

Duhumbi tools, utensils and implements

Date of recording: various

Location of recording: Chug valley, Dirang circle, West Kameng district, Arunachal Pradesh, India.

Participants: various.

Languages: Duhumbi.

Short description: This collection of videos, audio and photo files displays Duhumbi aspects of culture between 2012 and 2017.

The Duhumbi used a wide variety of tools, utensils and implements, exclusively made from locally available products. The only exceptions were, perhaps, the earthenware *hu* 'vase', *zari* 'storage pot' and *zodong* 'cooking pot', which were made in the Sartang village of But (now Jerigaon). Bamboo was the most widely used raw material, made into, for example, the *bukhuri* 'rain cover', *butpa* 'blowpipe for fire', *gong* 'fence', *gongdong* 'bamboo tube for liquids', *japten* 'back protector for carrying bamboo', *khaski* 'beer filter', *phachi* and *shangkor* 'bamboo sieves', *phitung* 'bamboo container', *phow* 'bamboo mat', *nyi* 'rod', *pili* 'bamboo flute', *ther* 'carrying strap', *thok* 'beer filter' and *tsirmin* 'oil filter', *ur* 'stick', *zopu* 'milk churner', *zhakpa* 'wind screen', *zheykang* 'butter and cheese container', and *zhipli* 'quiver' and a wide variety of baskets with various storage and transportation functions, such as the *dongsen*, *kezhong*, *khir*, *khompu*, *khopbi*, *khroyma*, *mekpashong*, *phoshong*, *phrokpa*, *sempa*, and *tung*. The bamboo items are exhibited (with photographs) on DOI: <https://doi.org/10.5281/zenodo.1199543>.

Other implements were made of wood, such as the *kampa* 'tongs', *yarjung* 'rotating millet beater', *brongshu* 'fermentation vessel', *chongki* 'pestle', *chopbi* 'spoon', *gam* 'wooden chest', *pregam* 'wooden cupboard', *his* 'wooden plough beam', *hrupshing* 'wooden churn disk', *pharging* 'yoke', *tsirzhong* 'oil press', *tshum* 'mortar', *jokpa* 'frying stick', *brakshing* 'rake', and *zhima* 'flour collection box'. Metal implements were very limited: the *pha* 'axe', *perzhamshup* 'trivet', *thongpa* 'plough blade', and the *mikshu* 'arrow head' are some of the few examples that were traditionally made of iron.

Finally, in addition to dress items, leather was used to make *rokka*, bags for storing grains and cane was used to make various kinds of *thak* ‘rope’ (LCYT, [CHUK240413B1]). These are also exhibited on DOI: <https://doi.org/10.5281/zenodo.1199543>.

This all has changed rapidly in the past few decades. Some practices, such as extracting oil from seeds, has completely disappeared, and with it the utensils and tools associated with it, such as the *tsirmin* and *tsirzhong*. More commonly, cheaply produced substitute items have become available from India: jute and plastic bags have replaced the leather *rokka*, the nettle fiber *kuyku* and the cloth *kartsa dangnga*; plastic containers and buckets have replaced the storage containers and baskets; tarpaulin sheets have replaced the *phow*; corrugated iron sheets have replaced the *wamcha*; barbed wire has replaced the *gong*; and metal boxes, chests and kitchen utensils have replaced their earthenware, wooden and bamboo versions. Most households use only a small selection of traditional tools, utensils and implements that are either too difficult to substitute, or their substitutes are too expensive.

Making dairy products: There are various dairy products made in the Chug valley, especially by households that own more cattle. Basically, all the dairy products and the tools and utensils used for making them are of Brokpa (and ultimately Tibetan) origin. Examples include *chura* ‘cheese’ (<Tib. phyur-ba ‘cheese’); *churku* ‘whey’ (<Tib. chur-khu/phyur-khu ‘whey’, BP *tʰurku* ‘whey’); *dara* ‘buttermilk’ (<Tib. da-ra/dar-ra ‘buttermilk’, BP *dara* ‘buttermilk’); *mar* ‘butter’ (<Tib. mar ‘butter’, BP *mar* ‘butter’); *mochura* ‘fermented cheese’ (<TSD *mo* ‘butter’ and TSD *tʰura* ‘cheese’ <Tib. phyur-ba ‘cheese’); *zho* ‘curd’ (< Tib. *zo* ‘curd’); *zopu* ‘large churner’ (< BL *zou* ~ *zɔ* ‘large churner’); and *hrupshing* ‘churn disc’ (<Tib. *srub* ‘churn’ + *shin* ‘wood’ and BL *hruptɛŋ* ‘churn stick’).

After a cow is milked, the *nu* ‘milk’ is sometimes drunk immediately, even before boiling, sometimes heated and mixed with sugar. Especially children like this. The fresh milk can also be brought to a slow boil. On top comes a thick mass called *shanyu* ‘paneer (lit. ‘brain’)', which is scooped out, the water is leaked and pressed out, and made into cakes and kept drying for some time. This paneer is eaten fresh, boiled or fried like paneer. The liquid that remains is called *churku* ‘whey’, a slightly sour liquid. Whey can be drunk but is known to cause serious stomach complaints and diarrhoea even in customary drinkers.

The milk can also be poured in a closed container and kept in a warm place for several days. Even without adding any kind of culture, the milk turns into *zho* ‘curd’. The curd is eaten with sugar, and particularly popular with children. The cow’s milk is kept in a closed

but not airtight container in a cool place for five days up to a week depending on the weather. Then, the milk is then churned in a tall bamboo container called *zopu* with a *hrupshing* ‘churning stick’ which has a disk on the lower part approximately the size of the *zopu*. Cold water is added to solidify the butter particles and make them stick together. The *mar* ‘butter’ is then removed and stored in a *zhey* or *zheykang*, a bamboo container, in a cool and dry place. What remains is *dara* ‘buttermilk’. Buttermilk can be drunk directly or further processed into *chura* ‘cheese’. The buttermilk is slowly heated, and when it is about to come to a boil, some *churku* ‘whey’ is added. This makes the buttermilk sift and cheese is formed on the surface. This cheese is scooped out and packed tightly in a thin cloth, pressing out excess water. This fresh cheese is used for cooking. When fresh cheese is sewn into a calf’s skin (or in another closed container) and kept fermenting and ageing, it is called *mochura* ‘fermented cheese’ and used for cooking. The liquid that remains after taking out the cheese is also called *churku* ‘whey’ and can be drunk.

Video files in the zip file HOUSEHOLD ITEMS VIDEOS.ZIP (1.35 GB, 15 files):

<i>file name</i>	<i>file size (MB)</i>	<i>file duration (hh:mm:ss)</i>	<i>file type</i>	<i>description</i>
00017	81.1	00:00:41	.mts	opening the <i>zopu</i> after churning to make butter.
00018	363	00:03:05	.mts	pouring cold water to make the butter particles solidify.
00019	117	00:01:00	.mts	making <i>chura</i> ‘cheese’ by boiling buttermilk.
00019A	62.8	00:00:32	.mts	grinding <i>meyshing phoy</i> ‘maize flour’ in the <i>chuskor</i> ‘water mill’
00023	42.5	00:00:21	.mts	the <i>chuskor</i> is operated by water from a stream rotating the blades connected to the <i>rangthak</i> ‘grinding stones’.
00025	46.3	00:00:23	.mts	water from the Tsangparong stream is diverted and called the Chuskorrong stream which operates three different <i>chuskor</i> .
00026	40.5	00:00:20	.mts	operation of the <i>chuskor</i> .

00027	61.7	00:00:31	.mts	operation of the <i>chuskor</i> . The big funnel in which the grains are poured is called <i>zhor</i> . The size of the opening at the bottom and its incline determines how many grains fall down in a certain time and hence partially determine the fineness/coarseness of the flour. The speed of turning of the grinding stones can be regulated by adding or removing wooden blocks that raise or lower the blades. When making <i>khlangpa</i> ‘coarsely ground maize’ it is called as <i>khlangpa shor {ta}</i> . Grinding flour is called as <i>phoy kheng {da}</i> .
ASAM_3086	57.5	00:00:50	.mp4	<i>nishi jow {da}</i> ‘ parching rice’. The unhusked rice grains are soaked in water overnight, then parched in a <i>langnga</i> ‘frying pan’ on a high fire by constantly moving them with the <i>yokpa</i> , often holding the side with the <i>kampa</i> ‘thongs’. The rice grains ‘puff’ (mentok) and are then <i>dung {da}</i> ‘pounded’ flat in the mortar. Then, the loose husks are removed through <i>gadar le {da}</i> ‘winnowing by wind’ and <i>yap {da}</i> ‘winnowing with the winnowing tray’. The resulting <i>nimdi kakung</i> ‘pounded parched rice’ is typical of Chug and Sangthi valleys and used as first harvest offering.
F00010	127	00:01:05	.mts	making <i>takto</i> ‘buckwheat noodles’ by pressing sweet buckwheat dough through a wooden frame with holes.
F00011	267	00:02:16	.mts	making <i>takto</i> .
I00003	17.1	00:00:08	.mts	making <i>meyshing kakung</i> ‘pounded parched maize’. Maize grains are soaked overnight in water, parched in a <i>langnga</i> ‘frying pan’ with

				ash, and pounded flat in the mortar. This is common for the entire Dirang area.
I00004	73.1	00:00:37	.mts	Parching maize for <i>meyshing kakung</i> .
I00005	21.1	00:00:10	.mts	<i>meyshing kakung dung {da}</i> , pounding the parched maize grains to make <i>meyshing kakung</i> .
I00006	29.2	00:00:15	.mts	<i>meyshing kakung dung {da}</i> , pounding the parched maize grains to make <i>meyshing kakung</i> .

Photo files in the zip file HOUSEHOLD ITEMS PHOTOS.ZIP (182 MB, 91 files)

<i>file name</i>	<i>description</i>
DSC00296; 00297	churning milk in the <i>zopu</i> to make <i>mar</i> 'butter'.
DSC00321; SAM_1935a; 1935b	the <i>yarjung</i> 'millet beater'.
DSC00369	the <i>zhor</i> 'funnel' of the <i>chuskor</i> 'water mill'.
DSC00370; 00379; 00380	the <i>rangthak</i> 'milling stones' of the water mill.
DSC00371; 00381	the opening for the grains falling from the <i>zhor</i> . Its adjustable inclination and size of the opening determine the fineness/coarseness of the ground grains.
DSC00372; 00373;	the <i>chuskor</i> 'water mill'.
DSC00375; 00377	the rotating blades below the water mill.
DSC00378	the water supply of the water mill.
DSC00382	the wooden blocks that raise or lower the blades that turn in the water, hence regulating the speed of turning.
DSC01065	in the past water was carried and stored in <i>gongdong</i> hollow bamboo pipes, but now various types of jerrycans and containers made of plastic are more common.
DSC01073; SAM_1970	pouring water on fermented grains through a <i>thok</i> 'beer filter', the slightly alcoholic liquid <i>phak</i> seeps through in the <i>kitong</i> 'bamboo cup'.

DSC01075	removing the heated water from the <i>khatow</i> , a large brass cauldron kept on top of the distillation vessel while <i>ara di {da}</i> ‘distilling liquor’. The large lower vessel called <i>tow</i> contains the <i>phakma</i> ‘fermented grains’ and is placed in the fire and hot embers on a <i>perzhamshup</i> ‘iron tripod’. Inside it, on a smaller <i>perzhamshup</i> stands a <i>zeng ~ zyeng ~ zang</i> , a large copper vessel, with inside it the <i>nangzodong</i> or <i>nangkho</i> ‘clay inside pot’ which collects the liquor when it evaporated from the fermented grains and condensates against the lower outside of the <i>khatow</i> . The water in the <i>khatow</i> needs to be replaced when it gets too warm to make sure the liquor cools and condensates. A <i>bukhak</i> ‘belt’ is tightly wound in between the <i>khatow</i> and the <i>zeng</i> to prevent evaporation and loss of alcohol. Some poor households who cannot afford a <i>zeng</i> place the <i>nangkho</i> on a <i>perzhamshup</i> directly in the fermented grains. The <i>arku</i> ‘leftover grains’ are fed to the cattle.
DSC02115; 02119; 02120; 02121; 02122; 02123;	Making <i>takto</i> ‘buckwheat noodles’ by pressing buckwheat dough through a wooden implement with holes.
DSC02118; 02128	Removing the buckwheat noodles from the boiling water after cooking them for several minutes.
DSC02131	Boiled <i>takto</i> ‘buckwheat noodles’ served with a ginger-garlic paste, a spicy chili sauce and <i>shajur</i> ‘Sichuan pepper’.
DSC02323; 02326	Parching maize kernels to make <i>meyshing kakung</i> .
DSC02327; 02328; 02329	Pounding parched maize kernels in the <i>tshum</i> ‘mortar’ with the <i>chongki</i> ‘pestle’.
DSC04951; 04952	A <i>kreche</i> ‘door lock’.
1	<i>kampa</i> , traditional wooden thongs to hold a hot <i>langnga</i> ‘frying pan’ or cooking pot.
SAM_1931	<i>zari</i> , a cord ware clay pot from But (Jerigaon) village.
SAM_1956	<i>hu</i> ‘earthenware vase’ from But (Jerigaon) village.
SAM_1933	<i>zhor</i> , a plastic funnel.
SAM_1934	<i>khaktang tong</i> , a wooden hammer used to break clumps of soil into smaller pieces when preparing the land for agriculture.

SAM_1944; 1945	iron <i>koda</i> and <i>chaku</i> or <i>phari koda</i> 'hoes'. The big, broad, flat <i>koda</i> is used to hoe chunks of soil, for example in the paddy field. The smaller <i>chaku</i> or <i>phari koda</i> is used for loosening up soil and weeding.
SAM_1946	Wooden <i>thongpa</i> 'plough blade'.
SAM_1948	<i>zeng</i> 'copper cauldron' mainly used for distilling alcohol.
SAM_1950	<i>zeng</i> on a <i>perzhamshup</i> 'iron trivet' with a <i>zari</i> inside and a <i>hoki phrokpa</i> 'bamboo basket used as chicken coop' to the right.
SAM_1951a; 1951b	<i>grem pang</i> 'hearth tray' with a <i>roktshang</i> to store kitchen utensils in front.
SAM_1953	<i>pregam</i> 'cabinet' used to store kitchenware and other household items.
SAM_1957	<i>beytshi tholok</i> , stones stuck inside the wall behind the hearth to keep <i>saki</i> 'kerosene lamps' or candles for lighting.
SAM_1958a; 1958b	<i>khaski</i> , metal beer filter placed inside the fermented grains with added warm water, the alcoholic beverage is then scooped out of the <i>khaski</i> with a scoop.
SAM_1960a; 1960b	<i>brekshing</i> , a natural tree root heated and bend to form a hand with crooked fingers and used for raking together leaf litter from the forest floor.
SAM_1961	<i>tangku chopbi</i> , large wooden ladle used to 'dig' in flour mixed in boiling water to make a dough.
SAM_1962	<i>bari</i> 'sickle' large sized sickle with a smooth blade used for harvesting stems of grains one by one, vegetables, cattle fodder etc..
DSC01142	<i>bariong</i> ~ <i>barong</i> small sickle with a smooth blade used for cutting millet, wheat etc.
SAM_1963	<i>reti</i> 'small metal file' for sharpening knives etc.
SAM_1973a; 1973b	<i>tshum</i> 'mortar' and <i>chongki</i> 'pestle' used to husk, flatten and pound grains.
SAM_1982	<i>koda</i> 'hoe'.
SAM_1992a; 1992b; 1992c; 1992d	<i>thupling</i> 'wrist bracelets'.
SAM_1996	<i>gow</i> 'amulet boxes'.
SAM_1999	<i>zodong</i> 'earthen pot' used mainly as <i>nangkho</i> when distilling liquor.

SAM_2000	<i>kitong</i> ‘cup’ made of bamboo or, like here, wood.
SAM_2003	<i>ur</i> ‘small thin bamboo stick’ used a <i>phun</i> ‘bobbin’ for weaving.
SAM_2004	<i>thakcung</i> ‘batten/beater’ used for tightening the weft in the warp when weaving.
SAM_2005	<i>yokkor</i> ‘spindle’.
SAM_2006	different bamboo <i>mentok thakcung</i> ‘picking battens’, <i>wulu</i> ‘shed roll’ and <i>nyi</i> ‘coil rods/heddle rods’ used for weaving.
SAM_2011	<i>phari koda</i> or <i>chaku</i> ‘small hoe’, used primarily for cleaning a newly ploughed field by removing weeds, rocks and other inconsistencies, making clumps of soil smaller, levelling the soil.
SAM_2012	<i>hotda</i> ‘machete’.
SAM_2014	<i>pha</i> ‘splitting or felling axe’, an axe with a wedge-shaped bit (cutting edge) used to split the fibres of the wood apart to make firewood or a heavier and sharper var. to cut the fibres of the wood when felling a tree or making a woodblock.
SAM_2015	<i>zhipli</i> ‘quiver’ for storing and transporting arrows.
SAM_2016	<i>mik</i> ‘arrows’ with pointed <i>mikshu</i> ‘arrow heads’, dipped in <i>si</i> ‘aconite poison’ and used for hunting.
SAM_2017	<i>rangthak</i> ‘grinding/milling stone’ operated by hand by holding the bamboo stick stuck in a hole. The grains are poured in from the top, the flour comes out from between the two stones.
SAM_2019	<i>racok</i> , a brass scoop.
SAM_2020	<i>cok</i> ‘scoop’ and <i>tolem</i> or <i>sipsa</i> ‘rice ladle’, made of aluminium. A <i>cok</i> is used for any liquid, including water, milk, curries etc. A <i>sipsa</i> or <i>tolem</i> is used for solids, such as cooked rice and dough.
SAM_2021	Two aluminium <i>cok</i> in different sizes. The bigger one is used to scoop fresh, clean water. The smaller ones for curries etc.
SAM_2022	Various <i>cok</i> ‘scoops’ and a <i>jatsak</i> ‘tea strainer’.
SAM_2023	On the right side a large <i>zopu</i> ‘milk churner’.
SAM_3080; 3083	Parching rice to make <i>nimdi kakung</i> .
SAM_3090; 3092	Pounding parched rice to make <i>nimdi kakung</i> .
SAM_3207	Using a <i>phak chopbi</i> ‘large flat ladle’ to mix boiled grains (maize and millet) and, after cooling them off, add the yeast to make them ferment.

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yokpa, wooden stick used to stir grains when parching them.