Medieval Sauerkraut

Lady Ursula de Strattone, Barony of Arn Hold

"Cabbage is hot and dries out the body and makes people sing well." – Das Kochbuch des Meisters Eberhard, Germany, 15th c.¹



Harvesting Cabbage, from Tacuinum Sanitatis (15th century)²

Preserving food was just as important in the Middle Ages as it is today, both for nutritional purposes, and to enhance the diet with a wider variety of flavors and available foods. Some methods of preservation are focused on sealing food so that oxygen and contaminants cannot get in, such as potting (using fat/butter to fully submerge foods) and jellying (using gelatin for the same purpose). Honey is also used this way, and has the double benefit of being anti-microbial. Some methods of preservation removed moisture, limiting mold and bacteria growth, such as air-drying, smoking, or dry-salting.³

¹ http://www.florilegium.org/?http%3A//www.florilegium.org/files/FOOD-MANUSCRIPTS/Eberhard-art.html

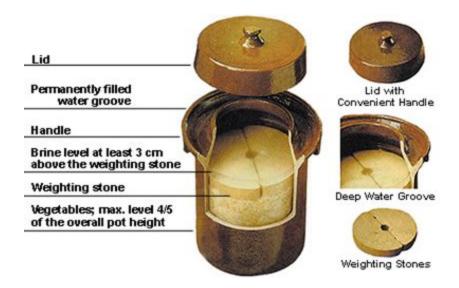
² Source: http://www.moleiro.com/en/books-of-medicine/tacuinum-sanitatis.html

³ Katz, Sandor. Wild Fermentation. Chelsea Green Publishing: 2016.

Brining, which was used not just for sauerkraut, but for a wide variety of pickled food items, works to prevent spoiling in several ways. The high-salt brine used to cover the food is lethal to harmful bacteria and molds, and the fact that the food is kept submerged protects it from excess oxygen. The brine also encourages the growth of lactic acid bacteria, such as lactobacillus, found naturally in the environment, which produces lactic acid. This acid creates the salty/tangy flavor that makes sauerkraut what it is, but also kills bacteria. Lactobacillus, also present in other preserved/fermented foods such as yogurt, kefir, and kombucha, has a reputation for aiding digestion and helping with stomach upsets in addition to its role in food preservation. ⁴

Period sources for sauerkraut are sparse. My belief is that this was likely a well-known technique that did not require recipes, merely a knife, a storage container, and salt. The 1616 Danish *Koge Bog* offers this recipe: "To pickle cabbage. Chop it finely, sprinkle it well each layer by itself in a container or barrel. Between each layer sprinkle salt, cumin and juniper berries and put a good weight on him, iiii or v days. Thereafter pour vinegar over it."⁵

This pickling method can be used for just about any vegetable, and is a great way to make a delicious tangy pickle that retains its nutrient content and crunch while adding flavor to any meal. In the middle ages, a stoneware crock or wooden barrel with a weighted lid would be used for making and storing kraut. The image below⁶ is typical of the "traditional" fermenting crocks available for purchase, which would not look terribly out of place in a medieval kitchen.



My recipe uses a smaller version made using modern items that recreates this system, holding the cabbage below the liquid while it ferments.

⁴ ibid.

⁵ http://www.medievalcookery.com/search/display.html?kogeb:40:KBJ

⁶ Image of a Harsch Fermenting Crock, source: http://www.canningpantry.com/harsch-fermenting-crocks.html



Sauerkraut recipe:

- Cabbage (1 head makes about 2 quarts of sauerkraut)
- Non-iodized salt (use pickling salt or sea salt)
- · Spices/flavors of choice (examples: garlic, onions, dill, jalapenos, peppercorns, etc.)
- · Water
- Jar or crock (I like small mouth mason jars best)
- · Canning funnel (not necessary, but makes things easier).
- · Plastic from an old container, or a small plastic bag

Preparation

- 1. Shred or chop cabbage into bits. Place in a large non-metal bowl. Sprinkle with about 2 Tablespoons of salt per head of cabbage.
- 2. Mix the well. Allow to rest for at least 30 minutes. You will notice the water seeping out of your cabbage. Do not drain this liquid off.
- 3. Rinse your jar well (no soap or bleach).
- 4. Spoon cabbage into your jar, juice and all. Pack down tightly to avoid air pockets. Leave about an inch of space below the neck of the jar.
- 5. If there is not enough liquid to completely cover your cabbage, add water to thoroughly cover.

- 6. Cut out a piece of plastic that is slightly larger than the neck of your jar. Fold and slip inside the jar, pressing the cabbage down under the liquid and wedging below the neck of the jar. OR, fill a small plastic bag with a bit of water (1/2 cup or less), tie/seal, and place in the neck of the jar to keep the cabbage under the liquid. The goal is to keep the cabbage submerged but allow air to contact the brine and let bubbles out.
- 7. Place the jar on top of a plate or dish in a dark place (a cupboard is great for this). The brine may bubble over as air pockets are released and the lactobacillus digests the sugars in the cabbage. This is normal.
- 8. Check your sauerkraut after about a week. You may see some cloudiness or even a bit of mold on top of your brine, or floating white or pink film (this is kahm yeast). THIS IS OKAY. Just scoop it out with a clean spoon. The salt and lactic acid in the liequid will prevent anything harmful from getting down into your sauerkraut.
- 9. Remove your plastic seal/plastic bag and taste your sauerkraut. If it's sour enough for your taste, put a lid on your jar and refrigerate. Sauerkraut will keep for at least six months in the fridge. It is also okay if left un-refrigerated, but will continue to ferment and become more sour until the acidity level is high enough to halt the bacteria's digestive processes. Your sauerkraut may also become softer at room temperature where yeast is able to survive.
- 10. I like sauerkraut that is at least two weeks old, but experiment and see what is right for you! Fermentation is faster in hot weather, so check frequently. You may also find that in our dry climate, especially with a bit of bubbling, your sauerkraut might need more liquid added. I add a pinch of salt to a cup, fill with tepid water, and pour in.

Future projects:

I would like to experiment with fermenting other vegetables using this process, especially turnips, a dish known in Germany as sauerruben. I would also like to experiment with various herbs and flavorings, such as juniper berries and the traditional caraway seeds. Someday, I would love to acquire a traditional ceramic sauerkraut crock and weight stones. This would allow me to make larger batches and experiment with longer storage and whether there is a different flavor profile or fermentation time using this type of container.

Resources and more Info:

http://www.culturesforhealth.com/cultured-vegetable-fruit-condiment-recipes http://vikingfoodguy.com/wordpress/papers/preserved-foods-of-the-viking-age/

Wild Fermentation by Sandor Katz (Chelsea Green Publishing)
Food and Drink in Medieval Poland by Maria Dembinska and William Woys Weaver (University of Pennsylvania Press)