What follows are three descriptive accounts of kava, a medicinal root found across Polynesia. The first part is an adaptation of one of the many Tongan legends about kava. The second part sketches my own experience of kava on a two-month visit there in November 1999. The third part is a brief summary of the evidence on kava’s clinical and pharmacologic effects.

THE LEGEND OF KAVA TONGA

It wasn’t looking good. By Maui! Who would choose to host His Highness the royal Tu’i Tonga in these times! What with the famine and everything. But hosting we were. And misery upon misery, the Tu’i Tonga was known as the glutonest food-gorger this side of ‘Eui’iki island.

Royal Free Hospital, London, England.
What days are these? Our Daughter already having been crippled by leprosy earlier this year, you would think the gods had it in for us.

But on arrival the Tu’i Tonga didn’t suspect a thing. The feast was in full swing. The oiled dancing girls. The musicians. The reams of decorative tapa paper. Even a magician from the islands of Samoa. The Tu’i Tonga appeared at ease. But we were nervous. We only had a meager supply of taro and potato, and the pigs had been skinny of late. They had never been the same since the incident with Laki Laki and the watermelons.

I looked at my Daughter with motherly concern. She smiled at me. A leper’s smile. Does she not remember what happened last time? It took an eternity and more to sort out her nose! She has a memory of a fruit bat! This cursed leprosy! This scurrilous disease! My Daughter, cursed by the gods. No doubt an evil joke by some mischievous tevolo spirit.

I looked at her again. Despite the occasional missing part, she was still large and voluptuous. Her thighs were trunk-wide. Her girth ample. Meaty even. And then an idea came into my mind. No doubt planted by some mischievous tevolo or other. I saw my Daughter in a different, a more gastronomic, light.

She was difficult to get into the oven. The ‘umu oven once held Finau’s famous sow, and that was a whopper for sure. But my Daughter was much larger than Finau’s famous sow and it necessitated chopping her into portions before cooking. But the task at hand made (fortunately) easier by her (unfortunate) condition, we had her cooked well-done before no time.

The Tu’i Tonga ate heartily. Never had such a feast been enjoyed in the history of ‘Eui’iki. He tucked into her thigh and demanded the tau’olunga, a dance more graceful than anyone had seen in this part of the world. All seemed to be going well. But then a crunch and tooth had dropped out. “Whose piece of jewelry is this?” he demanded.

“That belongs to my Daughter,” I replied nervously.

“And where is this Daughter of yours?” the Tu’i Tonga cried.

I gestured at the meat chops on the table. The Tu’i Tonga did not seem pleased at all. In fact he was most displeased.

“I am most displeased! What disgrace!” he shouted. “You must bury the rest of the feast!”

We were ruined. The Tu’i Tonga left the island furious. We returned home, humiliated. We buried the cooked leftovers of my Daughter in the garden. Oh what cursed lives we lead! Remember when we feasted on the Samoan? No one complained then. But no one speaks to us anymore.

Several weeks passed. And a curious thing occurred. At each end of my Daughter’s grave arose a plant. A sign surely from my Daughter. A miracle indeed! I tended diligently to each plant, watering them daily, caressing their pointed leaves.

One day I looked out onto the garden and saw a rat nibbling at the plant at the head of the grave. The beast! Had he no respect? Shoo! I stormed out to protest, but was shocked to find the rat staggering in a stupor. How strange! Bemused by the scene, I stood and watched. The rat then made its drunken way to the other side and nibbled the plant that arose from my Daughter’s feet. It suddenly became stone sober.

And so Tradition tells the story of how kava and the sugarcane were introduced to the people of Tonga, and forevermore they would know the magical properties of each. The Intoxicating kava. The Reviving sugarcane. However, as generations would testify, Tongans have always seemed to hold a special predilection for the former, rather than the latter.

MY STORY OF KAVA

December 1999. It is the eve of a new Millennium. I find myself at the brink of both Time and Space. I am at the end of the World, in the South Pacific. Teetering on the Dateline that demarcates Tomorrow from Today. The village of Felemea, on the island of Uiha, of the island group of Ha’apai, in the Kingdom of Tonga.

He emerges from the darkness and beckons...
me inside. The room is large and candlelit. On its floor lies a large mat of pandanus leaves. Along its walls sit various family members, mostly elderly, all of them male, whose forms cast eerie shadows. In the center sits the wooden kava bowl, still waiting to be filled with its ancient contents. ‘Ofa’s wife approaches the bowl with a bright red plastic bucket, formerly containing Tonga’s best dripping, but currently brim-filled with a muddy gray liquid that swishes and swashes with the sway of the container. All proceeds in silence.

Although I am confronted by the stillness, candlelight and the cool evening breeze relax me. The old men’s faces are beautifully haunting and I become entranced by the fluidity and serenity of the kava as it sloshes around in the bowl. Ripples ebb. Reflections dance. The gray stillness of the liquid undulates between opacity and transparency. Mirror mirror on the wall. What secrets lie in this sacred bowl?

‘Ofa pours the potion into the kava bowl and scoops it up with a coconut shell, offering it to the person adjacent. As is custom, the coconut shell makes its well-trodden way around the circle to the one opposite. He drinks the kava immediately and throws the remnants over his shoulder for the gods. The shell passes to me and I peer into its murky depths. I taste its bitterness. I feel its presence.


“Time to go,” uttered ‘Ofa, snapping me out of the trance. We bid farewell and I step into another type of stillness. One of solitude. Uiha, this small island seemingly lost somewhere at sea. I stoop into my fale beach hut, and fall fast asleep, lost in visions of oiled dancing girls, musicians, and reams of decorative tapa paper. And even a magician from Samoa.

EVIDENCE ON KAVA

Kava, the Tongan name for the Piper methysticum shrub (also called kava kava), means “bitter.” It is widely used in Polynesia, Micronesia, and Melanesia for both social and ceremonial purposes. Captain Cook documented the use of kava in Tonga in 1768. By 1998, it had already left the South Seas for farther shores and became one of the highest selling herbs in the United States with an annual turnover of approximately $8 million (Brevort, 1998). Local lore indicates a number of medicinal properties: sedative; anesthetic; antiseptic; diuretic; and appetite suppressant. But in the West, it is its use for anxiety that has been well-documented.

Pittler and Ernst’s systematic review of seven randomized controlled trials indicated that kava extract was superior to placebo as a symptomatic treatment for anxiety (Pittler and Ernst, 2000). Three of these trials were subjected to a meta-analysis demonstrating a significant difference in the reduction of the Hamilton Rating Score for Anxiety in favor of kava extract. However, it was noted that none of these trials were flawless, suffering from small sample sizes and poor description of randomization methodology. Pittler and Ernst published similar findings for the Cochrane Database (Pittler and Ernst, 2001). Kava’s anxiolytic action was also confirmed by animal behavioral studies showing that the kava compound, dihydronornorkava, attenuated separation–induced distress vocalizations and stress-induced analgesia in chicks (Smith et al., 2001).

Kava does not appear to have the same side-effects of dependence and sedation that are characteristic of benzodiazepines, the pharmacologic treatment for anxiety. Still, kava is not without its complications. Members of Captain Cook’s expeditions reported scaly skin eruptions and it is known that heavy drinkers can
acquire a reversible ichthyosiform eruption, kava dermopathy (Norton and Ruze, 1994). A more transient rash, perhaps accounted for by delayed-type hypersensitivity, has also been reported (Schmidt and Boehncke, 2000). Trials in Pittler and Ernst’s review indicated that abdominal problems, drowsiness, tremor and headaches were all documented side-effects (Pittler and Ernst, 2000). Furthermore, in Escher et al.’s case report, a 50-year old gentleman underwent a liver transplant following kava hepatotoxicity (Escher et al., 2001). The existence of hepatotoxic effects appears to be dependent on the preparation technique of kava in certain formulations, in particular, those that deliver a higher concentration of product than that yielded in the traditional preparation process (Denham et al., 2002).

A number of compounds from *Piper methysticum* have been shown to be pharmacologically active. These include kawain, dihydrokawain, yangoin, and methysticin. Their effects are consistent with the current psychopharmacologic understanding of anxiety involving gamma aminobutyric acid (GABA) systems in the central nervous system. Kava has been shown to modulate GABA-receptor binding in the limbic system (Jussofie et al., 1994) although another study failed to reveal any effects on GABA systems (Davies et al., 1992). Antinociceptive activities have also been demonstrated although a lack of inhibition by nalt oxone suggests nonopiate pathways (Jamieson and Duffield, 1990). A number of case reports indicate dopamine antagonism, including the exacerbation of “off” periods in a patient with Parkinson’s disease on levodopa (Schelosky et al., 1995). Complex effects on dopaminergic systems have also been reported in laboratory studies (Baum et al., 1998). In addition, like certain antidepressants, kava-kava extract has been shown to inhibit monoamine oxidase B (MAO-B) (Uebelhac et al., 1998). Other studies on kava compounds have indicated reductions of both calcium and sodium currents (Gleitz et al., 1995; Schirrmacher et al., 1999).

The evidence indicates that kava is an efficacious and relatively safe therapy for anxiety and is indeed becoming more popular in some Western countries. In Tonga however, people use kava as they have used it for generations, as a social lubricant and as a ceremonial artefact, irrespective of the auspices of evidence-based medicine.

**ACKNOWLEDGMENT**

This Photoessay is dedicated to Dr. Reuben Vallance, my grandfather, who recently passed away. He was a dedicated family physician who was seeing patients just up to the moment he died.

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