THE PAST AND PRESENT USES OF BAMBOO IN JAMAICA1

JOHN H. RASHFORD

Rashford, John H. (Department of Sociology and Anthropology, College of Charleston, Charleston SC 29424). The Past and Present Uses of Bamboo in Jamaica. Economic Botany 49(4): 395–405. 1995. Bamboos are useful to people wherever they grow, and in Jamaica, Bambusa vulgaris is no exception. Introduced in the 18th century, this bamboo is now well established, and has been put to a wide variety of uses from early on. This paper documents the past and present uses of bamboo in Jamaica.

El uso del bambú en Jamaica en el pasado y el presente. El bambú, donde se halle, es útil a la gente, y en Jamaica, Bambusa vulgaris no es una excepción. Introducido en el siglo XVIII, este bambú es bien conocido, y ha sido desde temprano destinado a una gran variedad de usos. Este trabajo documenta el uso del bambú en Jamaica en el pasado y el presente.

Key Words: bamboo, Bambusa vulgaris Schrad., Jamaica ethnobotany.

Although it is widely known that bamboos are extremely useful to the people of Asia, their value to inhabitants of the neotropics is not as well recognized. This paper documents the past and present uses of bamboo in Jamaica. Since its introduction to the island, the "common" bamboo, Bambusa vulgaris Schrad. - the "most common bamboo in the world" (Farrelly 1984)-has become ubiquitous and is used in a great variety of ways. Some 10 to 16 m in height (Little and Wadsworth 1964), this giant evergreen tropical grass grows in "clumps" formed by many culms clustered together at the base, or in many clumps forming dense stands that in Jamaica are called "bamboo walks" (especially when framing roadsides).

BAMBOO IN JAMAICA

Bamboo occurs in Jamaica from sea level to ca 1000 m elevation (Adams 1972). In addition to being "commonly cultivated around dwellings" (Jamaica Agricultural Society 1954), it is also a giant naturalized weed restricted primarily to river courses, ponds, water holes, roadways, inaccessible hillsides, pastures, and areas in "ruinate," i.e., agricultural land abandoned from cultivation (Eyre 1966; Johnston 1903; Lewis 1965; Symes 1971). Bamboo is now so wide-

It is generally believed bamboo was introduced into Jamaica from "Hispaniola" in the 18th century (Long 1972; Powell 1972), although opinions differ on whether it was the early (Storer 1958) or late 18th century (Anonymous 1910; Jamaica Agricultural Society 1954). Long (1972) said Wallen, who he described as an "ingenious gentleman" of the island, grew it on his estate called Chiswick in the parish of St. Thomas. Wallen and another Jamaican named Ellis, according to Long, were initially responsible for distributing the plant so that by 1774 bamboo was

spread that it is not surprising that "there are many Jamaican places called by the rather logical name of Bamboo" (Hawkes 1976). One of the best-known is a small town in the parish of St. Ann between Brown's Town and Claremont. Another is a "village" in the parish of St. Catherine which Alex Hawkes (1976) described as a place of "hospitable people" and "charming scenery." The most famous of the bamboo places, though, is "Bamboo Walk" in the parish of St. Elizabeth-identified as "Bamboo Avenue" in some publications (Fodor 1971; Sibley 1978). It is a 4 km stretch of Jamaica's main coastal road between Middle Quarters and Lacovia which is fringed by bamboo on both sides that meet to form an overarching canopy some 16 m above the road (Fig. 1). "Bamboo Walk" is one of the island's scenic spots, frequented by tourists, and often pictured in books and on postcards.

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1995]



Fig. 1. Bamboo Walk in the parish of St. Elizabeth. Photo by Paul Barton © 1988. Compliments of Crispin & Porter Advertising, Miami, FL 33133.

"flourishing in many different parts of [the] island."

TRADITIONAL USES

From the time of its introduction, bamboo has remained a useful plant to Jamaicans, even though its uses have changed as the island has developed. These changes can be attributed in part to the availability of imported pharmaceuticals and synthetic materials; the switch to zinc, wire and plastic; the use of cement blocks and lumber for construction; the substitution of man-

ufactured musical instruments, toys, utensils and tools; and, most of all to changing taste, since bamboo is traditionally used in many instances not because it is the best material, but because it is the cheapest and the most easily obtained.

Long's report (1972:753) of bamboo in 18th century Jamaica was published not long after its introduction into the island. He offered a planter's perspective that clearly recognized bamboo's potential value for large estates:

It is certain, [bamboo] ... may be regarded as a valuable acquisition to this island; and if it reaches

but to moderate bulk here, will be found extremely commodious for huts, and smaller buildings, various plantation utensils, conduit pipes, and other necessary uses.

Long was correct. By the early 19th century, Lunan (1814:43) reported that since it "was first planted in the parish of St. Thomas in the East, [bamboo] has... been very deservedly and very generally propagated, for it is a most useful plant." Nine years later, Stewart (1969) described it as "one of the most useful trees in the island" and so did Phillippo (1843) and Bigelow (1851) in the mid-nineteenth century. In summarizing his discussion of the plant's many uses in Jamaica, Stewart (1969:57–58) wrote:

In short, this excellent plant, which providence seems kindly to have placed within the planter's reach, so easily and quickly reared, and productive of so many benefits, should be cultivated, to a necessary extent, on every plantation where there is a scarcity of wood.

By 1883, bamboo was "utilized also for fibre purposes, being exported in a crushed state and packed by hydraulic pressure in convenient bales" (Morris 1884:16).

DOMESTIC USES

While it is not usually considered so, bamboo has been especially valued in Jamaica as a poor man's "timber tree" whose strong, woody culm is used for construction in a variety of ways. It is one of the cheapest forms of building material available to many people because it is widespread, a fact which reflects its ability to grow quickly in the most marginal of areas with the poorest of soils. Edwards (1961) was justified in listing bamboo as a "timber tree," even though its use in this regard has been limited by the fact that it is often infested with boring insects (Jamaica Agricultural Society 1954).

Although more so in the past than at present, Jamaicans, particularly in rural areas, use bamboo to make houses, detached kitchens, and fences. Bamboo is used in several ways in constructing houses. Sometimes the whole structure—poles, roof, and walls—are made from bamboo. Traditionally, however, the poles are made of hardwood and wattled bamboo or other material is used to make the walls and partitions. Excellent photographic illustrations of wattled houses are presented in Johnston's Jamaica: The New Riviera (1903). Walls are also made from culms split in half and placed vertically in an overlap-



Fig. 2. The making of a bamboo screen for a detached kitchen.

ping fashion—one turned outward overlapped by another turned inward and so on. I have seen one case where split culms were used for roofing; each half was laid down in a manner similar to the wall described above. LePage (quoted in Cassidy and LePage 1980:23) describes another kind of bamboo house as a "Building made from bamboo poles, with walls and roof of woven trash." In the case of detached kitchens (Fig. 2, 3), Cohen (1973:39–40) notes that among the Maroons "cooking [was] done usually in a separate structure either in a small, wooden enclosure, or in a bamboo booth adjacent to the main residence."

Bamboo fences, whether living or constructed of cut poles, have been common in Jamaica for a long time (Fig. 4, 5). In the early 19th century, Lunan (1814:44) noted that "As a live fence, [bamboos] . . . are excellent, coming quickly to maturity, and when full grown, which they will be in four or five years, are not only impenetrable to cattle, but afford them food in their leaves and young shoots, which they eat heartily." Today, a variety of bamboo fences serve to mark boundaries, protect plants, pen animals (Fig. 6) and secure privacy. Constructed fences include bamboo picket fences, different kinds of wattled fences

1995]



Fig. 3. A partially completed bamboo screen for a detached kitchen.

es and fences with bamboo rails (Cassidy 1961). Bamboo has also been incorporated into the construction of ornamental fences.

Other domestic uses of bamboo include screens, room dividers, and rough furniture, especially outdoor benches which are sometimes seen along roadsides (Fig. 7). Bamboo is also occasionally used for scaffolding.

AGRICULTURE

tioned above, bamboo has also been useful to land on the procedure for making one:



Fig. 4. A rough bamboo fence.



Fig. 5. The ornamental use of Bamboo with a stonewall.

Jamaicans in farming, especially animal husbandry. We noted above that in the early 19th century, Lunan praised the use of bamboo in pastures as a live fence and as a source of animal feed. Stewart (1969) who noted these uses also mentioned its value as a source of shade for cattle. In its 1954 guide to farmers, the Jamaica Agricultural Society describes bamboo as "often in pastures" and goes on to point out that:

The leaves . . . are a good stand-by in times of drought when other grasses are short. It may be fed to cows and it is said to increase a horse's stamina and ability to stand hard work better than the succulent grasses.

The Jamaica Agricultural Society also reports that "Bamboo is very popular for farm construction-fences, pig sties, fowl runs, rabbit hutches and feed hoppers, are all built of bamboo, to say nothing of its use for wattling houses and kitchens." One use of bamboo in animal husbandry is the making of a "fowl-nest" called a "bamboo pot." Cassidy and Lepage (1980:23) quote De-In addition to the domestic structures men-camp's 1958 instructions from the parish of Port-



Fig. 6. A bamboo pig pen.



Fig. 7. A bamboo bench made by a roadside vendor of "jelly coconuts" and sugar cane.

Plant a stout log of bamboo upright so that the top is 3 or 4 feet above ground; split the topmost section ... so as to produce about a dozen splints, all attached at the bottom, loose at the top, each splint being about 12 inches long; spread the splints outward and hold in position with a hoop of metal or withe; this produces a sort of raised basket, which is then lined with trash.

As with animal husbandry, bamboo is also used in many ways in the cultivation of plants. Some uses, as for example, "hoops for sugar hogshead" (Stewart 1969), no longer occur. Other uses, such as the bamboo terraces I saw in 1988 in the Wag Water valley in the parish of St. Mary, are limited. The same is true of bamboo conduits. Although bamboo can serve as a water pipe when the transverse walls of the nodes are removed from the hollow stem or from the stem after it has been split half, this has not been a common practice in Jamaica. Nevertheless, one commercial farmer growing ornamentals uses a bamboo irrigation system. It is probably also true that "bamboo storehouses" in the drier southern parts of St. Elizabeth and Clarendon are not as common today as when Edwards (1961) did his study of Jamaican small farming.

Other agricultural uses of bamboo that have been popular for a long time include arbors for growing vines (Fig. 8) such as the chocho or chavote (Sechium edule Swartz); garden stakes and trellises for tomatoes, beans and other plants; cages for protecting young trees from animals (especially along roadsides), and pegs used on large estates in eastern Portland and St. Thomas as markers for setting out lines along which bananas and coconuts are planted.

Because bamboo culms are strong, slender, tall,



Fig. 8. A bamboo arbor.

straight, and light, they make excellent poles that are ideally suited to be used in many ways, especially in agriculture. Bamboo poles prop up bananas and plantains and the branches of trees laden with fruits. Farrelly (1984:2) notes that in Central America, such poles have been "the preferred banana prop of United Fruit for many years." Among small farmers, bamboo poles frequently serve as yam sticks, an important use in a country where climbing root crops are vital (Fig. 9). So important is this use that Farrelly (1984:187) suggests bamboo "owes its distribution in Jamaica to spontaneous rooting of culm segments used as yam props ..."

Bamboo poles are especially important in agriculture as a reaping stick (Fig. 10), and throughout Jamaica they are traditionally used for such. Jamaicans are heavily dependent on a great variety of tree crops planted around their dwellings and in their fields. Many fruits like the breadfruit, Artocarpus altilis Fosb., are useless unless they are picked before they ripen and fall. Others like the star apple, Chrysophyllum cainito L., are inedible unless they are picked before they wither on the tree.



Fig. 9. Bamboo yam poles.

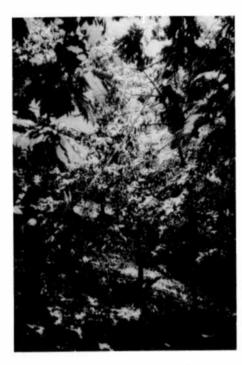


Fig. 10. Bamboo reaping stick.

EVERYDAY USES OF POLES

Bamboo poles are also used as clothesline props, so important in a country where most people depend on the sun and wind to dry their clothing. In the Papine market in Kingston, bamboo poles and the material from burlap bags and plastic bags are used to make tents that shelter sellers who, without a place in the market, spill out onto the parking area, walkways and roadsides. In this market I saw bamboo used to make a kind of tripod from which a scale was hung to weigh produce. Bamboo is also used for walking sticks, goal posts on soccer fields, and flag poles. The latter are usually associated with religious groups and places of healing such as "balm yards". Bamboo poles also serve as temporary guardrails along roads damaged by flooding or partially blocked by landslides. These guard-rails, which can be simple or elaborate, are also used to identify roadside construction and to temporarily replace retaining walls destroyed by vehicles or landslides (Fig. 11). Occasionally they are topped with a red flag.

OTHER CONSTRUCTION

An important contemporary use of bamboo as a "timber tree" is in constructing display boards,



Fig. 11. A temporary bamboo guard rail in the parish of Portland.

stands, stalls and booths. These structures are seen along roadsides throughout Jamaica and they are especially useful to those selling fruits or curios. On the north coast from Ocho Rios to Negril, one frequently encounters these structures where shells, carvings, coral and earrings are sold. Lawrence Dame (1977) of the parish of Manchester describes an encounter with a farmer selling "bush medicine" in Negril:

A tall, rangy chap of about 50, maybe less, Stanton Lightfoot learned about beneficial roots and herbs at his granny's knees. Then several years ago, he started wondering whether he couldn't turn that knowledge into cash. So he constructed a rude, roofless shelter of bamboo and spare bits of woods beside the road [my emphasis]. He put in a sort of counter, acquired some mugs and then started boiling up batches of nature's free bounty, as he would in making tea.

Temporary stands, stalls and booths are also built for special occasions such as sports events, weddings (and other church functions), fairs, parties, and school activities. In 1977, the annual Jamaican independence celebrations for the first time included plans for a "Festival Village." What happened shows just how important these temporary bamboo structures can be:

[The organizers]...blamed the Festival Village failure on the late arrival of the bamboo from the Forestry Department to construct the stalls, which they claimed...discouraged over 200 applicants for stalls (Anonymous 1977).

Bamboo is used in various ways by hotels, rural roadside bars and restaurants. Sometimes, as with some rural bars, it comprises much of the structure. At other times it is simply used as a facade or a decorative element. Some hotels use bamboo in the construction of thatched roof beach huts or cabanas used for bars or eating areas.

BAMBOO AS FUEL

Because it is plentiful, bamboo is used for fuel in Jamaica, though it is generally regarded as being of limited value. It cannot be stock-piled because it rots easily, and it is useless for charcoal, In fact, the hollow culm, which makes bamboo useful in so many ways (including kindling because it splits easily and burns quickly), also makes it a poor source of fuel. What little material there is, is soon consumed which means a bamboo fire must be continuously fed. One informant summed it up by saying "You can't use bamboo cook wid, it burn quick an you have fe keep push, push it." This fact is recognized by Jamaicans who speak symbolically of "bamboo love"—a love that blazes bright and hot but is short lived. Along similar lines, Cassidy and LePage (1980:23) indicate that "the very light ashes that remain after the bamboo is burnt [are] ... symbolic of something negligible." They cite Rampini (1873:87) who noted that when Jamaicans wish "to describe anything as very light and worthless [they say] . . . 'It is like bamboo ashes" (an expression still current.)

Although bamboo is, generally speaking, a poor fuel, in the absence or scarcity of other fuel, it becomes important as 19th century accounts (Stewart 1969) made clear. Lunan (1814:44) writes, for example, that:

The wood is a good fuel, and it has been suggested that, on estates, where copper wood is scarce, twenty or thirty acres planted in bamboos, would afford an inexhaustible supply of that necessary article, as, when cut down, they grow up again very rapidly and as vigorous as ever.

We should also note that in the late 19th century, Rampini (1873) reports seeing Jamaicans using "torches of split bamboos" when they went out at night to catch land crabs. Catching land crabs at night still continues, but torches made of bottles filled with kerosene and with cloth wicks were the most commonly used in eastern Portland, along with an occasional lantern or flashlight.

A MINOR ROLE IN THE DIET

Although *Bambusa vulgaris* is one of several bamboos whose shoots are widely eaten in Asia

(Harrison, Masefield, and Wallis 1973), this plant has never been generally regarded as a source of food in Jamaica. I have been told by a reliable informant that the shoots are eaten as a vegetable in parts of St. Elizabeth. Rampini (1873) reported the use of "bamboo tops" as an ingredient in Jamaica's traditional "pepperpot" soup.

HOUSEHOLD ARTICLES MADE OF BAMBOO

Bamboo is fashioned into a "cure stick"—a kind of spoon—used to remove cooked yam, banana, coco (Colocasia esculenta L. or Xanthosoma sagittifolium L.), and dumplings from the pot. Bamboo splits are used to make place mats and as skewers to barbecue small pieces of meat over an open fire. They are also used as stirring sticks in the preparation of various dishes and in the household production of chocolate.

BAMBOO CONTAINERS

The bamboo's hollow culm is ideally suited for making containers of all kinds. In rural Jamaica, it was traditionally used as a water canteen for traveling (Stewart 1969), or which farmers would carry to their fields. Rampini (1873) noted that while traveling in Bluefields in the parish of St. Elizabeth, he "met a child carrying a long bamboo on her head, filled with water from a neighboring stream—a plan which Bob Ian African Jamaican with whom he was traveling] pronounced to be superior to all the buckets and calabashes in the colony . . . " A bamboo container was also used to "cure" a mixture of "white rum," raisins and other fruits. It had a cork stopper, and the node that formed the base of the container was waxed to seal it, and to prevent it from rotting when it was buried in the ground. It was unearthed a week or two before Christmas to make fruit cakes and pimento liquor. The hollow culm was also traditionally used to make cups, vases, and flower pots. Such uses continue, but today we also find jars, lemonade sets, tea sets, jugs, mugs, spoons, salt and pepper shakers, pencil holders, desk organizers, saving banks, trinket boxes, tobacco pipes, and ash trays (Fig. 12). They are made for sale to tourists at the Kingston Craft Market and along the island roadsides, especially at Castleton Garden (Fig. 13), and on the north coast. Other items produced for the craft market include bamboo handbags and wastepaper baskets, as well as letter

1995]



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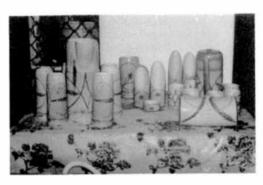


Fig. 12. An assortment of bamboo curios in the Kingston craft market.

openers, napkin rings, hand fans, and wind chimes.

The use of bamboo to make plant containers merits further mention here. Bamboo pots are sometimes used for house plants, but most people now depend on clay pots, tin cans and plastic containers. In the past, bamboo pots were regularly purchased to grow seedlings and they are still being used for the same purpose in the nursery of Hope Botanical Gardens in Kingston. Another type of bamboo container for growing plants is made by splitting the culm and constructing what is called a "bamboo basket." This container has found favor among some of Jamaica's orchid growers. Another kind of bamboo basket serves as an outer shell for large bottles to protect them from breaking. A wide variety of baskets are made in Jamaica, some woven entirely from bamboo, and some from bamboo combined with other materials.

BAMBOO AND FISHING

There has been a decline in the importance of bamboo to fishing. Fishermen in East Portland report that in the past bamboo joints were used to make floats for nets and markers for locating fishpots. The latter use continues today. In 1975, students in the parish of St. Thomas said they made bamboo pots and baskets for catching "jangga" (crayfish). The use of bamboo pots is an old practice in Jamaica, as Rampini (1873: 164) makes clear:

Underneath our house was a burn of crystal water, in which every evening our negro servant set his fish-pot for cray-fish and mountain mullet. His "pot" was a bamboo basket with a hole to admit of the entrance of the fish; and the bait was a Seville orange cut in two.



Fig. 13. Bamboo carvers at Castleton Botanical Gardens.

BAMBOO RAFTS FOR TRANSPORT AND SPORT

In Jamaica, bamboo is made into rafts used for fording rivers. In the northeastern parish of Portland, bamboo rafts have transported people and goods down or across the Rio Grande, the island's largest river. Today, rafting down this scenic river has become a favorite sport for Jamaicans and visitors alike (Fig. 14). A similar kind of recreational rafting has also developed on the Martha Brae River in the northwestern parish of Trelawny.

Usually 11 to 14 culms approximately 16 m in length are bound together to form a raft. It has a bamboo seat for 2 or 3 at the rear and the rafter stands at the front of the raft and guides it downstream with a bamboo pole. A raft does not last longer than 4 to 5 months. The continuous pounding of the culms against the gravel bed of the river causes them to split and become water-logged. It can take from 5 days to 3 or 4 weeks to make a raft and one of the greatest difficulties is obtaining bamboo of the right size and quality. Bamboo is common along the banks of the Rio Grande river but the culms are too small for rafts. The rafters say they have to go to the "bush" to get good bamboo and they stress the fact that this requires some effort. Today bamboo rafts are most commonly made for recreational use but they frequently appear in times of flooding. I saw bamboo rafts used to ferry people and possessions during the flooding that occurred in Jamaica in 1979 and 1986.

BAMBOO ORNAMENTS AND TOYS

Bamboo is fashioned into necklaces, bracelets, earrings, hair clips, pins, and buttons because it is easy to work and can be beautifully decorated

by carving, burning in the design, painting, polishing or varnishing. Bamboo fringes many rivers and pieces of the plant are transported to the sea. They are collected as driftwood along the beaches of the northeast and used as home decorations. The lower stem and the rhizomes are preferred because of their interesting shapes.

In Jamaica, the frames of small kites are made from the midribs of the coconut leaflets and the "skins" from paper bags, or from the pages of books, magazines and notebooks. Large kites are made of bamboo split and shaved to size, covered with a "skin" of newspaper or "grease paper" (wax paper), and decorated with colorful kite paper bought in shops and stores. A handheld spinner is made with bamboo branches and the seeds of the sea heart (Entada gigas (L.) Fawc. & Rendle. It is sold in the Kingston craft market and elsewhere.

Bamboo is used to make toy weapons that include spears, swords, bows and arrows, and a "bamboo gun" which is only made in some parts of Jamaica. The internodes are removed from a small bamboo and blossoms of the Malay apple tree (locally called "titi apple" or "Otaheite apple"), Syzygium malaccense DC., are placed at both ends. A smaller piece of bamboo is used to force the blossom in at one end, building up pressure and causing the blossom at the other end to be discharged with a loud "pop." One informant at East Portland said the bamboo guns "shoot far and lick hot" and that children would "get a beating" for picking the flower of the titi apple tree (though they also collected fallen blossoms from the ground) and for shooting them at playmates and others.

MUSICAL INSTRUMENTS

Bamboo, with its strong, hollow, tubular culms and branches, is ideally suited for making a variety of wind, percussion, and string instruments. In Jamaica, flutes, scrapers, vocal bases, bamboo trumpets (White 1982), an instrument called a bamboo stamping tube—and even a saxophone (Senior 1983)—have been made from bamboo. The traditional bamboo flute is called a fife and it is a key instrument in *mento*, one of the island's most important musical traditions. Bamboo fifes also appear in Jonkonnu bands in association with a variety of drums, cowhorns, scrapers and rattles (including jawbones and calabash rattles). Jonkonnu refers to a masked and costumed troupe of African-Jamaican street dancers who tradi-



Fig. 14. Bamboo rafts on the Rio Grande River in the parish of Portland.

tionally performed during the Christmas holidays. Bamboo scrapers are made from the hollow segment of the stem which is notched along one side. Another piece of bamboo (or other material) is then rubbed over the notches and the sound is amplified by the hollow tube. The vocal bamboo base and the bamboo trumpet are made by removing 2 or 3 of the internodes to form a long hollow tube that is used to amplify the voice. A bamboo stamping tube is one of the more interesting of the bamboo instruments made in Jamaica. As with the bamboo base, it is a long hollow tube that is rhythmically "stomped" on the ground from a vertical position to produce "a deep hollow sound" (Ryman 1984). Small bamboo violins are also made for sale to tourists. A joint of the culm is used to amplify the sound of strings formed by cutting small, thin strips between the nodes and elevating each with a bridge. It is tuned by manipulating the bridges and is played with a small bow.

BAMBOO IN FOLK MEDICINE

Bamboo is used medicinally in Jamaica (Asprey and Thornton 1955; Campbell 1974). The leaves are boiled with those of Guinea grass (Panicum maximum Jacq.) and white rum is added to the mixture. This "is said to be an excellent medicine for malaria and other fevers" (Asprey and Thornton 1955:80). The Windward Maroons "boil" bamboo leaves to treat fevers adding only the leaves of "fever grass" Cymbopogon citratus (DC.) Stapf, the widely popular West Indian lemongrass (Cohen 1973). This use of bamboo leaves in a decoction is reported by Morton (1981) who notes that the decoction is also used as a bath to reduce fever.

BAMBOO FOR LANDSCAPING, SCREENING AND EROSION CONTROL

Bamboo is frequently described as a "graceful ornamental" and it is cultivated in large gardens and incorporated in landscape designs.

Bamboo conserves soil along easily eroded roadsides, river banks, and steep hillsides. In the early 19th century, Lunan (1814:44) noted, for example, that "from the nature of their roots, when planted along the edges of such roads as are made on the sides of steep hills, they not only prevent the road from breaking away, but form an agreeable shade, and hide any frightful precipice from the eye of the traveler."

BAMBOO AND SPIRITS

A fundamental aspect of the traditional Jamaican world view is a belief in the existence of a spiritual realm, a key component of which is the existence of spirits of the dead called "duppies." Bamboo is among the 40 or so plants in Jamaica that are in one way or another associated with spirits (Rashford 1984, 1985). The belief is that spirits live in bamboo groves and in caves, mangrove swamps, forests, and especially in the branches and buttressed roots of the cotton or kapok tree, Ceiba pentandra (L.) Gaertn. "Lurking in the great chambers formed by . . . cotton tree roots," writes Beckwith (1969:89), "or in bamboo clumps, live the ghosts, and they come out from seven in the evening to five in the morning and at twelve o'clock at midday, appearing in some dreary place especially in the neighborhood of these trees." These spirits are also said to feed on "fig leaves" (Ficus spp.), the "duppy pumpkin" (Cucurbita spp.) and "bamboo root" (Beckwith 1969).

All plants associated with spirits in Jamaica are unusual in some respect. Some have a deceptive appearance, resembling or imitating things that are useful to humans. Some thrive in dark places or are active at night; some make strange sounds, produce strong smells, or for various reasons are associated with harm, danger, sorrow, graveyards and death. Bamboo is probably associated with spirits because of its singular appearance and its distinctive voice—the sound of the wind through its branches and leaves and its creaking culms. Cassidy and LePage (1980) point out that in Jamaica, a "bamboo bed" identifies "a rickety bed that creaks like bamboos in the wind." They cite DeCamp who notes that

bamboo is only occasionally used to make beds. The name refers, instead, to "any rough wooden bed [that creaks], usually made of boxes and boards."

CONCLUSION

Since its introduction in the 18th century, bamboo has become a familiar feature of the Jamaican environment. Although it cannot compare in commercial value to the island's principal agricultural crops, bamboo has proven suitable for a wide variety of uses as we have seen. While some uses have disappeared and others are disappearing, many traditional uses continue; and there will, no doubt, always be new uses discovered for this remarkably versatile plant. This is especially true when we consider the things that really make the bamboo one of the island's most useful exotic plants: it is naturalized, plentiful, durable, easy to work, and cheap. In fact, compared to its celebrated status in Asia, the bamboo could well be considered an underutilized resource in Jamaica, its full potential yet to be realized.

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LITERATURE CITED

- Adams, C. D. 1972. Flowering plants of Jamaica. University of the West Indies, Mona, Jamaica.
- Anonymous. 1910. Bulletin of the Department of Agriculture, Jamaica, Vol. 1(3):181-9.
- Anonymous. 1977. Money curbs, violence caused celebration to flop. The Jamaica Daily News, Kingston. August 4.
- Asprey, G. F., and P. Thornton. 1955. Medicinal plants of Jamaica. Part 3. West Indian Med. J. 4(2):80.
- Beckwith, M. 1969. Black roadways: A study of Jamaica folk life. Negro Universities Press, New York.
- Bigelow, J. 1851. Jamaica in 1850: on the effects of sixteen years of freedom on a state colony. George P. Putnam, New York.
- Campbell, S. 1974. Bush teas: a cure-all. Jamaica Journal 8(2&3):60-5.
- Cassidy, F. 1961. Jamaica talk. MacMillan & Co., New York.
- ____, and R. B. LePage. 1980. Dictionary of Jamaican English. University Press, Cambridge.
- Cohen, M. 1973. Medical beliefs and practices of the Maroons of Moore Town: a study in acculturation. Dissertation, New York University.

- Gleaner, Kingston, Jamaica.
- Edwards, D. 1961. An economic study of small farming in Jamaica. Inst. of Social and Economic Research, Mona, Jamaica.
- Eyre, A. 1966. The botanic gardens of Jamaica. Andre Deutsch Limited, London,
- Farrelly, D. 1984. The book of bamboo. Sierra Club Books, California.
- Fodor, Eugene, ed. 1971. Fodor's Caribbean, Bahamas and Bermuda, 1972. Hodder and Stoughton,
- Harrison, S., G. B. Masefield, and M. Wallis. 1973. The Oxford book of food plants. Oxford University Press, London.
- Hawkes, A. 1976. Jamaica places: Bamboo, St. Catherine. Hospitable people, charming scenery. The Daily Gleaner, Kingston, Jamaica. February 14.
- Jamaica Agricultural Society. 1954. The farmer's guide. Kingston, Jamaica.
- Johnston, J. 1903. Jamaica: the new Riviera. Cassell Co., Ltd., London.
- Lewis, B. 1965. Natural history. Pages 127-140 in Morris Cargill, ed., Ian Fleming introduces Jamaica. Hawthorne Books, Inc., New York.
- Little, E. L., and F. H. Wadsworth. 1964. Common trees of Puerto Rico and the Virgin Islands. (Agr. Hdbk. 249). U.S. Dept. Agr., Forest Serv., Washington, D.C.
- Long, E. 1972 (orig. 1774). The history of Jamaica: a general survey of the ancient and modern state of that island: with reflections on its situation, settlements, inhabitants, climate, product, commerce. laws, and government. Arno Press, New York.
- Lunan, J. 1814. Hortus Jamaicensis. Vol. 1. Office of the St. Jao de la Vega Gazette.
- Morton, J. 1981. Atlas of medicinal plants of Middle America. Charles C. Thomas, Springfield, Illinois.

- Dame, L. 1977. A countryman's diary. The Daily Morris, D. 1884. Cultivation and distribution of economic plants. Annual report of the public gardens and plantations for the year ending 30th September 1883. Government Printing Establishment, Jamai-
 - Phillippo, J. 1843. Jamaica: its past and present state. Dawsons of Pall Mall, London.
 - Powell, D. 1972. The botanic garden, Liguanea (With a revision of Hortus Eastensis). Inst. of Jamaica, Kingston.
 - Rampini, C. 1873. Letters from Jamaica. Edmonstron and Douglas, Edinburgh,
 - Rashford, J. 1984. Plants, spirits and the meaning of "John" in Jamaica. Jamaica Journal, Vol. 17, No. 2:62-70. May.
 - . 1985. The cotton tree and the spiritual realm in Jamaica. Jamaica Journal, Vol. 18. No. 1:49-57. February-April.
 - Ryman, C. 1984. Kumina: stability and change. ACIJ Research Review, No. 1. The African-Caribbean Institute of Jamaica, Kingston.
 - Senior, O. 1983. A-Z of Jamaican heritage. The Gleaner Co., Ltd.: Heinemann Educational Books (Caribbean) Ltd., Kingston.
 - Sibley, I. 1978. Dictionary of place-names in Jamaica, Institute of Jamaica, Kingston.
 - Stewart, J. 1969 (orig. 1823). A view of the past and present state of the island of Jamaica; with remarks on the slaves, and on the abolition of slavery in the colonies. Negro Universities Press, New York.
 - Storer, D. 1958. Familiar trees and cultivated plants of Jamaica, MacMillan & Co., Ltd., London.
 - Symes, G. 1971. The Jamaican Forest. Jamaica Journal 5(4):32-6.
 - White, G. 1982. Traditional musical practice and its influence on the birth of modern Jamaican popular music. In African-Caribbean Institute of Jamaica Newsletter, No. 7, March.