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THE POST-CONTACT CREATED ENVIRONMENT IN THE TORRES STRAIT CENTRAL ISLANDS

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The paper examines changes in the created environment wrought during the first century of sustained foreign contact with the Central Islanders of Torres Strait, who call themselves 'Kulkalgal'. The geographical region covered is relatively narrow; the temporal extent far broader. It is primarily a work of synthesis, assembling early descriptions and oral accounts of the Central Islands from the historical record to identify the likely location and configuration of pre-contact Torres Strait Central Island settlements and sacred places. The paper is intended to provide further evidence for the general spatial principle that significant changes in a group's social organisation and lifeways can be 'read' in part from the changes to their created environment. The Torres Strait Islanders, originally a Melanesian people who today constitute Australia's second Indigenous minority, have received far less scholarly attention than Aboriginal people. The Central Torres Strait Islanders as an ethnolinguistic group have been largely ignored. Thus, the paper contributes to what has been published on the post-contact history of the Kulkalgal and provides useful data for future archaeological work in Central Torres Strait. ❐ *Kulkalgal, Central Torres Strait Islanders, Australian Indigenous history, pearling, spatial differentiation.*

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The paper examines the major spatial consequences of outsider (Pacific Islander, European and Southeast Asian) contact with the Kulkalgal of the Central Island Group of Torres Strait, Australia. First, a range of historical information, much of it previously uncited, is synthesised to form a picture of the 'traditional' Kulkalgal in terms of environmental setting, population, social organisation, settlement, subsistence, mobility and trade prior to British sovereignty over the Torres Strait islands in 1872 and 1879. Second, outsider contact with the Kulkalgal is examined in terms of population movements, environmental impact, settlement patterns and land tenure. Understanding such changes not only provides insight into the long-term effects of colonialism in Torres Strait (cf. Beckett, 1987), it also provides a baseline for developing a 'contact' archaeology of the Central Islands (cf. McNiven, 2001).[1]

Following the use of primary historical information made by members of the 1898 Cambridge Anthropological Expedition to Torres Straits, this paper makes known a range of previously uncited historical material for the Central Islands of Torres Strait, including newspaper accounts; reminiscences and memoirs; official registers, reports and correspondence; censuses; letters; diaries; headstone inscriptions; notes in family Bibles and prayerbooks. I have also drawn on oral sources, including the anthropological fieldwork data generously given to me by Peter Gillan, who worked on Masig (Yorke Island) in the early 1980s and sociolinguistic fieldwork data I collected in the Central Islands between 1981 and 2001 (Eseli, 1998; Shnukal, 1985, 1995, 2000).

Geographically, geomorphologically and ethnolinguistically, the Torres Strait islands form 3 major groups, which closely approximate today's political and administrative units: Western (usually divided into Top Western and Western Groups), Central and Eastern. Although traditionally belonging to a broad maritime Melanesian culture area, which encompassed the Strait, islands to its NE and the border areas of its N and S mainlands (Barham, 2000: 227-278), each group was distinct, with its own origin myths, technologies, main subsistence mode, traditional core activities, preferred alliances and language variety.[2]

Torres Strait Islanders, as Australia's second Indigenous minority, have received less scholarly attention than Aboriginal people. Being neither numerous nor sedentary, the Central Islanders were even more rarely the subjects of study and,

as a group, are poorly documented ethnographically, historically and archaeologically, by comparison with other Torres Strait Islanders. Most of our knowledge of pre-contact Torres Strait comes from the Reports of the 1898 Cambridge Anthropological Expedition to Torres Straits, led by Alfred Cort Haddon, but the expedition made only brief visits to some of the Central Islands. Haddon (1935: 3-13, 23-28, 68-95) summarised the then published geological, historical and ethnographic material on the Central Islands and included information, principally about the 'Cult of the Brethren' and trading relationships, given to him by the Anglican priest, Revd W.H. MacFarlane.[3]

Perhaps because of Haddon's relative neglect of the Central Islands, or because they were responding to the same pragmatic and scholarly imperatives, the few anthropologists and historians who have worked extensively in Torres Strait have also tended to ignore the Central Islanders or push them to the margins of their work. What *is* available is often contested. The major overviews by Beckett (1987), Singe (1989), Sharp (1993), Ganter (1994) and Mullins (1994) contain few references to the Central Islands, and then only as particular examples of more general themes. However, Lawrie (1970a) collected traditional Central Island stories from which a great deal of incidental detail can be gleaned; the human geographers, Ohshima (1977a, 1977b, 1983) and Sugimoto (1981) and the musicologist Michiya Hata (in Ohshima 1983) were members of a Japanese research team which made 3 visits to the Central Islands in 1975, 1977 and 1979; McCarthy (1939), Moore (1979), Lawrence (1991, 1994) and Moore (2000) documented the trade routes between PNG and Australia which pass through the Central Islands; and Shnukal (1985, 1995, 2000) examined the diffusion of the regional creole into the Central Islands, Maori immigrants, and Central Islanders' socio-spatial responses to contact, respectively. Particular Central Island sub-groups have been the focus of anthropological research from the early 1980s: the Yam-Tudu Islanders by Maureen Fuary (1991a, 1991b, 2000) and Frank York (1988); the Puruma-Waraber (Coconut and Sue) Islanders by Julie Lahn; the Masig Islanders by Peter Gillan.

The Kulkalgal, whose origin 'myths' tell of chain emigration from S Papua (Shnukal, 2000: 31-35), earned their reputation well as warriors, fisherpeople and seafarers. Relatively few in number and generally inhabiting small coral cays, they became the cultural and linguistic mediators in exchange cycles between the more populous Eastern and Western Islands and between the N and S mainlands. (A table of traditional and English island names is given in Appendix 1.) When Europeans began to explore New Guinea, the Kulkalgal extended their mediating role to serve as interpreters, pilots and guides (Chester, 1878; D'Albertis, 1880; Macleay, 1875; Murray, 1873a, 1876). Their socio-spatial responses to contact serve as a microcosm of cultural contact processes that affected all the Torres Strait islands to various degrees.

The events of Central Island history were played out within — and cannot be understood without reference to — the defining and mutually reinforcing contexts of Torres Strait Islander life: sociality and spatiality. No aspect of Kulkalgal life was unaffected by the changes brought by the expansion of the Queensland colonial frontier into their territories from the mid-1860s but overt conflict was generally resolved within the realms of kinship and territory, mediated by the concept of *yabugud* 'road'. This term is used by the Kulkalgal to refer to the land tracks which connect village, garden, well and beach; to the sea pathways, which link islands, cays, atolls and reefs; and to the intimate personal connections forged over time which determine mutual rights and obligations and envelop people into dense networks of association.

The human geographer, Bernard Nietschmann, among others, recognised the significance of the spatial dimension to the cultural history of the Torres Strait Islanders:

> Events in the historical and mythical past occurred at places, not simply at specific dates. Exactly where something is said to have happened is more important than when it happened. In travelling about their islands, waters and reefs, Torres Strait people pass through their history, which is linked to land and sea environments. The concept that history occurred at places, not at times, is emphasised by many indigenous peoples, and certainly by Melanesians ...
>
> For Torres Strait Islanders there is a geography to history. Discussions of the remembered past and the mythical past, songs, legends and everyday conversations are filled with references to places. Myriad names provide cultural texture to islands and seascapes ... (Nietschmann, 1989: 82-3).

THE KULKALGAL AT 'CONTACT'

ENVIRONMENTAL SETTING. There are three major groups of Torres Strait islands: Western, Central and Eastern. The Western Islands are 'high continental islands, of granitic formation, which are practically a continuation of the Cape

York Peninsula across the Strait. These islands are the peaks of a submerged isthmus that in Tertiary [and Pleistocene] times linked the smallest continent to the largest island' (Hedley, 1908: 126). The Central Islands, a chain of low coral islands (cays), continue eastward and parallel to the Western Islands until they meet the volcanic, rich-soiled Eastern Island group. However, as Johnston (1991: 41) noted, 'few regions have clearly-defined edges' and this conventional isomorphy ignores the 2 large western mudflat islands of Saibai and Boigu and the hilly Central Islands of Nagi and Yam. Authorities like Haddon (1935), Lawrie (1970a), Sharp (1982), Ohshima (1983), Babbage (1990), Fuary (1991b) and Horton (1994) are not always in agreement about the territorial extent and boundaries of the Central Islands, yet Islanders rarely hesitate when asked to assign their islands or cays to the appropriate group. They do this without reference to geomorphological similarity or physical distance between islands, but rather on the basis of ethnolinguistic groups.[4] Most of the confusion in the scholarly literature arises from the criteria employed by the different disciplines and, more recently, administrative convenience.

The hilly larger Central Islands of Gebar, Nagi and Yam, and small Githalai, Soeuraz and Ulu, which lie towards the western boundary of Kulkalgal territory, were once part of the land bridge between Australia and New Guinea, flooded around 8,000 years BP (Barham, 2000: 291-293 and Woodroffe et al., 2000). Most of the Central Islands, however, are flat, sandy coral cays still in the process of formation, small in area, generally not more than 2-3km^2, and surrounded by fringing coral reefs. Wind and current have skewed their formation, so that they tend to lie on a NE/SW axis and have a larger reef structure in the 'front' side facing SE. In Torres Strait, as elsewhere in the region, 'the seasonality and relative intensity of the winds' are of great importance.[5] Of the 4 totemic winds/seasons/directions of the Torres Strait calendar, the *sager* 'southeast' dominates. Northwest *kuki* blows only from around December to early February, so it is the *kuki* or leeward side where the distance from the shore to the edge of the atoll is shortest (James William, pers. comm., 2000).[6]

The Central Islands are intervisible and almost every vertical projection — whether island, cay, atoll, reef, rock or sandbank — is named, owned and serves some material or symbolic purpose. Ownership resides with specific Islander communities, even down to the level of clans, families or individuals. Haddon's (1901: 174) description of Tudu as 'having been formed by the sea heaping coral sand and detritus on the reef, till these formed barriers which keep the sea itself at bay' applies equally well to all the cays. The soil is more or less fertile, according to the amount of pumice stone that has drifted on to the island from distant volcanoes, and supports grass, vines, low scrub, the ubiquitous *wangai* 'island plum' tree,[7] the coastal she-oak (*Casuarina* sp.) and coconut palms. Jukes (1847, I: 157), who visited the Central Islands in 1845 remarked that '[t]he whole aspect of the vegetation was totally different from that of [mainland] Australia'.

Despite our archetypal image of the tropical cay as a lagoon lined by coconut trees, the latter were once not nearly so numerous on the Central Islands of Torres Strait as they are today. To the missionaries sailing north from Somerset (Cape York) in 1872, 'coming straight from the South Sea Islands, it seemed strange to see the large islands of the Straits without a cocoa-nut-tree on them...' (Gill, 1876: 201). Coconut palms appear to have served mainly as a screen to conceal each island's most sacred place and focus of religious life, the *kooda* (or *kod*) 'male ceremonial ground'. The older islands support dense vegetation at their centre and were gardened; others are no more than sandbanks or, like Zegei (Dungeness Island), mangrove swamps, which served as resting places on long sea-voyages in the past (Lawrie, 1970a: 264), as they do today.

The word most often used by early European observers of the northern central cays is 'miserable' (e.g., Bligh in Lee, 1920: 190; Dumont d'Urville in Haddon, 1935: 27; Moresby, 1876: 27; Murray, 1876: 446-467). On the other hand, the relatively fertile hilly western Central Islands, notably Nagi and Yam, presented a far more attractive aspect and received a better press. Larger and more densely wooded, they were also more intensively cultivated and their vegetation augured well for future cash cropping. On Nagi in 1845, Blackwood came upon a small grove of coconut palms and noted cultivation on some of the northern spurs of the hill and partial cultivation of the well-wooded level ground at its base (Jukes, 1847, I: 155). MacGillivray (1852, II: 39) observed 'large thickets of bamboo', small *Eucalyptus* trees, cashew nut (*Anacardium* sp.), *wangai* and a species of *Bombax* or silk-cotton tree, large enough to construct a canoe from its trunk. On Yam, Jukes (1847, I: 155-156) found 'a few small groves of coconut trees near a group of huts, with a little thicket of bamboo' and, in the

interior, a small circular plot of plantain trees and yams.

Although the historical and oral record attests to creeks on Yam, brackish water on Tudu and Puruma, an 'abundance of water' on Githalai, and freshwater wells dug out with baler shell on Auridh, Dhamudh, Garboi, Gebar, Masig, Nagi, Waraber and Yam, the scarce water supply was of constant concern. Ultimately, it was the availability of water that most determined the pattern and cycles of migration and settlement and led to the eventual abandonment of the smaller islands and cays without a good water supply (MacGregor, 1911; Frank [James Francis] Hurley, 12 Feb. 1921; MacFarlane, MS 2616/1/3 [1927]; Yonge, 1930: 183; Harry Captain, Jim Mosby and Daniel Pearson to Laade, 1964; Queensland Department of Native Affairs, 1965: 9, 29, 47; George Pearson, pers. comm., 1982; Ohshima, 1983: 313; Beckett, 1987: 72; Fuary, 1991b: 80; Teske, 1991: 16; Florence Savage Kennedy, pers. comm., 1995; Angela Ware Morrison, pers. comm., 1996; Fr Scotty Bob, pers. comm., 2001; Billy, n.d.). Puruma's underground water was saline and the people abandoned it for Waraber during the dry season. Drinking water was carried from Masig to Mawar (Florence Savage Kennedy, pers. comm., 1995), from Waraber to Puruma, and from Yam and Dhamudh to Tudu in long, thick lengths of bamboo obtained from New Guinea (Lawrie, 1970a: 264; Moresby, 1876: 136; Singe, 1989: 32) or in coconut half-shell water-containers called *kusu* (Haddon, 1935: 28). In the monsoon season, the Tudu people carefully collected and stored rainwater. In 1840, Dumont d'Urville (1987, II: 549) observed that 'they place giant clam shells [identified by Haddon (1935: 73) as *Tridacna gigas*] under the *pandanus* trees, the leaves of which are broad and hang down towards the ground to catch the water.' The Auridh, Masig, Mawar and Puruma people also used to spread out large clam shells nightly under coconut palms to catch the dew. MacGillivray (27 Feb. 1862) estimated that the largest might contain 2-3 gallons (9-14 litres).

The Kulkalgal were successful exploiters of their fragile, precarious environment but suffered from its limitations. The low, poorly watered sandy cays could not support the larger populations found in the east and west. The meagre soil could be washed or swept away by tide or wind. The sparse vegetation rendered them more vulnerable to attack. Travel and trade were features of their way of life: like the sea birds, to which they are often likened, they 'flitted' (Haddon, 1904: 353) from island to island, according to seasonal cycles and the vagaries of drought, which brought famine and disease. Kulkalgal recognised as 'home' not a single island but a group of neighbouring islands and cays, which they regularly resorted to and patrolled. By the 1860s, the larger populations appear to have preferred to centre their main subsistence activities on 2 adjacent or nearby islands. One well-watered island served as a garden for yam, coconut, banana, *wangai* and tobacco cultivation; the other, more barren and less-watered but with a surrounding reef teaming with marine life, served as a fishing camp. This dyadic structural relationship holds for Yam-Tudu, Waraber-Puruma and Masig-Koedal.

POPULATIONS. The Kulkalgal, whose territory extended geographically over the largest sea area of Torres Strait, were paradoxically the smallest demographically of the groups. The physical constraints of the natural environment and a warlike, non-sedentary way of life militated against large populations. The pre-contact Kulkalgal are unlikely to have exceeded 500 at most (Mullins, 1992a: 38; Appendix 2). In December 1849, MacGillivray (1852, II: 42) estimated the SW Kulkalgal to consist of no more than '100 souls'. This figure, like all the population estimates of that time and place, is unreliable: the Kulkalgal moved camp with the seasons and spent extended periods of time on hunting expeditions and visiting neighbours in all directions. Their small populations and early incorporation into the commercial fisheries rendered them particularly vulnerable to introduced disease. In 1875 a measles epidemic reduced the total Torres Strait Islander population by 1/5 (Mullins, 1992a). The epidemic is said to have begun at the Central Island of Tudu and spread to Dhamudh, and from there to other Central and Eastern Islands, whose populations may have been reduced by as much as one half.

Mullins (1992a: 38) compiled a table of inhabited islands with early recorded populations but this is by no means a complete account of the Central Islands that were occupied or regularly visited during the pre-contact period. Observers recorded village huts on only 10 islands: Auridh, Dhamudh, Gebar, Masig, Mawar, Nagi, Puruma, Tudu, Waraber and Yam. However, an overview of the available evidence indicates that at least double that number supported visitors — semi-permanent inhabitants, an extended family

or even single individuals — for at least some part of the year: Athub, Auridh, Burar, Dhamudh, Garboi, Gebar, Giaka, Guya, Koedal, Masig, Mawar, Mukar, Nagi, Puruma, Sasi, Tudu, Umaga, Uthu, Waraber, Yam and Yarpar.[8] Visiting Yarpar on 29 Jun. 1859, the master of the *Dirk Arnold* found 'some huts, or better described as shelters, which were constructed out of branches, three feet high above the ground and provided with a roof of leaves, just high enough to lie under' as well as indications of recent visition (Koninklijk Nederlandsch Meteorologisch Instituut, 1872: 40). Garboi, Igabu, Mukar, Ulu, Umaga, Uthu, Yarpar and Zegei had no permanent settlements (Lawrie, 1970a: 260-266; MacGillivray, 21 Feb. 1862), although MacGillivray observed 'a number of natives (among whom were visitors from nearby Puruma) and two canoes at [Yarpar's] western extreme, where a few temporary huts or sheds had been erected.' Haddon photographed low shelters on Tudu during his visit in 1888 (Fig. 1). In 1909, there were villages on the E side of Mawar, the W side of Auridh and the W side of Yarpar (Queensland Department of Public Lands, 1910). These 3 islands briefly attracted populations, when they became fishing grounds around 1900.

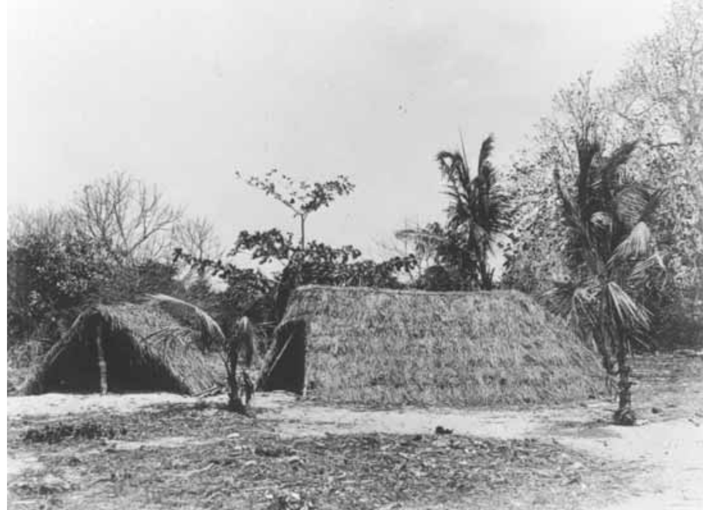

FIG. 1. Shelters on Tudu, 1888. (Photo by Alfred Haddon, courtesy Cambridge University Museum of Archaeology and Anthropology, Neg. P791 ACH1).

SUBSISTENCE. The Kulkalgal were often mocked as resembling migratory sea birds perched on sandbanks, for whom land was a temporary place to rest and mate while engaged in an unceasing quest for subsistence. Like them, the Kulkalgal obtained most of their food and other resources from the sea.

Fish, dugong and turtle were their staple dietary items, hunting them the focus of elaborate technology and magic. Fish-hooks and lines were used throughout Torres Strait (Barham, 2000: 258-265) and there were stone fishtraps made from coral 'rock' at Dhamudh, Masig and Tudu, which maximised fish yields during the lean *kuki* months.[9] Both men and women foraged among the rocks and in the damp sand of the beaches for crabs, shellfish and turtle eggs.[10] Surplus sea produce was traded to the east and north in exchange for vegetable produce. Fish were fire-dried and threaded on cord as provisions for the long hunting voyages to the south.

Vegetables and fruit were limited in variety and supply.[11] The staple vegetable food of the Kulkalgal was said to be *gasi*, identified by Teske (1991: 25) as *Tacca leontopet aloides,* and still prepared today (Telita Fauid, pers. comm., 2002). This bulb was dug up when its leaves begin to wither and the women prepared a powder-like flour from its sediment after scraping and prolonged soaking in salt water. The flour could be stored for long periods and mixed with coconut milk and root vegetables to make a meal.

Plantains, sugarcane and 'cashew' nuts were cultivated in the more fertile gardens but even on the sandy cays there grew at least 3 types of wild yam, which were harvested at Kek's time (June-July). Incidental detail in Lawrie (1970a: 258) indicated that gardens on Gebar produced the wild yams, *kuthai, buwa* and *kog* (possibly the Western Island *sawur*, a 'sandbank' yam), which were grilled, like fish, over open fires. Coconuts provided milk and flesh: harvested, split and emptied of their 'meat', they became water carriers that floated beside seacraft. Bananas were cultivated on Dhamudh and Yam, and the *wangai* 'island date/plum' trees, which grew almost everywhere, were an important source of vegetable food. The importance of the *wangai* is underscored by the magic and ceremony devoted

to its increase (now merged with Christian ritual), the sacred places connected with it, the stories that are told about it and the admonitions governing its use. *Wangai* begin to flower in February and the unripe green fruit ripens to almost black by around September. It is then picked and put into mat bags mixed with *aka* leaves as a preservative. It was dried on shells over a fire or, on sunny days, spread out on supports to dry — as it still is today (Fig. 2). The desiccated, preserved fruit is called *kagai* and it can keep for over a year, if one is careful. Gill (1876: 201) noted in 1872 that '[i]n some islands the inhabitants subsist chiefly on it during one season of the year. The fruit is dried in the sun, and strung for use in seasons of scarcity'.[12] *Biyu sama* also provided some sustenance and could be stored for later use. These were slimy balls of cooked mangrove seed-pod pulp, soaked and then cooked in an earth-oven to render it edible. *Biyu* did not grow on all the islands but was harvested when it floated past (Haddon, 1935: 387). Any food surplus was prepared and stored in order to guard against future famine and as a medium of exchange.[13]

FIG. 2. Drying *wongai* fruit on Waraber, 25 August 1982. The fruit was collected by school children.

Other crops were grown for internal use and external exchange, e.g., bamboo on Nagi and Yam. S*ukuba* 'tobacco' was grown, harvested and dried on Auridh (Lewis in King, reprinted in *The Nautical Magazine* 1837: 802-803; see also Brockett, 1836: 33), Nagi (Jukes, 1847, I: 155; MacGillivray, 1852, II: 34-35) and Masig (Haddon, 1935: 91) and possibly on other Central Islands.[14] Like *kagai*, *biyu*, *gasi* and smoked strings of fish and meat, it also could be stored for lean times and taken on long canoe voyages.

SOCIAL ORGANISATION. The basic unit of Central and Western Islander social life was the totemic clan, which governed territory, residence patterns, religious ceremony, food taboos, permissible marriage partners, friendship obligations and trading alliances. The societies were traditionally exogamous and patrilocal and clan descent was through the male line. Clan members (and women who had married into the clan) lived by preference on their own clan territory apart from others. Visitors were looked after by local members of the same, or an associated, clan. Clan identification was almost universally incised into the skin, generally by 'a large complicated oval scar, only slightly raised, and of neat construction' on the shoulder (MacGillivray, 1852, II: 13). In the absence of scarification, some other emblem was worn: a piece of the totem itself, or a carving of it, or a necklace or badge of some kind.

The Kulkalgal totemic clan system cannot now be retrieved in detail (Appendix 3). Their word for 'totem' was *augadh*, which the early Christian missionaries mistranslated as 'heathen god'. Missionary hostility forced clan knowledge underground, where it was passed on secretly within families or forgotten. Haddon (1904: 171-173) claims that the 4 chief clans on Tudu were grouped into moieties: Crocodile-Shark and Cassowary-Dog. The pivotal distinction, here as elsewhere, would seem to be between sea and non-sea creatures. The Tudu-Yam people also recognised subsidiary Hammerhead Shark, Frigate Bird, Stingray, Sea Snake and Green Turtle clans, the latter 2 being 'small and unimportant' off-shoots from the Hammerhead Shark totem. By 1898 the Shark and Cassowary clans were extinct on Yam (Haddon, 1901: 179) but Ohshima (1983: 339) found memories of Hammerhead Shark, Shark, Crocodile and Dog. Haddon found only Snake and Dog attested at Masig, whereas Ohshima (1983: 77) found Dugong, Shark, Hammerhead Shark, Turtle (*Karar*) and Snake. On Puruma, the clans were Crocodile, Shark, Cassowary and *Gau*; on Waraber they were Crocodile, Shark, Frigate Bird, Dog and *Gau*.[15]

CLAN SETTLEMENT AND VILLAGES. Even less is known about the spatial configuration of pre-contact Kulkalgal clan settlement. On the more densely populated Western Islands, whose inhabitants spoke a different dialect of the same language (Kala Lagaw Ya), clan territorial divisions were spatially marked, with each clan living apart from others on its own clan territory (Haddon, 1904: 174). Various kinds of physical features or markers delineated territories: trees, heaps of stones, rivers, paths (Eseli, 1998: 84-90). According to contemporary Kulkalgal, the same general principle governed Kulkalgal territories but the historical record is so meagre that it cannot serve to prove or disprove any hypotheses. I can find only two references to clan-determined social spatialisation, one from Tudu and one from Yam, which was settled c.1892 by people from Tudu (MacGregor, 1911).[16] The four clans remembered on Yam in the 1970s (Ohshima, 1983: 339) were each associated with a wind/direction/season: Hammerhead Shark with the southeast, Shark with the northeast, Crocodile with the northwest, and Dog with the southwest. This conforms to and expands information given to Haddon by the Yam Island leader, Maino, namely that Tudu, despite its small area, was divided into two districts. The northern half belonged to the Crocodile-Shark moiety and the southern half to the Hammerhead Shark-Cassowary-Dog moiety. The *kooda* 'was probably at the boundary line between these two territories' (Haddon, 1904: 173). During the initiation ceremonies the Crocodile-Shark *kernge* 'initiates' sat at the northern end of the *kooda*, the other moiety initiates at the southern end, thus reproducing in miniature in that most sacred of places the larger territorial configuration.[17]

Dhamudh was the first Central Island to be described by Europeans. In early September 1792, Bligh sailed past, noting 'a small village consisting of a dozen or 15 huts with flat roofs' (Lee, 1920: 181-182). MacGillivray, who visited in January 1861, described it as:

> about a mile in length, low, wooded, and bordered by a sandy beach on the eastern side, at least, where also are two clumps of cocoanut trees and in front of one of them a village. We could see there several enclosures closely fenced in, but the only part of their contents to be made out was a bee-hive-shaped hut in one of them (MacGillivray, 27 Feb. 1862).

Akalan, too, told MacFarlane (MS, 2616/1/15) that the village was on the eastern side and there was once 'an old dugong shrine with skulls'. Jukes (1847, I: 166) landed there in March 1845 and gives a comprehensive account of the created environment. The huts, which 'exactly' resembled those of Masig, were:

> by far the neatest and best erections of the kind we had yet seen. Each one occupied a quadrangular space, six to eight feet wide, and from ten to fifteen feet long. They had gable-shaped roofs, eight feet high in the centre, and sloping on each side nearly to the ground. The frame of the house was made of bamboo, and thickly covered or thatched with grass and palm-leaves; the front and back walls were also made of small bamboo sticks, upright and fastened close together, the front wall having a small triangular opening for a door, over which hung loose strips of palm leaf. The door looked into a little court-yard, of about ten feet square, in front of the house, strongly fenced with stout posts and stakes, interlaced with palm leaves and young bamboos, and accessible only by a very narrow opening between two of the strongest posts. In this court-yard was the cooking fire. The different huts and fences were rather irregularly disposed, but placed closely together, so as to leave only narrow winding passages between them. They occupied a space fifty or sixty yards long, by ten or fifteen broad.

Jukes (1847, I: 161) and his party were led 'between the huts to a clear open space at the back of them, shaded by cocoanuts and other trees, and which seemed the place of public meeting of the village', as opposed to the secluded male ceremonial ground, the *kooda*.

The configuration recalls the village on NW Nagi near Buzan Ngur (Lawrie, 1970a: 18), which in 1849 'consisted of a single line of huts' with accommodation for 150 people. Not far from the village was 'a cleared oval space where ten human skulls ... were arranged upon a plank raised on stones' (MacGillivray, 1852, II: 35-36). Back on Nagi in December 1860, MacGillivray described the village and its surroundings as follows:

> The village, if such it may be called, was situated on open exposed ground a few yards behind the beach, at the westernmost point of the island. The huts are long and low, with a sharp ridge, open at the ends, and partially on side also. They are thus mere sheds. The frame work is of bamboo (*marapi*), covered with grass. The furniture is very simple: a few mats (*waku*) of pandanus leaf (of which also the sails of the canoes are made), and some cocoanut shells and bamboos for carrying water in, are the most important articles. In all, we did not see more than about fifty persons.
>
> Being anxious to see the fresh water (*ngoki*) of which the people had spoken, we crossed a sandy, grassy flat, studded with the beautiful flowers of a white lily (*Crinum angustifolium*), and at the bottom of a hillock a few yards from the beach, were shown a small spring of capital water, but which did not indicate a sufficiency for a vessel, although it sufficed for the population of the island. It would probably have taken several hours to fill a sixty-gallon cask at this place. During a subsequent stroll, we saw much bamboo growing in the thickets, gumtrees (*Eucalypti*), for which this is the most northern recorded locality, two kinds of wild yam (*kotai* and *sawur*), and a sort of vine (*cissus*) bearing clusters of small black fruit, tasting *exactly* like grapes, but half-filled with seeds. Near

> a deep pit on the edge of a scrub containing a small quantity of water, precisely as during a former visit eleven years ago, a few bananas (*dauar*) and a three-leaved yam (*tapan*) had been planted, and in a clearing in the scrub, close to the *wows* or funeral screen, of which a view is given in the *Voyage of the Rattlesnake*, there were several small enclosures, six to eight feet in length, where tobacco seeds had been sown.
> Near the beach, at a place where there were a few huts of a better description than the rest, situated within neatly fenced enclosures, a human skull was suspended to a stick. This, which they told me had belonged to a Mulgrave [Badu] Islander whom they had killed, I got without difficulty for a piece of tobacco. At a little distance, on the ground among the trees, there were arranged about a dozen old, weather-worn skulls of natives of the island, backed by a quantity of equally decayed turtle's heads ... (MacGillivray, 14 Feb. 1862).

Jukes (1847, I: 155) found a group of huts on Yam near a few small groves of coconut trees, probably the camp used by the people of Tudu when they resorted there to garden or for water. Lawrie (1970a: 250) located it at Kemudh, about 200m from the beach on the W side of Tura (the lookout hill) in the centre towards the NE. Today's village lies at the NW of the island, near the site of the first church. By contrast, the camp at Tudu comprised no more than a dozen huts towards the S point (Dumont d'Urville, 1987, II: 549). Thirty years later, Chester (1870) described similar constructions as 'tolerable huts of bamboo and grass but not high enough to admit of a man standing upright'. In 1792 on Mawar, Portlock observed

> several low houses ... large enough to contain each eight or ten people and were very low, closed on all sides excepting that facing the sea and appeared to have no roofs. I think they are composed chiefly of the branches of the palm or cocoanut trees, neither of which tree I could perceive on the island (Lee, 1920: 260).

Seventy years later the 'little village' on the SE side of Mawar consisted, '[b]esides a few detached huts and sheds' of 'several low but comfortable looking huts situated in small fenced enclosures, but not apparently now in use' (MacGillivray, 27 Feb. 1862).

The people of Auridh had fled as their huts and gardens were torched by Europeans in 1836 in retaliation for the murder of most of the crew and passengers of the *Charles Eaton* (Brockett, 1836). We do not know how soon or in what force they returned, or whether others replaced them, but there was a village at the N end by December 1860. MacGillivray's description[18] of it may indicate totemic spatial organisation within the village:

> At the village were three square, fenced enclosures, with lanes between and about one hundred yards distant was another similar enclosure, each containing one or more huts of superior construction to those of Mount Ernest [Nagi], being completely closed in, and having ridged roofs with double slope, thatched with grass, as were also the ends and sides. There were also extensive sheds, one side of each of which was formed by the fence (of drift wood and grass); but as the people were reluctant to allow us to enter, we were content to peep at the interior through the open gateways. There were many large clam shells ranged under the eaves of the sheds, filled with last night's rain. We were told, however, that there was fresh water at a well near the middle of the island (MacGillivray, 21 Feb. 1862).

The villages of dyadic Puruma-Waraber were located on the W end of each island near groves of coconut trees. In 1849, MacGillivray (1852, II: 41) observed that the Waraber people had built temporary sheds 'made by stretching large mats — the sails of their canoes — over a framework of sticks'.[19] Returning to the Central Islands in 1860, he did not visit Waraber, possibly because the population had removed to Puruma during the *kuki* season. However, while at anchor off Puruma, the trading vessel was boarded by several men, one of whom MacGillivray recognised as a Masig Islander (MacGillivray, 14 Feb. 1862). He noted 'some huts near the west end' of Puruma, remarking that the English name of 'Coconut Island' had been bestowed on account of the 'many coconut trees here, especially at the western end'.[20]

Most settlements on the low-lying cays thus appear to have been located in a single line, along the southern shore from W-E, presumably to allow a permanent lookout to be kept and maximise the possibility of a swift escape by canoe. Since the wind blows for most of the year from the SE side, camps on the *kuki* side enjoyed protection from the wind but may have been more vulnerable to attack. Pinney & Runcie (1978: 96) suggested that the southern villages 'were washed by the south-east trades, which flushed away mosquitoes and flies and the smells of village life'. On the larger Central Islands, the villages and gardens were further inland: the soil was more fertile and the plantations well hidden from marauders. Wells were dug wherever fresh-water could be found.[21] Each village appears to have had a public place, to which male visitors were brought to trade. The religious and ceremonial focus of each island was the *kooda,* where boys were initiated and warfare planned. It was forbidden to women, children and all out-siders, concealed and protected by a coconut grove and, as in the case of Yam and perhaps Dhamudh and Tudu, a palisade. Bligh noted on Dhamudh in 1792 'fences behind which, I believe, they retire to fight: these fences are formed of

straight poles breast high, and are secured to one another by cross-pieces' (Lee, 1920: 183).

If the central island *koodal* were indeed protected by trees and a palisade, then the Dhamudh *kooda* was located on the SE part of the island (Lee, 1920: 183). Simeon Harry of Yam told Lawrie (1966b) that Dog Clan members visiting from Tudu landed their canoes at Umailag (Dog Bay), a small mangrove inlet on Yam. Their *kooda* lay about 100m from the inlet and 'was situated behind and at the extreme left of the present day village'. Fuary (1991b: 101) mentioned an important *kooda* located at Kadhau, enclosed by a low bamboo fence and dedicated to the worship of Sigai and Maiau (Haddon, 1935: 386-389; Lawrie, 1970a: 250; Fuary, 1991b: 48). Frank Mills told Lawrie (1970a: 19) that the Nagi men prepared themselves for battle at 'the sacred place at Buzan', presumably the *kooda* on the NW side of Nagi. Risau on Masig's southern side was the site of its *kooda*: Lawrence Mosby and Langley Warria told Lawrie that it stood in the middle of thick scrub with two *wangai* trees close by, but all traces had 'long since disappeared' (Lawrie, 1966c, 1970a: 245). On Waraber it is remembered as being near the modern village, also under the shade of *wangai* trees (Haddon, 1935: 86). As places sacred to the old order, most *kooda* were destroyed by the early missionaries (Haddon, 1935: 93).

MOBILITY AND TRADE. The foregoing emphasis on settlements and sacred sites should not be taken to imply a mainly sedentary population, quite the opposite. The Kulkalgal (and Kaurareg of the SW Strait) were the least sedentary of all the Torres Strait Islanders. They traditionally 'flitted' from island to island in the seasonal search of food — hence the mocking jibe of 'seabirds' — and visited their neighbours in order to trade. Driven by a constant search for sustenance, they ranged among adjacent islands, seasonally exploiting some as fishing bases, others as garden sites, others for their seabirds and eggs. Haddon (1935: 84-86) narrated the fate of survivors from the wreck of the *Charles Eaton* in 1836, who accompanied their small band of Kulkalgal captors from island to island on what was probably a regular voyaging/foraging/trading cycle. Depending on available resources, they might stay for one or even two months to fish or move on quickly, 'calling on their way at different islands, and remaining as long as they supplied food'.

The Kulkalgal profited from their vulnerable geographical location and ownership of the sea surrounding and linking their islands by becoming middle-men in the trade-routes which linked the northern and southern mainlands and Eastern and Western Islands (see Vanderwal, this volume).[22] Haddon's (1908: 185) comment that 'the inter-insular trade probably did not amount to very much' must be set against the Kulkalgal's obvious eagerness to trade (Jukes, 1847, I: 161; Lee, 1920: 182-183; MacGillivray, 1862; Moore, 1979: *passim*), the number and variety of items traded and the associated social, economic and political benefits. Trade, the mutually acceptable exchange of both non-material and material items, meant survival for the Kulkalgal. The novelist Ion Idriess (1947: 162-163), who absorbed much of his information from MacFarlane,[23] expressed this imperative as follows:

> Every island, no matter how small or insignificant its population, possessed some article or articles unobtainable to other islanders except by warfare or barter. And barter was the least trouble and expense. A utility, or 'money' or ornamental shell that grew larger or more perfect in its waters than elsewhere. Turtle and dugong meat and oil, or some product of its gardens. If its barren soil did not permit much cultivation, then some wood, or gum, or vegetable dye, vine or fibre, or food from its bushland or foreshore. Or an ochre, or clay, or other desired product from its inhospitable rock or soil.

One trade route linked the Kulkalgal with their N neighbours, passing through Erub to Parama (Bampton Island) to Mibu to Kiwai; another passed through Erub, Ugar, Dhamudh, Tudu, then to Daru, Mawata and Tureture (Haddon, 1908: 185), although these were only 2 among many possibilities in a more spatially flexible exchange system than was formerly believed (Lawrence, 1991, 1994; Moore, 2000). Tradition has it that they also maintained formal trade networks with Aboriginal people as far S as Margaret Bay, Lizard Island and Cape Grenville (McNiven, 1998; McNiven, von Gnielinski & Quinnell, this volume; Moore, 1978), as well as with their E and W neighbours. An old Malu song tells of mainland Aboriginal people bringing turtle oil for Malu from Injinoo (Cape York) and calling at Yam, Auridh and Masig on their way to Mer (Lawrie, n.d).

Some of the earliest trade items recorded were non-material: dance and ceremony brought to the Central Islands by culture heroes. According to a Tudu story (Haddon, 1904: 48-49, 1935: 70), Naga from New Guinea, who settled on Nagi, was an expert in making masks in the form of animals, in singing, dancing and in everything

related to the *kooda*. He gave dance masks to the men of Tudu, Waraber and Mua (Moa) and also taught them how to conduct a death dance. Landtman (1927: 208, 329-330) recounted how the Hiamu (former Daru people) gave the Yam Islanders dugout canoes and taught them a sacred dance and ceremony, which the latter then passed to Nagi, Mua, Badu and Mabuiag.

The main items of material trade were surplus fish, dugong and turtle taken from their reefs; human skulls seized in battle; stone-headed clubs; pearlshell, *Melo* shells for balers and saucepans; armlets and necklets finely crafted from mother-of-pearl, tortoiseshell and cone-shell. From the Papuans they received yams, sago, canoes, thick bamboo for water pipes, mats, drums, bows and arrows, and cassowary and bird-of-paradise plumes for ornaments and bone for arrows; from the Cape York Aboriginal people they obtained spearthrowers, spears, club stone, *nubur* 'red gum' (a medicine) and the red ochre so crucial to their ceremonial life and so valuable that even canoes were exchanged for it (Haddon, 1935: 65; McNiven & David, this volume).

One cycle of visiting began during *kuki* 'northwest monsoon season' (December-April), when there were visits from New Guinea and Saibai people. The coastal New Guineans, close allies of the Yam-Tudu people through 'blood', marriage and trade, often canoed across, said Getano Lui Snr, 'carrying sago and other garden produce to Kebisu and his people who in exchange gave turtles, dugong and fish' (Lawrie, 1967b). With the start of the *sager* 'southeast dry season' (June-August), the Kulkalgal made reciprocal visits. These were the seasons for exchange and inter-marriage.

Trade with the Aboriginal peoples may have been the preserve of the Auridh, Masig, Dhamudh and Waraber-Puruma people, who traded club stone and red ochre on to the other Kulkalgal. These people were also said to be great friends of the Eastern Islanders: in 1845 Sweatman met parties from Masig, Tudu and Dhamudh while staying on Erub (Allen & Corris, 1977: 24) and there are many stories of visits to Mer, with visitors and hosts overcoming the lack of a common language through a sophisticated system of handsigns (Laade, 1964) and the bilingualism of a few (Allen & Corris, 1977: 152). Some Auridh, Dhamudh and Puruma-Waraber Islanders made a permanent settlement at Peibri land on Mer (Eastern Island Group) and married locally (Bruce, 1891; Haddon, 1935: 161; Lawrie, n.d.).[24]

We cannot know how circumscribed this cyclical visiting was, how long it could last, what rules of etiquette prevailed nor what constituted breaches and appropriate punishment. My impression is that the hosts and visitors remained wary of one another and that individuals from 'friend' families dominated proceedings and were responsible for the good behaviour of their respective peoples. Where the visitors stayed, where they fished, their recreation and general interaction with their hosts were all strictly regulated. At the major annual festival of *Augadhau Au*, MacFarlane was told, 'All friends [i.e., special visitors from other islands] sleep one place, in groups. Morning, old men arouse others. Each leader must bring own people; if stray, killed. All make for one place' (MS 2616/1/5).

Friendly exchange and warfare are two sides of a single coin (McNiven, 1998: 108). Circumstances and expectations dictate which will prevail on any given occasion. Battle was pursued as a way of life in the Kulkalgal's warrior culture, for gain (in status, renown, heads and women) and to redress grievances. Legend records traditional enmity between Yam-Tudu and Mabuiag, between Nagi and Mua and at least one battle between Tudu and Badu. Yam-Tudu also fought against Gebar, Mukar, Sasi and Waraber. The Waraber-Puruma people joined with Nagi to fight Mua but Waraber might fight with Nagi and Puruma might ally itself with Mua. Waraber-Puruma feuded with Athub and Muri (Jardine, 1873; MacFarlane, MS, 2616/1/7). Almost all the people of Nagi were said to have been killed by their foes from Mua (Lawrie, 1970a: 20), the people of Gebar by Ausa of Yam (Fuary, 1991b: 333). Even the Eastern Islanders warred with the Kulkalgal: Udum of Ugar was killed by Kebisu of Tudu (Haddon, 1904: 375); Gill (1874: 220) reported 'constant' feuding between the Tudu and Erub Islanders; and the Eastern Islanders massacred all but one Masig Islander (Lawrie, 1967c). Raids and massacres were not, however, followed by occupation — no land appears to have been acquired through warfare but only through rules of clan and family inheritance.

SUB-GROUP DIFFERENTIATION. The generic nature of Kulkalgal settlement and society outlined above downplays later socio-spatial formations attested by the early historical record. Although the self- and other-reference identity term, 'Kulkalgal' (people of Kulka), indexes a

single identity — i.e., the Central Islanders perceived themselves and were perceived by others to be in some sense 'the same' — the first European visitors recorded a sub-group differentiation which continues to the present day.[25]

At the macro-level, the Kulkalgal shared not only a name, a distinct dialect of the Western Island language (as far as is known) and stories of chain migration from southern New Guinea to Gebar to Tudu to the other Central Islands (Laade, 1968), but also a vulnerable location as the 'meat in the sandwich between east and west' (Singe, 1989: 7). They were inheritors and elaborators of a similar Melanesian maritime culture, which included clan allegiances, long-standing trading, warrior and marriage alliances, technology, magic and stories, and adapted similar socio-cultural solutions to the problems of surviving in their comparatively resource-poor (terrestrial resources) environment.[26]

At the micro-level, however, it would appear that by the early historical period the Kulkalgal had formed 3 major sub-groups focused on the 3 largest and most fertile islands closest to them (Shnukal, 1985: 223, 2000: 50). Yam in the north was the focus also for the people of Tudu, Garboi, Gebar and Mukar; Nagi in the southwest for Burar, Githalai, Puruma, Sasi, Soeuraz, Uthu and Waraber; and Masig in the east for Auridh, Koei Dhadhathiyam (Bourke Island), Dhamudh, Igabu, Koedal, Mawar and Umaga. These centres mark the strategically important northwestern, southwestern and northeastern extent of the Kulkalgal domain, respectively.

The three sub-groups appear to have patrolled and controlled different, though overlapping, territories. Lieutenant E.R. Connor reported in June 1873 that the Gebar, Mukar, Yam [and Tudu] people had their headquarters at Gebar (Moresby, 1875: 3); MacGregor (1911) acknowledged that Kebisu of Tudu once 'had authority and control' over all of Yam's neighbouring islands; and Fuary's (1991b: 50) map of Yam's territories recognised their spatial delimitation, stating also that Sasi was traditionally shared between the Yam-Tudu and the Waraber-Puruma people. The Nagi, Puruma and Waraber people had their 'headquarters' at Nagi (MacGillivray, 1852, II: 34-35). Sagigi told Laade (1968) that some Yam-Tudu people migrated to Dhamudh and from there to Masig and Mawar. Masig is said to have again been settled from Dhamudh after the reputed massacre of the population (Laade, 1964). Another piece of evidence for the emergence of sub-groups comes from reference terms used by Eastern Islanders, who referred to the Yam-Tudu people as 'Sigaram le' (Sigai people), the Nagi people as 'Nagiram le' (Nagi people) (MacFarlane, MS 2616/1/20) and the Masig-Koedal people as 'Bam Le' (although they also inhabited Waraber and Uthu, i.e., part of Nagi territory). MacGillivray (1852, II: 3) distinguished the 'Massilegas' [Masigalgal], who lived on Masig and its adjacent islands, from the inhabitants of Nagi and Waraber. By the early 1870s, Masig was recognised as a centre for its neighbours (Murray, 1872: 26); and Gill (1874: 246) referred to 'six small islands in the immediate neighbourhood' of Masig as a potential 'parish' for the first missionaries. Reading subsequent migrations retrospectively, these are probably Auridh, Koei Dhadhathiyam (Bourke Island), Dhamudh, Igabu, Mawar and Umaga.[27]

The formation of new, linguistically-marked socio-spatial identities would seem to follow naturally from chain migration (time-depth and sequence unknown), relative proximity and distance, difficulties of maintaining communication, strategic imperatives, availability of marriageable women, the demands of different trading networks and local environmental adaptations. The Kulkalgal sub-groups controlled seas adjacent to their islands; gardened and obtained their water and other resources from different places; made different alliances; traded different items and developed local specialisations (e.g., Haddon, 1935: 76). But no doubt the impetus to differentiation was also ideological. In similar small Melanesian trading societies, maintaining a separate identity 'seems to be a common feature' (Pomponio, 1992: 22). Whatever the precise causes, these sub-groups were an important factor influencing resettlement choices when, within two generations, most of the small Central Island communities had fragmented and their inhabitants had decided, or been forced, to move elsewhere.

'CIVILISATION'

The establishment in 1863 of a small British settlement at Somerset, Cape York, and the establishment of temporary bêche-de-mer (trepang) shore stations in the Eastern Islands around that same time marked the beginning of sustained outsider presence in the region. Within a few years, the Islanders had been 'pacified' and their traditional lifeways profoundly altered by 3 major events of the 1870s. Trepanging had come to the Central Island of Tudu in 1869 but it was the discovery of commercial quantities of pearlshell in the following year that attracted great numbers of outsiders into Kulkalgal territory and with them a

rudimentary cash economy (Chester, 1870, 1882a; Mullins, 1992b). Christianity was introduced incrementally from July 1871, bringing outside religious and cultural influences of a different order. The formal annexation of all the islands to the Colony of Queensland in 1879 meant British colonial administration and incorporation into the vast trading network and world system that was the British Empire. Analytically, the three events belong to different spheres, the economic, the religio-cultural and the administrative. However, Islanders perceived all three to be aspects of a single process and, in practice, they converged and were interdependent. The cumulative effects were so significant that each *Zulai Wan* 'First of July' is today celebrated as the Torres Strait national day. Also called 'The Coming of the Light', it commemorates the date in 1871 when the first Christian missionary-teachers were placed on Erub (Darnley Island). More than a religious commemoration, the day symbolises the Islanders' crossing of a conceptual boundary, their passage from 'the darkness of savagery into the light of civilisation' — their induction into the late 19th Century British colonial world.

Despite their initial resistance to incursion and the ferocity with which some groups defended their territories from outsiders, the Kulkalgal were rapidly brought within the British colonial orbit. Idriess (1957: 54) summed up the beginnings of European contact in Torres Strait as follows: 'And so began, just here and there, in isolated localities, an armed neutrality in which the natives traded their skill and labour in return for the strange goods they ardently desired.' The commercial success of the fisheries encouraged men of diverse nationalities to try their luck on the pearlfields and Torres Strait Islanders began to join them, some forced at gunpoint but others attracted by the novelty. By 1876, the Torres Strait fisheries employed 'nearly a thousand Polynesians and Aboriginals', i.e., Torres Strait Islanders and Australian Aborigines from coastal Cape York, though 'not more than fifty Europeans' (Chester, 1876). Within a decade the number had grown to 'about 1500' and was 'likely to increase' (Chester, 1883).[28]

The economic context had altered but, to the fishermen, their new tasks must have seemed simply as extensions of their pre-contact seafaring life. Unlike the Pacific crews, who received wages, the local workers were paid in trade goods. Even the bêche-de-mer and pearling stations, bases from which men and women swimming divers fished the shallow waters of the surrounding reefs, were familiar: traditionally they too had functioned as temporary resource exploitation centres and trading centres (McPhee, this volume).

William Banner established the first Central Island shore station around May 1869 on the northwest side of Tudu (Chester, 1870). Ironically, in view of future resource exploitation, it was probably the overfishing of other areas to the east that led him to choose Tudu. Rich stands of bêche-de-mer and pearlshell were easily exploited by swimming divers and a small group of armed men could establish a station with little danger of attack. The Kulkalgal were probably more vulnerable than other Islander groups to the encroachment of the colonial frontier because of their relative lack of numbers and the small size of their islands and cays. They could no longer mount the kind of attack that had in the past repelled invaders. They tried to expel them using other means but were punished by government officials, who made it clear that violence on either side would not be tolerated (Pennefather, 1879).

Whereas from the Islanders' and our own contemporary vantage point, the fishermen, missionaries and government authorities were engaged in the same endeavour, all in their own ways committed to incorporating the Kulkalgal into the new (colonial) order, this viewpoint obscures their very different methods of advocating change, their varying degrees of respect for Indigenous tradition and their often competing interests. The government authorities deplored the depredations of the early fishermen and what they saw as interference by the more radical 'coloured' men (Pitt, 1999). They were often in conflict with the local missionaries, who privately complained of the interference, and deplored the depraved (as they saw it) lives of the fishermen, who consorted openly with local women (Mullins, 1994: 131).

The pearl shellers, missionaries and administrators also demonstrated quite different attitudes to the Islanders and their land. Banner and his labour force of Pacific Islanders arrived with guns and occupied the northwest of Tudu. The Tudulgal[29] fled and he and his men immediately began building the huts and iron buildings of his bêche-de-mer station. The missionaries were more circumspect and respectful and negotiated an exchange of trade goods for the use of land. Whether through lack of interest and/or lack of adequate vessels, early colonial administrators rarely visited remote Islander communities. Only later did the authorities begin seriously to negotiate with traditional authorities for land for government buildings, roads, bridges and drainage schemes.

OUTSIDER CONTACT IN THE CENTRAL ISLANDS

'As societies change', wrote Johnston (1993: 22), 'so do their interactions with the created and physical environments'. For the Kulkalgal and other Islanders, whose socio-spatial responses were so intertwined and entangled, four interrelated spatial changes were particularly significant: migrations and the unregulated 'mixing-up' of peoples; environmental impact; settlement patterns; and land tenure.

POPULATION MOVEMENTS. Traditional stories tell of the settlement of the Central Islands by chain migration from S New Guinea (Laade, 1968) and the Kulkalgal were 'accustomed to rove about in their canoes from island to island' (Brockett, 1836: 35-36).[30] Their cyclical sojourns among their neighbours occurred at fixed seasons and were regulated and circumscribed by senior male authorities operating through long-established protocols. The fisheries also brought an influx of people but it was of a different order. The newcomers were mostly male, came from all parts of the world,[31] travelled alone or in pairs not to settle but to make money, often had little in common culturally or linguistically, and their activities on the islands went largely unsupervised. Their movements, while seasonal, were neither cyclic (i.e., predictable) nor well-regulated.

Frontier seamen were probably unaware of the pre-contact territorial boundaries between adjacent groups, the established ways of negotiating their crossing or the significance of an un-negotiated crossing as an act of war. Even if they *were* aware, they took no account of it and these first breaches of borders and protocol marked the beginning of the end of the old order. The Kulkalgal's initial responses to territorial incursions were either hostile or wary, although they generally welcomed the trading possibilities. This relatively benign balance was to alter forever with the establishment of shore stations, which provided the context for the first sustained contacts between Kulkalgal and foreign fishery workers and were the first *loci* of cultural and social interpenetration and innovation.

Although the Tudulgal reacted to the building of Banner's station on the NW side of Tudu by flight, they returned within a short time to work for him (Chester, 1870). They were joined by Kulkalgal from further afield and people from other Torres Strait islands adjacent to the Great North East Channel, mainland Australia and probably coastal New Guinea. This is what Central Islanders mean when they talk about the unregulated 'mixing up' of peoples that occurred from the 1870s. Such 'mixing-up' was to be the pattern of the stations. Puruma and Waraber people worked at Nagi (their traditional headquarters) along with Kaurareg from Muri (Mt Adolphus Island) and Mua (Moa/Banks Island), mainland Aboriginal people and New Guineans (Maria Johnson Gebadi, pers. comm., 1999).[32] Many Waraber-Puruma people moved to Yarpar for bêche-de-mer and trochus fishing around 1900. When the wood ran out, they shifted to Auridh and Uthu (Teske, 1991: 3).

There were never enough labourers to satisfy the trade and those first regional labour migrations were relatively unrestricted. This had 2 important historical consequences. The employment of mainland Aboriginal people in the fisheries gave the Queensland government the pretext it needed to appoint a local Protector at Thursday Island, who was able to extend his sphere of influence, when required, to 'protect' the Islanders. The consolidation of the Australia-New Guinea border in 1906 allowed greater control of New Guinea migration and accelerated the weakening of the social connections between peoples who had long been associated. Foreign trepangers and shellers also moved from place to place, as old stands became exhausted and new stands discovered.

The first historically recorded migration of a Central Island population is probably the abandonment of Auridh in 1836 after the firing of its houses and plantations (Brockett, 1836). In c.1860, Garboi, Mukar, Ulu, Yarpar, Uthu and Zegei were uninhabited (MacGillivray, 1862; Lawrie, 1970a: 260-266); as, in the 1880s, were Gebar and Puruma (Milman, 1886). The Nagi survivors moved later to join their traditional allies, the Waraber-Puruma people (MacGillivray, 1852, II: 34-35; Teske, 1991: 3). They had been 'virtually wiped out' by 1898 (Haddon, 1901: 180) and in 1904 only two of the original inhabitants remained (Annual Report of the Chief Protector of Aboriginals, 1904: 14), the remainder being chiefly the descendants of Pacific Islanders (Annual Report of the Chief Protector of Aboriginals, 1913: 15). The island was abandoned in 1964 (Benny Mills, pers. comm., 1982). By 1925 the 'mere handful' who were left, were:

> scattered about the other islands. Disease and fighting have accounted for the others. But some of the few left are women who have intermarried with the men from other groups; and from time to time they 'take permit' from the local island officials to 'sailboat' to Nagi for a spell, taking with them their children, to whom they can point out the homes of their fathers... (Coral, 1925a: 11).

The Tudulgal (including people from Mukar and survivors from Gebar) resettled on Yam in c.1892 (Figs 3, 4). Getano Lui Snr told Lawrie (1967b) that when Maino 'transferred to Yam Island on account of water shortage at Tudu, he collected a new set of people from Tudu, Masig, Puruma, Dhamudh and Gebar'. They were later joined by Papua New Guineans and 'more than a half of the population at Yam Island today has Papuan blood' (see also Fuary, 2000). Some Murray Islanders believed that the Masig Islanders of today 'are not real natives of the island. They are descendants of people from Zamud [Dhamudh] and Tud [Tudu]' (Kabiri Du to Lawrie, 1967c).

As early as 1873, Revd Murray of the London Missionary Society (LMS) was encouraging the small Mawar population to move to Masig, with whose people they were connected (Murray, 1873b): the last Mawar Islander died at Masig in 1922. By 1927, all the men of Dhamudh, with one exception, had come to live at Masig (MacFarlane, MS 2616/1/3). Those Auridh people who had returned to their island 'were moved to Masig by the Queensland government after it was declared a government reserve [in 1915]' (Horton, 1994: 1231). In 1913, a proposal to move some Saibai people to Gebar was approved (General Register, Home Department, 1913) and as late as the mid-1960s the Masig chairman was proposing the resettlement of Gebar by people from various Central Islands (Queensland Department of Native Affairs, 1965: 29). Gebar was believed to be haunted by the spirits of its dead and nothing came of either proposal.[33]

Not all resettlement proposals went unchallenged, even when supported by church and state:

> Efforts to induce the residents of Coconut Island to remove to Yorke Island were also unsuccessful. The natives of each island consider themselves a different people to those on other islands, and, although on perfectly friendly terms with all, are averse to sinking their individuality as a distinct body ... The Revd Mr Harries and the native missionary Aragoo strongly supported my proposal that the people should join with the Yorke Islanders (Annual Report of the Chief Protector of Aboriginals, 1913: 13).

Most voluntary migrations ceased during the 1920s and 1930s, a time when the Islanders were penned up as a cheap labour force under the Queensland Protection Acts. Travel, even between home and gardening islands, required an official 'pass'. Individual families might still gain permission to move elsewhere, generally to build up the 2 missions, one Church of England, the other Catholic. The mission inhabitants were exempt from the Protection Acts and less stringently administered. In 1942 (during WWII), under pressure from the advancing Japanese, the inhabitants of Thursday Island and neighbouring islands were evacuated to the mainland, to be replaced by defence force volunteers from throughout the Strait. It is the most recent migration, however, which has had the most dramatic effect on contemporary Torres Strait: the chain-migration diaspora that from the 1960s has seen over 80% of the total population shift from the islands to mainland Australia.

ENVIRONMENTAL IMPACT. The physical environment of the Kulkalgal was deliberately modified by the demands of outsiders: seamen, Christian missionaries and local government officials. Following Johnston (1993: 7), I propose to use the term 'created environment' for the results rather than the more familiar, but more narrowly focused, 'built environment' (see also Lawrence & Low, 1990: 460-465).

At present, we do not know to what extent (if any) the physical environment of the Central Islands had already been humanly modified at the time of the Kulkalgal's first migrations. We do not know when they appeared or whether they replaced prior occupants and, if so, in a single or several migratory waves. Storms, cyclones, tidal surges, winds and currents constantly altered the viewscape: visiting Tudu briefly in 1888, Haddon (1890a: 407) observed that the sandpit at the N end appeared to be increasing; the Waraber and Yam shorelines became so severely eroded that bones from the original cemeteries were exposed (Maureen Fuary, pers. comm., 2002; Norah Pearson, pers. comm., 1982).

Pre-contact Kulkalgal had acted both deliberately and inadvertently upon their surroundings. For their gardens they cleared land, marked permanent boundaries, planted, harvested, placed increase statues, brought new plant species from elsewhere, collected seeds for replanting. For their settlements they built huts, *kooda* and skull-houses, cleared open spaces for meeting places, criss-crossed their islands with well-trodden paths, constructed burial mounds, put up temporary shelters and windbreaks, cut wood and bamboo to build fires, house supports, shelters and drying racks, took the hard wood of the mangrove to make digging sticks and the softer *wangai* wood to carve totemic figures and harpoon heads. To exploit their marine resources, they built fishtraps and dugong-hunting platforms,

FIG. 3. Women with a young child on Tudu, 1888. (Photo by Alfred Haddon, courtesy Cambridge University Museum of Archaeology and Anthropology, Neg. P794 ACH1).

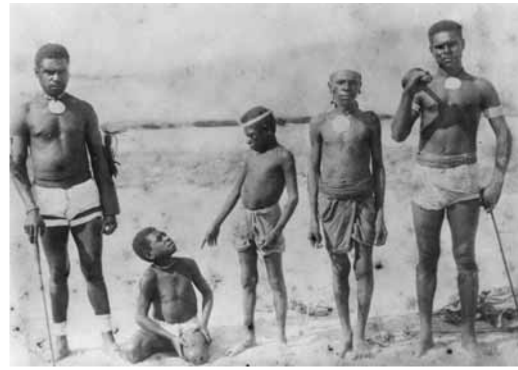

FIG. 4. Men and boys on Tudu, 1888. (Photo by Alfred Haddon, courtesy Cambridge University Museum of Archaeology and Anthropology, Neg. P1141 ACH1).

walked for hours every day on the fragile surrounding reefs and dragged their huge canoes over them and onto the beaches.

A sketch of Masig men reclining at Nagi in 1845 shows houses matching coeval descriptions, being made of local grasses, with rounded thatched roofs, no windows, and low narrow openings (Jukes, 1847, I: vii) (Fig. 5). They are lined up along the shore and blend into their surroundings, impermanent, camouflaged, possibly invisible to distant canoes. Between the huts and the shore is a *zœrazar* 'temporary shelter', constructed, it appears, from bamboo with a coconut thatch roof and immediately recognisable to modern eyes. Thirty years later, this scene would have had imposed upon it the multi-racial workforce and more permanent structures of former Police Magistrate Frank Jardine's pearling station. The earliest bêche-de-mer stations were generally crude affairs: grass shelters erected for the labourers, a galvanised iron store with thatched roof and the indispensable smokehouse erected on the beach (Chester, 1870). However, by 1875, Jardine had erected on Nagi:

> substantial and comfortable wooden buildings comprising a large cottage 75 feet long for himself, one for the Master of his Yacht, a Store, and a large boat shed, besides a cottage ... where the natives employed by him, who, with the exception of about 14 from Cape York belong to Mount Ernest are comfortably housed in neatly built huts of thatch ... (Aplin, 1875).

The bêche-de-mer and pearlshell trade were by their nature exploitative of natural and human resources (Ganter, 1994: 151-182; Mullins, 1994: 69). The human needs and work practices of the labourers imposed additional burdens on the fragile ecology of the Central Islands and demanded resources that fell to the station to provide. Early official reports tell of starving Pacific Islanders raiding the gardens of neighbouring islands and coastal New Guinea settlements (Jardine, 1872; Moresby, 1876: 26). The stations and curing boats demanded a constant supply of wood to fuel their smokehouses, which shrivelled the bulky trepang for packing and transport to Chinese markets. Fires were also required to guide the boats home. The boats 'start for the reef at daylight on Monday and remain out all the week, returning late on Saturday night when large fires are kept burning on the island as beacons to steer by' (Chester, 1870).

The surrounding islands were scoured for wood. Of Banner's 7 30-foot boats, 1 was used full time fetching wood and water from neighbouring islands (Chester, 1870). In 1792, Dhamudh was 'covered with wood and trees of a very large size branching like forest oaks' (Lee, 1920: 182). When Jardine arrived at Somerset in the early 1860s, the coastal islands:

> were all densely covered with terminalia trees, which were ruthlessly cut down by the bêche-de-mer fishermen for smoke-house purposes, Warrior [Tudu] and Half-way [Zuwi] Islands being completely denuded (Jardine, 1904: 182).

Chester issued a proclamation banning the felling of fruit trees. Despite this, Walton's men cut down the finest *wangai* stands on Masig in September 1882, depriving the Islanders of a chief source of food for the 'hungry time'. Walton had no excuse, the government agent Pennefather (1882) wrote in his report, 'there being plenty of good firewood much nearer his

station ... and other timber besides fruit trees'. By 1900, the trees were regenerating but wood was still required for fisheries, mission and government steamers. The amount of wood needed to cure the trepang and boil the trochus shell deforested Uthu, Yarpar and Auridh and people left those islands (Teske, 1991: 3). According to Getano Lui Snr, 'There used to be scrub and many *wangai* trees in the centre of Aurid[h]. The scrub and trees were cut down by [Johnny] Francis [a Filipino diver]. Aurid[h] once looked much as Umaga does today' (Lawrie, 1967b). Masig, while not particularly fertile, had nevertheless been 'thickly timbered' (Pennefather, 1879) with the *wangai* trees that had covered most of the islands (Gill, 1876: 201) but were cut down to fuel the LMS mission steamers during the 1870s (Langbridge, 1977: 191). Edward Mosby had also used *wangai* wood for his slipway at Masig and to build his cutter 'all of *wangai* except planks and masts' but, shortly before his death, he complained to MacGregor (1911) that the remaining trees were being cut down, in spite of all he could do to preserve them.

The denuding of the Central Islands may have been the most visible sign of the workings of the marine industries but a less visible denuding was occurring beneath the sea. Bach (1955), Hedley (1924) and Ganter (1994) graphically depict the stripping of previously abundant stands of trepang and pearlshell through overfishing, which was already noticeable in 1877, barely 7 years after pearling had begun (*The Australasian Sketcher*, 1877b: 11).

By the 1890s the damage was so great that it threatened the industry's viability. The previously abundant passages around Sasi and the Tudu reef were 'practically denuded of shell' and considered unlikely to recover for 8-9 years (Hodel, 1902). The first stand discovered at Tudu was 'exhausted in just over a year' (Ganter, 1994: 20). Attempts were made to protect certain areas through regulations that were constantly flouted and experts like Saville-Kent brought in to advise on artificial methods of cultivation (Ganter, 1994: 168-172). Generally it was the larger companies which experimented with these new methods but in 1924 the Niuean diver, Sam Savage, brought pearlshell from the Calico Reef near eastern Erub and transplanted it to his home on central Mawar (MacFarlane, MS, 2616/1/2).

The fluctuating returns from the fisheries encouraged some among the newcomers to extend their enterprises into the cultivation of cash crops, particularly copra. Edward Mosby from the US planted hundreds of coconut trees at Masig (Fig. 6). James Mills from Samoa found favour with officials for the zeal with which he cultivated Nagi, physically transforming it into a profitable and more conventional-looking Pacific island. The Protector reported approvingly that, under Mills's management, Nagi with its:

> extensive cocoanut plantation of about 40,000 palms ... is certainly an object lesson as to what may be done with most of the islands in Torres Straits, practically the whole of which are still in their primeval state, although quite as capable as [Nagi] of being brought into a profitable state of production (Annual Report of the Chief Protector of Aboriginals, 1911: 4).

The main motive may have been profit but we should not overlook the psychological desire of the Pacific Islander and Filipino settlers to reproduce physically their places of origin in their new homes. Although not an exact spatial replica, the topographical resemblances were striking. All that was needed was extensive planting of familiar vegetables, creepers and shrubs and the importation of livestock. By 1877 the Pacific Islander teacher at Masig had built himself a comfortable grass house and shipped in fowls and pigs, which 'seem to thrive well' (*The Australasian Sketcher*, 1877a: 4). He had probably also imported the 'bananas, pawpaw apples, and sweet potatoes' observed by the author, since these were new cultivars. The last permanent inhabitants of Auridh were the ni-Vanuatu, Matau, Saki and Jimmy Sandwich, and the Filipino Johnny Francis, together with their locally-born wives, who began to replant the island after its deforestation. Even after Matau's children had left, he continued to work his wife's garden. Harry Captain, who taught for many years at Puruma, told Laade (1964) that 'in old age he kept his second wife's property on Auridh and planted, he planted every kind of plant'. Francis planted sweet potato and regular rows of coconut palms (Yonge, 1930: 184; John Kanak to Maria Johnson Gebadi, pers. comm., 2000) — quite unlike the plantation that had once screened the *kooda*. The trees provided food and drink, construction material for his 'composite iron-and-coconut-leaf dwelling' (Coral, 1925b: 11) and the fermented juice, *tuba*, which his wife, Uludh, used as a yeast substitute in bread-making (Maria Johnson Gebadi, pers. comm., 2000). Uninhabited today, the sparse vegetation is mainly grassland and a few trees.

Kulkalgal leaders like Maino of Yam also encouraged new plantings. By 1911, he had overseen the planting of over 3000 coconut trees

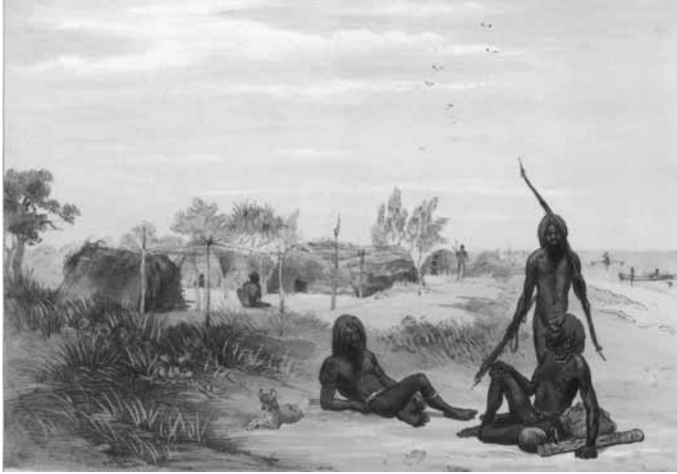

FIG. 5. 'Native huts on Mt. Ernest Id. [Nagi Island]' by Harden Melville, *Fly* expedition, 1844-5 (from Meville, 1849). (Courtesy of the State Library of Victoria).

and started plantations on some of the neighbouring islands. He was anxious 'to obtain plants and seeds of new articles of food', having already obtained 'some of the rather useless breadfruit trees of New Guinea, which are planted near the well and are thriving splendidly' (MacGregor, 1911). McGregor approved and wrote that the many islands which had been stripped of trees 'should be replanted without loss of time, in the interests of the future fishermen and navigators, and out of consideration for the Islanders.'

While 'barren' was the word of choice in mid 19th Century European descriptions of the northern sand cays, a century later, the southern sand cays evoked comparisons with idyllic Pacific atolls, fantasies of beauty and escape. Dry Puruma, with its single brackish well, appeared to Idriess (1947: 14) as 'a fairy isle [arising] from the sea'. Even if part of the perceptual difference is explained by the cool assessment of potential profit by the first European observers, by the time Idriess sailed past Puruma, probably in the late 1920s (MacFarlane, MS 2616/1/3), it and the other Central Island communities had indeed been physically transformed.

SETTLEMENT PATTERNS. As the physical environment was being modified by the demands of the fisheries, new communities were forming. The 4 Central Island communities (Yam, Puruma, Waraber and Masig), each the product of a long period of resettlement of peoples from elsewhere, began to assume their present form in the late 19th Century, although Puruma and Waraber did not attain their modern configurations until after World War II. Much of the work of consolidation occurred after the inhabitants of the less viable, smaller islands were encouraged or forced to move to the 'reserve islands' from 1912 (Appendix 4).

In their desire to crush the power of the old order, symbolised by the totemic clan system, the missionary-teachers were instructed to destroy the *kooda* and deliberately build their first grass churches on these sites. They were not the only newcomers to appropriate the power of the *kooda* to bolster their own undertakings. James Mills, the Samoan who settled at Nagi, 'made his garden in the [*kooda*] and built his house close by it' (Haddon, 1901: 181). Most clan objects were also destroyed but some large shells and smooth round stones that had adorned that most sacred of places were removed and incorporated into the newly-built churches. Those first churches of thatch and bamboo were gradually replaced by more permanent, linear structures of washed lime-and-cement, giving a more solid, stable appearance to each community. In time, the Islanders embellished their churches with belltowers and bells, porches, large crucifixes and candlesticks of carved *wangai*, featuring local designs.

The LMS missionaries, who were a reference group for their Kulkalgal congregations, also encouraged certain material responses to the emerging conditions of life, two of the most important being building style and vegetable gardens. They built their familiar Pacific-style houses and gardens, which were then copied throughout the Strait. The houses featured roomy interiors, doors to walk (rather than crawl) through and windows. The gardens were planted with imported vegetables, trees and shrubs.[34] After a visit to the islands, the Governor of Queensland (MacGregor, 1911) enthusiastically advocated the importation of a range of exotic plants and there are numerous references in official files to plants from the Pacific islands and both adjacent mainlands that might profitably be grown in the Strait.

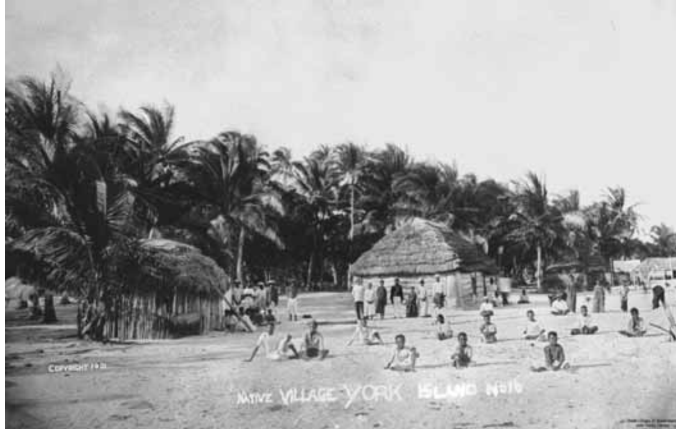

FIG. 6. 'Native village' on Masid c.1901. (Courtesy State Library of Queensland, John Oxley Library Pictorial Collection, Neg. 79207).

The missionaries also encouraged and oversaw the internal migrations from clan lands to tidy villages. They and government officials were of one mind in encouraging people to move from their traditional territories to newly created settlements of neat houses, along straight streets, clustered around the church, school and store. By contrast with the pre-contact configuration, the new streets, with their English names and neat dwellings and bordered by whitewashed stones, were laid out on a grid pattern, superimposed over the decidedly un-grid-like mosaic of clan or family land holdings. In this sense, colonial rule was spatialised through a geometry of dwelling space. Post-war European visitors were impressed by the apparent order: 'Yorke [Masig] Island is a very picturesque island with neatly laid out village ...' (Anon. c.1946: 18). Tennant (1959: 168) observed of St Paul's Mission that 'the Islanders have a neatness of mind that prefers clipped edges and clear definitions'. Like most generalisations, it has some resonance, even in a region that revels in variation as a symbol of island identity. Throughout the flat Central Islands one sees a preference for the grid pattern. This is especially noticeable as one approaches from the air — the 'viewscape' which may be the canonical Kulkalgal perception of their territory (Shnukal, 2000: *passim*).

Carter (1987: 203-204) wrote eloquently about the significance of the grid for European architecture and town planning. Among other things, it was a 'rational and equal division of the land into purchasable blocks that was the essential precondition of capitalist settlement'. For the Kulkalgal, who could not purchase their land but did not know it, the grid had other social and psychological meanings. The 'rational and equal division of land' resulted in house blocks of equal size. This suited their sense of justice: every household was treated equally and the social balance maintained. It was also a visible sign of their modernity, a spatial association between their villages and cities and towns elsewhere. This spatial association may be conceived of as yet another 'road' — admittedly of a more conceptual and abstract nature — between the Kulkalgal and their post-contact future.

LAND TENURE. The previous section should not be taken to imply that the pre-contact system of land holdings had remained intact up to the time of consolidation of the new settlements. The first entrepreneurs, who had no intention of settling permanently in Torres Strait, ignored not only traditional borders but also traditional land ownership, which was, in any case, legally annulled by the annexation of the islands.

It is unlikely that the first fishery managers negotiated initial occupancy with the landowners. More likely is that, like Banner in 1869, they used superior force to establish their stations and only subsequently negotiated mutually-agreeable terms (Chester, 1870). There was considerable local resistance but it was quickly crushed.

Various kinds of official and unofficial leases were issued to individuals from 1882.[35] Occupation Licenses were the first to be issued and, for the Central Islands, only those held by Frank Jardine and then James Mills (Jimmy Samoa) over the NW half of Nagi, Edward Mosby and Jack Walker over the N half of Masig, and Walton over Koei Dhadhathiyam (Bourke Island) are recorded in Lands Department registers. In 1907, the Efate immigrants, Matau, Saki and Jimmy Sandwich, held Occupation Licenses for Auridh and the Indonesian, Cromo, an Occupation License for Sasi.

From what I can glean from official registers, only 4 Central Islands were the subject of Special Leases to individuals: Edward Mosby took out Special Lease 1223 on Masig for a 'Pearl Shell and Bêche-de-mer Station'; James Bertram

Arthur held Special Lease 1911 on Mawar for 'Industrial Purposes'; James Mills took out Special Lease 1220 on Nagi for 'Industrial Purposes' and another over Pole Island for a coconut plantation. Apparently there were also semi-official agreements that, if they were recorded, have not survived. The Filipino Johnny Francis, for example, was given permission by Douglas to settle in the 1880s at Auridh, his wife's home, 'and with scrupulous care preserves the documents giving him the right of residence' (Coral, 1925b: 11). Eventually, the Central Island leases registered for commercial enterprises, with a few exceptions, were forfeited because of unprofitability and non-payment of fees or revoked by the creation of island 'reserves' from 1912.

By contrast with the fishing entrepreneurs, the Pacific Islander missionaries, who envisaged a far longer stay and operated under different assumptions, began their sojourn as they meant to continue. Unlike the early fishermen, they were dependent on the enduring goodwill and some economic support from the people among whom they settled. We might also infer that, coming from similar societies, they understood the need to respect local custom regarding land tenure. The first negotiations between the Kulkalgal and the LMS involved approval from traditional landowners to lease, in exchange for appropriate payment, rights to build a church (which might also be used as a school), teacher's house and garden, arrangements later formalised by the granting of leases.[36] Two generations after the event, the Church of England priest, Revd N.W. Gowing (1937: 11), wrote an account of the arrival of the first missionaries at Masig. It was probably based on information from the first Masig churchwarden, Bedhe (Charlie), ancestor of today's Alfred family, born in the early 1860s, who as a boy witnessed the event (James William, pers. comm., 2000):

> [A] small sailing vessel dropped anchor off Point Edi [probably Idid]. This was sent by the LMS. There were several Missionaries on board, but mostly natives from Samoa. One of these South Sea Island Missionaries went ashore. A few of the Yorke Islanders welcomed him, the majority retreated to their huts. The Missionary gave them cloth, axes, knives, and tobacco in exchange for land ... He was given half the island for the Mission compound. The Samoan Missionary encouraged the people to assemble together by offering them cooked sweet potatoes. By this means he preached to them the Gospel. A short time after his departure, the island was visited by Dr Samuel Macfarlane (L.M.S.).

While some minor factual details are incorrect, such as the missionaries' island of origin, it is an emotionally and imaginatively truthful account 'from the other side' of how the first permanent missionary presence in the Central Islands was negotiated. It is also far more revealing than the few contemporary references about the evangelisation of the Central Islands in its depiction of the initial wary and possibly hostile response of the majority of the population and the process of exchange and negotiation that preceded the establishment of an LMS mission station. These tend to be written out of European accounts. It is no surprise to learn that the major issue for negotiation was land, of which there was no question of purchase or alienation. The owners were recognised as such, their approval secured and they received trade goods in exchange for the *use* of their land. The *kumala* 'sweet potato' offered by the teacher — not at that time a Central Island cultivar — symbolised the new good things that the mission would give to the Kulkalgal in exchange for their conversion.

More important in the long run, although difficult to discover today, were the local land tenure arrangements made by individual Kulkalgal to incorporate the new permanent residents. Faced with the presence of so many powerful and/or socially useful outsiders, the Kulkalgal used traditional strategies to incorporate them socially — to create *yabugud* 'roads' between themselves and the immigrants. They became 'brothers', 'sisters', 'sons-in-law', 'daughters-in-law', even 'sons' and 'daughters' to men without biological offspring. With no land of their own, both male and female newcomers needed nevertheless to build homes and provide for themselves and their families by gardening. The gift and acceptance of parcels of land assumed, forged and strengthened reciprocal obligations. Such gifts were called *sibwanan*, the results, creators and visible signs of the 'roads' that existed between people.

The outcome of these gifts of land is the mosaic of family holdings typical of the Central Islands today. Pre-contact clan territories were generally chosen for reasons of outlook and defence; post-contact land holdings can be based on quite different considerations. The available evidence suggests that Kulkalgal land was once fairly evenly divided among an island's clans and that men and unmarried women generally resided on their clan territory. Clan affiliation and clan land were both inherited through the patriline (but see Haddon, 1904: 144-151). Exogamy was the rule and a married woman would leave her family to settle on her husband's clan territory. Each of

these principles of land tenure was affected by the new conditions of life.

CONCLUSION

The Torres Strait Central Islands today are the product of many population movements, beginning — according to legend — with immigration from southern New Guinea to the northern Central Islands. There were regular journeyings, too, during the exchange cycles, as the Kulkalgal visited and were visited by their neighbours. The gazettal of island reserves from 1912 curtailed most voluntary migration and travel but provided the stability necessary for rebuilding the population to its pre-contact level.

The fishing stations were the first *loci* of post-contact social transformation, followed quickly by the mission stations of the Pacific Islander missionaries. The Central Island bêche-de-mer and pearlshell stations on Gebar, Tudu, Masig, Nagi and Yarpar — the only ones for which I can find documentation — were established on the northern side, in the lee of the SE wind. Thus, except for Nagi, where the Indigenous population were almost immediately drawn into the orbit of the fishing enterprise,[37] they were physically separated from the existing settlements, which were on the southern side. This 'spatial othering' is the first example of post-contact social spatialisation but it continued a pre-existing pattern which may well be a human spatial universal. The Kulkalgal had traditionally 'othered' their non-kin co-residents through clan residence, each clan having its own separate spatial domain. Traditional stories also indicate that some of the Central Islands were settled by newcomers making their homes at a distance from those who had already taken up residence.

Demands for garden food, water and wood were often followed by occupation, the destruction of sacred places and the removal of sacred objects. Those were the acts that symbolised Kulkalgal conversion to Christianity, just as the construction of permanent buildings in new neatly-ordered settlements and internal migration from clan land signified their continued adherence to the new ways. The church became the symbolic and actual centre for each community, with a school and store close by, adjacent to the safest mooring.

Population movements and the changes wrought by people and exploitative industries have left their mark upon the islands' ecology, although the deforestation and corrugated iron buildings of the fishing stations have disappeared in favour of a Pacific-inspired flora, European suburban-style dwellings, grid streets with whitewashed markers (now gradually replaced with concrete edging), and neat flower gardens. Hägerstrand (1967: 1) noted the subtle and inconspicuous ways in which innovations in '[h]ouse types, production and communication facilities, domesticated plants, ways in which [land is] allocated, all the features which constitute the visible cultural landscape' become characteristic of their regions. The physical landscape of today's Central Island communities bears little superficial resemblance to that of the 1870s. They now regularly invite comparison with small Pacific cays, with peaceful lagoons, lush vegetation and coconut stands weaving a 'delicate tracery of leaves' (Idriess, 1947: 14).

The *spatial* result of many gifts of land over time has been, it is suggested, the present-day patchwork configuration visible on today's Central Island communities beneath the superimposed street grid. Vestiges of earlier clan affiliation can still be discerned only if one already knows the 'roads' by which heads of households and owners of gardens are connected. The *social* result has been a weakening of the clan-land relationship in favour of the family-land nexus and a strengthening of the cognatic principle of land inheritance. Many of today's Kulkalgal families have customary title to their land through their grandmothers, rather than grandfathers. In this respect, cognatic descent appears to have gained importance among Torres Strait Islanders, as among Aboriginal people, as a principle of inheritance to rights in land (Sutton, 1998; see discussion also in Connelly, 1999).

The Kulkalgal responded to the demands of the new economic and cultural order by altering many aspects of their traditional lifeways, but only by degrees and within traditional constraints. The major spatial responses discussed above were also expressions of psycho-social transformation — a change in Kulkalgal post-contact social consciousness. Forms of spatial merger accompanied the acceptance of new ways and the eventual integration into island life of new arrivals. Men left their clan lands to live closer to church, school and store, consigning their former dwellings and gardens to more marginal 'weekend' activities. Foreign 'sons' and sons-in-law were gifted with portions of land to garden for themselves and their families. Formerly distinct villages merged into a single unified village. Thus, an examination of

historically-attested spatial responses made by the Kulkalgal to the events of their post-contact history becomes a way of 'reading' the more elusive story of the interpenetration of once socially and spatially distinct peoples. This historical perspective sets the scene for comparative and possibly alternative archaeological 'readings' of the material legacy of Central Islander land and sea use and group interactions, both before and after European contact.

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ENDNOTES

1. Archaeological research has been undertaken in the Central Islands by Neal (1989), Rowland (1985) and Vanderwal (1973). McNiven (pers. comm., 2002) has on-going archaeological research on Tudu, investigating pre- and post-contact lifeways and Capt. Banner's bêche-de-mer and pearl shelling station.
2. The major division was between east and west, the Central Islanders being more allied with the Western Islanders through similarities in geographical origins, language, ceremony and clan organisation.
3. MacFarlane himself published a number of articles on the Central Islands from the 1920s, also using the pseudonym 'C. Coral'.
4. For example, the distance between Dhamudh (a Central Island) and Zabker (an Eastern Island) is less than that between Zabker and Erub (also an Eastern Island) and each constitutes a 'stepping stone' in the customary sea route between the centre and the east (James William, pers. comm., 2000). No physical marker delineates the boundary there between centre and east but it is set before arrival at Zabker. Zabker, moreover, does not exhibit the characteristic geomorphology of the Eastern Islands. It bears more physical resemblance to its near neighbour, Dhamudh, and the other low-lying cays of the Central Island group. Similarly, to the west, now-uninhabited Nagi, with its high hill and low-growing vegetation, physically resembles the Western group of islands and in fact belongs to the remains of the land bridge, as do Yam and Gebar. Babbage (1990: 3), who based his classification on geology and vegetation, called the high, large rocky islands 'western islands' (as did Finch, 1977: 5). Yam and Nagi are 'the easternmost islands of this type'. They were counted administratively as Western Islands, probably for the same reason (Milman, 1904). Lawrie (1970a: ix), Ohshima (1983: 5), Horton (1994: 1091) and Rowland (1985) also included Nagi in their list of Western Islands, although Ohshima elsewhere assigned Nagi to the Central Island group (1983: 13).
5. Describing PNG's Vitiaz Strait, Pomponio (1992: 13) singled out as the distinguishing climatic feature 'the seasonality and relative intensity of the winds', the main distinction being windy versus calm. 'The windy seasons bring with them rain; the calm bring dry.'
6. Colin Sheehan pointed out that a similar observation was made by Jaski, Master of the *Jacoba* and *Christina*, in 1860: 'All [the central cays] had the singular feature that the corals appeared to extend to the SE and ESE and have already formed many extensive reefs in that area; while the NW sides are clear; so that one can approach that area easily up to 1/8 mile distance' (Koninklijk Nederlandsch Meteorologisch Instituut, 1872: 81). I gratefully acknowledge both the reference and his translation from the original Dutch.
7. Identified by Haddon as *Mimusops kaukii* or *Mimusops browniana* (Bailey, 1900: 960) but later reclassified as *Manilkara kauki*.
8. According to Simeon Harry of Yam (Lawrie, 1966c), the reef at uninhabited Uthu, less than an hour distant from Puruma in a sailing dinghy, was 'very rich in trochus and other fish. The people from Puruma have always gone there and still do, to fish. Within a short time they are "full up" and return home.' Telita Fauid (pers. comm., 1982) says that the Puruma people also used to garden there and on Yarpar. The historical evidence is sometimes difficult to interpret. In 1849, for example, MacGillivray (1852, II: 42) visited Garboi (Arden Island). He saw 'traces – but none very recent – of visits paid by the natives, indicated by remains of fires, turtle bones, a large pit dug as a well, and two old graves'. Can we infer from 'none very recent' a period of over or under a year? Do the well and the graves indicate that the island was semi-permanently inhabited or annually visited? Was it a regular stopover during the great hunting cycles, which the Kulkalgal pursued as far S as Cape Grenville? Or was Garboi visited only occasionally during a storm or to hide from marauders?
9. According to Haddon (1908: 28), the legendary Kos and Abob, who built the fishtraps in the Eastern Islands, also built them in some of the Central Islands. (They have long since fallen into disrepair and are no longer used.) Lawrie (1967a) was taken to see 2 Yam Island fishtraps, named Ulai Ubar and Mayan Garaz, 'situated on the reef at the base of the hill called Tura, which is at the northestern corner of the island' and, Getano Lui Snr told her, built by South Sea Islanders. Her verdict was that they were 'much smaller than those of the eastern islands and "inexpertly" constructed by comparison' (see also Fuary, 1991a, 1991b: 48, 207; Ohshima, 1983: 52).
10. Barham (2000: 259) suggested that traditional Kulkalgal were unlikely to have used nets for fishing, only their use post-contact being attested.
11. The women had primary responsibility for the provision of food from the land, for the preparation and storage of food and for the weaving of mats from pandanus, which were used as sails and produced to show respect when men from elsewhere came to trade.
12. Milman (1904) echoed these words when he referred to the fruit as 'a great mainstay for the inhabitants, who dry large quantities. It (the fruit) is much like a date in shape and flavour and is good eating'.
13. Cf. Fuary (1991b: 201-17) on contemporary subsistence on Yam.
14. Bedhe or Charlie, the first churchwarden of Masig and ancestor of the Alfred family, told MacFarlane that, '[w]hen making a garden for tobacco in the old days, a spot was selected preferably where a *wangai* tree had been burnt down leaving plenty of good white ash. The seed was scattered in the northwest time and it came up like grass. Later the young plants

were transplanted. In the southeast season, when the plants were about 18 in. high, they took the inside bark of the cabbage tree [*Livistona autralis (Corypha australis)*], scraped it and squeezed it through the meshes of *iwai* [the cloth-like leaf-sheath of the coconut palm], and sprinkled the "milk" over the tobacco leaves "to make it taste good by and by". When it seemed ready, a leaf was taken, dried over a fire, and tested in a bamboo pipe. If it bit like a chilli, the leaves were then picked and laid out to dry. When dried, they were made into a rope, coiled up and put away' (abbreviated from Haddon, 1935: 91).

15. *Gau* (possibly Banded Landrail, *Rallus philippensis*) is today acknowledged to come from Mua in the Western Island Group through a female ancestor of the Bob family (Revd Scotty Bob, pers. comm., 2001).
16. A possible third reference concerns the layout of a village at Auridh in 1860 described by MacGillivray (see below).
17. I suspect that clan divisions also played an important role in the configuration of all Kulkalgal settlements, as only households headed by members of the same clan were likely to share living space. On western Saibai, 'formerly the single village consisted of a double row of houses ... and the houses of each clan were placed side by side' (Haddon, 1904: 174). Despite attempts to 'mix up' the houses as part of a strategy to break down the clan system, 'a tendency towards clan segregation is still discernible. This is shown by the village consisting of groups of houses, each group being mainly owned by members of the same clan, and further the inhabitants of each house belonged to the same clan.'
18. MacGillivray's use of 'a village' rather than 'the village' in the text is tantalisingly ambiguous, since it could (but does not necessarily) imply that there was more than one village on Auridh at the time. Only on Masig are there records of more than one pre-contact village and these might more accurately be considered as agglomerations of extended-family dwellings.
19. Lawrie (1970a: 268-69) and Teske (1991: 13) were told that the original village was at Gibuthal Paada, east of the present-day Waraber village, but no date is indicated.
20. Here as elsewhere these were generally chopped down to meet the demands of marine industry workers. MacFarlane (as Coral, 1925a) observed the remains of numbers of coconut trees on Puruma: '"only two old trees stop now," they tell you, "all the others new. Before, when the Chinaman came looking round bêche-de-mer they get very hungry for drink one time, because this place got no good water, so they cut down all coconut tree for drink young one; they can't climb tree all same native!"'
21. Some people were gifted diviners, such as Aiwal from Waraber, whose story was told to Lawrie (1966a) and Teske (1991: 20).
22. Pomponio (1992: 22) defined 'middlemen' trade as 'the connecting of two or more endpoints through a complex network of food and craft specialisation, exports, imports, and re-exports for profit.'
23. Revd W.H. MacFarlane spent 16 years in Torres Strait (1917-1933) and was one of Haddon's chief correspondents, as well as a prolific writer of popular articles on Torres Strait custom and history. He absorbed his material from countless intimate conversations with Islanders and viewed primary source material, such as the Jardine diaries, now lost to us.
24. One visit in c.1863 ended badly, when the Puruma people urged their Murray Islander hosts to kill a Maori trepanger and so brought about the deaths of a dozen people in retaliation (Haddon, 1908: 190-191; Shnukal, 1995: 5-7). Generations of exchange visits cemented family friendships but there was comparatively little warfare and intermarriage. Like warfare (discussed below), inter-island marriages generally took place within defined groups of islands (Haddon, 1935: 37). Rivers' genealogies record 9 marriages between Gebar and the Western Islands of Mabuiag and Badu; 'a considerable number when [Gebar's] sparse population is taken into account' (Haddon, 1904: 235). This exception to the general rule of intra-group marriage led Haddon to surmise 'that Gebar people were regarded as part of the [Mabuiag-Badu group] so far as marriage was concerned, though it is probable that they were also similarly related to the [Kulkalgal]'. The few Yam-Tudu genealogies in Haddon (1904) indicate that the Tudulgal married only other Kulkalgal or to Mawata, which is consistent with information given to Lawrie (1967b). Whereas Kulkalgal men, with the exception of those from Gebar, appear to have married almost solely within the group, Athub, Auridh, Dhamudh, Nagi and Waraber-Puruma women married men from Muralag (western group) and, very occasionally, Mer (Eastern Island Group) – three pre-contact Murray Islander marriages recorded in 1898 were with Kulkalgal (Haddon, 1908).
25. This group name may have signified (real or putative) common ancestry, shared religious affiliation, connections formed through the jouneyings of culture heroes, or any combination of these. Haddon thought that the origin of the name was religious (the common noun *kulka* means 'blood' or 'red'): 'Kulka is the eponymic hero of the small islands in the central area of Torres Straits, and the inhabitants of these islands are known as the [Kulkalgal] or "Kulka-folk"' (Haddon, 1890b: 194). Images and shrines were maintained at centres of worship (MacFarlane calls them 'lodges') on Auridh, Puruma, Yam, Nagi, and Masig, as well as on eastern Erub, Mer and Ugar, although none are recorded from Dhamudh and Puruma. They commemorated the activities of four culture heroes, brothers and magic men, whose travels linked the Kulkalgal with the Eastern Islanders. Some say they

came from Marilag, probably near Forbes Island off Cape Grenville; others from the Tugeri country of New Guinea. Haddon's social evolutionary beliefs led him to hypothesise that they came from Nagi (1890b: 194). Maino recalled to MacFarlane, who named the religion 'The Cult of the Brethren', how 'four brothers came in their canoes from the east mainland coast called Marilag, accompanied by others. Their names were Malu (or Bomai, the "secret" name), Sigai, Kulka and Sau, with Pinikar and Maiau. Sigai, with Maiau, went to Yam, Kulka to Auridh, Sau to Masig, and Malu to Mer. Each became the object of worship and each had what may be termed its priestly devotees, the *Zogo-le* ... Ceremonial dances, the inculcation of "good things", initiation of the young men, and so on, were connected with this, and, as was customary in other places, women and children were excluded from witnessing the full ceremonies ... Mabuiag and Badu, though not far distant, seem not to have been included. Members of the cult from one island going to another might "visit" the "lodge" there. Yam itself apparently occupied the position of a sort of chief lodge, as did also Mer' (abbreviated and spelling slightly altered from MacFarlane, MS 2616/1/20; MacFarlane as Coral, 1925b: 11; Haddon, 1935: 81-3).

The brothers were associated with the 2 major totemic clans, Sigai with Hammerhead Shark and Maiau with Crocodile. In appearance Kulka was said to be like a shark underneath and a crocodile on top, a balanced fusion of the traits of the 2 fiercest and most powerful creatures of sea and land, respectively.

26. Their main cultural, religious, economic and political affiliations have already been discussed, but the journeys of Naga, Gelam and Sidha should also be mentioned briefly (see Haddon, 1904: 48-9, 1935: 70; Lawrie, 1970a: 297-99; Fuary, 1991b: 116-17). Arguably the most significant Torres Strait stories are those that explicitly link a group of islands through the travel of one or more individuals. When they extend over a great distance, they may recapitulate trade routes or, when the islands are adjacent, trace the boundaries of a particular people (see below). Sharp has suggested that such stories are metaphors or even explanations for the networks which bind peoples together, as the Kulkalgal were bound together and with their eastern neighbours through the visits of the Four Brothers and other culture heroes. Spatial connections were consolidated and elaborated by kinship and friendship connections.

27. There has been speculation that the Masigalgal were originally Eastern Islanders and Masig is sometimes classified, by culture and location, as belonging to the Eastern Island Group. Eastern Island beehive-shaped built structures were observed on Masig and Dhamudh (MacGillivray, 27 Feb. 1862) and the Masig people adopted a significant amount of Eastern Island lexicon. Whatever the origins of the pre-1840s Masig people, all available ethnological and linguistic evidence indicates that they were, at least from the mid-1840s, Kulkalgal.

28. The above briefly summarises Shnukal (2000: 52-63, 72-78, *et passim*). Another of several possible interpretations is Fuary (1991b: 123-169) which is based heavily on secondary and tertiary sources.

29. The current preferred designation by Tudu people is the singular form, Tudulaig.

30. For a discussion of the putative origins and early migrations of the Kulkalgal see Shnukal (2000: 31-35).

31. Chester (1883) wrote that 'Arabs, Egyptians, Malays and Macassar men, Javanese, Cingalese, West Indies, and natives from almost every island in the South Pacific' were employed.

32. By 1886, Hon. John Douglas, Chester's successor, estimated that 500 men and boys were employed in the bêche-de-mer fishery, 'of whom probably a third, though possibly a half, come from the mainland of Australia' (Douglas, 1886).

33. Maureen Fuary (pers. comm., 2002) pointed out that fear of the resident *dogai* was another factor in the reluctance to resettle Gebar (see Idriess, 1947: 98-9; Lawrie, 1970a: 257-58; Fuary, 1991b: 117-18; Angela Ware Morrison, pers. comm., 1996).

34. See Langbridge (1977: 78-9) for the ideological importance of gardening to the missions as 'integral to a settled existence and honest labour'.

35. Chester (1882b) and Queensland Department of Public Lands (1883). The first Occupation Licenses were registered on 1 May 1882. Frank Jardine legitimised his existing pearling station at Nagi with Special Lease 154. This was for the NW half of Nagi 'for the purposes of cultivation'. The lease ran for 3 years at an annual rental of £5 and was paid to 30 April 1883. Charles Beddome, another ex-government official, was his associate there (Ganter, 1994: 22). Edward Mosby and Jack Walker were joint lessees of the N half of Masig, Walker later settling on Dhamudh. William Walton operated a station at nearby Bourke Island under an official lease arrangement (Pennefather, 1882).

36. In June 1882, the London Missionary Society took 14 year Special Leases over 4 islands for their mission stations, none of them Central Islands. In July 1906, Yam and Masig were added and all LMS leases were transferred to the Australian Board of Missions for the Church of England in September 1915 (Queensland Department of Public Lands, 1905-6, 1912-16).

37. Acting Government Resident Milman reported of his visit there on 3 September 1886 that 'there are about 20 natives, well and comfortably housed on this Island who work for this man [Mills] and otherwise employ their time in fishing'.

38. The largest population appears to have been centered on Yam-Tudu, that was perhaps twice that centred on Nagi. Nagi's people, legend implies, were under frequent pressure from Mua during the

19th Century (Singe, 1989: 193). The early population counts are estimates, since the Kulkalgal moved seasonally and Europeans could not know exactly whom they were counting. The superintendent-teacher Connolly (1916) counted the Masig population that year at 97 but noted that it 'fluctuates very much on account of mainland boys and boys from other islands coming and going as crews of boats'. Official censuses of the islands began in 1901 but the numbers are skewed by the racially-based categories adopted by the Australian and Queensland governments, which included some Kulkalgal but not others in their census calculations (Shnukal, 2002). By law, only 'half-caste Aboriginals' were counted in the Australian census until after 1967, e.g., Masig's 1933 population was said to be 39 (14 males and 25 females), rather than 135, presumably because only members of the Mosby family, descended from a white American, and the European teacher's family were enumerated (Commonwealth of Australia Census, 1933, I: 593-683).

APPENDIX 1

Central Torres Strait Island Names. Bracketed alternative spellings are found in various maps and documents. * Information from Ned Mosby (Lawrie 1970b); spelling from Rod Mitchell. N.B. The preferred spelling of island names by contemporary Torres Strait Islanders varies within communities.

Island name	English name
Athub	Dugong I.
Auridh (Aureed, Aurid, Yaywad)	Skull I.
Burar (Burrar, Bara)	Bet I., one of the Three Sisters Is
Dhamudh (Damud, Damuda, Damut, Damuth, Damoot, Zamud, Jarmuth)	Dalrymple I.
Garboi (Garboe)	Arden I.
Gebar (Gabar, Gabba)	Two Brothers I.
Githalai (Getulai, Getullai)	Pole I.
Guya (Guiar)	Poll I., one of the Three Sisters Is
Igabu (Igab, Egabu)	Marsden I.
Koedal (Cuderal, Kadal, Kadar)	Koedal (Crocodile), NE of Masig
Koei Dhadhathiyam	Bourke I., SE of Masig*
Koeilag (Kaylag)	Yorke I. (lit. Big I.)
Masig (Macheek, Machik, Maseed, Masseed, Massid, Massieb, Massied, Massig, Massik, Matik)	Yorke I.
Mawar (Mauar)	Rennel I.
Moegi Dhadhathiyam	Meimei Islet (Small Bourke), S of Masig*
Mukar (Mukwa, Muquar)	Cap I.
Nagi (Naghier, Naghir, Nagir, Naga, Naghee, Nagheer, Nahgi)	Mount Ernest I.
Puruma (Purma, Poruma, Parremar)	Coconut I.
Sasi (Sassie)	Long I.
Soeuraz (Sauraz, Suaragi, Suaraji)	Burke I., NE of Nagi
Tudu (Tood, Toot, Tud, Tut, Tutu)	Warrior I.
Ulu (Hulu)	Saddle I., NW of Waraber
Umaga (Homogar, Umagur)	Keats I.
Uthu (Utu)	Dove I.
Waraber (Warraber)	Sue I., one of the Three Sisters Is
Yam (Yama, Iama)	Turtle-Backed I.
Yarpar (Yarropar)	Village I., Pumpkin I.
Zegei (Gerka, Giaka, Jeaka, Zegey)	Dungeness I.
Zuwi (Zuizin)	Halfway I.

APPENDIX 2

Central Torres Strait Island Populations from 1792[38]. *Dhamudh and Mawar combined. **Masig, Mawar and Dhamudh combined. ***Mawar and Ugar combined. Sources: British Navy estimates 1792-1849; LMS Papuan letters, journals and reports 1871-1914; Annual Reports of the Government Resident, Thursday Island, 1885-1904; Annual Reports of the Chief Protector of Aboriginals 1906-42; Queensland Department of Native Affairs censuses 1912-1988; Year Books of the Diocese of Carpentaria 1927-47; community profiles and surveys from Queensland Department of Aboriginal and Islander Advancement and Commonwealth Department of Aboriginal Affairs 1965-1988; as well as official reports, travellers' impressions and scholarly compilations (e.g., Beckett, 1987; Bleakley, 1933; Singe, 1989; Laade, 1964; Macleay, 1875; Mullins, 1992a).

Year	Dhamudh	Gebar	Masig	Mawar	Nagi	Puruma	Waraber	Yam-Tudu
1792	42							
1849					c.150		c.60	
1870								c.200
1872		30-50						250
1873			80-90	20+		150		200+
1875			c.80		60			c.300
1879			69					85
1886			c.50		c.20	nil		
1891	62		95					
1897	22							
1908			70		46			66
1910			c.50			40		85
1911			c.80					86
1912			80-100			70		104
1913			103		c.20	63	18	114
1917			97					
1921						c.70	15	
1928			137					
1930	28*		125		15	115	21	144
1931	28*		131		23	110	26	164
1932	4		130	12	25	112	22	165
1933			135**		24	125	12	182
1934			147		24	147	19	178
1935			152		31	120	23	189
1936			154		30	128	20	193
1937	4		158	14	18	153	2	205
1938	4		159	14	18	147	2	208
1939			161			132	16	209
1940			165	c.20		157	no returns	283
1949	nil		c.150	c.20	16	c.150	nil	c.250
1953			154	44***	34	143		191
1964	nil		248	nil	nil	143	74	247
1969	nil		160	nil	nil	120	90	300
1981	nil		134	nil	nil	91	149	115
1984	nil		185	nil	nil	110	175	150
1988	nil		205	nil	nil	127	158	218

APPENDIX 3

Kulkalgal Clan Totems. Sources: Haddon (1901: 179; 1904: 155, 171-73, 180, Tables 16, 16A, 16B) and Ohshima (1983: 77, 85, 92, 339).

Clan Totem	Dhamudh	Gebar	Masig	Nagi	Waraber-Puruma	Yam-Tudu
Sea creatures						
Shark			X	X	X	X
Hammerhead Shark			X	X		X
Sea Snake					X	X
Ray		X				X
Green Turtle	X		X	X		X
Flatback Turtle				X		
Mating Turtle					X	
Saker				X		
Dugong		X		X	X	
Non-sea creatures						
Crocodile			X	X	X	X
Dog			X		X	X
Cassowary		X			X	X
Frigate Bird	X			X	X	X
Got				X		
Monitor Lizard				X		
Gecko				X		
Land Snake			X	X	X	X
Gau					X	

APPENDIX 4

Central 'Reserve Islands'. Sources: *Queensland Government Gazette* 1912-1971; Queensland Lands Department; Aboriginal Reserve cards by county, Queensland State Archives.

Reserve	Island	English name	Year	QGG ref. no. gazetted
R18	Ulu	Saddle I.	1912	part 2: 1330
R19	Sasi	Long I.	1912	part 2: 1330
R20	Puruma	Coconut I.	1912	part 2: 1330
R21	Zegei	Dungeness I.	1912	part 2: 1330
R22	Yarpar	Roberts/Village I.	1912	part 2: 1330
R23	Auridh	Skull I.	1912	part 2: 1330
R24	Mawar	Rennel I.	1918	part 1: 131
R25	Dhamudh	Dalrymple I.	1912	part 2: 1330
R27	Burar, Poll, Waraber	Three Sisters Is	1912	part 2: 1330
R28	Masig	Yorke I.	1915	part 1: 1526
R32	Yam	Turtle-Backed I.	1912	part 2: 1330
R65	Zuwi	Halfway I.	1926	part 1: 983
R66	Nagi	Mt Ernest I.	1926	part 1: 1041
R67	Githalai	Pole I.	1926	part 1: 1322
R90	Gebar	Two Brothers I.	1956	vol. 2: 2314
R119	Tudu	Warrior I.	1971	vol. 3: 1313