Pickled Meat

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Table of Contents

Summary *

Historical Documentation *

Pickling Process *

Mead Vinegar *

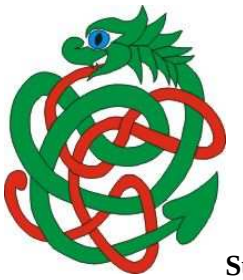
Herbs *

Meat *

Recipe *

Lessons Learned *

Bibliography *



Summary

In the Viking Age, eating all the food that was set before you was likely to be a matter of honor. For example, the Norse myths say that Thor himself was tricked into entering an eating contest against *Logi* (fire) and was upset when his opponent won. Yet, after eating his fill, what would a good 10th Century Norseman do if food remained? As much as I enjoy my lady's cooking, this very dilemma comes to me from time to time. Therefore, I determined to develop a period recipe to pickle meat and, at the same time, give us something special to eat for lunch at the next event.

I was unable to find any surviving recipes from the Viking Age, but found one from a later time period to give me a basic recipe from which to work. I found information about food preservation in other areas of Europe during the Viking Age. I used this research, archeological evidence of Norse food and herbs, and logic to derive a basic recipe.

I then experimented with this recipe to find a mix of ingredients and processes to create pickled meat that was tasty enough that I would be willing to use in the future, to lend additional authenticity to my lunches at SCA events.

In the process of research and experimentation, I learned a great deal about food preservation and cooking.

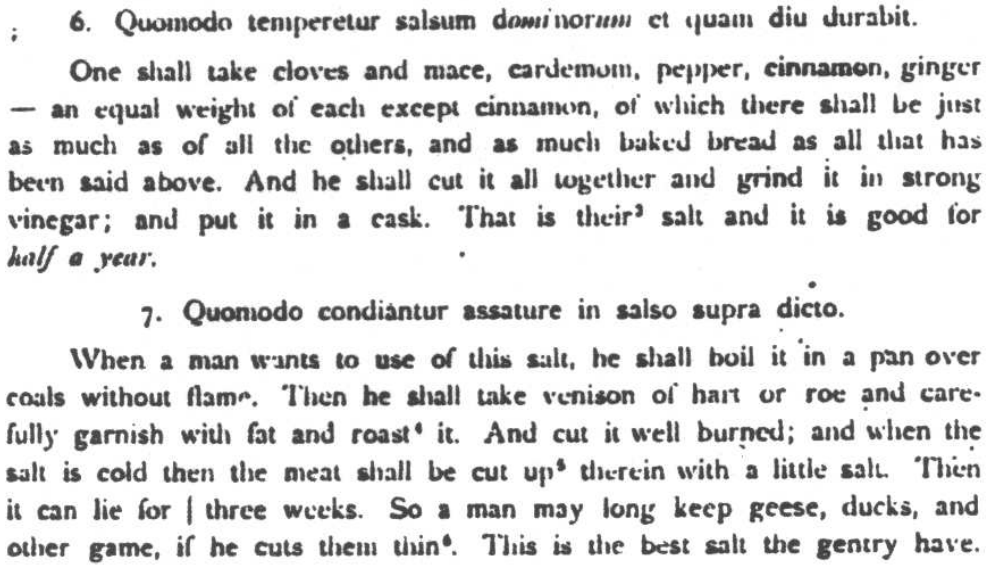
Historical Documentation

Pickling Process

Since ancient times, food production in every culture has enjoyed good years and suffered bad years. In England, there exists documentation for famines occurring every five to thirty years from 439 to 1099 AD, attributed to causes as varied as comets and "ugly locusts" (Hagen 152-154). Famines were unpredictable in their location, frequency, and severity. They could even lead to trade and barter if one area suffered famine and another did not. The need to store food left over from a good harvest toward the possibility of famine in the future, and to transport excess food for profitable distances in trade, required the development of methods to preserve the food for later use (Wilson, 5). These methods included drying, burial in sealed containers, parching, smoking, salting, and pickling.

Pickling involves impregnating the food with acid, by the use of vinegar or other acidic liquids, or indirectly through the action of bacteria in a brine solution (Hagen 39-40). A search of Renfrow's …*Thousand Eggs*... and Hieatt's *Pleyn Delit* did not discover any recipes for the actual pickling

process, either because it was too commonly performed to be written down, or more likely because pickling was not intended to be included in those works. However, I found a recipe in Larsen's translation of *An Old Icelandic Medieval Miscellany*, page 215. The recipe came from an early 13th Century manuscript.



6. Quomodo temperetur salsum dominorum et quam diu durabit.

One shall take cloves and mace, cardemom, pepper, cinnamon, ginger — an equal weight of each except cinnamon, of which there shall be just as much as of all the others, and as much baked bread as all that has been said above. And he shall cut it all together and grind it in strong vinegar; and put it in a cask. That is their[3] salt and it is good for *half a year*.

7. Quomodo condiantur assature in salso supra dicto.

When a man wants to use of this salt, he shall boil it in a pan over coals without flame. Then he shall take venison of hart or roe and carefully garnish with fat and roast[4] it. And cut it well burned; and when the salt is cold then the meat shall be cut up[5] therein with a little salt. Then it can lie for | three weeks. So a man may long keep geese, ducks, and other game, if he cuts them thin[6]. This is the best salt the gentry have.

This recipe shows that the pickling solution consisted of herbs that were mixed with vinegar and heated. The pickling solution was then applied over meat that had been roasted or otherwise cooked and cut into thin pieces.

A container suitable for use as a pickling jar should have a non-absorbent interior, wide body and mouth to ease the extraction of the contents, and a rim over which the seal can be tied (Wilson 55). Greased hide or a layer of oil were commonly used to seal the vessel (Hagen 42). The earthenware pottery available at the time, imported from the mainland, varied in its quality and absorbency, and pots whose interiors were glazed with lead may have gradually poisoned the food due to the metal leaching into the acid pickling solution. Barrels and tubs were probably used instead (Hagen 43), but since containers of this sort do not preserve well over a millenium, and any residue of pickling solutions would be preserved even less, it is difficult to be sure whether any particular container was so used. Wooden containers could be easily sealed with a coating of wax on the inside, making them ideal pickling vessels.

Mead Vinegar

The most important ingredient of any pickling mix is vinegar. It has a pleasant taste, relatively speaking, and provides a preserving effect by preventing the growth of harmful organisms. Any culture that was familiar with wine and mead, as were the Norse, would have no shortage of vinegar available to use for pickling. Wine and mead had a tendency to spoil quickly in the non-sterile conditions of the time (Wilson 28), but in so doing produced vinegar which itself was a common ingredient of pickling recipies (Wilson 29). The leftover wine or mead, which turned to vinegar, served to pickle the leftover meat, thereby achieving symmetry and allowing the later enjoyment of both.

Mead is made in a manner similar to wine, the main difference being that the primary ingredient in mead is honey. Mead is prominently mentioned in several of the Norse myths, and leads one to conclude that mead was a common drink among the wealthier Norse people. Renfrow's book devotes 90 pages to recipes for mead, hydromel, and metheglin, of which a typical example from 1669 is shown below (#76, page 60):

> To Make Meath: If you will have it to keep a year or two, take six parts of water, and one of honey; but if you will have it to keep longer, take but four parts of water to one of honey. Dissolve the honey very well in the water, then boil it gently, skimming it all the while as the scum riseth, till no more scum riseth. Then pour it out of the copper into a fit vessel or vessels to cool. Then tun it up in a strong and sweet cask, and let it stand in some place, where there is some little warmth; (It will do as well without warmth, but will be longer growing ripe) This will make it work. At first the course foul matter will work over, to which purpose it must be kept always full with fresh liquor of the same, as it worketh over. When it begins to work more gently, and that which riseth at the top, is no more foul, but is a white froth, then fill and stop it up close, and set it in a cool cellar, where it is to stand continually. After half a year or a year, you may draw it off from the lees into a clean vessel, or let it remain untouched. It is not fit to be drunk for it's perfection till the sweetness be quite worn off, yet not to be sower, but vinous. You may drink it at meals instead of wine, and is wholesomer and better then wine.

This example, while outside the SCA period, is included here because it provides not only the ingredients and process, but also some important cautions. These cautions are rarely included in period recipes, probably because the art was sufficiently well known that such warnings were usually unnecessary.

The Coppergate archeological site in York, England, includes a straw hive full of honeybee corpses, which provides evidence of domesticated honeybees (Hall 207). This supports the conclusion that mead, and therefore mead vinegar, was available.

Herbs

Vinegar, even mead vinegar, is not pleasing to the palate by itself. Herbs would improve the taste and, if properly chosen, enhance the preservative effect. I focused my research efforts on the archeology of York, England, because I have a lot of source material on it, in a language I can read, and the area was under Danelaw during the 10th Century. Thus it fits the time period and geography that I was trying to recreate. Pollen analysis from the Lloyd's Bank excavation of York, taken in strata dated between the 9th and 11th Centuries, provided important clues. The pollen analysis showed the most common plants in the area to be of the Compositae, Cruciferae, and Umbelliferae families (Hall 174-175). Moreover, the strata showed the environment these plants grew in, from arable land to grassland to wetland. Even knowing the shade and water conditions, this taxonomy still covers a wide range of herbs. I had to find a way to narrow the choices further.

I then turned to an herbal for information on herbs that fit the taxonomy and environmental data of the pollen samples. I looked for herbs in these families that met the following criteria:

- could have been used, by origin or spread through trade, in 10th Century Northern Europe
- climactic requirements allow growth in Scandinavia, either wild or with minimal care
- reputed to have medicinal uses encompassing sterilization, purification, and preservation
- has an interesting taste likely to be pleasing to the Viking Age palate
- reasonably available within my resources

My search of Hemphill's herbal yielded several herbs that matched these criteria: Coriander (Coriandrum Sativum, Umbelliferae), Horseradish (Cochlearis armoracia, Cruciferae), and Parsley (Petroselinum crispum, Umbelliferae). In addition, I selected Garlic (Allium sativum) because, while the pollen evidence does not show its presence, it fits the other criteria very well.

Meat

The bone deposit evidence from the archeology digs in York shows, in order of abundance, that cattle, pig/boar, sheep, goat, chickens, and geese, were all likely food items (Hall 186). Due to their size, fish bones are more difficult to detect and count. Though fish was probably as important to the Scandinavian diet then as it is today, I was not interested in fish for this project.

Recipe

Cooking is an art, rather than a science, particularly when I do it, because I do not measure that carefully when cooking. Therefore, most measurements should be varied to your own tastes. This section explains what was done, and how much of each ingredient was used, to create this entry.

From the research and conjecture I derived the list of ingredients: pork, coriander, horseradish, parsley, garlic, and mead vinegar. I used commercial pork tenderloin, and some commercial herbs (dried coriander seeds, grated horseradish, and dried parsley). The garlic in my garden is still immature and had a sharp taste, so half the garlic I used was from my garden and the other half was purchased from a farmer. The dried parsley and coriander seeds are actually more authentic for the entry, because fresh parsley and coriander are not obtainable this time of year without a greenhouse and, therefore, would not be available in period.

Make the mead using the recipe above. Boil the honey-water mixture to remove the impurities, such as fragments of wax and wild yeasts. The initial fermentation takes place in a covered (but not sealed) tub-shaped "primary" vessel, where the large surface area allows gas to escape quickly, and then the mead is siphoned off the "lees" (sediment) to a series of "secondary" vessels where the fermentation continues. Mead is very vigorous in its fermentation, and racking from the primary to the secondary before the initial fermentation has slowed can result in the secondary vessel spewing foam from its narrow neck. I made the vinegar from mead that was left over in racking from a 6-gallon secondary to a 5-gallon secondary. This particular mead is special in that it was started not with yeast, but with the lees (sediment) left from a batch of red wine I am making, and therefore has a slight reddish tint left over from the grape skin fragments.

To turn mead into vinegar, loosely cover a bottle of mead, to exclude insects but allow air circulation, and let it sit at room temperature for a week. Then, seal the bottle and store it until it is needed. Over time, it will gradually continue to sour until all the alcohol is consumed, but this happens very slowly in a sealed bottle because the process requires oxygen.

Put the meat in a pan and rub on top a mixture of 2 heaping teaspoons of fresh grated horseradish and 2 cloves of minced garlic. Roast the meat in the oven at 450 degrees. Pour some mead vinegar in the pan with the leftover herbs and use this mixture to baste the meat as it roasts. The time required for roasting will depend on the thickness of the meat. When it is done, serve it forth and enjoy. While roasting on a spit is more authentic, the weather did not permit this approach. The mead vinegar gives the meat a fine, light taste, and the garlic and horseradish carmelizes a bit from the sweetness of the mead to make a very nice topping.

Slice the leftover meat as thin as you can. Pour 1 1/2 cups of mead vinegar into a saucepan, turn on medium heat, and add 2 heaping teaspoons of grated horseradish and two minced cloves of garlic. The garlic from my garden was immature and sharp-tasting, so I mixed it with some mature garlic that I bought from a farmer. Add 1/2 teaspoons whole coriander seeds to the vinegar mixture, and about one teaspoon of dried parsley. Simmer, but

do not allow to boil, for 15 minutes. This brings the flavor out of the herbs. Then, put the sliced meat in a container that can be sealed and pour the vinegar mixture over it, ensuring the meat is covered. Allow it to cool, then put on the lid. The pickled meat should remain good for weeks, and longer if kept refrigerated, though I did not test the entry for more than 4 days.

For the entry, I doubled the pickle recipie in order to present a vegetable pickle of carrots and cucumbers, for those who do not eat meat. The entry was packed in a glazed earthenware jar sealed with a linen cloth soaked with beeswax.

Lessons Learned

I experimented with several different measurements of the herbs before I reached this mixture. I found that fennel, while it meets the other criteria, has a bitter taste, particularly when crushed, so I decided not to use it. I tried wine vinegar, which I made from a red wine I am brewing, and found that it turned the meat purple, which is not visually appealing. Mead vinegar gives a sweeter taste and does not cause discoloration.

I found that mincing garlic by hand takes a long time, and while the resulting texture was not uniform, the average size of the pieces is smaller than commercial minced garlic. I also learned that garlic and horseradish are very good when carmelized. In making the bread, which is part of the presentation but not the entry, I learned that it is necessary to flip the dough over and re-flour it while rolling it out, or it will stick to the work surface.

This project required about 3 hours to make the entry, not including the bread, which is part of the presentation to help tasters cleanse the palate. I also spent about 7 hours on several different experiments to get the best mixture of herbs. I spent about 6 hours to make the mead (which allowed me to make the mead vinegar). More time was spent on the wine, which provided the wine vinegar for experimentation.

This was my first cooking project. I enjoyed the challenge of researching and making this pickled meat, and I now have a documented meat dish that travels well for lunch at events. I owe a special thanks to my lady, for allowing me to use her kitchen, providing technical advice on roasting, basting, and bread making, and restraining herself from getting personally involved in my project.

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Back to Danr's A&S page.