

Moving to the Beat of a Marine Environment



Qualitative Nuances Read upon the Surface of Things

Going to the beach of the Great Landing (*Fanga lahi*) in the early morning to ‘inspect the sea’ (*fakasio e tahi*) was a common routine on Kotu. Finding out whether the tide was flowing or ebbing made it possible to form an opinion about what things would happen in the immediate future and was therefore important for planning the activities of the day. That marine realities should be important to people living on a small piece of low-lying land set in a large lagoon surrounded by the deep sea of the South Pacific should not be surprising. Still, I noticed during my fieldwork that marine realities blended easily into the mute background as something quickly taken for granted. I have suggested that the local response to environmental events and ongoing environmental changes may seem less puzzling if considering people’s strong convictions about what is true and real in the world, what is desirable, what is beautiful and valuable and what is appropriate in dealings with one another. Thus, I suggest that a good point of departure is to start out by considering the significance of the tides as a timekeeper of everyday living.

The flow of time must be inferred by putting together memories of the past, images of the present and expectations about the future. According to Alfred Gell ‘... there are two logically quite distinct “basic experiences” of time. There are (1) that certain natural phenomena repeat themselves; and (2) that for the individual organism life changes are irreversible and death inevitable’ (Gell 1992: 30). My purpose is not to discuss or decide whether different societies (or historical epochs) have different ‘time conceptions.’ I

am not out to compare or explore local philosophies of time at all. Rather, I would agree with Gell, who, with reference to Kedang concepts of time (as described by Barnes), notes: ‘The collective representations of “time” are not representations of the topology of the time-dimension, but are representations of what characteristically goes on in the temporal world ... The relevant distinction does not lie between different “concepts of time”, but different conceptions of the world and its workings’ (ibid.: 36).

I am interested in exploring the synchronization of people’s daily activities with recurring natural phenomena, in order to gain insight about ‘conceptions of the world and its workings’. Like Bourdieu, I think that this world does not make itself known to people as a stable reality but as ‘qualitative nuances’ (Bourdieu 1963: 59). What I hope to gain by exploring these nuances are insights into attitudes toward the world and its workings rather than attitudes towards time. To focus on the qualitative nuances of things on Kotu involves exploring the dynamics between several kinds of diametrically opposed states of being in which the routines of daily life are embedded. I shall use this exploration to identify and illuminate characteristic and enduring qualities of Tongan cultural aesthetics and sociality, which in their turn, I believe, are important for understanding how people responded to ongoing environmental changes.

What may be called the timescape of Kotu consists of numerous recurring phenomena that were important for timing people’s everyday activities in the last decades of the twentieth century. Kotu was neither ‘clock-less’ nor ‘calendar-less’. Still, its temporal topography may be described as one in which ‘The effective points of reference in the continual flux of time’s passage are qualitative nuances read upon the surface of things ...’ (ibid.: 59). Terminologies of qualitative nuances existed to make it possible to map this timescape or topography: a terminology of the tides; a terminology of daily shifts and changes in the relationship between light and darkness; a terminology of moon nights; and the traditional Tongan calendar of yam cultivation. For my purpose, the significance of terminologies of qualitative nuances for the timing of everyday events is that they carry messages about the make-up of the world. The main difference between timing by reference to qualitative nuances and a terminology of quantitative differentiation, such as a clock or a date, is that the latter, *in itself*, provides fewer insights into the world in which it is embedded. Over the next two chapters, then, I shall explore everyday routines of coping with and referring to qualitative nuances related to tidal, diurnal and lunar changes on Kotu. The obvious significance of marine realities for everyday life on Kotu makes people’s routine engagements with the dynamics of the *Namolahi* Lagoon an appropriate starting point for this exploration.

The Changing Faces of *Namolahi* Lagoon

Approximately every 6 1/4 hours a tidal transformation causes the marine environment to present a radically different face to Kotu people. The two tidal extremes of *tau 'a e tahi* (high tide) and *mamaha 'a e tahi* (low tide) are transitory moments in a continual process of transformation. The processes of *hu'a mai ke tau* (flood tide) and *mahu'i ke mamaha* (ebb tide) relate to the two diametrically opposed states. In addition, several intermediate states of the sea were recognized on Kotu. Twice a day, this process of transformation played itself out in the lagoon, used for its resources as well as to come and go from the island.

In his study of customary sea tenure, Edvard Hviding explored the sea as a cultural and relational focus for the people living around Marovo Lagoon in the Solomon Islands. He emphasized the terrestrial bias of the ethnographic documentation of coastal Melanesia: 'Even coastal populations have often been considered as overwhelmingly oriented towards agriculture, and their involvement with and dependence on the sea has tended to remain superficially documented at best' (Hviding 1992: 5). Navigational skills make up a topic in Polynesian ethnography, but the practical and experiential aspects of coping with the sea for everyday production is not well documented. Indeed, Hviding's conclusion about the sea-related ethnography of Melanesia appropriately describes also Polynesian ethnography: '... too little is known about the relationships ... to the marine environment that forms such a significant context for their lives' (ibid.: 8). Thus, Bataille-Benguigui¹ in 1988 described the documentation of Tongan relations to the marine environment (Gifford 1929; Koch 1955: 244–90; Rogers 1975: 206–25; Halapua 1982; Dye 1983; see also Grijp 1993a: 51–59): 'Fishing techniques studied in the Tonga Islands have been described only by their operational methods and without investigating the possible symbolic aspects accompanying the acquisition of natural sea resources' (Benguigui 1988: 185).

On Kotu, the different parts of the lagoon were not associated with any social groups, nor did the people on Kotu hold common exclusive ownership, or usufruct, of it. Thus, people from the surrounding islands occasionally used the lagoon for commercial fishing.² There is no doubt, however, that *Namolahi* Lagoon has historically been particularly significant as a resource base for Kotu people. The references to Kotu island as *Namolahi* ('Large Lagoon') as well as *Tukulalo* ('Coastland' as opposed to 'interior'; *tuku'uta*) and subchief title *Hafukinamo* ('drifting before the wind to the lagoon') are all related to the fact that Kotu and its large lagoon historically has been considered as the marine part of Taufatōfua's territory. Kotu together with the high volcanic island of Tōfua, about forty

kilometres west of Kotu, historically made up the estate of the non-noble chiefly title of Taufatōfua. Kotu people thus have a long history of commuting between the two islands in order to grow the kava pepper plant (*piper methysticum*) used to make the ceremonially important Pacific drug and also staple foods to supplement the limited production on Kotu, a practice locally referred to as *fakalahi kelekele* ('to enlarge the soil') (see Perminow 1993b). However, the significance of a focus on the lagoon is not a question of whether there has existed exclusive ownership, or usufruct, rather it lies in the importance of *Namolahi* Lagoon as a field of everyday experience.

The significance of a shift of focus from Kotu island to *Namolahi* Lagoon is to highlight the fact that the lagoon makes the area that people routinely use for purposes of production and transportation eighteen times larger. With its 685 persons per square kilometre, Kotu Island was the most densely populated island of Tonga in 1986 as well as in 1992.³ The population density of Kotu Island, including the extensive *Namolahi* Lagoon which surrounds it, on the other hand, was only 38 persons per square kilometre. However, the main significance of this shift of focus is qualitative rather than quantitative; it is intended to draw attention to the significance of people's engagements and knowledge related to the marine parts of the environment, aspects of everyday experience that have suffered from more land-locked approaches. Thus, I would draw attention, as Hviding does in his study of life around the Marovo Lagoon, to the significance of the sea because it may contain: '... powerful connotations of fluidity, mobility, and other realms of life' that may serve to supplement insights gained from numerous terrestrially biased explorations in the Pacific (Hviding 1992: 10).

Moving in *Namolahi* Lagoon

Daily activities within *Namolahi* Lagoon involves coping with an environment in perpetual motion, with tidal dynamics bringing certain seascape features into temporary existence. The expression 'the lagoon is on the move/astir' (*loka 'a e namo*), for example, refers to occasional strong currents (*'au lahi*) creating 'water flows/rivers' (*vai tafe*). Other seascape features, such as fields of seaweed, deep spots, different kinds of coral formations and channels or passages in the fringing reef become more or less significant as tides change. From the perspective of those moving and working in the marine environment of *Namolahi* Lagoon, features brought to existence by the ebb tide constitute a complex seascape, creating specific facts of existence that have to be taken into account in order to act appropriately or effectively. Likewise, the flood tide creates a state where low-tide features lose their distinctiveness and constitute a different environment.

The routines of coming to or leaving Kotu Island may illuminate the practical significance of these natural marine dynamics, as demonstrated in the following account.

The sea was calm and the full moon was high in the sky when the ferry from Nuku'álofa arrived at Ha'afeva. 'Atu Hē had come from Kotu with his boat to pick up Kotu people who came on the ferry. 'What do you think?' 'Atu asked, 'Should we go ashore at Ha'afeva to wait for daylight, or should we go straight back to Kotu?' 'It's your decision,' I said, 'but as the sea is very calm, it would be well if we were to go straight to Kotu.' 'It is the truth,' he said, 'but look at the moon; it almost stands straight up (*meime'i tu'u tonu 'a e mahina*). Very soon it shall be low tide.' He turned to discuss it with some of the other passengers, who all felt that it was worth a try. Because the moon provided ample illumination, he decided to 'attempt' (*'ahi'ahi*: 'probe', 'seek by trial and error') to enter *Namolahi* Lagoon by way of the 'Great passage' (*Ava lahi*). Approaching the *Namolahi* Lagoon, 'Atu sent a man up front as lookout for the passage between the submerged reef of *Tōfuke*, *Luapunga* ('permanently submerged head-coral') and *Fonuae'a*⁴ ('sometimes visible land') leading through to *Ava lahi* ('Great passage') into the lagoon. After about half an hour of careful navigation involving exchanges of orders and information between 'Atu and the lookout about significant places of the fringing reefs surrounding the lagoon, we finally managed to enter the 'Great passage'. That 'Atu had found it was made evident by the boat making very little headway, even though he opened up the throttle of the 30 hp. outboard engine as far as it would go. Despite the fact that the boat had very little forward motion, the sea boiled whitely around the bow, and the boat shook and rocked violently. For some time, the power of the engine fought the force of the outgoing tide. But eventually 'Atu got us through and told the lookout to watch out for the submerged coral formation of *Fakakaufue* and *Maka tangafa* ('Humphead Wrasse Rock'), to direct us into the narrow channel between the partly exposed formations of *Maau si'i* ('Small Maau') and *Maau lahi* ('Big Maau') leading into the low tide anchorage of *Taulanga lahi* ('Large anchorage'). Tilting up the engine and zigzagging between massive 'coral boulders' (*punga/lua punga*), wide 'tabulate corals' (*hakau kahifi/makafale*), brittle and sharp coral mushrooms and fans and forests of entangled 'staghorn coral' (*maka feo*), as well as across deep sandy 'ponds' (*fo'i loto*) and shallow 'fields of seaweed' (*fo'i limu*), 'Atu brought the boat within 500 metres of the 'Large Landing' (*Fangalahi*), where we disembarked and proceeded to wade onto land.

The Places of *Namolahi*

The features of the marine environment make up a chartable seascape (see map of *Namolahi* Lagoon in the frontmatter). I emphasize, however, that

the marine world of *Namolahi* Lagoon is inherently dynamic. A seascape map gives a sense of stability that is alien to the marine realities with which people deal. Like Weiner, I emphasize that the named places are part of an 'existential space' in contrast to '... Euclidean space of absolute, geometric dimensions'. This existential space, according to Weiner, is constituted as 'an intersubjective social one' through people's life activity (Weiner 1991: 32). The named places were of temporary and varying significance for the practical life activities that took place in the lagoon.

About fifty places in the lagoon had recognized names. These named places feature 'deep spots' (*fo'i loto*), 'coral formations' (*fo'i hakau*), 'coral boulders' (*fo'i maka*), 'passages' (*fo'i ava*) in the outer reefs and 'fields of seaweed' (*fo'i⁵ limu*). Some of the terms describe characteristic qualities of the named place. Thus, as mentioned, the name *Ava lahi* means 'Great opening/passage', while the names of other passages include *Hakau fakapapanga* ('Smooth/Featureless reef'), *Ava pipiko* ('Crooked passage'), *Ava 'i Tungua* ('Passage toward Tungua') and *Hali'a* ('Grazing place'). Similarly there are the descriptive names *Hakau pupunu* ('Filled/stopped-up reef'), *Hakau mavahe* ('Divided reef'), *Kauhakau fakatonga* ('Southern reefs'), *Utu popotu* ('Small crab rockface'; pitted with small holes among which small crabs scuttle) and *Luo* ('Hole/Depression'). The name *Mo'unga Tōfua* also seems to describe characteristics of the place in question, referring to a deep area in the lagoon becoming a 'lake' at low tide and mirroring the crater lake known as *Vai ko Lofia* in the interior of Tōfua Island.

Some of the names refer to activities associated with specific locations in the lagoon. *Tu'unga Kupenga* means 'Place of net-fishing', *Tu'u peau ala* may be interpreted to mean 'Standing in the waves collecting shellfish', while *Taulanga lahi* and *Taulanga si'i* signify 'Large anchorage' and 'Small anchorage'.

Some parts of the lagoon were associated with specific marine species; for example, Koloa, my host and Kotu's town officer, told me that *Maka he afe* ('Boulder of the bend'), *Hakau pupunu* ('Filled/Stopped up reef'), *Hakau fakapapanga* ('Smooth reef'), *Hefau* ('The Haul'; a sandy, shallow part of the lagoon) and *Kauhakau fakatonga* ('Southern reefs') were 'haunts' (*nofo'anga ika*; lit. 'dwelling place of fish') of the Yellowfin Goatfish or *Malili* (*fa'ahinga ika*⁶) (*Mullidae*; Randall et al. 1990). Similarly, Sweetlips or *Fotu'a* (*Haemulidae*; *ibid.*) were characterised as 'dependable' (*pau*) and were said to form 'schools' (*fakataha ika*) beneath the tabulate corals of the 'deep spot' (*fo'i loto*) close to the *Hakau fakapapanga* ('Smooth reef'). Most marine species were described as 'unpredictable' (*ta'epau*), in not having specific haunts or by 'scattering' (*mouvetevete*) when disturbed, and were associated with other kinds of marine terrain. The *Koango* (probably Thumbprint and Grass Emperor; *Lethrinidae*; *ibid.*) were associated with the lagoon 'fields

of seaweed, while the *Tanutanu* (possibly Pink-eared or Orange-striped Emperor and/or Lancer; *Lethrinidae*; *ibid*) were associated both with the fields of seaweed and formations of staghorn coral, among which they habitually hide when alarmed.

The place known as *Tōfuke* was by some associated with ‘octopus fishing’ (*maka feke*). Similarly *Lula ‘uta* (Higher *lula*) and *Lula lalo* (Lower *lula*) refer to two ‘ends of a seaweed field’ (*mui limu*) and identify a good ‘place/bed for the turtle net’ (*tu‘unga/mohenga ‘o e kafa fonu*). Similarly, a stone barrier named *Maka papa*, running along the west coast of the island, the ‘pools’ of *Vāsia* and *Kava tokoua*, the coral rock *Tu‘ungatala* (‘Perch of the *Tala* seagull’) and the beach known as *Talingavete* (‘Waiting for the goatfish’) were associated with the Yellowstripe Goatfish (*vete*; *Mulloidichthys flavolineatus*; *ibid.*). These goatfish were referred to as ‘fish belonging to the territory’ (*ika fakafonua*), ‘fish originating here on Kotu’ (*ika tupu‘a ‘i Kotuni*) and ‘fish from the days of old’ (*ika fuoloa*) (see also Bataille-Benguigui 1988: 188).⁷ According to Koloa, the *vete* is usually an ‘unpredictable’ (*tā‘epau*) fish. In the warm season, however, they sometimes collect in great numbers. From his childhood and youth in the early twentieth century, he recalled that such occasions used to be referred to as ‘fish days’ (*aho ika*). He mentioned that one should ‘examine’ (*fakasio*) the lagoon for signs of schools at ‘low tide in the morning’ (*pongipongi mamaha*) after the ‘second quarter of the moon’ (*tu‘u efiāfi e māhina*; lit. ‘the moon stands in the afternoon’), at which time the fish were said to collect close to the ‘Perch of the seagull’ (*Tu‘ungatala*) and sometimes along the barrier of the weather coast. If the fish were to collect along the barrier, they could be caught in great quantities by fishermen forming a line along the barrier and coordinating the throwing of their casting nets (*sīlī*). Some fishermen claimed that if the fish collected too far from the barrier one could attempt to get them closer by pounding kava and throwing it into the ‘pools’ of *Vāsia* or *Kava tokoua* or outside the barrier.

One man in his forties recalled vaguely that ‘fish days’ referred to an old technique of catching goatfish by throwing nets during December but claimed that the goatfish never came close enough to the coast nowadays. For a young man in his early twenties, the expression ‘fish days’ meant nothing, and he associated the places of the lagoon with quite different activities, like bathing, referring, like most youngsters, to the two lagoon pools as *Vāsia tangata* (‘men’s *Vāsia*’) and *Vāsia fefine* (‘women’s *Vāsia*’), mirroring the references to the two ‘pools/springs’ (*vaitupu*) on the island itself, known as *Vai tangata* (‘Men’s Water’) and *Vai fefine* (‘Women’s Water’). These pools were much used by young people in 1986, as well as in 1992. ‘When the boys have been swimming in the *Vāsia tangata* [in the lagoon] they go to the *Vai tangata* [on the island] to rinse off the sea water’.

To sum up, then, particular features of the seascape serve as points of reference for particular activities and occurrences in the lagoon. Some of the place names of the lagoon have no doubt remained unchanged for centuries and are therefore stable. For instance *Fonuae'a*, marking the entrance of the 'Great Passage' into the *Namolahi* Lagoon, was an important point of reference when Cook visited Kotu in 1777.⁸ On the other hand, other place names may be less stable and subject to change as routines and the marine environment changes.

Examining the Face of the Sea

As mentioned, in the morning, villagers routinely paid visits to the 'beach' (*matātahi*; lit. 'the face of the sea') of the 'Great Landing' (*Fanga lahi*), explicitly to 'examine, inspect' (*fakasio*) the sea. In the afternoon, people went to the sea to 'receive/welcome the fishermen' (*tali kau fangota*) or occasional visitors, to rest, cool down in the sea breeze, play or 'have a bath' (*kaukau tahi*). The term *fakasio* refers to reading the signs of a situation to make an informed judgement about it. Thus, an 'examination of the sea' first of all took into consideration the direction the tide was moving. The 'face of the sea' (*matātahi*) was examined for signs indicating either a 'flood tide' (*hu'a mai ke tau 'a e tahi*: 'the sea is flowing here to unite with land') or 'ebb tide' (*mahu'i ke mamaha 'a e tahi*: 'the sea is separating/detaching itself to become almost empty'). In practice, this was decided on by examining the sand to see whether it was 'wet' (*viku*) or 'dry' (*momoa*), 'clean' (*ma'a lelei*) or 'filled with litter' (*veve'ia/vevea*).

People's competence in identifying the 'turning point' of the sea (*ngata 'o e tahi*) varied depending on amount of marine experience, and there was quite often a lack of consensus about the direction of the tide. Joining a 17-year-old youth at the beach around high tide one morning, I asked him, 'What do you think; has the tide turned? Is it *tau hu'a* [attached but still flowing here] or is it *tau mahu'i* [attached but becoming separated/detached]?' Glancing at the beach, he said, '*Tau mahu'i pē* [It is detaching].' Five minutes later, a man in his early forties joined us, looked at the beach and said: '*Kei hu'a mai pē e tahi, eh?* [The sea is still flowing here, don't you think?].' Looking up, the boy exclaimed: '*Ueh! ... mo'oni pē 'ia* [I say! ... That is the truth!].' Later on, I discussed this instance of *fakasio* ('examination') with the boy's grandfather: '*Oku kei vale pē e tamaiki pea 'oku 'ikai te ne fu'u anga ki tahi* [The youth are still ignorant, and also this one has little affinity with the sea].'

After the 'turning point' (*ngata'anga*), it becomes easier to discern which way the tide is moving. And some 'dependable sign' (*me'a pau*; 'dependable thing') appears to make divergent interpretations quite impossible.

Between the extremes of ‘high tide’ and ‘low tide’, the tidal motion was terminologically arrested, so to speak, at several stages. Again, knowledge about these stages varied. Everyone knew the terms referring to the extreme ends of tidal motion, but only some were familiar with the numerous terms referring to intermediate states:

<i>Tau ‘a e tahi</i>	‘The sea is attached’. High tide.
<i>Tau mahu‘i</i>	‘The sea is attached but has started to detach’. High tide that has turned.
<i>Takapau ‘uluaki</i>	‘First reliable examining’. First stage of ebb tide. The term refers to the appearance of a band of debris left on the beach by the waves of the ebb tide. One of several meanings of the term <i>taka</i> is ‘to examine with interest’, while <i>pau</i> signifies ‘certain/definite/reliable’.
<i>Takapau ua</i>	‘Second reliable examining’. Second stage of ebb tide. The term refers to the second band of debris left by the receding sea.
<i>Loto‘one ‘a e tahi</i>	‘The sea is in the middle of the sand’. Mid-ebb tide. The expression refers to the point when the ebb-tide state is such that ‘the beach is divided into two equal parts’ (<i>vaeua mālie ‘a e matātahi</i>).
<i>Toukilikili ‘a e tahi</i>	‘The sea is at the pebbles’. More than half ebb tide. This refers to an ebb-tide state when pebbles (<i>toukilikili</i>) appear in the lagoon and ‘make known that the sea shall soon be empty’ (<i>mahino ai kuo vave ‘a e tahi ke mamaha</i>).
<i>Hā ‘a e pala</i>	‘The appearance of the <i>pala</i> ’. Late ebb tide. This refers to a tidal state when the soggy ‘seaweed’ (<i>limu</i>) appears to ‘make known that sea of the lagoon shall very soon be empty’ (<i>mahino ai kuo vave ‘aupito ke mamaha ‘a e tahi</i>). <i>Pala</i> means ‘soggy’ and ‘rotting/rotten’, and the expression <i>pala-tahi</i> , according to Churchward, signifies ‘to be rotten by being wet for a long time in sea water’ (1959: 400).
<i>Mamaha mahu‘i ‘a e tahi</i>	‘The sea is almost empty but still separating/detaching’. Last stage of ebb tide.
<i>Mamaha ‘a e tahi</i>	‘The sea is almost empty’. Low tide.
<i>Mamaha hu‘a mai</i>	‘The sea is almost empty but is flowing here’. Low tide that has turned.
<i>Puli ‘a e pala</i>	‘The soggy seaweed has vanished’. First phase of flood tide.
<i>Puli ‘a e toukilikili</i>	‘The pebbles have vanished’. Second phase of flood tide.

<i>Loto'one hu'a mai 'a e tahi</i>	'The sea flowing here is in the midst of the sand'. Mid-flood tide.
<i>Tau hu'a mai 'a e tahi</i>	'Attached but still flowing here'. High tide that has not yet turned.
<i>Tau 'a e tahi</i>	'The sea is attached (to land)'. High tide.

Two observations about the practical significance of this terminology of tidal dynamics should be made. First of all, people more often referred to the phases close to the tidal turning points, such as *tau hu'a mai 'a e tahi* ('the sea is attached but still flowing here'), *tau* ('attached'), *tau mahu'i* ('attached but separating/detaching') as well as *mamaha mahu'i* ('almost empty but separating/detaching'), *mamaha* ('almost empty'), *mamaha hu'a* ('almost empty but attaching'). Secondly, people more often used terms describing the qualitative nuances of ebb tide than those describing the nuances of flood tide. The reason for this may be that the most important activities in the seascape of the lagoon occur during low tide. The finer distinctions of the flood tide, described by terms such as *puli 'a e pala*, *puli 'a e toukilikili*, *loto'one (hu'a)* were seldom used.

Everybody on Kotu knew the basics of tide movement: '*Kapau 'oku mamaha pongipongi 'a e tahi e toe mamaha pē he efiafi*' ('If it is low tide in the morning, it will also be low tide in the afternoon'). The same kind of statement was also made with reference to the occurrence of high tide. From my own observations, the interval between high tide and low tide did seem to be stable, remaining at about 6 hours 15 minutes. This means, however, that any tidal state is delayed by about one hour in one diurnal cycle. Also, because expectations were formulated in terms of the broad categories of *pongipongi* ('morning') and *efiafi* ('afternoon'), the sea quite often presented a quite different face from the one based on a previous 'examination' of the beach. Going by the beach early in the afternoon (around 3:00 PM) and seeing that the sea covers all of the beach, one would be quite right in deciding that it is 'high tide in the afternoon' (*tau efiafi*), especially if it is a 'spring tide' (*tahi lahi*), which means that even if the tide turned at 2:00 PM it may well still cover the beach an hour later. This might make it reasonable to assume that it would be 'high tide in the morning' (*tau pongipongi*). However, coming to the beach 17 hours later (at 8 AM) to examine the sea, the tide would not be high but very low (turning in at about a quarter to nine and well on its way to the uncommonly low tides following spring tide highs). This would, however, only represent an unpleasant surprise if one were to schedule specific activities in accordance with the faulty prediction. Thus, it would be frustrating if one had set one's mind on working on the plantation in the morning during the expected high tide and going fishing in the afternoon during the expected low tide. Such precise advance scheduling of specific everyday activities, however,

appeared to be uncommon on Kotu. Also, predictions involved in timing specific future events were based on several considerations.

Acts of *fakasio* may be understood as routines of tuning into the marine environment for purposes of planning the more immediate future. Thus, utilizing what knowledge they had about the qualitative nuances of the sea would constitute an important part of people's planning of everyday activities. People's knowledge varied, but frequent acts of *fakasio* or 'examining' nevertheless contributed to establishing shared understandings about a tidal motion between very different states of the sea offering different opportunities.

Further Rules of Reading the Sea

In addition to acts of *fakasio*, some people took into consideration different types of tides. These are the most common expressions used to differentiate between them:

Spring high tide	<i>Tahi lahi</i> ; 'Big sea' or <i>Ngata 'i 'uta 'aupito ('a e tahi)</i> : '(The sea comes all the way up onto land (before turning).'
Spring low tide	<i>Maha 'aupito 'a e tahi</i> ; 'The sea is altogether empty' or <i>Pakupaku ('a e namo)</i> : '(The lagoon is) absolutely dry.'
Neap high tide	<i>Tahi si'i</i> ; 'Small sea' or <i>Ngata he loto'one ('a e tahi)</i> : '(The sea ends/turns in the middle of the sand/beach).'
Neap low tide	<i>'Oku 'ikai ke fu'u mamaha a e tahi</i> ; 'The sea is not very empty.'

Koloa claimed regarding neap tide conditions: 'If there is a small sea (at high tide) or if the sea ends/turns in the middle of the sand, the sea shall not become very empty.' And for spring tide conditions: 'If there is a big sea (at high tide), or if the sea comes altogether up onto land (during high tide before turning), the sea shall become altogether empty/the lagoon shall be altogether dry.'

But even these understandings were not absolutely dependable. Thus, for Koloa there was yet another set of considerations, bringing into the act of *fakasio* notions of the relative 'strength' (*malohi*) of the 'deep sea' (*moana*) 'outside the lagoon' (*tu'a namo*) and the sea 'inside the lagoon' (*lotonamo*): 'If the lagoon is "on the move/astir" (*loka'a e namo*), the sea shall not become very empty.' He also claimed that the strength of the *loka* overrides the effects of spring tide: 'Even if the sea is big (at high tide), with the lagoon on the move, the sea shall not become altogether empty (at low tide).'

It is not clear what oceanographic circumstances may produce the local phenomenon known as *loka* ('on the move/astir'). But it was people's observation that spring tides and neap tides are offset by other alterations caused by meteorological forces related to seasonal variations of air and

sea temperature, which often made people hesitant about predicting states of the sea. Thus, according to Koloa, people's predictions tended to be quite tentative and 'unreliable' (*ta'epau*; 'non-dependable') and should be treated as *fakamahalo pē* ('conjectural statements/approximations') (see Decktor-Korn, 1983 for an interpretation of general attitudes to future events in Tonga).

To complicate the act of *fakasio* even further, the effects of the marine condition of *loka* on the lagoon varied depending on what kind of *loka* it was. Some people distinguished between *loka fakatokelau 'a e namo* ('Northern *loka*') *loka fakatonga 'a e namo* ('Southern *loka*') and *loka takai 'a e namo* ('*loka* all around'). The first kind of *loka*, although sometimes observable by the manner in which the waves break along the northern part of the outer reefs, was not believed to create a 'strong current' (*au lahi*) in the lagoon. The two other kinds were known to create powerful 'flows' or 'rivers' (*tafe*) at ebb tide as well as at flood tide. Also they were known to create a powerful current in the passages between the lagoon and the deep sea, making it most convenient to leave and enter the lagoon at high tide. Ordinarily (even during spring tides), it would be possible with sufficient illumination and familiarity with the tides to enter the lagoon regardless of the tidal state. The marine condition of *loka* did, however, tend to bring temporary phenomena into existence, transforming passages into barriers. 'A lagoon on the move' appeared to bring about a general reorientation of people's mode of relating to the different states of the lagoon. Rather than representing potential for safe passage, 'the openings' of an ebb tide lagoon 'on the move' became a potential hazard, and the prospect of a bountiful catch was low. At the same time, a flood tide transforms the hazardous and difficult seascape of the ebb tide lagoon 'on the move' into a more tranquil seascape. Thus, a high tide has a practical significance during *loka* that it normally lacks; apart from making it possible to enter and leave *Namolahi* Lagoon, it was also of particular significance for Kotu fishermen because it transformed the difficult seascape of a lagoon 'on the move' into a state useful for purposes of production. 'Line fishing' (*taumata'u*) was said to be the only method of lagoon fishing undertaken during high tide and the only practicable method of fishing at times when the lagoon was 'on the move'.

Acts of *fakasio* must be very thorough in order to discover the signs that the lagoon is 'on the move'. Opinions about the state of the tide and expectations about the tidal near future were basically formed by examining the beach (*matātahi*), where *'uta* ('land') faces *tahi* ('sea'). Signs that the lagoon is 'on the move', on the other hand, were basically read off the 'outer reefs/fringing reefs' (*'u'ulu hakau*), where the sea 'inside the lagoon' (*lotonamo*) meets the sea 'outside the lagoon' (*tu'a namo*). However, Koloa argued that this observation relies too heavily on appearances and that 'waves break

very strongly on the reefs even when there is no *loka*. According to one man in his late thirties, the condition of *loka* was easily observable because it coincides with a calm sea (*tofu*). Koloa argued that a calm sea alone was not in itself a sign; however: ‘When the sea is calm and the waves still break strongly, then you know that the lagoon is *loka*.’ The sea, however, keeps some of its secrets and would surprise people despite what acts of *fakasio* might have led them to expect. And with the condition of *loka* tending to last for four to seven days, it would always influence other information gained from examining the sea during this time.

Engaging an Environment in Motion

Habits of ‘examining the sea’ (*fakasio*) and practices of dealing with the sea mean engaging with an environment that constantly changes between states that are diametrically opposed. This, to my mind, is the greatest significance of the exploration of the marine environment on Kotu. The recognized qualitative nuances of this motion provide clues that may be followed in order to discover enduring qualities in Tongan cultural aesthetics and sociality that may contribute to solving the puzzle of local attitudes and responses to the environmental occurrences that I presented in the introduction. Thus, I shall, in the next two chapters, follow this motion between opposed states or phases into other fields of everyday experience and later on in the book use it as a central context in an ethnographic analysis of ritual aesthetics, cultural values and sociality. Before doing this, however, it is necessary to sum up central qualities of tidal dynamics by exploring marine realities as fields of everyday experience and local knowledge.

The two diametrically opposed states of the lagoon are not referred to as ‘high tide’ and ‘low tide’ but rather as ‘the sea is attached (to land)’ (*tau ‘a e tahi*) and ‘the sea/lagoon is empty/almost empty’ (*maha/mamaha ‘a e tahi*). References to the states of ‘high’ and ‘low’ and the movement of ‘up’ and ‘down’ are otherwise used very extensively in Tonga to elaborate on relationships of relative worth and significance. Thus, all relationships of rank may be described in the terms of *māolunga* (‘high’) and *mā’ulalo* (‘low’). Occasions of ceremonial kava drinking, for example, involve procedures which may be described in terms of distribution of kava moving ‘up’ and ‘down’ in the space between the position of the chief and the position of the ‘kava maker/presenter’ (*toua*) (Bott 1972b; Biersack 1991; Perminow 1993a; 1993b). Kotu Island was described as consisting of two ‘places’ (*feituu*) referred to as *lalo* (‘down/low’) and *uta* (‘land’) on higher ground.

Still, as mentioned, tidal transformations of lagoon states on Kotu were not conceived in terms of vertical differentiation. The sea was seen to move

between a state in which it is fully ‘attached’ (*tau*) to land and one in which it is separated. The Tongan term *tau* has an extraordinary number of meanings; Churchward lists seventeen (Churchward 1959: 461), including the inclusive plural pronoun ‘we’ (‘all of us’); ‘reach’; ‘anchored’; ‘fight’ (locked in combat); ‘hang’; ‘to angle’ (for fish); ‘male animal mounting a female animal’; ‘wring out’; ‘leaves covering food in the earth oven’; and ‘to be full’ (of the tide). All these meanings signify a temporary and forceful joining together, a uniting or compressing of that which is otherwise apart. People, animals or objects become temporarily related by one strong line of attachment or as elements meld together to constitute a single whole. Thus, it is appropriate to describe the tidal motion of ‘flood tide’ (*hu’a mai ke tau*) creating a state of ‘high tide’ (*tau a e tahi*) as one that causes the multiple features of the lagoon seascape to meld together with the sea (*tahi*) as it becomes temporarily ‘joined’ to or ‘united with’ (*tau*) land (*uta*).

A similar semantic exploration of the term for the tidal motion of ‘ebb tide’ (*mahu’i ke mamaha a e tahi*) reveals movement from a state of attachment, oneness and containment to a state of separation and multiple differentiation. The term *mahu’i* is thus interpreted by Churchward (*ibid.*: 318) to denote: ‘to become wrenched off/detached by force’; ‘to be weaned away’; ‘to become separated by some influence’. These interpretations refer to the severance of a strong line of attachment or the forceful separation of that which has been joined together as one whole. This makes it appropriate to describe ‘ebb tide’ as a breaking apart of the completeness of the high tide seascape as the sea disengages from land and recedes outside the lagoon (*ki tu’a namo*) leaving a seascape of importance and multiple differentiation ‘inside the lagoon’ (*lotonamo*).

The general significance of conceptualizations in terms of high and low states and upward and downward motion may hardly be overemphasized in Tonga. Interestingly, then, it does not make very good sense to perceive the tides of Tonga in these terms. In a sense, the diametrically opposed states of unitedness and separateness and the dynamics that relate them are more fundamental in the sense that they involve the difference between an undifferentiated state and a state, making any differentiation, including that of high and low, possible. Seen in this perspective, the conceptualization of tidal dynamics also resonates with Tongan myths of the process whereby the world first came into being. Indeed, this resonance makes tidal dynamics look like an everyday version of the process of original diversification described in Tongan cosmogony. In the beginning, according to the Wesleyan missionary Collocott and the Tongan historian Māhina: ‘... the sea’s surface was diversified only by masses of floating weed (*limu*) and mud (*kele*), which at last came together ... in Bulotu’ (Collocott 1919: 234). From this union resulted the rock of *Touia o Futuna*, which later multiplied

by giving birth to four pairs of brothers and sisters (Māhina 1990: 34), who became the ancestors of the Tongan Pantheon.

Kotu people were not very familiar with myths of pre-Christian cosmogony at the end of the twentieth century. It is quite intriguing, however, that the main themes of a cosmogony long gone should resonate so strongly with the mode of conceptualizing vital states, phases and processes characterizing the marine field of contemporary everyday activities. Although no longer used to answer questions of origin, central themes of cosmogony appeared to continue colouring understandings of the dynamics of the relationship between sea and land in the *Namolahi* Lagoon surrounding Kotu Island in the final decades of the twentieth century. This marine world still appeared to be caught up between ‘united’ and ‘separated’ states of being and ‘uniting’ and ‘separating’ phases of becoming. The indication of this kind of continuity in marine spaces offers an opportunity to discover fundamental shared understandings about the world and its workings that are highly relevant for the puzzle at hand. In the next two chapters, then, I shall look for similar kinds of continuity with regard to the phenomena and dynamics of the surrounding world and their significance in other fields of everyday experience.

Notes

1. This paper ‘synthesises very briefly the main data’ (Bataille-Benguigui 1988: 186) of an unpublished thesis (Bataille-Benguigui 1986) exploring ‘Tongan relationships to the sea environment’ (Bataille-Benguigui 1988: 186). As far as I know, the study has not been translated into English, but from the brief synopsis the focus seems to be on the significance of an association between some ‘socialized fish species’ such as the shark (*‘anga*), goatfish (*vete*), octopus (*feke*) and ‘milkfish’ (*ava*) standing apart from species of no ritual account. Thus, Bataille-Benguigui argues that rituals and taboos associated with these species serve to ‘reinforce the traditional village hierarchy ... reduce social tensions since harmony, or even love in the sense of respect for others, is a necessary factor in fishing success’ (Bataille-Benguigui 1988: 195).
2. In a context of resource management, this creates a situation not too different from that referred to as a tragedy of the commons. Even those fishermen of Kotu who held that the increasingly intense exploitation of lagoon fish species and shellfish for sale may be too taxing on the lagoon resources to be sustainable felt that there would be no point in reducing the intensity of exploitation only to have the resources exploited by fishermen from other islands of the district.
3. Clearly the population density would also decrease radically if figures were corrected for Kotu people’s prolonged practice of ambilocal adaption ‘between the volcano and the big lagoon’.

4. The first collection of island names of this part of Tonga made by Captain Cook's officers in 1777 seem to bear witness to the enduring significance of this coral formation. From Anderson's Journal from Cook's third voyage, it appears that *Foonooēia*, right next to the island of *Kotoo* (Beaglehole 1967: 869), was included as a place of sufficient significance to be perceived by the European explorers as one of the islands of the 'Kotu group'. In Anderson's list of Kotu- or Lulunga group islands, this was the only name for which Beaglehole was unable to find a referent. Both Anderson's conventions of transcription and the location next to Kotu make it quite likely that the place to which the Tongan informants of Anderson referred was the sometimes partly exposed coral formation of *Fonuae'a*, close to the main passage into *Namolahi* Lagoon.
5. The term *fo'i*, according to Churchward, signifies 'fruit of, egg of', as well as 'single, individual' (Churchward 1959: 196) and is used to describe any piece or unit for which the extent and boundary is clearly defined and easily perceived.
6. Four named kinds of goatfish were perceived to be related to one another as a 'family of fish'. The 'family' was not assigned a separate name, but the perceived relationship was expressed like this: '*oku nau kalasi kehekehe ka fa'ahinga pē taha*' ('they are of different classes but of one kind'). This *fa'ahinga* was perceived to consist of four 'classes', *vete* referring to Yellowstripe Goatfish, *malili* to Yellowfin Goatfish, *hikumanonu* to Freckled Goatfish and *Tukuleia* referring to about a dozen other kinds of goatfish marked by different kinds of bars, dots and colours. Finally, extraordinarily large specimens of this *fa'ahinga* were called *Kalofiamā*.
7. Bataille-Benguigui identifies the *vete* with the Yellowfin Goatfish (*Mulloidichthys vanicolensis*). Kotu people, however, referred to the Yellowfin Goatfish by the term *Malili* and used the term *vete* to refer to the Yellowstripe Goatfish (*Mulloidichthys flavolineatus*; Randall 1990: 208). Although both kinds of goatfish have a yellow stripe on the body running from the eye to the caudal-fin base and thus look rather similar, the Yellowstripe Goatfish does not have yellow fins. Kotu fishermen have no problem differentiating between them and clearly perceive the Yellowstripe Goatfish as the more significant of the two because they occasionally aggregate in very great numbers.
8. It may be doubtful, however, whether this named point of reference for entering the lagoon will survive another 200 years. In 1993, parts of the outer reefs close to the 'Great Passage' were blown up with dynamite to allow an easier and less tide-bound passage. Also, battery-powered signal lights have been placed on the outer reefs as points of reference for navigation.