

How Old is Old Cheese?

Gamalost in Coffin-shaped Boxes and Eccentric Jars.

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Trying to find out what *gamalost* is may prove a difficult task if you don't read Norwegian. André L. Simon helpfully described 'Gammelöst' [sic] as 'A Norwegian cheese made all the year round'.¹

The Simon and Schuster Pocket Guide to Cheese offers a more detailed description, but of the cheese as it was made by the dairies many years ago, 'as intimidating in appearance as the Vikings who reputedly enjoyed it' and 'virtually inedible unless sliced very thinly'.²

The *gamalost* of today has a cylindrical shape, the weight around 1.7 kg, although a small size of 0.38 kg is also made. It is brown, lighter towards the centre, semi-soft with a grainy texture, and has no rind. Made from soured, skimmed milk, it has only 1% fat (FDM). A soft, processed type is also available. It is usually eaten on buttered, dark bread, either spread with more butter, or with some dark syrup.

A single mould, *Mucor mucedo* var. *racemosus*, is responsible for the ripening of today's dairymade cheeses. They used to have a variety of moulds, often including some of the *Penicillium* type, which gave the cheeses a greenish colour in the centre.³

The name *gamalost*⁴ literally means old cheese. The dairy-made cheese of today is ready for consumption at an age of only two weeks, so the name may not seem quite appropriate. Now it is usually explained as referring to cheese of the old type. However, if we go back to the first detailed description of *gamalost*, published by Bishop Gunnerus in 1774, there is no indication that *gamalost* was considered to be a more ancient type than other cheeses. He said that it was called '*gammelost*' because it had to be somewhat old in order to be good. Gunnerus gave three alternative names for it: '*skior-ost*' (curd cheese), '*suurost*' (sour cheese) and '*gammelost*'. It has also been described as '*ramost*' (pungent cheese).⁵

The imaginary descriptions

One of the most widespread misunderstandings about *gamalost* is the idea that it is mentioned in *Njal's saga*, one of the greatest Icelandic sagas, written c. 1280. This 'fact' appears in a very large percentage of all writings on *gamalost* this century. The first one to claim that he found the phrase '*forn ostr*', meaning old cheese, in *Njal's saga* was Olav Johan-Olsen in 1905. He said that he searched for information in the sagas, but it would seem more likely that he used the Old Norse dictionary published by Fritzner in 1883-1896. The entry on *forn ostr* correctly refers to the saga of the sworn brothers (*Fóstbræðra saga*, see below), but can easily be misread as referring to *Njal's saga*. Even the usually thorough Fredrik Grøn, in his work on Norwegian food traditions, did not detect this error, but quoted it and added that *forn ostr* was 'also' found in the saga of the sworn brothers.⁶

Cheese is not entirely absent from *Njal's saga* though. Melkolf the slave was asked to steal cheese and butter at Kirkby (*Kirkjubæ*). The theft was proven by Mord, by using the cheese-mould from Kirkby: 'He asked Otkel to fetch his wife's cheese-mould, and when it was brought he laid the slices into it. They fitted perfectly.'⁷

The Icelandic/Old Norse term used here was *ostkista*, apparently used only in this saga. *Kista* could also mean chest or box, and *ostekiste* more recently was the name for the boxes where *gamalost* were stored to mature. This episode has also been interpreted as 'proof' that the cheese was *gamalost*, but there is no such evidence in the saga. Grøn discussed this in more detail, but concluded that the type of cheese could not be established.⁸

In another chapter, a fire was put out by women throwing sour whey on the flames. Johan-Olsen argued that enough sour whey to put out a fire could only come from the production of sour milk cheeses. That may well be, but we still have no proof that it was anything like *gamalost*. Besides, the *Möðruvallabók* manuscript of the saga added that some of the women carried water and urine to the fire...⁹

Johan-Olsen was not a man who gave up easily. He had more arguments. The burning of *Njal's* farm at Bergthorsknoll (*Bergþórshváll*) in c. 1011 is considered a historical fact. Some of the buildings at the site have been excavated, and among other things, pieces of a peculiar white substance was found in 1885. The substance was sent to Copenhagen for analysis. The detailed report¹⁰ concluded that the pieces were the remains of a soured milk product (*skyr*) and/or a sour milk cheese. In the opinion of Johan-Olsen, the report described a typical *gamalost*.¹¹ The saga of the sworn brothers related the story of the two enemies Butraldi and Thorgeir having to sit down together for a simple meal. There is a detailed report of what they ate:

...two platters were brought in; on one of them was some old short-rib mutton and on the other a large quantity of old cheese. Butraldi made a brief sign of the cross, then picked up the mutton ribs, carved off the meat and continued to eat until the bones were picked clean. Thorgeir took the cheese and cut off as much as he wanted, though it was hard and difficult to pare. Neither of them would share either the knife or the food with the other. Though the meal was not good, they did not bring out their own provisions for fear that it would be seen as a sign of weakness.¹²

This is actually the only time the phrase *forn ostr* appears in the saga literature.¹³ Grøn made a comparison with *fort vin* (old wine), arguing that ‘forn’ probably in both cases described something that improved with age.¹⁴ To me it would seem that in this case, neither meat nor cheese had improved with age. Butraldi and Thorgeir were served a poor meal of old food. To interpret this as *gamalost* is at best wishful thinking.

Icelandic author Halldór Laxness wrote a novel, *The happy warriors*, based in part on the saga of the sworn brothers. His great tale of bishop Grimkel bringing gold and silver hidden in a *gamalost* to the Pope in Rome is not part of the saga:

Bishop Grimkel was in the guise of a pauper, with staff in hand. And the tale is told that he had in his bag no other treasure but a rotting fermented cheese, such as are made in the North and for smell surpass all created things in Christendom, so that thieves, robbers and cut-throats went far about a pilgrim carrying such an abomination....

There was in [Rome] more filth, putrescence, leprosy and fetor of corpses and beggary than any otherwhere in the world in those times. Yet learned men hold that the stench rising from the cheese bishop Grimkel had with him from the North did little to better the Roman air, but rather the contrary....

And here bishop Grimkel lifted his cheese from the bag, set it down at the Pope’s feet and then stuck his knife in it, and out of the cheese poured a profusion of gold and silver like swarming maggots; and this hoard was both good and bright.¹⁵

The first descriptions

The first description of what seems actually to have been *gamalost* is found in Olaus Magnus’ history of the Nordic people, published in Rome in 1555. He claimed that the people of Parma and Piacenza had Scandinavia to thank for their abundance of ‘large and nourishing cheeses’, described the cheeses of several Swedish districts and Finland and prized them for their quality. The

people of Hälsingland and Norway, however, had what he called rotten cheese:

Although they see, how it is filled with maggots, they get used to it, and appreciate it. It's bark-like rind, which is left after the inner parts have been eaten, is hard like tanned leather, and is used for shields in war.¹⁶

He does not have a name for this cheese, but both the area where it was made and the description suggest that it was *gamalost*. The bark-like rind fits the description of a common fault in *sæter* made cheese.¹⁷

Gunnerus is generally credited with being the first to distinguish between the two main methods of *gamalost* production. Even if the name itself is not much older than Gunnerus, the two methods are clearly distinguished, but described in less detail, by Christen Jensøn in his dictionary of Western Norwegian colloquialisms, published in Copenhagen in 1646:

Rør-Oest or *Skiør-Oest* is made from sour milk by continuous stirring in a cauldron and heating over a slow fire till it reaches a temperature where you can just keep your hand in it. When the cheese has separated from the whey it is scooped up and into cloth-lined moulds where it is weighted to press out the remaining whey.¹⁸

Syde-Ost is made from sour milk by bringing it to the boil in a cauldron, then removing it from the fire till the cheese sinks to the bottom. The whey is poured off and the cheese filled into moulds where it is weighted.¹⁹

He did not say whether, or how the cheeses were ripened. The dictionary was a collection of words from Askvoll in Sunnmøre only, and it is unlikely that *gamalost* was made locally by two different methods. The conformity in technique with the methods later described by Gunnerus is interesting, though.

Jonas Ramus (1649 – 1718) in his 'Description of Norway' listed several types of cheese made at the *sæter* including *Skiør-Ost* or *Suur-Ost* (both are synonyms of *gamalost*, according to Gunnerus), and *Knaa-Ost*, *Knøst-* or *Pult-Ost*. No further details are given.²⁰

Bishop Erik Pontoppidan of Bergen wrote a 'Natural History of Norway', published in Copenhagen in 1752–53. He said that several kinds of cheese were made in Norway, naming some, but did not specifically mention *gamalost* or other sour-milk cheeses. He said that Norwegian peasants used to drink *blande*, made by mixing milk and water, or in winter, water and sour whey (*syre*). The peasants' wives boiled *syre* to preserve it through the summer for this purpose.²¹ The presence of sour whey is an indication that sour-milk cheeses may have been made. However, when later authors²² say that he mentioned sour-milk cheeses, they cannot have read his description.

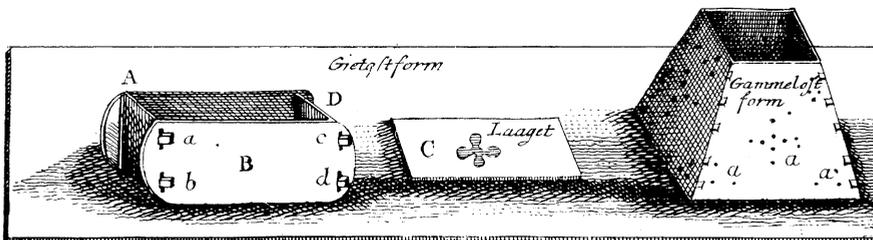
Hans Strøm (1726–97) in his description of Sunnmøre²³, was the first to mention *gamalost* by that name. He said that *Skjør-Ost* or *Gammel-Ost* was made of curds or sour milk, boiled into cheese, pressed into moulds, and finally set aside to ferment, when it had to be stirred to get the fermentation going and to achieve the correct taste.

Christopher Hammer (1720–1804) published a ‘Norwegian Household Calendar’ in 1772. He described *skjørøst* as being very dry and crumbly and recommended placing it close to the sauna for a day or so, to get the fermentation going. Depending on its further treatment, *skjørøst* was made into *gamalost* or *pultost*. To make *gamalost*, he recommended steeping the cheese in wort.²⁴

Johan Ernst Gunnerus (1718–73) was bishop of Trondheim and one of the founders of the ‘Royal Norwegian Science Society’. He wrote the first detailed work on the uses of milk in Norway, published in 1774. This is still the best available source on traditional ways with milk and milk products in this country. It included one of the most detailed descriptions of *gamalost* production.²⁵

Gamalost is made of thick, soured milk. The milk should be skimmed first, unless ‘a person of rank’ wants a superb cheese, which is then made from whole milk. Gunnerus distinguished between two methods of *gamalost* making. By the first method, the thick, sour milk was heated in a cauldron over a slow fire, constantly stirring to break the curds into small, even grains. The milk was boiled for up to half an hour, whereafter it was removed from the fire. The curds should then sink to the bottom of the kettle, leaving the clear whey on top. After removing the whey, the still warm curds were filled into a mould. Some used a cloth to line the mould, which also facilitated the unmoulding.

By the second method, the milk was heated, but not boiled. The still floating curds were lifted out of the cauldron and into the cloth-lined mould. The cheese was then submersed in the whey again and boiled for half an hour.



Cheese moulds as illustrated by Gunnerus, 1774. A whey cheese mould with lid to the left, an unusually square gamalost mould to the right.

Occasionally, cheeses were made by this method without the boiling, but this resulted only in poor cheeses, with poor keeping-qualities.

According to Gunnerus, the best cheeses were made by the first method, later to become known as the Sogn method after the district where it was used. These cheeses were held to be finer, more uniform and matured more easily. His second method would later be known as the Hardanger method.

The cheeses were left in the moulds for at least two, usually three or four days. After unmoulding, they were placed on shelves in a warm room for a few days, until they started maturing. The signs of this were softening or some mould growth. They were then moved to a drier spot, where they were turned every other day, so as not to fasten to the wood or birch bark on which they were standing. For keeping, they were transferred to a cooler place, stacked one on top of the other, but with pieces of wood or birch bark in between. In the autumn, cheeses were placed in wooden chests or barrels in a cellar, often wrapped in straw, especially oat straw. The longer the chests had been used for this purpose, the better the cheese was said to be.

Several tricks were used to improve a cheese that did not mature properly. Beer, wort, wine or brandy was filled into a cavity made in the cheese, or the cheese was wrapped in a cloth moistened in any one of these liquids.

A well made *gamalost* was, according to Gunnerus, of a brown or brownish colour, soft enough to be sliced thinly, and having a pungent smell and a pleasantly sharp taste. Many people, even Danes and foreigners, he said, preferred it to any other cheese. He recommended it for being diuretic, and for 'warming and fortifying' the stomach. Perhaps drawing on his own experience, he said there was nothing better for those who had eaten too many oysters. Peasants used to boil a small piece of cheese in sour whey, drinking a few cups of this, hot, as a remedy against colds.

The best *gamalost* in Gunnerus' diocese came from Røros and Nordland, especially Vefsn. Generally, he said, persons of rank in the countryside, made a better cheese than the peasants did.

He described the common size as 8 kg²⁶, the shape cylindrical, or square. A square mould is also known by a description from Nordland, where it was known as a *gamalostlur*. It was 40 cm high, 20 cm square, somewhat wider on top.²⁷

Gerhard Schøning (1722–1780) visited the farm of Storfosna in Trøndelag in June 1774, where he found that *gamalost* was made according to the Sogn method. It was wrapped in lukewarm, boiled straw after moulds had started appearing on its surface.²⁸

Nikolay Jonge wrote a 'Chorographic description of Norway', published in 1779. His description of cheeses was mostly word for word copied from Ramus, but he added *gamalost* as a separate type.²⁹ Possibly because Jonge

(who was Danish) knew *gamalost*, but was not aware of the other Norwegian names for it.

The 'Norwegian journey' published by Johann Christian Fabricius in Hamburg 1779 included a description of cheeses. His description of *gamalost* was a brief summary of Gunnerus. He added that it was known under the name of old Nordic cheese in Denmark, and much appreciated.³⁰

The clergyman Wille described two kinds of *gamalost*, a *sweet* one, i.e. made from fresh milk, with rennet, as opposed to the one made from sour milk, *gammel Suur-Ost*.³¹ More detailed descriptions and manuals on the production of *gamalost* were eventually published, but these are of less interest for the purpose of this paper.³² *Gamalost* was considered of better quality and more valuable than *pultost* and *fatost*. The first was often made for sale, and the others for home consumption.³³ Hard pieces left over from a cheese were occasionally made into a sort of 'porridge', *gamalostgraut*, and eaten on bread. This is known both from Hardanger and Trøndelag.³⁴

The travellers' tales

Several British and other travellers visited Norway during the 18th and 19th centuries and published their diaries. Naturally, their interest in the foods they were served varied. The fact that many encountered *gamalost* shows that it was a more common food in those days than it is today. Some of them liked it and some hated it, probably reflecting a very variable quality.

The English mineralogist and traveller Edward Daniel Clarke (1769–1822) visited Scandinavia in the summer of 1799, starting out in the company of three other young men, one of whom was Thomas Robert Malthus (1766–1834). They parted in Sweden, however, and did not go to Norway together. Clarke was served *gamalost* at Hov, south of Trondheim:

We dined at *Hoff*; and for the first time tasted the old *Norwegian* cheese, called *Gammel Orse*, or *Norske*, of which the inhabitants are very fond. It resembles very excellent old *Cheshire* cheese, without any rankness. This kind of cheese is sometimes sent in presents to *England*; but the *Norwegians* themselves prize it so highly, that it is difficult to purchase any of it. The *Gammel Orse* is sometimes kept for ten years before it is brought to table. In making it, they use buttermilk, mixed with yeast.³⁵

The reverend Frederick Metcalfe, M.A., fellow of Lincoln College, Oxford, had two very different experiences with *gamalost* in 1856, but did not go into great detail. In Dalen (Telemark) he had a cheese not explicitly described as *gamalost* but it was 'so sharp that it went like a dagger to my very vitals at the first taste...'.³⁶

Later he had more luck in Flåm (Sogn):

Not sorry was I to darken the doors of Thorsten Fretum, whose house stood on an eminence, commanding a view up the valley and the Fjord. Bayersk Oel and Finkel³⁷—old and good—raw ham, eggs, and gammel Ost—a banquet fit for the gods—were set before me.³⁸

In the same year William Mattieu Williams (1820 – 1892) ate *gamalost* in Romsdal. He was quite taken with it and praised it as ‘a new sensation for epicures’:

My dinner at the Horgheim station consisted of “smoerogbröd” and “gammel ost,” bread and butter and old cheese: charge 8 skillings, or 3½*d.* The gammel ost is a celebrated Norwegian dish, and this at Horgheim the finest example of it I have met with. It is a peculiar sort of cheese, made, I believe, with goats’ milk mixed with herbs and sugar. When new, it is very detestable, but after many years’ keeping it decomposes, and forms a sort of condiment rather than food. It is sprinkled in a moist powder, upon bread and butter. When in perfection, it is neither mouldy, moist, nor mitey; it is of a uniform pale brick colour, just capable of crumbling, and has a rich anchovy-pastish flavour with a faint suggestion of parmesan. If Fortnum and Mason, or Crosse and Blackwell, were to import some of this, put it into eccentric jars, and charge a sufficiently high price for it, our epicures would run into ecstasies about it, until they discovered that it is really a cheap and vulgar article.³⁹

He had the opportunity to watch the cheese being made, but his description of this is not very accurate:

In the corner opposite to the head of the bed, and almost within arm’s reach, was the great stone hearth, covered with a stone and plaster dome. The other corners were occupied by benches on which the vessels for standing and mixing the milk with the other cheese materials were placed. There was also a second small apartment, or rather cupboard, for the stowage of pans, pails, &c. All was scrupulously clean in this particular saeter.

Soon after sunset the sovereign mistress of the place came in, bearing heavy pails of rich milk from cows and goats. Some lumps of wood were taken from their store place under the bed, a crackling fire was soon blazing on the hearth, and the iron cauldron, filled with a mysterious mixture of goats’ milk and other unknown ingredients, from

which the green cheese that ripens in time to “gammel ost” is made, was hooked to the black chain over the middle of the fire. For some hours after, every time I awoke the sticks were blazing, and the busy lass was there stirring, mixing, and watching till after midnight, or nearly to the dawn, when she disappeared.⁴⁰

Williams later wrote several popular science books, among them *The Science of Cookery* and *The Chemistry of Cookery*, published in London in 1884 and 1885, respectively.

Francis Merrick Wyndham apparently would happily have done without the smell of *gamalost*, which followed him everywhere on his tour in 1859. First, in Kaupanger (Sogn):

... on a plate under a bell-glass were placed a few pieces of the strong-smelling *gammel ost*, or old cheese.⁴¹

Having supper at Bøvertun sæter, Sognefjell:

... our peace was much disturbed by some large sugar-loaf shaped cheeses, which, exhaling an extremely disagreeable odour, were far from desirable neighbours; however the *budeier*, at our particular request, removed them to the dairy.⁴²

At a farm in Lom, he was shown around the store-rooms of the house:

When we visited the dairy, I had the imprudence to venture into the cellar beneath, and to look into a coffin-shaped box where the *Gammel ost* was kept, and whence issued such an odour, that I quickly let go the lid and scrambled up the stairs again.⁴³

In the mountains south of Lom, more *gamalost* was being made:

In a very small room, which savoured strongly of cheese, a stout, rosy-faced girl was lustily⁴⁴ stirring with a stick a quantity of skim milk in a large iron cauldron, suspended over a blazing fire in one corner of the room. On some shelves against the wall stood a number of the large, white, conical gammel ost (old cheese), fully accounting for the unpleasant smell which had greeted us on entering. A door opened into the milk room, where was disposed a goodly array of flat wooden vessels filled with milk.⁴⁵

He was not impressed by the quality of the white goat cheese and the ‘very peculiar tasting’ *mysost*, but:

The *gammel ost*, however, to my taste is the worst cheese of all, though not in the opinion of a native, who likes nothing better.⁴⁶

The French explorer Paul Belloni Du Chaillu (1835–1903), known for his travels in West Africa, made several journeys in Scandinavia from 1871 to 1878. He encountered ‘*gammal ost*, the strongest old cheese one can taste’ on a *smörgåsbord* in Gothenburg, Sweden⁴⁷, and later came across it several times in Norway. Of Sogndal, he said that:

The district is celebrated for orchards of apples, and also for its *gammel ost* (old cheese), which, when old enough, is the strongest known, and, after one gets accustomed to eat it, an excellent appetiser.⁴⁸

Du Chaillu is the only foreign traveller known to me who described our other main sour milk cheese, *pultost*:

There are three peculiar kinds of cheese: 1. The *mysost* is made from the whey remaining from the common cheese, boiled till the water is evaporated; then it is shaped into square cakes, weighing from two to five pounds; the colour is dark brown. It must stand at least a day before it is fit to be eaten. It is made only at the sæters, where wood is plentiful, for it requires a great deal of fuel. It is eaten in thin slices, and with bread and butter; women and children are especially fond of it. The best is from goat’s milk. It can hardly be called a cheese, as it consists chiefly of sugar and milk. 2. The *gammelost*, made from sour skimmed milk, is a fermented round cheese, which is kept for months in the cellar. 3. *Pultost* is also a fermented cheese, mixed with caraway-seeds, not formed into cakes, but preserved in wooden tubs.⁴⁹

Valldalen used to be famous for its *gamalost*. Du Chaillu stayed here a couple of days, apparently having a good time with the young milk-maids. When he left, he was presented with a big cheese, provisions for his walk across Hardangervidda. One can only assume that it must have been a *gamalost*.⁵⁰

The cookbook writers

Hanna Winsnes (1789–1872) in her famous cookbook described two methods for making *gamalost*. For the first one her description is very brief. The second method is more detailed, and unusual. The cheese, after being moulding, was wrapped in a cloth and boiled in the whey ‘till fairly red’. She did not say how long this is going to take, but mentioned that the whey will begin to thicken. The two hours of boiling used in the dairy today hardly darkens the cheese at all, so it is more likely that something like 6 hours was necessary. After

remoulding and a couple of days rest, it is wrapped in cloth again, and boiled once more. This time in beer, 'till [the beer] is almost absorbed.' She recommended making three cheeses at the same time, as they would be better, stacked on top of each other in a tall, narrow tub and wrapped in straw. To speed up the maturation, the straw should be boiled in juniper extract (*briskelåg*) and wrapped around the cheese while still warm. This moist straw would have to be replaced once a day, and for as long as you cared to. *Gamalost*, she said, must always be a year old when used.⁵¹

Elisabeth Undahl in 1893 included three recipes for making *gamalost*. One can be recognized as the 'Hardanger' method. The other two are word for word copied from Winsnes, except for two smaller changes. She added just enough to the description of Winsnes' first method to make it clearly distinguishable as the 'Sogn' method. For Winsnes' second method, she reduced the necessary maturation time to six months.⁵²

Hulda Garborg (1862–1934), wife of the author Arne Garborg, highly recommended Norwegian products in her books. In her opinion, anyone who understood cheese, would most likely rate a perfect *gamalost* higher than a Roquefort:

No cheese can be finer, and none worse than the *gamalost*. It is made in different ways, any way it *can* be good, any way it can turn bad. It has the temper of a fine wine, is capricious like an all too pretty maiden; it possesses secretive powers like no other Norwegian cheese.⁵³

Another cheese she thought highly of, was the Western Norwegian *fatost*:

I once got together a group of fully experienced connoisseurs (townies and globetrotters of the utmost description) and placed before them a crock of *fatost* from Jæren with Norwegian mountain butter and oatmeal flat-bread; when they had sampled this, they all agreed that this cheese outclassed both Roquefort and Gorgonzola.⁵⁴

Dairy production and the nostalgic writers

Gamalost used to be made in the *sæter*, the mountain farm where cattle was kept during summer. Since the first Norwegian dairy was established in 1855, milk processing has gradually been taken over by the dairies, and the traditional cheesemaking slowly disappeared. Following the growing dairy production, several writers published test reports on the cheese production in the early 20th century. The first was Olav Johan-Olsen in 1905, followed by Ludvig Funder (1915–17 and 1941). Schmidt-Nielsen and Benterud published two papers on the chemistry of *gamalost* in 1940. Sigurd Funder, son of

Ludvig, wrote a thesis in English on 'The chief molds in Gammelost and the part played by them in the ripening process' in 1946.

There are no estimates of production on the *sæters*, but the dairy production in 1935–40 was about 260,000 kg per year. The *sæter* production was thought to add substantially to this figure.⁵⁵ By 1980, *sæter* production was nearly non-existent, and dairy production was down to 150,000 kg.⁵⁶ The start of the Norwegian Gamalost Society in 1983, along with a growing interest in food traditions, seems to have stopped the decline. The dairy production kindled an interest in the disappearing *sæter* made cheeses.

A soup in the sun, a novel by Leif Borthen⁵⁷, is the great account of a journey through Norway in search of the real *gamalost*. The author's Portuguese friend Sebastião da Silva remembered affectionately a cheese he had eaten at the house of the Norwegian consul in Lisbon in 1938. Years later he came to Norway with a *saudade*⁵⁸ in his heart, to find this cheese again. The friends soon realized that no dairy cheese would do. They found some local cheeses too, and agreed that the one made at a *sæter* near Voss was a great, unique cheese, but not *the* cheese. Sebastião said that 'You should know that the cheese served by your fellow countryman in Lisbon was an "angry" cheese, yes, not just angry, it was formidable. It was ruthlessly sovereign like a Genghis Khan. And *that* cheese, amigo, had a green centre.'

In 1987, the *gamalost* got it's own book, written by John Moberg, president of the Norwegian Gamalost Society. It is an irreverent book, jokingly describing the history of the cheese and it's present production and uses.

Since 1991 Vik dairy is the only *gamalost*-producing dairy.⁵⁹ The modern production still follows the general method described by Gunnerus in 1774. The dairy is located in Sogn, but the production follows the Hardanger method. Of course, stainless steel vats and moulds have replaced cauldrons and wooden moulds. The hygienic control is very strict, in fact more so than in any other cheese production in Norway. The source material still is skim milk. After souring, it is coagulated by heating to 63°C (145°F). A so-called decanter is used to separate the casein (curds) from the whey, whence the name 'decanter-method'. Centrifuge would probably be a more descriptive name for the contraption, though. A mill cuts the curds into a grainy substance, which is filled into the moulds. The moulds are lowered into vats of boiling whey for a couple of hours. After another few hours rest, the cheeses are unmoulded and placed on steel shelves, where it is sprayed with a pure mould culture, *Mucor mucedo* var. *racemosus*. After three days there is a thick mould growth, making the cheeses look like furry balls. The mould is flattened by hand, a process which is repeated after another two days. The ripening period is surprisingly short, 12-14 days for a standard size cheese of 1.7 kg. The small 380 g cheeses

ripen in only 8-9 days. In order to maintain an even degree of ripening, all cheeses are frozen at the appropriate stage. Freezing apparently has no adverse effects on the quality. Today, 5 mill. litres of milk are made into 200 000 kg of *gamalost* each year.⁶⁰

Does *gamalost* have a future? The pleasure of finding a particularly good cheese at the small dairy or *seter* in a remote valley is gone. Wherever you buy your cheese today, rest assured that it is all made at the same location. This spring, just by chance I found possibly the last person in Norway who makes traditional *gamalost* for sale. Gerd Lien from Røldal makes *gamalost* in a *seter* at Haukelid every summer, and sells her produce through a shop in Bergen.⁶¹ At a time with increased interest in farmhouse cheeses around the world, and despite growing import of foreign cheeses to Norway, I think there is hope for *gamalost* too.

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- ² Carr 1981, pp. 114-115.
- ³ Johan-Olsen 1905; S. Funder 1946.
- ⁴ *Gamalost* is the 'nynorsk' spelling which seems more appropriate for this traditional cheese than the 'bokmål' spelling *gammelost*. In Swedish it is called *gammalost*.
- ⁵ Setelarkivet 1999a, e.g. nos. 1501053311, 1501053313, 6505928027.
- ⁶ Johan-Olsen 1905, p. 34; Grøn 1927, p. 99.
- ⁷ Njal's saga 1986, p. 124; Icelandic: Brennu-Njál's Saga 1954, p. 125: '... það hann, at taka skyldi ostkistu Þorgerðar, ok var svá gört; lagði han þar í niðr sneiðirnar, ok stózk þat á endum ok ostkistan.'
- ⁸ Grøn 1927, pp. 100-101.
- ⁹ Njal's saga 1986, p. 265; Brennu-Njál's Saga 1954, p. 328 (sumar báru vatn eða hland); Johan-Olsen 1905, p. 35.
- ¹⁰ Storch 1887.

¹¹ Johan-Olsen 1905, p. 36.

¹² Translation by Martin S. Regal in Viðar Hreinsson 1997, vol. II, p. 341.

Icelandic: Fóstbræðra saga, in Vestfirðinga sögur 1943 p. 144-145: 'Frá verðgetum er sagt vandliga: Tveir diskar váru fram bornir; þar var eitt skammrifsstykki fornt á diskinum hvárum ok forn ostr til gnættar. Butraldi signði skamma stund, tekr upp skammrífitt ok skerr ok neytir ok leggir eigi niðr, fyrr en allt var rutt af rifjum. Þorgeirr tók upp ostinn ok skar af slíkt er honum sýndisk; var hann harðr ok torsótt. Hvárgi þeira vildi deila við annan kníf né kjötstykki. En þó at þeim væri lítt verðr vandaðr, þá fóru þeir þó eigi til sjálfir at skepja sér mat, því at þeim þótti þat skömm sinnar karlmennsku.'

Old Norse: Fóstbræðra saga, in Flateyjarbok 1862, vol. 2, p. 103: 'Fra verðgetum er uandliga sagt .ij. voru diskar fram settir. þar var æitt fornnt skamrifsstykki a diske huorum ok forn ostr til gnættar. Butrallde signde skamma stund ok tok upp skamrifsstyckit ok leggri æigi fyrr niðr en af var allt. Þorgeirr tok upp osthlutinn ok skar af sligt er honum syndizst. hann uar harðr ok torsotttr. huorgi þeirra uillde æiga vid annan knif ne kjötstycki. en þo at þeim uæri litt uandadr nattuerdr þa foru þeir þo æigi j bur at skepia ser nattverd þuiat þeim þotti þat suiuirding sinnar kallmenzsku.'

¹³ It is easier to prove the existence of a phrase, than it's non-existence. I have digitally searched the full texts of some 80 sagas and tales (þættir) available on the Internet at <http://www.snerpa.is/net/index.html> and found several references to cheese, but nothing on particular types of cheese.

¹⁴ Grøn 1927, p. 100.

¹⁵ Halldór Laxness 1958, pp. 261-270.

¹⁶ Olaus Magnus 1555, vol. 3, p. 85.

¹⁷ Johan-Olsen 1905, p. 102.

¹⁸ Jensen 1646, p. 98.

¹⁹ Ibid. p. 110.

²⁰ Ramus 1715, p. 19.

²¹ Pontoppidan 1753, p. 432.

²² Johan-Olsen 1905, p. 35; L. Funder 1941, p. 7; S. Funder 1946, p. 9

²³ Strøm 1762, volume 1, p. 377.

²⁴ Hammer 1772, vol. 1, p. 192.

²⁵ Gunnerus 1774, pp. 113-122

²⁶ 1 Lispund = 7.97 kg

²⁷ Setelarkivet 1999a, no. 1501053350.

²⁸ Schøning 1979, volume 1, p. 292.

²⁹ Jonge 1779, p. 33: 'Gammelost, som holdes rar af mange'.

³⁰ Fabricius 1779, pp. 250-252.

³¹ Wille 1786, p. 191.

³² E.g. Bang 1802, Gjertsen 1854, Konow 1878, Grude 1891 and Skrikrud 1914.

³³ Setelarkivet 1999a, no. 1501053313.

³⁴ Setelarkivet 1999a, no. 1501053348; Setelarkivet 1999b, no. 100091175.

³⁵ Clarke 1824, vol. 10, p. 292.

³⁶ Metcalfe 1858, vol. 1, p. 50.

³⁷ Bavarian type beer and homemade liquor

³⁸ Metcalfe 1858, vol. 1. p. 192.

³⁹ Williams 1859, pp. 191-192.

⁴⁰ Ibid. pp. 217-218.

⁴¹ Wyndham 1861, p. 55.

⁴² Ibid. p. 101. *Budeier* are milkmaids.

⁴³ Ibid. p. 116.

⁴⁴ The word *lustily* mysteriously disappeared in the Norwegian translation of 1970.

⁴⁵ Wyndham 1861, pp. 122-123.

⁴⁶ *Ibid.* p.228.

⁴⁷ Du Chaillu 1899, p. 7.

⁴⁸ *Ibid.* p. 201.

⁴⁹ *Ibid.* p. 342.

⁵⁰ *Ibid.* p. 253.

⁵¹ Winsnes 1845, pp. 81-83.

⁵² Undahl 1893, pp. 179-182.

⁵³ Garborg 1922, p.149 [Not in the 2nd ed. of 1903, 1st ed. 1899 not seen].

⁵⁴ *Ibid.* p. 147 [Identical in the 2nd ed. of 1903, p. 145, except that the cheese now was from Sunnmøre!]

⁵⁵ S. Funder 1946, p. 17

⁵⁶ Moberg 1987, p. 13.

⁵⁷ Borthen 1961.

⁵⁸ The Portuguese word *saudade* comes from Latin *solitas* (loneliness) and denotes 'a feeling of nostalgic remembrance of people or things, absent or forever lost, accompanied by the desire to see or possess them once more.'

⁵⁹ Bergfjord 1997, p. 104.

⁶⁰ Jon Inge Sørland, TINE Norwegian Dairies BA, Vik, pers. comm. 1999.

⁶¹ Gerd Lien, pers. comm. 1999.