Tamarind: From Shady Refuge to Versatile Foodstuff

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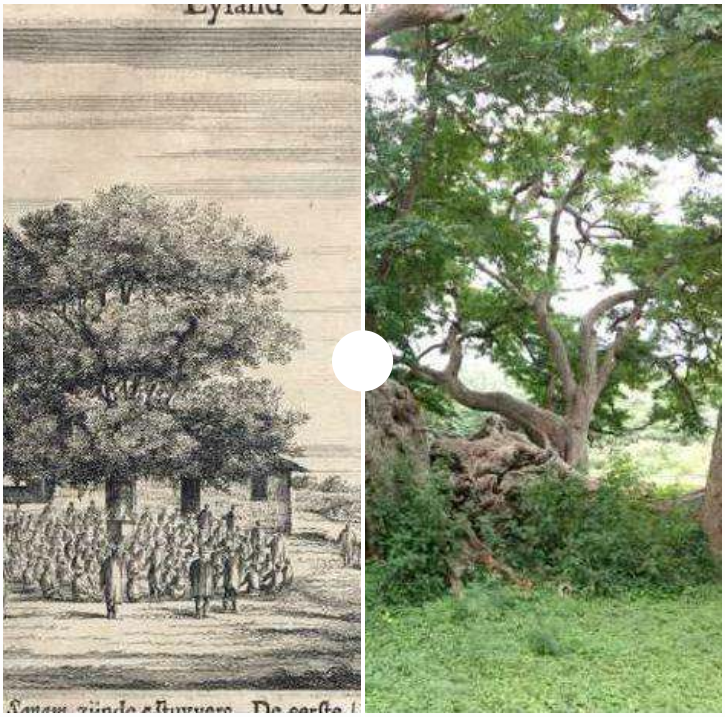
Sturdy Contradictions

The grand and imposing hard-wood tree *Tamarindus indica*, commonly known as the tamarind tree, has long been a contradictory plant: it is at once a place of refuge and site of danger, a medicinal purgative and a culinary shape-shifter, an ingredient in a thirst-quencher and a drought-tolerant species. And while the tree has been documented across historical and literary genres for millennia, its place of origin remains scientifically obscure. Genetic studies do suggest an African origin, though wood charcoal analysis confirms that the tree has inhabited India since at least 1300 BCE, leading some to argue it is indigenous to the region.[1] The tamarind narrative is rooted in so many singular places, but its global circulation speaks to the plant's long history and steadfast ability to grow in dry and hot climates.



Such contradictions have been explored through storytelling: the tree serves as creative inspiration, thematic motif, and simple theatrical site across myth, legend, and fiction.[2] The tamarind got its small leaves, according to a Bihar tribal story, when the exiled Lord Rama, Lakshmana, and Sita came upon a tamarind grove, where the tree's large leaves provided shelter. But Rama was convinced that they were meant to suffer during their exile and so he ordered Lakshmana to shoot at the leaves with his bow and arrow—the leaves have been split ever since.[3]

Tamarind leaves, 2010. Jyothish Kumar P.G, Flickr, CC BY...

Though many cultures venerate the tree as sacred or home to gods, some purport the tree's curses and dangers; some Indian and Caribbean communities warn that the tamarind is home to spirits. A Hindu legend illustrates how the tree became cursed: one day, Radha, goddess of love and compassion, was on her way to meet Krishna when she stepped on a piece of ripe tamarind fruit bark and cut her foot. Now late for her meeting with the god, she cursed the fruit to fall from the tree still unripe, as it does today.[4] The sheer pervasiveness of the plant in visual, oral, and written cultures across the globe speaks to its mythological status as both sprawling and rooted, exemplifying the sturdy contradiction that is the tamarind tree.

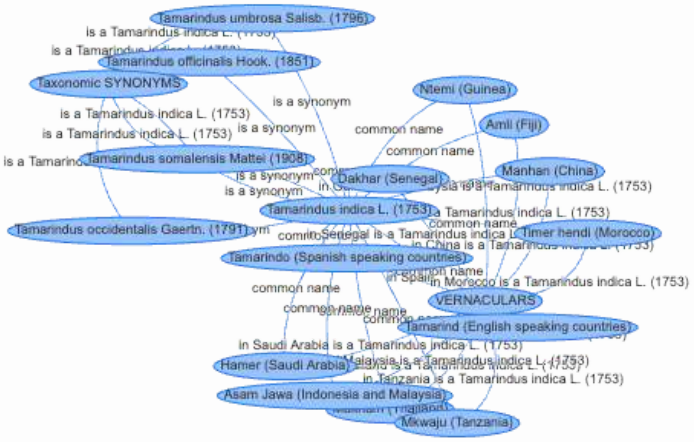
Krishna Woos...

Kama Aims His Bow at Radha, Gita...

Krishna Woos Radha, Gita Govinda (Loves of...

A Tree of Many Names

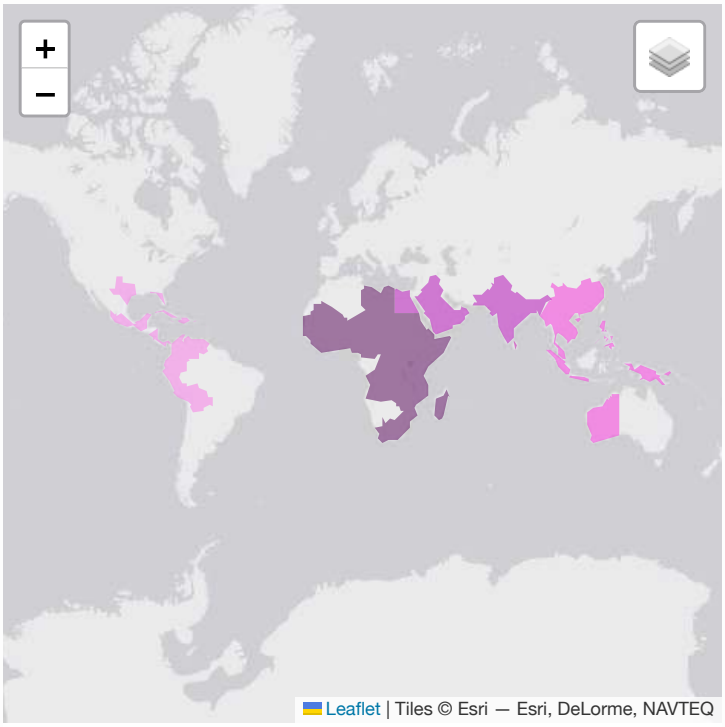
From a taxonomic point of view, *Tamarindus indica*, first described as such by Carl Linnaeus in *Species Plantarum* (1753), is considered the only species of the *Tamarindus* genus and a member of the Fabaceae family. This has not always been the species' name, however, as earlier scientific practitioners labeled the tree with taxonomic synonyms because they believed the genus to contain different species. Over the course of the seventeenth and eighteenth centuries, *T. indica* acquired six synonyms, with *Tamarindus occidentalis* Gaertn., or the "West Indian species," recurring most often in the botanical literature. The tamarind tree also has garnered a host of colloquial names across the globe.[5] *T. indica* derives from the Arabic *tamar-al-hindi*, or the date of India, so named after tamarind pulp's date-like color and texture, which is similar to the Ethiopian vernacular for tamarind, *tommar*.



The Tamarind's Locale

The tamarind tree is a nonendangered semi-evergreen fast-growing species. It is best suited to those regions characterized by seasonal dry forests, tropical seasonal forests, and savanna biomes.[6] These biomes' climates feature slightly strong thermal oscillation and concentrated rains during specific times of the year, resulting in water stress for plants during the dry season. As a drought-resistant tree, tamarind has the capacity to grow in poorly developed soils through nitrogen fixation, a feature shared by all species from the Fabaceae family. In addition, it can endure aerosol salt from windy coastal areas and sequesters carbon. For these reasons, it's not surprising that tamarind can be found in 54 countries along the plant's historical circulation routes. In the Sahelian region and many other parts of Africa, tamarind fruits collected from natural populations or individual trees are essential components of the nonmonetized hidden harvest of wild resources. The assessment of the economic importance of the tamarind fruits' hidden harvest requires estimating how much local populations would have to pay to replace these free resources.[7] As such, tamarind acts as an enhancer of agroforestry for small farmers and landless laborers in semi-arid areas in danger of desertification.

Some sources suggest that tamarind was introduced into India, the world's largest tamarind producer (and then spread to Southeast Asia) from Central Africa by Arab trade groups over land and sea. It is more likely, however, that Ethiopian merchants, who traded with India centuries before the Arabs, brought the plant to India via sea routes, keeping the long-lasting and nutritious tamarind pulp on board ships for food and drink. It is well-documented that the Arabs, perhaps after seeing tamarind thrive in India, traded the plant back to the Middle East and Europe.[8] From Europe, the plant moved west with Spanish and Portuguese settlers, who transported it to Central and South America and the West Indies.



Today, tamarind orchards are located across India with one of the oldest groves, Nallur Amarai, located just outside of Begaluru. This 54-acre grove and recently declared biodiversity heritage site is believed to have been planted during the Chola dynasty in the twelfth century, though the oldest dated tree is 400 years old. While the plant has been cultivated in orchards and grown as a large-scale crop for commercial purposes, the trees are most frequently referenced in historical literature as singular trees, small ornamental groves (frequently in the shape of bonsai, especially in South Asia), or along roadsides.

Old tamarind tree, Nallur heritage grove, Bangalore, India...

This is the case for the tamarind trees featured, in text and image, in the lavishly illustrated late sixteenth-century manuscript *Bāburnāma* (History of Babur), which details the life of Emperor Babur (1483–1530), founder of the Mughal dynasty. One of the first autobiographies in Islamic literature, the text was written in the Chagatai language and later translated into Persian for this manuscript at the behest of Babur's grandson, Emperor Akbar, so that his political and military exploits might be further disseminated. The finely detailed tamarind tree illustration seen here is described as a "very good-looking tree, giving dense shade" that "grows wild in masses," a depiction supported by the groves of tamarind trees that are referenced throughout Babur's travels.[9]

Tamarind Tree, Bāburnāma (Vaki'a...

As one of the largest trees in India, tamarinds have been incorporated into garden designs as a source of shade since the Mughal dynasty. Rooted in Persian traditions, Mughal gardens, called *charbaghs* (fourfold gardens), were characterized by ornate fountains and water systems.[10] The tamarind tree was often found in gardens like those built in Lahore by Emperor Babur's son, Kamran Mirza. Centuries later, during British colonial rule of the Indian subcontinent, tamarind trees were used in gardens and along roadsides by high-ranking officers. At the turn of the nineteenth century, though his plans were never realized, Governor-General of India Lord Wellesley attempted to line a section of the Great Trunk Road from a palace in Barrackpore to the Government House in Calcutta, with tamarind, mango, peepul, and teak trees.[11]

Bishndas, Babur supervising...

Shalimar garden 1

Tamarind's Medicinal and Culinary Uses

Virtually every part of the tamarind tree—seeds, fruity pulp, bark, root, and leaves—is edible in some form. Its fruit contains the rather unusual tantric acid that makes it simultaneously the "most acidic and sweetest fruit."[12] The acid's sweet-sour flavoring has a cooling effect in hot weather, which makes it a valuable ingredient in a wide variety of dishes and beverages and inextricably links the fruit to warm climates. Moreover, as French botanist Joseph de Tournefort (1656–1708) conjectured, the fruit's acidity lends itself to uncountable medicinal uses, such as a "purging medicine," a laxative, an aid in facial paralysis, and a flavoring to make more bitter or unpleasant medicines taste sweeter.

Jose Joaquim Freire, Tamarindus...

Tamarind is mentioned in traditional Sanskrit literature and traditional African medical texts like the *Kitab al-qawl al-sinna*. It also appears in the *Susruta-Samhita*, an Ayurvedic medicine text. With such a diverse array of uses—and its hearty ability to withstand hot, dry climates—the plant captured the imagination of colonists on the hunt for profitable crops. The well-known synonym *T. occidentalis*, for example, was included in physician and horticulturalist Henry Perrine's 1838 report to the U.S. Congress House Committee on Agriculture, in which he includes *T. occidentalis* as a notable crop of value.

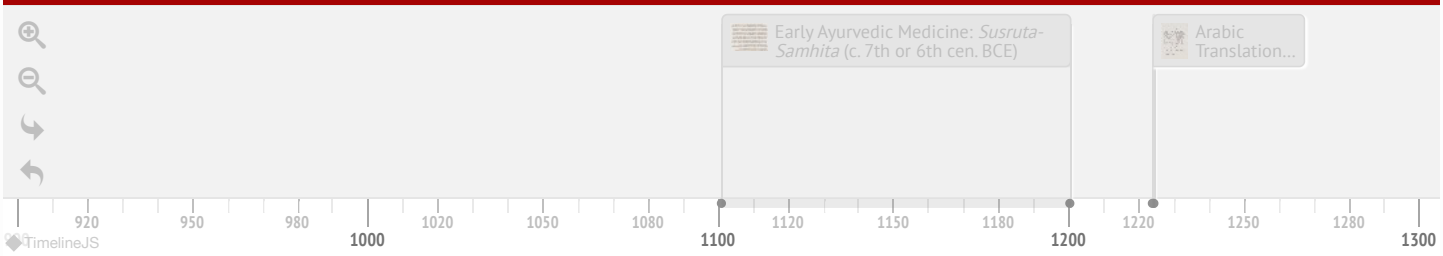
Judgefloro, 17 March 2018, Wikimedia Commons, public domain.

Tamarindus indica, Public Market of Baliuag, Bulacan, Philippines.

TAMARIND IN MEDICINE

Tamarind has been used for its medicinal properties for as long as it has been cultivated and grown by humans, from its origins on the African continent through its spread across what is now the Middle East, South Asia, Southeast Asia, and eventually to the Americas and Caribbean. What follows is an exploration through some of the medical texts and traditions in which tamarind appears over the millennia, up to the colonial era when tamarind was targeted for its many uses.

EARLY AYURVEDIC MEDICINE: *SUSRUTA-SAMHITA* (C. 7TH OR 6TH CEN. BCE)



Tamarind's resilience has made it a central part of herbal medicine practices across history. The seventeenth-century oil painting created after a design by the French printmaker Nicolas de Larmessin II portrays three men as the personifications of medicine, pharmacy, and surgery. At the center of the composition, the physician personifying medicine is cloaked in garb that bears the names of medieval authors central to traditional Western medicine, including Avicenna and Mesue, two Persian polymaths credited by Tournefort as key to the spread of knowledge about tamarind. Taking a closer look, just beneath the medicine man's hand, is a written prescription to treat medical ailments, and nestled within the text that includes "cassia" and "rhubarb" is none other than "tamarind."

Nicolas de Larmessin II, possibly after, Personifications o...

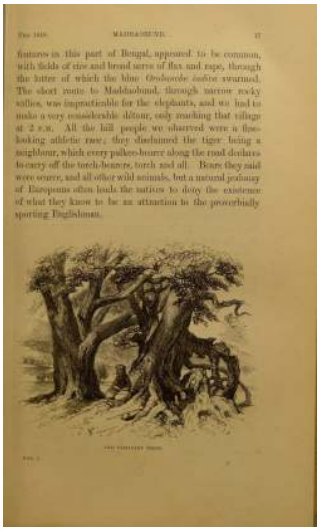
Tracing the appearance of the tamarind tree's commonly used parts across materia medica, travelogues, and cookbooks, is a means to track the dissemination of traditional herbal Ayurvedic medicinal knowledge through the peak of colonial expansion, to call attention to the colonial economic interests in *T. indica*, and to foreground the diverse religious and culinary cultures that the plant sustains.

Naturalis Biodiversity Center - L.0939530 -...

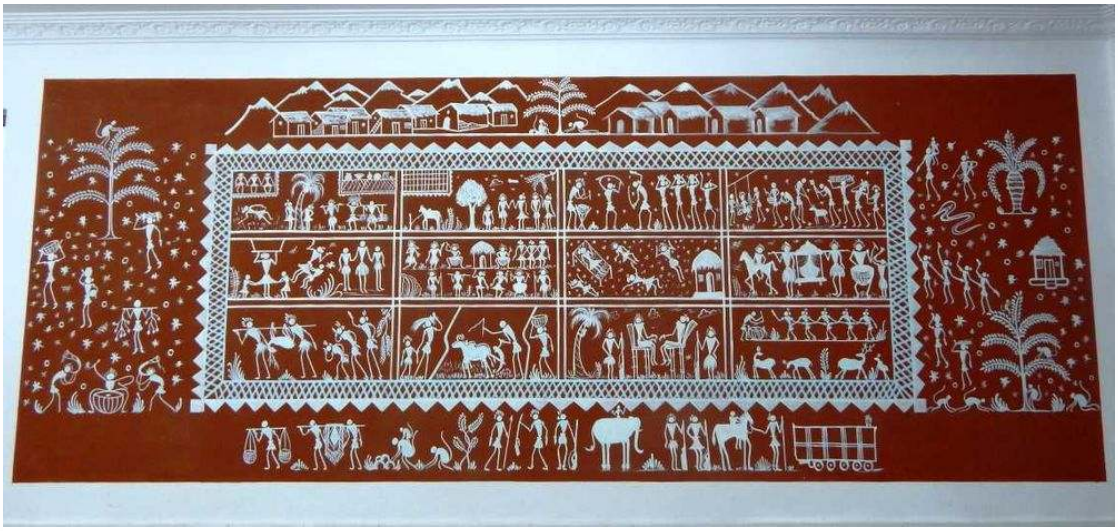
Tamarindus indica

Leaves

In its mature state, the tamarind tree's vast crown is a place of refuge. Because the tree can grow in developed areas, be it on the side of the road, in barren spaces, or in commercial areas, it's a common gathering place for people seeking relief from hot sun or congregating for sacred reasons.[13] In many cultures the tree has historically been considered holy. Tamil culture, for example, recognizes Puliyidaivalaiyamman as the tamarind tree deity who offers fruit as a blessing.[14] The leaves, young seedlings, and flowers that make up the crown are made into chutneys, added to sambar and soup.[15] Outside of the kitchen, the leaves, which contain tannins, can be used as a natural mordant to affix dye to textiles. In a medicinal context, the leaves can be dried or boiled for use as poultices to relieve swelling.[16]



Old Tamarind Trees,...



Idital Wall Painting

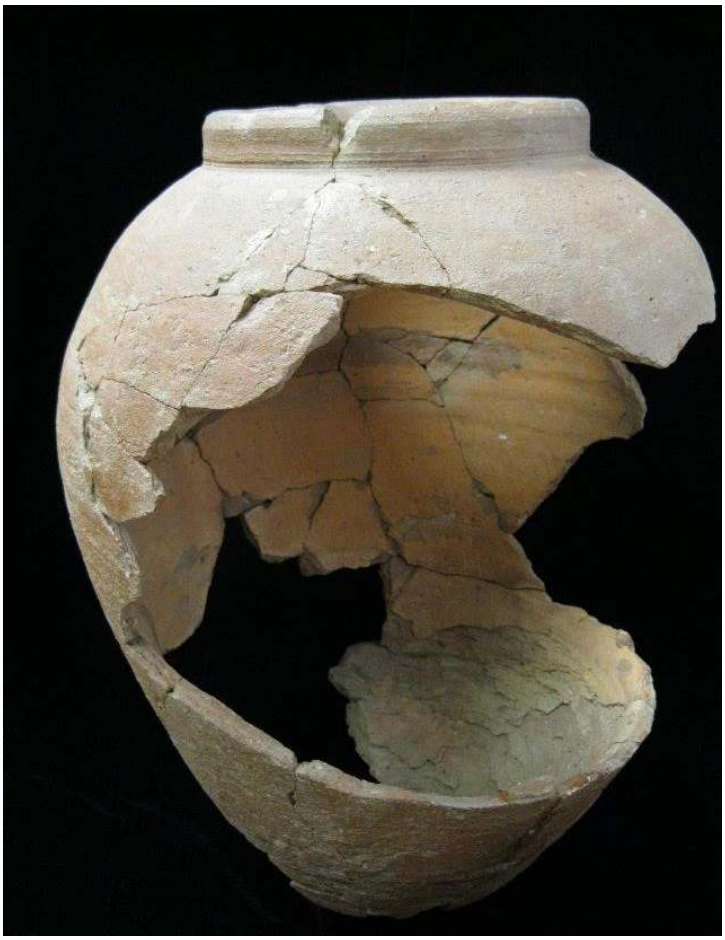
Seeds and Pods

Tamarind seeds are as versatile as they are valuable. When pilgrims flocked to the desert to meet Khorasan mystic poet and saint Abu Said (1305–1335), they paid good sums to obtain seeds from the tamarind tree he sat beneath.[17] Tamarind seeds are consumable in a number of ways: after they are soaked to remove the seed coat, they can be roasted, boiled, fried, or ground.[18] In Thailand, the ground seeds are used as a coffee substitute.[19] In Ayurvedic medicine, the shells of the tamarind pods are burned to create an “alkaline ash” to then be used in other recipes.[20] In addition to its culinary uses, the seeds can be made into a powder that is used in the textile and paper industries.[21] In India, Saura tribal painting in Orissa (now called Odisha) uses the tamarind seed’s natural brown hue to dye the background of paintings. Likewise, black lacquer, referred to as tamarind-seed script, was and continues to be used to create embellished Burmese characters in religious Pali texts like the *Kammavaca*, a decorative manuscript that details monastic duties.[22]

Amanda Almira Newton, Tamarind...

Burmese Kammavaca Manuscript, 19th century.

Fifteen-inch tall redware jars like the one housed at the Strawbery Banke Museum in Portsmouth, New Hampshire might have been used to carry and transport tamarind seeds and pods. The jar was found at the Marshall Pottery site in the 1970s, which had been used by the family of Samuel Marshall, a potter, and three enslaved African people named Mercer, Bess, and Adam. The jar is cited as possible evidence of tamarind's role in the history of trade between the New England city and the West Indies, as well as the interconnected significance of material culture and culinary history in the larger history of enslavement in the United States. The pods, carried and stored from the West Indies to New England, bore witness to the horrors of enslavement across time and trade.[23]



Shipping Container, redware, H. 15 inches, artifact...

Pulp

Tamarind pulp makes up roughly 30 to 50 percent of a ripe fruit.[24] The pods are picked at various stages in the fruit's life cycle for different flavor profiles. The sour fruit from immature pods is incorporated into pickles and chutneys, and is used to season rice, fish, and meat. The mature but unripe fruit can be eaten in food or independently, such as in the Bahamas where the pods are roasted on coals until the skins burst and the hot pulp is eaten coated in wood ashes.[25] The ripe mature pod, which contains a sweet-sour brown pulp, is used as a seasoning for sauces, curries, desserts, drinks, and in a variety of street foods, such as golgappa, pani puri, and phuchka in northern and eastern India.[26]

Tamarind (Tamarindus...

Jarred tamarind paste, 2018.

Puliyogare (Tamarind Rice), a...

Tamarind water is an immensely popular drink, both soothing and cooling, and is offered in restaurants and sold in markets, in the hot climates of Central America, Southeast Asia, and Africa. In north India, tamarind water infused with cumin, pepper, and other spices is a popular summer beverage known as jal jeera. Made by adding tamarind pulp to water and sweetened, tamarind water is easy to make at home—a quick YouTube search reveals dozens of how-to videos for making it.

TAMARIND DRINK | Tamarind Juice | Jehan Can Cook

Tamarind water has been around since at least the late medieval period as an enjoyable beverage and a medicinal drink. Marco Polo, in his travel accounts, observes merchants being “force[d]…to swallow a stuff called *Tamarindi*, mixed in sea-water” that results in “violent purging.”[27] A few centuries later, John Parkinson, apothecary to James I and Royal Botanist to Charles I, writes of tamarind in his *Theatrum botanicum* (1640): “it doth exceedingly helpe to assuage the thirst, if an ounce there-of be dissolved in faire water, and a little Sugar mixed therewith.” Parkinson notes that the drink is a particularly suitable thirst-quencher for “people of the hot countries.”

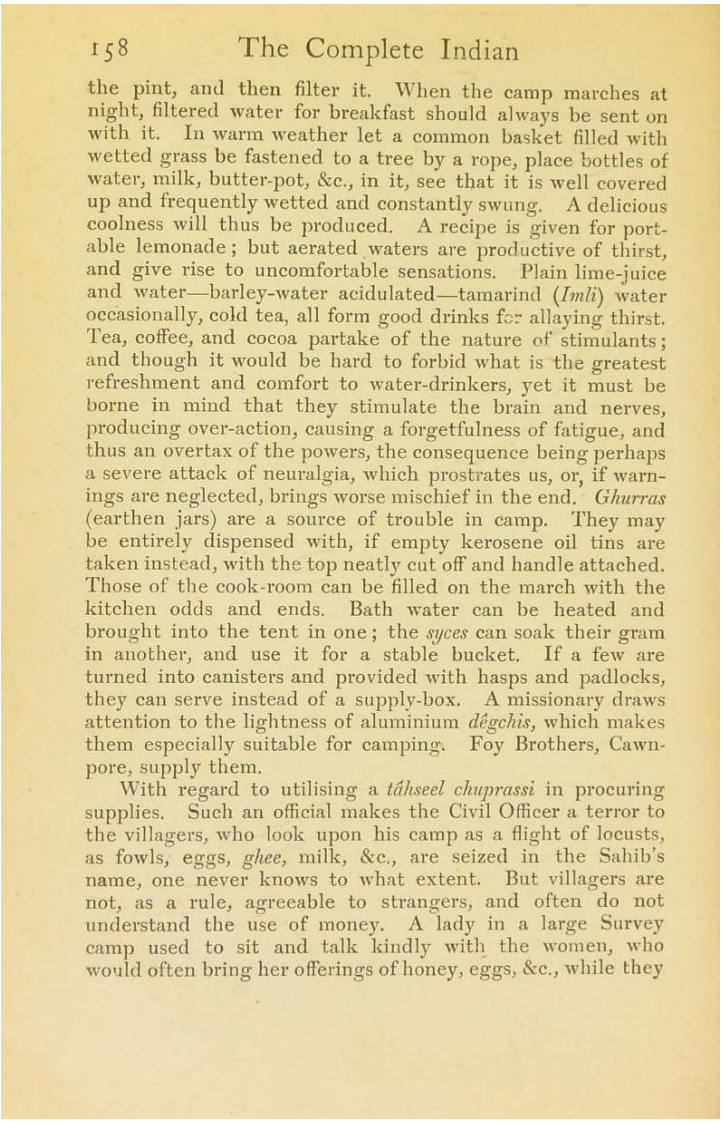
At the point of death during his travels to Africa, Gaspar...

Similarly, Mrs. A.C. Carmichael, a Scottish migrant to the British West Indies and wife of enslaver John Wilson Carmichael, points out in *Domestic Manners and Social Condition of the White, Coloured, and Negro Populations of the West Indies* (1834) that the tamarind beverage is drunk in ever-increasing quantities as settler-colonists spend more time in the tropics, resulting in more “relaxed constitution[s].” As Carmichael recounts, her own alimentary desires follow this shift: “During the first year I resided in St. Vincent, I never felt thirst between breakfast and dinner, unless I had walked or rode out during the heat of the day; but before I left the West Indies, I felt a great change in this respect, taking sometimes as many as six or seven large glasses of water in the forenoon.” Both Carmichael and Parkinson’s commentary expressly connects ingesting tamarind water to hot climates, and the people who occupy those areas. In this way, the two actively perpetuated a centuries-long discourse linking climate, health, and race that underpinned colonial rule.

Marianne North, African Baobab Trees, a Large Tamarind...

Cooking and Empire: Tamarind Recipes

Tamarind is most known for its culinary uses and is a staple in Indian cuisine. During or following their time in the British colonies, white women colonists like Mrs. Carmichael would often feature tamarind in English-language colonial cookbooks. Flora Steel and Grace Gardiner's 1909 *The complete Indian housekeeper & cook*, for example, instructs readers to use tamarind water to quench their thirst in the course of their missionary work. The authors refer to tamarind using the Hindi term "Imli," suggesting that their knowledge of the plant comes either directly or indirectly from those speaking Hindi. The cookbook does not offer any insight into how the British women gained access to the tamarind itself–there are no instructions for harvesting the pods from the trees or even directions for how best to acquire the plant from a market. This suggests that the British women could easily obtain tamarind. Some British cooks noted that when unable to import tamarind, they "had to rely on lemon juice (and sometimes sour gooseberries) as a substitute."[28] British cooks like Eliza Acton even advocated for the importation of tamarind "in the shell - not preserved" in an effort to replicate the cuisines made in India.[29]



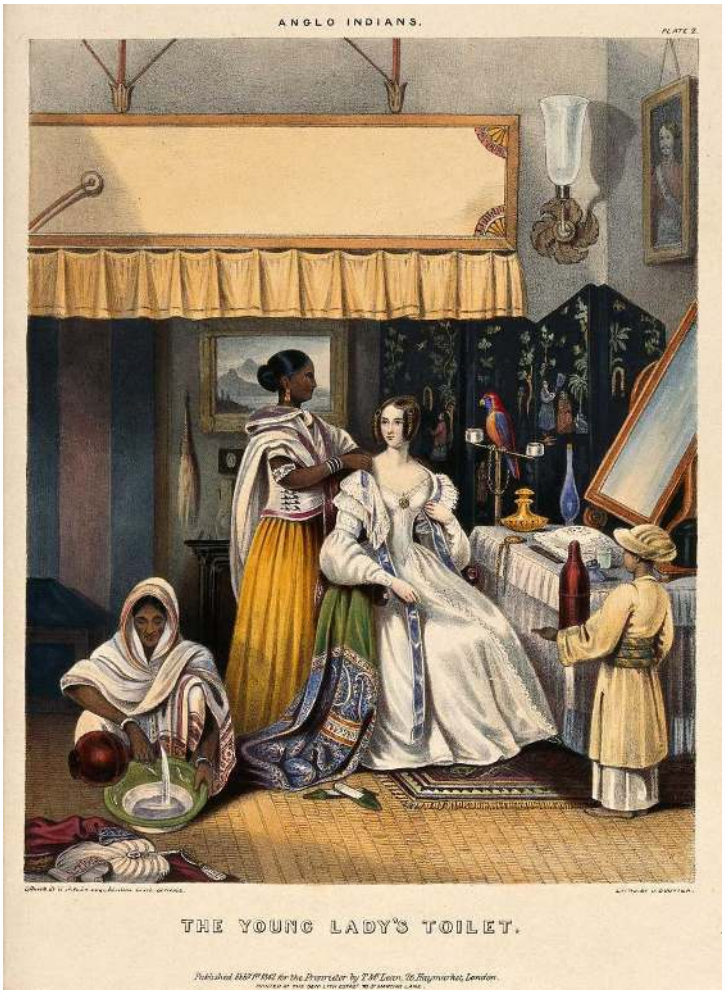
158 The Complete Indian

the pint, and then filter it. When the camp marches at night, filtered water for breakfast should always be sent on with it. In warm weather let a common basket filled with wetted grass be fastened to a tree by a rope, place bottles of water, milk, butter-pot, &c., in it, see that it is well covered up and frequently wetted and constantly swung. A delicious coolness will thus be produced. A recipe is given for portable lemonade; but aerated waters are productive of thirst, and give rise to uncomfortable sensations. Plain lime-juice and water—barley-water acidulated—tamarind (*Imli*) water occasionally, cold tea, all form good drinks for allaying thirst. Tea, coffee, and cocoa partake of the nature of stimulants; and though it would be hard to forbid what is the greatest refreshment and comfort to water-drinkers, yet it must be borne in mind that they stimulate the brain and nerves, producing over-action, causing a forgetfulness of fatigue, and thus an overtax of the powers, the consequence being perhaps a severe attack of neuralgia, which prostrates us, or, if warnings are neglected, brings worse mischief in the end. *Ghurras* (earthen jars) are a source of trouble in camp. They may be entirely dispensed with, if empty kerosene oil tins are taken instead, with the top neatly cut off and handle attached. Those of the cook-room can be filled on the march with the kitchen odds and ends. Bath water can be heated and brought into the tent in one; the *syces* can soak their gram in another, and use it for a stable bucket. If a few are turned into canisters and provided with hasps and padlocks, they can serve instead of a supply-box. A missionary draws attention to the lightness of aluminium *dêgchis*, which makes them especially suitable for camping. Foy Brothers, Cawnpore, supply them.

With regard to utilising a *tâhseel chuprassi* in procuring supplies. Such an official makes the Civil Officer a terror to the villagers, who look upon his camp as a flight of locusts, as fowls, eggs, *ghee*, milk, &c., are seized in the Sahib's name, one never knows to what extent. But villagers are not, as a rule, agreeable to strangers, and often do not understand the use of money. A lady in a large Survey camp used to sit and talk kindly with the women, who would often bring her offerings of honey, eggs, &c., while they

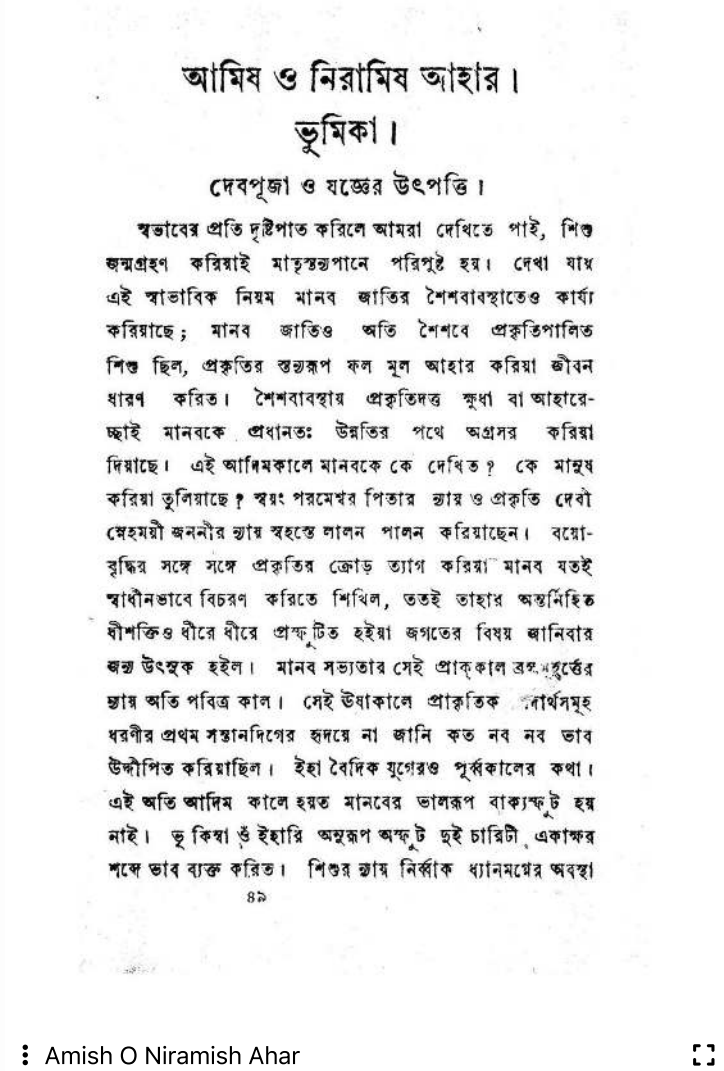
The complete Indian housekeeper & cook : giving the...

Historically, upper-class white British women in India, or memsahibs, employed servants to do their grocery shopping, but notably their role in acquiring and obtaining tamarind is barely mentioned in the British women's cookbooks. Nupur Chaudhuri argues that memsahibs contributed to creating "an image of an Indian servant class which they, their friends, and families generalized to all Indians," and that they did so through their personal correspondence, letters in magazines and periodicals, and also in their published cookbooks.[30]



J. Bouvier, after W. Tayler, A female Anglo-Indian at her...

Tamarind has been used as an ingredient in chutneys, curries, and pickles throughout Indian culinary history. Historian Lizzie Collingham describes how, after its arrival in India from eastern Africa via Arab traders, tamarind helped characterize South Indian cuisine, known for its rich sauces and "sour notes."[31] The use of tamarind is not limited to South India, however, and appears in cuisines across the country and South Asia at large. One notable chapter in colonial Indian culinary history is detailed in Chitra Deb's *Women of the Tagore Household*, a history of the women in the Bengali Brahmin family. Deb writes that "cooking was an artform for women… one of their main modes of expression of their artistic abilities."[32] Deb's book contains many stories of these fascinating women, but she pays particular attention to the culinary prowess of Mrinalini Devi, wife of Rabrindranath Tagore, and Pragyasundari Devi, daughter of Hemendranath Tagore, Rabrindranath Tagore's niece.[33] Pragya, as Deb refers to her, is known for her 1902 publication of the Bengali cookbook *Aamish O Niramish Aahar*.[34] Of the many dishes that Deb cites from Pragya's cookbooks, she notes a *Saraswati ambol* made from tamarind and a curried raw tamarind with alum as two of Pragya's most fascinating creations.[35]



আমিষ ও নিরামিষ আহার।

ভূমিকা।

দেবপূজা ও যজ্ঞের উৎপত্তি।

স্বভাবের প্রতি দৃষ্টিপাত করিলে আমরা দেখিতে পাই, শিশু জন্মগ্রহণ করিয়াই মাতৃস্তন্যপানে পরিপুষ্ট হয়। দেখা যায় এই স্বাভাবিক নিয়ম মানব জাতির শৈশবাবস্থাতেও কার্য্য করিয়াছে; মানব জাতিও অতি শৈশবে প্রকৃতিপালিত শিশু ছিল, প্রকৃতির স্তন্যরূপ ফল মূল আহার করিয়া জীবন ধারণ করিত। শৈশবাবস্থায় প্রকৃতিদত্ত ক্ষুধা বা আহারেচ্ছাই মানবকে প্রধানতঃ উন্নতির পথে অগ্রসর করিয়া দিয়াছে। এই আদিমকালে মানবকে কে দেখিত? কে মানুষ করিয়া তুলিয়াছে? স্বয়ং পরমেশ্বর পিতার ন্যায় ও প্রকৃতি দেবী স্নেহময়ী জননীর ন্যায় স্বহস্তে লালন পালন করিয়াছেন। বয়োবৃদ্ধির সঙ্গে সঙ্গে প্রকৃতির ক্রোড় ত্যাগ করিয়া মানব যতই স্বাধীনভাবে বিচরণ করিতে শিখিল, ততই তাহার অন্তর্নিহিত ধীশক্তিও ধীরে ধীরে প্রস্ফুটিত হইয়া জগতের বিষয় জানিবার জন্য উৎসুক হইল। মানব সভ্যতার সেই প্রাক্‌কাল ব্রহ্মমুহূর্ত্তের ন্যায় অতি পবিত্র কাল। সেই উষাকালে প্রাকৃতিক দৃশ্যসমূহ ধরণীর প্রথম সন্তানদিগের হৃদয়ে না জানি কত নব নব ভাব উদ্দীপিত করিয়াছিল। ইহা বৈদিক যুগেরও পূর্ব্বকালের কথা। এই অতি আদিম কালে হয়ত মানবের ভালরূপ বাক্যস্ফুট হয় নাই। ভূ কিম্বা ওঁ ইহারি অনুরূপ অস্ফুট দুই চারিটী একাক্ষর শব্দে ভাব ব্যক্ত করিত। শিশুর ন্যায় নির্ব্বাক ধ্যানময়ের অবস্থা

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Amish O Niramish Ahar

Just as tamarind has been present in colonial kitchens, it has also been used by the people displaced by colonial regimes as an avenue to create community. Hawa Hassan and Julia Turshen's cookbook *In Bibi's Kitchen* (2020) features elder women's (grandmother's) recipes through the lens of their larger communities. The South African section most prominently features tamarind, highlighting the culinary traditions of the Cape Malay people who are descendants of enslaved Muslims forcibly brought to South Africa by the Dutch East India Company. The grandmothers share a recipe for Denningvleis, a sweet-and-sour lamb stew. In the introduction to their cookbook, Hassan and Turshen stress the care and respect they brought to its contents, written outside of the white male gaze that has dominated so much of tamarind's determined value on a global market since the height of empire. The authors take pride in the everyday home cooking of the elder women they interviewed and feature–everyday cooking that utilized tamarind before, despite, and after European colonization.

Bo-kaap, the old Malay quarter of Cape Town, South...

The Story of a Tamarind Tree

Tamil writer Sundara Ramaswamy's 1966 novel *Oru Puliyamarathin Kadai* (Tamarind History) begins "There is no road that does not end at the base of the tamarind tree." Described in one review as a *sthala purana* (place-legend or narrative of a place), the novel's opening pages describe one village's lone but vibrant tamarind tree alongside its various human-projected monikers—silent witness, self-reliant, mother-tree, beacon of dignity—before informing the reader that it was destroyed. As a narrative of the tamarind tree's "living and dying," the novel depicts the tamarind as both an ancient witness to and active participant in human movements, reminiscent of the tree's uses in spreading and growing pods that quench thirst even in the driest of environments. Tamarind's steady presence in storytelling, from ancient myths to the postmodern novel, is a testament to the plant's enduring uses as a foodstuff.

Frederic Edwin Church, Indian Tamarind Trees in Jamaic...

Interestingly, tamarind has also been the source of the material on which stories are literally written. In his important text *The materia medica of the Hindus*(1877), Uday Chand Dutt includes accounts of how some of the manuscripts he referenced to compile his own text were made from tamarind-seed emulsions: the emulsions were used to make paper providing a surface for easy writing. Perhaps it is no surprise that such an eminently useful plant would help inspire stories as well as serve the purpose of recording narratives, recipes, and histories of which it so often played an important, and ubiquitous, role. The tamarind continues to be a sturdy contradiction even into the present, as we continue to learn from the plant's many complexities.

Sweet tamarind, 2007.

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