Interesting Beverages of the Eastern Himalayas[1]

H. GARRISON WILKES[2]

Beverages as Food

The eastern Himalayas is a region of perpetual mist characterized by very high mountains. The Tibetan border with Sikkim and Bhutan is located in these mountains. As warm air rises from the Indian lowlands, it forms thick cloud banks which completely engulf travelers traversing along ridges or over mountain passes in this region. Therefore, it is not surprising that warm beverages play an important part in the daily food habits of the inhabitants, accounting for one-quarter to one-half the daily caloric intake.

The native inhabitants of this region are the Tibetans, Lepchas, Bhutanese, and Gurkhas. The agricultural Tibetans live in the densely populated great valley of the Tsang-po and the valleys of its many affluents. In the agricultural provinces, the Indian monsoon brings 10–40 inches of rain from July to September, and here, between 6,000–13,000 ft, the cereals and vegetables of Tibet are grown under irrigation. The people are of a compact physical build and are broad-faced, with Mongolian features and almond skin. The Lepchas are in all probability the native inhabitants of the valley of Sikkim, south of the Tsang-po, a confined region bordered by Nepal on the west and Bhutan on the east. The Sherpas of Everest are almost all Lepchas. The Bhutanese are closely related to the Tibetans, and many of their customs and habits are distinctly Tibetan. Both the Lepchas and Bhutanese are vastly outnumbered in Sikkim and the immediate Darjeeling area by the Gurkhas, many of whom have left their own overcrowded country of Nepal in recent times.

Just as this region, the eastern Himalayas, is characterized by its people, so its beverages are distinct. Throughout Tibet, whether it be in the high country, characterized by extremes in dry cold and intense sun action, or the more moderate central provinces of the Tsang-po Valley, the day begins with tea fixed in the Tibetan manner. In Sikkim and Bhutan, tea is also the first item of the day, but its preparation in Sikkim is similar to the Indian concoction, while in Bhutan it may be prepared in the Tibetan way. Mid-morning is the proper time for social visits in Sikkim, and tea is always proper. Later in the day, beer, *chang*, will have been consumed by all except the very poor in the central provinces of Tibet. The malt liquor of Sikkim and Bhutan is called *marwa*.

Tea

The tea grown at Darjeeling is world famous for its fine quality. Bazaar bulk tea or leaves gathered from isolated plants is the common tea source for the Lepchas and Nepalese. Bazaar bulk tea is not cheap, the quality purchased depending on the economics and taste of the purchaser. When tea is prepared in concoction, it is steeped in boiling water to which boiled milk and sugar are added. This concoction is always kept warm and ready at the tea house. On the ridges, the milk is seldom skimmed, but it may be at valley stations. The tea of ridge stations is often prepared by first making a boiled tea infusion which is highly concentrated. This concentrate is added to boiling water and then to a milk, sugar and water solution. The concoction is mixed and cooled by pouring from one container to another and served in a goblet-shaped tumbler of brass or bell metal. The metal warms the hands and the tea quickly cools.

The price of tea (2 annas) is the same throughout India and Sikkim. The coolies do buy a 1.5 anna and sometimes an anna tea

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[2] Assistant Professor of Biology, Tulane University, New Orleans, Louisiana.

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with more tea concentrate and boiling water and less milk and sugar. Often concentrate enough for the day may be prepared, the leaves and pieces removed and set off the fire, to be added to boiling water and watered milk and sugar immediately before serving. The preparation methods for tea vary from place to place but seldom, if ever, are substitutes for tea used, although tea leaves may be used twice.

The preparation of Tibetan tea is distinctive and characteristically Tibetan, yet tea grows nowhere in Tibet. During the 7th Century A.D., under Srong-tsan Gam-po, Tibet established itself as an aggressive power, overrunning upper Burma and western China. After continued harassment of the western borders of China, King Srong-tsan Gam-po was bought off with the gift of the Chinese princess Wen Ch-eng in 641 A.D. This Chinese princess was very influential in opening the mountain kingdom to the advanced religious and cultural traditions of its neighbors. The Tibetan language was set to a Sanskrit-derived alphabet and a decadent form of Indian Buddhism fused with the national Bombo demonolatry to form Tibet's Lamaistic religion. From the east, Chinese technology (pottery making, water mills and looms) and customs entered Tibet, and it was during this period that Tibetans were introduced to rice wine (*samshu*) and barley malt (*chang*). The capital was transferred to Lhasa, and construction of the Potala Palace was begun. By the end of the 8th Century, the Tibetan culture had taken the form that we know today.

By tradition, it was Srong-tsan Gam-po's grandson who is credited with the introduction of tea into Tibet from China. According to Das (1902), the use of tea was not universal until the Phagmodu kings. The Phagpa came to power in 1260 A.D. under the Emperor Kublai. Most authorities agree that the use of tea by the common people began at a much later date, possibly as late as the second half of the 17th Century.

The earliest record that I know for the preparation of Tibetan tea by a western observer is that of the traveler in the Himalayan provinces of Hindustan, William Moorcroft (1821).

"The diet of the Ladakhis, and of the Tibetans generally, is nutritious and wholesome, and is remarkable for the prominent share which is taken in it by tea. All classes of Tibetans eat three meals a day. The first consists of tea, the second of tea, or of meal porridge if that cannot be afforded; the third of meat, rice, vegetables, and bread by upper, and soup, porridge, and bread by the lower classes. For a breakfast of ten persons this would be the preparation: about an ounce of black tea, called here zancha, and a like quantity of soda, are boiled in a quart of water for an hour, or until the leaves of the tea are sufficiently steeped. It is then strained and mixed with ten quarts of boiling water, in which an ounce and a half of fossil salt has been previously dissolved. The whole is then put into a narrow cylindrical churn, along with the butter, and well stirred with a churning stick till it becomes a smooth, oily, and brown liquid, of the colour and consistence of chocolate, in which form it is transferred to a tea-pot of silver or silvered copper, or brass, for the richer classes, ornamented with flowers and foliage, and grotesque figures of leopards, crocodiles, dragons, or heads of elephants, and the like, in embossed or fillagre work. The poorer people use plain brass or tinned copper tea-pots. Each man has his own cup, either of China porcelain, or, which is more common, made out of the knot of the horse chestnut, edged or lined with silver, or plain ... The latter kind of cup contains about a third of a pint, the China cup something less. Each person drinks from five to ten cups or tea, and when the last is half finished he mixes with the remainder as much barley meal as makes a paste with it, which he eats. At the mid-day meal those who can afford tea take it again, with their wheaten cakes accompanied with a paste of wheat flour, butter, and sugar, served hot. The poorer people, instead of tea, boil two parts of barley flour with one of water, or meat broth seasoned with salt until it becomes of the thickness of porridge. The evening meal of the upper classes is formed of some preparation of the flesh of sheep, goats, or yaks, and eaten with rice, vegetables, and wheatened cakes, leavened or unleavened. The poorer classes eat at night the same barley porridge as at noon or a soup made of fresh vegetables, if procurable, or of dried turnips, radishes and cabbages, boiled with salt and pepper in water, along with pieces of stiff dough of wheat flour."

Moorcroft obviously enjoyed and appreciated Tibetan tea more than a recent traveler (Rock, 1930).

"Then we went, as is the custom there, to take tea with his steward. This sounds quite formal, like polite life in England or America, but a Tibetan tea party is, to say the least, a gastronomic endurance test which no squeamish soul could survive.

In the steward's big tent a mud stove was roaring ... Soon an old woman brought out some bowls from a pile of sheep manure, which served for fuel as well as a sideboard. She took some ground-up sheep dung in her hand and scoured the dirty bowls; then she polished them with a filthy rag which hung at her girdle and dragged on the filthier ground where she walked. With her dirt-encrusted hands she poured tea into these bowls and they were passed around ...
A wooden box was now set before us. In it lay dirty lumps of yak butter, covered with old dung dust and other unwholesome things. From this box the fingers of many a nomad had dug before me, and I could see the grooves left in the unpalatable mass by their finger nails.
In another compartment of the box was roasted barley flour, or tsamba, the staple food of the Tibetan. I shrank from either tea or food, but I could not offend these simple people whose impulses were hospitable ..."

Since tea is the national beverage, it naturally has become a part of social and religious ceremonies in Tibet. Monasteries keep large open cauldrons in which tea is prepared. Some cauldrons are so large that during the festival known as the Great Prayer (Monlam-Chern-po, which lasts three weeks in February–March) a monk was killed in the 1880's when he fell into one of these huge cauldrons while preparing tea at Gyantse (Das, 1902).

The ways of tea drinking vary throughout Tibet, but Moorcroft's account is a good generalized description. A piece of brick tea is boiled in water to which some soda is added to draw out the red color. (The soda comes from the internal drainage lakes of northern Tibet). If soda is not available, then wood ash may be substituted. When it has boiled for some time, more water is added and the whole is boiled sometimes for periods of up to 2 hrs. It is then strained. Salt and butter are added, and the mixture is churned until it resembles cocoa.

Only in the nomadic provinces of the north is milk used, generally to economize in the use of butter, one of their chief cash products. After churning, the tea is poured into earthenware or metal pots. Tea not for immediate use remains in the cauldrons and is churned as required. This, however, is much too elaborate for many households, and powdered tea is added to water which is boiled for only a few minutes with soda. The tea is churned and served from a tea pot. In many districts, especially around Lhasa, no more butter is added to the tea after it has been served. When butter is added, it melts and floats on the surface, only to be blown to one side. When there is only a little tea left in the bowl, a handful of *tsamba* (barley flour) is added, and the tea, butter, and barley flour are worked into a ball which is formed with the right hand while the bowl is turned in the left. The lump is washed down with a final cup of tea.

Fig. 1. These Nepalese are returning home after delivery of the cash crop at the road head. The pack-baskets are of bamboo and the standard load varies from 80 to 160 lbs, most of the weight being borne by the headstrap. When resting, as in this photograph, the weight is borne on the walking stick placed under the load. The photograph was taken at the upper limits of the rhododendron forest ca 10,000 ft where all porters carry a bottle of distilled "marwa" which they use "to keep off the cold," especially at night. These bottles with corn cob plugs always ride at the top of the load. The bamboo mats above the pack are rain covers.

Tibetan tea cups are shallow, wooden and bowl-like, 3–5 inches in diam, often turned from the knots of horse chestnuts or maples. Bowls credited with the power of detecting poison are extremely prized. (Poisoning is common in Tibet, and often, before official functions, the bearer of the tea pot drinks the first cup.) Tibetans carry their tea cup with them, and, before returning the bowl to its place in the breastfold of the robe, the froth left by the tea is always licked clean.

Tsamba is the staple, and practically the only, cereal in the Tibetan diet. To prepare *tsamba,* threshed barley is washed and placed in boiling water for a period of about 5 min. The barley is then strained and stored in a warm place. After a 24-hr period, the grains are pan-fried, roasted or mixed with hot sand and placed in a skin bag which is rolled on the ground to loosen the husk from the grain. The grain is winnowed, often by just spreading the grain in a windy place, and ground to make a flour.

Tsamba may be taken in several forms, but never is it eaten dry. *Chura* (dry cheese) is powdered and added to *tsamba,* often in buttered tea. This dried cheese cut in checkers is strung on yak hair strings and kept for years. The poorer class may, on occasion, prepare pea-*tsamba* from the common pea.

Tibetan brick tea all comes from China, the transport sometimes taking a year from Ta-chein-Lu (Chinese) or Dartsendo (Tibetan) the frontier emporium between Tibet and China, to Sikkim. The Tibetans all prefer the brick tea because Indian tea (Darjeeling) treated in the same way results in a bitter beverage. The amount of tea passing through Dartsendo in the late 19th Century was between 10 and 13 million pounds. Based on this fact, Rockhill (1891) made an ingenious estimate of the Tibetan population. By considering five pounds a month a good allowance for a Tibetan, he estimated the population to be about two million people, a figure arrived at by only slightly more rigorous methods by the Chinese.

Most of the tea that was exported from Dartsendo was manufactured in Ya-tcheon, the largest town in western China. The tea is made from the leaf of a tree which attains the height of 15 ft. First quality tea is made from leaves gathered in June, before the spring rains. The leaves are then about an inch long. They are sun-withered and rolled until they exude sap, then balled and fermented. Following fermentation they are molded into bricks and then dried over a fire.

The second quality brick is made from older and yellowed leaves and sells for about one-quarter the price of first quality. The third quality is made from waste and debris of the leaves of the other two qualities. The young shoots are also sometimes included. Rice water is usually added to the manufacture of this last quality, since it will not brick up in the molds without the glutinous action of rice. The cost of this last quality is about one-eighth of that of the first.

The Tibetan brick tea is quite distinct from the brick tea prepared for the Siberian and Mongolian trade at Hankow. This brick tea is made from tea waste, siftings, stalks, and dust. It is steamed to form bricks and loses much of its qualities, while Tibetan bricks are made from compressed fermented tea leaves which maintain their quality for periods of up to several years.

In eastern Tibet on the Chinese border, I have heard of tea being flavored with pounded nuts, but, throughout Tibet, tea is prepared almost uniformly in the manner here described. At Gyangtse and Bhutan, Tibetan and foreign customs are blended, and a variation of the Indian concoction is fixed by adding butter (an egg) and salt to the milk and sugar solution; the tea and milk preparation are then mixed and churned into a butter tea before serving.

Chang-Barley Beer

The Tibetan has a natural abhorrence of water. Cold water is avoided as being bad for the health, and tea or beer is always preferred. Tea is drunk almost exclusively in the monasteries and among the nomadic herdsmen, but in the argicultural provinces, where barley is cheaper than tea, large quantities of *chang* are prepared and consumed. Both *chang* (beer) and *arak* (distilled *chang*) are made from barley grain except in some of the lowland valleys where buckwheat or millet (*Eleusine* sp.) is used, or mixed with barley. About two-fifths of the Tibetan barley crops are used in the preparation of *chang*, the remaining three-fifths in the preparation of *tsamba.*

To prepare *chang*, barley is boiled on the stove until all the water has boiled away.

The whole grain is then spread on bamboo mats to dry (these being procured in Bhutan exclusively for this purpose) or on a clean blanket. A yeast cake made from barley flour is added and mixed with the barley now spread to dry. At this stage, the barley is called *lum*. Before the *lum* is completely dry, it is placed in narrow-necked pots which are sealed with skins and left for 3–10 days until it "smells right" at which time the first liquid is drained off in the form of a potent, clear yellow oil. This is the first quality brew. Water is again added to the pot. If sour brew is desired, warm water is added; if sweet, cold. The third brew is weaker and sourer than the second brew. The refuse barley is given to cows and pigs.

To make the stronger drink, *arak*, the first brew barley beer is distilled. This is essentially a simple process recorded in the records of ancient India. Malted barley is placed in a large vessel. Then, within this vessel, a small cup is suspended. The mouth of the pot is covered with a tight-fitting, round-bottomed pan. Ice or cold water is used to keep the lid cooler than the heated mash so that, as vapor rises to the top of the lid, it condenses and forms droplets which fall into the suspended cup. When the liquid in the suspended cup will no longer light when brought near a flame, the distilling is ended.

The beverages *chang* and *arak* are always served by adding hot stones or boiling water to the brew. Tibetans consume large amounts of *chang*, especially in Tsang Province, but seldom to excess. However, on occasion when they do consume to excess, the Tibetan host takes it as a compliment if his guests become so intoxicated that they cannot get up from their cross-legged position. In Tibet, it is not socially correct for women to become more intoxicated then men, and they usually consume the second brew. Children are usually given the third brew.

The Tibetans cultivate two main types of barley, a thick-husked variety, mostly used as a cattle fodder (*soa* or *sa-wa*) and *ne*, the beardless, naked variety which is reportedly grown at elevations up to 14,500 ft. Three maturing varieties of *ne* barley are distinguished by the Tibetans, *yangma*, or *tukchu-ne*, a two-month barley; *chhe-ne*, a three-month barley, and the best quality *sermo*, a four-month barley.

In the agricultural provinces of Ui and Tsang, the barley crop is sown in April-May and reaped in September-October. The critical periods of the barley harvest are the July-August rains, and the possible occurrence of a killing frost before the grain is mature. Tibet, until the Chinese invasion in 1955, maintained large granaries, and, in years when frost came early in regions marginal for the cultivation of barley, these granaries were opened. In the cold dry climate of Tibet, grain can be stored for years. The climate is so favorable for storage in Lhasa that sides of meat are stored in October, when the nomads bring their livestock down from the steppe to exchange for grain, for the entire year without spoilage.

Marwa-Millet Beer

In Sikkim and Bhutan, where barley is not grown, a *chang*-like beer, *marwa* is prepared from a millet, but can be, and sometimes is, prepared from a number of other grains (maize, rice, buckwheat or barley—barley grown October to April, in contrast to the Tibetan season). The millet, *Eleusine coracana* Gaertn., is grown exclusively for brewing, and the refuse is fed to pigs and chickens. If grains are not available, a substitute is sometimes made by the Lepchas, who bury the pounded pith of one of the tree ferns. The resulting drink is a very strong liquor with purgative effect.

To prepare *marwa*, the husked grains are boiled and, after the maximum amount of moisture has been absorbed, the grain is dumped onto bamboo mats. While the grain is still in a pile, powdered yeast cakes are worked in and, after an hour, the grain is spread out to dry. After partial drying, the grain is either sealed in a wicker basket lined with ferns or covered by plantain leaves in summer or a blanket in winter on a fern covered mat. After two to four days, depending on the season, the fermentation is ready—the guide being the smell of the mash. The mash is transferred to a fresh basket lined with leaves and set in a dry place. In this state it may be stored for three months, although it reaches its maximum quality in about two weeks.

The preparation of *marwa* is not uniformly good. Much of the trick of a good mash is an individual affair, and certain members of the community are especially noted for their ability to make good *marwa*. The drink is

like the Tibetan drinks, taken warm. The fermented grain is placed in individual containers and boiling water is poured over it. The brew is drunk through a bamboo straw which prevents the grains from also being sucked up. The first filling is rather a strong brew, but the second and third are weaker and often given to invalids and children.

If an especially strong drink is called for, the grains are soaked in water and the liquid stored. *Arak* is made also from *marwa* and prepared in much the same way that Tibetans distill *chang*. Rice makes a better *arak* when mixed with a little barley meal than *marwa*. This rice beverage usually is made at the lower elevations below 6,000 ft. Except in the poorest households, *marwa* is consumed daily as a part of the diet, much the same as *chang* is taken in Tibet.

These malt liquors, *chang* and *marwa*, are distinctively Mongolian and very distinct from the ancient beverages of India. The Indian beverages were sweet liquors all of which were distilled, except the toddies made from coconut, palm or date trees and the classic *soma* nectar.

The almost complete absence of malting among the inhabitants of India is indeed surprising, since the distilled liquors are so frequently mentioned in the classics (Mitra, 1873). The Indians made extensive use of sweet plant saps, sugar cane, flowers, and honey in preparing sugar ferments. They also possessed an extensive knowledge of plant products that could be used to aid the formation of alcohol or strengthen the beverage (narcotics and poisons), yet with such an advanced knowledge of alcoholic beverages they failed to make use of the malting process. Even *parchwai*, when it was prepared from grain rice, employed a caking principle in the use of the fungi *Mucor* (Ray, 1906). The only malt beverage prepared by the Aryans was the barley-based *soma* nectar (a beverage made from barley meal and the juice of a bitter *Asclepias acide* or *Sarcostemma viminalis*) but this malting process appears to have been borrowed from Mongolian stocks already familiar with *chang* and *arak*.

Summary

The high altitude and severe weather of the eastern Himalayas and Tibet have been conducive to the development of beverages which are both high in food value and served warm. The beverages, tea, *chang*, *arak* and *marwa*, account for one-quarter to one-half of the daily caloric intake of the inhabitants and are characteristic of the region in the methods of their preparation. The malting process in the preparation of *chang*, *arak* and *marwa* is distinctively Mongolian and appears to have been introduced to Tibet from China. The beverage tea was also introduced from China, but its preparation in this region is distinctively Tibetan.

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