

SCUM

NEWSLETTER OF THE BREWERS GUILDS OF ÆTHELMEARC AND THE EAST

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SCUM

Newsletter of the Brewers Guilds of Æthelmearc and the East
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When wenches wink their eyes and run
 The men may chase, but just for fun
 It's rough and tumble all night long
 Drink, Drink with wine and women sing a song
 Fill your flagon over full
 And pinch a tail, then take a pull
 The English love to drink
 The English love to Drink

These wenches, they're a rowdy lot
 Drinking makes their tempers hot
 A jealous wench will fight 'til dawn
 Drink, Drink, she'll take a drink and then fight on
 Fill her flagon over full
 She'll bite and kick, then take a pull
 The English love to drink
 The English love to Drink

The Englishman who drinks his fill
 Will in the morning be quite ill
 He'll fall asleep and dream 'til when
 Drink, Drink, the night comes and he drinks again
 Fill his flagon over full
 With bleary eyes he takes a pull
 The English love to drink
 The English love to Drink

The English maid who drinks 'til morn
 Will wish that she had ne'er been born
 All day long she'll sit in bed
 Weep, Weep, and wile weeping nurse her head
 Fill her flagon over full
 She told her tale and took a pull
 The English love to drink
 The English love to Drink

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FROM THE GUILDMASTER

Greetings unto the Brewers, Vinters and Imbibers of the Known World, from Lord Corwin of Darkwater, Guildmaster of the Brewers Guild of the Principality of Æthelmeare. Welcome to Scum.

EX LIBRIS

From Lady Aoife Finn (whose 'mother' graces this issue of Scum), I have word of two new sources for brewers:

Mrs. McLintock's Receipts for Cookery and Pastry-Work

(Introduction by Isabail Mcleod). First Published in 1736. Reproduction of the original. Aberdeen University Press, 1986.

Curran Wine, July-flower wine, Gooseberry Wine, Cherry Wine, Orange Wine, Claret Wine, Moonshine.

Lady Castlehill's Receipt Book.

Hamish Whyte ed., The Molendinar Press, Glasgow, 1976. Excerpts from the original ms., punctuation changed marginally to make it legible to the modern reader.

Bragget my Lady Owen's Way, Black Cherry Wine, Cowslip Wine, A Rare Posset, Gilly Flower Sack, Sillibub, Sillibub from Mrs. Honeywood, Hippocras Capt. Godfrey, White Mead a Very Good Way.

These recipes were collected through the life time of Lady Castlehill and possibly others, as several hands appear in the book, circa 1700.

GODISGOODE

My boundless thanks go out to Donald Harefoot, Lord Ivan Kalinin & Lady Valentina Andreyevna Sokolova Krasnaya, Lady Aoife Flinn, Lord Tadhg macAedain uiChonchobhair, and Lord Prospero da San Giuseppe Iato, who made Scum what it is today. Vivant to you all.

Lord Corwin of Darkwater

Scriba fermentatoris, Fermentator scribaei

BREWING ALL-GRAIN HEAVY ALES

Donald Harefoot

Perhaps the first question that would come into your mind when the phrase "brewing all-grain ales" is brought up in a conversation is "why"? I can think of several reasons why a period brewer would consider the option of all grain brewing. The first and perhaps the most important reason is that all grain brewing is "period" while opening up a can of malt and clumping it into the brew pot is not.

A second, more practical reason, is that brewing with strictly grains is on the average cheaper than preprocessed malts (this is not so difficult to understand when you realize that you are cutting out the middle man) and really does not take any other equipment than what the intermediate brewer might have lying around the kitchen. Finally, you will have the satisfaction of knowing that the product you have created is yours and owes nothing to one of the large companies that produce malts.

1 Talent (Old Palestine)	=	20-40 Kilograms 60 Mina 3,000 Shekel
1 Tablespoon	=	0.06 Cups 180 Drops 0.5 Ounce (US FL) 3 Teaspoons
1 Teaspoon	=	0.02 Cups 60 Drops 3-4 Pinches
1 To (Japan)	=	18.04 Liters
1 Tun	=	252 Gallons (US) 3 Puncheons
1 Vedro (Russia)	=	12.3 Liters
1 Weys (Brit)	=	252 Pound (avdp)
1 Zolotnik (Russia)	=	65.83 Grains

THE ENGLISH DRINKING SONG

Arven and Valerice Atwater

The English love their mead and ale
They love to tell a bawdy tale
Singing songs 'til early light
Drink, Drink, An Englishman will drink all night.
Fill his flagon over full
He'll tell a tale then take a pull
The English love to drink
The English love to Drink

The wenches they like their mead too
They love to see what men will do
They swish their skirts, then fly away.
Drink, Drink An English wench will drink all day.
Fill her flagon over full
She'll wink her eye, then take a pull.
The English love to drink
The English love to Drink

1 Pint (US liquid)	=	4 Gills (US FL)
		24 Jiggers
		16 Ounces (US FL)
		48 Ponys
		0.5 Quart (US FL)
		16 Shots
1 Pipe (English wine)	=	105 Gallons
		477.34 Liters
1 Pony	=	0.5 Jigger
		0.75 Ounce (US FL)
1 Pottle (Brit)	=	0.5 Gallon (Brit)
		2.27 Liters
1 Pound (apoth or Troy)	=	373.24 Grams
1 Pound (avdp)	=	0.45 Kilogram
1 Pound of Water	=	0.12 Gallons
1 Quart (Brit)	=	1.14 Liters
1 Quart (US dry)	=	0.29 Gallon (US FL)
1 Quart (US FL)	=	1.25 Fifths
		0.25 Gallon (US)
		8 Gills (US)
		0.95 Liter
		32 Ounces (US FL)
		32 Shots
1 Schoppen (Germany)	=	0.5 Liter
1 Scruple (apoth)	=	20 Grains
		1.3 Grams
1 Scruple (Brit fl)	=	20 Grains
		20 Minim (Brit)
1 Seah (Old Test.)	=	7.3 Liters
1 Shekel (Old Palestine)	=	16.33 Grams
1 Shekel (Old Test.)	=	11 Grams
1 Sheng (China)	=	1.04 Liters
1 Sho (Japan)	=	1.8 Liters
1 Shot	=	1 Ounce (US FL)
1 Stone (Brit)	=	0.14 Centals (Brit)
	=	14 Pounds (Brit)

Now to get started with brewing your first all-grain beer. The first step is grinding the grains. This is a tedious process at home and can be somewhat messy. However I have found that your garden variety blender (set on chop or grate) will do a nice job with the grains. You should be careful to only put a half pound in at a time and to shake it once or twice to insure that all the grains are crushed properly. (sometimes the clerk at the store will crush the grains for you so ask: first).

The next step is the mash which requires putting the grains in the brew pot with 3 gallons of water and bringing the temperature up to 155° F and maintaining this temperature for a period of time. You will need a floating thermometer for this step and you will have to keep a close watch on the pot to bring the temperature back up to 155° when it begins to cool down. The length of time needed for this step will vary on the type of beer that you are trying to make but a good rule of thumb to follow is at least 90 minutes.

Once you are finished mashing, the next step in the process is sparging the grains. This requires that you separate the sweet wort from the spent grains in your brew pot with the use of a fine strainer and your primary fermentation vessel. To insure that you have collected all the sweet extract from the grains possible, it will be necessary to pour boiling water back into the brew pot and stir the grains. Continue this process until you have collected at least 3 gallons of wort for the boil.

From this point on, the brewing process should be familiar to the intermediate brewer. You should keep in mind however that your malt is UN-hopped and will require a longer boil and that because you are boiling a larger quantity of wort it will take longer to cool before you pitch the yeast.

RECIPE FOR AN ALL GRAIN HEAVY ALE:

6 lbs	pale malted barley
1 lb	crystal malt
¼ lb	chocolate malt
1 lb	brown sugar
1 lb	honey
2 oz	Goldings hops
1 oz	Hallertauer hops
2 packets	yeast

1. Mash the Pale malted barley and the crystal malt for 3 hours and sparge to collect 3½ gallons of wort for the boil.
2. Boil the brown sugar, honey and Goldings hops for a period of about one hour.

3. Boil the chocolate malt and the 1 oz of Hallatauer for a period of 10 minutes.
4. Strain out the hops and top off with cold water to 4 gallons in primary fermentation vessel.
5. Allow to cool to 75° before pitching yeast.
6. Original gravity should be 1.065.

WILD PLUM

Lord Ivan Kalinin &

Lady Valentina Andreyevna Sokolova Krasnaya

WILD PLUM 1

This is perhaps the easiest wine in terms of recipe. There really was none. (Talk about period!) The story behind this is not too long. We were guided by two friends up a seldom used river, Hemlock Creek. They knew they could find elderberries, grapes, sumac, blackberries, apples and plums; all wild, all in fruit. So we canoed up the river, avoiding boulders the size of refrigerators, mosquitoes with beaks like hypodermics, and frogs that walked on water (look, I'm just here for fruit, not a religious conversion).

From all the fruit we harvested that day, we had to choose what would be processed first, and what would be processed next, and so on. The plums, already so ripe that some had split from juiciness, were put on the porch. Three days later, when we came home from work, we smelled the odor of fermentation before we entered the house. Realizing what had happened, we ran the plums through a colander to remove the pits and skins, and added water in equal volume to the mash we had.

Nothing else needed to be added. We fermented for four more days, then put on an airlock. When we raked it three months later, it was the clearest wine we had ever made. It was raked at six months, and we drew off one bottle for competition.

INGREDIENTS

Plums: Plums are period, all known species having originated in Anatolia (Turkey) or Armenia.¹ Although we couldn't tell exactly which species of plum, our guess is *Prunes domestica*, or the wild plum.

Water: Trust me, water is period.

Yeast: The yeast was a wild strain, coming from God knows where.

1 Liter	=	0.91 Quart (USdr) 1.06 Quart (US FL)
1 Log (Old Test.)	=	0.3 Liter
1 Marc (France)	=	0.24 Kilogram
1 Mina	=	0.94 Pounds
1 Minim (Brit)	=	0.06 Milliliter 0.05 Scruple (Brit)
1 Minim (US)	=	0.06 Milliliter
1 Mna (Greece)	=	1.5 Kilograms
1 Momme (Japan)	=	3.75 Grams 0 Kwan
1 Noggin (Brit)	=	1 Gill (Brit)
1 Obolos (Greece)	=	0.1 Gram
1 Omer	=	0.1 Gram 2.2 Liters (Old Test) 3.96 Liters (metric)
1 Ounce (apoth or Troy)	=	480 Grains 31.1 Grams 1.1 Ounces (advp)
1 Ounce (advp)	=	28.35 Grams
1 Ounce (Brit Fl)	=	28.41 Milliliters 0.96 Ounce (US FL)
1 Ounce (US FL)	=	360.14 Drops 8 Drams (US FL) 0.01 Gallon (US) 0.25 Gill (US) 6 Teaspoons 2 Tablespoons
1 Pennyweight	=	24 Grains 1.56 Grams 0.05 Ounces (Troy)
1 Pint (Brit)	=	0.57 Liter 20 Ounces (Brit Fl)
1 Pint (US liquid)	=	2 Cups 128 Drams (US FL) 0.13 Gallons (US)

¹ Encyclopædia Britannica, 1944 ed., s.v. "Plum", by Ulysses Hedrick.

1 Gallon (US liquid)	=	61,440 Minims (US)
		128 Ounces (US FL)
		8 Pints (US FL)
		4 Quarts (US FL)
1 Gill (Brit)	=	1.2 Gills (US)
		0.14 Liter
		5 Ounces (Brit Fl)
1 Gill (US)	=	0.03 Gallon (US)
		0.12 Liter
		4 Ounces (US FL)
		0.25 Pint (US FL)
1 Gram	=	15.43 Grains
		0.03 Ounce (Troy)
		0.04 Ounce (advp)
		0.77 Scruple (apth)
1 Hin (Old Test.)	=	3.66 Liters
1 Hogshead	=	0.5 Butt (Brit)
		52.46 Gallons (Brit)
		63 Gallons (US)
		63 Gallons (wine)
		238.47 Liters
1 Homer (Old Test.)	=	220 Liters
1 Jigger	=	1.5 Ounce (fl)
		2 Ponys
1 Kab (Old Test.)	=	1.2 Liters
1 Kilderkin	=	16 to 18 Gallons (Brit)
1 Koku (Japan)	=	180.39 Liters
1 Kotyle (Greece)	=	1 Deciliter
1 Kwan (Japan)	=	3.75 Kilograms
1 Last (Brit)	=	2,909.4 Liters
1 Libbra (Italy)	=	1 Kilogram
1 Liter	=	0.22 Gallon (Brit)
		0.26 Gallon (US)
		35.2 Ounce (Brit Fl)
		33.81 Ounce (US FL)
		0.88 Quart (Brit)

Cleanliness: we have used modern sterilizing techniques on all of our equipment and bottles. We have had bad luck in the past with both wild yeasts, and 'flowers of wine' infections.

WILD PLUM 2

There was some debate about the age of this particular wine. The main ingredient was picked from wild plum trees in August, 1980. They were then canned (using modern steam canning methods) and forgotten in the fruit cellar until June, 1992. They were given to us (along with canned wild plum jelly, same vintage) by friends who no longer liked the quantity of sugar in the syrup. So, either this wine was 9 months old, or 12½ years old - take your pick.

We adapted a recipe from *Winemaking at Home*.²

Plums
Water
Sugar
Cream of tartar
Yeast

Stone 4 gals. of ripe plums before flesh has become mushy, crush them in a crock, and pour upon the pulp 5½ gals. of warm (not hot) water. Stir vigorously for a few minutes, and let stand for 6 hours. Press out juice, strain, and set aside until next day. Now stir in it 15 lbs. of sugar and 2 oz of cream of tartar. Start fermentation with yeast. During this process keep suspended in the liquor the kernels from 1 gal. of the fruit. Water-seal when the violent stage has passed, and bottle after 4 months.

We made a few changes to the recipe:

1. We started with 14 qts. of canned plums and 2 qts. of jelly. Close enough to 4 gals. that we didn't change the rest of the recipe.
2. Because of the sugar syrup, we didn't have to add any sugar.
3. Because the plums had been canned, stones and all, we didn't feel it necessary to keep "the kernels from 1 gal. of the fruit" in the liquor. This is done to add tannin and other micro-nutrients for the yeast to grow. The plums had already been 'steeping' for 12 years.
4. We replaced the non-period cream of tartar with 4 oz. of period argot (see below).
5. The canning process caused a haze in the wine that had to be removed with fining.

² Hardwick, Homer, *Winemaking at Home*, (New York: Funk & Wagnalls, 1954), 201.

6. The wine was racked (after fining) at 3 months, and bottled at 8 months.

INGREDIENTS

Plums: Plums are period, all known species having originated in Anatolia (Turkey) or Armenia. Although we couldn't tell exactly which species of plum (the trees had been destroyed in 1984 for a road widening project), a leaf accidentally canned with the plums leads us to believe they were *Prunes spinosa*, or the sloe plum. This is by no means certain, however.

Water: we used well water from my parent's house, instead of the chlorinated city water we have, since it can be tasted in our wines. However, the well water was drawn with an electric pump - a feat not likely in period.

Sugar: we used store-bought, purified, white, cane sugar, imported from Hawaii. Except for the "Hawaii" part, this kind of sugar was period.³

Argot (Also Argal or Tartar): Crude Potassium Bitartrate, an acid substance deposited from Grape juice during fermentation from which tartaric acid is derived. It is used to manufacture Cream of Tartar. Cream of Tartar is sometimes used instead of tannin in wine making; to improve the vinous character of any wine; or to remove the "green" taste in wines made with unripe fruit.⁴⁵⁶⁷

OK, so we got a little carried away when we looked up tartaric acid. one of our first "wines" we tried to make was good old Grape wine. It led to a series of screw-ups (ask us sometime!) that left us with wine that really was good only for one thing - producing argot. We racked our Grape wine, then washed and filtered the sediment.

Yeast(s): Yeast is not mentioned as a separate entity until Louis Pasteur discovered it in 1857. We have discovered the best tasting wines are produced by using two different strains of yeast during fermentation. A bread yeast to start during the primary fermentation; wait until the must starts to make the room smell

³ Alys Katharine of Ashthorne Glen [pseud.], "On Powdered Sugar," *Tournaments Illuminated*, 91 (Summer 1989): 20-21.

⁴ *The American Heritage Dictionary, 2nd College Edition*, Houghton Mifflin Co., Boston, 1982, p126.

⁵ *The Wise Encyclopedia of Cookery*, Wm. H. Wise & Co., Inc., New York, C)1953, p. 369 & 1160.

⁶ C.J.J. Berry, *First Steps in Winemaking*, Argus Books, London, ©1987, p. 42.

⁷ Homer Hardwick, *Winemaking at Home*, Funk & Wagnalls. New York. C)1954. D. 105.

1 Dram (US fluid)	=	3.7 Cubic cm 0.23 Cubic inch 1.04 Drachm 0.03 Gill (US) 60 Minims 0.13 Ounce (US fluid)
1 Ephah	=	22 Liters 10 Omers
1 Fifth	=	38.4 Jiggers 25.6 Ounces (fl) 1.6 Pints 76.9 Pony 0.8 Quart 25.6 Shots
1 Firkin (Brit)	=	1.2 Firkin (US) 9 Gallons (Brit) 40.91 Liters
1 Firkin (US)	=	9 Gallons (US) 34.07 Liters
1 Gallon (Brit)	=	0.03 Barrel (Brit) 0.13 Bushel (Brit) 1,280 Drachm (Brit) 1.2 Gallons (US) 32 Gills (Brit) 4.55 Liters 76,800 Minims (Brit) 160 Ounces (Brit) 153.72 Ounces (US FL) 0.5 Peck (Brit)
1 Gallon (US liquid)	=	0.03 Barrel (US FL) 0.11 Bushel (US) 0.83 Gallon (Brit) 0.86 Gallon (dry) 1 Gallon (wine) 32 Gills (US) 3.79 Liters

If you are so fortunate as to be able to keg your beer, go to it. Otherwise, you should siphon your beer into a secondary fermenter for a few days before you bottle it. Use champagne bottles, since the amount of unfermented sugar cannot be known with certainty, and don't prime the beer with additional sugar before bottling. You may have an under-carbonated beer as a result, but then so did Digbie.

and in four or five days it will be fit to broach to drink.

At five days old, your beer will still have quite an edge by modern standards. It will improve with age.

BREWER'S CONVERSION CHART

Lord Prospero da San Giuseppe lato

1 Almude (Portugal)	=	16.7 Liters
1 Almude (Spain)	=	4.63 Liters
1 Anker (Latvia)	=	0.1 Liter
1 Arroba (Spain)	=	16.14 Liters (wine)
1 Artaba (Iran)	=	66 Liters
1 Barile (Rome)	=	58.34 Liters
1 Bath (Old Test.)	=	22 Liters
1 Cup	=	0.06 Gallon 2 Gills 0.5 Pint 284.13 Milliliters 8 Ounces (fl) 0.25 Quart 16 Tablespoons 48 Teaspoons
1 Cup (metric)	=	250 Milliliters
1 Cup (tea)	=	0.25 Pint 142.06 Milliliters
1 Drachm (fluid)	=	0.22 Cubic inch 60 Minims 3.55 Milliliters
1 Dram (avdp)	=	0.46 Dram (troy) 27.34 Grains 1.77 Grams

"bitter"; strain into a secondary; add a true wine yeast (preferably a Sherry yeast); fit airlock; rack every two months; and wait.

Cleanliness: we have used modern sterilizing techniques on all of our equipment, bottles, and even on the fruits we harvested. We have had bad luck in the past with both wild yeasts, and 'flowers of wine' infections. We did not sterilize the plums, it wasn't necessary after canning.

Incidentals: we introduce yeasts in the primary fermentation floating on toast, only because my Grandfather started his wines that way. This probably adds some nutrients for the yeast to start on, though this is not proven.

I REMEMBER MAMMA

LADY Aoife Finn

I suppose my title should really be "I remember Mother". MOTHER in this case means a solution of sugar, acid, water and yeast, plus any other funky thing you might use to keep the solution up to snuff for brewing.

My Cockney grandmother used to make Ginger Beer (this is a rapidly fermenting ginger flavored beverage, not a beer with added ginger. Think of it as quick-mead.), and she called her solution a Tree. If any of you were in school during the seventies, you probably received a Mother named Herman, whose purpose was to act as a sourdough starter...remember those used cool-whip tubs and mimeographed instructions for care and feeding? Add flour one day, sugar and a pinch of salt another, and at the end of seven days, use half of Herman to make bread, and foist the rest onto an unsuspecting friend, praying that no one will ever put you through that again. That experience could make you an expert at making a yeast mother.

If the conditions are right, you can keep a yeast solution going for years. It doesn't take an expert to realize, however, that the risk of contamination from wild yeast is great. You can minimize this by using a sterilized screw top jar, slightly loosened to allow for escaping gas. The risk is decreased, but not eliminated. If you feel the need to keep your strain pure, make sure to allow sufficient air into the mixture because the yeast will die off once the oxygen is used up; the alcohol content reaches 15-18%, the temperature is too high or the food supply runs out.

Many brewing or winemaking recipes call for starting the yeast early by softening in a quantity of water and adding your choice of sugar (malt etc.), fruit juice, citric acid or a squeeze of lemon juice, and allowing to work for anywhere from a few hours to a week. My expert sources tell me that yeast will double itself every three hours, providing the correct atmospheric criteria are met. The advantages of using this quick start method are several fold:

First, you ensure your granulated yeast is active and vigorous.
 Second, you get a faster start on the primary fermentation process.
 Third, you eliminate the need for extra yeast packets (OK, so I'm parsimonious).

Fourth, as the yeast strains age, they do mature, making for individualized strains and wines or beers unique to your process.

True, this can also result in some peculiar flavors, if contaminated, but the risk is worth the excitement of discovery if your batch is small.

An ill-fated hard cider experiment led me to possess a jar of champagne yeast starter, with no clear plans to use the remainder after I had bottled my cider (which exploded all over me two days later). What I did with this champagne yeast solution was simple. Once every few days I added about a tablespoon of sugar. Every other week or so I added ½ cup of water or fruit juice. After every addition I shook the bottle, and replaced the cap to almost tight. After a month, I had a viable strain still, so I used one cup of it to start a batch of apple mead and left the rest in the jar, to start the process all over again. The mead has passed secondary fermentation with flying colors. The yeast worked vigorously and well—in fact just as if I had used it straight from the package.

Here are a few observations on my experiment:

- The yeast worked in cyclical fashion—about every week and a half it foamed violently at the addition of sugar. The rest of the time it just bubbled gently.
- The yeast work on any sweetener I gave it—honey, apple juice, orange juice, or sugar. To start I added a few drops of lemon juice, and a pinch of yeast nutrient.
- Temperature does not seem to be a factor. Just like my Grandmother, I kept the Mother in the kitchen on the counter right next to the stove.

I used the yeast solution just like any starting solution—The day before I needed it, I shook the jar the Mother was in. Then I poured out half, then added a cup of water to one cup of the solution, and stirred in 2 tbsp. sugar, a pinch of yeast nutrient, a few drops lemon juice, and covered the jar loosely until the next day. It was working gently. I added this to a four gallon batch. I had one cup of Mother left. I added the lemon juice, sugar, and yeast nutrient all over again, and it now stands next to my stove, where I feed and water it as required.

If you use the Mother the way I suggest, you will find that you can make a batch of brew every month.

If you have a yen to try something less laborious, here is a recipe for Ginger Beer:

After two hours, you have converted and extracted about all of the malt sugar available. Drain the hot wort from the spent grain. Modern practice calls for rinsing, or sparging, the grains with 1 gallon of 170° water to extract any residual sugars.

Whether you sparge or not, you need to boil the wort to coagulate some of the undesired proteins, and to reduce the volume of the wort while raising the Specific Gravity. The boil will also darken the color of the beer.

Your target is to get 5½ gallons of wort at a gravity of about 1.040.

If you find yourself with a wort that is still too weak, it is perfectly all right to add some additional malt extract to raise the gravity of the beer. I won't tell, honest.

Let it stand cooling till it be cool enough to work with barm, which let it be of Beer rather than of Ale, about half a pint.

Cool the wort as fast as possible to below 100° Below 80° is even better. Setting a brewpot in a sink of icewater works fine. Once the wort is cool, you need to siphon it away from the trub (proteins & whatnot that have come out of suspension due to either the boiling or the cooling of the wort. You then need to aerate the wort through some vigorous stirring and shaking. The idea is to dissolve oxygen into the wort to promote vigorous yeast growth. This is the only step in the brewing process where oxygen is good for beer.

While the wort cools, combine a packet of dry yeast with ½ cup of 70° water (if you're using a liquid yeast, you're probably not even reading this article). When the yeast starts to revive, add ½ cup of cool wort and shake vigorously. Set aside until the rest of the wort is cool enough to pitch the yeast.

It is interesting to note that Digbie calls for Beer yeast and not Ale yeast. Dry yeast is commonly available for Ales and Lagers. It is possible that the Beer and Ale yeasts that Digbie refers to were different strains, but it is very unlikely that either of them were Lager yeasts. I can't think of any particular trait that Digbie was looking for, so just about any Ale yeast that you like to use should be adequate.

After it hath wrought some hours, when you see it come to it's height, and is near beginning to fall in working, Tun it into a barrel

The yeast should start to ferment blatantly in a few hours. As the wort ferments, the yeast cells will flocculate (stick together) and produce carbon dioxide. The gas will lift the yeast to the surface of the wort, forming a thick layer of yeast. This is the 'height' that Digbie refers to. As the fermentable sugars are used up, the fermentation will slow and the yeast layer will fall back into the wort and gradually sink to the bottom. Digbie suggests that the beer be kegged just before the yeast cake falls.

the finely ground malt will form a dough when mixed with the hot water, restricting the extraction of malt sugar from the grain.

The best way to grind your malt is to crush it, either with a rolling pin (for small batches), or a malt mill. Or you can have your supplier do it for you, as long as you use the ground malt soon after purchase.

pour it upon a peck of Malt...I have added half a peck of Malt to the former proportions, to make it a little stronger in Winter.

If you assume 75% efficiency in extracting the malt sugar from the malt, a 9.6 gallon batch size and 1 peck of malt (10.5 lbs), you get a beer with a starting gravity of 1.029, while 1½ pecks (15.75 lbs) would give you a 1.043 gravity. More than adequate in modern terms.

For a 5 gallon batch, you would use 5 to 8 pounds of malt. You could substitute 3.3 to 5 pounds of extract, but then you would miss the fun of the next step.

Let it soak so near two hours.

Yes, **mashing!** For those of you who have never walked this path before, mashing is the term used to describe the process of soaking malt in hot water. This enables the enzymes in the malt to convert malt starch into malt sugar. Without malt sugar there is no beer, so these seven words describe a crucial step.

What Digbie is describing is called infusion-mashing today. In an infusion mash, all of the ground malt is combined with all of the brewing liquor (the water). The mixture is kept at a temperature between 145° and 158°F for 1-2 hours while the enzymes do their stuff.

The temperature at this point is critical. Below 140°, the enzymes slow down. On the other hand, the enzymes are destroyed at temperatures above 160°. To make things more complicated, the two most significant enzymes have different temperature profiles, meaning that a slight change in temperature will change the character of the beer. Ain't brewing fun?

Now, if Digbie's recipe is followed literally, you pour boiling water onto the ground malt, deactivating the enzymes and making a poor beer. But if you wait until the water cools to about 165°, you will make better beer (or at least get more fermentable sugars out of the malt).

The mash tun you use here can be anything you want. A brew pot can be maintained at temperature for 2 hours by careful application of heat, by adding small amounts of boiling water periodically, or by wrapping the pot in blankets or insulation. Or you could conduct the mash in a thermally insulated cooler. Whatever works for you.

let it run from the Malt, and boil it only one walm or two...I have caused the wort to be boiled a good half hour; since again I boil it a good hour, and it is much the better; because the former Ale tasted a little Raw.

GINGER BEER PLANT⁸

(Approx. 10 pints or 6 liters)

½ pint (3 deciliters) warm water

The juice of one large lemon

10 sultanas

one level tablespoon sugar

2 level teaspoons of ground ginger

To make the ginger beer plant, put all the ingredients in a screw-top jar. Cover tightly, then put it in a warm place for three days, or until the plant is bubbling gently.

Feed the plant every day for a week with one level tablespoon sugar, 2 level teaspoons of ground ginger

After one week make Ginger Beer with—

one pint (6 deciliters) boiling water

one lb. (450 grams) sugar

6 pints (3½ liters) cold water

the juice of two lemons

Put the boiling water and sugar into a bowl and stir until sugar is dissolved. Add the cold water, stir in the lemon juice. Strain the ginger beer plant through a double thickness of muslin, squeezing out all the liquid. Do not throw away the residue. Stir the liquid into the bowl. Pour the ginger beer into bottles, seal, and keep for three days in a cool place before drinking.

The residue in the muslin is divided in half. Give one half away to a friend or neighbor and put the other half in the jar to start the process all over again. Add ½ pint of cold water and feed. Continue to feed every day for a week as before.

BASIC BREWING

INTRODUCTION TO MEADS, WINES, BEERS, CORDIALS, AND EXOTICS

Lord Tadhg macAedain uíChonchobhair

INTRODUCTION

This course is intended to give interested parties an introduction to the various types of period potables. It is my hope that everyone who takes

⁸ Source: *Irish Farmhouse Recipes*, Mac Publications, 9 Bancroft Grove, Tallaght, Co. Dublin, Ireland

part in this endeavor will leave with the following considerations, which I share with many of my brethren:

- Brewing is Simple!
- Brewing is Educational!
- Brewing is Rewarding!
- Brewing is Fun!

Brewing has a minimum of cardinal rules to ensure good results:

1. Keep everything as clean as possible.
2. When you sanitize glassware, nothing beats bleaching and boiling.
3. Learn a little patience—brewing is not fast but well worth any wait.
4. Don't brew or bottle when you're ill it will come back to haunt you.
5. Take good notes.

Brewing (meads and beers) requires a minimum of basic equipment to get started:

1. Large cooking pot (3 to 6 gallons);
2. Large glass or food-grade plastic jug, which can be made airtight (a 5 to 6 gallon jug can be had for \$10 to \$20);
3. 6 feet of siphon tube;
4. rubber stopper with hole;
5. bubbler;
6. some household strainers;
7. suitable space for the fermenter to sit undisturbed for the duration of the brewing process.

The first two items can be obtained at a discount department store, like K-Mart or WalMart. The remainder (in fact, all of these items) can be obtained at a brewing supplies store.

Cordials require substantially less equipment to produce:

1. One-gallon glass jug, which can be made airtight (such as a cider or juice jar);
2. large funnel;
3. sturdy muslin sack for straining;
4. suitable space for the cordial to sit undisturbed for the duration of the process.

BACKGROUND - MEADS

Several different names are used for meads and their cousins. In many cases, we have developed a set of definitions, which we tend to follow more rigorously than in period. Currently, some of the following terms are commonly used:

Raw. Now because it consumes in boiling, and would be too strong, if this Malt made less proportion of Ale; I have added a Gallon of water at the first, taking fifteen Gallons instead of fourteen. Since I have added half a peck of Malt to the former proportions, to make it a little stronger in Winter.¹⁵

Sir Kenelm Digbie, *Small Ale for the Stone*, 1669

This source recipe for Pennsic Light describes the brewing process in a nutshell (no, not literally). We'll translate the process into individual steps, and compare it with modern practices as we go.

Tun it into a barrel of eight Gallons

This establishes the batch size of the original recipe: 8 Imperial gallons, or 9.6 US gallons.

Take fourteen Gallons of Water...Now because it consumes in boiling, and would be too strong, if this Malt made less proportion of Ale; I have added a Gallon of water at the first, taking fifteen Gallons instead of fourteen.

Why so much water to start? Well, as Digbie says, it consumes in boiling. You will need about 7½ gallons of water to make a 5 gallon batch.

half an Ounce of Hops

Medieval hops would all have been Noble hops with a low Alpha Acid content. The closest modern equivalents would be Fuggles or Goldings. At 5% AAU's, they would produce about 5.6 IBU's in the final beer; very low by modern standards.

boil them near an hour together.

Modern practice would boil the hops *with* the malt for an hour. The long boil is needed because the Alpha Acids are only just barely soluble in water. After this boil, you have a 'hop tea' of about 6½ gallons (½-1 gallon will boil away).

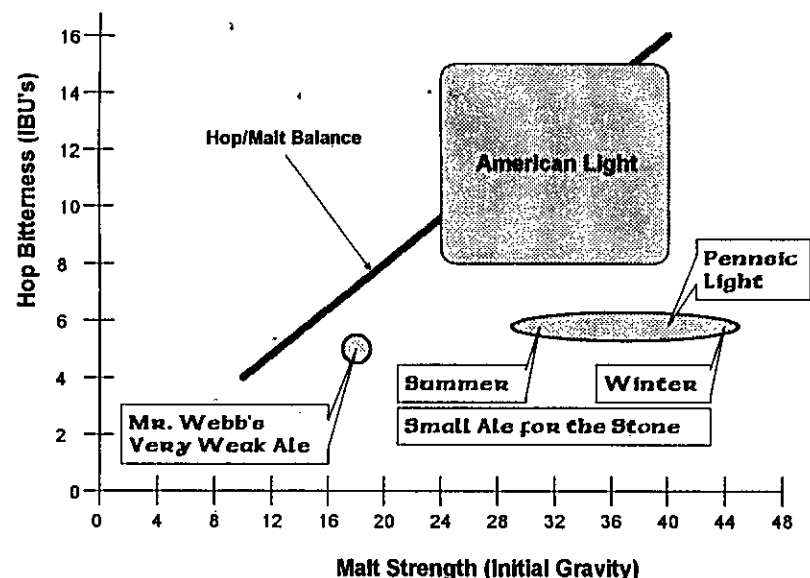
Have a care the Malt be not too small ground; for then it will never make clear Ale.

Digbie does not describe the type of malt used. It was almost certainly barley malt (any other kind would have been called by name). It was also most likely a light amber in color, since pale malts and dark malts were both post-period inventions. The closest malt today would be 2-row British Mild malt. In practice, any light malt would do.

The size of the grind is very important. Finely ground malt will introduce compounds into the beer that produce haze, making for cloudy beer. It will also encourage the leaching of tannins from the husks into the beer, giving an unwanted level of astringency. Finally,

¹⁵Sir Kenelme Digbie, *The Closet...Opened...*, p105-106.

But the question remained; why should I make a small beer, rather than a hearty stout or a chewy porter? When would I find myself working in a hot, dusty field with sweat on my brow, wishing for a cool, light beer? The answer was obvious: **Pennsic!**



PENNSIC LIGHT

THE Ale, that I used to drink constantly of, was made in these proportions. Take fourteen Gallons of Water, and half an Ounce of Hops; boil them near an hour together. Then pour it upon a peck of Malt. Have a care the Malt be not too small ground; for then it will never make clear Ale. Let it soak so near two hours. Then let it run from the Malt, and boil it only one walm or two. Let it stand cooling till it be cool enough to work with barm, which let it be of Beer rather than of Ale, about half a pint.

After it hath wrought some hours, when you see it come to it's height, and is near beginning to fall in working, Tun it into a barrel of eight Gallons; and in four or five days it will be fit to broach to drink. Since I have caused the wort to be boiled a good half hour; since again I boil it a good hour, and it is much the better; because the former Ale tasted a little

1. mead—honey and water with a minimum of herbs, spices, etc.;
2. metheglin—honey, water, herbs, and/or spices;
3. melomel—honey, water, and fruits or juices;
4. pymeth—honey, water, and grapes (like a cross between mead and wine);
5. braggot—honey, water, ale, and spices (traditional Welsh drink).

Keep in mind, these are examples. A review of period sources indicates that they were often used interchangeably—especially, mead and metheglin.

Meads typically fell into two categories: short and long. Short meads, as the name implies, took a much shorter brewing time—typically, less than a week before bottling. These drinks were low in alcohol—also referred to as small meads—and were drunk on a daily basis. They were the period equivalent of a soft drink. Long meads took somewhat longer to brew—typically, several weeks to several months. In addition, they tended to be aged for a good deal longer. Some period recipes call for as much as three years before drinking! (Remember, I said this took patience!) The alcoholic content of these meads tends to be in the 7% to 15% range, and were drunk more in the manner of wines.

BACKGROUND - WINES

Like meads, wines have a vast variety associated with them. Unlike meads, however, their variety is drawn from the vast variety of grapes. The cultivation of which is an art unto itself. Wines tend to be classified by the variety or varieties used and its overall performance.

Wines share a further similarity to mead—they also fell into two categories: short and long. Short wines, as the name implies, took a much shorter brewing time—typically, less than a week before bottling. These drinks were low in alcohol and were drunk on a daily basis. These types of wines have been making a come back recently. In period, they were produced on a much quicker schedule than we see today, but their return is marked by what is referred to as 'nouveau wines'. More traditional wines took somewhat longer to brew—typically, several months. In addition, they tended to be aged for a good deal longer. The alcoholic content of these wines tends to be in the 7% to 15% range.

BACKGROUND - BEERS

Historically, we find only two names for malted barley beverages—beer and ale. (Aside from Welsh braggot, which is a heavily spiced cross between ale and mead.) Initially, these were two separate entities whose distinction has been lost over time. In early England, ale referred to a beverage drunk as soon as fermentation ceased; beer referred to an aged drink.

Preservatives were needed to prevent aged beer from going bad. The types of herbs used in this process varied from country to country, and included juniper, coriander, rosemary, and other aromatic herbs. Eventually, a mixture called gruit found widespread use in England. Gruit included sweet gale, sage, common yarrow, bay, and pine resin. (Gruitbeer also included wheat and oats in addition to the barley.)

As you may have noticed, I did not mention the most common preservative in modern beer—hops. Hops were a German introduction to the brewing process. In fact, the battles fought between the gruit producers and hops farmers—and the supporting brewers, reflects the most colorful segment of brewing history. Hops were initially introduced to England by Benedictine monks in the 11th century. But the true battles over their use, did not occur until the 15th century with substantial intercession from the English crown. In the end, hopped beer won its place and is the only remaining commercial form—to the best of my knowledge. (A review of period sources indicates that beer and ale were often used interchangeably.)

As was the case for meads, beers and ales fell into two categories: short and long. Short ales, as the name implies, took a much shorter brewing time—typically, less than a week before bottling. These drinks were low in alcohol—also referred to as small ales—and were drunk on a daily basis. They were the period equivalent of a soft drink. Long ales took somewhat longer to brew—though, rarely more than a month. The alcoholic content of these ales tends to be in the 7% to 15% ranges. Today, a person would be hard-pressed to find a producer of small ales!

BACKGROUND - CORDIALS

Cordials and liqueurs were made in one of the three following ways:

1. distillation of a brewed product
2. infusion in a wine or mead, and distillation of the resulting product
3. infusion in a distilled spirit

The first seems to have been used when the desired flavor was honey or fruit; the last was preferred when the desired flavor was herb or spice. While these processes ultimately involved distillation, a fruit cordial was obtained by producing a wine and then distilling it to a brandy, which might then be sweetened or spiced lightly. In contrast, a spice cordial, such as one of cloves, was obtained by distilling a dry wine, such as sack, and infusing the spice in the resulting spirit. As a result of modern statutes, the latter infusion process tends to be preferred today for almost all types of cordial.

BACKGROUND - EXOTICS

The class referred to as 'exotics' is more of a catch-all class for brewers in the SCA. It includes all those beverages which do not easily fit within the

concept, designed to sell cheap beer, and as such are beneath contempt (one has to have standards, you know). But what about Medieval small beers? Pray continue, good reader, if you would be enlightened.

NEVER REFUSE FREE FOOD¹¹

When reconstructing Medieval brews, you must keep in mind that the original brewers usually had a good reason for what they did. Medieval brewers were not stupid, and the practice of re-mashing the malt several times, making successively weaker ales in the process, was well established in the late Middle Ages, the reason being that subsequent runnings could extract enough malt sugar to be economically feasible. These separate runnings could then be combined into a single batch, or kept separate as described by Digbie.

FIVE bushels of Malt will make two Hogsheads. The first running makes one very good Hogshead, but not very strong; the second is very weak. To this proportion boil a quarter of a Pound of Hops in all the water that is to make the two Hogsheads; that is, two Ounces to each Hogshead. You put your water to the Malt in the Ordinary way. Boil it well, when you come to work it with yest, take very good Beer-yest; not Ale-yest.¹²

Sir Kenelm Digbie, *Mr. Webb's Ale and Bragot*, 1669

Here, Mr. Webb's **very weak ale** has a starting gravity of 1.018¹³ and a hop rate of about 5 IBU. In comparison, the low range for the AHA American Light Beer style is 1.024 OG at 8 IBU.

THE LAST IS FOR PLOUGHMEN

They have March beer, household beer, and small beer: the first is for strangers, the second for the Master, Mistress and better sort of the family, and the last is for ploughmen or hind servants.¹⁴

Gervase Markham, *The Countrie Farme*

Another reason for making small beer had to do with common sense. Field hands and servants had to drink something. Small beer was healthier than water, weak enough to be pleasant without significant inebriation, and cheap as well.

¹¹Flint's first Law of Evolution.

¹²Sir Kenelm Digbie, *The Closet...Opened...*, p107-108.

¹³Oxford Braggot, Scum 13.

¹⁴Estienne, *The Countrie Farme*.

PROCESS:

Using a five-gallon (or greater) stainless steel or ceramic-lined pot, place 2 gallons of cold water into pot. Add crushed specialty grains. Bring to a boil. Cook for 5 minutes and remove grains with strainer. Rinse grains with 2 quarts of hot water back into wort. Add malt extract and boiling hops to wort. Continue to boil for 1 hour. Put 2 gallons of cold water into primary fermentation vessel. Add finishing hops for 1 minute at end of boil. Remove from heat and sparge immediately into fermenter. Allow to cool overnight. Make sure mouth of fermenter is covered at least with a damp rag—preferably bleach-soaked. Pitch yeast in morning.

NOTES:

1. In general, this recipe uses modern brewing techniques. While there are period sources, which indicate that the ingredients are used in consistent proportions, i.e., *The Closet Of the Eminent Learned Sir Kenelme Digbie Opened*, I can find no sources describing the use of different grades of malted barley. Barley is commonly malted and then roasted to stop the process. Varying roasting times and temperatures are used to give a variety of malts. While these techniques were probably used, I can find no documentation to this effect.
2. Dry malt extract was used rather than whole grains because they are more economical in terms of time and money. The extracts are derived by cooking malted barley and dehydrating the resulting wort to a powder.
3. Starting specific gravity: 1.051 @ 96° F
4. Finishing specific gravity: 1.013 @ 65° F
5. Brewing period: 12 to 28 December 1993
6. Estimated alcohol content at bottling: 5.25%
7. Conditioned $\frac{2}{3}$ cup of Black Diamond honey (The honey used for conditioning was indigenous to the Barony of Black Diamond. I am uncertain of its derivation but it has the consistency of molasses and has been referred to by some brewers as "black" honey. This unusual honey lends a unique smoky flavor to the beer.)

TO SUCKLE FOOLS:

THE CHRONICLE OF A SMALL BEER

Lord Corwin of Darkwater

OK, I will admit to having been somewhat prejudicial with regards to small or light beers - what possible purpose could they serve in the great scheme of things? Modern light beers are admittedly a marketing

previous descriptions—meads, wines, beers, cordials. Exotics include such things as kumiss and kefir (produced from fermented milks), brandies, and whiskeys.

PERIOD SOURCES:

Four fine late-period sources for brewing and distillation are

- *The Jewell House of Art and Nature* by Sir Hugh Platt (1594)
- *Delights for Ladies* by Sir Hugh Platt (1609)
- *The Queens Closet Opened* by W. M. (1655)
- *The Closet Of the Eminent Learned Sir Kenelme Digbie Kt. Opened Whereby is Discovered Several Ways for Making of Metheglin, Sider, Cherry-Wine, etc.* (1669).

Each of these works has various discussions of beers and ales. Certainly, the work of Sir Kenelme Digbie is unequaled with its vast array of recipes for mead, metheglin, wine, and ale—over 140 recipes in all! The mead recipes below draw heavily from his work—commonly referred to as *The Closet Opened*.

In addition, the works of Sir Hugh Platt and W. M. (taken from the Receipt Books of Queen Henrietta Marie, wife of Charles I) are especially instructive on the arts of distillation and the making of "the extractions of all hearbs". In addition, Sir Kenelme Digbie discusses how to make cordials (although he is better known for his vast array of recipes for mead, metheglin, and ale.) These works serve as the principal historical basis for the author's entries in the category of cordials. The author has included, as an attachment to the article, specific passages considered most illuminating to this area of inquiry.

ACKNOWLEDGMENTS:

I would like to thank Their Graces, Duke Gyrth and Duchess Melisande, for access to their library, herb garden, and copious experience. I am most thankful for all their help.

SIR WILLIAM PASTON'S MEAD

RECIPE:

7½ lbs	honey (about 5 pt.)
2½ Tbsp	rosemary
2½ Tbsp	bay leaves (about 40-45 leaves)
2	lemons
	ale yeast

PROCESS:

Scrape lemons with serrated knife to remove peel-no pith (white part) as it will give the mead a bitter taste. Place 2 gallons of water in pot. Bring to a boil. Add honey and skim dross. Add rosemary, bay, and lemon peel. Cook for 30 minutes. Remove from heat. Pour 3 gallons of cold water into fermenter. Strain wort into fermenter. Top off with remaining water to 5 gallons. Allow to cool. During cooling, close container or cover mouth with a bleach-soaked rag. Pitch yeast and shake well. Let work for 3 to 5 days, and bottle or keg. Ready to serve in about 10 days. Alcohol content is approximately 2%.

SOURCE:

SIR WILLIAM PASTON'S MEATHE⁹

Take ten Gallons of Spring-water, and put therein ten Pints of the best honey. Let this boil half an hour, and scum it very well; then put in one handful of Rosemary, and as much of Bayleaves; with a little Limon-peel. Boil this half an hour longer, then take it off the fire, and put it into a clean Tub; and when it is coot work it up with yest, as you do Beer. When it is wrought, put it into your vessel and stop it very close. Within three days you may Bottle it. and in ten days after it will be fit to drink.

RAISIN WINE

RECIPE:

1 lb	raisins
½ lb	sugar (see note 1)
1	lemon
1 Tbsp	elderflowers (see note 2)
	ale yeast (Edme)

PROCESS:

Scrape the lemon with a serrated knife to remove peel. Be careful to leave the pith! Halve the lemon and squeeze thoroughly. Set aside peel and juice.

Place ½ gallon of hot water in pot. Bring to a boil. Add lemon peel, lemon juice, sugar, and elderflowers. Cook for 30 minutes. Remove from heat.

⁹ Sir Kenelme Digbié, *The Closet Opened*, pg. 41-42.

Pour ½ gallon of cold water and raisins into fermenter. Pour wort into fermenter. Allow to cool to about 100° F. Pitch yeast and shake well. Let work for 3-5 days-stirring twice daily. Strain into bottles Ready to drink in 2 to 3 weeks. Self-conditioning.

NOTES:

1. In period, sugar was a rare commodity. Note, that it is specifically called out for this recipe in *The Queens Closet Opened*!
2. The recipe calls for Clove Gillyflowers or Cowslips. I was unable to obtain either, so I substituted elderflowers.
3. Brewing period: 22 April to 25 May 1993.

SOURCES:

To make Rasin Wine¹⁰

Take two pound of Raisins of the Sun shred, a pound of good powdered Sugar, the juice of two Lemons, one pill, put these into an earthen Pot with a top, then take two gallons of water, let it boil half an hour, then take it hot from the fire, and put it into the pot, and cover it close for three or four dayes, stirring it twice a day, being strained put it into bottles, and stop it more close, in a fortnight or three weeks h may be drunk, you may put in Clove Gilly flowers, or Cowslips, as the time of the year is when you make it; and when you have drawn this from the Raisins, and bottles it up, heat two quarts of water more, put it to the ingredients, and let h stand as aforesaid. This will be good, but smaller than the other, the water must be boiled as the other.

STRONG BROWN ALE

RECIPE: (see Note 1)

6 lbs	dry amber malt extract (see Note 2)
4 oz	black patent malt
4 oz	chocolate malt
2 oz	Styrian Goldings plug hops (boiling)
½ oz	Kent Goldings leaf hops (finishing)
	ale yeast (Nottingham)

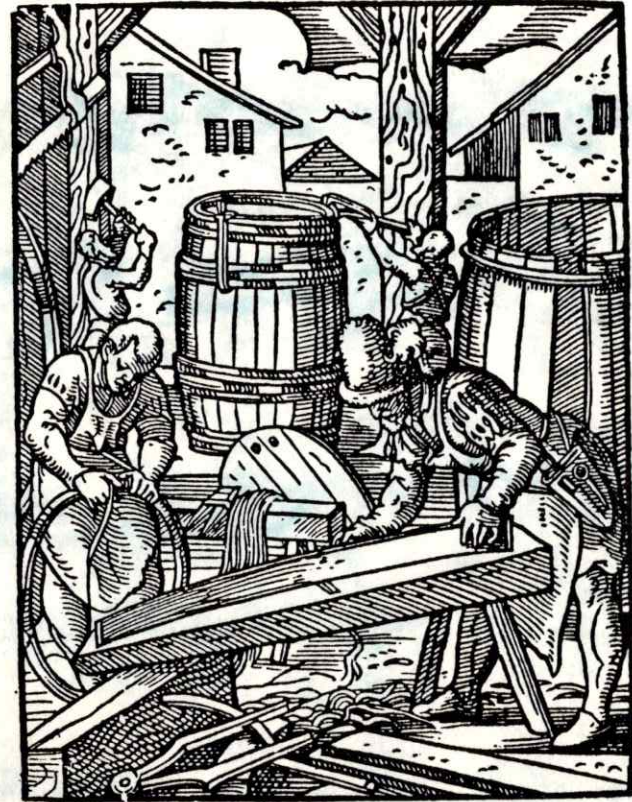
¹⁰ W.M., *The Queens Closet Opened*, 1655, pp. 20-21.

SCUM

NEWSLETTER OF THE BREWERS GUILDS OF ÆTHELMEARC AND THE EAST

NUMBER 18

SUMMER, AS XXX



Der Bütner.

SCUM

Newsletter of the Brewers Guilds of Æthelmearc and the East
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This is Scum, a publication of the Brewers Guilds of the Kingdom of the East and the Principality of Aethelmearc, of the Society for Creative Anachronism, Inc. Scum is available from Lord Corwin of Darkwater (c/o Douglas Brainard, 45 Southwind Way, Rochester, NY 14624). Scum is not a corporate publication of the Society for Creative Anachronism, Inc. and does not delineate the policies of the Society for Creative Anachronism, Inc. Subscriptions are \$4.00 for four issues, published quarterly (more or less). Back issues are available at \$1.00 per issue. Please make checks payable to "Douglas Brainard"

FROM THE GUILDMASTER

Greetings unto the Brewers, Vinters and Imbibers of the Known World, from Lord Corwin of Darkwater, Guildmaster of the Brewers Guild of the Principality of Æthelmearc. Welcome to Scum.

PENNSIC A&S BREWING COMPETITION

Don't forget! Tuesday, August 15th, A.S. XXX, the Official Pennsic War A&S Brewing Competition. Submit entries Tuesday Morning. Judge entries Tuesday Afternoon & Evening. Official times will be posted at the War. Remember, if you enter a category, YOU MUST JUDGE THAT CATEGORY, or find an alternate judge.

ABOUT THE COVER

The Cooper uses Scotch pine, fir and oak to make barrels, tubs, beer and wine casks, which are shipped to Fraknfurt, Leipzig and Lübeck.

Jost Amman & Hans Sachs, *Ständebuch* (The Book of Trades), 1568

EX LIBRIS

Cindy Renfrow (of *Take a Thousand Eggs or More*) has a new tome to her credit: *A Sip Through Time*, being a collection of over 400 old brewing recipes, packed into 335 pages. Digby and Plat are well represented, and the Herbal and Bibliography are quite thorough. I highly recommend it for the experienced brewer/vinter/meadmaker. The book is available (\$20 ppd) from Cindy Renfrow, 7 El's Way, Sussex, NJ 07461.

KILLER BREWS

Not sure what to do with that last batch of chocolate-anchovy stout that didn't *quite* turn out the way you hoped? Try gardening. Now available at garden supply stores everywhere: The Slug Saloon (\$5.99) includes bait made from malted barley and brewer's yeast. With the Slug Pub (\$5.50) however, you have to supply your own beer.

GODISGOODE

My boundless thanks go out to Lord Ivan Kalinin & Lady Valentina Andreyevna Sokolova Krasnaya, Lord Tofi Kerthjalfadsson, Mistress Prislka and Master Solomon Ben Jacob, Lady Ursula von Liste, Lord Erich Forrester, Lord Tadhg macAedain uiChonchobhair, Madame Marie Mains (of the Inland Empire Brewers), Lord Prospero da San Giuseppe lato, Slaine ni Blaid, and Master Ioseph of Locksley who made Scum what it is today. Vivant to you all.

Lord Corwin of Darkwater

Scriba fermentatoris. Fermentator scribae!

They hired men with the sythes so sharp
To cut him off at the knee
They rolled him and tied him about the waist,
And used him barbarously!
And used him barbarously!

They hired men with the sharp pitchforks
To pierce him to the heart,
And the loader he served him worse than that,
For he tied him in a cart!
For he tied him in a cart!

CHORUS

They wheeled him around and around the field,
'Til they came to a barn,
And there they made a solemn mow
Of poor John Barleycorn,
Of poor John Barleycorn.

They hired men with the crab-tree sticks
To strip him skin from bone
And the Miller he served him worse than that:
For he ground him between two stones!
For he ground him between two stones!

CHORUS

They have wheeled him here and wheeled him there
And wheeled him to a barn,
And they have served him worse than that
They have bunged him in a vat!
They have bunged him in a vat!

They have worked their will on John Barleycorn
But he lived to tell the tale;
For they pour him out of an old brown jug,
And they call him home-brewed ale!
And they call him home-brewed ale!

CHORUS

Here's Little Sir John in a nut-brown bowl,
And brandy in a glass!
And Little Sir John in the nut-brown bowl
Proved the stronger man at last!
Proved the stronger man at last!

For the huntsman he can't hunt the fox
Nor loudly blow his horn,
And the tinker can't mend kettles nor pots
Without John Barleycorn!
Without John Barleycorn!

CHORUS

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JOHN BARLEYCORN

Master Joseph of Locksley



There were three men come out of the West
Their fortunes for to try,
And these three men made a solemn vow:
John Barleycorn should die!
John Barleycorn should die!

They plowed, they sowed, they harrowed him in,
Threw clods upon his head,
And these three men made a solemn vow:
John Barleycorn was dead!
John Barleycorn was dead!

CHORUS:

Fa la la la, it's a lovely day!
Sing fa la la lay oh!
Fa la la la, it's a lovely day!
Sing fa la la lay oh!

They let him lie for a very long time
'Til the rain from Heaven did fall,
Then Little Sir John sprung up his head,
And so amazed them all!
And so amazed them all!

They let him stand 'til Midsummer tide,
'Til he grew both pale and wan,
Then Little Sir John he grew a long beard,
And so became a man!
And so became a man!

CHORUS

LOVE-IN-IDLENESS (WILD PANSY WINE)

Lord Ivan Kalinin &

Lady Valentina Andreyevna Sokolova Krasnaya

The original recipe comes from *The Wise Encyclopedia of Cookery*.¹ Even though this is a cookbook, it's wine recipes do not use modern ingredients such as tannin, citric acid, or nutrient; rather they use chopped raisins, orange & lemon juices, and orange & lemon peels. The following is adapted from the Dandelion recipe.

15 qt	pansy blossoms
3 gallons	cold water
15 lbs	sugar
1	yeast cake
1 dozen	Oranges (juice & peel)
½ dozen	Lemons (juice & peel)
2½ lbs	raisins

Place the blossoms in cold water and simmer for three hours. Then strain the liquid. Mix it with the sugar. Boil up, then strain through a cheesecloth. When lukewarm, add the juice of the oranges and lemons with the thinly peeled rinds of both oranges and lemons simmered for half an hour in a little water. There should be 5 gallons in all by measure. Put into a cask, and add the raisins. Leave the cask open for a day; then seal it tightly, and let stand for six months before bottling. The wine improves with aging.

This recipe was followed pretty closely, with a few alterations:

1. We could only pick 10 qt. of blossoms, so we made $\frac{2}{3}$ of a recipe.
2. The yeast was spread on a slice of toast, and floated on top of the must.
3. We did not skim the must each day, as that would have removed most of the yeast. We kept it tightly covered with a towel to prevent contamination.
4. Please note the recipe does not say when the orange & lemon peels, and raisins are to be removed. They were left in for two months, and removed at the first racking.
5. A cask could not be located for this wine. We substituted a five gallon, ceramic, Red Wing jug. The jug was fit with an airlock following the directions.

¹ *The Wise Encyclopedia of Cookery*, (New York: Wm. H. Wise & Co., Inc., 1949). 388

6. The wine was racked at two months, at five months, and bottled at eight months.

INGREDIENTS

Wild Pansies: They are period. The original pansy is "a weed of European grain fields, known as *Viola tricolor*, the garden pansy hence being designated *Viola tricolor hortensis*."²

Water: We used well water from my parent's house. Instead of the chlorinated city water we have, since it can be tasted in our wines. However, the well water was drawn with an electric pump - a feat not likely in period.

Sugar: we used store-bought, purified, white, cane sugar, imported from Hawaii. Except for the "Hawaii" part, this kind of sugar was period.³

Oranges & Lemons: These two fruits were known only late in period. Both oranges and lemons were brought to Europe by the Crusaders, however the oranges were almost certainly the sour orange, *Citrus aurantium*. Sweet oranges (such as we used), *Citrus sinensis*, was not seen in Europe until about 1494 when they were imported to England by the Portuguese.⁴

Raisins: They were commonly used to add body and tannin to "country" wines, particularly honey, flower, banana, orange or root crops.⁵

Yeast(s): Yeast is not mentioned as a separate entity until Louis Pasteur discovered it in 1857. We have discovered the best tasting wines are produced by using two different strains of yeast during fermentation. A bread yeast to start during the primary fermentation; wait until the must starts to make the room smell "bitter"; strain into a secondary; add a true wine yeast (preferably a Sherry yeast); fit airlock; rack every two months; and wait.

Cleanliness: We have used modern sterilizing techniques on all of our equipment, bottles, and even on the fruits we harvested. We have had bad luck in the past with both wild yeasts, and 'flowers of wine' infections.

² *The Encyclopædia Britannica*, 1944 ed. s.v. "Pansy", by Norman Taylor.

³ Alys Katharine of Ashthorne Glen [pseud.], "On Powdered Sugar," *Tournaments Illuminated*, 91 (Summer 1989): 20-21.

⁴ *The Encyclopædia Britannica*, 1944 ed. s.v. "Orange" and "Lemon", both by L.D. Batchelor.

⁵ Donald Ace and James Eakin, *Winemaking as a Hobby*, (Pennsylvania State University College of Agriculture, 1977), 16, 18.

PROCEDURE

1. Prepare the package of liquid ale yeast a few days before you start brewing.
2. Crush the malt. You can use a grain mill (if you have one), or a coffee grinder (set on coarse grind). You can even use a rolling pin (but that will take a long time). Try to crack all of the grains, without turning the grains and husks to powder (Powder tends to cloud and leach unwanted tannins into the finished beer).
3. Place the crushed malt in a pot with 3 gallons of 137° F water. Let rest for half an hour.
4. Raise temperature to 155°, and hold for one hour. Be careful not to let the temperature deviate more than a few degrees from 155°.
5. Raise the temperature to 168° for five minutes.
6. Strain the wort from the spent grain, and rinse the malt with five gallons of 170° water. Discard the grain (it makes great compost).
7. Add 2 ounces of the hops and boil for 30 minutes.
8. After 30 minutes, add another ounce of hops. Continue to boil for another 30 minutes.
9. When the hour is up, add the finishing hops, remove the pot from the stove and set it in a sink half-full with ice water. Stir occasionally, and change the water in the sink as needed. You want to reduce the temperature of the wort to under 80°. Keep the pot covered to keep airborne yeasts out of the wort.
10. Using a sanitized siphon hose, transfer the wort out of the pot and into your primary fermenter. Stir and vigorously aerate the wort thoroughly, and take temperature and gravity measurements. Temperature should be about 70°, and the gravity should be about 1.048. Color should be about 16.3 Lovibond, and hop bitterness will be around 36 IBU.
11. Now you can add the yeast. Cover the primary.
12. After a few days, when the fermentation has subsided a bit, siphon the beer into a secondary fermenter, and cover with an air lock. Place the secondary fermenter in a cool location.
13. In 6 weeks, fermentation should be completed. Boil 1 cup of water with ¾ cup of corn sugar. Add this priming sugar to the beer as you siphon the beer back into the primary fermenter. Don't forget to measure the final gravity.
14. Clean your bottles thoroughly and then sterilize them, either chemically or with heat (boiling water or microwave).
15. Bottle the beer, and label it (take pride in your work). Let it age in a cool place for a month before drinking.

ALTBIER

Alt is a German beer style⁷ that evolved in the region of Düsseldorf. Meaning "Old Beer" in German, Alt is a German ale (the style pre-dates German lagers), and is made with a top-fermenting ale yeast.

The Alt style has a color in the range Amber to Brown (anywhere between Bass Ale and Michelob Classic Dark). Hop bitterness is pronounced (comparable to a Bock) but with reduced hop aroma. The fruitiness associated with English ales is also lacking, due in part to the traditional cold-aging after initial fermentation. Typical guidelines for the style are:

	Minimum	Maximum
Gravity	1.040	1.050
Bitterness	28 IBU	40 IBU
Color	10 SRM	19 SRM

RECIPE

- 8 lbs German Pale Malt (1.8 L)**
(or 6.6 pounds unhoppled light malt extract)
German Pale Malt is a quality two row malt that produces a smooth, grainy flavor.
- 1 lb Munich Malt (10 L)**
Munich Malt is a variety that has undergone higher kilning than the pale malt. It contributes to a full, malty flavor and aroma, and still retains sufficient enzymes for self mashing.
- 1 lb Crystal Malt (50 L)**
German Crystal Malt adds color, sweetness and body.
- 1½ oz Hallettauer (4 AAU, 60 minute boil)**
Hallertauer is the classic German noble hop, with low to moderate bitterness and an herbal aroma.
- 1 oz Hallettauer (4 AAU, 30 minute boil)**
- ½ oz Hallertauer (4 AAU, Finishing)**
- German Ale Yeast (Wyeast #1007)**
This German Ale Yeast ferments well down to 55° F, with high flocculation, and produces a complex yet mild flavor.

⁷ See *Deutschland über Ales*, SCUM #11.

INCIDENTALS

We introduced yeasts in the primary fermentation floating on toast, only because my Grandmother started her wines this way. This probably adds some nutrients for the yeast to start on, though this is not proven. We use Oranges and Lemons, in a ratio of 2 to 1, plus the pulp and grated rind to add acidity and micro-nutrients for the yeast to grow.

Fill with mingled cream and amber

TWO WEAK MEADS

Lord Tofi Kerthjalfadsson

ROSEMARY MEAD

TO MAKE MEATH

TAKE to six quarts of water, a quart of the best honey, and put it on the fire, and stir it, till the honey is melted: and boil it well as any scum riseth: and now and then put in a little cold water, for this will make the scum rise: keep your kettle up as full as you did put it on; when it is boiled enough, about half an hour before you take it off, then take a quantity of Ginger sliced and well scraped first, and a good quantity of Rosemary, and boil both together. Of the Rosemary and Ginger you may put in more or less, for to please your taste: And when you take it off the fire, strain it into your vessel, either a well seasoned tub, or a great cream pot, and the next morning when it is cold, pour off softly the top from the settlings into another vessel; and then put some little quantity of the best Ale-barm to it and cover it with a thin cloth over it, if it be in summer, but in the winter it will be longer a ripening, and therefore must be the warmer covered in a close place, and when you go to bottle it, take with a feather all of the barm off, and put it into your bottles, and stop it up close. In ten days you may drink it.

If you think six quarts of water be too much, and would have it stronger, then put in a greater quantity of honey.

Sir Kenelme Digby, *The Closet ... Opened*, pp92

For one gallon:

- 3 pounds Honey, Orange Blossom
- ½ Tbsp Rosemary
- ½ Tbsp Ginger, fresh grated
- 1 tsp Yeast Nutrient mix
- 1 gallon Water
- culture Belgian Ale Yeast (Wycast brand)

SWEET LEMON MEAD

WEAK HONEY DRINK

TAKE nine parts of warm fountain water, and dissolve in it one pint of pure White-honey, by laving it therein, till it be dissolved. Then boil it gently, skimming it all the while, till all the scum be perfectly scummed off; and after that boil it a little longer, peradventure a quarter of an hour. In all it will require two or three hours of boiling, so that at last one third part may be consumed. About a quarter of an hour before you cease boiling, and take it from the fire, put to it a little spoonful of cleansed and sliced Ginger; and almost half as much of the thin yellow rinde of Orange; when you are even ready to take it from the fire, so as the Orange boil only one walm in it. Then pour it into a well-glased strong deep Gallypot, and let it stand so, till it be almost cold, that it be scarce Luke-warm. Then put to it a little silver-spoonful of pure Ale-yest, and work it together with a Ladle to make it ferment: as soon as it beginneth to do so, cover it close with a fit cover, and put a thick dubbled woollen cloth about it. Cast all things so that this may be done when you are going to bed. Next morning when you rise, you will find the barm gathered all together in the middle; scum it clean off with a silver-spoon and a feather, and bottle up the Liquor, stopping it very close. It will be ready to drink in two or three days; but it will keep well for a month or two. It will be from the first very quick and pleasant.

Sir Kenelme Digby. *The Closet ... Opened*, pp107

For one gallon:

- 3 pounds Honey, Orange Blossom
- 1 Tbsp Ginger, fresh grated

Haddoke in Cyuee. Shal be yopened & ywasshe clene & ysode & yrosted on a gridel; grind peper & saffron, bred and ale mynce oynons, fri hem in ale, and do therto, and salt: boille hit, do thyn haddok in plateres, and the ciuey aboue, and ghif forth.

Two Fifteenth-Century Cookery Books

Although the following recipe is not a redaction of the above, the two are basically similar, being fish poached in beer, the spiced sauce thickened with bread. Even if you don't think you like fish, have a beer and try this. (If you still don't like it, have another beer.)

INGREDIENTS

- 2 lbs haddock (or other white fish)
- 2 tbsp butter
- 1 medium onion, chopped
- 1 celery stalk, chopped
- ½ tsp salt
- 6 peppercorns
- 3 whole cloves
- 4 slices lemon
- 1 bay leaf
- 12 oz Altbier
- ¼ tsp ground ginger
- 3 oz bread crumbs
- 1 tbsp sugar
- fresh parsley for garnish

PROCEDURE

1. Remove the skin, and divide the fish into serving pieces.
2. Melt butter in a large skillet.
3. Add onion, celery, salt, peppercorns and cloves and mix.
4. Top with lemon slices and bay leaf, place fish on top, and add beer.
5. Cover and simmer 15-20 minutes, or just until fish flakes with fork.
6. Transfer fish to a platter, cover to keep warm.
7. Strain cooking liquid to remove spices. Combine ginger, bread crumbs and sugar with 1½ cups of the liquid.
8. Cook the sauce, stirring constantly, until thickened.
9. Cover the fish with sauce and garnish with parsley.
10. Serve with liberal amounts of Altbier on the side. Serves 4.

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The owners of this company have been nice enough to set up special kits for first time SCAdian brewers interest in brewing beer and mead. They are nice people, their selection is large, their prices competitive and I shop at their store on a regular basis. Mastercard and Visa accepted.

I am drinking ale today.

Edgar Allen Poe

MAGE'S FIRE (A TRIMARIAN FAVORITE)

Slaine ni Blaidd

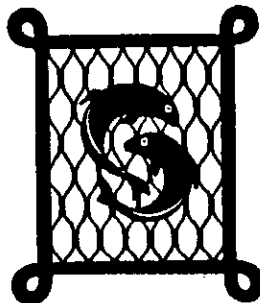
- 1 bottle of vodka (any grade is ok)
- 2 bottles of cinnamon schnapps (the Red Hot brand preferred)
- 1 bottle of blue curacao

Mix well, put in small clear glass bottles, and drink out of a clear or silver goblet. It's very strong and is better sipped than slammed. It can be made in smaller quantities, of course, but the little bottles (which can be found at any vintner's shop [p.s. get screw-tops, corks don't do well with this]) make excellent gifts and are much easier to transport.

ALT BIER FISCH

Lord Corwin of Darkwater

Cooking with beer is a tradition in Germany. Doing *anything* with beer is a German tradition. This *Old Beer Fish* is a dish that is compatible with medieval cooking practices, and has a tangy sauce that will make most any fighter sit up and take notice. As historical precedent for cooking fish in beer and spices, consider the following:



- 1/2 Tbsp Lemon Peel, grated
- 1/4 Lemon Lemon juice
- 1 tsp Yeast Nutrient mix
- 1 gallon Water
- culture Belgian Ale Yeast (Wyeast brand)

PROCESS

Bring water to a boil in a large pot. Add the honey, and boil for about an hour, skimming off the scum. Turn off the heat; add the spices. When almost cool, add yeast nutrient. When cool, strain into primary fermenter (bucket), and pitch the yeast. Rack into a glass secondary after about a week. Rack again after a month. Bottle after three months (total).

COMMENTS

These would be representative of late-period English weak meads. Though the actual recipe book was published 69 years after 'period', it is generally considered a quasi-period source (i.e. very good secondary). Both plain meads, and metheglyns, were made throughout the middle ages all over, including northern Europe [2]. So these two recipes should be representative.

For the Rosemary Mead, I endeavored to brew directly from the original recipe. For the Lemon, I made the straight-forward substitution of lemons for oranges. Since lemons were available in late-period England, this is reasonable.

The Orange Blossom honey would have been available, but only through trade with e.g. Spain, where oranges grow well. This could have happened, since oranges were available in England. A light wild-flower honey would be more likely. I used the Orange Blossom variety to complement the lighter flavor of the Rosemary, and blend well with the lemon.

I chose a Belgian ale yeast for the "ale barm", because it produces interesting and nice flavors. This could have also been one of several English ale yeast strains.

The methods obviously differ from in period. I used a plastic food-grade bucket and glass secondary in place of "a great cream pot", and bottled into glass, rather than the usual wooden cask. The lack of a cask may have deprived the mead of a slight oak-tannin flavor that the cask would have imparted. Then again, it might not; in [3] the author believes that wines would have little 'oak' taste; this would seem reasonable for meads as well.

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I will dram that glass again

PARSNIP WINE

Mistress Prisilka and Master Solomon Ben Jacob

RECIPE (5 GALLONS)

1. Scrub and cut the ends off of 15 lbs of grown parsnips (picked after the first frost) or 25 lbs of young parsnips.
2. Slice, put in a net bag, put in a pot, and cover with water.
3. Boil gently until tender but not mushy. Parsnip Wine is hard to clarify, so be careful.
4. Discard the parsnips or use with something else.
5. Put the parsnip water in the primary and add enough hot water to make 6 gallons of liquid.

Add:

- | | |
|--------|---|
| 4 lbs | brown sugar |
| 10 lbs | white sugar |
| | (or enough to bring the hydrometer reading up to 1.100) |
| 6 | Campden tablets, crushed |
| 1 tsp | tannin |
| 1 Tbsp | acid blend |
| ½ cup | gravy browning (such as Gravy Master) |
| | (this is just caramel coloring) |
| 1 Tbsp | yeast energizer |
| 1 Tbsp | yeast nutrient |
| 1½ cup | malt extract |
| 1 Tbsp | pectic enzyme |
| | (this is very important as parsnips are high in pectin) |

After 48 hours, add the yeast.

BIBLIOGRAPHY AND FURTHER READING

The New Complete Joy of Home Brewing, by Charlie Papazian (ISBN 0-380-76366-4) This is the competition to this article and should be the first book you buy.

Brewing the World's Great Beers, by Dave Miller (ISBN 0-88266-775-0) This is a good experienced beginner intermediate book. The sections of Partial mash brewing and kegging are very good.

The Companion to House-Brewing, by Clive La Pensee (ISBN 0-9515685-0-7) This is a VERY interesting book. It includes directions for malting your own barley and other advanced projects. Has a good section on brewing herbs. Beginners will find the history sections interesting too.

The Classic Beer Style Series, Published by Brewers Publications. Each book in the series covers one group of world class beer styles in depth. I have found the *Lambic* (ISBN 0-937381-22-5) and *Belgian Ale* (ISBN 0-937381-31-4) books very interesting.

The Beer Enthusiast's Guide by Gregg Smith (ISBN 0-88266-838-2) A great book for competitive brewers and would be judges. Sort of an "Elements of Style" for brewing. Lots of fascinating information on history as well.

The New Brewer's Handbook, by Patrick Baker. A nice inexpensive little book you can give to a first time brewer. Costs about \$2.00.

A Writer's Reference, by Diana Hacker (ISBN 0-312-05254-5) A very useful work for helping you write up your documentation. Contains all those Grammar rules you should have learned in school but more importantly has a section on using the APA in text citation style

PERIODICALS

The Handbook of Brewing, #5 of the Complete Anachronism. Available from the SCA stock clerk. A good introduction to various period fermented potables but many of the beverages that are designed to carbonate in the bottle, like the ginger beer, have a habit of blowing up. Use caution. You might also like to check out #60 in the series.

SCUM, The Newsletter of the Brewers Guilds of Æthelmearc and the East. Available from Lord Corwin of Darkwater. Each issue is full of all kinds of useful (Or amusing at any rate) information.

Zymurgy, Vol. 16 No. 4 Special 1993, Published by the American Home Brewers Association. This is a special issue on traditional brewing methods and it's too neat for words. It has a nice recipe for Grut beer and Mum ale. Membership in the AHA is \$29 per year. Write to AHA, PO Box 1510, Boulder, CO 80306-1510 or call (303) 447-0816 for more information.

Most malt extracts lack some of the 'trins and other organic molecules that contribute to the quality of a good beer. Two specialty malts, crystal malt and dextrine (a.k.a. Cara pits) malt, can go a long way to overcoming this drawback. Use ½ lb of each either in a partial mash or crack them, add them into the cold brew water, and fish them out as recommend by Papazian in pages 56-59.

DOCUMENTATION & COMPETITION

Your documentation should be as complete as possible, telling the judges everything you did and why. Competition is a learning experience. It is your chance to pick the brains of people who (in theory anyway) know more about brewing than you do and are willing to give you constructive criticism. The better your description of what you did, the better your feedback will be. Your documentation should be typed. All the references you use should be cited according to the American Psychological Association indent citation style. (See Bibliography)

The actual form of you documentation should start with the research you did prior to brewing. Tell the judges what you set out to do and what or who gave you the idea to do it. The brewing process itself should be described in great detail. It should include all the items suggested by Papazian on pages 128-129 and more. List the ingredients you used and why you selected them. (They were recommended to me, they were a substitute for a period ingredient I couldn't find, they were on sale, etc..) The more information the better. If something went wrong say so and offer possible explanations, especially if it will effect the judges directly. You will not make the judge vary happy if you bottle foams all over the table or explodes all over his best garb without warning. I know of one case were a bottle of wine entered in competition tasted rather awful but the person involved had tried something very ambitious and documented the reasons for the wine's shortcomings in great detail. The judges were very impressed. The bottle came in second in its class at a major A&S event. Good documentation helps.

The guidelines for submission vary from event to event but usually an unlabeled 12-16 oz crown cap bottle is preferred. Fancy presentation is nice and indicates a certain pride in your work but the brew should stand on it s own merits. Check with the person running the A&S before doing anything cute

SOME FINAL THOUGHTS

Brewing is as much an art form as dancing or calligraphy. All arts require patience and practice to perfect and are subject to whims of the muses. Relax, enjoy yourself and when the time comes pass on what you have learned to others. This is the mark of a truly successful brewer. Skoll

Such hilarious visions clamber

MORATH

Lady Ursula von Liste

INGREDIENTS

½ gallon	mulberries
3 pounds	honey
1 gallon	water
1	Campden tablet
1 tsp	yeast nutrient
¼ tsp	yeast energizer
1 tsp	pectic enzyme
¾ tsp	acid blend
¼ tsp	tannin
	Sparkeloid
½ tsp	stabilizer

METHODOLOGY

Put mulberries in a straining bag, secure open end, and place in primary fermenter (food-grade plastic). Add 1 gallon of lukewarm water. Squeeze mulberries with your hands. Add honey and stir until specific gravity reads 1.080. Honey must be completely dissolved. Add Campden tablet, yeast nutrient, yeast energizer, pectic enzyme, acid and tannin. Cover with lid or plastic sheet, tied with a string.

Wait 24 hours. Add yeast, ½ packet - Montrachet (Red Star) or Lalvin's Wine Yeast (*Saccharomyces Cerevisiae*). Do not stir. Let yeast lay on top. After another 24 hours, stir vigorously, aerating the wine. Foam should be evident.

Wait approximately 4 days. Rack when the specific gravity reaches 1.040 to 1.000. Siphon the wine into a sterilized 1 gallon carboy. Cork the carboy with a fermentation lock, filled with sulfite. Leftover "must" may be kept in the refrigerator until the second racking. You can use it to top off the carboys in the next racking cycle. Make sure it is in a sterile glass container with a tight lid (to avoid picking up food odors in your frig).

SECOND RACKING

Wait approximately 1 month. Siphon the liquid off into the sterilized primary. Try not to get any of the solids. Wash and sterilize the carboy. Siphon the liquid back into the carboy. Top off the carboy with boiled water or fresh wine. Replace fermentation lock.

THIRD RACKING

Wait three months. Add Sparkeloid, which has been boiled for 45 minutes in a double boiler. Use the quantities recommended on the package for a one gallon batch.

FOURTH RACKING

After 6-8 weeks, repeat instructions for second racking. I recommend a fifth rack after another 6-8 weeks for clarity's sake.

BOTTLING

Siphon it back into the sterilized primary fermenter. Add stabilizer (½ teaspoon powder per gallon of wine) to stop fermentation. Measure specific gravity to make sure all sugar has been converted to alcohol. Sweeten to taste. Bottle should be free of detergent and should be sterilized. Fill to within an inch of where the cork bottom will be. Cork. Should yield 5 bottles.



Through the chamber of my brain

RHUBARB WINE⁶

Lord Erich Forrester

INGREDIENTS (FOR 5 GALLONS)

10 pounds	Rhubarb Stalks
10 pounds	White granulated sugar
1 heaping Tablespoon	dried borage
1 Tablespoon	strong black tea

⁶ From *The Diary of Sir John Barleycorn* (a publication of the Honourable Company of Fermenters of the Barony of Concordia of the Snows), Spring, AS XXIX (1994)

NEXT STEPS

Once you has gained some experience with all extract brewing you might want to do some partial mash (a.k.a. mash extract) brewing. This has some advantages in that you can mash on a smaller scale and don't need a really huge brew pot like all grain brewing. Read the section starting on page 226 of Papazian and you might also want to check out the section on partial mashing in Dave Millers book (see Bibliography). This will allow you to make use of a wider array of period ingredients.

This is the technique I use to make oatmeal stout. Oatmeal stout is not period but the use of oats is. If you decide to use oats get the large grained Irish style oatmeal (such as John McCann's in the can) or cracked oats. Do not confuse oat meal or rolled oats with oat malt. Do not over do it with the oats because you can get the formation of nasty higher alcohols or butyric acid (which smells like rotten feet) if you use too much in the mash. One to two pounds is about right.

Unmalted wheat is a common component of many Belgian, Dutch and Bavarian beers. Four ounces of whole grain Graham four in the mash will give you a fine wheat taste without being overpowering

Beans are a common bittering agent in period recipes. Try a half pound of ground dried beans in the mash and cut back on the hops.

Partial mashing lets you use all kinds of odd starch/ sugar sources, such as pea flour and pumpkin. Make sure to gelatinize unmodified starches before mashing. (see 260, 299-301 in Papazian)

CHEATING

There are several non period ingredients that can be used to achieve the same results as period ingredients and/or enhance the quality of your ale. When using them in beer destined for judging in an SCA Arts and Sciences competition make sure you state in you documentation why you are using them.

Fining agents are substances added to beer to cause suspended particles, such as yeast cell and little bits of hops, to settle out. A common period fining agent is unbeaten egg white but I have some real concerns about it's use. I have no evidence that salmonella and other bacteria that cause food poisoning can survive in beer but I for one do not want to be the first to find out. There are several other fining agents that can be used that are not period but work rather well. My favorites are isinglass and Sparkaloid. Mix them up according to directions. Isinglass is made from fish membranes. It is non-toxic and can be added to beer at bottling time. Both Sparkaloid and isinglass can be added to the secondary fermenter while you are racking off the beer from the primary fermenter. Sparkaloid works like magic. If your beer isn't too dark, in a couple of days you should be able to read through it.

of the boil to provide a hoppy aroma. Pour through a strainer into the settling tank (see basic gear section). Bring up to 5½ gallons and allow to settle over night. Rack into the primary fermenter in the morning. If you want a stronger ginger taste cut the root into pieces that will fit through your funnel and leave them in the settling tank over night. Boil them for an extra 5 minutes to make sure you kill all bacteria that might be on them. This will give you a beer with a Specific Gravity of about 1.044. If you want a stronger beer only bring the volume up to 5 gallons.

The above beer can form the basis for further experimentation. Try using a different strength or different type of hops. Try adding all the hops during the boil and finishing with other spices such as nutmeg (start with about 2 tsp.) you might want to try some fresh sage. Charlemagne had it put on his list of Regal Kitchen Herbs so it must be good! Replace the ginger with 2-4 sticks of cinnamon bark. Make the same beer with ½ dark or ½ wheat extract. Use different brands of extract. Add another package of hops, 6.6 pounds of amber extract and use Champagne yeast to get a rather nice barely wine or throw in 5 pounds of honey to the brew pot to get a type of mead called a Braggot. Always boil the honey for over 20 minutes to kill bacteria. Ask around and see what your fellow brewers are tossing in. Avoid cloves! Almost every brewer I know (including myself) has messed up a batch of beer or mead by adding too many whole cloves. Enter a few bottles in competition and see what the judges suggest. Above all keep good notes and ask advice from your fellow brewers (but don't be surprised if what they tell you turns out to be wrong). Read, Learn and Have Fun!

USING OAK CHIPS

Ale was frequently aged and stored in oak kegs and this untreated oak had a pronounced effect on the ale's character. The tannins present in the oak also acted as a preservative in unhopped ales. Much of the flavor and color of modern beers such as some India pale ales and Belgian Red ale comes from the use of oak. You can simulate this effect by putting oak chips in the primary or secondary fermenter but keep in mind a little goes a long way. Use only steamed oak chips. You can get them from most brewing supply stores. Start out with ½ - 1 ounce for a five gallon batch and work up from there once you decide on whether you like the taste. Before you add them to the fermenter boil them for 20 minutes and THROW THE WATER AWAY. I had a student who dumped the whole thing in and his beer tasted like we were licking the deck of the Golden Hind. Add the chips to the fermenter while they are still hot. It is a lot easier to put them into the plastic primary fermenter but you can wash them into a glass secondary with a little practice. I think molasses complements the flavor of oak and I frequently use the two together. Molasses shows up in the British ale Old Peculiar and I have also used it in stout. You might want to try a cup or two if you like a darker beer.

4 gallons	water
1 packet	Champagne yeast
	yeast nutrient (optional)

TO DO

Rinse rhubarb and cut into pieces. Put into primary fermenter or sterilized crock. Pour dry sugar over rhubarb to extract juice. Cover with plastic and allow to sit for 24 hours. Add remaining ingredients and three gallons of water. Ferment for 48 hours. Strain out pulp and press as dry as possible. Add remaining water and ferment for three to four days longer. Rack into secondary fermenter and cap with an airlock. Rack in three weeks and again in three months, and bottle.

This produces a light, dry white wine.



Quintest thoughts—queerest fancies



THREE CORDIALS

Lord Tadhg macAedain uiChonchobhair

BLACK RASPBERRY CORDIAL

4 pints	fresh black raspberries (approximately 3 lbs.)
1 pint	vodka (Finlandia)
2/3 cup	sugar (see Note 1)

PROCESS

Clean raspberries. Place in 1 gallon jug. Cover with vodka. Shake well every day for 3 weeks (see note 2). Remove raspberries. Add sugar. Allow to clear.

PEPPERED STRAWBERRY CORDIAL

4 lbs	fresh strawberries
1 quart	vodka (Finlandia)
1 1/2 cups	sugar (see note 1)
2 tbsp	honey (see note 3)
1/2 tsp	mace

½	cinnamon stick (3")
4	cloves
2	peppercorns

PROCESS

Clean and chop strawberries. Place in 1 gallon jug. Cover with vodka. Shake well every day for 1 week. Add spices. Let stand for 2 days. Strain into second container. Add sugar and honey. Allow to clear.

CINNAMON CORDIAL

12 sticks	cinnamon
1 quart	vodka (Finlandia)
1 ⅓ cups	sugar (see Note 1)
2 tbsp	honey (see Note 3)

PROCESS

Place cinnamon sticks in container. Cover with vodka. Let stand for 1 week. Strain into second container. Add sugar and honey. Allow to clear.

NOTES

1. In period, sugar was a rare commodity. However, I have found techniques for producing sugar from both Digbie and Platt. As a result, I believe that its use was not unknown although somewhat rare.
2. Monitor this recipe for the onset of fermentation. To do this, loosen the lid every three to four days. If you hear a small escape of gas, you will need to burp the bottle once a day until no more gas is formed. If you do not, **you risk a possible explosion!** The fermentation should play out in about a week or so.
3. The small quantity of honey is used to help reduce any bitterness from the fruit or the vodka.

SOURCES

How to give a prittie grace both in tast and propertie, unto the spirit of wine.

If you infuse the same uppon the rinde of a civel sower Orange, or Lymon, you shall finde a pleasaunt and comfortable taste thereby, or if you woulde not have the same descried by his colour, you may redistill the spirit so tinted in balneo. Some give a tuch unto the spirit of wing with

today is hops but this was not always the case. For example according to legend the Dutch brought hops and the Reformation to England in the same year. That may seem odd until you look at the politics of the era.

Before the widespread use of hops brewers used a mixture of herbs called "grut" pronounced "grult", rhymes with fruit). This was a secret mixture of herbs and spices that was usually prepared in a monastery and was used by the monks to raise money and control brewing in the local area. This is understandable since many monks operate breweries and needed to prevent local brewers from undercutting their prices. Hops became popular in Germany and the Lowlands because they were cheaper to produce than grut, were a better preservative, and were not under the control of the Church. As you might expect, the introduction of hops as a brewing staple was not without conflict.

There are some real disadvantages to producing unhopped grut beers. Many gruts were compounded for medicinal purposes. This means that many of the period grut mixtures contained herbs, such as Darnel, Thorn Apple and Wormwood, that are potentially very toxic. Others herbs such as Avens, Burnet, Betony and Carduus, can be really hard to come by and may also be toxic. Frequently several herbs, such as Feverfew, share the same name and you can't be sure which one the formulators meant if you unearth a grut formula make sure you know the medical effects of all the herbs present are before you use them. Poisoning the judges tends to have a negative effect on you competition score.

Many gruts do not have the anti-bacterial action of hops so the shelf life of the unhopped ale may be shorter. Lastly, if you dump a whole handful of assorted herbs into your brew and you don't like the result it is hard to figure out which is the offending herb. For this reason I would recommend you start off with a hopped beer that is flavored with one or two spices like the following example:

HERONTEER GINGERED ALE

1 6.6 lb can	Ireks Amber German Malt extract
4 tsp	fresh ground Coriander
20	whole peppercorns
1	large piece of Whole fresh Ginger
1 oz	(6.6 AAU) Cascade hop pellets
1 pack	EDME ale yeast

This is one of those settled beers. Make it like any extract beer except you add ½ of the hops, the coriander and the peppercorns to the last 40 minutes of the boil. Peel the ginger and cut it into nickel to quarter size slices. Add ¼ of the hops and the ginger during the last 8 minutes of the boil as finishing spices. Add the remaining ¼ during the last 2 minutes

dumping unfiltered wort into the primary and bringing it up to 5 gallons but settling will turn a good beer into a better beer.

PERIOD STYLE INGREDIENTS: LIMITS & FREEDOM

Initially you should be aiming to brew period style beer. This means using modern ingredients such as malt extract and modern fermentation techniques to brew a beer that approaches what a period beer would have tasted like. The course to brewing period ales should be a kind of devolution. Start with modern techniques and gradually strip away the non period elements until a truly period beer is reached. Like any SCA art form you may never get there. I still haven't done it, but one day I hope to start with a period variety of barley, malt it myself under period conditions, brew the beer in a period manner and lager it in oaken kegs. I'd be the first person in the SCA to my knowledge to do it. If you know someone else who has let me know! I'd love a peek at his documentation!

What a period brewer could do was limited by the technology available. Brewing a beer that could be kept for several months without spoiling was a major technological achievement. Brewing was big business and the technological advancements of the 17th, 18th and 19th centuries had a major impact on the types and ingredients available. Many familiar specialty malts did not exist in period. Better temperature control in wood and coal fired kilns and the use of steam kilns led to the availability of both the lighter malts used in pilsners and the darker specialty malts used in stouts and porters. As a result none of those beers are period. This does not mean that you shouldn't brew oatmeal stout or California steam beer if that's what you like. Be my guest! Bring some over to my table at the feast to try. I'll thank you for it. But it does mean that these styles are not period and you should be aware that a good judge will dock you points in the A&S competition. So what is a period beer like?

The late period brewer had three main types of malts to work with: amber, dark and wheat. Oat malt existed but it has a reputation of being tricky to work with and I haven't found an oat extract yet so you may have to avoid it. They also used other adjuncts such as beans, unmalted grains such as wheat, oats and rye and even fruits and sugars. Amber was always the largest part of the mash because it had the most active enzymes. It was these enzymes that converted starches in the grains and adjuncts into fermentable sugars. You could make good beer using only amber malt but you could not easily make beer without it. There are techniques like baking the grain into bread then chewing it up and spilling it into the brew pot that will allow you to do without amber malt enzyme based mashing but I don't recommend them for beginners (or anyone likely to serve me a beer.)

This malt restriction does limit your choice of malt extracts to use but this limitations is overcome by the wide variety of herbs and spices used to favor and bitter beer. The most common agent used for bittering beer

rosemary, some with annis seedes, some with sweet fennell seedes: som with one seed, or hearbe, and some with another, by infusing the same a day or two upon them.

The Jewell House of Art and Nature, Sir Hugh Platt, 1594, pp. 29-30

4. Spirit of wine, tasting of what vegetable you please.

Macerate Rosemary, Sage, sweet Fennell seeds, Marioram, Lemmon or Orenge pils, &c. in spirit of wine a day or two, and then distill it over again, unless you had rather have it in his proper colour. for so you shall have it upon the first infusion without any farther distillation: and some young Alchymists doe hold these for the true spirits of vegetables.

Delights for Ladies, Sir Hugh Platt, 1609, p. 50

SACK WITH CLOVE-GILLY FLOWERS

If you will make a Cordial Liquor of Sack with Clove-gillyflower, you must do thus. Prepare your Gillyflowers, as is said before, and put them into great double glass-bottles, that hold two gallons a piece, or more; and put to every gallon of Sack, a good half pound of the wiped and cut flowers, putting in the flowers first, and then the Sack upon them. Stop the glasses exceeding close, and set them in a temperate Cellar. Let them stand so, till you see that the Sack hath drawn out all the principal tincture from the, and that the flower begin to look palish; (with an eye of pale, or faint in Colour) Then pour the Sack from them, and throw away the exhausted flowers, or distil a spirit from them; For if you let them remain longer in the Sack, they will give an earthy tast to them. You may then put the tinted Sack into fit bottles for your use, stopping them very close. But if the season of the flowers be not yet past, your Sack will be better, if you put it upon new flowers, which I conceive will not be the worse, but peradventure the better, if they be a little dried in the shade. If you drink a Glass or two of this sack at a meal, you will find it a great Cordial.

Upon better consideration; I conceive the best way of making Hydromel with Clove-gillyflowers, is thus: Boil your simple

Liquor to its full height (with three parts of water to one of Honey), take a small parcel out, to make a strong infusion of flowers, pouring it boyling hot upon the flowers in earthen vessels. If you have great quantity, as six to one, of Liquor, you will easily draw out the tincture in fourteen or sixteen hours infusion; otherwise you may quicken your liquor with a parcel of Sack In the mean time make the great quantity of Liquor work with yest. When it hath almost done fermenting, but not quite, put the infusion to it warm, and let it ferment more if it will. When that is almost done, put to it a bag with flowers to hang in the bung.

I conceive that Hydromel made with Juniper-berries (first broken and bruised) boiled in it, is very good. Adde also to it Rosemary and Bay-leaves.

Upon tryal of several ways, I conclude (as things yet appear to me) that to keep Meath long, it must not be fermented with yest (unless you put Hops to it) but put it in the barrel, and let it ferment of it self, keeping a thick plate of lead upon the bung, to lie close upon it, yet so that the working of the Liquor may raise it, to purge out the foulness, and have always some new made plain Liquor, to fill it up as it sinks, warm whiles it works: but cold during three or four month's after. Then stop the bung exceeding close. And when you will make your Mead with Cherries or Morello-Cherries, or Raspes, or Bilberries, or Black-cherries, put their juyce to the Liquor when you tun it, without ever boiling it therein; about one quart of juyce to every three or four gallons of Liquor. You may squeeze out the clear juyce, and mingle it with the Liquor, and hang the Magma in a bag in the bung. I think it is best to break the stones of the Cherries, before you put their Magma into the bag.

Since I conceive, that Clove-gilly-flowers must never be boiled in the Liquor: that evaporateth their Spirits, which are very volatile: But make a strong infusion of them, and besides hang a Bag of them in the bung. I conceive that it is good to make the Liquor pretty strong (not too much, but so as the taste may be gratefull) of some strong herbs, as Rosemary, Bayleaves, Sweet-marjoram, Thyme, Broad-thyme, and the

A primary fermenter should be a 7½ gallon bucket made of food grade plastic, have a snug fitting lid and have a hole cut in the top that takes a rubber stopper. You can order them from brew supply houses. Some come with a small hole lined with a little rubber grommet. I don't trust the seal on these and it makes it hard to add things like spice teas and fining agents, to the primary fermenter. You should redrill these fermenters using a rotary hole saw. This is a device that fits onto a drill with a lot of removable blades that is typically used to cut holes in doors (or locks and doorknobs). Use the smallest center blade and order a one hole stopper to fit it. It is also a good idea to get a bottle of glycerin from your local drugstore and seal the fermenter by pouring a thin bead around the rim of the lid. Don't worry if you get a little in the beer, it won't hurt anything. Glycerin is also a good thing to fill fermentation locks with.

Glass carboys are the only real choice for secondary fermenters. Glass can get slippery when wet so always fit your carboys with a carboy handle. This is a metal device with a handle on it that fits around the neck of the Carboy. It gives you a firm place to grab onto so you are much less likely to drop and break the Carboy.

To alleviate the need for a blow by and to get rid of some of the little bits of glue that have a habit of turning up in SCAdian brew, I recommend settling you brew overnight in a well sanitized 6 gallon plastic water cooler bottle with a screw-on cap and racking it into the primary fermenter. For this you will need a racking siphon and the largest funnel that you can find that fits in the neck of the water cooler bottle. Fill the plastic bottle up with 5 gallons of water. Draw a line on the side of the bottle with a Sharpie marker and label it 5 gallons. Sanitize the plastic bottle and large funnel using a strong (1 cup per 6 gallons) chlorine bleach solution and rinse well. Make sure you wash and sanitize the bottle cap. Discard the bleach solution and rinse well. Pour 1 gallon of cold water into the fermenter using your well sterilized large funnel. Add your wort (unfermented beer, pronounced "wert"). You can add it hot or use a wort chiller. Bring up the liquid to the 5 gallon mark. Lift it up on the table. At this point I usually go to bed. In the morning take a flashlight a shine it at the bottom of the plastic bottle. That gunk you are looking at is a mixture of hop residue and coagulated proteins called trub (pronounced "troob") Sterilize the racking siphon and plastic primary and rack the wort into the primary fermenter. You will leave behind ¼ to ½ gallon of wort but having seen the gunk at the bottom of it I'm sure you will agree it is no great loss. By racking the wort off the trub you get rid of a lot of the stuff that would have come out through the blow by and a lot of other foul tasting gunk as well. All Papazians' recipes make 5 gallons. I usually brew 5½ to 6 gallon batches so that by the time I rack the wort off the trub and rack the beer from the primary to the secondary fermenter I still have a full glass carboy of beer. Adjusting recipes can be tricky so stick with 5 gallons for now. You can still make good beer by

to compound new temptations for the pallets of those around you. You will experience the pride of your first successes and the joy of discovering your own personal voice as a brewer. Also if you get really good at it and you aren't too big a jerk you will find yourself becoming rather popular. So lets get started shall we?

LIFE BEGETS NIGHT LIFE

Fermentation is carried out by some form of yeast. Yeasts are a type of fungus and there are many different kinds. Some will make good brew and some will spoil it. Bacteria will also spoil brew so the name of the game is to get the right yeast to grow and keep out the spoilage organisms. Think of a batch of beer as a pet you keep around for a couple of weeks, kind of like sea monkeys. If you take care of your little pet yeasts they will give you hours of pleasure. Yeasts like to grow in warm dark places where there is plenty of the right things to eat. Take care of them and they will take care of you.

THERE GOES THE NEIGHBORHOOD!

The world in which the brewer lives is full of party crashers. There are plenty of nasty organisms that would love nothing more than to turn up in your fermenter and trash the place. The only way to prevent this is through proper sanitation. If it is going to come in contact with your brew make sure it is spotless and hasn't come in contact with something that isn't. Read the section on sanitation in Papazian (pp 121-127) and practice his advice religiously.

There are also lots of beauties floating about in the air that can't wait to rape, loot and pillage you brew. As Lord or Lady of the Manor you are going to have to set up defenses to keep them out. Since we also want to keep out oxygen you are going to need some special equipment and that is the first area where the needs of the SCA brewer differ from that of the mundane brewer. Read the first 42 pages of Papazian before going on.

BASIC GEAR

Papazian recommends using glass carboys (i.e. glass water cooler bottles) for both primary and secondary fermenters and the use of a blow by. This is OK for most mundane beers but sooner or later you will be using ingredients, like cinnamon bark or whole fruit, that are a pain to get into and out of glass carboys. Another example is wood chips. Period brewers frequently used untreated oak fermenters and barrels. The tannins supplied by the oak were an important preservative in period beers brewed without hops. Oak chips are used to duplicate this effect (More on their use later). To avoid these headaches it is better to start off using a plastic primary fermenter and to settle your beer instead of using a blow by.

like. For they preserve the drink, and make it better for the stomach and head. Standing in the Sun is the best way of Fermentation, when the drink is strong. The root of Angelica or Elecampane, or Eringo, or Orris, may be good and pleasant, to be boiled in the Liquor. Raspes and Cherries and Bilberies are never to be boiled, but their juyce put into the Liquor, when it is tunning. Use onely Morello-Cherries (I think) for pleasure, and black ones for health. I conceive it best to use very little spice of any kind in Meathes.

The Closet Of the Eminentlly Learned Sir Kenelme Digbie
Opened, 1669, pp. 22-25

Come to life and fade away

BREWSTERS WHO RUN WITH THE WOLVES

Madame Marie Mains

What I decided was that it would be nice to let you male brewers into a few 'inner sanctum' secrets of brewsters - that term being the official and proper name for female brewers. Calling us female brewers sounds like we toss a few women into the boil kettle to get flavor, something you guys think creates a new specialty category area. There'd probably be a stampede to judge that one by you boys as well. I figured that you male types really could use an insight into the distinct differences we brewsters brew by and will clue you in over the next few months via this newsletter. Consider it sort of a peephole thru the kitchen wall if you will. This first installment will cover the differences women face in the set up and brewing process.

There are several areas where men and women set up their equipment differently in preparing for a batch. No self respecting brewer ever admits to his peers that HIS kitchen is without a few gadgets; by this I mean technotwists on the basics. Since the days of the drafty caves, we women know better than to collect many pots and pans since we usually clean up. We also had to pack them up for that trip to the next valley of the horses (or bison, or whatever was in season). This has translated to todays' brewsters kitchen which is kept rather simple with some kind of large brewpot, that when full of hot wort, will still be liftable [unless there's an available male to bat ones' eyes at or otherwise direct] off the stove. Some of us may invest in a wort chiller but the sight of those

copper coils sends chilly memories of killer IUD's through our collective mind and we usually skip the technical additives like that. A large spoon, left over from beating the kids bottoms works fine for stirring and every utensil drawer has the usual random measuring spoon, unless the kids have it in the sandbox out back.

We like it simple, guys, because we also get to clean -up our messes. We seldom have the luxury of having a wife to wash up our adventures in the kitchen, so besides the one brewpot, etc., there's not much else.

One thing that brewers always have that many brewers don't is a scale that reads in ounces. I really think that Weight Watchers should market those scales for brewing purposes because mine has weighed out many a batch of hops, corn sugar and specialty grain. Although I've gained a few pounds. ...my good ol' WW scale is still accurate.

When brewers advance to partial or all grain mashing we do add the obligatory grain grinder to our repertoire. My experience is that women generally fine tune their grinders better than men [you can quote me here] because of a simple anatomical difference... we have breasts. You heard me right on that one. You'll never catch a women fiddling with their grinder after its started or leaning over the top of it to check the feed flow. So we take more care in the initial setting up of this high quality equipment! I'm also sure that the turning of the crank has some deeper Freudian meaning, so we prefer a steady rhythm for that as well. I've even caught myself staring at the ceiling and considering repainting it once or twice while grinding 15 lbs. of grain.

Fashion has to do with another significant area of difference between boys and girls. Many brewers, when transferring the cooled wort from pot to fermenter, go slowly to catch the trub. Guys - get a life. We brewers have a technoid trade secret to let you in on regarding your troubles here. It's also ecological and is recycling in the first degree. Instead of throwing away those torn pantyhose, just stretch the good leg over the top of your brewpot and filter out the wort from the trub. Just pour away and aerate the hell out of that gyle. You'll get better fermentations from it too! ! !

Well that's about all for this issue. I can't spill all of our secrets in one run with you hounds. Go ahead and do some male bonding after reading this installment and feel free to get out in the woods to beat on upturned mashtuns and brewpots to disseminate your agony.

Who cares how time advances?

A BEGINNERS GUIDE TO SCADIAN BREWING

Lord Prospero da San Giuseppe lato

This article is not a complete guide to brewing period beer. What it is is a companion piece designed to address issues peculiar to brewing in the SCA such as documentation, brewing for SCA competition, the use (and miss use) of period techniques and ingredients, and some friendly advice. It is designed to compliment The New Complete Joy of Home Brewing by Charlie Papazian (ISBN 0-380-76366-4). I strongly recommend that you buy this book and become acquainted with the techniques and vocabulary use by brewers. I will from time to time make reference to this book and will be using words that you may not be familiar with. If so look them up in Papazian. All page number are those listed in the 1991 edition of this book

Buddha said that every second person you meet has something to teach you. I am sure that is true of the people reading this article. I have done the best I can to present the readers with safe, useful, judicious and historically accurate advice but we are all fallible. If you spot an error that I have made and can present documentation to back up you claim please feel free to sent it to me so I may make corrections in further editions. I also accept no legal or moral responsibility for the consequences of the use or misuse of the information provided in this article. Please keep in mind that many period ales and meads have a much higher alcohol content than their modern counterpart and should only be used in moderation by those of legal drinking age. Period recipes frequently contain herbs and compounds that are potentially dangerous. Before you throw something into you brew make sure it is safe. Above all have fun.

WHAT IS BREWING AND WHY SHOULD I BOTHER

Brewing is the art and science of feeding sugar to yeast. When this is done in the absence of oxygen ethyl alcohol is produced. This process is called fermentation and until very recently it was considered a magical process and/or a form of alchemy. The origins of brewing are shrouded in time but all major cultures with the exception of the Eskimos and Australian aborigines have produced some kind of fermented beverage. Many scholars believe that the main reason man adopted large scale agriculture was so that he could obtain enough grain for making beer. Brewing is one of mans oldest art forms.

Because of our interest in history, SCAdians are naturally attracted to beverages that may not be available at your local supermarket. For example most commercial meads I have had are expensive, hard to come by, and are in general nothing to write home about. By learning to brew you become an explorer. With a little practice you will someday be able to recreate beverages that haven't been generally available for centuries and

SCUM

NEWSLETTER OF THE BREWERS GUILDS OF ÆTHELMEARC AND THE EAST

NUMBER 19

AUTUMN
WINTER AS XXX



SCUM

Newsletter of the Brewers Guilds of Æthelmearc and the East
c/o Douglas Brainard, 45 Southwind Way, Rochester, NY 14624

THEIR ROYAL MAJESTIES

Balfar & Luna

THEIR SYLVAN HIGHNESSES

Morguhn & Meirwen



GUILDMASTER OF THE ANCIENT AND VENERABLE
ORDER OF BREWERS, VINTNERS, AND MEADMAKERS
OF THE EAST KINGDOM

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A LESSON

Anonymous

A charming master minstrel came traveling South one day
Dressed he was in robes so fine, bright with colors gay
And when he arrived at the inn where he had planned to stay
He called to the serving wench and to her did say

"Fetch me down some ale to drink for my throat is dusty!
For it would never never do if my voice were rusty!
Do be sure the sheets are clean and the room's not musty
Come a little nearer, dear, you seem a wench most lusty!"

The wench then did as she was bid and served a dinner fine
The minstrel ate and then he called for a flagon full of wine
And while he drained the flagon full he called the wench divine
And as in answer to his prayers the wench brought him more wine

The minstrel drank his wine more ribald grew his songs
The wench did leave the minstrels side...but not for very long!
Coming back she brought more wine, how could she do wrong?
If the minstrel matched his songs he was very, very strong!

The hour grew late and still the minstrel did not seem to tire
All his songs had done to her was stoke her passion higher!
And at last the room was full and dying was the fire
"Four o'clock and all's well" sang the town's crier

Suddenly the minstrel tired and needed help to bed
He called to the serving wench and to her he said
"Walk before me with the candle for I must be led
For my senses, like the wine, seemingly are fled!"

Then she led him to a room that had been set aside
Wondering about his sudden needing of a guide
Thinking about all the wine which he had imbibed
Ardently she hoped the songs about him hadn't lied

The wench did turn her back to him and closed the chamber door
The minstrel then did fall in bed and he began to snore
To herself she said as she looked for wine to pour
"To this man I should have served less wine instead of more..."

Now I've come to the end and moral of this tale
Ladies if you'd like to spend your evening without fail
And you do not wish to hear him snoring like a whale
Limit then his intake of spirits, wine and ale!

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This is Scum, a publication of the Brewers Guilds of the Kingdom of the East and the Principality of Ethelmeare, of the Society for Creative Anachronism, Inc. Scum is available from Lord Corwin of Darkwater (c/o Douglas Brainard, 45 Southwind Way, Rochester, NY 14624). Scum is not a corporate publication of the Society for Creative Anachronism, Inc. and does not delineate the policies of the Society for Creative Anachronism, Inc. Subscriptions are \$4.00 for four issues, published quarterly (more or less). Back issues are available at \$1.00 per issue. Please make checks payable to "Douglas Brainard"

FROM THE GUILDMASTER

Greetings unto the Brewers, Vinters and Imbibers of the Known World, from Lord Corwin of Darkwater, Guildmaster of the Brewers Guild of the Principality of Æthelmearc. Welcome to Scum.

PENNSIC XV WAR CHEST

Unto the Brewers of the East Kingdom, do I Lady Suzanne Nueber de Londres send greetings. It is my task to keep track of the Pennsic XV War Chest. The following information is needed from those whom wish to contribute:

- SCA name;
- Mundane name, phone number;
- What will be contributed (type of beverage, flavor, quantity)
- How it will be bottled
- When it will be delivered to the Crown. (This information is necessary, so that the crown will make arrangements for transport if necessary.)

I would like to give their Majesties a partial list upon their coronation day, with a monthly up-dates. Any and all can reach me via:

e-mail:

susan_maeber@playbill.com

US post:

Susan Maeber
201-10
36th Avenue
Bayside, NY 11361

Telephone:

Home #: (718) 225-6170 before 10PM
Work #: (212) 557-5757

GODISGOODE

My boundless thanks go out to Lord John Kelton of Greyhorn, Lord Ivan Kalinin & Lady Valentina Andreyevna Sokolova Krasnaya, Lord Tadhg macAedain uí Chonchobhair, Madame Marie Mains (of the Inland Empire Brewers), Lord Prospero da San Giuseppe Iato, Lord James Allen of Concordia, and Lord Christopher Burnklay von Rostock who made Scum what it is today. Vivant to you all.

Lord Corwin of Darkwater

Scriba fermentatoris, Fermentator scribae

(12/12/01)

Apple Variety	Characteristics	Date Introduced
Golden Russet	Medium Acid, Aromatic	<1700
Gravenstein	High Acid, Aromatic	1669
Harvey	?	1629
Isaac Newton's Tree	?	1660
Lemon Pippin	?	?
Nonpareil	?	1550
Rambo	Medium Acid	1600
Red Astrachan	Astringent	1816
Ribson Pippin	High Acid, Aromatic	1707
Siberian crab apples	Astringent	?
Sops of Wine	Medium Acid	1688



Apple Variety	Characteristics	Date Introduced
McIntosh	Medium Acid, Aromatic	1796
Melba	High Acid	1898
Mont Royal	Astringent	?
Most wild apples	Astringent	?
Newtown	High Acid, Astringent	1759
Northern Spy	High Acid	1800
Quinte	High Acid	?
Rhode Island Greening	High Acid	1650
Rome Beauty	Low Acid	1816
Roxbury Russet	Medium Acid, Aromatic	1649
Spartan	Medium Acid	1926
Vista Belle	High Acid	?
Wayne	Medium Acid	1962
Wealthy	High Acid, Aromatic	1860
Westfield Seek-No-Further	Low Acid	1796
Winesap	Medium Acid	1817
Winter Banana	Aromatic	1876
York Imperial	Medium Acid	1790
Young American crab apple	Astringent	?

EUROPEAN CIDER APPLES

Apple Variety	Characteristics	Date Introduced
Autumn Pearmain	?	1550
Broad-Eyed Pippin	?	1650
Calville Rouge d'Hiver	?	1600
Calville Blanc d'Hiver	?	1598
Catshead	?	1629
Court Pendu Plat	?	1613
Cox's Orange Pippin	High Acid, Aromatic	1825
Devonshire Quarrenden	?	1678

PENNSIC XXV BREWING COMPETITION

Lord Corwin of Darkwater

It may seem out of place, here in the dead of Winter, to be thinking about Pennsic, but you've got less than six months to get your wares ready for the second *Official Brewing/Vinting Competition* at Pennsic War XXV. The competition will once again be run as a branch of the Pennsic War XXV A & S Competition. Few changes are anticipated, although you can expect plenty of ice on hand, and more crackers. Questions and comments are welcome and encouraged, and may be directed to me, or to Mistress Rayah Blackstar (Rayah Guthrey, 130 Spring Run Road, Butler, PA 16001, (412) 283-3972).

RESULTS OF THE FIRST COMPETITION

Well, in spite of the lack of publicity, the first Pennsic Brewing/Vinting Competition was a resounding success. Of *ALL* of the entries in the entire A&S competition, fully one out of six were in the Brewing/Vinting category. Vivat to all of you! One comment I heard several times was that the Brewers were exacting judges of their craft, which only goes to show your dedication to excellence in the brewing and vinting arts. Although everyone is to be lauded for competing, there were several notable entries, including:

BLUE RIBBON

Japanese Sake

by Lord Geirr Ragnarsson, Barony of the Flame, Middle Kingdom

RED RIBBONS

Dopplebock

by Lord Geirr Ragnarsson, Barony of the Flame, Middle Kingdom

Ginger Wine

by Lady Lora Leigh, Barony of Windmasters Hill, Kingdom of Atlantia

Wassail

by Lord Geirr Ragnarsson, Barony of the Flame, Middle Kingdom

Cordials

by a Lady whose name I regretfully could not obtain.

GREEN RIBBONS

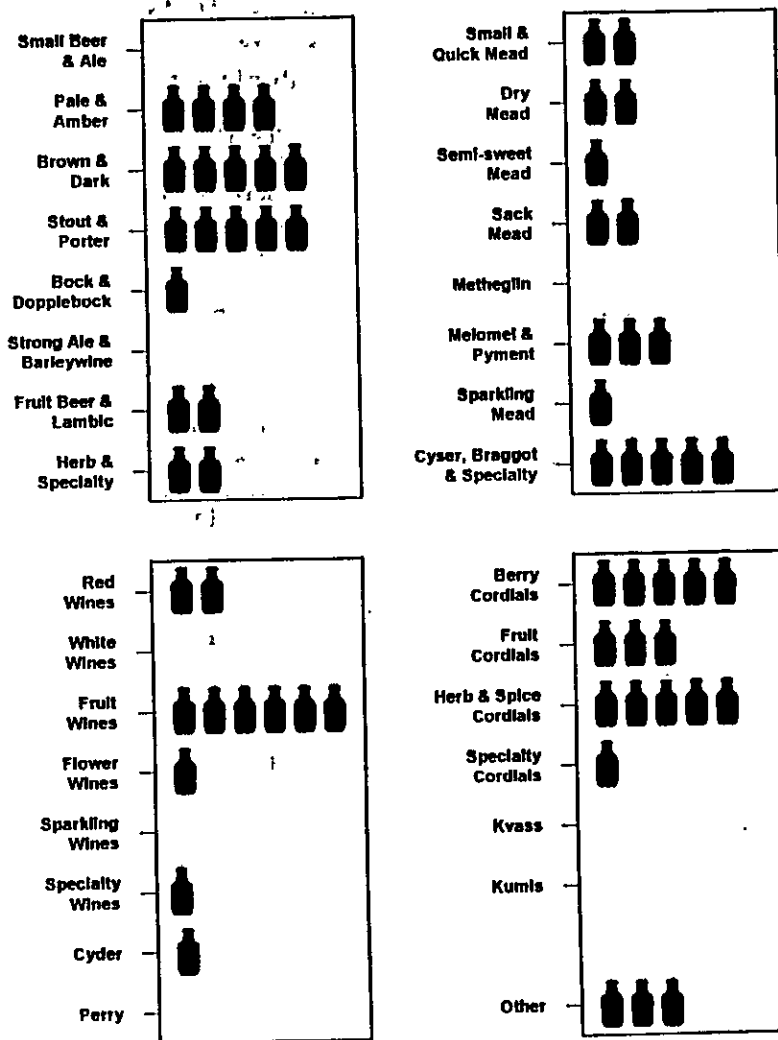
Beers - 9 awarded

Wines - 5 awarded

Meads - 6 awarded

Cordials - 6 awarded

The following charts show the distribution of entries across the various sub-categories. Consider this a data point when planning your own brewing competition.



Finally, thanks to Lord Prospero da San Giuseppe Iato, Lord Owen ap Robert, Lord Tofi Kerthjalfadsson, Lord Geirr Ragnarsson, Lord Gille MacDonald, Lord Sabel Saer ferch Maredudd ap Rosser, and everyone else who helped out with the competition. Thanks as well to Mistress Rayah for allowing me to convince her that this was possible.

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AN INDEX OF CIDER APPLES

Lord Corwin of Darkwater

AMERICAN CIDER APPLES

Apple Variety	Characteristics	Date Introduced
Baldwin	Medium Acid	1740
Ben Davis	Low Acid	1850
Close	High Acid	1928
Cortland	Medium Acid	1898
Delicious	Low Acid, Aromatic	1880
Doigo Crab	Astringent	?
Empire	Medium Acid	1966
Esopus Spitzenberg	High Acid	1750
Fameuse	Medium Acid, Aromatic	1730
Geneva Crab	Astringent	?
Golden Delicious	Low Acid, Aromatic	1890
Granny Smith	?	1868
Grimes Golden	Low Acid	1804
Idared	Medium Acid	1935
Jerseymac	Medium Acid	?
Jonathan	High Acid	1826
Lindel	Low Acid, Astringent	?
Lobo	Medium Acid	1898

A VERY PLEASANT DRINK

Let's try a redaction of "Doctor Harvey's Pleasant Water-Cider" from Digby. The specified ingredients are:

- 1 bushel Pippins
- 12 gallons water
- 5 pounds brown sugar
- 1 pint ale yeast

A bushel of apples weighs about 45 lbs, and will yield about three gallons of juice. Since the recipe also calls for boiling away three gallons of water, we can extrapolate a one gallon recipe (approximately - if you need exact figures, try a different science).

- 3½ pounds Pippins
- 1 gal water
- 6 ounces brown sugar
- 1 pkt ale yeast

Chose your apples carefully, as they are the primary source of the flavor of this water-cider. Pippins were introduced to England from France in 1500 by Richard Harris, Fruiterer to Henry VIII. If you can't find Pippins, choose an assortment of apples, to get a well-rounded cider. Modern guidelines are:

Neutral apples	40% - 75%
Tart apples (high acid)	10% - 20%
Aromatic apples	10% - 20%
Astringent apples (high tannin)	5% - 20%

You can expect apple juice to fall in the range 2.9 - 5.4 pH. A well balanced cider should be restricted to a more narrow range of acidity: 3 - 3.8 pH. Since this is a water-cider, it would be expected to be less tart than a pure cider. Tartness may be a problem, unless you have access to some crab apples, or add some berries to the must.

The resulting must should have a gravity of about 1.040, well within the scope of typical ale yeasts. Fermentation will halt, after a few weeks, at or below 1.005 - a dry cider. Prime (if desired) and bottle, and let carbonate for a month before you enjoy the fruits of your water-cider.

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John Bultitude, *Apples, A Guide to the Identification of International Varieties*, Seattle: University of Washington Press, 1983.

JUDGING IN THE SNOWS

Lord John Kelton of Greyhorn

Guildmaster of The Honourable Company of Fermenters of the Barony of Concordia of the Snows

The following forms might be of interest to other brewing guilds. For the past several years we have held a brewing competition at our *War of the Roses* event, judging between 40 and 75 entries. Each year we frantically try to recall all we had to do in preparation, therefore we devised the checksheet. The entrance form gives us the information needed to properly judge each item. The judging form is still under development. It is an attempt at a single, multi-category form, and is based on AHA guidelines as well as various texts on meads and wines. Further, the American Mead Association is currently developing mead judging standards which may change our methods.

WAR OF THE ROSES - BREWING COMPETITION CHECKLIST

- Pre war staff meeting to confirm entry time deadline, start of judging and sufficient judges. The competition will run smoother if there are at least six judges. This permits two categories to be judged simultaneously.
- Have a guild member present at the troll booth from about 11:00 till 2:00 on Saturday to check in entries. It's not fair to leave this for the troll. However, leave entry forms at the troll on Friday afternoon for early entrants.

SUPPLIES

- Entry forms (~60)
- Clear plastic cups
- Stapler
- Bottled water
- References
- Judging forms (~150)
- Pens
- Tape
- Bread
- AHA Beer fault list

SUGGESTIONS

- Require a minimum of 5 oz. Any less provides an inadequate amount for each judge.
- Group entry numbers by category, i.e.

Wines 100's	Meads 200's
Beers 300's	Cordials 400's
Other 900's	

WAR OF ROSES

YORK

LANCASTER

ID#

Please circle your allegiance or you will not receive war points.

- Tape, tie, or otherwise attach this form to your entry.
- Use one form per entry.
- All entries will be collected at the troll booth.
- Awards will be by category.
- Judging is in accordance with Interkingdom and East Kingdom guidelines.
- do not keep any part of this form: we need it to find you

ENTER OR CIRCLE THE REQUESTED INFORMATION

Type	Ale (top fermented)	Lager (bottom	
	Spiced beer	Fruit beer	Gruit beer
	Mead (still)	(sparkling)	
	(dry)	(sweet medium)	(very sweet)
	Wine	Liquor	
	Other (specify)		

(The judges reserve the right to combine similar categories.)

Specific style (i.e., porter, stout, etc.):

Ingredients:

Method of Production (i.e., equipment used):

Length of Fermentation / Steep:

Date bottled:

SCA Name:

ID#



not Peermains, nor codlings, will last till the Summer grow hot. Though this never work, 'tis not of the Nature of Strummed Wine, because the naughty dregs are not left in it.

Sir Kenelme Digby, The Closet Opened, 1669

**DOCTOR HARVEY'S PLEASANT WATER-CIDER,
WHEREOF HE USED TO DRINK MUCH, MAKING IT
HIS ORDINARY DRINK**

TAKE one Bushel of Pippins, cut them into slices with the Parings and Cores; boil them in twelve Gallons of water, till the goodness of them be in the water; and that consumed about three Gallons. Then put it into an Hypocras-bag, made of Cotton; and when it is clear run out, and almost cold, sweeten it with five pound of Brown-sugar, and put a pint of Ale-yest to it, and set it a working two nights and days: Then skim off the yest clean, and put it into bottles, and let it stand two or three days; till the yest fall dead at the top: Then take it off clean with a knife, and fill it up a little within the neck (that is to say; that a little about a fingers breadth of the neck be empty, between the superficies of the Liquor, and the bottom of the stopple) and then stop them up and tie them, or else it will drive out the Corks. Within a fortnight you may drink of it. It will keep five or six weeks.

Sir Kenelme Digby, The Closet Opened, 1669

APPLE DRINK WITH SUGAR, HONEY, &c

A VERY pleasant drink is made of Apples, thus; Boil sliced Apples in water, to make the water strong of Apples, as when you make to drink it for coolness and pleasure. Sweeten it with Sugar to your tast, such a quantity of sliced Apples as would make so much water strong enough of Apples; and then bottle it up close for three or four months. There will come a thick mother at the top, which being taken off, all the rest will be very clear, and quick and pleasant to the taste, beyond any Cider. It will be the better to most taste, if you put a very little Rosemary into the liquor, when you boil it, and a little Limon-peel into each bottle it up.

Sir Kenelme Digby, The Closet Opened, 1669

**The Honourable Company of Fermenters of the
Barony of Concordia of the Snobs**

Brewing Competition Judging Form:

Mead, Wine, Beer & Cordials

Bouquet/Aroma: 20 points _____

(as appropriate for type)

Appearance: 12 points _____

(as appropriate for type, to include color, clarity, presentation, head retention)

Flavor: 38 points _____

(as appropriate for type, to include malt/hop balance, acid, tannin, aftertaste and other taste characteristics)

Body: 10 points _____

(as appropriate for type, to include mouthfeel, full, thin, legs)

Drinkability & Overall Impression: 10 points _____

Period Documentation: 10 points _____

Period Method: 10 points _____

Total Points (100 point scale) _____

Comments

Judged by _____

ROWANBERRY WINE

Lord Ivan Kalinin

Lady Valentina Andreyevna Sokolova Krasnaya

I tried brewing Rowanberry wine as a lark. I understand the Rowan tree was thought to be proof against magic since ancient times, so I thought cooking with such prestigious ingredients might be interesting. A little research confirmed that Rowanberries in Europe are more commonly known as Mountain Ash berries on this side of the Atlantic. You remember those little orange berries on the trees that the birds won't eat until the weather turns bitter and they get desperate? The weather isn't the only thing bitter about these berries. I found out later that the recipe was intended as a "tart" aperitif. You know, something to keep your tongue from falling asleep before meals. At the time, however, Rowanberry was still a romantic legend, not a tweak to the taste buds.

THE RECIPE

(from *First Steps in Winemaking* by C. J. J. Berry)

2¼ pound	Rowanberries
½ pound	wheat
½ pint	concentrate
2½ pound	sugar
1 gallon	water
1 tablespoon	citric acid
	yeast and nutrient

Pour the boiling water over the berries and let stand four days, then strain. Put in sugar, concentrate, acid, and wheat and stir until the sugar is dissolved, then add the yeast and nutrient. Leave to ferment 16 days, closely covered, then strain into fermenting jar and fit air-lock. When it clears, siphon into bottles, corking lightly at first.

This recipe is described in the book as "medium". I would describe it as having the kick of a mule. Subtlety is not one of its strong points. I would even say the flavor is a wee bit overbearing. I hope some of this will cure with age. In fact, I was definitely fishing around for a way to tone it down a little. Okay, a lot. I decided to go for the unusual. I acquired an antique oak cask, so I put in there hoping the wood might lend some flavor. An examination of the cask revealed it had once been used to age whiskey (the inside of it was blackened, which is a pretty good indication). I'm not sure whiskey is the kind of flavor I wanted to add, but I figured there was little too lose at the time. Actually, I think

upon motion: and upon every working it grows harder. Do then thus:

Chose good Apples. Red streaks are the best for Cider to keep; Ginet-moils the next, then Pippins. Let them lie about three weeks, after they are gathered; Then stamp and strain them in the Ordinary way, into a wooden fat that hath a spigot three or four fingers breadth above the bottom. Cover the fat with some hair or sackcloth, to secure it from anything to fall in, and to keep in some of the Spirits, so to preserve it from dying; but not so much as to make it ferment. When the juyce hath been there twelve hours, draw it by the spigot (the fat inclining that way, as if it were a little tilted) into a barrel; which must not be full by about two fingers. Leave the bung open for the Air to come in, upon a superficies, all along the barrel, to hinder it from fermenting; but not so large a superficies as to endanger dying, by the airs depredating too many spirits from it.

The drift in both these settings is, that the grosser parts consisting of the substance of the Apple, may settle to the bottom, and be severed from the Liquor; for it is that, which maketh it work again (upon motion or change of weather) and spoils it. After twenty four hours draw of it, to see if it be clear, by the settling of all dregs, above which your spigot must be. If it be not clear enough, draw it from the thick dregs into another vessel, and let it settle there twenty four hours. This vessel must be less than the first, because you draw not all out of the first. If then it should not be clear enough, draw it into a third, yet lesser than the second; but usually it is at the first. When it is clear enough, draw it into bottles, filling them within two fingers, which stop close. After two or three days visit them; that if there be a danger of their working (which would break the bottles) you may take out the stopples, and let them stand open for half a quarter of an hour. Then stop them close, and they are secure for ever after. In freising cold weather, set them upon Hay, and cover them with Hay or Straw. In open weather in Winter transpose them to another part of the Cellar to stand upon the bare ground or pavement. In hot weather set them in sand. The Cider of the Apples of the last season, as Pippins,

the water upon three measures of grown Apples. Then draw forth the water at a tap three or four times a day, for three days together. Then press out the Liquor, and Tun it up; when it hath done working, then stop it up close.

Sir Kenelme Digby, *The Closet Opened*, 1669

A VERY PLEASANT DRINK OF APPLES

TAKE about fifty Pippins; quarter and core them, without paring them: for the paring is the Cordialest part of them. Therefore onely wipe or wash them well, and pick away the black excrescence at the top; and be sure to leave out all the seeds, which are hot. You may cut them (after all the superfluities are taken away) into thinner slices, if you please. Put three Gallons of Fountain water to them in a great Pipkin, and let them boil, till the Apples become clear and transparent; which is a sign, they are perfectly tender, and will be in a good half hour, or a little more. Then with your Ladle break them into Mash and Pulpe, incorporated with the water; letting all boil half an hour longer, that the water may draw into itself all the vertue of the Apples. Then put to them a pound and a half of pure dubble refined Sugar in powder, which will soon dissolve in that hot Liquor. Then pour it into an Hippocras bag, and let it run through two or three times, to be very clear. Then put it up into bottles; and after a little time, it will be a most pleasant, quick, cooling, smoothing drink. Excellent in sharp Gonorrhæas.

Sir Kenelme Digby, *The Closet Opened*, 1669

SIR PAUL NEALE'S WAY OF MAKING CIDER

THE best apples make the best cider, as Pearmains, Pippins, Golden-pippins, and the like. Codlings make the finest Cider of all. They must be ripe, when you make Cider of them: and is in prime in the Summer season, when no other Cider is good. But lasteth not long, not beyond Autumn. The foundation of making perfect Cyder consisteth in not having it work much, scarce ever at all; but at least, no second time; which Ordinary Cider doth often, upon change in the weather, and

the taste has mellowed. This should tell you how it tasted at the first racking.

Incidentally, I do wish to warn all druids against imbibing it. It may be proof against magic after all.

BLACK RASPBERRY WINE

by Lord Tadhs macAedain uiChonchobhair

RECIPE:

- 4 pints fresh black raspberries (see note 1)
- 1½ pounds tulip poplar honey (see note 2)
- Montrachet wine yeast (Red Star)

PROCESS:

Clean raspberries. Place raspberries in strong muslin bag and press thoroughly. Set aside juice. Place 1 quart of hot water in pot. Bring to a boil. Add honey and skim dross. When dross no longer forms quickly, remove from heat. Place juice in fermenter. Add 2 quarts of cold water. Pour wort into fermenter. Top off with cold water to 1 gallon. If necessary, allow to cool to about 100° F. (These quantities do not usually require cooling.) Pitch yeast and shake well. Rack off periodically until wine has completely cleared.

NOTES:

1. Black raspberries are referred to several times in Digbie. In addition, I was able to pick the berries by hand at a local farm in the Barony of Storvik
2. The honey used for this recipe is indigenous to most of Atlantia. I was able to obtain a quantity from my local beekeeper in the Barony of Dun Carraig (where I lived at the time.)
3. Starting specific gravity: 1.058 @ 76° F.
4. Finishing specific gravity: 0.995 @ 55° F.
5. Brewing period: 10 July to 28 December 1993 with 1 intermediate racking on 14 December 1993.
6. Estimated alcohol content at bottling: > 8%

SOURCES:

The specific recipe is an adaptation drawn from several different recipes in *The Closet Of the Eminentlly Learned Sir Kenelme Digbie Opened*. One

such recipe is that for strawberry wine given below. Upon tasting the must, I was uncertain as to whether a sufficient amount of sugar was available for fermentation. As a result, I added the honey to aid in the process. In addition, I chose not to leave the fruit suspended in the must and used the juice alone.

STRAWBERRY WINE

Bruise the Strawberries, and put them into a Linen-bag which hath been a little used, that so the Liquor may run through more easily. You hang in the bag at the bung into the vessel, before you do put in your Strawberries. The quantity of the fruit is left to your discretion; for you will judge to be there enought of them, when the colour of the wine is high enough. During the working, you leave the bung open. The working being aver, you stop your vessel. Cherry-wine is made after the same fashion. But it is a little more troublesome to break the Cherry-stones. But it is necessary, that if your Cherries be of the black soure Cherries, you put to it a little Cinnamon, and a few Cloves.

The Closet Of the Eminently Learned Sir Kenelme Digbie
Opened, 1669, pp. 109

BREWSTERS WHO RUN WITH THE WOLVES

Madame Marie Mains

Salutations, cheers and greetings to all you brewers who put up with last month's revelations about brewster secrets in the brewing process. For those who missed it last month, a brewer is the male who brews and brewster is the female version. This month, as promised I return to the womanly world of brewing and begin with the fermentation process as filtered through the brewsters' pantyhose.

Right there- that word - ferMENTation. Such a misnomer for a process so basically female as it is. Once the cooled wort is poured off into the primary tank, we impregnate it with a yeast culture of choice. Now granted, the act of pouring in the yeast might be a manly task (Onan notwithstanding) but what happens next? Those yeasties begin to multiply faster than Patty Frustaci on fertility pills. Not only that, but that primary (and secondary if you use one) has to be coddled, nurtured, MOTHERED so as to remain at the proper temperature. If it is a ale, it has to be placed just so. I favor wrapping my ales in a heavy swaddling towel affixed with four clothes pins to both darken its surroundings and to keep outside temperature fluctuations less traumatic. If that doesn't make a sight to melt any womanly brewster's heart right next to the toilet

Of making perry or cider.

As for the making of perry and cider, which are drinks much used in the west parts, and other countries well stored with fruit in this kingdom; you shall know that your perry is made of pears only, and your cider of apples; and for the manner of making thereof, it is done after one fashion; that is to say, after your pears or apples are well picked from the stalks, rottenness, and all manner of other filth, you shall put them in the press mill which is made with a millstone running round in a circle, under which you shall crush your pears or apples, and then, straining them through a bag of haircloth, tun up the same, after it hath been a little settled, into hogsheads, barrels, and other close vessels.

Now after you have pressed all, you shall save that which is within the haircloth bag, and, putting it into several vessels, put a pretty quantity of water thereunto, and after it hath stood a day or two, and hath been well stirred together, press it over also again, for this will make a small perry or cider, and must be spent first. Now of your best cider, that which you make of your summer or sweet fruit, you shall call summer or sweet cider or perry, and that you shall spend first also; and that which you make of the winter and hard fruit you shall call winter and sour cider, or perry; and that you shall spend last, for it will endure the longest.

Gervase Markham, *The English Hus-wife*, 1615

you may also if you please make a small long bag of fine linnen cloth, and filling it full of the powder of cloves, mace, cinnamon, ginger and lemon peels, hang it with a string at the bunghole down into the vessel, and it will give the cider an excellent flavour

Gervase Markham, comments in Conrad Heresbach's, *The Whole Art of Husbandry*, 1631

TO MAKE CIDER

TAKE a Peck of Apples, and slice them, and boil them in a barrel of water, till the third part be wasted; Then cool your water as you do for wort, and when it is cold, you must pour



in my upstairs bathroom (which is dark and quiet, except for occasional guests and my husband's sorties if our other throne is already claimed by me), I don't know what does. Of course, I have to ponder my one or two bad batches of ale as possibly being contaminated- what with, I might venture to guess bad aim on my masculine guests' parts. It is also a sure fire conversation starter for you brewsters who entertain. Just tell the neophytes that it's your kid's science fair experiment; some sort of cloud chamber testing the methane levels pre- and post-depositional in the average household.

Lagers raise the maternal brewster's instincts to new heights. Since a lager requires a cold basement (not an option in Southern California, usually) or some king of controlled temperature chamber, I have made use of a small chest freezer with attached controller to raise my yeast babies properly. I might be accused of being Dahmerish in my attention to a chest freezer, but it's just those Mommy Dearest instincts at work. Daily I gently raise the lid and check the progress of my infant brew, not unlike a concerned mom checking to see if the kid's still breathing. I don't swaddle this lager baby but(t) I do make sure its chilly crib has been thoroughly wiped down with enough bleach to take care of a 1,000 diaper pails. Not even J.E. could possibly use more bleach than I do in this endeavor.

When things have quieted down in the nursery tank, it's time to transfer to a secondary. This feat is accomplished with a piece of siphon hose and timing more precise than a well cued actor. Which brings me to another major difference between brewers and brewsters. It's that hose, guys. We brewsters are infinitely more adept at both starting and stopping the hose than any of you brewers. It's all that practice from high school with our boyfriends. We can put that siphoning serpent into action faster than any of you can blink and stop it even faster. That latter action is best accomplished with a smart kink to the end. Like I said - we learned it all back there at ol' Brewster High.

There are some of us (I number one of them) that forgo the secondary tank. On the subject of tanks I find that plastic works just fine for me, rather than glass carboys. Some brewers have probably figured out that my preference for plastic fermentation tanks has something to do with my Tupperware fixation, but hey - that cute aqua snap lid just gives me shivers, not to mention the target circle that when pressed down, just squooshes out the air. Now if I could just find a siphon hose to match...

Since contact with air isn't desirable at this point of transfer to a secondary, we brewsters have more to contend with than you brewers. First of all, bad hair days figure into the equation. On bad hair days, we brewsters suffer from PMS of the follicles. No amount of hairspray, mousse or gel is going to make our hair go the way we want it to. And if the hair isn't behaving, half our attention isn't on the hose handling. Furthermore, on bad hair days the risk of having loose hairs fall into the brew increases. Now you might wonder how hair can find its way into

that little hole on top of the fermenter lid. Where is our head, guys? Most likely bent over, concentrating on the hose (follow me on this, just follow me). Puts our hair a little closer to the hole, doesn't it? And we have been spraying glopping and creaming into our hair to make it behave. Those gels and mousses add weight to the hair shafts and you don't have to be Newton to figure out the direction the falling hair takes as it abandons our scalps. Right through the hole and into our brew. And you judges out there say we brewsters can't brew beer with body - HAH! Wait for my Nexxus dark ale at the '95 Ren Faire.

Whether it's at the point of the first or second fermenter, there isn't much to do at this point but wait until all action has settled down in preparation for bottling. This whole time period between brewing and bottling is not unlike pregnancy. It's sitting around, thinking of names for the new brew and wondering if it will be a blonde, red, or brunette and inherit bad hair days too. There is a major difference though- the whole bulk of the baby isn't worn under our rib cage. We probably won't make the cover of national magazines posing nude with our hands lovingly caressing our fermentation tanks but come to think of it, our newsletter could use a centerfold or two. Our cravings at this point don't turn to pickles and ice cream, but they do begin to develop for the new brew. Some of us brewsters even begin to clean house long before bottling day arrives in anticipation of the blessed event. Some of us have showers- you brewers might call them "drinking up the old stuff to have room in the fridge for the new brew" parties. The showers, though, aren't always for brewsters only. If we waited for all the local brewsters to gather, we'd never get the shelves cleaned out. No, I figure the best audience for a brewsky is usually male, so I invite all those guys with coy invitations for a football game, several brews and some eats- and as a result, spend the next few months trying to figure out the elusive aroma in my new ale that is fermenting quietly by the upstairs toilet the day of the party. See? I told you these "use up the old brews" parties are showers.

I can see that the nice lady in white is waving that syringe at me again- so I had best send this installment off to the newsletter audience in hopes that you brewers have gained yet another level of empathy with your distaff partners-in-brewing. If last month's installment did send you guys to the woods to bond, maybe this month's will necessitate another meeting under the forest canopy to pass talking sticks around. As you meet, do consider the fact that J.E. thinks I don't have a big enough wortpot to deal with the results of irate brewster upon his physical self. I'll just have to go shopping. Oh, darn - I think I hear that mall calling now.

In the second century BC, Marcus Portius Cato, described in *De Agricultura* how to graft buds and branches of fruit trees. This is significant as it resolves the principal problem with apple propagation: apples do not breed true to seed. Instead, apples are genetically predisposed to produce lots of tiny little sour crab apples. Large, sweet, fleshy desert apples are genetic abnormalities. Consequently, apple varieties that are worth keeping have to be propagated by cutting, grafting, or some other means. The Romans knew this¹.

Pliny (Caius Plinius Secundus) completed his *Historia Naturalis* in 77 AD. He mentioned several apples by name, including *Orthomastion*, thought to resemble a woman's upturned breast. Another, *Malum Appianum*, could possibly be the same as the Lady Apple (aka Apy or Pomme d'Apl). Pliny also mentions cider.

CYDER IS COLDE

Cider is a beverage made from apple juice. St. Jerome used *sicera* to refer to drinks made from apples in the fourth century. Oliver Basselin wrote of "the sweet juice of the apple tree" in 1550. Cider is mentioned in both *Piers Plowman* and *A Midsummer Night's Dream*. Cider, and its cousin Perry, are properly described by the authorities of the age:

Cyder is made of the juce of peeres, or of the juce of apples; and other whyle cyder is made of both; but the best cyder is made of cleane peeres, the which be dulcet; but the beste is not praysed in physycke, for cyder is colde of operacyon, and is full of ventosyte, wherfore it doth ingendre evyll humours and doth let dygestyon and doth hurte the stomacke; but they the whych be used to it, yf it be dronken in harvyst it doth lytell harme.

Andrew Borde, *A Dyetary of Helth*, 1542

In some places of England there is a kind of drinke made of apples, which they call cider or pomage, but that of peares is named pirrie, and both are ground and pressed in presses made for the nonce. Certes, these two are verie common in Sussex, Kent, Worcester, and other steads where these sorts of fruits do abound, howbeit they are not their onelie drinke at all times, but referred unto the delicate sorts of drinke.

William Harrison, *Description of England*, 1577

¹ At least they thought they did - you can't really get red apples by grafting onto a mulberry tree.

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A DELICATE SORT OF DRINKE

Lord Corwin of Darkwater

The history of the apple is intriguing. The fruit originated in Eurasia a very long time ago, a result of the chance cross-pollination of two crab-apple trees. The Greeks & Romans were familiar with the fruit primarily as a luxury food, since they are native to regions more temperate than the Mediterranean.



GOOSEBERRY SPARKLING MEAD

Lord Prospero da San Giuseppe Iato

INTRODUCTION

The gooseberry (*Ribes grossularia*) is a small tart fruit slightly larger than a current. Although I have been unable to find any period gooseberry melomel recipes, *Martha Washington's Booke of Cookery*, circa 1550 - 1640 (Hess : 456 - 463), gives a Gooseberry wine recipe that includes the addition of loaf sugar (Hess : 379 - 380). The use of honey as a substitute seems to me reasonable. In another recipe on the same page, "TO MAKE LEAMON WINE", brewers are advised to "... bottle it adding a lump of loaf sugar to every bottle". This recipe calls for a pound of sugar and a pound of raisins in 6 quarts of water (Hess : 379) This is also advised in the gooseberry recipe (Hess : 380). It is therefore possible that the lump of sugar would carbonate the wine in the bottle if it was well sealed.

251 TO MAKE LEAMON WINE

Take 6 quarts of spring water, then pare and slice 6 lemons into y' water, with a pound of y' best loaf sugar and A pound of raysons of ye sun, bruised small. let them stand in steep 2 days, then boyle it pritty well, & let it stand after y' 8 dayes to settle in an earthen pipkin. y' strayn it thorough a Jelley bagg & bottle it, adding a lump of loaf sugar to every bottle. you must put in one leamon pill at first when you [put in your] lemons.

Martha Washington's Booke of Cookery

252 TO MAKE GOOSEBERRIE WINE

Take 3 quarts of y' ripest gooseberries you can get. beat them to mash in a mortar, then take 2 gallons of spring water & mix them well together. & when they have stood an houre or 2, let them run through a hare sieve. then put to every gallon a quarter of a pound of loaf & sugar, & put it in a pot & cover it soe close y' noe aire can get in to it. make a little hole in y' yop of y' cover, which stop up close with a corke. then let it stand 2 days soe close. & at two days end, give it a little vent, then let it stand 2 dayes longer and give it a little vent againe. after, let it stand 10 dayes, close covered, and give it noe more vent. after, take the corke out, & clear the wine into stone pans. If you disern any thickness in it, run it thorough

A Jelley bagg, then bottle it up and put into every bottle a lump of hard sugar. and to this you may put, If you pleas, two quarts of white wine, which will make it more quick and brisk and strong. this is a good way to make wine of rasberries, mulberries, blackberries, peaches, or any other fruit. but for peaches, which is a liquid fruit, you may make wine of their clear Juice without adding [any water] at all.

Martha Washington's Booke of Cookery

INGREDIENTS

12 lbs	Sue Bee clover honey
5 tsp	Yeast nutrient
4 tsp	Acid blend
1 can (3 qts)	Wine Supply Gooseberry Wine Base
1 packet	Lalavin EC-1118 Champaign yeast
½ bottle	Isinglass
	Pectic enzyme
1 cup	Dextrose

PROCEDURE

The Gooseberry wine base was selected for two reasons. The first is that in 3 years of cultivation my gooseberry bushes have yet to produce a single gooseberry. The second is that this brand of wine base contains whole gooseberries that have been suspended in concentrate. It came highly recommended.

The honey, yeast nutrient and acid were brought to a boil. The hydromel was boiled for 45 minutes while most of the dross was skimmed off. The gooseberries were added and the mixture pasteurized at 180° F for 20 min. The mixture was poured into a 7.5 gallon food grade container and brought up to 5 gallons. The yeast was rehydrated and pitched the following morning when the mixture had reached 70° F. The estimated initial specific gravity was about 1.085 based on data from the can's label. The must was fermented in the plastic primary for 10 days and then racked over into a glass secondary fermenter. It was fermented for 16 days. Add the isinglass in place of straining through a jelly bag. I suspected that some of the pectins in the fruit had set when the fruit was packed so pectic enzyme was added as a conceit to modern brewing tastes. The final gravity was about 1.000. The must was allowed to settle for 14 days at which time it was primed with 1 cup of dextrose dissolved in 2 cups of water and bottled.

After 6 months, split into two 3 gallon batches and batch one bottled.

Batch two bottled after an additional three months. Primed with ½ cup honey and 1½ cups cider.

Initial Specific Gravity: Not Measured
(with the dilution at 2½ weeks
would mean nothing anyway)

Final Specific Gravity: 1.040

HISTORY

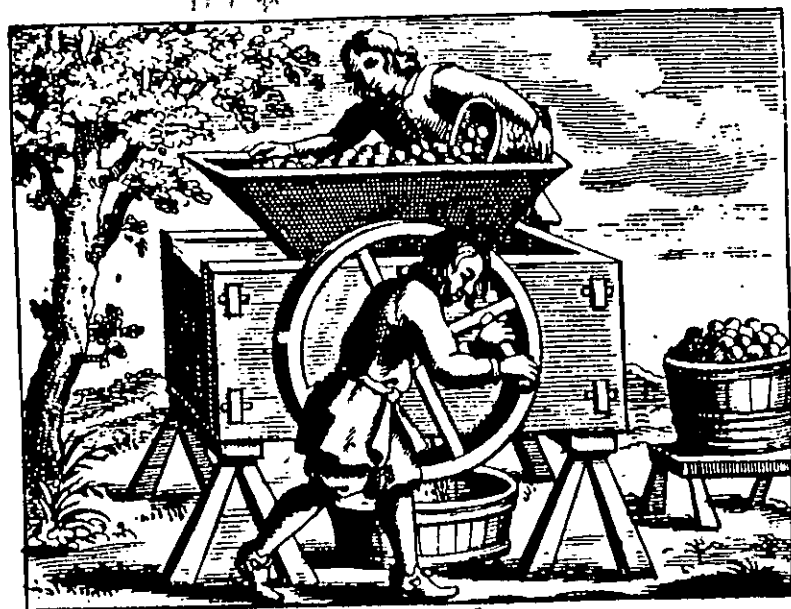
Mead appears so commonly and pervasively in the history of the western world (where the bootlicking Puritanist have not rewritten history to their liking), that it seems almost obscene to prove that mead is period. There are references to mead in history dating back to 3000 BC and they stop then because that is where the written records end (Gayre, 1948; Younger, 1966). The history of mead in Egypt, Greece, Rome, and among the Vikings, the Normans and the Germans is the stuff of legends and impossible to dispute.

The fermentation of apple juice fortified with honey to form Cyser is not as obvious from the general histories of western civilization. The Norse (Vikings) introduced apples into England and at that time they were apparently also making fermented cider and cyser (Gayre, 1980). "Cider" was considered a strong alcoholic drink during the middle ages (Gayre, 1980), since "hard-cider" is a weaker drink than beer, it must be assumed that the cider in question is sweetened with honey (the only sweetener readily available). Cyser was made by monasteries and abbeys before their decline (Acton and Duncan, 1990), this would indicate that it was being made before the reformation and thus before the 17th century.

Mead and Cyser in period would have been made by open fermentation followed by aging in kegs. A proper cyser would have had only cider and honey mixed cold with the choice of yeast left up to God. I use closed-glass carboys and packed yeast because God has been known to have a bad sense of humor (bacteria). Acid blend and nutrients are added to improve the health of the yeast (I like healthy yeast!). In period the cyser would be bottled in barrels or earthen bottles, this wine was bottled to be sparkling which requires that an airtight seal be formed and held (this bottle was used because I had a shortage of proper bottles and this is what I had at the time). The Priming was done with cider and honey, which sometimes worked and sometimes did not.

REFERENCES

Specifically used:



CYSER (APPLE CIDER MEAD)

Lord Christophe Bürncklay von Rostock

RECIPE

- 4 gal Unfiltered Apple Cider
- 8 lbs Clover Honey
- 2 Tbsp Acid Blend
- 2 Tbsp Yeast Nutrients

Boiled 60 minutes (in two batches)

- 1 pkg Red Star Montrachet Yeast
- 1 pkg Red Star Prise-de-Mousse Yeast

After 2½ weeks, brought to 6 gallons by adding 2 gallons of Cider and 2 pounds of Clover Honey.

FURTHER NOTES

Although the mead tasted more or less as I had imagined it would the carbonation was weaker and more uneven from bottle to bottle than expected. Next time I would add the syrup in small parts during the final racking process and add a priming starter made from 1 tsp of yeast and 5 tsp of sugar and 2 Tbsp of isinglass at bottling time.

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HARD CIDER

Lord James Allen of Concordia

For me Spring is the time to make dandelion wine and Fall is the time to make hard cider. Hard cider is a period drink of northern Europe. It is easy to make and well rewards the effort and cost that goes into it. In the Fall the materials are readily available in good quality. This is also the traditional time to brew your hard cider.

NOTES ON HARD CIDER

Before and just after WW2, much of the farming work in upstate New York was labor intensive. Much of this labor was provided by itinerant workers. These people expected to receive hard cider as part of their customary wages; Thus making hard cider was a necessary craft on the farms. These notes are taken from conversations with several practitioners of this craft.

First one buys used whiskey barrels. A wooden barrel can only be used once for whiskey. It is then disposed of by the distillery. The whiskey barrel is cleaned and "sweetened" by being partly filled with water and baking soda. It is then thoroughly rolled about. This barrel can only be used once for cider; as a second attempt will result in vinegar.

Freshly pressed cider is placed in the barrel with various additives. These always included honey and raisins. The mixture was sometimes spiced with cinnamon and other spices, but this was less common. The most unusual additive mentioned was hamburger(?).

The barrel was filled to the top and a bung with a hole in it was inserted. A tube was run from the bung into a jug of water. This was the airlock. The barrel is watched and when fermentation slows down, but before it stops, the barrel is bunged tightly.

The finished cider was kept until needed, but would expect to be used up during the next summer. A typical farm would use two to three barrels per year.

MAKING HARD CIDER

Hard cider can be made using the natural yeasts in the apples. This is more correct for a historically accurate drink but has a tendency to result in a vinegar aftertaste. I prefer to boil my ingredients and add a yeast of my choosing to the mix.

To make the hard cider get fresh cider from any of the orchard stands. You want cider that has had no



preservatives added. There are some people who claim a value can be derived by choosing and pressing various special mixtures of apples. I believe this goes beyond what we seek in a period beverage. Other people make a great issue of trying to alter the chemical properties of the apple juice with various chemicals. At one ECU in the brewing class, many different chemicals were recommended. I prefer to avoid chemical additives as it is not period and the side effects of some of these chemicals does not agree with me.

Mix your fresh cider with honey. You will want between one to two pounds of honey per gallon. Cider does not have enough sugar to produce a stable alcoholic drink. That is why fresh cider let alone will go to hard cider and then to vinegar. One pound of honey per gallon will result in a dry cider while two pounds will be a sweeter cider. Boil the cider-honey mix and skim off the scum.

Place your wort in your primary fermenter with one pound of raisins per five gallon batch and whatever spices you want. I use a two inch piece of cinnamon. Be careful of cloves as they can overwhelm the flavors of all the other spices. An early period cider would have few spices while a late period (Tudor) cider would have many. When your wort has cooled, add your yeast. Wine yeasts work well but in England I understand they use ale yeast for cider.

The cider should be fermented for four to six weeks and then racked into your secondary fermenter. This is then worked for an additional four to six weeks and bottled. The cider should be aged until spring when it is ready to drink. This recipe assumes you are making a still cider. A carbonated cider can be made using a beer brewing procedure. Cider is an easy to make period beverage and I recommend you try it.

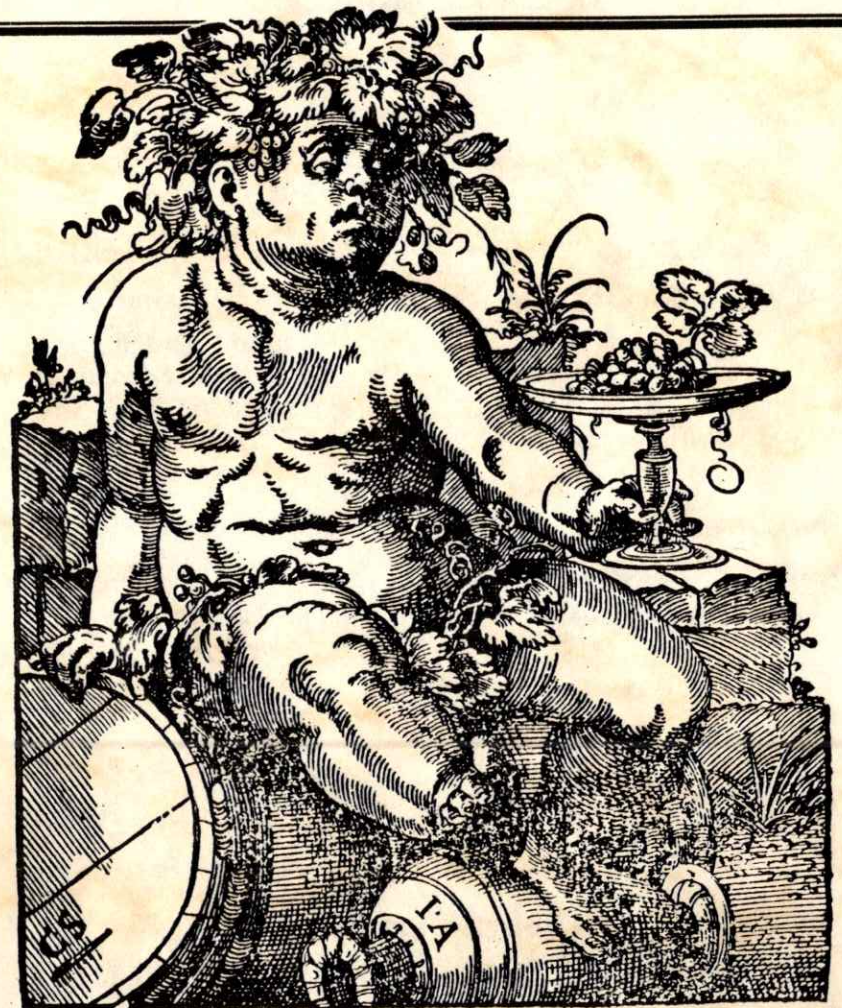


SCUM

NEWSLETTER OF THE BREWERS GUILDS OF ÆTHELMEARC AND THE EAST

NUMBER 16

WINTER, AS XXIX



SCUM

Newsletter of the Brewers Guilds of Æthelmearc and the East
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GUILDMASTER OF THE BREWERS GUILD OF ÆTHELMEARC

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PROCEDURE

1. Bring the water to a boil, then add the honey and mix well. You want to sterilize the honey by boiling, but avoid a protracted heating that will drive off all of the aromatics of the honey.
2. If you are using raw honey, add three beaten egg whites and boil it long enough to remove any scum, then remove from heat and let the egg whites settle out. If you are using a light honey, like clover, or a blended honey, then the egg whites should be unnecessary.
3. Let cool. Now is a good time to float a small egg on the mead. If the egg floats, the mead is strong enough. If not, boil some more (or add more honey). If you are using a hydrometer, you should be aiming at a Specific Gravity between 1.090 and 1.100.
4. Re-hydrate your yeast in a cup of warm water. Let sit for ten minutes.
5. When the mead is lukewarm (about 90°), siphon the mead off of the sediment into your primary fermentation vessel.
6. Add your yeast and yeast nutrient and aerate the mead vigorously. The yeast need oxygen and nutrients for vigorous growth, not just food. In Digbie's time, the raw honeys and wooden vessels provided ample nutrients for the yeast. We need to add the nutrients that modern commercial honeys and glass fermenters lack.
7. After a week or two, when the initial fermentation has died down in the primary, stir up the yeast. Many wine yeasts tend to quickly fall out of suspension. If the yeast on the bottom of the fermenter is not disturbed before racking, you might end up removing most of the live yeast cells, and end up with a slow or stuck fermentation. The next day, siphon the mead off of the bulk of the yeast and into a secondary fermenter.
8. Boil the oak chips in a cup of water to sterilize, then add the chips to the secondary. Most historical meads were kegged in wooden casks, typically oak, which provided some amount of tannin. The oak chips here simulate that.
9. Rack the mead every other month. Remove the oak chips at the first racking, and remember to stir the yeast up the day before you rack.
10. When the mead has finished fermenting (about 6 months), bottle it.
11. If you desire a sparkling mead, boil ¼ cup of honey (or corn sugar) with 1 cup of water, and add to the mead before you bottle.
CAUTION: be very sure that the mead is done fermenting. Exploding bottles can be lethal! Test your bottles periodically to guard against over-pressure.
12. Let your bottled mead age in the bottle for 6-12 months. The mead needs time to age, since you introduced a small amount of oxygen to the mead while bottling.

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This is Scum, a publication of the Brewers Guilds of the Kingdom of the East and the Principality of Æthelmearc, of the Society for Creative Anachronism, Inc. Scum is available from Lord Corwin of Darkwater (c/o Douglas Brainard, 45 Southwind Way, Rochester, NY 14624). Scum is not a corporate publication of the Society for Creative Anachronism, Inc. and does not delineate the policies of the Society for Creative Anachronism, Inc. Subscriptions are \$4.00 for four issues, published quarterly (more or less). Back issues are available at \$1.00 per issue. Please make checks payable to "Douglas Brainard"

FROM THE GUILDMASTER

Greetings unto the Brewers, Vinters and Imbibers of the Known World, from Lord Corwin of Darkwater, Guildmaster of the Brewers Guild of the Principality of Æthelmearc. Welcome to Scum.

PENNSIC XXIV BREWING AND VINTING COMPETITION

It's not too late! Start your yeasts now for the **Official Brewing/Vinting Competition** at Pennsic War XXIV. The competition will be run as a branch of the Pennsic War XXIV A & S Competition which is being organized by Mistress Rayah Blackstar.

The Brewing/Vinting Competition will follow the general rules of the Pennsic A&S Competition:

AUGUST 1995 - OFFICIAL PENNSIC 24 ARTS & SCIENCES COMPETITION Early notice for everyone to have time to work on your entries! This is a different type of contest! Multiple first/second/third/honorable place ribbons in every category, all artists entered in a category do the judging - and they even judge their own piece, documentation is only a 3x5 card stating what it is, what it's used for, date, country and materials.

Due to the destructive nature of judging a brewing competition (both on the entries, and on the judges), and to be able to handle the proverbial 99 bottles of beer, the rules for the Brewing/Vinting Competition have been slightly modified from the general competition rules:

1. If a category has an overwhelming number of entries, it will be split into more manageable groups.
2. If two similar categories have very few entries, they may be combined for the greater enjoyment of the judges.

Questions and comments are welcome and encouraged, and may be directed to me, or to Mistress Rayah (Rayah Guthrey, 130 Spring Run Road, Butler, PA 16001, (412) 283-3972).

GODISGOODE

My boundless thanks go out to Lady Katarina Vignéra de Salerni, Lord Ivan Kalinin & Lady Valentina Andreyevna Sokolova Krasnaya, Countess Marieke van de Dal, and Lord Alistair MacMillan who made Scum what it is today. Vivant to you all.

Lord Corwin of Darkwater

Scriba fermentatoris, Fermentator scribae

*Wel coude I daunce to an harpe smale,
And singe, y-wis, as any nightengale,
Whan I had dronke a draughte of swete wyn.
Geoffrey Chaucer*

STRAWBERRY LIQUEUR

Lady Katarina Vignéra de Salerni

The origin of Liqueurs was initially as medicinal tinctures of various herbs in a base of wine or brandy, or other source of alcohol. Depending on the herbs used, these were supposed to cure all manner of afflictions. Many of these undoubtedly tasted horrible, but some combinations did have a more pleasing taste than others, and gradually, later in period, it

*Wel loved he by the morwe a sop in wyn.
Geoffrey Chaucer*

STRONG MEAD

Lord Corwin of Darkwater

This is Mead. Not Metheglyn (no spices), not Melomel (no fruit), not Pymment (no grapes), not Cyser (no apples), nor Braggot (no malt). Just mead, fermented honey, to delight the purist.

The recipe, from Digbie, will produce a dry mead, and if bottled as such, a magnificent sparkling mead.

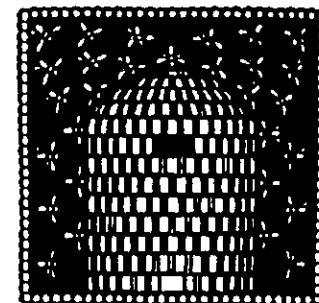
STRONG MEAD

TAKE one Measure of honey, and dissolve it in four of water, beating it long up and down with clean Woodden ladels. The next day boil it gently, scumming it all the while till no more scum riseth; and if you will clarifie the Liquor with a few beaten whites of Eggs, it will be the clearer. The rule of it's being boiled enough is, when it yieldeth no more scum, and beareth an Egge, so that the breadth of a groat is out of the water. Then pour it out of the Kettle into woodden vessels, and let it remain there until it be almost cold. Then Tun it into a vessel, where Sack has been.¹⁵

INGREDIENTS

1 gal	honey
4 gal	water
3	egg whites, beaten (optional)
1	small egg
1 pkg	champagne yeast
	yeast nutrient (for 5 gallons)
1 oz	oak chips
¾ cup	honey (or corn sugar)

¹⁵Sir Kenelme Digbie, *The closet of the eminently learned Sir Kenelme Digbie kt. opened: whereby is discovered several ways for making of metheglyn, sider, cherry-wine, &c.*, London: 1669, Receipt #21, p32.



a small amount. Most hydrometers are calibrated at 60° F, and have the following adjustment chart.

60°	Add .000
70°	Add .001
77°	Add .002
84°	Add .003
95°	Add .005
105°	Add .007

So, if you read a Specific Gravity of 1.100, and the temperature of the solution is 84°-90°, you add 0.003 to get a true gravity of 1.103.

ALCOHOL DETERMINATION

Another useful application for a hydrometer is to determine the alcohol content of a mead. To do this you need a hydrometer that includes a second scale, labeled % **Alcohol**, in addition to the **Specific Gravity** scale (most commercial ones do). You have to take two measurements, one of the mead, just before you add the yeast, and the second, just before you bottle. The difference in the readings on the % **Alcohol** scale is the alcohol content, by volume, of the mead you are bottling.

For example, if your first reading is 16%, and your second is 4%, the alcohol content of this batch is 12%. If your first reading is 16% and your second reading is 12%, then the alcohol content is only 4%, and you shouldn't even **think** about bottling, because your mead isn't done yet!

CONCLUSION

Digbie's Egges work remarkably well, more so than I would have guessed. So next time your hydrometer rolls off the table and smashes onto the floor, don't worry. Just lob an egg or two into your mead and make do as Digbie did!

Nay! I wol drinke licour of the vyne,
And have a joly wenche in every toun.
Geoffrey Chaucer

In womman vinolent is no defence,
This knowen lechours by experience.
Geoffrey Chaucer

became more common for people to make liqueurs for their flavor rather than their medicinal value. Some of the recipes which were originally developed as medicinal remedies were perfected to a much more pleasant taste and can even still be found in liquor stores today. (An example of this is Benedictine, which was originally developed as a medicinal tincture of herbs by monks of the Benedictine monasteries.) Actually making liqueurs out of fruits did not become common until later in period.

I made this liqueur from fresh strawberries, hand-picked in southern Minnesota at the beginning of July. (Strawberries are period. Among other sources, they are mentioned in *The Fruit, Herbs and Vegetables of Italy*, written in 1614 by Giacoma Castelvetro.) This particular strawberry farm has the most flavorful strawberries I have ever found, perhaps because they do research in developing better strawberry varieties. In any case, I used a recipe from *The Closet of the Eminently Learned Sir Kenelme Digbie, Kt Opened*, the ever-present S.C.A. brewing reference source. Unfortunately, I was over at a friend's house at the time, and my copy of this reference was lost somehow when I moved. In any case, this is how the liqueur was made:

The fresh strawberries were cleaned, sorted, de-topped, and sliced into a large glass jar with a flip-top lid. I added a small amount of lemon juice as per the Digbie recipe, some granulated sugar (not too much!), and topped the jar off with Everclear. (Based on the volume of strawberries used and the amount of Everclear added, I estimate that the final alcohol concentration is about 35% after extraction of the juice from the strawberries.) This mixture was allowed to macerate until October, and then the liqueur was drawn off and filtered. To the remaining fruit, I added a bit more sugar to draw more juice out of the strawberries. After a few days I added this liquid to the liqueur, added a bit more sugar to the strawberries, and continued in this way until I felt that I had drawn as much out of the strawberries as I could without making the liqueur too sweet. This method of drawing the fluid out of the fruit was based on a technique I found once in a recipe for a Cherry cordial.

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And whan that he wel dronken hadde the wyn,
Than wolde he speke no word but Latyn.
Geoffrey Chaucer

TWO RATAFIAS

Lord Ivan Kalinin &

Lady Valentina Andreyevna Sokolova Krasnaya

ORANGE RATAFIA

2 lbs	oranges
½ gallon	brandy
2 lbs	sugar
1 qt	water

Peel the oranges, taking care only to skim off the orange skin and not the white pith (which is bitter). Layer the peels between portions of the sugar. Keep this for a few days, until the zest of the orange has seeped into the sugar. The orange sugar can then be added to the recipe, along with the juice of the oranges. Steep them for at least two weeks in the brandy, and then add a boiled syrup of the sugar and water. Bottle.¹

RASPBERRY RATAFIA

2 lbs	raspberries
½ gallon	brandy
2 lbs	sugar
1 qt	water

Crush the berries well. Steep them for at least two weeks in the brandy, and then add a boiled syrup of the sugar and water. Bottle.²

This Ratafia was made at the request of a friend, who wanted it as a present for his wife. The raspberries were picked fresh from his garden. The reason it was made into a Ratafia (as opposed to a wine) was partly because of consideration for time (a wine would not have been ready for her birthday), and partly because the literature I've read specifies that raspberries are not suitable for wines.

INGREDIENTS

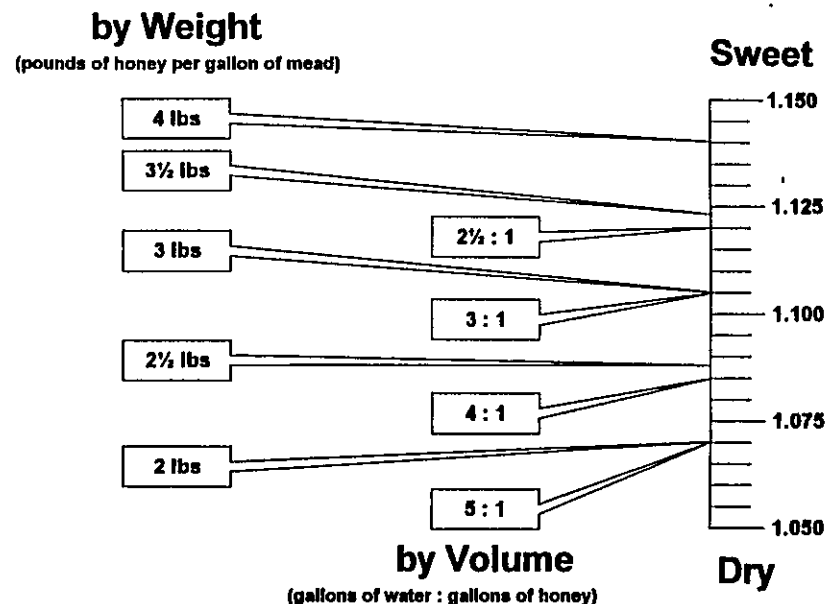
Oranges³: oranges were originally introduced into Europe through China. Although citrus fruits were not widely available, oranges were highly prized for their flavor. The Spaniards, in particular, planted oranges all over their New World colonies, because of the high price they would fetch in the marketplace.

¹ *The Wise Encyclopedia of Cookery*, (New York: Wm. H. Wise & Co., Inc., 1949), 442

² *Ibid.*

³ *The Encyclopædia Britannica*, 1944 ed. s.v. "Orange".

Specific Gravity of Meads

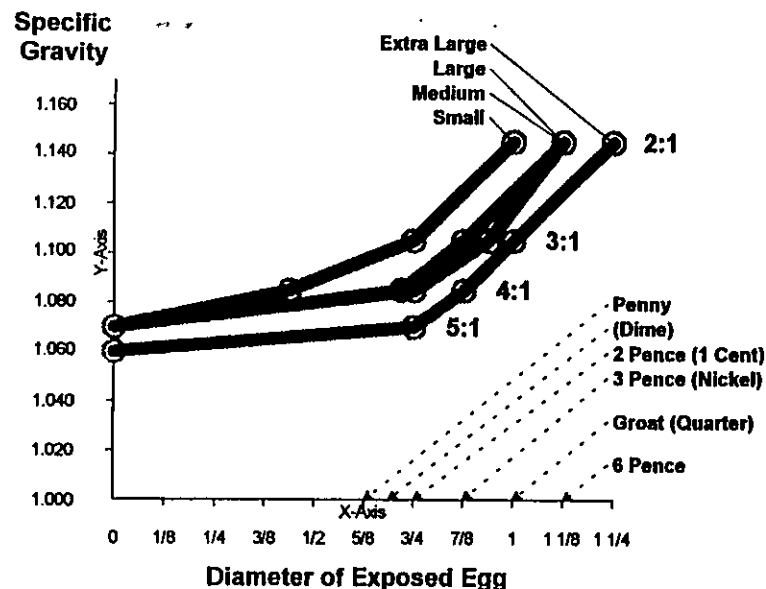


MODERN HYDROMETERS

Like their early counterparts, modern hydrometers measure the relative density of whatever liquid they are immersed in. In water, the **Specific Gravity** scale on a hydrometer will read 1.000 (by definition). In a sugar solution that is more dense than water, the hydrometer will float higher, and the scale will read something higher than 1.000. The difference between the two readings gives a direct indication of how much sugar is dissolved in your wort/must/what-have-you. The above table gives specific gravity values for various honey : water proportions, by weight and by volume, that are typically used in Digbie.

TEMPERATURE CORRECTION

Sound too easy? Your'e right. Just when you thought you were all done, the real world sticks its head in and muddies things up a bit. Hydrometers do work, but the density of a liquid is affected by its temperature, so any hydrometer readings you take must be adjusted by

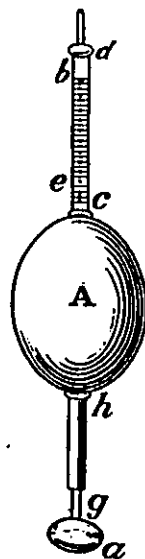


points of specific gravity (a **larger** diameter means a higher gravity).

5. The difference between modern eggs of different sizes also translated to about 10-15 points of specific gravity.

EARLY HYDROMETERS

By the time the hydrometer (or saccharometer) was invented in the 18th century, meads had pretty much fallen out of favor. It was thus the beer brewers and the distillers who had need of the hydrometer, a device to measure the strength of a sugar solution, and they needed something that worked better than an egg at low sugar concentrations (6:1 and less). It is interesting, though to note the appearance of these early hydrometers, where art is indeed imitating nature. (see figure)¹⁴



¹⁴An egg-shaped hydrometer, from the Frontispiece to John Richardson's *Statistical Estimates*, 1784.

Raspberries: Raspberries were not actively cultivated until after the mid 1600's. However, raspberries were widely available throughout Europe, and references to it as a delicacy date back to Pliny and other classical writers.⁴

Brandy: It is hard to determine the origins of brandy or brandywine, as it was known at one time. It was introduced into France from Italy in 1533 for the marriage of Henry II and Catherine de Medici⁵. Presumably it was available in Italy somewhat earlier.

Sugar: Cane sugar was used in this recipe. While honey would have been a more generally common sweetening agent in period, sugar was certainly available. Its use, in fact, dates back to ancient India.⁶ It was brought to Europe by Eastern traders, and later, from the expeditions of Columbus.

Water: Trust me, okay? Water is period.

ABOUT RATAFIA

A Ratafia is a cordial made by the infusion process, whereby the spirit and sugar are added to fresh fruit juice (peach or cherry kernels, bitter almonds or other fruits). The better liqueurs are made by this method. Generally, Ratafias especially are sweet, after dinner, dessert cordials, and this sample definitely belongs in that category.

Well loved he garleek, oynons, and eek lekes,
And for to drinken strong wyn, reed as blood,
Geoffrey Chaucer

BEER AND MEAD IN MEDIEVAL RUSSIA: SOME PRIMARY DOCUMENTATION

Countess Marieke van de Dal

Information about beer and mead in medieval Russia is hard to come by. A translation of a sixteenth-century domestic management handbook has just been published, and it contains recipes, food lists, instructions for servants, and a few interesting tidbits about alcoholic beverages. The book is *Domostroi: Rules for Russian Households in the Time of Ivan the Terrible*, translated by Carolyn Johnston Pouncy, and published by Cornell University Press in 1994 (ISBN 0-8014-2410-0).

⁴Ibid s.v. "Raspberry"

⁵Ibid s.v. "Brandy"

⁶*The Wise Encyclopedia of Cookery*, (New York: Wm. H. Wise & Co., Inc., 1949), 1135

I found it interesting that one of the recipes below mentions the distilling of vodka, which according to the translator was a process that came to Russia during the reign of Ivan the Terrible. I was also pleased to see documentation for mixing berry juice with mead.

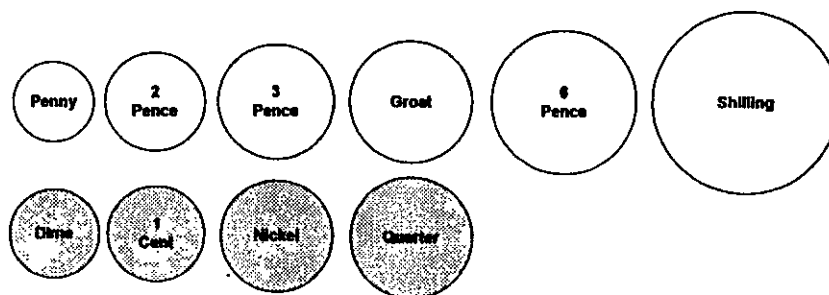
The following section contains an interesting concept: how to lay out a lavish spread of beverage choices by keeping a few extra flavorings on hand and mixing them appropriately...

46. How a man must keep liquor stored from himself and his guests. How to present this liquor to company.

When a bachelor, of moderate means and thrifty, wishes to keep beer in stock for his guests, he fills the casks in March, after the barley malt has been brewed. For special occasions, he adds a little honey to ordinary beer, keeping it on ice and calling it mead or March beer. To celebrate holy days, namedays, weddings, births, christenings, memorials to the ancestors, or the visit of a merchant, invited guest, or respected abbot, the host should decant mead from a vat into five pewter jugs or (depending on the number of people being served) small casks. He should put nutmeg into one little bag, cloves in a second, beneficial herbs into a third. He will warm these on the stove and mix them with the mead. He should mix cherry juice with warmed wine and put it in a jug, combine raspberry juice and wine in a second jug, and add wine to prepared syrup in a third. Then he can offer his guests six kinds of mead, two kinds of wine and cherry juice, in either casks or pewter jugs, and two kinds of beer as well

(p. 155) (Note: the translator's footnotes to this passage indicate that the original author wasn't able to count his permutations very well)

In the following section, we get a hint about what to do with weak beer (make cabbage soup!). Notice that the recipes fail to mention amounts and proportions consistently, so they would be difficult for us to follow exactly. The translator chose to use the phrase "distill mead" towards the end of this section but there is no indication that the mead is actually distilled. The section about vodka, however, does seem to refer to the actual distilling process.



EGGS

Digby also refers to eggs, especially round, new-laid ones. How big were Medieval Eggs? That is a hard question to answer, although I think "small" would be a good guess. For the Current Middle Ages, egg sizes were established by the US Department of Agriculture in the 1930's:

• Jumbo	30 oz (per dozen eggs)
• Extra Large	27 oz
• Large	24 oz
• Medium	21 oz
• Small	18 oz
• Peewee	15 oz

A SCIENCE EXPERIMENT

Well, time to put all this historical data to the test. A series of experiments (some of which were held at Cook's & Brewer's Collegium) with eggs of various size and meads of sundry strength were conducted, resulting in the chart below. The meads were made by adding warm water, one measure at a time, to a single volume of honey. Temperature was kept at "blood warm", and measurements were made visually (so there is lots of room for error).

A few observations you can make from the following graph:

1. Eggs will sink in a mead if there is not enough honey dissolved in the water (5:1 and below).
2. Eggs start to float in mead at a specific gravity of about 1.070.
3. Eggs will float in mead if there is enough honey dissolved in the water (4:1 and above).
4. The difference in diameter between Elizabethan silver coins of different values was about $\frac{1}{8}$ inch, which translates to about 10-15

Coin	Initial Proportions of Water to Honey					Unspecified
	2½:1	3:1	4:1	5:1	6:1	
	1.120	1.105	1.084	1.070	1.060	
Penny		1				
Twopence¹						3
Threepence			3			
Groat²		2	5			5
Sixpence			2			2
Shilling³		1				
Hazelnut						1
Unspecified	1	6	8	1		7
Egg sinks					1	

¹ Half-groat.

² Four pence.

³ Twelve pence.

Note that the 'egg scale' covers the range of 2½:1 to 6:1. Meads that are much stronger than 2:1 (2 parts water to 1 part honey) will rarely ferment - the osmotic pressure being so great on the little yeastie cell membranes that their biochemical processes shut down. At the opposite end, meads that are weaker than 6:1 (and this includes all small meads) will ferment almost completely dry, eventually becoming undrinkable, and prone to spoilage due to the low sugar/alcohol content. (Incidentally, the fact that eggs don't float well in meads weaker than 6:1 is why you don't read about beer brewers mucking about with eggs in their brews. Just thought you'd like to know.)

COINAGE

The coins referred to by Digbie were all in circulation in Elizabethan England, and were being mechanically minted by 1662. Since the coins were reputedly worth their metal content, it is reasonable to assume that a Groat contained twice as much silver as a twopence, which in turn had twice as much silver as a Penny. This is not to say that the coins had a constant size through the ages. A groat from 1279 had a diameter of about 2.9 cm, while a 1480 groat was 2.7 cm and a 1561 groat was a paltry 2.5 cm. Still, a rough approximation of the relative sizes of these coins, along with some modern counterparts, can be determined (see figure).



Groat, c.1300

47. A brewing lesson for that same young man. How to brew beer, make mead, and distill vodka.

For brewing beer, ale, or sour cabbage soup, take malt or meal and hops. These supplies should be measured or counted and the amounts recorded.

When beer is brewed from barley, oats, or rye, or when hops are steamed, you must supervise the fermentation and siphoning off yourself. All should be done carefully and cleanly, so nothing is stolen or wasted.

Do not drink just for something to do.

Once the beer is boiled, even after it is boiled if the malt is strong, a cask or more of a second beer may be prepared. When all the beer is made, pour water on the lees. Add thirty or forty pails to barley lees, or fifty, even sixty, to a good, strong mash. This mixture ferments well and is good enough for the family.

Beer from the first grade makes good sour cabbage soup. You can make vinegar, too, from a good mash; be careful to keep it in a warm place.

You must wash before you approach the brewery.

Store beer hops for making honeyed wine; keep them, along with the mash, on ice during the summer, so they do not spoil. Keep yeast in stock for making hippocras also.

When you transfer these drinks to casks, watch your servants carefully. Old vessels are best for storage, since they are readily available and have been tested.

You must distill mead yourself. While it ferments, seal the room. Only you may oversee the process. No one else must taste the brew while you blend it.

Distill vodka yourself, as well. Never leave it unguarded. If you are otherwise occupied, have someone trustworthy take

your place. At bottling time, estimate the end results from the amount in the caldron and distill three separate grades.

(pp. 156-7)

This third section gives us more recipes. Again, some of them are incomplete. The translator continues to use the word "distill" with regard to the brewing of mead, but the recipes do not include instructions for this process.

65. Recipes for all sorts of fermented honess drinks. How to distill mead: make juice, kvass, and beer; brew with hops and distill boiled mead.

Boiled mead. Take one part honey to seven parts warm water. Strain the honey carefully through a fine sieve, making sure no wax gets through. Put the strained honey into a pot with a half-measure of hops and boil it carefully. While you boil it, skim it with a fine sieve, till the mixture in the caldron is clear. When you have reduced the mixture by half, take it from the caldron and cool it by adding it to the warm water. Put the honey and warm water in a clean jar, free of wax, and cover it with yeast bread and honey. Warm it on the stove, then place it in another jar to ferment. When it has fermented properly, put it in a cask immediately so it will not spoil.

White mead. To produce white mead, choose clear, light-colored honey. Pound it well so there will be no bits in the mead. Mix one part honey to four parts warm water. Add one-quarter measure of hops to the brew. Then ferment it with yeast. When the mead has fermented, strain the yeast from the mead with a fine sieve until the mixture is clear. Then pour it into a cask.

Honey mead. To produce honey mead, take five parts honey to one part warm water and strain it until it is clear. Place it in a jar and add three measures of hops. Ferment it with yeast. When it is ready, strain the yeast from the mead with a fine sieve until the mixture is clear. When you are done, pour it into a cask.

Ordinary mead. To produce ordinary mead, add honey to six parts water and strain it until it is clear. Place it in a jar

but a threepence) of the Egg-shel must Swim above the Liquor; which then put again into your Copper to boil.⁹

AN EXCELLENT WAY TO MAKE METH EGLIN, CALLED THE LIQUOR OF LIFE, WITH THESE FOLLOWING INGREDIENTS

Next for the strength of it; whereas in that [MR. PIERCE'S EXCELLENT WHITE MEATHEGLIN], an Egge is to emerge out of the Liquor but the breadth of a three pence; in This it is to emerge a large Groats-breadth.¹⁰

SIR JOHN ARUNDEL'S WHITE MEATH

Then put in a New-laid-egg; if the Liquor beareth the Egg, that you see the breadth of a groat upon the Egg dry, you may set it over the fire: if it doth not bear the Egg, then you must adde a quart or three pints more [of honey] to the rest; and then set it over the fire, and let it boil gently...let it boil a full hour or more, till the fourth part of it is wasted...¹¹

THE EARL OF DENBIGH'S METH EGLIN

...then beat in so much honey, as will make it so strong as to bear an Egg, so that on the Top, you may see the breadth of a hasel-nut swimming above...¹²

ANOTHER

To make it stronger than this [a quart of honey to a Gallon of water], 'tis but adding more hony, to make it bear an Egg the breadth of a six pence, or something more.¹³

Of the 119 Receipts in Digbie's *The Closet ... Opened*, 43 refer to the use of an egg to measure the strength of the unfermented mead. These recipes are listed in the Appendix, and the egg-related ones are summarized in the following table:

⁹ Ibid, Receipt #38, pp47-48.

¹⁰ Ibid, Receipt #39, p51.

¹¹ Ibid, Receipt #47, p57.

¹² Ibid, Receipt #86, p85.

¹³ Ibid, Receipt #91, p88.

MR. CORSELLISES ANTWERP MEATH

When all is dissolved, it must be so strong that an Egge may swim in it with the end upwards. And if it be too sweet or too strong, because there is too much Honey, then you must put more water too it; yet so, that, as above, an Hens Egge may swim with the point upwards: And then that newly added water must be likewise well stirred about, so that it may be mingled all alike. If the Eggs sink (which is a token that there is not honey enough) then you must put more Honey to it, and stir it about, till it be all dissolved, and the Eggs swim, as abovesaid.⁷

SEVERAL WAYS OF MAKING METHEGLIN

Then take the clear [water], and dissolve in it a sixth part of honey, doing as above for the boiling and clarifying it. But boil it not to bear an Egge, but onely till it be well scumed and clarified.⁸

MR. PIERCE'S EXCELLENT WHITE MEATHEGLIN

When it [the water] is blood-warm, put the honey to it, about one part, to four of water; but because this doth not determine the proportions exactly (for some honey will make it stronger then other) you must do that by bearing up an Egge. But first, lave and scoop your mixture exceedingly, (at least an hour) that the honey be not onely perfectly dissolved, but uniformly mixed throughout the water. Then take out some of it in a great Woodden bowl or pail, and put a good number, (ten or twelve) New-laid-eggs into it, and as round ones as may be; For long ones will deceive you in the swimming; and stale ones, being lighter than new, will emerge out of the Liquor, the breadth of a sixpence, when new ones will not a groats-breadth. Therefore you take many, that you make a medium of several emergings; unless you be certain, that they which you use, are immediately then laid and very round. The rule is, that a Groats-breadth (or rather

with a half-measure of hops. Ferment it with yeast. When the mead is ready, strain the yeast from the mead with a fine sieve until the mixture is clear, then pour it into a cask.

Boyers' mead. To produce boyars' mead, take the wax from six parts of honey and mix it with hot water. Add a measure of hops to the brew and ferment it with yeast. Strain it so it is clear of wax and ferment it in the jar for a week. Then place it in a cask and let it stand in the cask for another week. Then strain the mead clear of yeast and place it in a second cask. Fill the cask up with honey.

Mead with spices. To add nutmeg and cloves to brewed mead, pour ordinary mead into small casks and top them off with honey. Place the spices in small bags and put the bags into the little casks with the mead. Cork the casks tightly so the air from inside will not escape.

Berry mead. To make berry mead, place berries of any type in a caldron with ordinary fermented mead. Cook the mixture slowly and for a long time so the berries will boil but not burn. When the berry mixture boils, let it stand overnight. Separate the berry mead carefully from the dregs and pour it into a cask. You must decide which mead to use as a base and how much to thicken the berry mixture. But when you decide the berry mead is finished, place it in a cask you have not used for mead before so there will be no yeast either in the casks or in the mead.

Berry juice. To make ordinary berry juice, take any sort of berries and put them, with water, in a caldron. Cook the mixture slowly and for a long time so that the berries will boil but not burn. When the berries boil, let them stand overnight. Then carefully separate the berry juice from the dregs and put it in a cask that has not had yeast in it.

Ordinary kvass. To brew ordinary kvass, take four parts of honey and strain it until it is clear. Put it in a jar and ferment it using an ordinary soft loaf, without additional yeast. When it is done, pour it into a cask.

Imitation beer. To supplement ordinary beer that is sitting in a cask, strain the yeast from it and pour it into another

⁷ Sir Kenelme Digbie, *The closet of the eminently learned Sir Kenelme Digbie kt. opened: whereby is discovered several ways for making of metheglyn, sider, cherry-wine, &c.*, London: 1669, Receipt #4, p9.

⁸ Ibid, Receipt #26, p38.

cask that has no yeast. Put a bucket of beer in a caldron and add honey. For every bucket of beer you take from the cask, add a measure of honey. Heat the honey and the beer in the caldron to boiling point, until the two are thoroughly blended. Chill the mixture thoroughly and Pour it into a new cask.

(PP. 196-198)

The last chapter of the book gives several versions of Russian wedding rituals. Wine, mead, and kvass figure prominently. In one version, the bride and groom share a cup of mead, in which is floating two seed capsules from a poppy flower (p. 205). In a different version, during the actual wedding in the church, the bride and groom drink wine from a cup without handles, and then the groom smashes the cup, a ritual that is still seen nowadays in a Jewish ceremony (p. 222). Later that evening, the bridal chamber is set up with a sideboard containing a dozen mugs and goblets of various alcoholic beverages, for the refreshment of the newlyweds on their first night (p. 213). The guests, of course, are provided with plenty of beer, wine, mead, kvass, and perhaps vodka (the translator comments that the word used in the original is ambiguous here) (p. 216).

*Ful many a draughte of wyn had he y-drawe
From Burdeux-ward, whyl that the chapman sleep.
Geoffrey Chaucer*

WINE

by Lord Alistair MacMillan

GENERAL INFORMATION ABOUT WINE

Winemaking in period was the mark of a prosperous people. It is a time-consuming, laborious procedure to grow vines and make wine, and the vines produce no grapes for the first three or four years. But wine was vital to existence in the middle ages, and from early times winemakers were given official encouragement, and often, a step up the social ladder. 6th cent. Sallic law valued a winegrower at twice the price of a ploughman or cowherd in case of accidental death. On the Rhine, the Church assured good work by making the lowliest vineyard worker a freeman, with equal rights to townsmen, such as the right to carry wine to market in Mainz, and to carry arms.

Medieval growers usually planted several kinds of vines in one plot, as insurance against the vagaries of weather and disease. these were all

Lustau "Papirusa" Manzanilla - 8.99

light sherry from Sanlucar, Spain, good for English personas from 1500 on.

Achaia Clauss Retsina - 7.99

pine resin flavored wine, period for local greek consumption from 3000 B.C. on.

Achaia Clauss Mavrodaphne of Patras - 9.99

Sweet red greek wine, good for well-off personas through period.

Montagliari Vin Santo 1985 - 16.99

Tuscan dessert wine from Trebbiano and muscat grapes dried for months.

KEO Commandaria - 11.99

Sweet Cyprus wine made from Black Mavron grapes: The most documentably period wine now available, this was expensive in period, but is cheap now.

*Janus sit by the fyr, with double berd,
And drinketh of his bugle-horn the wyn.
Before him stant braun of the tusked swyn,
And "Nowel" crieth every lusty man.
Geoffrey Chaucer*

TO BEAR AN EGGE

MAKING MEAD WITH MEDIEVAL HYDROMETERS

Lord Corwin of Darkwater

Mead is such a simple thing. Collect honey from a beehive, add some water, and wait while the honey-water turns into mead. Simple. Except, how much water do you add to the honey? Since honey is a natural product, there is no easy way to predetermine its sugar content, and early meadmakers learned that sugar content was vital to the making of a mead: too little sugar, and the mead ferments too dry, and sours too easily. Too much sugar, and the mead won't ferment at all. What to do, what to do.

As it turns out, Medieval brewers somehow discovered the Egg. You see, the Egg has a peculiar property, in that it will sink in water, but it will float in a strong sugar solution. How strong? Well, about the strength of a good mead, before it ferments. Serendipity! For more information on this fantastic discovery, let us turn to the foremost authority of the age, Sir Kenelme Digbie, Kt.

King of England, the wines of his native Anjou were in favor. With Richard Lionheart, and later with John Lackland especially, Bordeaux wines became favored, not least because the Bordelaise were loyal to, and more importantly, paid taxes to the King of England.

Till 1451 huge quantities of Bordeaux wine reached England. It shrank after this, but never stopped. After this time the English ranged farther afield, and no single wine was pre-eminent.

In the mid to late 1400's, in addition to the French, German, and Mediterranean wines, England began to import madeira, and Spanish Malaga Sack and Sherry Sack. These three wines were the upmarket rage of the Sixteenth century.

SOME SAMPLE WINES

Jean-Pierre Grossot Chablis 91 - \$14.91

French Chardonnay, good for a Burgundian persona, or one nearby.

Chateau Gravelle-Lacoste, 1990 - \$6.49 per half-bottle

Bordeaux blend of Semillon and Sauvignon. A Gascon or English persona might drink this from 1200 on.

Rigogolo Vernaccia di San Gimignano 1991 - 13.99

Italian vernaccia or Vernage grape This wine was Michaelangelo's favorite, and available in England from at least 1300 on.

Furmint of Tokaji 1989 - 7.79

Hungarian, eastern, or very northern personas could drink this wine.

Chant de Cigales 1992 - 5.99

French Rose. This is good pretty much anytime in France or England.

Anna Katherina, Hollerith Selection Pinot noir + Pinot Meunier - 9.39

German blend of red and white grapes - Good for a German persona from twelfth century on.

Joseph Voillot Pinot Noir Bourgogne 1991 - 10.99

Burgundian red: This was in favor from the mid-fifteenth century on.

Ockfener Bockstein Spatlese 1990 - 8.79

German Riesling from the Moselle, good for German, English, and Scandinavian personas through period.

Mitternack-Klack Grand Cru Sporen Gewurztraminer 1990 - 12.99

per half. Somewhat late-harvested wine from Alsace. These were consumed locally and in England.

Barboursville malvaxia reserve 1992 - 16.00

the half Virginia late-harvest Malvaxia. This is good for malmsey, a luxury wine from Cyprus and Crete popular in England from 1300 on.

harvested together, the ripe grapes giving sugar, and the others fresh acidity. The order to begin picking was issued by the lord of the land, who, wanting quality wine, would wait as late as possible, while the growers and peasants wished to pick as early as possible, to cut losses to disease, animals, and weather.

Once picked, the Grapes were trodden with the feet to crush them. Whites were then bucketed into barrels to ferment, while reds were often trodden in their tall fermenting vats as a short cut. The danger of carbon dioxide suffocation is confirmed by Church death records. After fermentation, the grapes were pressed whenever possible, a portion being paid to the owner of the press, usually a lord or a church. The vin du presse was considered inferior to free-run juice, and was sold separately, though Olivier de Serres noted in 1600 that in Anjou it was added to the rest of the wine, but he considered this unusual. The finished wine was, if insufficiently clear, fined, reds with egg whites or blood, and whites with isinglass.

Wine making was often a very hurried procedure, and poor growers frequently had no time for racking. The purchaser simply broached the cask above the expected level of the lees. Many poor growers could not even afford to drink their own wine. Instead, they added water to the pressed grapes and fermented that. The resulting "piquette" made the working rations of the average vineyard worker from Roman to nearly modern times.

FRANCE

The period from Charlemagne to the 13th century saw the planting of tens of thousands of acres in vines, much of it by monasteries, who required it not only for daily life, but also for numerous religious ceremonies. The new plantings were encouraged by a client system that allowed a free laborer to offer to cultivate uncleared land in exchange for a share of land, or more commonly, of the crops. these partnerships sometimes continued for generations.

BORDEAUX

Bordeaux's fortunes have always depended on the shipping trade. There is a record of a Briton wine merchant there in the first century B.C., but after the Romans withdrew, there was little commerce for centuries. The 7th century saw the arrival of the Gascon tribe from Spain, who brought some vines with them. In the 9th century, Gascony was devastated by raids, destroying many of the vines there. In 870, the Archbishop Frotaire fled a totally devastated Bordeaux. The area rebuilt over the next few centuries, but the economic power had moved to the north in Anjou, where in the early twelfth century the new port of La Rochelle was thriving. The town's popularity encouraged the planting of vines there, and while the Kings of England were also the Counts of Anjou, these

were the French wines shipped to them. Richard Lionheart was the first king of England to make Bordeaux wine his household wine, but as he was rarely in England this had little effect there. It was John Lackland who first gave Bordeaux real royal favor. In return for support against France, in 1203 he exempted Bordeaux, Bayonne, and Dax, all shipbuilding towns in Gascony, from the major import taxes. La Rochelle and Poiteau protested this inequality so much that John was obliged to grant them the same privileges, but Bordeaux regained the upper hand when in 1224 the King of France tried to force the English out. La Rochelle and Poiteau surrendered, but Bordeaux held fast, and its privileges were subsequently increased. At this time, Bordeaux had few vineyards, mostly in Graves. The Aquitaine basin as a whole supplied the port, but as freight was cheaper the nearer to port you went, the planting increased for centuries. The Medoc in the 16th century was one of the last places to be planted, as it was a swamp that had to be drained first. By the mid 13th century, three fourths of England's royal wine came from Bordeaux, at a freight charge of 8 shillings the ton. The wine fleet convened twice a year; in October for the "vintage" shipping, and in February for the "rack" shipping of wine drawn off the lees. We have Bordeaux's export figures for seven years of the early 14th century, averaging 83,000 tonneaux of 12 score and 12 gallons each. England took about half of this, and when the new wine arrived, last year's was halved in price, or even just thrown away. These wines were the common drink, lower in status the Mediterranean and Rhenish wines, but they were plentiful and cheap. Bordeaux made three kinds of wines: white, red, and claret. Until about 1600, claret meant a light colored wine, ranging from yellow, as distinct from white, to pink. To get the desired pink color, called "partridge-eye", red and white wines were often mixed. Red wines then would have been very light. They were only on the skins one day, and absorbed little color and tannins. After the wine was drawn off, the remainder, redder and coarser, was used for tinting wine, or sold cheaply as "vin vermeilh" or "pin pin". This amounted to about 15%. Few people in Bordeaux owned presses, as it was a land of small producers.

BURGUNDY

Burgundy's vines were greatly devastated by invasions in early period, and they began to be replanted in the 8th and 9th centuries, but the overland roads were nearly impassable, so few were exported. What saved Burgundy was the introduction of the Cistercians. On Christmas day of 1098, their first year, they were given their first vineyard in Mersault by the Duke of Burgundy. They took quickly to vine-growing. They selected strains, practiced cutting and grafting, experimented with pruning methods, and made wine very carefully. Most importantly, they compared the wine they made in each plot, and the tithe wines they received, and the growing methods that produced them. By careful study, they delineated on maps the qualities of the land that they

German wines are one of the few that could be sweet and low in alcohol at the same time. Most sweet wines depend on a high alcohol level to kill the yeasts off and stop fermentation, but in Germany the cold of winter could be used for this. Even today a few of the better producers use the cold of winter to stop yeast naturally, but most use refrigeration.

ITALY:

Italy may have more kinds of grapes growing in it than any other country today. For the most part, the same guidelines apply as in France, but it's possible to be much more specific about where the wine comes from. Practically every town has its own specialty. In its warmer climate, sweet wines are more common, and even poorer persons might have some on occasion. Italy has a great number of very ancient grapes. Some of them known by name in the middle ages include malvasia, vernaciot and a variety of muscats (These are as old as ancient Greece).

As for red wines, some Chiantis are very light, and Dolcetto d'Alba is a good fruity young wine. Watch out, though, for wines made from French varietals such as Cabernet or Chardonnay. These are often quite good, but such plantings only date to this century.

GREECE:

Sadly, the ancient center of the wine world has in modern times long been held to make the world's worst wine. There have reportedly been significant gains in that respect in the last few years, and some wines are very much worth a look. The sweet Muscats would have been highly desired luxury wines through all of the SCA period, and retsina has been a local drink for at least 4 millennia. Pine flavored wine is definitely not to everyone's taste, though.

CYPRUS:

The island's most famous wine is the sweet Commandaria. It has had a name in Europe ever since Richard I gave the island to the Knights Templar in 1191, and has been made in the same style under the one name ever since. Few other wines in the world are as unchanged in 800 years.

SPAIN:

The Sherry and Malaga Sack of the sixteenth century are Spain's most notable period wines. Period sherry was dry and un-fortified, so it comes closest to Manzanilla from the port of San Lucar near Jerez. Malaga was, and is, a dessert wine, and is hard to find now.

ENGLAND:

The English have always had to import their wine. Politics play a great role in determining what wines are imported, but smugglers and privateers both squeezed a certain amount of wine past official trade barriers and sanctions.

In early period, England imported Rhine wines from Germany and Alsace. By 1124 we know a wide variety of wines were available, even those from the far-off Holy Lands. When, in 1154, Henry Plantagenet became

the grapes now grown were around in period, but were a smaller percentage. Over time the best grapes for a region were settled on. For example, over 25 different grapes were used in Bordeaux as late as the 1700's, but now only 5 red and 3 white are permitted by law.

FRANCE:

Most dry whites will work pretty well. Period ones would have been perhaps lighter, but bottling is the big difference. Some sweet late harvest wines were made in period, but wines made sweet by fortification with brandy or by the botrytis mold (e.g. Sauternes) are not yet documented.

Rose' wines are quite appropriate to the middle ages, probably dry ones, though some Anjou wines were described as "sweet".

For red wines, look for light, not-too-tannic wines. The lighter of the Burgundian Pinot Noirs or some of the Rhone reds could be good choices. Some bordeaux wines are again being made in a period style, spending just one day on the skins before being pressed. These may be labeled "clairet," or "vin d'une nuit." Most Bordeaux reds, though will be big, tannic wines in a definitely non-period style.

GERMANY:

This is one of the few countries which aged wine, starting, apparently, in the late fifteenth century. If your persona lives from here on, you could have wine as young or old as you like. The best wines will be of the Riesling grape, or at least will name what grape it is made of. The finest are marked "Q.m.P.", or "Qualitätswein mit Prädikat". This stands for quality wine with distinction, the "distinction" being a classification of the wine according to how much sugar was in the original grapes, as follows:

KABINETT - These are the driest, and usually have only a hint of residual sugar. They are also relatively inexpensive.

SPATELESE - Meaning late-picked, these are not necessarily sweeter, but definitely richer in taste than kabinet wines.

AUSLESE - Almost always sweet wines, "auslese" means "selected." Ausleses are harvested quite late, and are usually have some flavor from the Botrytis mold which concentrates the sugar in many of the world's greatest dessert wines. This is as sweet as I am willing to go for period German wine.

Beerenauslese and Trockenbeerenauslese wines are wonderfully sweet, incredibly expensive, and very rare. They are probably not period, and it's just as well, since they cost from \$50 to \$250 for a half-quart bottle.

A few german wines are made with french varieties, like pinot blanc, which is white, or pinot noir, a red wine. The latter is made in a very light style in Germany, and would be a good wine for a German persona from the 12th century on. It would never have been exported then, though.

controlled, or were near. They recorded what practices made what kind of wine, in what spot, and put walls around the fields that regularly made wine of a recognizable desired flavor. It was with the Cistercians that vineyard names began to mean something. In 867, the chapter of St. Martin at Tours, 150 miles inland on the Loire river, asked King Charles the Bald for a vineyard safe from the Vikings. He granted them land in Chablis, which made a name for itself. Till after the Cistercians, it was the only Vin de Bourgogne that reached Paris. The exceptional 1396 vintage was actually still good when four years old, though it was written that good Burgundies, called Beaune, might last 2 years. The Dukes of Burgundy were steadfast in upholding the quality of their wine. They mandated that only pinot noir be planted, and banned its mutation, the Gamay. The peasants loved that grape, which first appeared at the village of Gamay in the 1360's. It ripened two weeks before the Pinot, and bore up four times the fruit, but the Dukes despised it for its decidedly common taste.

GERMANY

The Romans planted the Moselle in Ebling vines long ago. A very few vineyards still have some, but the Riesling is queen these days. The Rheingau, Germany's top quality area, was planted early in period. Two vineyards in Walluf were given to Kloster Lorsh in 779. The Rhine was dominated by monasteries, who heavily promoted the spread of vines, as a tithe of wine was more salable than one of, for example, hay. These policies were successful. In the 6th century, the Rhine had under 40 wine villages, and in the ninth, there were almost 400. By 1226 there was no land left to clear on the Rhine, and the church controlled almost the whole of the river. Some of the churchmen on the Rhine were Cistercians from Burgundy who came in the 12th century. They planted Burgundian grapes first, but found that the whites always turned out better than the reds. Eventually the Riesling was selected as the best grape, though its first surviving mention is not connected with the brothers. It is an invoice for a grape delivery dated march 13, 1435. Since the vines don't even have grapes in March, perhaps the invoice was made out after the fact. One of the most important early names in Riesling was that of the Counts von Katzenelbogen, on the Rhine. In the early 1400's they tore out all their old vines, and planted only Riesling. Those Counts were just one of the many nobles and churchmen who kept fortresses on the Rhine, and in one case, in the Rhine, for the express purpose of extracting "tolls" from merchants going down river. By the 14th Century the Rhine alone had 62 customs points, enough to make some brave merchants try overland routes. Germany saw two interesting developments in wine. First, in 1487 a royal decree officially permitted for the first time the sulphiting of wine by the burning in the barrel of sulphur-soaked wood chips. This was the first step in making possible the preservation and maturing of wine. Second, Germany began

In the 16th century to put its best wines into huge casks, called fuders. The first was the Eberbach Tun of 1500, which held 70,000 liters. This had the effect of slowing the absorption of oxygen through the barrel, because the cube/square ratio meant that the volume of wine increased faster than the surface area of the wood. After this, people began to cultivate a taste for "Old Rhenish". Olivier de Serres (1600) recorded that on the Rhine, a groom was expected to give his bride wine from the year of her birth.

SPAIN

The wines most of interest to us are the export wines, as they were the only ones put in barrels. Wine for local consumption was stored in wineskins made from the whole hide of a pig. Most of Europe stopped doing this when Charlemagne forbade it, but Spain continued till out of period. Spain always grew vines, even under the Moors, who let them stay for raisins, and sometimes for wine in spite of the prohibition. By the 13th century, all of Spain but the mountainous far north grew vines. Some Rioja wines were exported, and Medina exported in the 16th century a white wine that cost twice as much at two years old as at one, and was expected to last ten. This was almost certainly a sherry-like wine slowly oxidized in barrel. The wines from the coastal zone near Cadiz were of a dark red, almost black color that the English called "Tent". The most famous wine of Spain was called Sack, from *saca*, "export goods". Sack first appears as an English word in 1530, but the Spanish description "*saca*" is much more common. Its development begins in 1491, when the Duke of Medina-Sidonia lifted all export taxes on wines leaving Sanlucar on ships of any nation, and in 1517, when he gave English merchants preferred status. The Duke also took steps to distinguish between Bastard, a common drink, and Romneys and Sacks, which were kept under double locks. Early writers describe Bastard as a "mungrell" wine composed of wine mixed with honey, and it was definitely a down-market drink. Besides Jerez, Sack also came from the Canary Islands, taken in 1490, from Malaga, and from Madeira. The latter was imported to England as early as 1456. It, like Sherris Sack, would have been unfortified. Jerez did levy a tax on *aguardiente* (brandy) in the 16th century, but it is unlikely that much was added to the Sack at that time. Sherry would have been closest to modern Manzanilla, the only unfortified sherry still made today.

THE MEDITERRANEAN

Wines from the sunny, hot vineyards along the Sea were highly valued in the rest of Europe for their strength, aroma, and most importantly, sweetness. In addition to the appealing taste of sugar, the wines benefited from sugar and alcohol's protection against oxidation. This allowed them to withstand the conditions of long transport, and made them expensive, highly sought wines. In the early 14th century, only 3

out of London's almost 400 taverns were licensed to sell them, at twice the cost of claret. The record price at that time was 10 Pounds for a tun of Vernage from Tuscany. The best wine was Malmsey, from Cyprus or Crete, then called Candia. Lesser quality wines from Greece were known as Romania, or Romney.

During the Crusades, Cyprus was held to make the best wines. Richard I gave Cyprus to the Templars in 1191, and they and the Hospitallers put their headquarters there. When the Hospitallers moved their HQ to Rhodes, they still kept a commandery in Cyprus, where they continued to make their best wine, which came to be called Commandaria. This is the oldest wine name made in a single tradition in existence. Elizabeth I gave Raleigh a monopoly on Cypriot wine, which he would have brought to Southampton, which had a monopoly on the importation of all Mediterranean wines into England. Sir Walter made 2000 pounds a year off of his Cypriot wine venture.

Some of the wines imported through the shipping town of Monemvasia, in Greece, acquired a version of its name for themselves. The wines were called Malmsey, and the grape that made them is still in use today as the Malvasia. Also still made in Greece today is Resined wine, and just as in period, only the Greeks seem to care much for it.

In Italy, Tuscany specialized in a sweet wine called Vernaccio, known to the English as Vernage, and in wines like Vin Santo, made sweet by drying the grapes to concentrate the sugar.

AUSTRIA

Austrian wines were similar to German wines, but not as distinguished. Its wines were shipped to Bohemia and Bavaria down the Danube.

HUNGARY

Upstream on the Danube from Austria, Hungary was not allowed to ship on the river in competition, and so sought overland markets in Poland, Silesia, and even Sweden, which also drank German wines. Hungary grew almost entirely only the Furmint and Harslevu grapes, with the addition of a few French grapes from when French winemakers were invited there in the 12 century.

LOOKING FOR PERIOD-TYPE WINES

IN GENERAL:

Look for light, young wines, with little or no oak in them. Though wine spent its whole life in barrels in period, the flavor of the wood was not supposed to be noticeable. In the north of Europe, domestic wines would usually be dry. The sweet wines would be those imported from the Mediterranean.

The specific grapes made into wine in any particular small region are now set by tradition or even law in European countries. Much of the time