1959. Zur Ethnologie der Rai-Küste in Neuguinea. Anthropos 54: 27-56.

Includes much information about Austronesian cultures on the mainland coast opposite Long Island. Speculates that Long Island has become the cultural centre for the Austronesian-speaking peoples of the north coast of New Guinea.

Schmitz, C. A., 1960. Historische Probleme in Nordost-Neuguinea – Huon Halbinsel. Studien zur Kulturkunde 16. Franz Steiner Verlag, Wiesbaden.

Surveys the cultural elements of the peoples of north-east New Guinea and speculates on their origins. The people of Long Island are attributed to the Austronesian 'Kultur C', the most recent of three migrations.

Shaw, H. J. Jr. and D. T. Kane, 1963. *Isolation of Rabaul. History of U.S. Marine Corps Operations in World War II*, vol. II. Historical Branch G-3 Division Headquarters U.S. Marine Corps. U.S. Government Printing Office, Washington.

Brief description of the occupation of Long Island by Allied Forces in 1943.

Specht, J., E. E. Ball, R. J. Blong, B. J. Egloff, I. M. Hughes, C. O. McKee, and C. F. Pain, 1982. Long Island, Papua New Guinea — An Introduction. Rec. Aust. Mus. 34(6): 407-417.

Introduction to a series of papers about Long Island (Blong, Pain and McKee, 1982; Egloff and Specht 1982; Ball 1982; Ball and Hughes 1982) describing how the papers come to be written and including a general description, with photographs, of the island.

Taylor, G. A. M., 1953. Notes on Ritter, Sakar, Umboi and Long Island Volcanoes. *Bur. Miner. Resour. Aust. Rec.* 1953/43. Unpublished.

Useful description of Long Island, its geological history and its inhabitants. Motmot was not visible in 1952.

Taylor, G. A. M., 1954. Review of Volcanic activity in the Territory of Papua New Guinea, the Solomon and New Hebrides Islands 1951-53. Australian National Committee on Geology and Geophysics. Report of the Sub-Committee of Vulcanology 1953. *Bur. Miner. Resour. Aust. Rec. 1954/28.* Unpublished.

Account of the 1953 eruption of Motmot. Best's account (1956a, 1956b) is more complete with the exception of the following:

The crater was inactive when examined on 12th June. Spasmodic activity continued, however, during the following months. The last outburst was reported on 7th January, 1954.

Taylor, G. A. M., 1956. Review of Volcanic activity in the Territory of Papua New Guinea, the Solomon and New Hebrides Islands, 1951-53. Australian National Committee on Geology and Geophysics. Report of the sub-committee on Vulcanology, 1953. *Bulletin Volcanologique*. Série II, Tome XVIII. Naples.

Identical to Taylor, 1954.

Territory of Papua and New Guinea, 1969. *Geological and Volcanological Branch – Summary of Activities – 1968*. Department of Lands, Surveys and Mines, Port Moresby. Unpublished.

Describes the 1968 eruption of Motmot. D'Addario provides a fuller account in an appendix to Johnson, Taylor and Davies (1972).

Thilenius, G., 1927. Ergebnisse der Südsee-Expedition 1908-10. I. Allgemeines. L. Friederichsen and Co., Hamburg: 151-153.

Describes 'Südsee-Expedition' visit to Long Island in 1909 which Reche (1954) also describes. The two accounts differ and are complementary. A full translation is given in Ball (1982).

U.S. Army. Office of the Chief Engineer, General Headquarters Army Forces, Pacific, 1959. Amphibian Engineer Operations. Vol. IV in Engineers of the Southwest Pacific 1941-1945. Reports of operations United States Army Forces in the Far East. Southwest Pacific Area. Army Forces, Pacific. Government Printing Office, Washington, D.C.: 181.

The most complete account of the Allied occupation of Long Island in December, 1943, and subsequent activities.

U.S. Army. Second Engineer Special Brigade. 1946. History of the Second Engineer Special Brigade. U.S. Army World War II. Telegraph Press. Harrisburg, Pa.

Detailed account of the occupation of Long Island by Allied troops in December, 1943.

Vogel-Hamburg, H., 1911. Eine Forschungsreise im Bismarck Archipel: bearbeitet von H. Vogel-Hamburg . . . mit einer Einführung von G. Thilenius. L. Friederichsen and Co., Hamburg.

Popular account by another member of the 1908-1910 'Südsee-Expedition'. A short visit was made to Long Island. A feast at Sikawa village on Sio Island was attended by 'magnificently decorated inhabitants of Long Island whose villages have unfortunately remained hidden from us.' A map shows Long Island with three peaks but no central lake.

Wichmann, A., 1909. Nova Guinea – Résultats de l'Expédition Scientifique Néerlandaise à la Nouvelle-Guinée en 1903 sous les auspices de Arthur Wichmann. Vol. 1. Entdeckungsgeschichte von Neu-Guinea (bis 1828).

Excellent thorough summary of early exploration in New Guinea with brief mention of Long Island and descriptions of early explorers who sighted the island.

Wichmann, A., 1910. Nova Guinea – Résultats de l'Expédition Scientifique Néerlandaise à la Nouvelle-Guinée en 1903 sous les auspices de Arthur Wichmann. Vol. 2 part 1. Entdeckungsgeschichte von Neu-Guinea (1828-1885).

Continuation of the preceding volume covering the years 1828-1885.

Wichmann, A., 1912. Nova Guinea – Résultats de l'Expédition Scientifique Néerlandaise à la Nouvelle-Guinée en 1903 sous les auspices de Arthur Wichmann. Vol. 2 part 2. Entdeckungsgeschichte von Neu-Guinea (1885-1902).

- Continuation of preceding volume covering the years 1885-1902.
- Z'graggen, J. A.,1971. Classification and typological studies in languages of the Madang District, Papua New Guinea. *Pacific Linguistics Series C*, No. 19. Department of Linguistics, Research School of Pacific Studies, Australian National University, Canberra.
 - Calls the Long Island language Arop in the Vitiazan Sub-family of the Siassi Family of Austronesian languages.
- Z'graggen, J. A., 1973. The languages of the Madang District, Papua New Guinea. *Pacific Linguistics Series D*, No. 25. Department of Linguistics, Research School of Pacific Studies, Australian National University, Canberra.
 - Language map which refers to the Long Island language as Arop in the Vitiazan Sub-family of the Siassi Family of Austronesian Languages.
- Z'graggen, J. A., 1975. The languages of the Madang District, Papua New Guinea. *Pacific Linguistics Series B*, No. 41. Department of Linguistics, Research School of Pacific Studies, Australian National University, Canberra.
 - Arop is an Austronesian language in the Siassi Family, Vitiazan Sub-family. It is spoken by 966 people of whom 826 live on Long Island and 140 live on the mainland in the villages of Mur (100), Sel (40) and Seure (?). It is hypothesized that New Ireland is the point of departure for the Austronesian languages of the North Coast of New Guinea.
- Z'graggen, J. A., 1976. Austronesian languages: Madang Province. In S. A. Wurm (ed., New Guinea Area Languages and Language Study, Vol. 2. Austronesian Languages: 285-298. Department of Linguistics, Research School of Pacific Studies, Australian National University, Canberra.
 - The Arop language is a member of the Vitiazan Sub-family of Austronesian languages spoken on Long Island and in parts of Mur and Sel villages on the mainland. There are said to be 966 speakers of Arop.