Multiple Models of Space and Movement on Taumako, a Polynesian Island in the Southeastern Solomons

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Abstract  People of Taumako, a Polynesian community in the Solomon Islands, employ a variety of spatial models, some binary and linear, others concentric or radial. The existence of multiple models means that individuals, as they confront the challenges of daily life, must choose among alternatives and draw upon whichever ones appear most helpful at the moment. But utility depends on judgment, memory, and the selective focus of attention. Consequently, spatial understandings differ from person to person and, sometimes, in the same person from one occasion to another, highlighting the complex expression of spatial cultures in everyday contexts. As is true elsewhere, social and spatial cognition, to a degree, are intertwined. Perhaps owing to a relatively egalitarian political and social structure, however, the connection between spatial symbolism and social structure on Taumako seems attenuated. Moreover, “radiality” assumes a multiplicity of shapes and does not represent social hierarchy among the Taumako, as it does in such hierarchically ordered societies as Samoa.

[cognition, space, radiality, multiple models, Polynesia, Taumako]
Psychological anthropologists since Benedict (1934, 1946) have searched for integrating themes around which cultures are ostensibly patterned and to which individual personalities may be said to conform. Similarly, cognitive anthropologists of the 1950s and 60s (see, e.g., contributors to Tyler 1969) sought parsimony and coherence via componential and other modes of formal semantic analysis.\textsuperscript{1} Dissension from the quest for social solidarity and its psychic underpinnings was visible from early on in certain strands of Marxist anthropology as well as Lévi-Strauss’s (1963) demonstration that divergent spatial models may well coexist within the same community. However, it was not until Shore’s 1996 treatment that a challenge to psychological anthropology’s focus on integration and coherence was forcefully brought front and center. After arguing in 1982 that such paired oppositions as “front versus back” or “seaward versus inland” dominate Samoa’s worldview, he observed (Shore 1996, this issue) that Samoans also employ a concentric or (following Bennardo 2002, 2009, this issue) “radial” conceptualization of physical and social space. Here I build on Shore’s insight (see also Feinberg 2008; Watson-Gegeo and Feinberg 1996) to explore the interpenetration of multiple spatial models on Taumako, a Polynesian community in the Solomon Islands. Many of Taumako’s models are binary in form (“up/down”; “front/back”; “right/left”; “away from speaker/toward speaker”); however, others, including the “wind compass” and what I term the “concentric model,” are not. Most are linguistically encoded, but there are exceptions. As Bennardo (2002, 2009) hypothesized, several of Taumako’s most pervasive schemas for conceptualizing and manipulating space may be described as “radial,” although in a variety of senses.

As is commonplace in cognitive anthropology, I base my conclusions largely upon language. Notwithstanding disagreements over Whorfian determinism, most anthropologists acknowledge a connection between thought and language (e.g., see Bennardo 2002, 2009; Levinson 1996a, 1996b; Palmer 2002) and seek insight into others’ subjectivity by examining the way they speak.

Shore (1996, this issue) asks why a community might invoke an array of models, some of which seem mutually inconsistent. I suggest that cognitive structures provide a framework upon which people draw in confronting problems of daily life. Alternate models offer choices, allowing actors to apply whichever one appears most useful for addressing the issue at hand. In addition, people’s mental maps inevitably prove less than perfect and from time to time come into conflict with experienced reality. Largely for this reason, images of space and the language in which they are expressed vary from person to person and sometimes shift within a single individual as new experiences bring previously unnoticed details into focus.

Shore (this issue) calls attention to the intersection between social and physical space and the use of spatial symbolism to express social relationships. Unlike Shore’s Samoans, Bennardo’s Tongans, or Anutans of my earlier studies (Feinberg 1980, 1988), the Taumako rarely invoke spatial symbolism to represent political or ritual precedence—a fact that may be unsurprising, given their relatively egalitarian social structure.
Background

Taumako, also known as the Duff Islands, is a Polynesian outlier in the Solomons’ Temotu Province (see Figures 1 and 2). Its resident population is a little over 500 people, almost all of whom depend on subsistence production. Salaried positions are limited to one priest, two catechists, a nurse, a few school teachers, and a couple of political leaders. Two trade stores produce a small cash income, and most families supplement their subsistence activities through occasional sale of bèche-de-mer and shark fins. The population is concentrated in three villages: Kahula in the southeastern portion of the island; Ngauta in the southwest; and Tahua, which occupies an artificial island on the fringing reef, several hundred yards to sea from Ngauta. Until the mid-20th century, Taumako (Figure 3)—a high island with dense vegetation and large *Calophyllum* trees—regularly produced sophisticated voyaging canoes. The Taumako sold these vessels to voyagers from the Polynesian Outer Reef Islands (known locally as Vaeakau), who would sail to the large islands of Vanikoro, Utupua, and Ndeni. They would take pigs, and often women, to exchange for nuts (*voia*) and feather money (*muahau*). Those were then used to pay Taumako craftsmen for additional canoes. The Taumako, in turn, used the feather money as a central element in bridewealth payments (Davenport 1962). Vaeakau and Taumako have similar cultures, and their people speak dialects of the same language (see, e.g., Hovdhaugen 2002, 2006; Hovdhaugen and Næss 2002; Næss 2000; Næss and Hovdhaugen 2011). Their people frequently move back and forth, and intermarriage is common.
In 2007 and 2008, I was part of a research team that also included Ben Finney and Marianne George. Collectively, we spent over a year on Taumako, studying a revival of interest in building, sailing, and navigating traditional voyaging canoes. We had been invited by paramount chief and master navigator Crusoe Kaveia and worked closely with him as well as other established mariners and a number of younger people—men and a few women, ranging in age from late teens to forties and fifties—who were hoping to develop their seafaring skills. A major question involved the mental constructs or cognitive maps on which islanders draw as they envision the world around them and attempt to find their way from place to place, both on land and at sea. Some islanders were eloquent in their descriptions of such constructs; yet certain of their models seem to be embodied and are difficult to express in articulate language (Feinberg and Genz 2012; cf. Genz, this issue). Bennardo (2002, 2009, this issue) performed experiments with his consultants on Vava’u, Tonga, to elicit their sometimes unarticulated spatial understandings. For a variety of reasons, it would have been difficult on Taumako to perform such formal tests. Therefore, in this article I emphasize models inferred from ordinary language and, to some extent, from observation of my interlocutors’ behavior as we paddled, walked, and sailed around the island.

My understandings of Taumako spatial cognition reflect interaction with a substantial cross-section of the community. Members of the research team assisted in building one outrigger canoe and refurbishing a pair of older ones; we sailed with islanders on local inshore waters; and we spoke at length about sailing techniques, navigational knowledge, and our
interlocutors’ understandings of spatial relationships. Most islanders are fluent both in Vaeakau-Taumako (the local language) and Solomon Islands Pijin. Even among themselves, they often mix the languages, and they switch primarily to Pijin when conversing with outsiders. As a fluent speaker of Anutan, another Polynesian language, I was able to converse in Vaeakau-Taumako from early in my study. Most conversations, however, were predominantly in Pijin.

**Space as Encoded in Taumako Language**

The Taumako possess myriad ways to talk about locations of people and objects, and they use a multiplicity of spatial models for a variety of purposes. To some extent, these models appear separate and independent. In many respects, however, they overlap and are systematically
interrelated. Assuming some degree of correspondence between linguistic forms and cognitive schemas, Taumako models of geographical and personal space include the following:

1. One represented by the directional terms *mai* (indicating movement toward the speaker), *atu* (movement toward a second person), and *ange* (movement toward a third person).
2. The directional terms *ake* and *ibo*, indicating upward and downward movement, respectively. These are associated with the locational nouns *lunga* and *lalo*, referring to points at or near the top or bottom of some object. These sets of terms may refer both literally to vertical relationships and metaphorically to the organization of space along a more or less east/west (or, more accurately, sunrise/sunset) axis.
3. Right (*hai toilo*) versus left (*hai tovale*).
4. Front or forward (*mua*) and rear or backward (*muli*).
5. *Mata* or *alohi* and *tua* refer to the front and back of a person or object.
6. Windward and leeward, for which I could find no mono-lexemic labels.
7. The “wind compass” (*te nohoanga te matangi*).
8. A concentric model in which one moves outward from the center of the island through more than a dozen discrete zones (see Figures 9, 10, and 15). Some consultants suggest that the zones may be further subdivided.

These models all involve abstract systems for conceptualizing spatial relationships. I now examine each in detail.

**Directionals and Locatives**

Taumako’s terms for indicating direction of movement or relative locations include the common Polynesian directionals *mai*/*atu*/*ange* and *ake*/*ibo* and the locatives *lunga*/*lalo*, *mua*/*muli*, and *mata* (or *alohi*)/tua*. As Bennardo (2002) has argued for Tonga, the directional particles suggest a radial conceptualization of space. The locatives are less clear.

**Mai/atu/ange**

Taumako uses the directional particles, *mai* and *atu*, to indicate movement toward and away from the speaker. In some Polynesian languages, *atu* covers all centrifugal movement; in Taumako, it specifically denotes motion toward a second person. As in Tongan, movement toward someone other than the speaker or addressee takes a third directional, *ange*. As in Tonga, these directionals are consistent with a radial perspective: the speaker appears in the center, and all movement is either toward the center (*mai*) or away from it (*atu; ange*).

**Ake/ibo**

In addition to *mai*, *atu*, and *ange*, indicating motion on a horizontal plane, Taumako has the common Polynesian words, *ake* and *ibo*, indicating an upward or downward direction of movement. *Ake* (in the form of *kake*) and *ibo* may also be used as verbs, meaning “to ascend” and “to descend.” Additionally, *ake* and *ibo* can combine with verbs to indicate direction.
Thus, a friend once told me, “Palebo [a contraction of pale ibo] ki te moana,” meaning “Get down to the ocean” and, later, to “Paleake ki ngauta” for “Get up to shore.”

Many Oceanic languages use particles indicating travel along a vertical axis to represent movement across what Westerners consider horizontal space. For Taumako, as for Anutans, (Feinberg 1980; Feinberg et al. 2003), east is “upward” and west is “downward.” These directional designations follow the path of the sun, which “rises up” in the east and “sinks down” in the west. Taumako speakers, however, are somewhat inconsistent in use of the up/down metaphor, and younger community members are sometimes confused about this figure of speech, either omitting it from their discourse or using it in a manner that their elders consider incorrect.

**Lunga/lalo**

Associated with ake and ibo are the locatives, lunga (up; above) and lalo (down; below). These are nouns indicating an object’s location. Like ake and ibo, lunga and lalo relate primarily to a vertical axis but may also suggest positions along an east/west axis so that relative locations on a horizontal plane are represented in terms of vertical space. Thus, one may say, “Tū ki lunga” (Stand up) or “Nobo ki lalo” (Sit down). One may also climb ki lunga (to the top) or fall ki lalo (to the bottom). It is possible to combine lunga and lalo with ake and ibo; thus “bano ake ki lunga” means “go up to the top” and “tō ibo ki lalo” means “fall down to the bottom.” These terms may indicate either an absolute position (i lunga i te lakau is the top portion of a tree) or relative position, since the same spot may be either i lunga or il a l o, depending on one’s starting point. In relation to the east/west axis, from Taumako the islands of Fiji, Tonga, and Samoa are i lunga (above); the central Solomons are i lalo (below).

**Hai toilo/bai tovale**

Hai toilo and bai tovale mean “right” and “left,” much as they do in English. As in English, left and right are relative to a person, so that if one turns around, objects that had been on the right are now on the left, and vice versa.

**Mua/muli**

As elsewhere in Polynesia, mua and muli mean “front” and “back” or “ahead” and “behind.” One might say, for example, “You go on i mua; I will follow i muli). These words merge notions of space and time: the first-born of a sibling set was born i mua; a later sibling ne muli (came behind). When traveling, mua is the direction of movement toward one’s destination, and muli is back toward the starting point. Crusoe Kaveia, the island’s most distinguished navigator, told me that when sailing from Taumako to Vaeakau, Vaeakau is located i mua, while Taumako is i muli. When returning, this is reversed. My friend, Geoffrey Niumama offered a different perspective: if one is walking on Taumako from Kahula village to Takulu, he said, Takulu is i mua while Kahula is i muli. When one turns around to go home, one is going back ki muli. However, if one starts in Takulu and walks to Kahula, Kahula is i mua, while Takulu is i muli.

Variation in the application of mua and muli was further illustrated by Clement Teniau, a respected navigator from the Vaeakau island of Nukapu (see Feinberg and Genz 2012). As
the two of us approached Pileni from Nukapu by canoe, Teniau explained that Nifiloli is *i muia Pileni* ("in front of Pileni"), because it is farther east. If we were going in the opposite direction (approaching, say, from Taumako), he told me Nifiloli still would be "in front of" Pileni, as it continued to occupy the same position along the east/west axis. He also considered easterly locations to be "above" (*i alunga*) those to the west, so "forward" and "upward" are in the same direction—as are "back" and "down." To use the terminology proposed by Levinson (1996a), Bennardo (2002, 2009), and others, Geofffrey and Kaveta were operating with "relative" Frames of Reference (FoRs). The FoR invoked by Teniau was "absolute."

**Mata/tua**

*Mata* and *tua* can also often be glossed "front" and "back," but with limited temporal referents. *Mata*’s primary signification in most Polynesian languages is "eye" or "face," but it can also be a point of land jutting into the sea (Lehman and Herdrich 2002), and it can be the "front" of an island (e.g., Feinberg 1980; Shore 1996). *Tua* literally refers to one’s back, but it can also apply to anything located behind one’s back.

In Taumako, *tua* is used in the common Polynesian sense. One says, “The stone is lying *i te tua ou* (behind you, or at your back).” Temporally, *tua* refers to the order of events. Thus, a person’s younger sibling is said to be born “at his/her *tua.*” The sense is similar to the English idiom of younger siblings being born “behind” the older ones.

Taumako normally use *mata* to mean “eye” or “face,” but many are uncomfortable using it for “front.” A few, like Geoffrey Niumama, suggest that an island’s *mata* is the side on which its population is concentrated. Taumako’s *mata*, then, is essentially its southern half, running from Takulu in the east, through Kahula and Ngauta villages in the southeast and southwest, respectively, to Malino in the west (see Figure 3). The island’s *tua* is the northern half, running from Kalua through Kaengalavaki, Taumako Beach, and Kongo, to Mangana. In none of these northerly locales does anyone maintain a permanent residence. Not coincidentally, when one looks for a secluded spot to take care of private biological needs, one says, “I am going *ki tua.*” I found few Taumako who agreed with Geoffrey’s understanding of *mata*, and some denied that an island has a *mata* at all. Many, however, supported his use of *tua*; thus, the eastern or northeastern sections of Taumako were commonly described as *bai ki tua* ([the] back side).

Lastly, *tua* may refer to the far side of a person, object, or place relative to the speaker. From Nutó, Ngauta’s northernmost “neighborhood,” one may say, “Makoe is located *i te tua o* (behind) Laloteova,” although for someone facing south from Nutó, both Laloteova and Makoe are *i muia* (see Figure 4).

While use of *tua* to refer to a place for toilet functions is commonplace, many islanders objected to Geoffrey’s use of *mata* to refer to parts of a house or an island. Morris Likiopu, for example, stated that the inland and seaward sides of the house are both called *tua*. The
first is *te tua i mouku* (the back toward the bush); the second, *te tua i haupē* (the back toward the fringing reef). The sides of the house, he asserted, are called *nga kaokao*. The north side of a house in Ngauta is *te kaokao e anga ki Tahua* (the side facing Tahua); the south side is *te kaokao e anga ki Miango* (the side toward Miango) (see Figure 5). According to this rendition, a house has two backs, two sides, and no front. Morris, like Geoffrey, makes his living by subsistence fishing and gardening, and I could find no consistent demographic variables that correspond with this conflict in spatial models.
Geoffrey, in a later conversation, offered *taba* as a synonym for *kaokao*, meaning “side.” At Te Vai, a house’s four *taba* are: *te taba ki mouku* (the side facing inland), which he said is also *te tua o te bale* (the back of the house); *te taba ki Ngauta* (the side pointing toward Ngauta Village); *te taba ki Angohatu* (the side toward Angohatu, a small settlement just north of Te Vai); and *te taba ki baupē* (the side facing the fringing reef). He insisted that the side toward baupē is also called *te mata o te bale or te alohi*. So for Geoffrey (unlike Morris), a house has four sides, one of which is the “front” or “face” and one of which is “the back.” For Tahua, the small artificial island off Taumako’s southwestern coast, Geoffrey identified front and back quite differently: the side facing the main island is *te mata*, while the side facing the open sea is *te tua*.

Like Geoffrey, Kaveia II, a classificatory grandson of former paramount chief Crusoe Kaveia, identified the back of a house as *tuahale* and the front as *matahale*. Similarly, Cecelia Vakataumako, daughter of the elder Kaveia, reported that the seaward side of a house is *matahale* or *muahale*. She made it clear, however, that this is not an issue she often considers.

A different understanding of *mata* and *tua* was provided by Taumako’s priest, Father Johnson Vaike. Like Geoffrey, Father Johnson said the side of Tahua facing the open sea is *tua* (or *te tua o te benua*). The side facing the main island is *alobi* or *talobi* (which I take to be a contraction of *te alohi*). One, he averred, may speak of Tahua’s south side—the side closest to windward—as *te mata*, but he seemed more comfortable talking about it as *te ngatae*. The north side, he reported, is not “back,” “front,” or “side,” but *te angebo*. *Te ngatae* is the Taumako term for the trade-wind season, when prevailing winds blow roughly from the southeast; *te angebo* refers to the monsoon season, a time of unstable winds which often blow from the west or north. These terms also designate the directions of the prevailing winds during those seasons.

On the main island, this changes. Father Johnson agreed with Geoffrey that *te tua o te benua* is the island’s northern section, from around Kalua going as far clockwise as Mangana. He differed, however, in saying that the southern half is *alobi*, not *te mata*, which is restricted to the southeastern section, from Kahula northward to Takulu. This makes it, as on Tahua, the side facing the prevailing wind. But on the main island, the prevailing wind comes from the southeast rather than the south.

Paramount chief Michael Tauopi had yet a different perspective on spatial designations (see Figure 6). He gave the term, *dabale*, for the “ends” of a house and *tulaua* for the “sides.” On Tahua, however, a house does not have a “front” and “back”; just two “ends” and two “sides.” But the area outside the end with the door can be described as *i mua te bale* (in front of the house), and the area outside the end without a door is *i tua te bale or i muli te bale* (behind the house). This appears to employ what Levinson (1996a) and others (e.g., Bennardo 2002; Palmer 2002) call an “intrinsic” Frame of Reference, since “in front” and “behind” do not vary depending on the speaker’s location but on how the house is situated. On the main island, Michael said, this is different. The side of the house facing inland is *te tua o te bale*, and the side facing the sea is *alobi*. On neither island does a house have a *mata*. 
Michael also denied that an island has a *mata*. On Tahua, *tua*, which he translates in this instance as “outside” rather than “back,” is the side facing the open sea; and it is where women go to take care of their toilet needs. Again, this is different on the main island, where *bai ki tua* is the northern portion from Kalua through Kahula, and it contrasts with *ngauta*, which consists of Ngauta Village and possibly Malino. So Takulu is *hai ki tua* for someone living in Takulu, just as it was *bai ki tua* for Michael on Tahua.

Alice-Mary and Helena, two middle-aged women, one of whom is married to a respected navigator, agreed with Michael that a house has no *mata*, although it has a *tua* (see Figure 7). On the main island, the end of the house facing the reef flat is *te bai angobo te lenga* (“the side facing the path”). The end of the house facing the bush is *te tua o te hale*. Alice and Helena were unsure whether the small house in which I was staying, whose long axis is parallel to the beach and whose door is on the north end, has a *tua*. They also were unsure if Helena’s house, which runs parallel to the shore, and whose doors face seaward and inland, has a *tua* and *hai angobo te lenga*. They added that such technical questions are beyond the grasp of most Taumako and referred me to one of the skilled navigators.

Paul Niki, my neighbor on Tahua, once reported he had been, “*i Vanua; i hai ki tua*” (in Vanua; at the back side [of the main island]). Thus, he agreed with Geoffrey and Michael that *bai ki tua* is Taumako’s northeastern side. On yet another occasion, Michael told me that if one should be going toward any of Tahua’s three sides that do not face toward the
main island, one says, “I’m going ki tua.” Of the remaining side, one says, “I’m going ki alohi.” In a rare comment merging social and geographic space, he added that in former times, family houses were i tua; bachelor houses (bolau) were located i alohi. Although on Tahua, the north, south, and west sides of the island are i tua, when men cross the reef to the east and go to the mangroves on the main island for toilet facilities (i.e., to the west side of Taumako Island), they go ki tua.

**Windward/Leeward**

People whose identity is bound up with sailing of large voyaging canoes, and who still sail smaller dugouts almost on a daily basis, must keep track of wind speed and direction in relation to the heading of their vessels, current location, and intended destination. Winds are important to sailors, navigators, voyagers, and anyone concerned with catching fish. People think about which way the wind is blowing in relation to planned voyages. They are aware that if they make an interisland journey, it could be months before the wind is suitable for a return. And on a voyaging canoe, the outrigger is always kept upwind. Consequently, I was surprised to find one interlocutor struggling for words to describe “windward” and “leeward.”

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**Figure 7.** Helena and Alice-Mary’s designations for parts of a house.
Allen is about 40 years of age. He worked for several years as a commercial fisherman and is committed to learning traditional navigational techniques. When I asked him about terms for up- and downwind, he first gave me the expression *mi no au ai te matangi* for “windward.” Roughly, it means “the direction from which the wind is blowing,” but it seemed a cumbersome way to express a concept that could require quick action. For “leeward,” Allen offered *muli*, the word meaning “back.” On further questioning, however, his primary referent for “front” and “back” proved not to be the wind but movements of the sun and moon: east = front; west = back. Since the wind was coming roughly from the east, downwind was to the west and, therefore, *imi* (in back). However, during the monsoon season, when the winds are often westerly, it blows from *muli* to *mua* (i.e., from “back” to “front”). In short, Allen found a clumsy circumlocution for “windward” and could find no convenient way to say “leeward.”

A few days later, another experienced paddler and fisherman confirmed these observations. At first, he kept giving me the terms for “left” and “right” (*hai tovale* and *hai toilo*), telling me that if the wind comes from the left one calls it the left side; if it is coming from the right one calls it the right side. When I explained that a voyaging canoe always has its outrigger on the side from which the wind is blowing, and I was trying to find out what one calls that side, he responded that he now understood the question but still did not know the answer. He referred me to “the old people,” i.e., those who had experience sailing outrigger canoes.

Later, while sailing around the island, I asked an active sailor and fisherman in his mid-thirties, the same question. We had the advantage of being in a canoe and feeling a brisk wind, but the results were essentially the same. He told me that windward was *muli* (back) and leeward was *mua* (front). At the time, the wind was coming from astern, so windward was, indeed, “behind” us. But, I asked, if we turned around, would windward then be *imua* “in front” and leeward *imuli* “in back”? He answered yes. He clearly knew which way the wind was blowing and where windward and leeward were located, but the English language expressions had no ready equivalents.

On yet another occasion, my friend Mostyn gave me the expression, *e tabuli te matangi*, as indicating “windward.” *Tabuli* generally means “to swing around,” so “*te ama e tabuli te matangi*” means “the outrigger has swung toward the wind.” Mostyn’s reply required some thought, and he said it is not a way that people normally talk, but that it makes sense. He was more puzzled when I asked him for an expression meaning “down-wind.” Finally, he offered: “*Te katea e tabuli ki te hai ne hano ai te matangi*” (The nonoutrigger side is facing the side toward which the wind has gone). Again, this makes sense, but it seems not to be a common way of speaking.

**Wind Compass**

A seventh model for conceptualizing spatial relationships, with special significance for interisland voyaging, is *te noboanga te matangi*. It may be glossed as “the seat,” “the home,” or more idiomatically, “the positioning” of the wind (George 2012:144). In more common English navigational parlance, one might call it the “wind compass.”
The Taumako wind compass consists of eight major directional indicators distributed in a semiregular pattern around a center, which may be the speaker, a canoe at sea, or any designated point on land. The precise bearings of these directions as they relate to points on a magnetic compass vary somewhat from one person to another and from one occasion to the next. A fairly typical rendering was offered by Clement Teniau in Lata, the Temotu Province capital. He identified the following primary points:

- **te tonga**: east-southeast, about 130°
- **te alunga**: just south of due east
- **te tokelau tū**: just north of due east
- **te palapu**: east-northeast, about 60°
- **te tokelau**: just about due north
- **te hakabiu**: west-northwest, about 330°
- **te laki**: about 250°
- **te ulu**: just east of south, about 170°

This is illustrated in Figure 8.
The space in between each of these points is indicated by a compound term: between *te tonga* and *te alunga* is *te alunga-tonga*; between *te tokelau tū* and *te alunga* is *te tokelau tū-alunga*; and so on. Designations for these intermediate regions are:

- Between *te tonga* and *te alunga*: *te alunga-tonga*
- Between *te alunga* and *te tokelau tū*: *te tokelau tū-alunga*
- Between *te tokelau tū* and *te palapu*: *te tokelau tū-palapu*
- Between *te palapu* and *te tokelau*: *te tokelau-palapu*
- Between *te tokelau* and *te bakabių*: *bakabių-tokelau*
- Between *te bakabių* and *te laki*: *te bakabių-laki*
- Between *te laki* and *te ulu*: *te ulu-laki*
- Between *te ulu* and *te tonga*: *te ulu-tonga*

The wind compass is important for interisland voyaging, where the relative positions of the islands in Taumako’s navigational universe are well known, and the bearing of the current wind as well as the prevailing wind for the particular time of year determines the likelihood of a quick, efficient, comfortable crossing and prospects for a timely return home.

**The Concentric Model**

“Dual organization” has a venerable history in anthropological discourse, going back at least to Durkheim’s preoccupation with the dichotomy between the sacred and profane (Durkheim 2001[1912]; also Durkheim and Mauss 1993[1903]; Hertz 1960[1907–09]). In 1929, Hocart observed that Fiji’s Lau Islanders conceptualized the world in terms of an elaborately articulated set of binary oppositions (e.g., right:left::up:down::sea people:land people) and that they organized many of their activities on the basis of that conceptual scheme. Lévi-Strauss famously expanded on the idea that binary oppositions are fundamental to human thought and are expressed in such practices as restricted exchange and bilateral cross-cousin marriage. Dual organization, in addition to being a conceptual structure, can often be seen in concrete arrangements such as exogamous territorial moieties, and in 1949 Lévi-Strauss devoted a chapter to the subject in his influential *Elementary Structures of Kinship* (1969[1949]). By 1963, however, he questioned whether dual organization is a discrete ethnographic phenomenon, noting that two quite different conceptual structures, which he termed “diametric-” and “concentric dualism,” have been given that common designation. The former is typified by certain South American Indians who live in circular villages that are divided into exogamous moieties by an imaginary line running through the center. The latter, by contrast, involves a sacred center that exists in opposition to a profane periphery and a kind of inverted sanctity beyond and is instantiated in the structure of the Trobriand Island village. In addition to the ambiguity of what is meant by dual organization, he noted that some people, such as the Bororo of Brazil, conceptualize the world in terms of both diametric and
Figure 9. Schematic representation of concentric model of geographical space, showing rings that are commonly recognized by most Taumako.

concentric structures. This was an early iteration of what Shore (1996) came to term “multiple models.”

My understanding of Anuta, a Polynesian island near Taumako, followed a similar trajectory. In 1980, I observed that Anuta has an elaborate binary system for representing geographical and social space. Later, when mapping the island’s extensive reef system (Feinberg et al. 2003), I discovered that Anutans utilize a concentric system of geographical and cosmological space that articulates with but does not displace the binary one. Likewise, during the 1980s, Shore (1982) described Samoan cosmology in binary terms; yet, by the 1990s (Shore 1996) he became aware that Samoans employ “multiple models”—some binary and linear, others concentric—to represent spatial relations. The Taumako, like Samoans and Anutans, employ both linear (generally binary) and concentric representations of space (see Figures 9 and 10).
Taumako commentators offer several versions of the concentric model, but most share common elements.

- The center of the island, or the highest mountain peak, is termed te vao. This is the wildest, most inaccessible portion of the land’s interior and is typically where one finds the largest Calophyllum trees, which are cut to make dugout canoes.
- Working outward from the center, one encounters mouku. This includes both mountain slopes and heavily wooded portions of the coastal flat, and it is where most gardens are located.
- Continuing outward, one finds ngauta. Elsewhere in Polynesia, ngauta or uta refers to anything or any place toward the island’s center from one’s current location, and it contrasts with tai or ngātai. The Taumako modify this formula. While at sea, anything in the direction of the island is i ngauta. Once on the island, however, ki ngauta either indicates movement in the direction of the narrow ring of land that separates the beach from the bush or toward a large village named Ngauta that is situated along the southwestern shore.
After ngauta is te one, the white-sand beach. It includes the loose sand surrounding most of the island just seaward of the dwelling houses. Most houses are erected slightly inland, on more densely packed sand that is often covered with grass. This geographical ring is sometimes differentiated as te maone.

Next is the reef flat, termed baupē. This extends from the beach outward to the surf line.

Overlapping with baupē is te ululu: the area between the spot where waves begin to break in the open sea and the point on the reef flat where the foamy turbulence subsides. The surf itself is te loma, and the point beyond the reef flat where the waves begin to break is called te tua o te loma (“the back of the loma”).

The deep sea, beyond the fringing reef is te moana. In one sense, this term refers to everything beyond the fringing reef. In another, it is divided into several subcategories. Most common are te loto, te akau, te tua o te akau, te moana uli, and te valenga. Te loto is a trench between the point where waves begin to break in rough weather and a ring of relatively shallow reefs (te akau). Te akau extends to the offshore islands of the Lua group, about three miles to the south, and the Haiva group, about five miles to the northwest of the main island. Beyond te akau is te tua o te akau (the back of the reef), where the shelf drops off to the deep sea, known as te moana uli. Uli designates a range of colors shading from black to dark blue, so te moana uli may be idiomatically translated as “the deep blue sea.”

Lastly, as one journeys away from the island, one arrives at a portion of te moana uli known as te valenga. Vale normally means to be “ignorant,” and te valenga is that portion of the ocean where one cannot see land in any direction.

**Inconsistencies and Points of Disagreement**

The concentric rings described above are basic points of reference on which most Tau-mako agree. Many details, however, can be added for increased precision, and a few people operate with a quite different model. The most radical departure was offered by Geoffrey Niumama. Working outward from the island’s center, Geoffrey’s concentric rings are:

- **Vao**: the mountaintop in the center of the island;
- **Tabito mounga**: the base of the mountain;
- **Lolokanga**: the flat area adjacent to the base of the mountain;
- **Loka**: muddy, swampy area between te lolokanga and ngauta;
- **Maone**: an area of hard-packed sand just inland from the path that goes along the edge of the beach;
- **Nga tolutolu**: the strip that separates the beach from te maone; the end of the bush, where no plants grow and there is a steep drop-off to the sand beach;
- **One**: sand beach;
- **Poniponi**: sandy area that is underwater during high tide but exposed in low tide;
- **Kalokalo**: area of the reef flat characterized by grassy bottom;
- **Namou**: slightly deeper area after te kalokalo, where the jagged reef becomes unmistakable;
• **Papalani**: area where the reef again becomes very shallow as one approaches te ululu;
• **Ululu**: area of breaking waves;
• **Tokoitua**: stones edging the reef flat;
• **Kalikao**: area behind the breakers, where the ocean starts to get deep but one can easily reach the bottom while diving; this is a place for collecting trochus (hence the name: kalikao = trochus);
• **Loto**: deep area between te kalikao and te akau;
• **Akau**: an area of “reef” encircling Taumako and encompassing the offshore islands of Lua and Haiava;
• **Tua o te akau**: “the back of the reef”;  
• **Ululinga**: starts where it gets deep enough that one cannot see the bottom, much less reach it when diving; and
• **Loto te moana**: the middle of the ocean.

Some of these features—te vao, te one, te ululu, te loto, te akau, and te tua o te akau—are frequently mentioned by others on Taumako when describing the concentric model. Two apparent discrepancies are a matter of Geoffrey using alternate terminology for oft-cited features. Ululinga appears to be another word for te moana uli, and loto te moana is what others term te valenga. Since loto means “inside” or “middle,” loto te moana may be glossed as “middle sea.” I heard no one else specifically list te tabito te mounga as one of the concentric rings surrounding te vao, but the expression means “the base of the mountain,” and its inclusion makes good sense. Several features that Geoffrey noted were rarely mentioned by others but were simply a matter of adding detail. These include te loka, te maone, te kalokalo, nga tokoitua, and te kalikao. Two commonly recognized features, mouku and ngaauta, did not make it onto Geoffrey’s list, and he was reluctant to add them even when directly asked. What Geoffrey called te papalani is probably a variant of what another friend, Inny Taupea, called te plaplani; but Inny used the term to refer to a different feature: an expanse of sandy, flat bottom extending a few hundred yards outward from te tua o te loma, interrupted by a deep channel, and then continuing on the offshore side of the channel until one reaches te akau.

No one else mentioned te lolokanga, nga tolutolu, and te poniponi, but it seems reasonable that Taumako language would have terms for these features.

On another occasion, in addition to the basic model, Inny Taupea and Stanley Tehiahua listed:

• **Te kalokalo**: a ring of grass or seaweed between haupē and te namo;
• **Te ululu**: the region of white froth between the curling breakers and the area where they smooth out and the white disappears;
• **Nga batu motu**: large stones in the ocean, just past the edge of the fringing reef, that rise to within a few feet of the surface and are distributed in a ring around the outside of te loma; and
• **Nga kaeba**: an area of coral heads rising from a deep bottom just beyond nga batu motu.
Beyond *nga kaeba*, Inny and Stanley listed the commonly recognized concentric rings of *te loto*, *te akau*, *te tua o te akau*, *te moana uli*, and *te valenga* (see Figure 11). Inny added that when one is voyaging, one passes through each of these rings until arriving within the sphere of influence of the next island, when they are traversed in reverse order.

Others disagreed with several of Inny’s identifications. On one occasion, Basil Mekau and Father Johnson insisted that *batu motu* and *kaeba* are not distinct rings. These, as well as certain other coral formations, are randomly distributed throughout *te loto*, *namo*, and relatively shallow portions of *te moana*; Basil compared them to “sticks in the forest” (see Figure 12). On another occasion, shortly before my departure from Taumako in 2008, Inny and I went diving over *te akau*, *te loto*, and *te tua o te loma*. Our purpose was to explore the sea bed so he could point out *kaeba*, *punga*, *batu motu*, and *balelo*. While discussing the matter at sea, he acknowledged that these features are far more widely and randomly distributed than the earlier characterization based on his mental map had suggested.
Such inconsistencies elucidate the idiosyncratic variation among islanders who regularly paddle, sail, fish, and collect marine resources and who are thoroughly knowledgeable about the marine environment. They illustrate the occasional discrepancy between islanders’ subjective images of their surroundings and the material facts that confront them as they move about in the course of their daily lives. And they demonstrate the complexity of categorizing marine features when one examines the environment in detail, despite widespread agreement on the system’s basic elements.

An additional complication comes from the presence of other islands in Taumako’s navigational universe, the consequent existence of intersecting rings, and the relativity of much directional discourse. For example, as one leaves Taumako and sails toward Nifiloli, the nearest of the Vaeakau Islands, one moves from the village toward haupē. Once at sea, one sails through the passage (te ava), passing te loma, tua o te loma, loto, akau, and moana uli, and enters te valenga. As one approaches Nifiloli, one is sailing ki ngauta. If one were sailing toward, rather than away from, Taumako, however, ki ngauta would be in the opposite direction. It is perhaps in part for this reason that some accomplished navigators, like Chief Crusoe Kaveia, preferred not to use such terms as ngauta and haupē when speaking of directions at sea, but of going ki mua (“forward”) or ki muli (“back”). Forward and back, however, are also relative. When leaving Taumako and sailing toward another island, one is going “forward,” and the open sea is “in front” (i mua), while Taumako is in back (i muli). When
leaving on the return voyage, the open sea and Taumako Island are in front, and Nifiloli is in back. As one approaches Taumako, the island is still “in front,” but now the open sea is “in back.” Yet, as noted earlier, mua and muli may also be used to indicate the path of the sun through the sky, making mua approximately east and muli approximately west. In that sense, a voyage from Taumako to Nifiloli goes from “front” to “back” despite the fact that in relation to the canoe the voyage moves from “back” to “front.”

A further complication involves the failure of geographical reality to correspond with the ideal model, however widely shared. According to Taumako’s abstract spatial schema, an island’s center is also the top of a mountain (te vao). Islanders recognize, however, that many of the islands they visit have no mountains. If they lack mountains, they also lack tabito mounga. Similarly, Tahua, the artificial island on Taumako’s fringing reef, lacks not only a mountain but swamps and gardens. And it has a seawall where a larger island might well have a beach. In short, it has no vao, tabito mounga, loka, mouku, maone, or one. Directional discourse, thus, features alobi and tua.

At sea, one finds the same ambiguities. Islets of a coral atoll or a complex archipelago may not be surrounded by a reef flat and a ring of surf. Even on Taumako, the area of grassy bottom (te kalokalo) is discontinuous. And certain coral formations such as nga kaeba, punga, balelo, and bantu motu might be found almost anywhere as long as the water is not too deep.

This highlights not a unique feature of Taumako’s spatial culture but one found in any abstract spatial model. A person living on a rural farm, miles from other human habitation, nonetheless understands the concept, “next-door neighbor.” And Chicago has a street called “West North Shore.” The name implies existence of an “East North Shore,” but there is no such street, as it would be under Lake Michigan. Rather, West North Shore is west of the point of longitude that separates “east” and “west” on many other Chicago streets. Similar evidence of the intersection between spatial models and empirical reality may be readily identified across cultural contexts and, I argue, highlights the cultural and cognitive salience of spatial models rather than the reverse. The occasional absence of te kalokalo does not compromise the abstract mental map of geographic space in terms of which Taumako conceptualize their traveling universe. Rather, such variability in use and complexity in realization of space in language points to the vividness of spatial cognition in subjective experience.

Taumako mental maps contain inconsistencies not only from one person to another, but also in renditions by the same commentator from one occasion to the next. One afternoon I was fishing in the moana with Basil Tavake, an avid fisherman. He paddled to what he thought was a good spot, but I could not get him to explain the basis for his judgment. The water was deep enough that we could not see the bottom. I suggested that perhaps he was lining up with onshore landmarks, but he refused to take the hint. Basically, he said, it felt to him like an appropriate place. Although he could have been dissembling so as not to reveal his method, that would have been out of character. While Taumako maintain secrecy on a variety of subjects, I never observed such concealment with respect to fishing techniques.
Fishing grounds are accessible to anyone; Tavake was generally open in his conversations with me; and, when a subject arose that he was not at liberty to discuss, he was quite willing to say so.

On another occasion, Tavake told me that _te loto o te henua_ ("the inshore trench") does not go all the way around Taumako. Then, a few days later, while returning from a trip to Lua, he realized that he had misinformed me. _Te loto o te henua_, he now said, goes from _te tua o te loma_ all the way to Lua, and it makes a complete circle around the island. _Te akau_ starts with Lua’s fringing reef, encircles Taumako, and takes in Haiava and Bilepi (see Figures 13 and 14).

These and similar experiences demonstrate that the cognitive maps carried by most Taumako of their marine environment are not precise charts. Some islanders are more knowledgeable than others. However, many of those who at times seemed confused or prone to contradict themselves are accomplished seafarers—a fact that raises issues of subjective consciousness. Not all sense data enter one’s awareness. One cannot concentrate on everything simultaneously, and one’s attention may be focused elsewhere (see, e.g., Hirst 1995). Moreover, much that enters consciousness is not retained in active memory, and sometimes faulty memories.
are corrected as a result of renewed observation. Tavake knows his way around the ocean and can find good fishing spots. However, information that does not bear on his safety or chance of success is superfluous, and he does not collect or memorize it unless requested to do so.\footnote{7}

**Articulation of Multiple Models**

Mawyer (this issue) challenges the idea that “a linear progressive axis of land/sea figuration” or any other “singular cognitively founded spatial model of front/back or above/below” is fundamental to Polynesian spatial cognition at its intersection with everyday life. Rather, he argues, a Polynesian cultural experience of space depends on the simultaneous presence and action of multiple models in their various intersections relevant to specific contexts. My argument is that binary/linear models are, indeed, fundamental on Taumako, but, as Mawyer observes for Mangareva, they exist side by side with others that are equally important.
To a large extent, disparate models address different questions, and selection of the most suitable alternative is context driven. When islanders encounter a fork in a path through the bush, they rarely consult “wind compass,” whereas mua/muli (“front/back”) and bai toilo/bai tovale (“right side/left side”), in association with specific landmarks, may be critical (cf. Bennardo, this issue). On interisland voyages, where navigators attempt to track the movements of the waves and stars in relation to potential destinations, they invoke the model of concentric space and the “wind compass” (but cf. Genz, this issue). Some modes are best suited to dealing with large-scale, and others with small-scale, space (Bennardo 2009, this issue; Shore, this issue). Moreover, actors’ judgments occasionally conflict. On interisland voyages, Kaveia tended to think of locations as standing i mua or i muli, while some others think in terms of ngauta and haupē. In many instances, however, multiple models are invoked simultaneously. In each case, an actor, by activating one model, is placing another on hold. But the inactive model remains available to be called upon in some future situation.

Of the abstract schemas, the most complex appear to be the wind compass and the model of concentric space. These crosscut one another, forming a kind of conceptual grid (see Figure 15). At the same time, directionals and locatives (e.g., toward or away from speaker, front/back, up/down, or right/left) come into play. The interplay of multiple models is illustrated by the following composite scenario, based on direct comments by experienced voyagers.

As one exits the passage and passes te tua o te loma while sailing from Taumako to Nifiloli, te ululu, haupē, and te benua are all “in back.” The destination, Nifiloli, is “ahead,” somewhere between te laki and te bakabiu (a direction known as te bakabiu-laki). In front of the canoe, between the vessel and its destination and still to be traversed, are te loto, te akau, te moana uli, and te valenga—and then te moana uli, te akau, te loto, and te loma surrounding the Reef Islands—before one gets to Nifiloli. Under normal voyaging conditions, the wind is in the south-southeast (te ulu-tonga) and hits the canoe on the outrigger side (bai ama), which is to the left (bai tovale) and somewhat astern (near te momoa i muli). The nonoutrigger side (bai katea) is to the right (bai toilo)—toward te tokelau or te palapu. The southeast swell (te bokobua loa te ngatae) is hitting the canoe’s port side (bai ama or bai tovale), more or less astern (mai muli); the northerly swell (te bokobua loa te angeho) is coming from te tokelau or te palapu and hitting the starboard side (bai katea or bai toilo), somewhat toward the stern. If traveling at night, the stars will cross the sky approximately from te alunga toward te laki, but the particular stars that are visible depend on the time of year as well as immediate weather conditions. The navigator must keep track of all this information, be able to process it instantaneously, and communicate the relevant bits quickly and efficiently to his crew.

**Radial Representations**

Bennardo (2002, 2009) cites several lines of evidence to support the proposition that Tongans employ the radial subtype of the absolute frame of reference for orienting themselves in and negotiating geographical space. These include linguistic data such as the mandatory use of
Figure 15. ‘Taumako-Vaeakau ‘wind compass’ (te nohoanga te matangi’) as it articulates with the concentric model of geographic space, assuming mountain peaks on Taumako (te vao) to be the point of reference.

directionals to indicate movement either toward or away from the speaker or some point of reference, as well as Tongans’ performance on a variety of tests.

Taumako of my 2007–2008 study used directionals and locatives very much like Bennardo’s Tongans, suggesting a radial model of space. They also made it clear in conversations about the layout of their island and surrounding sea that they visualize geographical space as a series of concentric circles emanating outward from the center. Details vary, but their models’ major elements remain quite constant. Thus, Taumako offers abundant data to support Bennardo’s hypothesis that Polynesians “privilege a ‘radial’ representation of spatial relationships, that is, first, a fixed point of reference or a centre is chosen, then objects are represented centripetally or centrifugally from it” (Bennardo 2002:161).

Radiality in Tonga and Samoa, as Shore (2012, this issue) points out, is distinctive in its ability to incorporate elements of both egocentric (or relative) and allocentric (absolute) models of spatial reference, resulting in a kind of “displaced egocentricity.” By visualizing a social superior as the center toward or away from which movement is oriented, it produces “a
cognitively grounded form of political socialization affording those who use it an intrinsically hierarchical perception of the world. This model literally forces the self . . . to view the world from the perspective of a social superior.” By contrast, the Taumako consistently rejected my suggestion that the referential center might be someone other than the speaker. This absence of displaced egocentricity, I suggest, reflects Taumako’s egalitarian political structure and in an inverse way supports Shore’s observation.

Although the Taumako arguably privilege radial spatial representations, they also employ models that are not obviously radial. Front and back or up and down, when representing the trajectory of the sun, moon, and stars, cannot easily be seen as radial. Similarly, mata and tua (“face” and “back”) or tua and alobi in many of their uses are hard to think of as radial. And the “wind compass” (te nohoanga te matangi) is arguably radial but in a different sense—more like the hands of a clock rotating around the center than centripetal or centrifugal movement. Named directions are approximate points and regions situated around the circumference of a circular horizon. But unlike the concentric model, although one may venture toward te tonga, one never arrives. Nor is it possible to exit in the way that one may pass through te loto te henua and reach te akau.

**Conclusion: Multiple Models and Spatial Representations**

Shore (this issue) suggests that spatial and social cognition are “mutually constitutive.” My Taumako data affirm some connection between spatial and social relationships, as in the former association of bachelor houses with alobi and family dwellings with the tua sections of an island. However, in comparison with other cases discussed in this issue, that connection seems attenuated. For example, in contrast with Tonga, Samoa, Indonesia, or Japan, the Taumako rarely use elaborate linguistic forms to mark social distance and ritual respect. I propose that this is associated with Taumako’s rather egalitarian political structure, unusual in Polynesia, where chiefs are elected, and leadership is in a constant state of flux.

“Radiality,” in this issue and elsewhere, is used in several distinct senses. One, encoded in directional particles like atu, ange, and mai, emphasizes movement toward or away from a center but says nothing about distance. This is the kind of radiality to which Bennardo (2002, 2009, this issue) devotes much of his attention, and it does not entail notions of hierarchy. A second involves a center, periphery, and any number of gradations in between. This is what I (Feinberg 2008; Feinberg et al. 2003), following Lévi-Strauss (1963) have called the “concentric” model, and it is the kind of radiality that Shore envisions in depicting Samoan village structure. Samoa’s concentric model:

defines a gradual or graded relationship between center and periphery rather than a simple binary opposition. It defines a symbolic space in terms of a central viewpoint that looks out on a world defined by a gradually diminishing gradient of dignity and order . . . . a schematic representation of this model is possible in which the village is realized as a series of concentric zones radiating out from the heart of the village. (Shore, this issue)
For Shore, this form of radiality is consummately hierarchical; the center is the locus of dignity and order, which gradually diminish as one moves toward the periphery. Taumako has a similarly concentric version of "radiality," but its villages are not laid out around a ritually charged focal point comparable to a Samoan *malae*. The geographic center, rather, is the mountaintop; periphery the open sea. Taumako’s concentric model presents an orderly framework for conceptualizing space, but it has no obvious connection with levels of dignity, honor, or sociopolitical rank.

Finally, I pose the question: why should a community employ a multiplicity of spatial models. Shore (this issue) offers several possibilities, three of which are of particular relevance to Taumako: (1) some models may serve special purposes, associated with different tasks or different aspects of the environment; (2) divergent models may be invoked when confronting different scales of spatial reference; and (3) perceptual differences may be gender based.

The binary/linear model may be salient regardless of one’s location or current activity. The concentric model, by contrast, is most relevant to space on the scale of the island, or even the Taumako’s navigational universe. Similarly, the wind compass appears to be a “special-purpose model” designed for dealing with large-scale space, especially associated with interisland voyaging. Islanders engaged in long-range navigation make an effort to master the wind compass, while those who rarely stray from shore may pay it little heed and are familiar with few of its features. Since men more often than women are involved in interisland voyaging, knowledge of the wind compass shows some gender bias. Unlike much of Polynesia, however, Taumako’s gender-based division of labor is not rigid. A few women have been skillful sailors and navigators, and their knowledge of the wind compass is as sophisticated as that of any man.

The Taumako data accord with Shore’s observation that radial and binary models coexist in Polynesia (and elsewhere) and that they do different kinds of “cognitive work.” But Taumako differs from Samoa, where the radial/concentric model gradually shades from one ring to the next rather than being divided into discrete categories. On Taumako, clear lines often separate discrete concentric zones. One may speak with varying degrees of precision, but *te one*, for example, is clearly separate from *haupē*.

On Taumako, as elsewhere, cultural models of physical space bear some connection to social space. Perhaps owing to a relatively egalitarian political and social structure, however, among Taumako that relationship appears weaker than in much of Polynesia, and “radiality,” itself, assumes a multiplicity of shapes. The existence of multiple models means that individuals, as they confront the challenges of daily life, must choose among alternatives and draw upon whichever ones appear most helpful. But utility depends on judgment and attention. Consequently, spatial understandings are unevenly distributed in the community and sometimes shift depending on the issue of the moment.

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Notes

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1. A similar preoccupation with harmony and integration dominated other anthropological approaches, from British functionalism (e.g., Malinowski 1944; Radcliffe-Brown 1952) to the symbolic anthropology of Geertz, Schneider, and their myriad followers (e.g., Geertz 1972; Ortner 1973; Schneider 1968) during much of the same period.

2. Vaeakau islands include Pileni, Nifiloli, Matema, Nukapu, and Nupani.

3. The ambiguity of sociospatial symbolism described by Geoffrey and several other Taumako is reminiscent of that found on certain Polynesian atolls (Feinberg 1988).

4. Despite the two islands being no more than a quarter mile apart, the larger island’s 900-foot hills disrupt the wind patterns on the smaller one.

5. Hovdhaugen’s Vaeakau-Taumako dictionary (2006:152) has no entry for “leeward.” It gives alohi as the word for “windward,” but I did not find Taumako to use alohi with that meaning.

6. George’s rendition of Taumako’s wind compass differs considerably from mine, but it nicely depicts the system’s complexity and sophistication, including the fact that it articulates with a variety of astronomical and meteorological phenomena.

7. Such apparent confusion might suggest that the Taumako rely on sensory experience rather than cognitive maps to locate fishing grounds (Genz, this issue; Ingold 2000; Lauer and Aswani 2009). Yet they do appear to have mental images of their environment, which they are able to articulate with varying degrees of consistency and precision.

8. Such oppositions as up/down, front/back, and right/left may, of course, imply hierarchy—as they do in Tonga, Samoa, and Anuta. The Taumako, however, rarely use these metaphors to connote social space.

References Cited

Benedict, Ruth F.

Bennardo, Giovanni

Davenport, William

Durkheim, Emile

Durkheim, Emile, and Marcel Mauss
1993 Primitive Classification. Chicago: University of Chicago Press. (Original, 1903)

Feinberg, Richard
Feinberg, Richard, Ute Dymon, Pu Paiaiki, Pu Rangituteki, Pu Nukuriaki, and Matthew Rollins

Feinberg, Richard, and Joseph Genz

George, Marianne

Hertz, Robert

Hirst, William

Hocart, A. M.

Hovdhaugen, Even

Ingold, Tim

Lauer, Matthew, and Shankar Aswani

Lehman, F. K., and David J. Herdrich

Lévi-Strauss, Claude

Levinson, Stephen

Malinowski, Bronislaw

Næss, Åshild

Ortoner, Sherry B.

Palmer, Bill

Radcliffe-Brown, A. R.

Shore, Bradd

Tyler, Stephen, ed.

Watson-Gegeo, Karen Ann, and Richard Feinberg