Ethnological observations on fermented food products of certain tribes of Arunachal Pradesh

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Received 31 May 2006; revised 28 September 2006

The Northeastern region of India, with various ethnic groups, offers an excellent opportunity for ethnological studies. The paper deals with the observations of ethnological significance of traditional fermented food products prepared by some tribes of Arunachal Pradesh. Fermented foods are important and inseparable constituents of food consumed by these tribes and play a vital role in their indigenous traditional life style.

Keywords: Indigenous Knowledge System, Fermented foods, Tribes, Arunachal Pradesh, Monpas tribe, Adis tribe, Nyishis tribe, Apatanis tribe

IPC Int. CL*: A61K36/00, A01G1/00, A01G17/00, A47G19/00, A23L1/00, A23L1/06

The Himalayan state of Arunachal Pradesh situated in the Northeast extremity of the country, having geographical area of 63, 743 km², and population of 10.91 lakh has been the traditional habitat of tribal people of Paleo-Mongoloid stock, speaking mostly the Tibeto-Burman group of Sino-Tibetan language¹. The state has international frontiers with Bhutan in the West, China in the North and North East and Myanmar in the East, while it borders the states of Nagaland and Assam in the South East and South. 25 major tribes and about 125 sub-tribes inhabit the state. The ethnic populace of the state leads an intimate life with nature in perfect harmony depending on forests and environment surrounding them. This coexistence of living together since time immemorial has contributed to accumulation of rich knowledge base in respect of utility of various plants and other natural resources for their day-to-day needs of food, fuel, medicine, housing and various other domestic needs.

The traditional food habits of the tribal populace of the state are very simple and have to do with the festival and rituals, which forms a mosaic of ethnic cultural combinations. Fermented foods are important and inseparable constituents of the daily source of delicacy for the tribal people of Arunachal Pradesh. The countable number of fermented foods varies among the tribes along with practices of preparation and its uses as ingredients in their daily recipes. Alcoholic beverages of different tribal communities have received attention of several ethnobotanists and anthropologists². Various tribal communities of the state generally use traditional beverage drink prepared from rice, called Apong by Nyishis, Adis & Apatanis and Tchang by Monpas. It is traditional that whenever a visitor comes, he usually gets showers of Apong / Tchang from the host. During festivals, marriages or other social occasions, it is heavily consumed. The traditional rice beer is the favourite drink of the local populace and also has immense myth, ritualistic values of the tribal societies attached to it³-⁴.

Methodology

Ethnological survey was undertaken in Tawang, West Kameng, lower Subansiri and West Siang districts of Arunachal Pradesh. First hand information were recorded on preparation, uses of various traditional fermented food products of the Monpas, Adis, Nyishis, and Apatanis tribes through personal interviews with elderly villagers. Some important traditional fermented food items, viz. Churapi, Churkham, Pikey Pila, Tapyo, Apong, Eenog, Ipoh, and Bamboo Tenga, etc. prepared by certain tribes of the state and the Indigenous Knowledge System associated with its preparation (Table 1) are described herewith.
Churapi

Monpas and Khambas of West Kameng, Tawang, West Siang and upper Siang districts mainly prepare Churapi and Churkham. The main ingredient used for the preparation of Churpi and Churkham is Yak milk. Yak milk is the traditional preference for making this cheese although any other fresh milk may be used. Milk is churned in a large three-chambered wooden drum called Shoptu made from the trunk of Thuja plant (Fig. 1). After pouring of milk in the Shoptu, it is corked tight with a wooden lid known as Dup. Milk in the Shoptu is vigorously stirred with a wooden stirrer known as Kelu until the milk is warmed and curdles. On stirring the milk for 2–3 hrs, butter is formed which is kept aside. After extracting the butter the milk is again stirred continuously until the white cheese is formed. On formation of cheese, which floats on the upper surface of the Shoptu is separated using a piece of cotton cloth or through a large bamboo sieve called Chergang. This process of slow dripping takes up to an hour or more. The Cheese is pressed hard to drain out the remaining water particles and is cut into small pieces and sun dried. The hard sun dried light yellowish product is known as Churapi.

Churkham

White cheese produced during preparation of Churapi is mixed with pieces of old stored Churpi and a little fresh milk into a smooth paste, shaped with hands and cut into pieces of desired size. Usually large cakes of this soft cheese are packed in Yak skin and sun dried. The product thus prepared is called Churkham. Generally, Churkham cakes of 5-10 kg size are packed and stored for 2-12 months or more, as taste improves with storage. The raw butter (Mar) formed during Churapi making is used in the preparation of traditional Monpa salty butter tea. The clarified butter called, Jimar is used to flavour rice and is also added to vegetable and meat dishes in small amounts. Further, Churapi and Churkham are used as a traditional chocolate (Fig. 2), mouth freshener and also in preparation of vegetable and non-vegetable dishes in the form of paneer.

Pikey Pila

Pikey Pila is a traditional food item of the Apatanis of Ziro valley in the lower Subansiri district. Pikey Pila is a specialty of the Apatani community and is equivalent of Assamese Khar. Leaves, stem or shoot portion of the local grasses partially sun dried and burnt; ash obtained after burn is called Pikey. Earlier, stem of a thorny wild cane, locally known as Lobyo Tare was used, but now a days papaya trunk, banana peels an a variety of other plants are used. First, plant parts are semi-dried in the open, which imparts flavour and bite. Then, the semi-dried parts are burnt in a tin or on clean dry ground. The resultant ash is carefully collected and placed in a funnel shaped bamboo basket called, Piyu-Khugyu like the one used for the filtration of rice beer. Cold water is poured slowly over the ash; the liquid obtained is called Pila. Pikey Pila is a clear ruby coloured liquid, which can be stored for very long periods. Its use is also very versatile as a ready made stock adding flavour to traditional foods like, Hikhu Pickey, Salyo Pikey, Pile Pila etc. Hikhu is smoked bacon and Salyo is the flower of Michelia champaca Linn. tree, which is dried and cooked with chilies, bacon, water and pila.

Tapyo

Tapyo is another traditional food item used as condiment by the Apatanis made painstakingly from Pila. The ingredients used for preparing Tapyo are leaves of Clerodendron colebrookianum Walp, pila and rice starch. For preparing one piece of Tapyo, the cooking time required is approximately between 9-12 hrs. First, a layer of rich rice starch is allowed to set in a flat, dry pan along with leaves of the selected plant over a low flame by burning bamboo. Pila is then poured over this base and allowed to cook until the water is completely evaporated down to residual ash that is gray-black in colour unlike rock salt (Tapyo), the traditional salt of Apatanis used to flavour a number of dishes and can be stored forever.

Ipoh

Ipoh is the yeast biscuit, cake used for preparing Apong and Ennog. The success of preparing good
beer depends to a great extent on the quality of the fermenting agent called the Ipoh, Si-ye or Paa by different tribes. It contains the yeast that converts starch to sugar and sugar into alcohol. Ipoh is prepared through a laborious process of drying and grinding rice into fine powder, and mixing powder of seeds, bark of locally available plant species, viz. Veronica cinerea (L.) Less and Clerodendron viscosum Vent. Now, this thoroughly mixed powder is taken into a large vessel (Dekchi) and made into a paste using previously stored rice water. The paste becomes slightly greenish–white and emits smell of mixed herbage. The paste is poured & spread on a clean gunny bags or bamboo mats and made into disc shaped small cake or biscuit. The biscuits are then carefully placed to dry out completely either in the attic above the fireplace of traditional houses or left in a cool dry place for 3–4 days after which it is stored carefully placed to dry out completely either in the attic above the fireplace of traditional houses or left in a cool dry place for 3–4 days after which it is stored for use. These can be stored up to one year. Ipoh is the main fermenting agent for the preparation of Apong and Ennog.

**Apong**

Alcoholic beverage prepared from rice is common to all the tribes of the state. Apong is the white rice beer with rice, water and Ipoh (yeast) as main ingredients for its preparation. Apong plays an important role in the traditional societies; its origin and use are closely associated with ritual and myth of the ethnic populace. First, substantial quantity of rice is washed and boiled in a large clean aluminum vessel/pot with wide bottom to facilitate proper spreading of the boiled rice. Rice should be steamed slowly to the right texture and not over cooked or soggy. Ipoh (yeast) in the form of cake, biscuit is thoroughly mixed with the cooked rice in appropriate quantity. After proper mixing, it is transferred into another utensil covered with a lid for fermentation with little amount of water. The total incubation period varies from 3-5 days. When the fermented stock starts emitting a strong alcoholic smell, it is considered ready for use. The fermented stock is diluted with drinking water as per requirement; Apong is now ready for consumption.

**Ennog**

Ennog is black rice beer requiring rice, ipoh, paddy husk half the quantity of rice are main ingredients. The method of Ennog preparation is almost same to that of Apong. Rice is boiled and spread on a good-sized bamboo mat to cool completely. Meanwhile, the paddy husk is prepared by filling it in to a large tin sheet or metal drum and allowed burn slowly and evenly over light flame till it is completely black. Then, the hot burnt husk is mixed well with the boiled rice and is left to cool down. After cooling of the rice husk mix, biscuits, cakes of Ipoh are carefully crumbled and mixed well. The mixture is now transferred into a conical bamboo basket lined with ek kam (Phryium capitulum Wild) leaves. This is the noga-baye. The basket is tightly covered with more leaves and stored in a cool dry place. This is the initial step towards prompting fermentation and the mixture is left for about 3 days or until strong alcoholic smell begins to permeate. At this point, the mixture is transferred for final storage into another basket lined with ek kam leaves, wide U-shaped bamboo woven contraption, called the Perop. Perop is covered with more leaves; a piece of wood (Pamtiang) is placed on the top to seal it and a stone (Emnog-Lisak) is placed on the wood for added weight. Fermentation takes about 10 days for making the beer ready for filtration. Approximately, 2 kg or more of the mixture is scooped out at a time into a cylindrical bamboo tube (Petok) fitted with a small opening at one end. Boiling hot water is poured slowly over the mixture and the resultant brew that drips out is the first draw, which is considered the strongest. The first draw called, Tok-Til is always warm and the subsequent brew (Ennog) is blackish in colour.

**Bamboo Tenga**

The tender shoots of selected bamboo species (Dendrocalamus hamiltonii Hook. f.) collected in bulk is prepared by cutting it into strips or pieces and boiled. The boiled shoots are chopped finely and packed in jars, bamboo tubes (Chunga) or even in plastic buckets and is kept for 5-10 days for fermentation. After fermentation, the taste of chopped shoots become sour. Local people to flavour meat, fish and other vegetable dishes traditionally use it. In rural areas, villagers store fermented bamboo shoot in long bamboo tubes, which are stocked in a cool place like a water point or by side of small streams.

In other method of preparing bamboo shoot, the collected shoots are slightly burned or crushed with a heavy stone to drain out excess water and the shoots are stored. The preparation of dry bamboo shoot is an arduous process that involves a lot of chopping. The finely chopped bamboo shoots are spread on a large mat and allowed to dry completely. This type of
Bamboo shoot product is used with smoked fish though it is also used in a number of meat dishes and for preparation of pickles. As such, the bamboo shoot products occupy an inseparable place in flavouring of dishes of Nyishis, Adis and Apatanis tribes. Bamboo shoots of certain species (Dendrocalamus hamiltonii Hook. f.) are sold in the local market as an edible foodstuff. Apatanis are very fond of bamboo shoots but the bamboos of the Apatani plateau (Ziro) are non-convertible to sour form and therefore they buy the shoots from other neighboring tribes.

**Discussion**

**Churapi and Churkham** are the purest form of traditional Yak milk products prepared by the Monpas and Khambas. Yak milk product hold ritualistic
values with their religion and provides the required amount of protein to the people living in the snow line areas. *Apong/Ennog* contains very less quantity of alcohol and has sweet taste with peculiar flavour. Men consume comparatively more quantity than women. It is traditionally believed that daily consumption in small quantity just before and after food is good for appetite as it acts as a health tonic. *Tapyo* is the indigenous form of salt traditionally used by the *Apatanis* since time immemorial and *Pike-Pila* is used in the foods for its carminative property. Myth is also associated with making of *Tapyo*. In the olden days, its making was confined to old women only, for it was believed that those who make it, would have gray-hair and wrinkled face, a stage known as *Topu-Tolu*. Like paddy, bamboo is the other life-giving plant for the indigenous populace of Arunachal Pradesh.

**Acknowledgement**

Authors are grateful to all local people of Shyou, Tawang, Hong, Ziro, Darka, Along & Poma villages, and Itanagar for their hospitality and sharing of information on their traditional fermented food products. The help received from students of forestry department, NERIST is also duly acknowledged.

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