

LISTENING TO THE ANCESTORS: KAVA AND THE LAPITA PEOPLES

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The peoples of Oceania used various plant-derived drugs, the most widely spread being betel nut and kava. The current evidence is that the kava plant was first domesticated in Vanuatu, where the initial settlers brought with them Lapita traditions and developed a set of practices and beliefs centered on an association between kava and death. Kava was a medium for communication with ancestors as sources of power. At roughly the same time and in the same area a significant change occurred in the meaning of the Proto-Oceanic word *mana*. Drawing upon ethnology, archaeology, and linguistics, this article examines the origins and spread of this complex of belief and practice. (Non-literate religious traditions, kava, Lapita peoples, Proto-Oceanic language)

In the absence of writing, knowledge exists only as long as it is in the minds or incorporated in the bodies of living human beings. Material objects, heirlooms, or features of the landscape can be *aides-mémoire*, but only as long as someone remembers their significance. Institutions may exist for the orderly transmission of non-literate traditions (for example, rites of passage and other rituals), but such methods of transmission continue to exist only as long as their forms and significances are in the memories of living persons. This is a source of vulnerability that is most pronounced with respect to esoteric knowledge. The details of genealogy, local history, land tenure, myth, magical spells and techniques, and ritual procedures may be known to only a few, often the elderly members of a community. At times of high mortality brought on by natural disaster, famine, or epidemic disease, knowledge may be lost to future generations.

In addition to such catastrophic breaks in transmission, in some non-literate societies loss of knowledge is chronic. When power (e.g., political persuasiveness, economic success, ritual efficacy) is dependent upon possession of esoteric knowledge, imparting that knowledge to another is often seen as resulting in a reduction of one's own powers. Therefore persons with knowledge might want to retain their power as long as possible, and if they delay imparting the knowledge to a successor for too long, memories can fail or the possessors die before they can pass knowledge on (see, e.g., Lindstrom 1990). Thus, it may be assumed that there is a gradual societal loss of knowledge and power over the generations (see, e.g., Gewertz and Errington 1991).

In non-literate religious traditions this entropy is often countered by openness to new knowledge through dreams, inspiration, divination, shamanic trance, or spirit possession. In most societies people regard their individual

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and collective welfare to be dependent on supernatural powers and beings. When the supernatural is personalized as ancestors, gods, or spirits whose moods and intentions affect human affairs, interaction with them is essential to well-being. Communication with them is typically through prayer, sacrifice, or other rituals. Human beings have also sought more direct interaction with the supernatural through induced altered states of consciousness (ASC), and ASC are also sought for their own sake. In a sample of 488 cultures, Bourguignon (1973) found that 90 percent “exhibit institutionalized, culturally patterned forms of altered states of consciousness” (Price-Williams and Hughes 1994:2). Sensory deprivation, sensory overload, meditation, fasting, and sleep deprivation have all been used as means for achieving ASC, but human beings have also made use of psychoactive substances to achieve altered states.

Traditionally, peoples of Oceania have used of a variety of psychoactive substances derived from plants. They include barks, leaves, pollens, seeds, varieties of ginger, and, after its introduction, tobacco. But the most widely used drugs native to the Pacific are betel (the nut of the palm *Areca catechu*, often combined in a quid with other ingredients) and kava. The peoples who use kava (or once did) are widely spread over Melanesia, Micronesia, and all islands in the Polynesian triangle where soil and climate conditions support its cultivation (see Figure 1.)

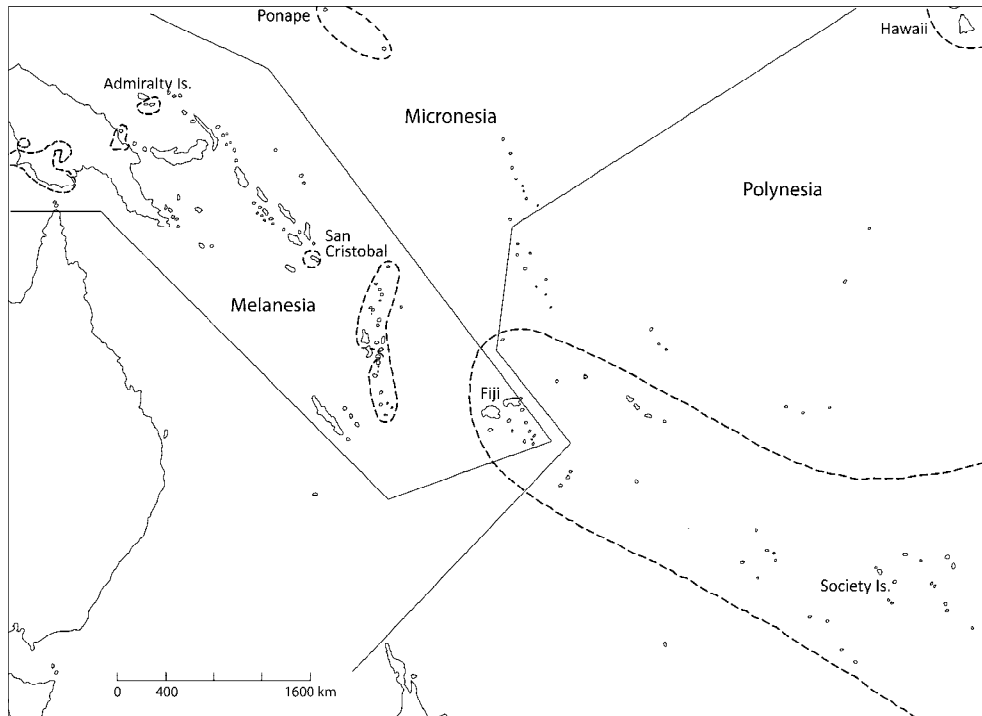
The term kava has been used by anthropologists to refer to the pepper plant, *Piper methysticum*, to the drink made from its rootstock and roots, and in some societies to the ceremony surrounding its consumption. It is clear that the traditional use of kava was (and in many cases still is) imbued with sacred significance and reflects a desire to communicate with the supernatural. A belief in kava’s efficacy as a medium for communication with the spirit world is widespread among the peoples who use it (e.g., Tikopia [Firth 1970:221]; Tonga [Gifford 1929:318]; Hawai‘i [Kamakau 1976:42; Titcomb 1948:139, 147]; Niue [Loeb 1926:171]; Tanna [Lindstrom 1981:389]; and Pohnpei [Riesenberg 1968:109]). It was drunk to help determine the causes of misfortune and to connect with the gods for the performance of ritual. It is poured out in libations to gods or ancestors, and in some areas used by men to assist them in communing with their ancestors. Kava’s use for opening channels to the supernatural—through which new knowledge came as inspiration, vision, or dream—was linked to its diffusion.

While kava is often (and in some places only) drunk in the context of funerals, it is also drunk to enhance health, life, and fertility. In a seeming paradox, this life-enhancing beverage, if drunk in quantity or high concentrations, induces a deathlike lethargy, and in some areas kava is associated in myth with disease and death. In short, it is implicated in a most troubling issue

of the human condition: the relationship between death and life. It is a Pacific version of a cross-culturally common idea—that death gives rise to life.

Figure 1

Kava Drinking Areas of Oceania (dashed boundaries)
(Adapted from Brunton 1989)



KAVA'S EFFECTS

Kava is a mild narcotic, a soporific, a muscle relaxant, and a diuretic, and is neither a hallucinogen nor stupeficient (Lebot and Siméoni 2004:19). It also has analgesic, antimycotic, and antibacterial properties (Lebot, Merlin, and Lindstrom 1992). However, anthropologists with experience of the drug in Western Polynesia have questioned its efficacy. Ford (1967), from fieldwork in Fiji, and Holmes (1967), who worked in Samoa, attributed the reputed effects (for example, ataxia) to long hours of sitting cross-legged in poorly ventilated interiors heavy with tobacco smoke (see also Roth 1953:126). Bott consulted a psycho-pharmacologist who concluded after a literature review that the reputed effects of kava drinking are a “remarkable example of a placebo phenomenon in a wide and important setting” (Bott 1972:234).

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Suggestions like those of Ford and Holmes seem to be the effects reported by non-habitual users. As far as I know, those who question the psychoactive properties of kava offered no explanation for why habitual drinkers would attribute specific physiological and psychoactive effects to it, why they deliberately seek those effects, and why they value certain varieties over others for their potency. I argue that the psychoactive properties of kava were central to the drug's diffusion, and that those effects were central to a complex of beliefs and practices that diffused with it.

The drug's effects can be highly variable. The manner of preparation, the degree of concentration in the aqueous solution, and the plant variety influence the intensity of the effects. The drink can be made from the freshly harvested rootstock and roots or from dried roots. Freshly harvested kava needs to be rendered into a moist pulp by chewing, pounding, or grating. The active ingredients are contained in the root cells' resin, and there is some indication that chewing the material into finer particles makes the psychoactive substances more effective (Lebot, Merlin, and Lindstrom 1992:57). A dry root needs to be reduced to a powder. In the Fijian village where I resided, this was done with a mortar and pestle.

Along the south coast of New Guinea (Van Baal 1966:21) and Kolopom Island (Serpenti 1965:33), the drink is made with the saliva of chewing and juice squeezed from the masticated mass without additional water. But in most areas, whether the root is fresh or dried, it is mixed with water, and the potency of the drug depends partly on the degree of dilution. There are significant differences in the taste and potency of kava made from the fresh or dried root. Despite straining, the drink prepared from the dried root contains minute particles suspended in it. Kava prepared from the fresh root is "thinner," has a cleaner taste, and was preferred by my Fijian informants.

The physiological effects of kava depend on the concentration of the active ingredients in the plant. These are lactones (i.e., kavalactones). Fifteen of these organic compounds have been identified. The potency and taste of different varieties of kava plant are determined by the proportions of the compounds in the plant's resin. These genetically determined differences are maintained in successive generations, producing distinct strains (chemotypes or chemovars) (Lebot and Levesque 1996).

Certain chemotypes (i.e., those with high levels of the kavalactone dihydromethysticin, or DHM) produce nausea and are rarely consumed for that reason. Other chemotypes produce long-lasting effects (i.e., the "two day" [*tudei*] variety of Vanuatu) or take effect quickly, while others act more slowly but have more lasting effects. New kava plants are propagated from cuttings taken from harvested plants, and chemotype variation is undoubtedly due to human selection over generations to maximize certain desired

characteristics (Lebot and Siméoni 2004). The various chemotypes are not uniformly distributed across the Pacific. The one in New Guinea produces fast-acting, severe effects, while those in Fiji and Polynesia are slower acting and produce relaxation, contentment, and conversation. Nonetheless, heavy consumption of these varieties, especially from a freshly harvested plant, will eventually produce the same quiescence followed by somnolence. The chemotypes used on Tanna and Vanuatu, and the way they are prepared and consumed, seem to maximize quiescence before the onset of deep, restful sleep (Brunton 1989: 101–5; Lebot, Merlin, and Lindstrom 1992:156–61).

The concentration of kavalactones affects the qualities of the drink. This is partly due to the plant's age. Plants reach their maximum potency at about 18 months and retain that concentration until harvested (Lebot, Merlin, and Lindstrom 1992:78–9). Environmental conditions also affect lactone concentration. Kava grows best in friable, rich, moist, but well-drained soil. Since direct sunlight is harmful, especially in the early stages of growth, it fares best as an understory crop.

Differences in plant chemistry (chemotype and lactone concentration) vary independently of the gross morphological differences that islanders typically use to differentiate named varieties. I once watched young Fijian men grating fresh kava for a funeral. One picked up the root mass of a plant for grating and suddenly stopped. The rootstock's rich orange color was taken as an indication of its potency. He sniffed at and perhaps nibbled at it as well. Told where it had been grown, he set it aside. Rather than mix it with the pulp of "inferior" plants, it would be treated separately.

As kava's psychoactive effects are important for the beliefs and practices that diffused along with it, they merit attention. My description is personal and anecdotal and based on drinking a less concentrated form of the beverage than is typical in Vanuatu. My kava-drinking experiences were mostly in Fiji, where the drink is mildly astringent and bitter, with a slight numbing effect on the lips and tongue. The first several cupsful have a relaxing effect. After six to eight I usually felt mildly drowsy without experiencing any impairment of motor activity, but my face would be somewhat numb and my appetite sharpened. After about ten cupsful, I was extremely drowsy, and falling asleep while standing or walking seemed not only possible but desirable. With drowsiness there often is some ataxia. This was most noticeable when I had to walk home from other villages. (See Gajdusek [1967], who experienced kava in Vanuatu, for an excellent clinical description of the drug's effects.)

When the characteristic somnolence sets in, the kava drinker begins to crave peace and quiet. Bright light is irritating, and my photophobia was associated with a pressure behind the eyes and tension at the base of the skull. At this point any sound is disturbing. Conversation, which once flowed freely,

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becomes burdensome. When sleep does come, it is extremely restful. In the hypnagogic state between wakefulness and sleep, the mind is open to sensory inputs from the environment but is free to weave them into its own imagery. I believe that kava's power to produce such states led to its domestication and diffusion.

KAVA'S ORIGIN AND DIFFUSION

Kava was first domesticated where its wild progenitor occurs. Its most likely antecedent is *Piper wichmannii*, a rainforest plant that ranges from New Guinea to northern Vanuatu. The morphological differences between the two plants are no more extreme than that between different morphologically defined varieties of kava recognized by Pacific island cultivators. Both species contain kavalactones, and some Pacific Islander cultivators regard them as a single species. Both species are dioecious (individual plants normally bear male or female flowers, but not both), but *P. methysticum* plants are incapable of sexual reproduction, and none of the specimens held in botanical collections produce seeds. The kava plant is cultivated by using stem cuttings from harvested plants. Lebot (1995) hypothesized that the kava plant was developed through human selection of mutant forms of domesticated *P. wichmannii* having desirable psychoactive properties (Lebot 1995:26–7).

KAVA'S DISTRIBUTION

Brunton (1989), in considering the wide but discontinuous distribution of kava drinking in the Pacific, offered three possible explanations: (a) kava was discovered independently in more than one place; (b) kava drinking developed in a single region and then spread through direct links to other areas; or (c) it spread through indirect links to other areas, but its cultivation and use was abandoned in the intervening regions (e.g., almost all of the Solomon Islands).

Scenario 1: Independent Discovery

Independent discovery is a possible explanation where *P. wichmannii* naturally occurs (i.e., Melanesia from New Guinea to Vanuatu). This means that elsewhere, as in central Micronesia, Fiji, and Polynesia, kava drinking could not have been an in situ independent discovery. Other factors that rule out independent discovery include elements of belief and practice shared by all of the kava drinking societies, which is discussed later.

Scenario 2: Kava Drinking Spread by Direct Links

Brunton's (1989) second scenario posits direct contact between widely separated regions (e.g., the Bismarcks in the west and the Santa Cruz islands in the east) and by-passing intervening regions.

The Reefs and Santa Cruz Islands are politically part of the Solomon Islands, but they lie closer to the Banks Islands of northern Vanuatu than they do to the large islands of the central Solomons (see Figure 1). They were first settled by a Lapita people about 3100–3000 B.P. Large quantities of obsidian sourced to West New Britain suggest ongoing interaction, direct or mediated by intervening links, between these two regions for about seven hundred years (Kirch 1990; Green 1987; Ambrose and Green 1972). Sheppard and Walter (2006) believe that the absence of Lapita sites in the central Solomons and the lack of evidence there for the importation of obsidian during the same time frame indicate that this trade between the Reefs and Santa Cruz Islands and New Britain was direct, leapfrogging the islands of the central Solomons. They also use mitochondrial DNA, linguistic, and palynological data to support their argument.

If the original Lapita settlers of Remote Oceania “leapfrogged” the central Solomons, it would help explain the absence of kava use in that region. At about the same time that Lapita people settled the Santa Cruz Islands, sister communities were being established on the nearby northern islands of Vanuatu (see, e.g., Galipaud and Swete Kelly 2007). I will argue below that it is in this latter region that kava was first discovered during the Lapita period. The plant and its ritual use spread from there north to Pohnpei and Kosrae in central Micronesia and east to Fiji and western Polynesia. Whether via Pohnpei or directly from the southeast Solomons–northern Vanuatu region, kava drinking also spread to the Admiralty Islands off the north coast of New Guinea. It should be noted that Pohnpei and the Admiralties are the only kava using areas where kava is/was prepared by pounding on stone slabs. The words for kava in the two regions are also clearly cognate (Pohnpei, *sakau*; Kosrae, *saka*; Baluan, *kau*; Lou, *ka*). From the Admiralties kava diffused to the northern coast of New Guinea, primarily coastal Madang Province. (The word for kava in the languages of the various groups of the north coast of New Guinea and its interior are also clearly cognate with the words by which it is known in the Admiralties).

The fact that kava is absent from most of the Solomons presents no problem for those who argue that Lapita settlers leapfrogged the region. It seems unlikely, however, that the Lapita peoples would have completely bypassed the central Solomons. What reason could there be for avoiding these large, resource-rich islands to settle on the much smaller Reef and Santa Cruz Islands? Perhaps a case could be made for avoidance of areas already settled

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by speakers of NAn languages. Buka and Bougainville are known to have been occupied by 29,000 B.P., but no sites of comparable age have been found on the islands east of there. In fact, the only site in the Solomons known to pre-date the arrival of Lapita settlers on the Santa Cruz Islands is the Vatuluma Posovi cave site on Guadalcanal.

When they arrived in the region, the Lapita settlers of Remote Oceania passed through an occupied area, but the indications are that the indigenous population numbers were low, and there is no reason to assume that their presence would have discouraged settlement by Lapita peoples. Simulation of colonization demographics indicate that inter-group contact for marital exchange has positive survival consequences (Moore 2001), and Clark and Bedford (2008) suggest that the presence of NAn speaking populations might have helped establish Lapita colonies in the Bismarck-Solomons region. Inter-marriage would have provided demographic support, local knowledge, access to inshore and inland resources, and trading partners.

Significant cultural changes appear at Vatuluma Posovi at about 3000 B.P., when Lapita communities were being established in the Reef and Santa Cruz Islands. There are clear indications that the Lapita communities to the east were also affected by contact with the central Solomons. Whether exotic materials (and artifacts?) were obtained directly from indigenous trading partners or from trade with as yet undiscovered Lapita outposts in the central Solomons, or, perhaps, were gathered by the Lapita settlers of the Santa Cruz Islands themselves, clearly these first settlers were in contact with the islands lying some 400 kilometers to the west.

If one argues that, despite the lack of known sites, the central Solomons were inhabited at the time that Lapita settlers first entered Remote Oceania, it seems disingenuous to then argue that there was no Lapita presence because no sites, ceramics, or imported obsidian have been found in the central Solomons. In their discussion of the leapfrogging hypothesis, Sheppard and Walter (2006:68) seem focused on the original Lapita colonization of Remote Oceania, but in discussing the absence of any known Lapita sites east of Buka and west of the Reef Islands, they raise the possibility that Lapita peoples never settled in the region (see, e.g., Roe 1993:185). This avoidance supposedly persisted despite the fact that the Lapita communities of Remote Oceania maintained at least sporadic contact with their homelands in the Bismarck Archipelago for several hundred years during Lapita times, and apparently maintained trade links in the central Solomons as well.

There are several reasons for caution in accepting Sheppard and Walter's leapfrogging model. First, the Lapita pattern of stilt house settlement on reef flats does not rule out the possibility of tidal settlements. The discovery in 2011 of nine Lapita sites in Papua New Guinea's Central Province has

extended the known range of Lapita settlement (David et al. 2011). The Lapita occupation there (2900 B.P. to 2500 B.P.) was preceded by a pre-ceramic period with a focus on marine resources dating to 4200 B.P. Unlike the Lapita settlers of Remote Oceania, then, the southern Papuan Lapita communities were established on a “previously settled coastline” (McNiven et al. 2011:4). Therefore, having adapted elsewhere to the presence of indigenous NAN-speaking populations, it is unclear why the Lapita settlers of the Reef and Santa Cruz Islands would have avoided the islands of the central Solomons.

The recent Lapita finds on the southern Papuan coast are relevant to another issue. Kava is drunk by groups on the southern coast of New Guinea as far west as Marind-Anim and Kolopom Island and as far inland as the Mt. Bosavi and Lake Kutubu areas.

Kava was an introduction to South Coast New Guinea (Lebot, Merlin, and Lindstrom 1992:32), but when did it take place? If it was recent, its adoption must have been highly motivated and its diffusion rapid. This is not an ideal region for kava cultivation. Swampy areas with alkaline soils and dry savannah environments predominate. It has a monsoon climate with a marked dry season. During the dry season the sun is intense, and kava plantings need to be sheltered under screens of sago palm leaves. The challenges presented by the environment of south coast New Guinea perhaps explain why there is so little genetic variation (with respect to chemotypes and isozyme characteristics) in the kava grown in the region. Lebot pointed out that the characteristics “of *P. methysticum* found in New Guinea today were exported from Vanuatu early in the domestication process ... with little subsequent selection” (Lebot, Merlin, and Lindstrom 1992:81). If, as seems likely, the various Lapita peoples were the main agents in the diffusion of kava, the recent discovery of a Lapita presence along this coastline suggests one possible mechanism for this early introduction.

Scenario 3: Kava Spread by Indirect Links

The third scenario has kava and its ritual use spread from an original center of discovery to where its use is documented. At issue in this scenario is the claim that it also spread to intervening areas where kava cultivation and use were abandoned.

Brunton’s thesis is based on the assertion that most Melanesian societies are characterized by decentralized political systems in which any achieved hierarchy is subject to challenge and in which religious belief and practice are “subject to a large degree of individual variation and a high rate of obsolescence” (Brunton 1980:112). This can be seen on the island of Tanna in southern Vanuatu, where “the integrity and accessibility of existing sources of ritual power were never assured,” and where “[t]he divisiveness and distrust

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produced by ineffective institutions of leadership and social coordination led to a spiral of entropy, to which many Tannese responded by rejecting their current cultural ‘package’ in favour of another” (Brunton 1989:169). In the post-contact period, kava drinking there has been abandoned and reinstated more than once by some Tannese communities (Brunton 1989:83).

Religious volatility would render kava drinking especially vulnerable where it was limited to specific ritual contexts or to certain categories of people. For example, on the island of Aoba (Ambae) in Vanuatu, kava drinking was associated with *hungwe*, the male graded society. In the western part of the island, kava drinking disappeared when the *hungwe* was abandoned in the twentieth century. But both kava drinking and the graded society continued in the eastern part of the island (Allen, personal communication, cited in Brunton 1989:171); and something similar may have led to the abandonment of kava drinking in southwest Malakula. It once was thought that the Big Nambas were the only group on Malakula to drink kava, but Deacon (1934) reported kava’s use in the southwest in rituals associated with the male graded society, *Nimangki*. Neither he nor Layard (1942) recorded kava being drunk there, but it had been drunk in the southwest by men of the highest ranks in the graded society and also in the northeast of the island (perhaps among Vao speakers), where it is now avoided because of its association with sorcery (Brunton 1989:88–9).

The Solomon Islands constitute the most dramatic gap in the distribution of kava in the Pacific, but there are places in the central and southeastern Solomons where it was reportedly drunk in the past. Brunton (1989:16–7) provided a summary of references to kava drinking there in the recent past. With the exception of Tikopia and Vanikoro, none of the Solomon Island cases is documented well enough to be beyond question in terms of recent diffusion (see, e.g., Lebot, Merlin, and Lindstrom 1992:32–4). Davenport (1964:135) confirmed Rivers’s (1914) report of kava drinking on Vanikoro and attributed its use there to contact with Tikopians who made periodic voyages to Vanikoro. On Tikopia, kava was seldom drunk but instead was poured as offerings to the gods and ancestors (Firth 1967:17). Kava was drunk by Tikopian spirit mediums, however (Firth 1967:280). The word for the drink and plant on Vanikoro is the same as the Tikopian/Polynesian *kava*.

If these reports of kava use in the past lack sufficient detail and confirmation, there is evidence suggesting that kava was drunk in the Solomon Islands in the past and subsequently abandoned. Would the presence of “wild kava” where it is not currently planted and used constitute such evidence? As previously noted, for kava to reproduce normally requires human intervention. Brunton (1989:33–5) noted some cases that indicate self-reproduction, as in rich, moist, valley soils in Hawai‘i. One instance of how this might occur is at

the Vanuatu Cultural Center in Port Vila where a kava planted in the 1950s reportedly grew to a size where its branches bowed under their own weight and took root where they touched the earth, in time giving rise to 11 daughter plants. Te Rangi Hiroa (Peter Buck) (1944) claimed that on Rarotonga kava was propagated by cultivators when “branches of the plant were bent over to root afresh” (Te Rangi Hiroa 1944:18, quoted in Brunton 1989:34).

Instances where self-reproduction might occur are a matter of chance and ideal conditions of soil, climate, and ecology. Most references to wild kava are likely to have been misidentifications of *Piper wichmannii* or one of the other wild peppers native to Melanesia. Much more likely is the gradual disappearance of kava in areas where gardeners are no longer replanting. We know, for instance, that kava was grown on Tikopia into the twentieth century; yet, with the total conversion of the population to Christianity in 1955, kava was no longer required for the performance of traditional rituals (Macdonald 2000:113; Firth 1970:383–406) and, as a consequence, was no longer planted. Kirch and Yen (1982), who studied the prehistory and ecology of the island in the 1970s, found that kava had already become extinct “with only a wild form *kavakava atua* ... remaining that cannot, according to [their] informants be used for” preparation of the drink (Kirch and Yen 1982:36). Lebot, Merlin, and Lindstrom (1992:34) noted that elsewhere in Polynesia (Marquesas, Cook Islands) *kavakava atua* refers to *Macropiper latifolium*.

If abandoned as a cultigen, it seems likely, in most instances, that kava would in time disappear, but that *Piper wichmannii* and the other wild pepper plants native to Melanesia would not be affected. It would seem, then, that the absence of kava (but the presence of wild pepper species) cannot be taken as definitive proof that kava was never used in an area of Melanesia where it could be grown. This is true even when early historical or ethnographic sources specifically note its absence.

Language might provide some assistance here. If cognates of *kava* are found in languages spoken in areas where use of *P. methysticum* has never been recorded, might that indicate the drug was once used there and that the word was later given another, related meaning?

The various cognates of kava, not just in Polynesia but in Melanesia as well, suggest that *Piper methysticum* is part of a broader category of plants with psychoactive properties. But which of these plants was the original referent of the term? Based on the distribution of cognates of kava, Pawley and Green (1973) suggested that the word’s origins lay in a Proto-Oceanic (POc) root, *kawa*. But northern Vanuatu now seems to be the area where the plant was first domesticated, a conclusion anticipated by Crowley (1994), who pointed out that the origins of the word must therefore date to a period after the breakup of the Proto-Oceanic language community. This would only be

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true, however, if *Piper methysticum* were the original referent of the word. Lynch (2002) later revived the idea of the word's origin in Proto-Oceanic, though not with the referent of *Piper methysticum*. He reconstructed a Proto-Oceanic form, *kawaRi*, which, he suggested, originally referred to a root with psychoactive properties such as a wild ginger (*Zingiber zerumbet*) or the kava plant's wild progenitor, *Piper wichmannii*, and plants used as fish stupefacients (Derris root). Lynch suggested that after the domestication of kava (*P. methysticum*) in northern Vanuatu, the term underwent a semantic and sound shift, in time giving rise to cognates in various Oceanic languages as the drug spread from one Pacific island society to another.

It seems reasonable to assume that a useful mutation of *Piper wichmannii* (i.e., the form that gave rise to *P. methysticum*) would only be noticed, conserved, and propagated by people who were already ingesting *P. wichmannii* in some way for some purpose (medicinal, recreational, or ritual, as kava is used in all of these ways today). It is even possible that the meanings and associations that surrounded kava's original ritual use actually antedate the discovery of *Piper methysticum*.

If kava was abandoned in some areas prior to contact, barring the discovery of a preserved Piper specimen capable of being identified (unlikely since species are differentiated on the basis of floral parts), it is not possible to say where this abandonment might have occurred. The oldest evidence of possible kava use comes from several stems of a plant identified as some Piperaceae species found in waterlogged soil at the Talepakemalai site on Eloaua, a small island that lies off the south coast of Mussau island in the Saint Matthias group about 80 km north-northwest of New Hanover in the Bismarck Archipelago (Lebot, Merlin, and Lindstrom 1992:25; Kirch 1997:217). The site appears to have been a large Lapita community of perhaps 150 households living in stilt houses built over a reef flat (Kirch 2000:107).

Because these Piper (or Macropiper) stems found there were in clear association with Lapita-style artifacts, it seems evident that, whatever species of pepper plant this was, it was "probably ... ethnobotanically important for the people who once inhabited Talepakemalai" (Lebot, Merlin, and Lindstrom 1992:25). Kirch (1997) suggested that the early Lapita people of the Bismarck Archipelago (including Eloaua) had been familiar with a "wild form" of kava (e.g., *Piper wichmannii*), which they used "for its medicinal (or even hallucinogenic?) properties" (Kirch 1997:217). At the very least, it is justified to conclude that some species of pepper plant was part of this Lapita community's culture. This is significant because, while Eloaua and the other islands of the Saint Matthias Group are part of Papua New Guinea's New Ireland Province, they lie between the Admiralties and Pohnpei (and Kosrae), two areas where kava was drunk and which share cognate terms for the drink

and plant and prepare the root in similar ways. These are the only areas where kava is pounded on basalt slabs.

A SINGLE AREA OF DISCOVERY IS PROBABLE

Kava's wild progenitor, *P. wichmannii*, is widely distributed in Melanesia from New Guinea to Vanuatu and, in theory, it would have been possible for the transformations that gave rise to kava to have occurred anywhere within this range. In fact, however, the diversity of kava clones found there, the presence of genetic variants of *P. wichmannii* likely to have given rise to kava, and the diversity of words for kava, words with no other meanings, found in the languages spoken there, indicate that northern Vanuatu is the region in which *Piper methysticum* first developed and was conserved and cultivated (Lebot, Merlin, and Lindstrom 1992). This probable region of origin is significant because it became a "Pacific crossroads" (Bedford and Spriggs 2008) not long after first settlement. This region was the likely origin point of the first settlement of Fiji and of Pohnpei in central Micronesia. Human selection for desired chemotype properties probably began around 3000 B.P. (Lebot and Siméone 2004), and the dispersal of the plant to other areas began within 200 to 300 years thereafter. In other words, kava's origin and original dispersal took place within the context of the Lapita tradition in Remote Oceania.

Certain elements of belief and practice are very widely shared by kava using peoples. At least three of them are further indicators that kava diffused from a single region of origin. First, all the peoples who use kava macerate the rootstock and root to prepare a drink. As Brunton (1989:61) pointed out, there is no reason why kava could not be consumed the way sugar cane is in Oceania—that is, chewed, the juice swallowed, and the pulp spit out. The most commonly used psychoactive plant in the Pacific, betel nut (*Areca catechu*), is consumed by chewing. The significance of the method of preparation and consumption of kava is that it differs from the use of all or almost all other psychoactive substances traditionally used in the Pacific. Thomas (2003) lists various flowers, pollens, leaves, nuts, seeds, fruits, aroids, gingers, and clubmosses that are used by New Guinea peoples for their psychotropic effects. Most are simply chewed and ingested; a few are smoked or are rubbed on the body. The bark of one plant, *Galbulimima belgraveana*, or white magnolia, is used with the leaves of another plant and boiled to make a tea said to induce deep sleep and vivid dreams or waking premonitions and visions. But no plant other than kava is first macerated and then infused in cold water. (Some groups on New Guinea's south coast forgo water and drink a mixture composed of saliva and the root's natural juices.) This distinctive method of preparation alone is sufficient to suggest a single region of origin.

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Another universal feature of kava's traditional use is that everywhere there were restrictions on who could drink it. These restrictions were typically based on some combination of gender, age, and, where relevant, rank, however determined in a society. Kava drinking was almost everywhere restricted to males. Prohibitions based on gender were trumped by rank in some chiefly societies such as Pohnpei (Riesenberg 1968:109). In other societies the restriction was relaxed after menopause (Brunton 1989:64), just as in some Melanesian societies old women play male-like roles in some rituals, e.g., Bimin-Kuskusmin male initiation (Poole 1982). The traditional prohibition against kava drinking by women stands in marked contrast to betel nut; in most Oceanic societies in which betel was/is chewed there are no gender restrictions.

Not only was kava drinking usually restricted to males, its use was typically restricted to senior men. In pre-Christian Fiji, for example, only senior men drank kava; younger men's involvement was restricted to preparing and serving it (Thomson 1908:341; Brewster 1922:18), a role played by a young woman in western Polynesia. In some places in northern Vanuatu drinking was even more restricted: only men of the highest ranks in the graded societies were permitted to drink kava. In general, the more restricted kava was in terms of the categories of persons permitted to use it or in terms of the contexts in which it was used, the more vulnerable it would be to abandonment. Again, like the restrictions based on gender, the restrictions against use by younger men and adolescents stands in marked contrast to betel chewing.

Brunton (1989:64–70) classified these restrictions based on gender and age as “widely distributed [features] whose arbitrariness is open to question”; that is, they may have some material basis. For instance, it has been argued that the prohibition against (most) women drinking kava can be explained by its supposed effects on fertility. Humphreys (1926:180) reported that on Erromanga in southern Vanuatu kava was not only believed to make women sterile, but habitual over-consumption was said to make men impotent (cited in Brunton 1989:67). However, there is no scientific evidence to support the claim of negative effects on fertility. There are recommendations that pregnant women refrain from kava drinking because of the possibility for harmful effects on the fetus. It is also suggested that, through stimulation of the uterus, kava drinking might induce a miscarriage. Fijians say that pregnant women should abstain for that reason. I do not know that anyone actually has, but one could argue that the blanket prohibition against women drinking may be motivated by the recognition that, in the early stages of pregnancy, women may not be aware of their condition. Over consumption can also induce nausea. On the other hand, modest amounts can have anxiety-reducing effects that could actually be beneficial in conception. Significantly, in Fiji, as in

other kava using areas in the Pacific, conversion to Christianity, colonial administration, and increased engagement in the modern world ended the gender prohibition with no negative consequences for fertility.

Whether fresh or dry kava is used, preparation takes time and effort; and given the generality of age-based divisions of labor and structures of authority in the Pacific, it is not unexpected that the work of making kava would be assigned to the young. One could argue that the social value of plant and drink, and perceived scarcity relative to demand, could be the basis of age-related restrictions. But like prohibitions based on gender, the restrictions based on age have been relaxed in many places (though those who drink kava together may be age-graded). Certainly in Fiji and Vanuatu there has been no reduction in the value of or demand for kava.

The wide-spread gender and age restrictions on kava consumption are clearly arbitrary inasmuch as they were religious rules. Rather than focus on those for whom kava was prohibited and material rationales for those prohibitions, we need to focus attention on those for whom kava drinking was permitted, even required in some cases. Kava drinking was restricted to senior or high-ranking men because they were the principal intermediaries between this world and the supernatural and were responsible for the ritual reproduction of society, a role complimentary to women's role in society's natural reproduction. As Brunton (1989:66) concluded, the very wide distribution of traditional prohibitions based on age and gender can be seen as a consequence of the diffusion of a "package" of practice and belief from a single region of origin.

A third widespread aspect of kava's use lends insight into the focus of this original ritual package: the drug's association with death. In earlier publications (Turner 1986:210–11; Turner 1995:108), I noted that the etymology of the Fijian term *yagona* and the Polynesian word *kava* linked them with poison, and that Tongan and Samoan myths about kava's origin link it to disease, death, and sacrifice. More significantly, kava often plays a key role in funerals (Pam, Lou, and Baluan in the Admiralties [Schwartz and Romanucci-Ross 1974]; Gogodala of Western Province, Papua New Guinea [Crawford 1981:98]; Bedamini [Sørum 1980:54]; Arosi of Makira/San Cristobal [Fox 1925:216]; Pentecost island, Vanuatu [Rivers 1914, vol. 1:212]; and Fiji). Indeed, some groups on New Guinea's north coast drink kava only in the context of death ritual. Among the Bargam people of Madang Province, Papua New Guinea, for instance, elders drink it while discussing the possible causes of a death (Sagir 1988:39).

Along with the associations with death, kava has had some macabre uses. While waiting in Port Vila for a boat that could take him to Malakula, A. B. Deacon (1929) collected what information he could about other islands. On

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Espiritu Santo in the Hog Harbour area (Sakao speakers?), when men of the highest grades in the Suqe died, their widows were given kava before being strangled and interred with their husbands (Deacon 1929). Again, in a remarkable instance of the value of oral tradition in archaeology, José Garanger (1997) was led to a site on Retoka, an islet off of Efate's west coast. Excavating what proved to be a burial mound, he found the remains of Roy Mata (or Roi Mata) a "stranger king" who arrived in Efate in the thirteenth century and established a domain that unified formerly warring groups. Garanger found not only the remains of this remarkable figure but also those of representative men and women from the various groups under his control, buried as couples. The men seemed to have been buried in repose but some of the women seem to have been buried alive, as their bodies lay contorted in death. Oral traditions recorded that the men had been rendered insensible by very strong kava, but prohibited from drinking kava; the women remained conscious during their interment.

Kava can be used for nefarious ends. In Fiji another term for sorcery, *drau ni kau* (literally, leaf of the tree) is *sova yaqona* (literally, pour yaqona). Fijians never drink kava alone, even when practicing sorcery. In that case just two people are involved, one who prepares the drink and the other who pours the yaqona out on the ground while uttering the curse. What informants stressed in describing this is the power or efficacy of the yaqona itself. Kava plays a role in sorcery in other Pacific island societies as well.

Paradoxically, despite the associations with poison, disease, and death, kava is also widely believed to be life enhancing. In Fiji it is believed that a person's mana can be nurtured or enhanced by drinking kava, for it itself is mana. Informants asserted this. In a Samoan myth, a boy whose laughter and play disrupted the kava drinking of the demigod Tagaloa Ui was punished for his disrespect by being cut in half by Tagaloa, who told the boy's father that the boy's body was to be the feast to accompany the kava. Another bowl of kava was prepared, and the first cup was offered to the demigod. Instead of drinking Tagaloa poured it over the two halves of the boy's body and said, "Soifua" (life to thee). The body was miraculously made whole again, and the boy was revived (Holmes 1967:109). This myth was told to explain the custom of *sa'asa'a*, the libation poured out before drinking (Te Rangi Hiroa 1930:155). Before drinking the proffered cup, one pours a few drops on the floor beneath the mats as a libation to the household gods (*tupua*). While doing so, one says *ia manuia* (be blessed). Those present respond with *soifua* or *ia manuia fo'i* (be blessed also) (Te Rangi Hiroa 1930:155; Mead 1930:105).

In keeping with the life enhancing virtue of kava, the peoples of the Pacific who drink it also use it medicinally. Lebot, Merlin, and Lindstrom

(1992:112–17) provide a useful survey of various medicinal uses of the plant by peoples of the Pacific. With respect to healing in general, sometimes sickness resists attempts at treatment or is believed to have root causes that can only be dealt with on a spiritual level. In Fiji traditional healers often use kava to gain insight into causation and the required treatment of illness (Katz 1993).

A common theme found in myths about kava's origins is that the first kava plant sprouted from a buried corpse (Lindstrom in Lebot, Merlin, and Lindstrom 1992:122–6). These include myths collected on Pentecost Island (Lebot and Cabalion 1988; Weightman 1989); Tonga (Gifford 1924:71–2); Kiwai, where Landtman (1927) collected three myths linking kava's origin to kangaroos, in one of which the first plant sprouted from the navel of a dead kangaroo; Upolu, Samoa; and Pohnpei, where kava is said to have first grown from a piece of skin from a man's heel buried in the earth (Riesenberg 1968; Bernart 1977). As Lindstrom pointed out (Lebot, Merlin, and Lindstrom 1992: 129), while these myths link kava to death and decay, these are deaths that give rise to life, a theme he refers to as the germinant corpse. This linkage between death and life, fertility, and growth is one Pacific solution to the pan-human conundrum: the relationship between death and life.

The key to understanding the ambivalence of kava—the duality of its meanings, associations, and uses—lies in its widespread association with the ancestors. Its religious value lies in its efficacy as a channel through which to communicate with them. Typically the ancestors are regarded as sources of knowledge and power who promote the welfare of their descendants and the fertility of the land and sea. At the same time, they may withhold and punish their own descendants or those that harm them. Pleased by the honoring of custom, they may punish lapses with failure, sickness, or death. In their relations with their descendants, ancestors often display the same ambivalent qualities attributed to kava.

THE MANA OF ANCESTORS

When Lapita peoples crossed the approximately 400km water gap between Makira (San Cristobal) and Nendo (Santa Cruz Island) they entered an island world, the gateway to Remote Oceania, a region with no indigenous inhabitants. Whether they sailed directly from somewhere in the Bismarck Archipelago (the “leapfrogging” hypothesis) or from some previously established foothold in the Solomons is uncertain. We do not know how much the terrestrial environment differed from what they had previously known, but to some degree it was more impoverished. Flora and fauna were more depauperate; in contrast with the New Guinea mainland, the Bismarcks have only one species of bandicoot, one species of wallaby, two species of phalanger, one type of cassowary, and four genera of rats. The Solomon Islands have no

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native bandicoot or wallaby, one species of phalanger, no native cassowaries, and three genera of native rats (Green 1991:494). The Solomon Islands have been recognized as a “Center of Plant Diversity” by the Convention on Biological Diversity with 4,500 species of plants, 3,200 of which are known to be indigenous (Convention on Biological Diversity, Solomon Islands Country Profile). The Solomons have also been recognized as an Endemic Bird Area. There are 223 currently known bird species, 82 percent of which are endemic. Vanuatu, the northern islands of which were settled at about the same time as the Santa Cruz Islands, has less biodiversity. The islands are geologically young and are highly impacted by tropical cyclones and volcanic activity.

Arriving in Remote Oceania, the first settlers would have encountered familiar plant species, as well as those that were endemic. One species familiar to them from their homeland was *Piper wichmannii*. We know from the Talepakemalai site on Eloaua in the Mussau group that at least some Lapita communities used *P. wichmannii* or some other species of Piper in some way, and it is likely that these first residents of Remote Oceania did as well, since it seems clear that *Piper methysticum* arose in the context of selection for desirable chemotypes of *P. wichmannii*.

There were other types of changes as well, as in the pottery they made. Language also underwent changes with the breakup of Proto-Oceanic, beginning no later than the date of first settlement in the Reef and Santa Cruz islands ca. 3100 B.P. From that point on any direct contact with communities on New Britain would have been infrequent enough for language changes to accumulate and transform dialect differences into language differences. Following Blust (2007:415) I will refer to this emergent daughter language as Proto-Central-Eastern Oceanic (PCEOc), a hypothetical ancestor of the languages of the central and southeastern Solomons, the languages of Vanuatu and New Caledonia, and the Oceanic languages of Micronesia, and Rotuman-Fijian-Polynesian.

According to Blust (2007), one of the changes that emerged in PCEOc was a semantic shift of the proto-Oceanic word *mana*. Blust (2007:409) claimed that POc **mana* had no connection with human agency, let alone primogeniture and genealogical rank. Reflexes of POc **mana* in the classic sense familiar to anthropology are not found in languages spoken west of the Solomons (they are absent on the New Guinea mainland, the Massim, the Bismarck Archipelago, and in any NAn languages). Blust (2007:415) pointed out that a number of languages spoken on the small islands of Papua New Guinea’s Milne Bay Province (D’Entrecasteaux Archipelago) have words that are reflexes of POc **mana* with the meaning “wind,” while on Satawal atoll in Yap State of the Federated States of Micronesia the word *manaman* means typhoon.

In addition to the more familiar meaning of supernatural power or efficacy, in a number of Polynesian languages (i.e., Tonga, East Futuna, East Uvea, Nanumea (northern Tuvalu), Tikopia, Takuu (or Takuu Mortlock), Sikaiana, and Rennell and Belona) the word means “thunder” or “to thunder” (Rennell-Bellona) or “sharp (as opposed to rolling) thunder” (Takuu). Blust (2007:413) pointed out that, while reflexes with this meaning are found in Tongic and four branches of Nuclear Polynesian, they are entirely absent from Eastern Polynesian languages. Reflexes of POc *mana, meaning thunder, are also found in a number of languages spoken in northern Vanuatu. (In one of them, Mota, “thunder” is *man*, while mana refers to “an invisible spiritual force or influence” (Codrington and Palmer 1896, quoted in Blust 2007:413, 419).

Since meanings referring to natural forces are found in both Polynesia and Melanesia east of the Solomon Islands while the more familiar meaning of “supernatural power or efficacy” is not, Blust (2007:416) concludes that “[t]here is no good evidence that POc mana referred to supernatural power that could be separated from powerful natural phenomena [or that] could be possessed by humans. Rather, it appears that POc speakers saw the powers of nature (thunder, the most powerful winds, etc.) as driven by a supernatural force called mana.” Within a few centuries, however, in their new homes in Remote Oceania, speakers of PCEOc attached an additional meaning to the word. While retaining the original meaning, they began to attribute mana “to other referents, most notably to persons of high genealogical status” (Blust 2007:416). I would modify this formulation in two ways: first, though genealogical criteria were important, mana in the sense of power or efficacy had to be demonstrated through actions; and second, the ultimate source of this efficacy was the ancestors as well as other spirit beings. This may not have been a new way of thinking about ancestors, but if Blust is correct, it was a new way of talking about their role in the lives of their descendants. Significantly, this is also the time period in which *Piper methysticum* seems to have been derived from its wild progenitor and diffused through Lapita trade networks and migrations. As argued above, in order for this new pepper species to have been discovered (or developed), the wild plant, *P. wichmannii*, must have been used and quite possibly cultivated (as some kava-drinking peoples do today). New chemotypes with more pleasant taste and effects would have been desirable trade items. Along with the new form of the plant, a complex of beliefs and practices relating to it spread beyond the region of origin in northern Vanuatu. Its value lay in its transformative effects; in the quietude it engenders, it opens the subject to that which lies within as well as that which lies beyond. It was (and is) a channel of communication with the ancestors and a conduit for ancestral mana.

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