

# Distilling of the Volga Kalmucks and Mongols: Two Accounts from the Eighteenth Century by Peter Pallas, with some Modern Comparisons

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Peter Simon Pallas (1741–1811) is perhaps best known today for the many species of birds and other animals which he was the first to describe and are either still assigned to him today through scientific names still in use or otherwise associated by popular names. These species include the Pallas cat or Manul, *Otocolobus manul*, Pallas's reed bunting, *Emberiza pallasi*, a pheasant, *Phasianus colchicus* Pallasi, many other birds large and small, some bats, a squirrel, a pika and many fish. This list runs in the hundreds, a major contribution for one observer. Not an animal but also today ascribed to Pallas's discovery is Pallasite, a meteoric iron, whose composition he was the first to analyze. He likewise described many plants, large number of which also remain directly associated with him.



Fig. 1: Peter Pallas, silhouette by A. Tardier,  
an eighteenth century artist<sup>2</sup>

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  - 2 [https://upload.wikimedia.org/wikipedia/commons/2/2c/Pallas\\_PS\\_by\\_Tardier\\_grey.jpg](https://upload.wikimedia.org/wikipedia/commons/2/2c/Pallas_PS_by_Tardier_grey.jpg)

Nonetheless, in spite of Pallas's accomplishments as botanist and zoologist, enough alone to mark him as a major figure, he also made major contributions as geographer and, most important for us here, ethnographer. Particularly important in this regard are his *Bemerkungen auf einer Reise in die südlichen Statthalterschaften des Russischen Reichs in den Jahren 1793 und 1794*, Leipzig, 1799 and 1801), "Notices of a Journey in the Southern Administrative Units of the Russian Empire during the years 1793 and 1794", and the earlier *Sammlungen historischer Nachrichten über die Mongolischen Völkerschaften* (St. Petersburg, 1776 and 1801), "Collection of Historical Notices on the Mongolian Peoples".

Pallas was born 22 September, 1741, in Berlin, and died there on 8 September, 1811, a relatively long life for those days. He was the son of a professor of Surgery, Simon Pallas, and studied first at the University of Halle and then at the University of Göttingen, both in Germany, but then moved to the University of Leiden, in Holland, where he received his doctorate, aged 19.

From the beginning Pallas was a naturalist and quickly began publishing in that area but a major change in his life occurred in 1767 when he was invited to Russia by Catherine the Great (r. 1762–1795) to become a professor at the St. Petersburg Academy of Sciences. It was in this capacity that he began to participate in expeditions to various parts of Russia, leading to his *Reise durch verschiedene Provinzen des Russischen Reichs*, "Travels through various Provinces of the Russian Empire" (1771–1776, 3 vols.). Such expeditions and also zoological and botanical contributions continued until the end of his life and beyond in posthumous publications. Pallas finally returned to his native Berlin, and his headstone can be found in a church cemetery in Berlin-Kreuzberg where it was seen by author Buell.

Pallas's *Sammlungen historischer Nachrichten über die Mongolischen Völkerschaften*, the primary focus of attention in the present paper, is a massive work of some 600 pages that is profusely illustrated with carefully-drawn plates, some 29 of them, but many are multi-part. The work is also provided with many tables and summaries, including some detailed genealogical discussions. The work is particularly useful from our perspective, not only because of the sheer amount of information that it provides, but also for its linguistic apparatus. Nearly always when a concept or thing is introduced, including diseases, accurate Kalmuck or Mongolian vocabulary is given in transcription. Few other early works on the Mongols from the period are as well documented as a consequence.

The *Sammlungen* are in two parts. Part one is a general introduction to the Kalmucks of the Volga, the Buriats of Siberia and the Mongols of Mongolia. A lot of this section is history, but the amount of information of daily life of the

people in question is substantial, and it is all carefully organized and usually illustrated. This includes illustrations and descriptions of Kalmuck and Mongol distillation equipment and practices. That on the Kalmucks is particularly full. Part two focuses on religion and religious practices (*Aberglauben*, superstition), much of what is described is Lamaistic but shamanism is not neglected.

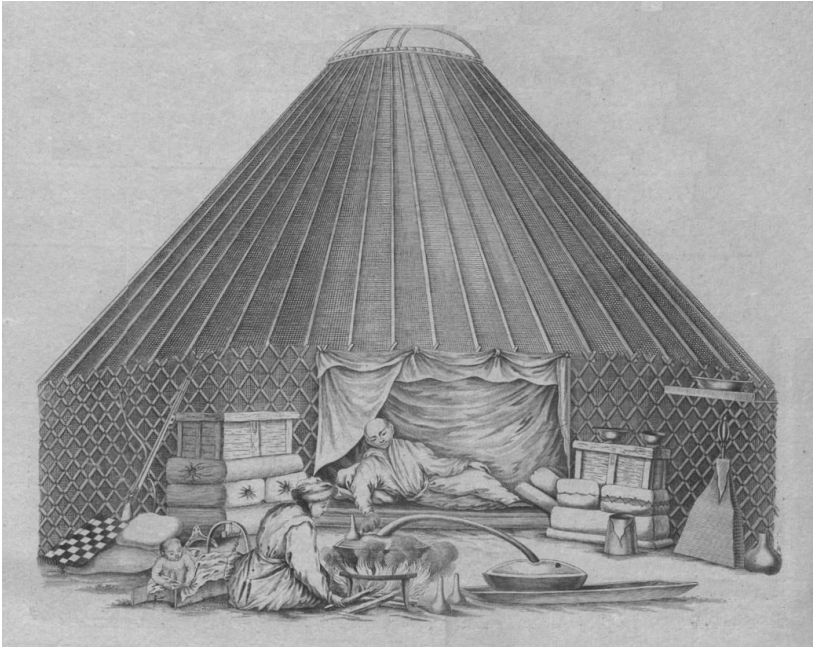


Fig. 2: Kalmuck Distillation (Pallas 1776, Tab. III)

Pallas speaks of Kalmuck distillation as follows (Pallas 1776, 134f), in the earliest description of its kind, in the following terms. It is clearly eye-witness testimony:

To come to the usual excess in brandy of the Kalmucks the same is, as the cooking of food, solely the business of the women. The equipment includes, as is clearly shown on our third plate, the following: A large iron kettle with a little water is placed hanging over a small fire on a tripod in the yurt and warmed and filled up with processed sour milk up to within two finger widths of the rim of the kettle.

Such kettles hold for sure three Russian buckets or more. Placed on the kettle (*Chaistin*) is a top (*Charchaq*) that fits the kettle and its somewhat hollowed out. It is made from one or two pieces of wood and has two square openings. To the rim and the joints one is accustomed in the steppe to applying fresh cow dung when there is no fine clay or sod in the vicinity to seal the apparatus, or when it cannot be obtained due to the freezing of the earth. The Stawropolisch group, that is, the baptized Kal-

mucks, who have grain meal in more abundance, that is well-milled, use during the winter time, instead of clay, a roughly-kneaded dough of crude grain meal.

Among most steppe peoples, including the Mongols and Buriats, it is always gathered fresh *animal droppings* which they find near their housing, without effort, that is the most common and the best [sealant]. As a recipient [vessel] during the distillation there serves a small kettle with a cover which must only have a large opening and a small air hole and which is well smeared around the rim. This one places next to the tripod into a cooling trough containing snow or cold water.

The tubes (*zorros*, Mongol *zorgo*) which are intended to conduct the milk brandy from the big kettle to the production vessel is one that normally consist of a tree bark bent into a semicircular shape, which is split, with one gutter hollowed out on both sides and refitted one to the other, and which is covered over with raw leather or gut. One end is attached to an opening of the production vessel and the other end is attached to one of the cover openings of the great kettle. It is smeared.

Finally, a couple of large bullets (*araten*, *chapchal*) of clay or cow dung mixed with ashes and sand must be prepared in advance in whose size and beauty one house wife seeks to be superior to the other, because they believe that the foals of the mares, from which the milk comes, will increase in beauty and size proportionately to the bullets. In this a number of these bullets more than are necessary are later left on the fireplace.

As soon as the preparations are completed, a fire is made whereby one pays attentions through the uncovered opening of the large kettle until the milk is boiling in the same and the strong-smelling vapor which can even catch on fire through the distillation arises out of the opening. As soon as this happens one of the previously prepared bullets is put on this opening and pressed down and the fire reduced. The small opening of the production vessels remains alone uncovered, although many spirit vapors escape through the latter because without this [loss], say the Kalmucks, the distillation will not be successful.

The vapor decreases after an hour and a half. When this happens all the brandy (*arrki*) has been driven out and of cows' milk there remains a thirtieth part at most, a 25th part and of horses' milk a 15th of the entire milk mass. The product is clear, very watery and cannot catch on fire. However, it can be preserved in glass bottles like weak corn whisky, without spoilage.

Rich Kalmucks allow the milk brandy to be fortified through repeated processing and have various names which refer to the product after each rectification. The brandy produced from re-distilled *arrki* the first time is called *dang*. It is called *arsa* after a second doubling and *chorza* after the third. They go no farther as a rule, although they have special names up to a sixth rectification, whereby the first are *shingza* and *dingza*.

The Kalmucks enjoy the product of the first distillation communally. One pours the brandy from the production vessel which has been removed quite warm into a wooden cup with a spout, and from this into a small bottle made of leather or bottle gourd.

Regarding Mongol (and Buriat distillation, although he notes that the Buriats do not do much distillation) Pallas first notes the similarity of what they do to that of the Kalmucks but also notes differences in the distillation vessel (Pallas 1776, 182):

A hollow wooden cylinder is attached over the milk kettle in which there is a miniature bottom. An opening in the middle allows the vapor to rise into a cooling area above. The brandy that runs together, collects and is led off through a pipe.

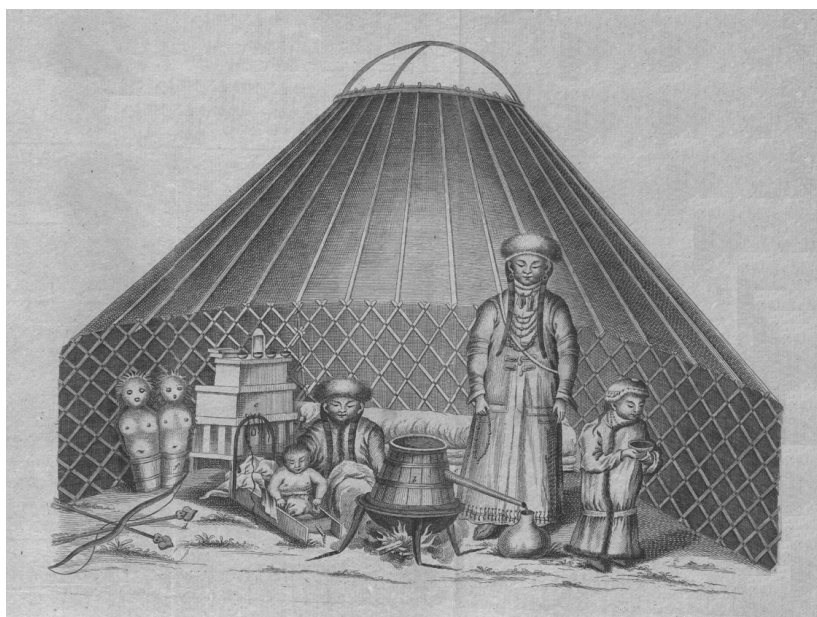


Fig. 3: Mongol Distillation (Pallas 1776, Tab. VII)

Thus Mongol distillation is different from Kalmuck in that there is no separate vessel to cool the output. It is cooled in the distillation unit and then the finished product is led off. From these descriptions one may notice how portable the distillation equipment is. Even the Kalmuck apparatus with its two metal vessels is relatively portable as is the Mongol vessel, part of or all of which is wood. The tripod upon which the vessels are placed is a part of yurt equipment to begin with and is not used specially for distillation. Note, incidentally, the passing mention of cows-milk distillation, something actually quite common in the steppe although the distillation of fermented mare's milk was preferred, but it is not always in season.

The reference to multi-distillations among the Kalmucks is particularly interesting because the products of such distillation loom large in Mongolian folklore. Steppe heroes, for example have produced for them a special milk brandy, distilled again and again until the product of a whole herd of mares is taken up in a single cup. This, the hero has to drink right down to show his manhood, at which point one of two things happens, he either dies or survives more powerful than before. If he dies his lady friend has to go to the other world to rescue his soul and bring him back to life. But this is dangerous and she can die too. In which case, the hero's super-intelligent horse has to do the deed. It is unheard of for horses to fail since they are not only stronger than humans but far smarter too.

Since Pallas's time the Mongols at least have continued to distill milk ferments. Figures 4 and 15 to 18 show some modern stills more or less identical in form to the Mongol still described by Pallas except that the figure 4 still is metal not wood (although identical stills can be wooden as well) and the condensate is collected in an internal pot and not led off via a pipe. Distillation stops whenever the ferment is gone or the internal pot full.



Fig. 4: A Modern Mongol Still  
(Photo by Montserrat de Pablo, 2015)

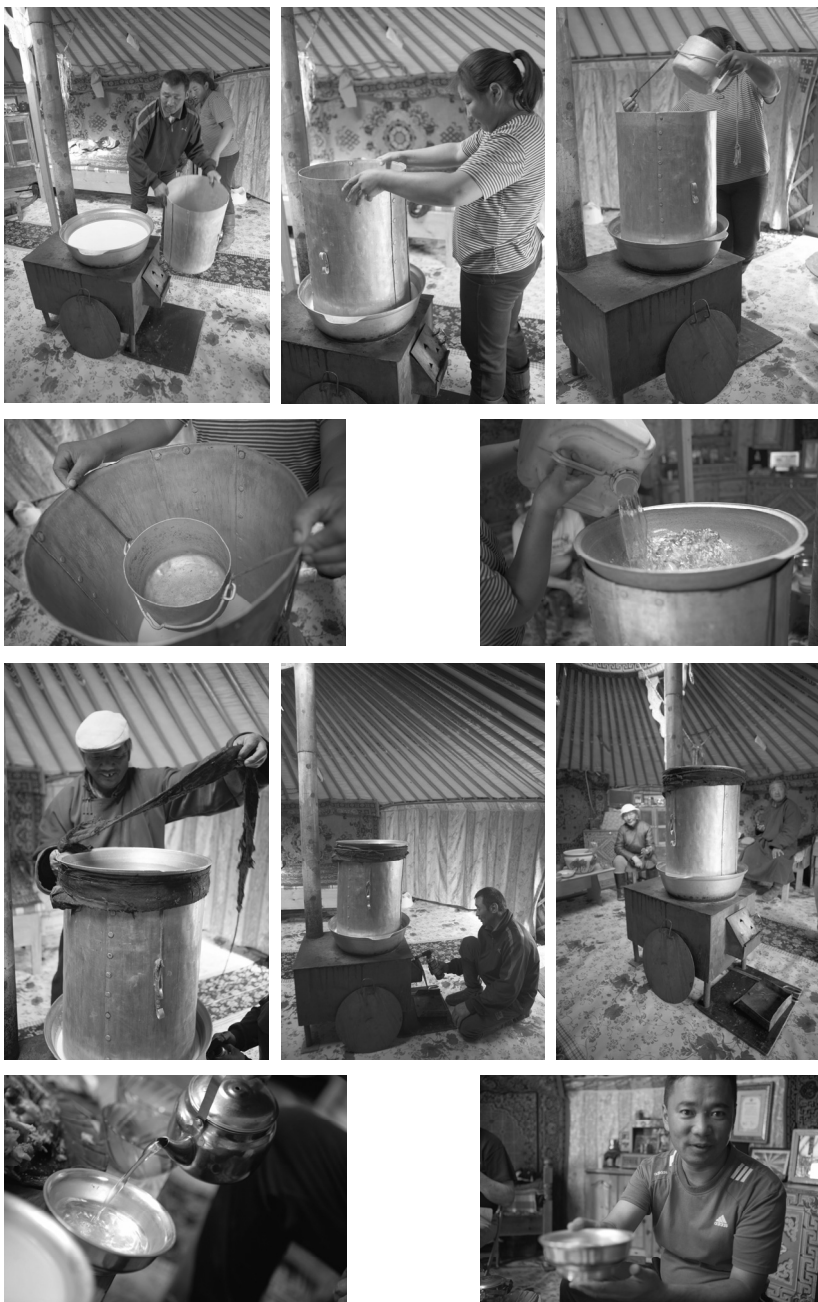
Figures 5 to 8 show a different type of still now not so often found in use including internal details. In this case a large "spoon" catches the condensate, and a pipe at the end of the "spoon" leads the distillate off to an external collector,

just like the still illustrated by Pallas. In this case, distillation stops when the ferment is exhausted. A string inside the delivery pipe (figs. 7, 8) controls the internal movements of the “spoon”.



Figs. 5-8: A Variant of the Modern Mongol Still With Internal “Spoon” Catcher  
(Photos by Montserrat de Pablo, 2015)

Today distilled liquors continue to play an important role in Mongolian life. When visitors enter a Mongolian *ger* they are immediately offered *kumiz* (*ay-rag*), and *arkhi*, distilled liquor, can follow quickly. This can be vodka but also the home-made *arkhi* in which the Mongols take pride. The authors were fortunate to be able to observe the process by which *arkhi* was made from cow’s milk from beginning to end using the metal still illustrated in Figure 4 during their trip to Mongolia in September, 2015. The result was quite tasty and potent as both authors will testify. Figures 9 to 18 below illustrate how the metal still in figure 4 is used in practice (note the ice and water added as a coolant and the use of a tape, apparently made from an animal skin, to seal the still and prevent the alcohol vapor from escaping).



Figs. 9-18: The Making of milk brandy using a metal still and the final product ready for drinking  
(Photos by Montserrat de Pablo, 2015)



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