Now this is the tale of how the long war between the brother tribes of 'Abs and Dhubyân was ended. Al-Hārith was a great man of the tribe of Dhubyân, a lord of the Arabs. On a time, he asked his cousin Khārija son of Sinan if there was any man of the Arabs who would refuse him his daughter's hand in marriage; "yes," Khārija answered, "Aus son of Haritha of the tribe of Taiy."

They mounted their camels and traveled to the territory of Aus who, being told al-Hārith's errand, rudely refused. After al-Hārith had departed, the wife of Aus, a woman of the tribe of 'Abs, asked who it was who had come and ridden off, and why. When her husband explained, she upbraided him for his foolishness and persuaded him to ride after al-Hārith, apologize, and bring him back.

Aus called before him the eldest of his three daughters and asked if she wished to be wed to al-Harith. She replied that as she was neither beautiful nor of a winning character and no kin of his, and he lived too far off to fear her father, she feared that he might in time divorce her. The second daughter gave the same answer.

When Buhaisa was brought and the question put to her, she replied that she would do as her father thought best. Her father told her what her sisters had said. She replied that she was good looking, of lofty character, and had a most distinguished father, and if her husband divorced her God would never be good to him again.

When all had been agreed to, a tent was pitched and Aus sent his daughter in to al-Hārith. When al-Hārith emerged, (said Khārija son of Sinan) I asked if he had finished the job.

"No, by God. When I stretched out my hand towards her she cried, "Stop that! What, here in front of my father and brothers? Impossible."

When we had gone a little ways on our journey, al-Hārith told me to ride ahead, while he turned off the road with his bride. In a little while he caught up with us. "Finished?" I asked.

"No, by God. She said to me "What, would you treat me like a slave-girl out of the market, or a woman taken in battle? First you must kill the camels and slaughter the sheep and invite the Arabs, and do all that should be done for one such as me."

"I see she's a girl of spirit and good sense," I replied.

When we had come to our own country and prepared the feast, again he went in to her, and again I asked if the job was done, and again he replied that it was not. I asked him the reason.

"I went in to her, desiring her mightily. "You see, we've made ready the flocks," I said to her. "How is it you find time to go about marrying women, while the Arabs are busy killing each other?" she asked (for this was during the war between 'Abs and Dhubyan.) Go out and make peace between those people, then return to me, and you shall have all that you desire."

"She has spoken well," I replied. So we went forth to the warring tribes and proposed peace, and it was agreed that the dead should be counted up and that side that had killed the greater number should pay reparations. It came to 3000 camels, paid out over three years. And when we returned, al-Hārith went in to his wife, and she bore him many sons and daughters.

(Based on the account in the 10th c. A.D. *Book of Songs* of Abu 'l-Faraj al Isbahānī, as translated by Arberry.)

To Prepare a Most Honorable Feast

by Maistre Chiquart translated by Elizabeth of Dendermonde

And first, God permitting to be held a most honorable feast at which are kings, queens, dukes, duchesses, counts, countesses, princes, princesses, marquis, marquises, barons, baronesses and lords of lower estate, and nobles also a great number, there are needed, for the ordinary cookery and to make the feast honorably, to the honor of the lord who is giving the said feast, the things which follow.

And first: one hundred well-fattened cattle, one hundred and thirty sheep, also well fattened, one hundred and twenty pigs; and for each day during the feast, one hundred little piglets, both for roasting and for other needs, and sixty salted large well fattened pigs for larding and making soups.

And for this the butcher will be wise and well-advised if he is well supplied so that if it happens that the feast lasts longer than expected, one has promptly what is necessary; and also, if there are extras, do not butcher them so that nothing is wasted.

And there should be for each day of the feast two hundred kids and also lambs, one hundred calves, and two thousand head of poultry.

And you should have your poulterers, subtle, diligent, and wise, who have forty horses for going to various places to get venison, hares, conies, partridges, pheasants, small birds (those which they can get without number), river birds (those which one can obtain), pigeons, cranes, herons, and all wild birds – what one can find of whatever wild birds. And they should turn their attention to this two months or six weeks before the feast, and they should all have come or sent what they could obtain by three or four days before the said feast so that the said meat can be hung and each dealt with as it ought to be.

And they should provide for each day of the said feast six thousand eggs.

Again, for the said feast there should be provided two *charges* [about 320 pounds] of the major spices, that is white ginger, Mecca ginger, cinnamon, grains of paradise, and pepper.

The minor spices: of nutmeg six pounds, of cloves six pounds, of mace six pounds, and of galingale six pounds; again, 30 loaves of sugar, 25 pounds of saffron, 6 *charges* of almonds, one *charge* of rice, 30 pounds of amydon, 12 baskets of candied raisins, 12 baskets of good candied figs, 8 baskets of candied prunes, a quintal [about 110 pounds] of dates, 40 pounds of pine nuts, 18 pounds of turnsole, 18 pounds of alkanet, 18 pounds of gold leaf [!?], one pound of camphor, one hundred ells of good and fine tissue for straining; and these things are for nothing but the use of the kitchen. And again, there should be for the said feast two hundred boxes of sugar-spice pellets of all sorts and colors to put on potages. And if the feast lasts longer one will thus be provided with extra.

And for the profit of the lord who gives the feast, and in order to satisfy the need more promptly and quickly, one should grind to powder the aforesaid spices which are necessary for the said feast, and put each separately into large and good leather bags.

And in order to better prepare the said feast without reprehension or fault, the house-stewards, the kitchen masters, and the master cook should assemble and come together three or four months before the feast to put in order, visit, and find good and sufficient space to do the cooking, and this space should be so large and fine that large working sideboards can be set up in such fashion that between the serving sideboards and the others the kitchen masters can go with ease to pass out and receive the dishes.

And for this there should be provided large, fair, and proper cauldrons for cooking large meats, and other medium ones in great abundance for making potages and doing other things necessary for cookery, and great hanging pans for cooking fish and other necessary things, and large common pots in great abundance for making soups and other things, and a dozen fair large mortars; and check the space for making sauces; and there should be twenty large frying pans, a dozen large casks, fifty small casks, sixty *cornues* [bowls with handles], one hundred wooden bowls, a dozen grills, six large graters, one hundred wooden spoons, twenty-five slotted spoons both large and small, six hooks, twenty iron shovels, twenty rotisseries, with turning mechanisms and irons for holding the spits. And one should definitely not trust wooden spits, because they will rot and you could lose all your meat, but you should have one hundred and twenty iron spits which are strong and are thirteen feet in length; and there should be other spits, three dozen which are of the aforesaid length but not so thick, to roast poultry, little piglets, and river fowl. And also, four dozen little spits to do endoring and act as skewers.

And there should be two casks of vinegar, one of white and one of claret, each of eight *sommes* [110 gallons], a good cask of fine verjuice of twenty *sommes* [275 gallons], and a cask of oil of ten *sommes* [137 1/2 gallons].

And there should be one thousand cartloads of good dry firewood and a great storehouse full of coal, and you should always be sure of having more in case of there not being enough.

And so that the workers are not idle, and so that they do not lack for anything, there should be delivered funds in great abundance to the said kitchen masters to get salt, pot-vegetables and other necessary things which might be needed, which do not occur to me at present.

And in order to do things properly and cleanly, and in order to serve and accomplish it more quickly, there should be provided such a large quantity of vessels of gold, of silver, of pewter, and of wood, that is four thousand or more, that when one has served the first course one should have enough for serving the second and still have some left over, and in the mean time one can wash and clean the vessels used during the said first course.

And as at such a feast there could be some very high, puissant, noble, venerable and honorable lords and ladies who do not eat meat, for these there must be fish, marine and fresh-water, fresh and salt, in such manner as one can get them.

And as the sea-bream is king of the other sea fish, listed first is the sea-bream, conger-eel, grey mullet, hake, sole, red mullet, dorade, plaice, turbot, sea-crayfish, tuna, sturgeon, salmon, herrings, sardines, sea-urchin, mussels, eels, boops, ray, cuttle-fish, *arany marine*, anchovies, eels, both fresh and salted.

Concerning fresh-water fish: big trout, big eels, lampreys, filleted char, fillets of big pike, fillets of big carp, big perch, *ferrés, pallés*, graylings, burbot, crayfish, and all other fish.

And because at this feast there are some lords or ladies as was said above who have their own master cooks whom they command to prepare and make ready certain things, for such there should be given and made available to the said master cook quickly, amply, in great abundance and promptly everything for which he asks and which he needs for the said lord or lady or both so that he can serve them to his taste.

And also there should be 120 quintals of best cheese; of good and fine white cloth six hundred ells to cover the sideboards, fish, meats, and roasts; and sixty ells of linen cloth to make the colors of the jellies; and of white broadcloth to make the colors like the color of hyppocras, to make a dozen colors.

And there should be two large two-handed knives for dismembering cattle, and a dozen dressing knives for dressing; and also, two dozen knives to chop for potages and stuffings, and to prepare poultry and fish;

also, half a dozen scrubbers to clean the sideboards and the cutting boards, and a hundred baskets for carrying meat to the casks, both raw and cooked, which one brings to and from the sideboards, and also for bringing coal, for roasts and wherever it is needed and also for carrying and collecting serving vessels.

And if it happens that the feast is held in winter you will need for the kitchen for each night sixty torches, twenty pounds of wax candles, sixty pounds of tallow candles for visiting the butchers' place, the pastry-cooks' place, the place for the fish, and all the doings of the kitchen.

And for the making of pastry there should be a large and fair building close to the kitchen which can be made for two large and fair ovens for making meat and fish pastries, tarts, flans and *talmoses*,² *ratons*,³ and all other things which are necessary for doing cooking.

And for this the said workers should be provided with 30 *sommes* [about 412 gallons] of best wheat flour for the aforesaid needs, and should be sure of getting more if the feast lasts longer.

And because, by the pleasure of the blessed and holy Trinity, the which without fail gives us amply of all good things, we have good and fair and great provisions for making our feast grandly, it is necessary for us to have master cooks and workers to make dishes and subtleties for the said feast; and if it happens that one is not provided with the said cooks and workers, one should send a summons to places where one can find them so that the said feast can be handled grandly and honorably.

Notes: Master Chiquart was chief cook to the Duke of Savoy and in 1420 wrote *Du Fait de Cuisine*, from which the above is taken. He goes on to give both meat-day and fish-day menus for his feast, which is to last two days and consists of dinner and supper on both days, and he includes recipes for most of the dishes. These range from the simple to the extremely elaborate; his entremet consisting of a castle would take another article to describe.

It is often said that medieval food was highly spiced; since most medieval recipes do not give any quantities at all it is hard to tell if this is true or not. Chiquart, however, lists amount of meat for his whole feast by number of animals and amount of spices by weight. My lord, Cariadoc, has calculated the approximate amount of meat (on the assumption that Chiquart's animals were smaller than ours) to get a total of about 70,000 pounds of boneless meat, plus whatever amount of meat Chiquart got from game; this gives a ratio of spices to meat of about 1:100 by weight. This is not far from what he and I use for medieval dishes when we prepare them to our own taste, suggesting that the "heavily overspiced" theory is incorrect.

Reference:

Terence Scully. *Du Fait de Cuisine par Maistre Chiquart, 1420. (Ms. S 103 de la bibliotheque Supersaxo, a la Bibliotheque cantonale du Valais, a Sion.).* Vallesia v. 40, pp. 101-231, 1985.

Footnotes:

1. The phrase I translate "ordinary cookery" probably means the food prepared for the servants and the rest of the household as opposed to that prepared for the lords.

- 2. A kind of cheese and egg pie.
- 3. A sort of cake: see recipe for Rastons, p. 89.

(Published inTournaments Illuminated #84)

To Make a Feast

The first step in planning a feast, even before choosing recipes, is to make a rough estimate of the available resources. How many people are willing to spend most of the event helping you cook? How many more are willing to spend a few hours chopping onions or rolling meatballs? How many ovens and burners does the kitchen have? Is your group–or the kitchen you are using–well provided with ten gallon pots and twelve inch frying pans? How much money will be available to spend on the feast, and how many people should you expect to feed? The answers to questions like these will determine what sort of a feast it is practical to put on. If you are feeding a hundred people by yourself using one stove, you had better plan on something simple–perhaps a thick stew, bread, cheese, and fruit. With eight assistant cooks and a fair number of helpers, you can plan something a good deal more elaborate.

Once you have a rough estimate of resources, the next step is to work out a tentative menu. To do that you require a source of period recipes. There are two places to find them: primary sources (cookbooks written in period) and secondary sources–modern cookbooks giving worked-out versions of recipes from primary sources.

The problem with primary sources is that they rarely give information on details such as quantities, temperatures or times. That makes working out the recipes is fun but time consuming; you will want to cook each dish several times, noting details of how you did it and modifying your instructions according to how it turns out, before serving it to a hall full of guests.

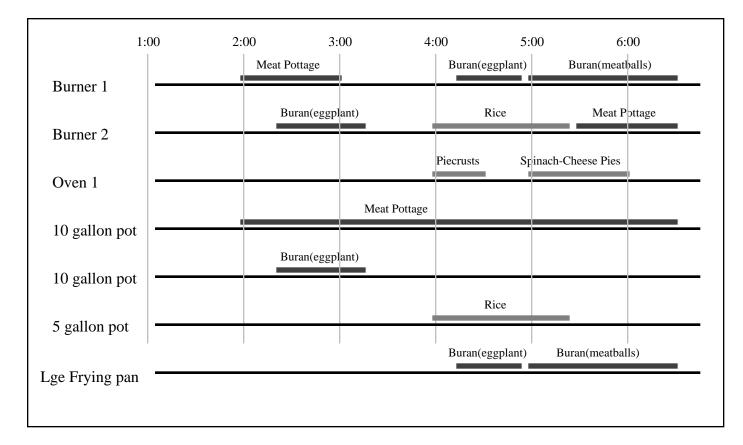
The problem with secondary sources is that they cannot always be trusted. If all you have is the modern version of the recipe, it is hard to tell if it is a careful and competent interpretation of the original, a careless and incompetent interpretation, or a modern recipe distantly inspired by something period. This applies to secondary sources produced within the SCA as well as to those produced elsewhere. It is not safe to assume that just because a cookbook has the name of a kingdom or barony on it, the recipes inside are from the Middle Ages; in our experience, the odds are that they are not. The same is true for recipes printed in T.I. or C.A. Sometimes they are period, sometimes they are not–and sometimes they say they are period and are not, which is the worst case. We therefore suggest that if you use secondary sources you restrict yourself to ones which include the original recipes as well as the worked out versions. Always remember that what the author has added to the original is simply his guess; you are free to substitute your own.

Suppose you have obtained a suitable number of recipes, directly from a primary or secondary source or indirectly through the local cooking guild or someone in your group who got them from such a source. Before definitely deciding to use one, cook it and try it. That will give you an idea both of how it tastes and of how much trouble it is to make.

In drawing up your menu, there are three points to consider. The first is the balance of flavors and textures. It is unlikely that you will want to cook a feast made up mainly of roast meats, or mainly of stews, or containing only spicy dishes or only bland dishes. Imagine eating the feast; if you think you would be bored half way through, you have the wrong menu. Avoid having any one ingredient in every dish; if there are eggs in everything, anyone allergic to eggs cannot eat. Try to include one or two substantial meatless dishes so that vegetarians will have something to eat. Also, remember that different people have different tastes. You will probably want some exotic dishes; there is little point in doing a genuine medieval feast and having it taste like something from Howard Johnson's. On the other hand, some of your guests will have plain tastes; there should be something for them too. My own policy is to put the more exotic dishes early in the feast, so that those who do not like them can fill up with the plainer dishes later. Besides, people are more likely to try something strange when they are hungry–and they might like it. The second consideration is whether the feast you are planning is one you can cook. Do you have enough oven space for the number of pies you are planning? Are you doing more labor-intensive dishes than you have labor? How expensive are the ingredients? Once you have the menu worked out you will do detailed calculations to answer these questions, but it is useful to keep them in the back of your mind while designing the menu.

The third consideration is quantity. If you are serving eight different main dishes, your guest does not have to make a full meal out of each of them. Our rule of thumb is to allow a total of half a pound of meat per person. That means that for every dish you estimate the total amount of meat, including fish and fowl and not counting fat, bones, or skin, add it up for all the dishes and divide by the number of people. If you have a lot of bulky non-meat dishes–soups or pies thickened with egg and cheese, for example–you might want to reduce the total to a third of a pound.

You now have a tentative menu. Next you will want to work out a set of detailed plans showing what is done when and how much it all costs. One convenient way of doing this is to use time lines. Make a list of all the fixed resources that you are afraid you may not have enough of-ovens, burners, large pots, electric frying pans. List them down the left side of a sheet of graph paper. Across the top of the sheet mark the time, starting whenever you plan to start cooking and ending when the last dish is served. Draw a horizontal line for each item. Mark on that line what the item is being used for at each time. The result (for a few items and a few dishes) will look something like:



To make sense of the diagram, start with the meat pottage (recipe on p. 60). It occupies a 10 gallon pot from 2:00 until 6:30, when it will be served. The first stage in cooking it is to boil the meat; this is done on burner 1 from 2:00 to 3:00. The pottage is then taken off the burner, which is free to be used for something else. The meat is taken out of the broth, cut up, and put back in along with beef broth, bread crumbs, and spices. At 5:30 the pot goes back on the stove, this time

on burner 2 (burner 1 is being used for something else) and is brought to a boil; the rest of the ingredients (chopped parsley, grated cheese, and eggs) are stirred in.

Starting at 2:20, the second 10 gallon pot is used on burner 2 to boil the eggplant which is one of the ingredients of buran, a medieval Islamic dish (p. 24). After that is finished, a 5 gallon pot of rice goes onto the burner. The rice is being cooked early because all the burners are needed for the last hour before the feast; a five gallon pot full of food should stay warm for a long time after it comes off the stove.

Starting about 4:15, the eggplant that was earlier boiled is fried in sesame oil, using the large frying pan on burner 1. When that is done the frying pan is rinsed out and used to fry the meatballs that are the other main ingredient in buran.

Obviously, lots of things are happening that are not shown on the chart. Meatballs and pie crusts must be made, pie filling mixed, and so forth. The chart was drawn on the assumption that none of those processes used scarce resources; there are plenty of plates to pile the meat balls on and rolling pins for rolling out pie crusts. Equally obviously, unless this is a very small and very oddly balanced feast, what is shown is only part of the chart; other resources are being used for other dishes.

The purpose of drawing up such a chart is not to figure out exactly what everything will be used for at every instant. That is not possible; something is certain to go wrong, and your plans will have to be revised on the spot. What the chart does is to show you whether or not it is possible to cook the feast you have planned in the kitchen you are using and where problems are likely to occur. If, after juggling alternative schedules, you discover that there is no way to produce the feast without using two more burners than you have, you can change your plans accordingly. Perhaps you should have one more baked dish and two fewer fried ones. Perhaps you should make an effort to get a couple of really large pots, thus allowing more food to cook on each burner. Perhaps you could shift the frying off the stove onto a couple of electric frying pans. Whatever the solution, it is better to discover the problem now than in the middle of cooking the feast.

In describing the time line, I have left out the most crucial resource of all-cooks. Ideally, for a large feast, each cook should be in charge of one dish-for a small feast, two. Some cooks may be able to do more than that, if there are dishes that can be completed early in the day and others that need not be started until fairly late, or if there are some very easy dishes. Cooking rice, for instance, is not a full time job, although cooking five gallons at once is trickier than you might expect. To decide which cooks do which dishes, the simplest procedure is to show them the recipes and let them choose for themselves. Once a cook has chosen a recipe, he should arrange to cook it for himself at home at least once.

The number of cooks puts a limit on how many dishes you can prepare on the day of the feast. One way around that limit is to do some of your cooking earlier. That is fine, as long as you restrict yourself to dishes which taste just as good the second day as the first. Too much precooking of too many things and you end up spending a lot of time and effort to produce the sort of meal you expect to get in a college cafeteria.

Your time lines tell you whether you can cook the feast you plan; you still need to find out whether you can pay for it. Make up a shopping list, showing how much of every ingredient you will need. Then check out a couple of supermarkets to find out how much everything will cost. Add it all up and you have a rough estimate of the cost of the feast. With luck the real cost will be lower, since you will do a more careful job of shopping when you are actually buying the food.

You now have a reasonable idea of what you need to do the feast. If it is consistent with what you have, you are ready for the next stage. If not, revise your menu, change your plans, or find additional resources.

Once your plans are made, the next thing to do is to arrange a practice dinner. This is a dinner party for and by the cooks; you may also want to invite the autocrat of the event. Each cook prepares the dish or dishes he will be making for the feast, in a quantity appropriately scaled down for the number present. The dishes are served in the order in which they will be served in the feast.

The practice dinner serves several purposes. The most important is to test out the feast as a whole. Does the balance of the dishes seem satisfactory? Is there enough food to fill everyone up, but not enough to provide vast quantities of left-overs? Should there be more of some dishes and less of others? You get much better answers to such questions by cooking the feast and eating it than by staring at recipes.

A second purpose of the practice feast is to get more precise information on what will be needed to produce the real feast. As each dish is prepared, the cook should note down what tools are required, how large a pot was needed for the amount made, and about how much time each step took. If rolling enough meatballs for eight people takes one cook five minutes, then rolling enough for 240 people will take about two and a half man-hours; that is useful information. If enough gharibah to serve eight people fills a quart pot, then enough for 240 will require about an eight gallon pot. After the practice feast, you can use the information to redo your time lines more precisely. If you decide that you should have more or less of some dishes, you can alter the shopping list accordingly. At this point you should also make a list of all the tools you will need. It is possible to roll out pie crust with a wine bottle, but a rolling pin works better.

In estimating how long things will take, remember that five gallons of water takes a great deal longer to come to a boil than does a quart. That is why, on the sample time line, I allowed an hour and a half for cooking rice, a task that normally takes about half an hour. If you have a chance, you may want to actually measure how long it takes a very large pot of water to come to a boil on the stove you will be using to cook the feast. That will help you decide how much extra time to allow for cooking large quantities.

A third purpose of the practice feast is to spot unexpected problems. You should have discovered all such problems already, in the process of drawing up the time lines, but don't count on it.

A fourth and last purpose of the practice feast is to let the cooks get to know each other, in a more relaxed context than cooking a real feast.

After the practice feast is over and you and the other cooks have finished discussing its implications, you are ready for the final stage of planning. Give the autocrat and the chief server a list of dishes and ingredients so that they can answer questions from people with allergies or religious restrictions. Make sure that everything on your list of necessary equipment is being brought by someone. Redo your time lines, taking account of what you have learned and of any changes you have decided on. If possible, leave some margin for error. Try to schedule a couple of hours free for yourself, sometime in the afternoon; that way you will be available to help with any crisis that develops. If the crisis does not develop until later, you can always spend the two hours helping to roll meatballs.

Now you are ready to start shopping. Decide what has to be bought the day before the feast and what can be bought early; this depends in part on the availability of refrigerator and freezer space. Check supermarket ads during the week before the feast; someone may have chicken leg

quarters on sale for \$.29/lb. Investigate bulk food sources and see how their prices compare. In Chicago, there is an area called the Water Market where onions are sold in fifty pound bags and squash in forty pound boxes. If the prices are good enough, it may be worth buying forty pounds of squash and giving fifteen away. To locate bulk sources in your area, you might try the business-to-business phone book, if there is one. Or ask someone friendly at a local restaurant where they get their food. Perhaps the chief cook for the last event your group did can tell you the best place for bulk eggs or meat.

Remember that, while the cost in money of producing the feast is important, so is the cost in time. Boned lamb shoulders may cost a little more per pound of meat than unboned ones, but they save a lot of time. What is sold as washed spinach will have to be rewashed, but the process will take a lot less time than if you start with unwashed spinach. You do not want to be penny wise and hour foolish.

In addition to the food, you will also want to buy things such as dishwashing soap, wax paper for rolling out piecrusts, plastic wrap for covering things, paper towels, sponges and scrubbies, scouring powder, and whatever else you expect to need. Don't forget to bring dish towels and one oven thermometer for each oven.

Another thing to do at this stage, if you have not already done it, is to locate a good grocery store near the event site. I have still not figured out why I ended up short ten pounds of eggplants for the Tregirtse Twelfth Night feast–but I am glad I knew where to send someone to get them.

The cooking of the feast will probably begin before the event; if you are making mead, it may be a week, a month, or a year before. If you are baking bread, you probably want to do it the day before the event, so it will be fresh. Some stews are just as good the second day as the first, although if the stew is thickened you have to be very careful to keep it from scorching when you warm it up. Cold nibbles, such as hais, hulwa, prince biscuit, currant cakes, and the like keep well for a long time; they can be made whenever convenient. Arrange to have a reasonable number of helpers at this stage of things. Rolling hais is a simple process, but if you are doing it by yourself for two hundred people in the intervals between kneading bread, putting bread in ovens, and taking bread out of ovens, you may not get much sleep.

It is now the day of the event; you, the food, the pots, the rolling pins, and three boxes of assorted odds and ends have arrived in the kitchen. You have marked all of your pots and tools, and told everyone else to mark theirs. Some of them will have forgotten, so be sure you have tape and a waterproof pen. It may be a good idea to make a list of what everyone has brought, to make it more likely that everything will get back to where it belongs.

Your assistant cooks arrive. Make sure they know what is happening. Show them where the time line is, and where you have the equipment and food. The idea of having each cook in charge of a dish is to minimize the degree to which everything depends on you.

As things start happening, try to keep track of what is happening. See who needs help, who has help to offer. When it turns out that necessary ingredients are missing, make up a shopping list and arrange a grocery store run. Arrange to set one of your volunteer workers to washing things; that way clean pots and utensils will be available when needed. Check the oven temperatures with your thermometers; their thermostats may not be accurate. As you get close to the time the feast is scheduled to be served, check with the autocrat on timing. If the event is running an hour late, there is no point in delivering the feast on time and having it all eaten cold; you may have to alter your plans accordingly. When the feast actually starts, coordinate the delivery of the dishes with whomever is in charge of serving. Dishes stay warm better in large pots on the stove than sitting in bowls for half an hour waiting for servers who are doing something else. After the feast is done, the next stage is cleanup. When you agreed to be head cook, you made it clear to the autocrat that neither you nor the other cooks intended, after spending the first nine hours of the event cooking the feast, to spend the next three cleaning up, so someone else is in charge of that. Your job is to notify whomever that is that you are now finished with the kitchen. After everything has been washed, it is your job to make sure that everything borrowed gets back to its owner; you are the one who borrowed it. You may also want to make sure that the leftover meat pottage goes home with you, one of the other cooks, or someone else who will appreciate it, instead of being dumped.

You are now done. If nothing went catastrophically wrong, you have done a good job. Note down the problems for next time, thank everyone who helped you, especially the lady who showed up in the kitchen at noon and washed dishes for six hours, go home and go to bed.

[by Cariadoc and Elizabeth]

An Islamic Dinner

Islamic feasts in the Society are only occasionally cooked from recipes from period sources; yet Islam was a literate culture early in our period, with the result that there are a number of surviving cookbooks from the 10th to the 15th century. My lord Cariadoc and I have been cooking from the cookbooks available in English for some years and now have a large stock of tested Islamic recipes, so I decided to cook a dinner for the Grey Gargoyles' Spring Tournament completely from medieval Islamic recipes. I had three objectives in designing the menu, in addition to making a good dinner that my friends would enjoy: I wanted to show something of the range of medieval Islamic food; I wanted to make it a very low-work feast, so that more of us could enjoy the tourney; and I wanted to reduce the cost as much as possible. Other considerations included balance of flavors, allowing for allergies, and limited kitchen space.

Menu

There are a number of recipes for relishes or dips in the period Islamic cookbooks. The feast started with one of these, Badinjan Muhassa (p. 65), served with bread. Unfortunately, I know very little about medieval Islamic bread other than the fact that it existed, but I assumed that modern pita bread would be a reasonable guess. Badinjan Muhassa is based on eggplant, ground and toasted walnut, and raw onion; eggplant is probably the most common vegetable in medieval Islamic cookbooks. This version of the recipe is from a 10th century collection; another version is in the 13th-century cookbook of al-Bagdadi.

The main course consisted of Tabâhajah from the manuscript of Yahya b. Khalid (p. 48), a Cooked Dish of Lentils (p. 52), and Andalusian Chicken (p. 40), served with rice. The Tabâhajah is from another of the cookbooks in the 10th-century collection. It is one of those rare period recipes which gives exact quantities for most of the ingredients. It consists of meat (we used lamb) marinated, cooked in oil, and topped with chopped greens. The marinade is based on *murri*, a condiment widely used in medieval Islamic cooking. Real *murri* was made by a lengthy process involving fermentation; so far as we know it has not been used since the 15th century. However, there exists a period recipe for quick and cheap imitation *murri*, and we made up a supply of that for the marinade. Judging by comments, and by the limited amount left over, the Tabâhajah was the real hit of the feast.

The Cooked Dish of Lentils consists of lentils cooked with onions and spices, with eggs cooked

on top at the end. It is one of the easiest dishes I know of, the only real work being chopping the onions, and is a favorite with our after fighter practice crowd. It also provides a main dish for vegetarians (at least those who eat eggs and dairy products). Both this and the Andalusian Chicken are from an Andalusian (Moorish Spanish) cookbook of the 13th century by al-Andalusi.

The original title on the recipe for Andalusian Chicken was just "Another Dish," so I gave it a more descriptive name. It is made by frying the chicken with oil and some seasonings "until it is gilded," simmering it in the juice of onion and green coriander (cilantro), and finally thickening the sauce with breadcrumb and egg.

Of the three main dishes, the lentil dish has neither meat nor wheat, the Tabâhajah has neither eggs nor dairy products, and the chicken has neither onions nor dairy products, so that someone with any single one of these common food allergies would be able to eat at least one dish. With only three main dishes, I could not allow for multiple allergies. In order that our guests could find out what was in the food, the servers, both kitchens, and the autocrat were provided with a list of all ingredients in each dish, including drinks and desserts.

We served two drinks in addition to water: sekanjabin (p. 132) (a sweet mint drink), and a lemon drink (p. 133). Both of these are made by making a flavored sugar syrup, which keeps without refrigeration, and diluting it to prepare the drink. Sekanjabin is mentioned by al-Nadim in the 10th century (see the article *Some Sources for Islamic Persona* for the reference) and still survives today; we used a modern Middle-Eastern recipe. The lemon drink comes from an anonymous 13th-century Andalusian cookbook which has a great many recipes for syrup drinks of this sort.

For dessert we served a plate of several pastries and sweets. Khushkananaj (p. 104) is a pastry made with flour and sesame oil with a filling of almonds, sugar, and rosewater. Hais (p. 101) are little balls made of dates, ground nuts, breadcrumbs, and butter. They are a fair amount of work, but as they keep well (the original recipe recommends them as travelers' food) they were made a week in advance. Both of these come from the 13th-century eastern Islamic cookbook of al-Bagdadi. Hulwa is a general term for sweets or candy. There is a recipe (p. 124) for several kinds of hulwa in the 15th-century eastern Islamic cookbook of Ibn al-Mabrad. One kind is rather like modern divinity and can be made with either sugar or honey; we made it for the feast with sugar. A second kind of candy we made is Makshufa (p. 125), from al-Bagdadi's cookbook, made with sugar, honey, almonds, and sesame oil.

Serving

In the anonymous Andalusian cookbook there is a discussion of whether food should be served with each kind on a separate dish or with everything on one platter: "Many of the great figures and their companions order that the separate dishes be placed on each table before the diners, one after another; and by my life, this is more beautiful than putting an uneaten mound all on the table, and it is more elegant, better-bred, and modern" [p. 24 verso-25 recto in the Arabic original]. In spite of his strong words, I decided on the inelegant version. We served each table a large platter with rice on top of which were the chicken, the lamb and the lentils next to each other. The Badinjan Muhassa and the bread were served first in small bowls, and all the desserts for each table on one plate.

Practical Considerations

<u>Cost</u>: It is usually worth checking out wholesale prices for the most expensive and largest quantity items in a feast; for meats, it is worth figuring out the cheapest cut that will work for the dishes you are cooking. We bought boneless lamb shoulders and chicken leg quarters from a wholesale butcher who happens to be our seneschal. If the butcher had not been a member of the group we would have had to cut up the lamb and cut the chicken legs and thighs apart ourselves rather than getting it done for us, but we still would have gotten a much better price than at the local grocery. Often ethnic or health food stores will have some foods in bulk that would be available in your local grocery only in small quantities at high prices; we got nuts and some of the spices in bulk at an Indian grocery store. Serving one meatless main dish (the lentils) also helped to keep the cost down. The total cost of the food was about \$475 for almost 250 people.

<u>Quantity</u>: My usual rule for estimating quantities is that all dishes put together should add up to about half a pound of boneless meat per person, a little less if there are a lot of hefty meatless dishes or if you don't expect people to be very hungry. Given that this was a tournament, I expected people to be hungry. I allowed a quarter pound of lamb per person and 7 ounces of chicken with bone, which comes to about another quarter pound of boneless meat. How much of the other dishes we wanted I estimated by experience. I checked these estimates by serving a "practice feast" a few weeks before the event: the whole feast done in miniature for 8 people. (This also helps to spot other potential problems with a feast.)

What fed the whole crowd, with a few main dish leftovers and a moderate amount of dessert leftovers, was: 25 recipes of Badinjan Muhassa, 64 recipes of Tabâhajah, 21 recipes of Cooked Dish of Lentils, 32 recipes of Andalusian Chicken, 3 recipes of Hais, 8 recipes of Khushkananaj, 5 recipes of Hulwa, 6.5 recipes of Makshufa, 5 recipes of sekanjabin, and about 3 gallons of lemon syrup.

<u>Work</u>: I deliberately chose low-work dishes, and ones where some of the work could be done in advance. The walnut for the Badinjan Muhassa was ground and toasted a few days before the feast, and the Badinjan Muhassa was mixed up the day before the feast. The murri for the Tabâhajah was made the week before. The hardest part of making Andalusian chicken is turning onions and green coriander into juice. We did that in advance with the help of an unmedieval blender and food processor, turning the kitchen green in the process, and froze the juice. The onions for the lentil dish were chopped the day before, and the desserts were made anywhere from a week to a day in advance, depending on how well they keep. The use of only one platter per table for the main dishes and rice reduced the amount of washing-up to be done.

<u>Kitchens</u>: Our site has two small kitchens, the smaller one with a four-burner stove and the larger with a six-burner stove. Since the food was cooking in very large pots, only two pots could fit onto the smaller stove, and four onto the larger stove. Both the rice and the lentils could start cooking on the stove and then be removed to finish cooking by their own heat; five gallons of lentils or nine gallons of rice will stay hot enough to cook for a long time. (By the same token, leftovers should be put in small containers before being refrigerated after the feast: that much food in one mass will stay warm enough to spoil for a long time even in the refrigerator.) We therefore cooked the rice and lentils first and the lamb and chicken afterward on the same stoves.

[by Elizabeth; originally published in *Tournaments Illuminated* #105]

A Dinner at Pennsic

My lord and I have the custom of cooking dinner for our entire encampment one evening at Pennsic, working from period recipes. On this occasion we were cooking for 25 people. Our constraints are that there are only two of us, although we usually get some help; we have a fairly good kitchen set-up, but it does not so far include an oven; we do not keep a cooler at Pennsic; and we wanted to do something simple enough that we could be assured of being able to wash the dishes in daylight.

The easiest sorts of food to cook over a campfire are spit-roasted meat and dishes in a large pot or frying pan. As no one in our camp was making a grocery store run that day, we decided against meat. Greens, eggs, and butter were the most perishable foodstuffs we were using, and all will keep for a day or two without refrigeration as long as you do not leave them out in the sun; also, eggs are available on site. As we make them, two of the recipes have meat broth. They could, however, be made suitable for a medieval fast day out of Lent (or for a modern vegetarian) by using vegetable broth instead, as the original recipes merely say "good broth." I figured that to feed that number of people we would probably need three large pots of food, so we might as well make three different dishes as well as dessert.

There are several medieval versions of noodles and cheese, both English and Italian. We chose Losyns (p. 136) as it specifies that the noodles be made in advance and dried, allowing us to do so at our leisure before we came. The name of the dish is presumably related to lasagna, so one could make long flat noodles, but we interpret it as the losenges of heraldry and make diamond-shaped noodles. We generally use a mixture of whole wheat and white flour, on the theory that most medieval flour would not be as fine as our modern white flour. "Poudre douce" (sweet powder) is a spice mixture used in both this and the following recipe; we do not know exactly what is in it, but our guess is sugar, cinnamon, and ginger. We mixed it up before we came.

The Carrots in Potage (p. 72) recipe is originally for turnips in potage, with "pastunakes" (carrots or parsnips) or skirrets (a root vegetable we have been unable to find) given as alternatives. It works fine with all three of the vegetables we have tried, but carrots are the easiest to be sure of finding in a modern grocery store. For the Fried Broad Beans (p. 22), we bought dried fava beans in advance at a specialty food store. The greens we used (cabbage, parsley, and spinach) were period ones which we could buy locally; other times we have used turnip, mustard, or dandelion greens.

For a dessert, the most obvious choices are fruit, sweets one can make in advance and bring, such as Islamic candies and pastries or late-period English cakes, and things you can do in a frying pan. Since we were eating fruit and nibbles we had brought with us for most of our breakfasts and lunches, we decided on Murakkaba (p. 105), an interesting solution to the problem of how to make a thick cake without an oven. There are also English recipes for fritters we could have made, but the murakkaba was such a hit the previous year that we decided to repeat it.

Equipment needed:

Two large pots (1 1/2 to 2 gallon) with lids, plus a third to heat wash water; two large frying pans for broad beans, one of which gets re-used for murrakkaba; about four bowls, one quite large; a cutting board; a sharp knife or two; several big spoons and ladles; a measuring cup and spoons (if you don't want modern-looking ones, take a period-looking mug and spoons and measure how much they will hold at home); and a cooking set-up which allows two large pots and two frying pans on the fire at once.

Quantities

What we made, which fed our 25 people almost exactly, was: 4 recipes of Losyns, 4 recipes of Carrots in Potage, 4 recipes of Fried Broad Beans and 3 recipes of Murakkaba, done as 2 cakes.

A Jeweler's Bibliography

On Divers Arts, The Treatise of Theophilus, John G. Hawthorne and Cyril Stanley Smith, translators. University of Chicago Press 1963, 1976. Also available in a Dover edition; I do not know if the translation is the same.

This is a medieval craftsman's manual, probably from the 12th century. It contains one section on the art of the painter, one on the art of the worker in glass, and one on the art of the metalworker. The third section is much the longest and most detailed, and it seems likely that the author was himself a metalworker. It includes instructions on setting up a shop, making tools, and using them for a series of projects.

The Treatises of Benvenuto Cellini on Goldsmithing and Sculpture, C.R. Ashbee, translator. Dover 1967.

Cellini was a sixteenth century Italian craftsman, author of both this book and a famous autobiography. The treatise on goldsmithing contains a great deal of technical information on period techniques, mixed with anecdotes designed to demonstrate the superlative wisdom and skill of the author.

Metalwork and Enamelling, by Herbert Maryon. Dover 1971.

Maryon worked for many years at the British Museum; he was responsible, among other things, for the reconstruction of the Sutton Hoo treasure. His book is a detailed and carefully written manual. It should be particularly useful to SCA jewelers for two reasons. First, he describes many period techniques, not as matters of merely antiquarian interest but as practical ways of making jewelry. Second, he assumes that the reader will have to do a good deal of improvisation, including making much of his own equipment. In one of his chapters on soldering, for example, he not only explains how to make a jeweler's furnace but even tells the reader how to make his own charcoal.

These three books are the best sources I know of for learning how to make period jewelry.

Reference Books

Most of the books on historical jewelry that you will come across are coffee table books, designed more for beauty than information. While they contain pictures of some magnificent pieces, they tend mostly to show the same pieces–and only from the front. It is worth getting one or two such books (preferably second hand, or remaindered, or on discount from Publishers Central, since they are usually expensive otherwise), but the additional information you get from additional books decreases rapidly.

Four exceptions to this rule are:

Jewellery of the Ancient World, by Jack Ogden, Rizzoli, 1982. *Medieval European Jewellery*, by Ronald W. Lightbown, Victoria and Albert, 1992. *Jewellery Through 7000 Years*, British Museum Publications Limited, 1976. *Jewelry Ancient to Modern*, Anne Garside Ed., Viking Press, 1979.

The first of these contains the most careful and scholarly discussion of what stones and techniques were used when that I have ever seen. Unfortunately, since Ogden's subject is Jewellery in classical antiquity, he says relatively little about the Middle Ages and Renaissance. The second is an enormous book from the Victoria and Albert Museum, containing a lot of

information and pictures of a lot of pieces; it may be the best single source of information on medieval Jewellery currently available. The third book describes the collection of the British Museum, and the fourth the collection of the Walters Gallery in Baltimore. Each contains pictures and descriptions of a large number of pieces.

One other useful source of information is *Costume and Fashion* by Herbert Norris. Along with his description of the clothing of each period he has a fairly detailed discussion of the jewelry. Since he is writing about English costume, the information is useful for western European personae, less useful for others.

Three other books I would recommend are:

Anglo-Saxon Jewellery, by Ronald Jessup. Shire Publications, 1974. European Enamels, by Isa Belli Barsali, translated by Rudolf Rudorff. Hamlyn, 1969. Medieval Goldsmith's Work, by Isa Belli Barsali, translated by Margaret Crosland. Hamlyn, 1969.

These are small books, each specializing in a particular area. There are probably other, similar, books that I have not come across. One can also sometimes get information on jewelry from books on a specific culture, such as *The Viking* or *Treasures of Ireland*.

[Expanded slightly from the version originally printed in A Book of Bibliographies for the Arts and Sciences in the Current Middle Ages, Airmid Godwin, ed.]

The ascetic Amr ibn Ubayd had been an intimate friend of Mansur before his elevation. He once visited the Caliph.

Come near us and be seated, said Mansur; and let us have some exhortation.

Amr spoke as follows: Thy power would never have been thine if thy predecessors could have kept their hands on it. Then be warned of the Night wherefrom a Day shall dawn after which there will never be another night.

When Amr rose, the Caliph said: We have ordered you ten thousand dirhams bounty.

I do not need it, said the ascetic.

But by God you'll take it exclaimed Mansur.

By God, I shall not.

What? Cried Mansur's son Mahdi, who was present. The Prince of True Believers swear a thing shall be done and you swear the contrary?

Who is this young man? Asked Ibn Ubayhd.

My heir and sucessor, my son Mahdi.

Thou hast clothed him, the ascetic said, as the righteous are never clothed; thou hast given him a name (for Mahdi means the Divinely Guided who shall come) which is none of his, and smoothed a path for him wherein the more he prospers the more reckless he will be.

Have you any wish I can grant? Asked Mansur.

Never send for me again, but wait till I come to thee, Amr replied.

Then we shall never meet again, the Caliph said.

That is my wish, said he; and went away. Mansur followed him with his eyes till he was gone. Then he turned him to his courtiers again, and said: All of you walk with stealthy steps; you are all beasts of prey, all–only Amr son of Ubayd is different.

From *Mohammed's People* by Eric Schroeder

Books on Metalworking

Theophilus: *On Divers Arts* (c. 1100 A.D.), Hawthorne and Smith, tr., University of Chicago Press. There is also a more recent publication by Dover. Cellini, Benvenuto: *The Treatises of Benvenuto Cellini on Goldsmithing and Sculpture* (c. 1565)

A.D.), Ashbee tr., Dover. Maryon Herbert: Metalwork and Engmalling (5th edition, 1071), Dover

Maryon, Herbert: Metalwork and Enamelling (5th edition, 1971). Dover.

These books serve excellently either as introductions or as aids to the experienced worker; each is written by a master both of his own craft and of its exposition. The volume by Fr. Theophilus is most basic; he begins the section on metalwork (Book III) with instructions on how to build a workshop, construct a forge and bellows, forge tools, grind and harden them, make crucibles, and refine silver. Having thus gotten the student fairly started, he sets him a project, a small chalice of silver, and in the ensuing chapters describes its construction and the construction of further projects, explaining along the way all the necessary techniques. After working his way through eighty chapters, the reader will find himself in possession of two chalices, a cast censor, a well-equipped workshop, and an extensive set of skills. The remainder of Book III contains, among other things, instructions on building an organ and casting bells. Books I and II are devoted to the arts of the painter and the worker in glass.

Sr. Cellini writes for those having access to more extensive sources for supplies and equipment; where Fr. Theophilus provides a necessary ingredient by repeatedly heating and quenching a piece of copper, Sr. Cellini apparently sends his apprentice to the corner apothecary for a cake of verdigris, "the best you can get." The pieces described are accordingly more elaborate and the techniques somewhat more complicated, yet his descriptions are sufficiently clear to permit a careful craftsman to follow many of them. The instructions on setting stones, and in particular on preparing colored foils to set behind the stones to improve their color, are especially interesting.

Herbert Maryon is a student of both Theophilus and Cellini; his book is the most complete of the three, containing details taken from the other two books as well as much new material. The craftsman, and especially the novice, will probably find it the easiest manual to work from.

While these books are chiefly valuable as manuals for the craftsman, they also serve to reveal the characters of their authors, and perhaps, through them, of the nations from which they come. Fr. Theophilus begins his discussion of metalworking with a prologue arguing that in making beautiful things we glorify Allah (the Compassionate, the Merciful). Sr. Cellini devotes his work, scarcely less explicitly, to the glorification of Cellini, filling it with anecdotes of his triumphs over various of his co-workers. Mr. Maryon appears devoted primarily to the advancement of his art, an end admirably served by his book.

[Originally published in *Tournaments Illuminated*]

⁽The Caliph) Mamun loved chess. This whets the mind! he used to say; and he was the originator of certain plays.

Don't let me hear you say: Let's have a game! It must be: Let's have a fight! he would say. But for all that he was no champion player, and often exclaimed: I have to manage the world, and I am equal to the task; but managing two spans square is too much for me!

Period Jewelry You Can Make

A medieval hobbyist looking at the magnificent medieval jewelry in collections such as the British Museum or the New York Metropolitan Museum will conclude, correctly, that he is not likely ever to be a good enough jeweler to make such pieces, and if someone else makes them he probably will never be able to afford them. Precisely the same thing was true of most people in period–even most of the gently born people on whom most of us base our personae. The pieces in most museums (the Museum of London is a notable exception), after all, are a selection heavily weighted towards the most impressive pieces.

If what you are looking for is not what the king and high nobility of England wore but what a reasonably well off Englishman, or Anglo-Saxon, or Norseman might wear, your chances of getting it are a good deal higher. Most period jewelry was made, not of gold, but of silver or brass or bronze or iron–sometimes gilded. Some of it was elaborate, but many pieces were not.

In this article I give detailed instructions for making five pieces of jewelry. The combined material costs for all five pieces should be less than twenty dollars–provided you can find someone willing to sell you silver wire in small quantities. The required equipment consists of a hammer, something to hammer against, a propane torch or equivalent, something to solder on, a pair of needle nosed pliers (or something similar), some tool capable of cutting wire, and a small file. None of the first four pieces should take much more than an hour–the second time. The final piece is a little more difficult.

The dimensions of most of these pieces are based on the dimensions of original pieces I am copying. Real pieces varied a good deal; these are merely examples I happened to have dimensions for. As a general rule, the smaller a piece the harder it is to make, so you may want to scale up some of these, at least the first time you do them.

A pair of Anglo-Saxon Earrings

These are described in Jessup but not illustrated, at least in the current edition. I have seen a picture, possibly in an earlier edition of Jessup, but have so far been unable to find it, and am

therefore guessing on the dimensions. I thought it worth including anyway because it is one of the easiest to make period jewels I have seen.

2 pieces of 20 gauge sterling wire 4 inches long.2 drilled gemstone (or glass) beads.



Figure one shows the earrings and should be self explanatory; the markings on the ruler are sixteenths of an inch. The only tool you need is a pair of pliers, preferably with very narrow jaws. When selecting your beads, check to make sure the wire will go through them; gemstone beads are often drilled from both ends, meeting in the middle, and if the two holes don't quite match a wire may not go through. The wires should be sufficiently springy so that you can separate the ends, put one through a pierced ear, then reconnect them.

Making Small Wires out of Big Wires

The next two projects require you to take a piece of wire and make the ends thinner. To do this you roll the end on your anvil (or equivalent) while tapping it with a hammer; you can supplement this by filing away some of what is left.

While this thins down the silver, the result, at least when I do it, is not as thin as in the original pieces I am copying. One possible explanation is that the jewelers who made them had more skill with a hammer than I do, more patience, or both. Another is that they were using draw plates, pulling the end through successfully thinner holes. That is how I did the spiral ring shown below–earlier versions, done with hammer and file, didn't come as close to matching the pictures of the original. We know that draw plates existed by about 1100 because Theophilus describes them. The spiral ring is mid-sixth century, when draw plates may or may not have been available. Unfortunately, draw plates are expensive and my readers are unlikely to already have them.

Hammering silver hardens it, making it springy and difficult to bend, which is inconvenient in these projects, since after we hammer the wire we are going to bend it. It is also inconvenient because we may want to hammer it some more—which works better when the metal is soft. You solve the problem by annealing the wire, heating it enough to undo the effect of the hammering, using the same torch you will use in later projects for soldering things. Heat it in a semi-darkened room so that you can judge the temperature of the silver by its color; when it has gotten up to a dull red it is hot enough. Remove the torch, let it cool, and continue.

Mandrels

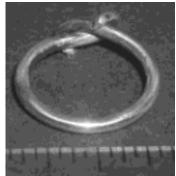
All of the remaining projects require you to make silver wire into a circle. This is easier if you have something cylindrical to wind the wire around. What I use for the purpose is a ring mandrel, a slightly tapered cylinder of steel intended to be used in making rings. If you don't have one, any hard cylinder of the right size, such as a wooden dowel, should do. You might even take a piece of 1" or 1 3/8" oak dowel and sand or file it down into a tapered cylinder, giving you a tool that, like my ring mandrel, will fit a range of sizes.

Norse Finger Ring

(Hall, p. 105).

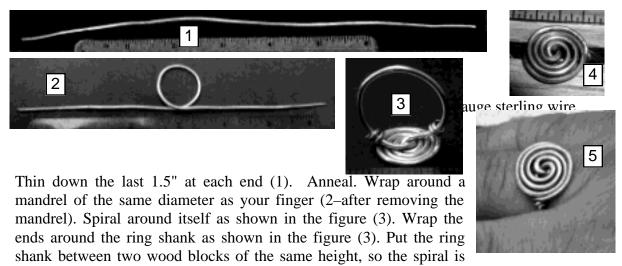
2 3/4 inches of 12 gauge sterling silver wire.

Thin out the ends, as described above. Anneal. Form the wire around a 5/8" diameter mandrel, then bend the thin part of the ends around the ring as shown in the figure. Try to get them thinner than I did in the ring pictured here.



Anglo Saxon Spiral Finger Ring

[Jessup, Figure 32.1 and Smith fig. 45]



resting on them (4), and hit the spiral with a hammer to flatten it (or don't, if you are happy with how it turned out initially). Put it on your finger (5).

Smith p. 108 shows a piece with the same design but a much larger shank, presumably a bracelet.

Soldering

The remaining pieces require soldering, so in addition to what you already have you will need silver solder and flux for silver solder. Silver solder melts at a much higher temperature than the lead based solder you may be familiar with, which is why you need a small propane torch or something similar. (The period equivalent would be a small furnace–Maryon describes how to make one–or a blowpipe, a small tube used to blow air across a flame to create a hot jet of fire. A common flux was borax.) Binding wire, thin iron wire used to hold things together while you solder them, will be useful for the more difficult projects. You also need a surface to solder on that won't be burned or cracked by your torch. The easiest is a soldering pad, available from a jewelry supply store, but a piece of (not heat sensitive) rock or a container of sand should do.

A few points are worth making about silver soldering for those who have never done it. The most important is that silver soldering is done at temperatures close to the melting point of what you are soldering, so you have to be careful not to overheat and melt the piece down. For the sort of small pieces we are doing, you want the flame running along the length of the wire, so as to heat all of it at once to a reasonably uniform temperature, and you want to keep the flame moving, so as not to overheat any part of the wire.

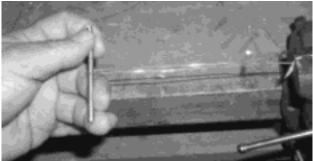
A second point is that silver soldering is usually done with very small amounts of solder, so as to avoid flooding the piece. The little bits of solder I am using are pieces of 20 gauge wire (made out of silver solder, a silver alloy that melts at a lower temperature than sterling) about 1/16" long.

Double twist ring: 13th c.

2 feet of 22 gauge sterling wire. Silver solder. Flux.

Cut the wire in half. Fold one of the halves in half again, this time over some small sticklike object. Put the ends in a vise as shown in the figure; if you don't have a vise hold them in a pair of pliers. Take the end that used to be the middle, and now has the stick in it, and twist it clockwise about thirty-six times.

You now have a piece of twisted wire about 4 5/8" long, with what looks like about 16 twists per inch. The reason it is 16 instead of 8 is that if you twist a doubled up piece of wire around ten times you end up with what look like twenty twists, since both wires are going around. Hence twists per inch is twice what you would

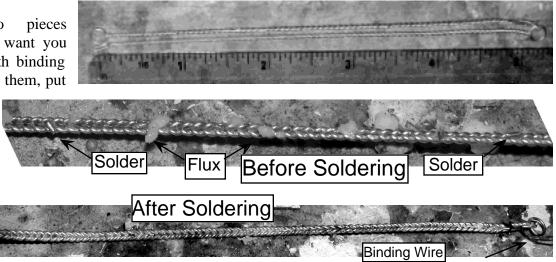


calculate from the number of times the wire is twisted (each twist being 360°) and the length of the wire.

Repeat with the remaining piece, this time twisting counterclockwise. You now have two pieces of wire, identical except for the direction of twist.

Lay the two pieces together; if you want you can tie them with binding wire. Put flux on them, put

little bits of solder on them, (see figure). Heat the whole thing with your torch until the solder flows, joining the two pieces.

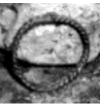


This is easier if you already know how to solder silver or have someone to show you–but with patience you can figure it out for yourself. You may want to look at Maryon, or some other good book on jewelry making, for a more detailed explanation.

You now have a length of double twist wire. Wrap it around the same rigid cylinder you used for the first project—the one that is the same size as your finger. Cut off the surplus. File the ends flat so they will fit together. Squeeze the circle of wire so the ends slightly overlap, then pull it just far enough open so that you can put the ends against each other—that way the

spring tension of the ring will hold the ends together. Get it arranged exactly the way you want it to end up-this is easy to say, but may require a lot of fiddling. The idea is to have the two faces exactly match. Put some flux on the ends and a little bit of solder. Heat it until the solder melts and flows, joining the two ends. You now have a ring. Unless you have a very big finger, you probably have enough double twist left over to make a second, smaller ring to give to a friend.





The original this piece is based on has a diameter of about 7/8". The picture shows both it and my copy. The outside of the original is worn almost flat, but you can see the structure by looking at the inside.

Knot ring: late medieval:

18 inches of 24 gauge sterling wire. Flux and solder.

Fold the wire in half and twist it, as in the previous project–but this time you want to end up with one piece of wire, all twisted clockwise. Twist about 90 times around, ending up with what looks like 22 twists/inch. Wrap it around your ring cylinder

twice, leaving equal amounts extra at each end. Tie a knot with the ends, as shown. Now flux the whole piece, put some tiny bits of solder on it and heat it until the solder flows, joining the two wraps. The picture shows the original and my copy; the original is nicer.

A simple circle pin.

(Deefy and lots of other sources)

4 1/2 inches of 12 gauge sterling silver wire.

Wrap the wire around a 7/8" ring mandrel once, with all the extra at one end. Cut off what is left; you are going to use that to make the pin. (You wrap before cutting because it is easier to wrap the silver when you have something excess to hold onto.) Take the circle of wire and solder the ends together–just like soldering the ends of the double twist wire (fiddle with it

until the ends are flush and held together by spring tension), only easier.

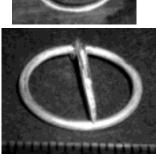
Use your file to file a narrow section, as long as your wire is wide–this is where the pin is going to go on (see figure).

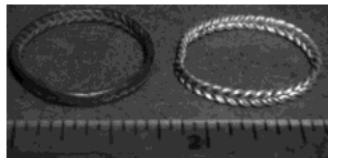
Flatten one end of the pin, using a hammer and/or a file, and bend it around the ring brooch at the narrow section. You now have a ring with pin on it. Cut the other end of the pin so it partly overlaps the width of the wire of the

ring at the other side. Use your hammer and file to taper down the pin so that it goes from its full width at the base, where it wraps around the ring, to almost a point at the tip.

Circle pins like this, often smaller and often made of base metals such as brass, are very common in medieval digs. They may have been low end jewelry–or perhaps the medieval equivalent of safety pins.







A fancier circle pin. (Deefy RB 103)

- 1 1/2 inches of 10 gauge sterling wire (for the pin)
- 1 1/2 feet of 24 gauge silver wire
- 3 1/2 inches of 18 gauge silver wire.

Cut the 24 gauge wire into two pieces, one 9 1/2" long, one 8 1/2" long. Fold each in half and twist it about 40 times around-the longer counterclockwise, the shorter clockwise. The longer one is going to be the outer circle, the shorter the inner, and doing it this way makes the twists correspond between the two.

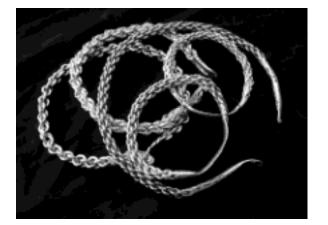
Make your 18 gauge wire into a circle; solder closed. Measure the longer twist along the outside of the circle, subtract about a tenth of an inch (for the space where the pin goes), cut–you now have a length of left-handed twist that will go around the outside of the pin. Similarly shape and cut a length of right handed twist to go around the inside. Assemble the whole thing (binding wire will help a lot), solder it together. Make and attach the pin as in the previous project.

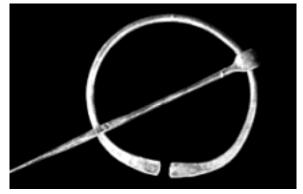
This is a harder project than the others because of the delicate soldering needed to assemble the three circles. If you have never done silver soldering before you may want to get some experience with the easier projects before you try it.

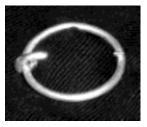
Both of these are circle pins; the figure shows how they work. The basic idea is to pull some of the cloth through the circle, stick the pin through it, then pull enough back so it holds. The same design was also used for belt buckles, with the pin serving as the tongue of the buckle; Egan and Pritchard show a number of examples similar to the first one. You might also try scaling up the second and fancier pin; it would make an attractive buckle.

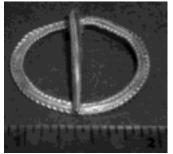
In case, after doing all of these successfully, you are still feeling ambitious, you may find the pictures below of interest. The arm rings are bard bait; I make them to give to people who do a very good job of entertaining me and my guests at my bardic circle at Pennsic. Making them is much easier than people think, since although they appear to be braided, they are actually only twisted. Stare at the picture long enough, think about rope, and you will see the pattern.

The other picture shows my favorite penannular fibula, a simple but elegant piece presently residing in a museum in Edinburgh.









Finishing

All of these projects except the first require you to heat the silver, either to anneal it or to solder it. Heating may result in dark discoloration on the surface. To remove it, the piece should be pickled–immersed for a few minutes in a warm acid bath. The powder for making a pickling solution can be purchased from any jewelry supplier.

Pickling removes the discoloration but leaves a rather dull surface. This is usually polished using tripoli, a fine abrasive, on some sort of turning wheel. For a finer polish, you use first tripoli and then jeweler's rouge.

If you have a Dremel Mototool or an electric drill, you can probably find a suitable accessory to use as a polishing wheel. If you don't, it should be possible to polish small pieces like these by hand, using tripoli, a rag, and patience–but I must confess that I have not done it. Some pieces can be burnished–a period technique that consists of rubbing them with a very smooth piece of something very hard, such as steel (burnishers are available from jewelry supply stores)–but that is hard to do on something as intricate as the second circle pin. Rio Grande offers hand polishing sticks, but I have not tried them. If you polish your pieces by hand successfully please let me know, so I can tell other people how to do it next time I revise this piece.

Source for materials:

My favorite mail-order source for jewelry supplies is Rio Grande in Albuquerque. Their phone number is 800 545-6566. Their web page is www.riogrande.com.

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