



VOLUME XXXIX, NUMBER 1 WINTER 2023

Repast

Quarterly Publication of the Culinary Historians of Ann Arbor

Ancient Foods, Recovered At Last

Dining in the Roman World, Part 1

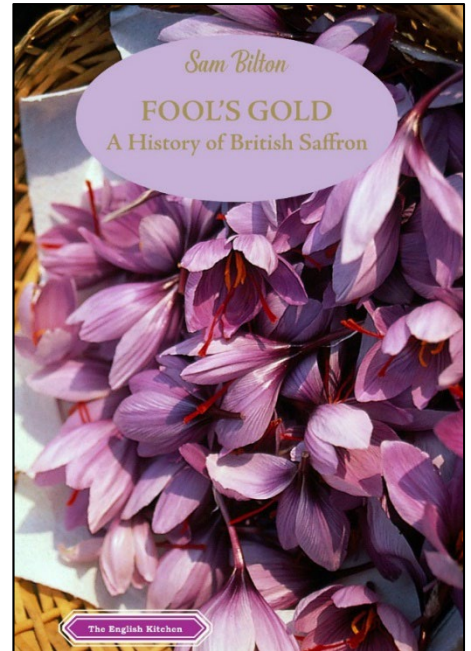


Three ancient Roman bakers ready a peel with 10 loaves of bread for insertion in an oven in this drawing by CHAA member Phil Zaret. The work is part of Phil's extensive reconstruction of the ancient industrial baking process for *panis quadratus* (see pages 3-9 inside).

MORSELS & TIDBITS

An exhibit, “A Century of Dining Out: The American Story in Menus, 1841-1941”, is scheduled to run Apr. 26 – Jul. 29, 2023 in the main hall of the Grolier Club in New York City. Curated by **Henry Voigt**, the well-known menu collector in Wilmington, DE, the show provides fascinating glimpses into everyday life and social developments in the U.S. during that time. For example, a die-cut menu from 1920 has magnificent comic illustrations about Prohibition; it’s from a banquet in San Francisco that was hosted by the American Can Company nine days before the country was supposed to go dry. Another menu is from a “War Banquet”, a jingoistic church supper that was organized by the Ladies’ Aid Society of the Presbyterian Church of White Bear Lake, MN (1899), featuring dishes imagined to be from islands recently conquered and occupied by U.S. military forces: Cuba, Puerto Rico, and the Philippines. A lacto-ovo vegetarian menu from the Kellogg Sanitarium in Battle Creek, MI (1895) included such categories as “Grains”, “Breads”, and “Liquid Foods”. The exhibit catalog is now available from the Univ. of Chicago Press and Amazon. There’s also an online exhibit at <https://grolierclub.omeka.net/exhibits/show/dining-out> that includes beautiful images and notes for more than 100 menus, grouped into 11 chronological periods.

Saffron is made from the stigmas and styles of a purple-blossoming crocus native to Western Asia. Yet the expensive spice was grown and produced so successfully in late medieval England that a market town in Essex renamed itself Saffron Walden during the 1400s. The crimson threads were gathered from the flowers and dried for use as a culinary seasoning and aromatic and as a golden colorant. Saffron was also valued for its medicinal uses— it was thought to cure everything from



melancholy to the plague. The whole story is recounted by **Sam Bilton** in her book, *Fool’s Gold: A History of British Saffron* (Prospect Books, UK, 2022). Sam, who lives in Sussex, England, is a food historian, writer, and cook; she wrote about gingerbread at historic English fairs in *Repast* (Spring 2022).

Repast

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Conferences in Europe this Spring and Summer—

May 20, 2023: Leeds Symposium on Food History and Traditions, “Celebrations”. Friends’ Meeting House, Friargate, York, UK. For more info, see <http://www.leedsfoodsymposium.org.uk>.

May 31 – Jun. 2, 2023: Eighth annual International Convention on Food History and Food Studies, organized by the European Institute for Food History and Cultures (IEHCA). Multi-disciplinary, covering all time periods. François-Rabelais Univ., Tours, France. For more info, e-mail Loïc Bienassis (loic.bienassis@iehca.eu) or Allen Grieco (allengrieco@gmail.com).

Jun. 5-6, 2023: Institute for Historical Research of the Northern Regions [IRHIS], “Food and Religion in Early Modern Europe”. Univ. of Lille, Pont de Bois campus, Lille, France. More info will be posted at <https://irhis.univ-lille.fr/agenda>, or e-mail marjorie.meiss-even@univ-lille.fr or florent.quellier@univ-angers.fr.

Jun. 8-10, 2023: “Sociability in Politics, Food and Travel in the Early Modern Era”. Hosted by the Early Modern and Eighteenth-Century Centre at the Univ. of Warwick, UK. For additional information, visit the website https://warwick.ac.uk/fac/arts/history/ecc/news/sociability_politics.

Jul. 7-9, 2023 (St. Catherine’s College, Oxford, UK) and Jul. 15-30, 2023 (online): Oxford Symposium on Food and Cookery, “Food Rules and Rituals”. For more info, see <http://oxfordsymposium.org.uk>. ■

ADVENTURES IN *PANIS QUADRATUS*

by Philip M. Zaret

Phil and his wife Barbara are longtime CHAA members in Ann Arbor. He was raised in the New York City area, majored in Classics at the University of Michigan, and for nearly 35 years made a living as the owner-manager of a local photocopy shop. Phil also volunteered for over 15 years at the UM Libraries, where he bound and repaired books, worked on the Janice Bluestein Longone Culinary Archives, and developed an index of culinary references found in manuscripts at the William L. Clements Library. Phil has had seven previous articles in Repast, most recently "My Love Affair with the Vidalia Chop Wizard" (Summer 2015).

During the excavations of Pompeii and Herculaneum, the ancient Roman cities that were buried by the eruption of Mount Vesuvius in the year 79 CE, commercial bakers' ovens were discovered with many dozens of loaves of bread still in them. Most of these loaves were of a type that had been written about during antiquity, although no visual representation or physical specimen had been seen for 1500 years until the excavations. It was called *panis quadratus* [PAH-neess kwah-DRAH-tooss], literally "squared bread".

The meaning of "squared" presented a puzzle because the carbonized loaves were round, and murals found on the walls of excavated buildings showed the same round loaves. Figs. 1-4 show photos of some carbonized loaves. As you can see, this is a unique-looking bread. In shape, it looks like a thick sliced pizza on top of another thick pizza. But the groove around the perimeter, and the crisscross design on the top, are pressed into the bread and not cut through it. On the other hand, a hole has been punched in the center, bagel-like, going all the way through. All of these loaves found in the commercial ovens were divided into 8 sections, and the two murals in Figs. 5-6 (next page) show the same type of loaf. However, the mural in Fig. 7 shows, besides 8-section loaves, loaves with 12 and 16 sections, as well as 4-section loaves on the top shelf and in a basket.

The carbonized loaves averaged about 7¼ inches in diameter, smaller than archaeologists expected and not a really large loaf by modern standards. The height, however, appears to be about 3 inches, which is high for a free-form bread. This would indicate that it was made of dense dough, because it was able to hold its shape during baking. Some of the loaves in the mural appear to be either much larger or smaller, and the sectioning seems deeper and rounder than the extant loaves. It is possible, however, that the carbonized loaves might have shrunk somewhat from the heat and pressure of volcanic ash.

Tens of thousands of these loaves were produced every day throughout the Roman empire, sold and distributed to a huge population that subsisted on *panem et circenses*, "bread and chariot races". Why did they produce such a complex-shaped loaf, if they had to make so many in one day? We know that the Romans were a pragmatic people— look at the aqueducts, for example. No doubt the development of a bread this complex was the result of a process not obvious at first glance.

The Mystery of the Loaf Shape

Many questions present themselves: (1) Why did the Romans call it "squared" bread? (2) How did they make it? (3) What was it made of? The last question, surprisingly, is the easiest to answer, because chemical analysis by modern scientists shows that this type of bread was made of (no surprise) wheat flour, and this is corroborated by another ancient name for it, *panis siligineus*, "wheaten bread". The leavening was sourdough starter, which is also attested to in ancient literature. Water was used, and probably salt.

And how did they form that design on the top? Unfortunately, bakers have always been a close-mouthed lot, cherishing their trade secrets. It's likely that bread-making equipment was used, but as far as I know there is no literature and, except for large animal-driven kneading machines and bronze pans, there are no artifacts to substantiate it.

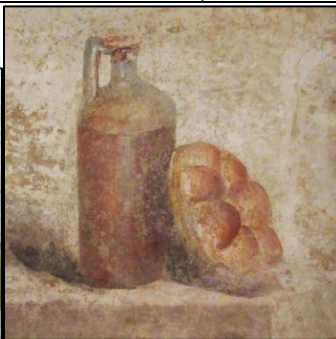
What we do know is that baking was a highly-skilled, highly-respected, and highly-profitable profession. Professional bakers then and now spend years perfecting their craft. The Romans, after making thousands of these loaves, undoubtedly had developed all of the skills necessary to produce them uniformly and quickly.

Some believe that the bread's shape came from baking it in some kind of bundt pan. Many round bronze pans (see Fig. 8)

continued on next page



Figs. 1-4 (left to right): Carbonized ancient loaves of bread excavated in Italy. 1, from Herculaneum (a smaller town buried in the same volcanic eruption as Pompeii), with the stamp "Property of Celer, Slave of Q. Granius Verus". 2, from the bakery of Modestus in Pompeii. 3-4, two others from Pompeii.



Figs. 5-7: Bread loaves depicted in ancient murals. In Fig. 7, from a fresco excavated at Pompeii, bread is being handed out by a politician or political candidate.

PANIS QUADRATUS *continued from page 3*

were discovered at Pompeii, but they were most likely used for forming bread, not for baking it, as all of the loaves found in ovens were free-standing on the oven floor.

As to the meaning of “squared”, the conventional wisdom is that the square aspect of the bread is the symmetrical crisscross pattern on the top. But the crisscross forms triangular wedges, not squares. Another possibility is that “squared” should be taken literally, meaning “made squarish” or “boxy”. Looking in profile, the loaf is flat on the bottom and fairly flat on the top. This would make for ease of stacking, like the proverbial square tomato. Looking at the bread-seller mural, we see bread stacked as many as five loaves high.

However, one of the meanings of the word *quadra* is “chunk”, a piece of something. So I believe *quadratus* in this context simply meant “chunked; divided into chunks or pieces”. Greek bakers introduced leavened bread to the Romans, and they called one type of loaf ἄρτος βλωμιαῖος (*artos blomiaios*, chunked bread). Thus, the term *panis quadratus* might simply represent a loan translation, or calque, from Greek to Latin.

Regardless of the meaning of “squared”, the sectioning of the bread allowed for wedge-like segments of more or less equal size to be broken off. One wall painting (Fig. 9) appears to show a broken-off piece of bread in the lower left corner, consisting of two of the segments or wedges. You can see that because the indentations made on the top did not penetrate all the way through, the break is quite rough.

Today we use “breaking bread” as a figure of speech for eating in general, but originally it meant literally breaking off a piece of bread— with the hands, naturally. This is how the Romans ate bread, and for that reason a sectioned loaf would have been very attractive.



Fig. 8, above: Bronze bread pans from Pompeii.



Fig. 9, above: Various types of bread, including whole and broken *panis quadratus*, are shown in this wall painting from the house of Julia Felix in Pompeii.



Figs. 10-11 (left to right): Plaster copy of a carbonized loaf of bread from a bakery in Pompeii; a loaf of *panis quadratus* shown in a detail from a fresco.

And why was there an indentation around the circumference? There is general agreement that it was formed by string or twine tied around the loaf before baking. Some have speculated that the string was tied with an additional small loop, so that the baked loaf could be more easily carried away by its recipient, or that several loaves could be carried on a pole by a street hawker. Others speculate that the string loop was made for sanitary reasons: to keep the seller and the buyer from touching the loaf. Indeed, if we look at the mural of the bread distributor, we see no strings attached; the man places an unwrapped loaf into the hand of the recipient, and a small boy holds up his hands to take the loaf from him. That’s three pairs of hands handling one loaf of bread— not very sanitary.

There is no evidence for any of the above speculations, nor do I see any aesthetic reason for the string indentation. In these pictures, one of a carbonized loaf and one of a wall painting, there are no obvious string indentations. Thus, it’s clear that a “squared” loaf could be made with no indentation. You’ll notice, however, that the two loaves in Figs. 10-11 are a squatter version of *panis quadratus*. For this reason, some think the string was there to prevent the dough from sagging and spreading during baking. The string might have had minimal effect in this regard, but I am convinced that it was tied around these loaves for other very practical reasons, discussed below.

A Reconstruction of the Baking Process

The process of producing and baking *panis quadratus* probably went like the following.

After the grain was delivered to the baker’s mill, it was ground into flour, leavened, made into dough, kneaded, raised, and given to the bread maker in a large mass. The dough would be fairly dense and not sticky— just right for shaping. Also, and importantly, a dense dough will only rise moderately, desirable if you want to control its size. Meanwhile, the large masonry oven (see Fig. 12) was pre-heated by burning wood on the floor, then raking it out.

Since I find no mention of small dough-weighing scales in bakeries, I believe the baker achieved the desired size and weight by slicing off a hunk of dough and filling a proper-sized pan, adjusting it by eye. The process of weighing might have been too slow, and probably unnecessary, for experienced bakers. The baker would then flip the disk of dough onto the work surface and cinch it with string in a slipknot with a loop.



Fig. 12: The exterior of one of the many ovens excavated at Pompeii, with remnants of two grain millstones in the left foreground. The waist-high square opening is the oven door, while the square opening below it is the place where the spent ashes were raked. The arched bricks indicate the dimensions of the interior of the oven.

To make the crisscross impression, I believe that the baker used a sturdy square wooden frame (see my re-creation in Fig. 13), perhaps 10-11 inches long on each side, with two notch-joint slats crossing in the center— all within the capabilities of Roman craftsmen. I specify “notch joint” because— contrary to others who have speculated that the crisscross impression was made by a wheel device with a hub— the breads and bread images preserved from the Roman world show no evidence of the kind of central depression that would be left by a hub.

Further, the Romans would have preferred a frame with square edges instead of a round spoked wheel, not only because it would be easier and cheaper to make, but also because it would produce a sharper impression. Such a frame could be rotated to form either 4, 8, 12, or 16 wedges (any multiple of 4), depending on the size of the loaf. Of course, the Romans were capable of constructing an 8-spoked device with uniform widths, as they did when constructing cart wheels, but I am fairly certain that a 4-spoked frame was used for baking these loaves because, on close examination of the carbonized loaves, one can see that the wedges are not of uniform width (see especially Fig. 1).

For an 8-wedge bread, the baker would center the frame over the loaf, pressing down to form an impression, but not so hard as

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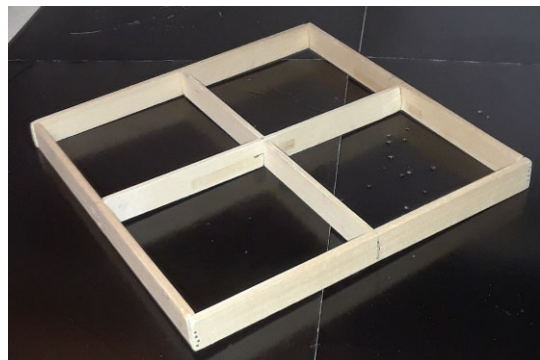
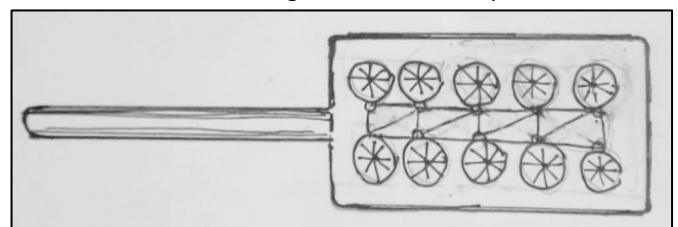


Fig. 13: Phil Zaret’s recreated version of a square wooden frame for making a crisscross impression on a bread loaf.

Fig. 14: Overhead diagram of a possible arrangement of 10 loaves laced together on an oven peel.



PANIS QUADRATUS continued from page 5

to break the skin of the dough. He would immediately turn the frame approximately halfway between the lines of the first impression and make a second impression. The belt of string around the loaf lessened bulging in the middle caused by the pressure of the frame. Emphasizing again what skilled artisans are able to do, the entire bread-shaping procedure for 10 loaves—precise and uniform— could probably have been done in a few minutes, especially when they worked in teams.

The loaves were then left to rise, after which the baker would punch a hole in the center of each one with a rod or narrow tube, penetrating all the way through, thus pressing the center downwards. This was no doubt done carefully, in order to keep the dough from deflating. I believe that making the hole was the last shaping step before putting the loaf in the oven. As anyone who has baked a lot knows, when dough expands while rising and

baking, holes fill in quickly. This hole, however, was more than decorative. It was a way to promote even, thorough baking in the middle, as well as to keep the loaf from doming in the oven.

To prepare to bake the loaves, the baker would liberally sprinkle flour on a peel measuring, perhaps, 2 by 4 feet. (A peel is a large wooden spatula with a long handle, used for putting breads in and taking them out of an oven.) The baker would transfer 8 or 10 loaves, in two rows of 4 or 5 each, to the peel. He would then take a single long length of string and thread it through each of the loops of the knotted loaves on the peel, tying each loop with a slipknot as he went. To keep the two rows from drifting apart, he must have connected them, perhaps as shown in my diagram in Fig. 14. The result was a continuous chain of loaves uniformly spaced along the peel.

Roman Bread as an Industry

What makes *panis quadratus* interesting from an historical standpoint is that it was not just “a” bread, it was “the” bread—a bread type that was made for perhaps 500 years, and was literally “the staff of life”— the main source of nutrition— for millions of people. One problem with traditional bread as a food product is that it does not age well or travel well; you have to make it new every day, everywhere that it’s needed. Thus, every city and town in the Roman world had numerous bakeries, turning out huge quantities of bread on a daily basis. Some of the ancient bread factories took up an entire city block, in which many dozens of humans and a good number of animals labored. Clearly, this was a major industry.

There is a famous mausoleum of a baker on the outskirts of Rome (the tomb of Eurysaces) with a frieze depicting the assembly-line production of bread, as well as the administrative part of the enterprise. It is, however, a stylized and idealized image, lacking real detail. Ancient literature speaks of bread recipes, leavening and flavoring, grains and flours, but precious little about the techniques of the baker. The gourmand Apicius is credited with the book *De Re Coquinaria* (On Cooking), in which we find hundreds of recipes for every type of food—except baked goods. No similar work for baking has come down to us. As I mentioned in the main article, bakers have always been a close-mouthed lot. Bakers’ guilds go way back into antiquity; these were exclusive societies that guarded their trade secrets.

This compels us to make educated guesses based on physical remains, the meager descriptions in ancient literature, and our own baking experiments. I am unaware of any devices in use in the Roman bakeries other than pans, kneading machines, and a few familiar objects pictured on friezes and sarcophagi, such as bowls, basins, baskets, and sieves.

Nevertheless, in the article I included my reconstruction of the process that occurred inside these bread factories. Others who have tackled the subject of Roman bread seem to have based their conclusions almost entirely on their own small-scale kitchen experiments. My approach here, instead, was to exam-

ine the baking from the point of view of the manufacturer confronting the demands of mass production.

Bread baking was big business, and these “manufacturer-bakers” became very rich men. Living around 2000 years ago, they were beholden to the technology of the day. People then were no less clever or intelligent than people today, but their “tool kit” did not contain steam or electrical power, and only limited use of water power. What the Romans had in abundance, besides animals, was human power— namely, enslaved labor.

We tend to think of “slaves” as doing only rudimentary manual labor, but in fact people with skills and education have been taken into slavery throughout history. The enslaved laborers in the ancient Roman bakeries had specialized tasks. Some did perform simple tasks like shoveling the droppings of the donkeys turning the big stone wheels of a grain mill. Others, however, might specialize in shaping the loaves of bread, and still others might manage the ovens. There were slaves working in receiving and shipping departments; in accounting; in retail sales outlets open to the street; and in many other jobs.

Besides bread, there were other types of food whose production in the ancient Roman world also reached an industrial stage, including wine, olive oil, and fish sauce. Wine-making and olive oil-making were agricultural industries, almost identical in operation: you grow your grapes or olives and you press them. Wine goes one step further— fermentation, which takes much more time. There were many vineyards and olive groves in Italy, some quite large, each turning out a large quantity of product. But as Rome’s population grew, most wine and olive oil was imported from throughout the empire, typically inside *amphorae* (large jugs) carried on ships. Fish sauce (called *garum* or *liquamen*) was made in Italy, usually in seaports from the local catch, but it, too, was also imported from abroad. Grain, the raw material for bread, was grown on the Italian peninsula, but eventually most of it was imported from far and wide. Unlike wine, olive oil, or fish sauce, however, the end product, bread, had to be made locally.



Fig. 15: Three examples of baked loaves of *panis quadratus* homemade by Phil Zaret.

Figs. 16-17 (left to right): A ceramic scone pan that can be used to make the crisscross indentations on the top of a loaf; a loaf that Phil has indented and string-tied before its final rising and baking.



Although the slipknot is one of the easiest knots to tie, one might wonder whether Roman bakers really took the time to tie 15-20 of them for every peel of loaves. I believe that they did, since knot-tying was once a vital part of many trades—a fact that the modern world has mostly forgotten. I estimate that a Roman baker could tie the knots needed for a peel of 10 loaves in one minute or less. Knot-tying is emblematic of the variety of manual and physical tasks that bakers then and now can perform at amazing speeds, after repeating the same set of motions countless times.

Once the loaves had been knotted, the bakers would thrust the peel and loaves into the large oven, then slide the peel out from under the loaves; the sliding was eased by the heavy coating of flour on the peel. The string would maintain the proper separation between loaves no matter how fast the peel was removed. Peel after peel of loaves was put in the oven in quick succession until the whole oven floor was covered. One oven was discovered at Pompeii with 81 loaves in it. The only way to achieve this was to have multiple peels with loaves on them all prepared for rapid insertion. In addition, since the peel itself must have weighed 5-10 pounds and the 10 loaves of unbaked bread 25-30 pounds, there could be as much as 40 pounds to be lifted. No doubt at least two men hefted the loaded peel and placed it on the lip of the oven, and a third man shoved it in by the handle (see my drawing on the front cover).

Bakers worked as rapidly as possible to keep heat from escaping from the oven door and to keep themselves from getting scorched. Speed was also of the essence because, as soon as that

first string of loaves touched the oven floor, they started baking. At any rate, a peel was not needed to remove baked loaves, since the string of each assemblage in turn could be grabbed by a pole with a hook at the end and pulled out of the oven, probably directly into a basket. When the loaves had cooled, the string was untied and they were put in another basket for distribution.

A Pompeii oven is a very dark round space, as much as 10 feet in diameter and with a domed ceiling. Its only light source is its door when opened, perhaps 3 feet wide and 2½ feet tall. In this darkness, there were distinct advantages to having 8 or 10 loaves tied together: (1) When inserting the loaves into the oven, a single loaf could not slide off the peel by itself; (2) Loaves that were tied together had to be inserted and removed from the oven together, giving them a uniform baking time; (3) To remove the loaves, the baker needed to see only one of them in order to hook them all.

Panis quadratus was a big loaf, weighing easily 2 pounds or more after baking—enough to feed a whole family. Considering the importance of this loaf, some have wondered why it wasn't bigger. Perhaps the Romans simply considered this the optimal size for most needs. More likely, this was the largest size that could be produced in quantity. All of the scoring, poking, and tying probably contributed to ensuring a completely baked loaf by exposing the maximum amount of surface area to the heat of the oven. The quicker the bake time, obviously, the more loaves a bakery can produce. In a Roman masonry oven, which possibly reached 500-600° F., big loaves with such a shape might have baked in just 15-20 minutes.

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PANIS QUADRATUS *continued from page 7*

Some questions remain:

- How exactly did the bakers knot all of the loaves together?
- How did they situate the chains of loaves in the oven? First in, first out, from left to right?
- How did they time the baking? Perhaps with a *clepsydra*, or water clock, which uses the flow of water from one vessel to another, much as an hourglass uses sand.

Unfortunately, short of constructing a full-size Roman bakery and dealing with all of their tasks— without resorting to anachronistic techniques— we will likely never know the whole story.

It's best to think of a Roman bakery as a bread factory with a multiplicity of tasks being performed. It is clear to me that the people who ran these factories coordinated all of this activity cleverly and efficiently, as evidenced by the mass production of *panis quadratus*.

Ancient Bread in the Modern Kitchen

I have attempted to make a version of *panis quadratus* a number of times. Fig. 15 on the previous page shows some recent efforts. The bread itself has always been edible; it's the shape that's been the problem. When I used a knife to simply slash four crisscrossed grooves on the top and a groove around the side, I did not come close to producing a facsimile loaf. After much experimentation, I came up with a better method, as follows.

I formed the dough into a ball, flattened it, and forced it flat-side down into a straight-sided saucepan to improve its shape. I inverted the saucepan and tapped the dough out onto a well-floured baking sheet, with its flat side up. Then I moistened a length of twine with water and tied it around the edge of the loaf, halfway up, which took practice. Also, if it is tied too loosely, the dough can slough off the string while rising; tied too tightly, the string can rip the skin of the dough, leading to a damaged loaf. Wet twine sticks better than dry twine and leaves a nicer impression.

To make the crisscross on the top, I used an 8-sectioned 11¼-inch ceramic scone pan (Fig. 16) that I bought from King Arthur Baking Co. (For a smaller version, they make an 8-inch pan.) I tried centering the pan over the dough in order to press down, but could not find the exact center because I could not see it. So, with the scone pan facing up, I flipped the dough, positioned it in the center of the scone pan and pressed it in, achieving a nice, deep impression, without squashing the loaf. The small amount of outward bulging caused by pressing firmly pushed the twine deeper into the dough, securing it.

I flipped the loaf onto the baking sheet again and left it to rise; without sufficient rising, the crust will split during baking. Then I poked a hole in the center with a ½-inch wooden rod and baked the bread. Eventually, using a square frame to make the indentations on top, I had similar results. Fig. 17 shows such a loaf before rising.

Home Recipe for *Panis Quadratus*

Some tips:

- Work with white whole-wheat flour and bread flour.
- For leavening, use sourdough if you have it, otherwise dry yeast. Hold the yeast to one teaspoon; or for Saf-instant® yeast, use ½ teaspoon. Too much rising defeats achieving the flat top.
- One teaspoon of salt per loaf will do.
- Aim for a dense, almost dry dough.

To make one modest-sized loaf, put 1 cup of bread flour and 1 cup of white whole-wheat flour in a bowl or stand mixer. Stir in the yeast and salt, add 1½ cups of warm water, and mix. Add enough white whole-wheat flour to make dough, probably another 1½-2 cups. (If you're using a sourdough starter, add water, white whole-wheat flour, and salt to the starter in the usual proportions.)

If you want a more flavorful loaf, you can add, according to the ancients, poppy seeds, fennel seeds, and parsley— singly or in combination. The amounts are up to you.

Knead the dough well. Then let the dough rise for 1 hour, but do not expect it to double in size. Form the dough into a smooth ball. Flatten it into a thick disk (no less than one inch high) with a rolling pin or the underside of a glass pie plate or baking dish. After flattening it, if you have a straight-sided saucepan of the right width, press the dough firmly into the pan to make a nicer shape. Turn the disk out, well-formed side up, onto a heavy baking sheet well-dusted with flour.

To make the indentation around the side, tie heavy string or baker's twine tightly around the loaf, but not too tightly or you will rip the skin. Moistening the string with water first helps it to stick better.

To make the wedge pattern on top: If you don't have a ceramic scone pan, use some water to moisten the edge of a wooden ruler, a yardstick, a ¼-inch slat, or any square-edged item, and press 4 crisscrossed lines into the dough with it— not so deep as to split the dough— forming 8 symmetrical wedges.

Let the scored disk of dough rise for at least 1 hour. With a finger or with the handle end of a wooden spoon, make a substantial hole in the center where the lines cross, making sure that you penetrate all the way through. Bake in a 400° F. oven for 35 mins. or until it begins to brown. Before serving, let the loaf cool and remove the twine.

I found that moistening the edges of the frame with water kept it from splitting the skin of the dough. Through the miracle of baking, the squarish grooves made by the scone-pan separators or by the flat edges of the frame slats all “healed up” and formed sharp indentations.

The interesting and attractive appearance of *panis quadratus* is another example of form following function. I would love to have seen the ancient process that produced such a unique loaf. Many people have put forth cogent theories and have produced loaves of bread that likely are similar to the ancient ones. My basic approach to the problem was to try to avoid romanticizing or over-imagining, and instead to adhere fiercely to what we actually know and can see. Mine is probably not the last word, however. Hopefully, scholarship and archaeology will bring forth further adventures in *panis quadratus*. ■

Information Sources

- André, Jacques, *L’Alimentation et la Cuisine à Rome* (Paris: Les Belles Lettres, 1981).
- Brion, Marcel, *Pompeii and Herculaneum, the Glory and the Grief* (New York: Crown Publishers, 1962).
- British Museum, The, “How to Make 2,000-year-old Bread”, YouTube video, Jun. 14, 2013 (<https://www.youtube.com/watch?v=DYTuNXq1eBk>).
- Dalby, Andrew, *Food in the Ancient World from A to Z* (London: Routledge, 2003).
- Faas, Patrick, *Around the Roman Table: Food and Feasting in Ancient Rome* (Chicago: Univ. of Chicago Press, 2005).
- Johnson, Melissa, “Panis Quadratus: Ancient Bread of Pompeii”, *Breadtopia: Artisan Home Bread Baking*, Sep. 18, 2021 (<https://breadtopia.com/panis-quadratus-ancient-bread-of-pompeii>).
- Lewis, Charlton T., and Charles Short, *A Latin Dictionary*, (London: Oxford Univ. Press, 1975).
- Martyn, Charles, *Foods and Culinary Utensils of the Ancients* (New York: Caterer Publ. Co., 1906).
- Monaco, Farrell, various articles on Roman bread, *Tavola Mediterranea, Home of Culinary Archaeology on the Web* (<https://tavolamediterranea.com>).
- Moritz, L.A., *Grain-Mills and Flour in Classical Antiquity* (Oxford, UK: Oxford Univ. Press, 1958).
- Toussaint-Samat, Maguelonne, *A History of Food*, Second Ed. (Hoboken, NJ: John Wiley & Sons, 2009).
- Wilkins, John, and Robin Nadeau, eds., *A Companion to Food in the Ancient World* (Oxford and Chichester, UK: Wiley Blackwell, 2015).

Sources of Figures 1-17

1. Photo from Grand Voyage Italy accompanying the article “A Brief History of Wood-fired Ovens” (Apr. 16, 2018), <http://www.grandvoyageitaly.com/cucina/a-brief-history-of-wood-fired-ovens>.
2. Collection of the National Archaeological Museum in Naples. Image via archaeology-world.com, <https://archaeology-world.com/2000-year-old-preserved-loaf-of-bread-found-in-the-ruins-of-pompeii>.
3. <https://www.planetpompeii.com/en/map/the-bakery-of-sotericus/266-a-charred-loaf-of-bread.html>.

4. <https://www.visitnaples.eu/en/neapolitanity/flavours-of-naples/the-2000-year-old-bread-found-at-pompeii-excavations>.
5. <https://mooseandhobbes.wordpress.com/2018/03/03/pompeii-the-immortal-city>.
6. Photo by Dr. Paula Lock (Univ. of Kent). Image from an exhibit by the National Archaeological Museum in Naples, via <https://twitter.com/paulalock5/status/1129283450274549760>.
7. Collection of the National Archaeological Museum in Naples. Image: bbc.co.uk.
8. Image from Vendita di Pane Affresco, Pompeii, via amerisitestorage.com, <https://amerisitestorage.com/5111-sale-of-bread-fresco-pompeii.html>.
9. Collection of the National Archaeological Museum in Naples. Photo by Carlo Raso via Flickr.
10. William Starling in Alabama, via Western Australia Museum, <https://museum.wa.gov.au/pompeii2010/daily-life/business/index.html>.
11. Collection of the National Archaeology Museum in Naples. Photo by Farrell Monaco via <https://www.rnz.co.nz/national/programmes/thiswayup/audio/2018/636372/edible-archaeology-recreating-pompeii-s-bread>.
12. Photo from Grand Voyage Italy accompanying the article “A Brief History of Wood-fired Ovens” (Apr. 16, 2018), <http://www.grandvoyageitaly.com/cucina/a-brief-history-of-wood-fired-ovens>.
- 13-17. Diagram and photos by Phil Zaret.

Vesta, the goddess who watched over hearths and ovens, is



Metroopolitan Museum of Art

pictured on this Roman gold coin from ca. 46 BCE, during the rule of Julius Caesar. Because of the various social roles of ovens, Vesta was a central figure in the baking trade and in rituals of altar sacrifice.

The urban brotherhoods

of grain grinders and bread bakers, called the *pistores* (a word that shares a root with English “pestle”), routinely appealed to her for good fortune. In artwork, Vesta was often depicted beside an ass, the animal used to turn grain mills. Due to the cultural significance of hearths, she was also considered the protectress of family life, marriage, children, and domestic tranquility; thus, near the start and end of a formal meal there was usually a prayer and a food offering to her. For all of these reasons, Vesta was one of the most important members of the Roman pantheon. More and more she supplanted in importance an earlier deity, the spirit of the oven, known as Fornax (a name that shares a root with English “furnace”).

— RKS

ROMAN FISH SAUCE: PERCEPTIONS AND REALITY

by Sally Grainger

*The well-known food historian Sally Grainger lives in Grayshott, Hampshire, England, with her husband Chris Grocock. After a decade working as a chef, she pursued Classical Studies at Royal Holloway College, and later earned an MA degree in Archaeology at the Univ. of Reading. Based on her continuing research and experimentation, Sally has been able to organize meals of reconstructed ancient Mediterranean foods at the British Museum, the Museum of London, Fishbourne Roman Palace, the Roman Baths at Bath, Colchester Castle, and the Getty Villa near Los Angeles. Sally's most recent book, *The Story of Garum: Fermented Fish Sauce and Salted Fish in the Ancient World*, was published by Routledge in 2021. She collaborated with Grocock, a medieval Latinist, to produce what is now the standard bilingual edition of Apicius, the Roman cookbook, and she wrote a practical companion, *Cooking Apicius*; both were first published by Prospect Books in 2006.*

From a purely literary perspective, the elite Roman is portrayed as a passionate consumer of the rare, novel, and therefore luxurious. The layman will have in mind such things as dormice and larks' tongues, along with many other amorphous yet disturbing forms of obscure offal. Over-indulgence and gluttony are concepts that we can understand, and prized offal can be delicious, but many people are disturbed and confused by the idea that the process of fermenting fish offal could produce something desirable. The scholar and layman alike have always had their doubts about that particular obsession.

Fish sauces in the ancient world are not all the same, however, and the myth of the "Rotten Romans" consuming their "rotten fish sauce"—although it is, sadly, all too often found in food history—is not the image one should rely on. Putting fish offal aside for now, the fish sauce ubiquitous in ancient cuisine and trade is now recognized as essentially the same as the Southeast Asian sauces that are valued today for their transformative qualities in culinary circles.

There are only two differences between the ancient and modern forms of fish sauce, but they are quite significant. First, the salt levels: they are much lower in the ancient version, resulting in a liquor that can be consumed in quantity, as op-



Fig. 1: *Liquamen* in production at Sally Grainger's home.

posed to Southeast Asian sauces, which are generally excessively salty. The second difference is the duration of fermentation: modern sauces are left to ferment for up to 18 months, while Roman sauces appear to be ready after 3 months, although this might be an underestimate of the actual time involved.

The truth is that both ancient and modern fish sauces are commodities that, when used with experience, have the potential to transform everyday foodstuffs with that magical *umami*. It is the taste of deliciousness, a meaty, cheesy taste that is essential for a good culinary experience. In ancient Rome the basic fish sauce known as *garos* in Greek and *liquamen* in Latin was used extensively across all social classes, and did not taste bad in any definition of that term.

Taste is subjective, up to a point: an uneducated palate raised on the less fermented cuisines of the West might reject strong and pungent foods, while someone raised on salted and fermented flavors will undoubtedly do the opposite and reject our blandness. It is all about personal taste, and a naïve palate will often reject what is simply unfamiliar. Roman fish sauce almost always seems to generate a negative response in the West because the fermentation is associated with viscera. The "yuck" factor is high but is utterly unjustified, and is based on an unfortunate misinterpretation of the literary sources.

Types of Ancient Fish Sauce

There is little to disturb a modern palate in the idea of a basic fermented fish sauce made with whole small fish such as sardine or anchovy, fermented with salt to produce an *umami*-rich liquor to flavor one's food. We won't dwell on the details of production; it suffices to see the image of my home-brewed sauce in Fig. 1 on the previous page. A simple recipe is included in a sidebar.

There is something rather disturbing, however, about the other *garum* of ancient Rome. It was invented in the late 1st Century BCE by the famous gourmet Apicius, and was called *garum sociorum* (the original Greek fish sauce called *garos* had already become commonplace in Roman cooking by that point). Initially, *garum sociorum* was made with mullet fish blood and viscera fermented with salt—and with those things alone. Later, mackerel and tuna were used, but crucially not the actual flesh of the fish—instead, that was either used in the *liquamen* sauces or salted whole. The resulting sauce is iron-rich, of course, and the taste is distinctly odd, with little fish flavor—certainly very different from ordinary fish sauce. Its pungency and expense rendered it unsuitable for cooking; it seems that it was used only for blending compound sauces for dipping appetizers, and was never consumed unadulterated. The ordinary *garos/ liquamen* was also blended into dipping sauces as well as used as a general seasoning, hence the considerable confusion over the names.

Pliny recounted that one had to pay (in today's equivalent) about 1,000 British shillings (roughly US\$9) for 6 pints of this *garum sociorum*, and that no other product apart from unguents had come to be more valued (HN. xxxi.93). These prices are in stark contrast to the more modest prices for fish sauce that we find in Diocletian's price edict, which demonstrates that the ordinary *liquamen* was within the means of most ancient consumers.

The more expensive and selective *garum* sauces were described as “black” and “bloody” by later medicinal writers, while Pliny described the more basic fish sauce as being like an aged honey wine in color, i.e., a pale amber yellow or light brown. The Greeks also used terms such as *loukos* (meaning white, but also bright and light) to describe *garos*, and this was occasionally contrasted with *melanos* (black) for the bloody sauce. This color difference would seem to be crucial to understanding fish sauce, and was also important in allowing the ancient purchaser to identify products. Modern fish sauces can also be many shades of pale yellow to dark brown, depending on which species is used, the processes involved, and for how long the fish are stored and aged (sauces darken with age because they oxidize, almost to the point that they become indistinguishable from one another in appearance).

The blood-viscera *garum* was immensely popular in the 1st Century CE, but thereafter became less valued and much less visible in both texts and archaeology. The decline in this sauce in the late period is undoubtedly connected to the blood prohibition found in Rabbinical Jewish sources, the early Christian church, and the Greek Orthodox church.

The idea that *liquamen* and *garum* were “rotten” to the taste is largely based on the idea that all fish sauce was as bad as the blood-viscera *garum* was perceived to be by ancient and modern commentators. Many scholars, however, do not consider that there were two distinct types of sauce and continue to combine the attributes of the expensive blood *garum* with those of the commonplace *liquamen*. The arguments are immensely complex, and the story of *garum* needs very careful unravelling to reveal its dual nature in the ancient sources. For those interested in the complex debate, I recommend reading my recent book *The Story of Garum: Fermented Fish Sauce and Salted Fish in the Ancient World*.

It is fair to say that the use of some form of fermented fish sauce was a defining characteristic of the ancient cuisine that we think of as Roman but was in fact a pan-Mediterranean cuisine. These sauces were used across the social classes: rich and poor consumed their daily food seasoned with a form of salted fish liquor. A poor student living on an entirely vegetarian diet consumed his lupins and beans with *garos* (“of course”) and with oil, according to Galen (*On the Properties of Foods*, 1.25.2). *Garos* was so commonplace that Galen emphasized that even the poorest had access to it. The use of this product in cooking seems to have begun in Hellenistic Greek practices, where a fish liquor was used to flavor sauces alongside wine and vinegar.

We often think of *garum* as Roman because it was under Roman influence that these fish sauces were manufactured on a huge scale, and because it was the Romans who introduced the new and more fashionable types of sauce made with species-specific fish and who brought sophistication to their consumption. But *garos* was essentially Greek in origin, and also quite cheap and unsophisticated in its first manifestation. It is also apparent that it was through Greek cookery books that fish-sauce use in an emerging “cuisine” spread across the Mediterranean.

It is not surprising that doubt persists among lay and academic circles, as the ancients themselves were rather conflicted and confused about the identity and processes involved in making *garum*. Seneca is often quoted: “Do you not realize that *garum sociorum*, that expensive bloody mass of decayed fish, consumes the stomach with its salted putrefaction?” (*Epistles*, 95). Seneca was almost certainly talking there about the fermented blood and viscera sauce, and clearly he doubted its value. He was also passing comment on the over-indulgence and gluttony of elites in demanding a fish-blood sauce. Scholars have questioned why fish blood would be thought valuable since it is, along with viscera, essentially waste. However, scarcity is the issue here. The amount of blood that one can harvest from mackerel or mullet is tiny, measurable in millilitres; similarly, one needed immense quantities of mackerel to harvest enough viscera to generate a true *garum*. *Liquamen*, in stark contrast, utilized small, abundant, otherwise undervalued, but not worthless fish, which actually represented a very cheap and commonplace commodity.

In archaeological circles there exists a “single sauce hypothesis”, which claims that *garum* represents all varieties

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under one umbrella term. None of the ancient didactic recipes or detailed literary sources indicate that this happens, but it is nevertheless widely believed (Grainger 2018; Grainger 2021, pp. 115ff.). This academic belief has led to a reduction in the significance of the blood-viscera *garum*, and in some cases even to denial of its very existence.

We must dispel the myth of putrefaction at the outset. The salt levels and pH of fish sauce manufacture contribute to a bacterially safe environment. The process of fermenting fish to make *liquamen* is allied to the processes involved in fermenting sourdough bread, beer, and cabbage products such as sauerkraut and kimchi. These commodities exploit the benefits of friendly lactobacillus to break foods down into their component parts, and are valued today for their health-giving properties. However, it appears that it was primarily enzyme hydrolysis (hydrolysis), rather than bacterial fermentation, that resulted in the dissolved fish flesh yielding its nutrients into the liquid brine. The enzymes were found in the viscera, and without this material the salted fish flesh remained in a solid state and the resulting liquor was weak in taste and nutrition. When fish were eviscerated and washed clean before salting, they generated a liquor called *muria* that included an *umami* flavor component; it, too, was a desirable fish sauce used in a similar way to *garos*.

The Ancient Demand for Fish Sauce

The modern culinary world has embraced *umami*-rich products such as soy sauce, kimchi, and the Thai and Vietnamese *nam pla* and *nuc nam*. What is not fully understood is precisely why similar products were so desirable and successful in the ancient world.

The *garos/ liquamen* types of fish sauce were clearly very popular and, along with oil and wine, were consumed widely across the entire Roman world; their popularity is attested from the presence of abundant amphora finds in places where the Romans colonized and settled. We can be fairly certain that in the case of the Northern provinces of Gaul, Germania, and Britannia, fish sauces were unknown before Roman contact; it is precisely these provinces that appear to have embraced fish sauce use enthusiastically. The distribution of Spanish fish sauce amphorae in the northern provinces speaks of a huge trading infrastructure set in place to service a great economic and social need for these products.

It is generally understood that this enthusiasm for fish sauce initially reflected consumption by the invaders themselves; that this was followed by native elites aping Roman foodways; and that it was only later that the practice of using fish sauce filtered down to the less wealthy natives. There is, however, a possibility that the huge increase in trade in these products that occurred from the late 1st Century BCE through to the early 2nd Century CE was prompted not by an increase in elite use but by a commercial pull from beneath: fish sauce had a transformative effect on the diet of ordinary people in the provinces. Adding cheap and readily available *liquamen* sauce, or even the less nutritious *muria*, to the daily boiled meal made from pulses and vegetables (rarely containing meat) that served as the staple for most people would have transformed the taste

of these foods. It is likely that eating food with just salt and without these magical ingredients would very quickly be unthinkable.

The magic known as *umami* enhances taste perception in the mouth. Glutamates—naturally-occurring substances in lots of foods, including mushrooms, tomatoes, dry-aged meat, soy sauce, parmesan, and of course anchovies—are responsible for much of the *umami* sensation in our diets. Monosodium glutamate is a salt of glutamic acid, which is an amino acid that functions as an excitatory neurotransmitter. This means, at a basic level, that our brains are excited by the taste of food that has glutamates added or in other ways included or generated. In general, the more *umami* present, the more our perceptions of flavor are heightened, making food more satisfying. *Umami* also alters the perception of other tastes: salt is enhanced, sugar is sweeter, and sour and bitter flavors are perceived as more pleasant. The effect is one of balancing the numerous flavors that are found in ancient recipes.

Roman and Greek recipes are notorious for a perception of excessive use of spices that are also perceived as bitter, and of other ingredients that create tastes seen as out of balance and “discordant”. Many of these perceptions are simply wrong, as spices were always used with moderation; nevertheless, fish sauce has the ability to bring these diverse flavors into a surprising harmony that can be really understood only if a “before and after” taste test is undertaken. I have conducted many experiments with recipes in which I season food either with fish sauce or salt, and I have conducted blind trials with various consumers. The results have been surprising. When consumers from the Western world don’t know that fish sauce had been used in a dish, they always prefer it—yet, when told that it has been added, some of them rather want to change their minds! In the West there is always going to be something wrong with the idea of there being so much fish in ancient food.

Fish Sauce in the Ancient Kitchen

The cookery book known as Apicius is a unique collection of recipes that spans the Hellenistic and Roman period. The recipes themselves reflect the long decades of Roman interest in good food from the 1st Century BCE to the 5th Century CE. The book survives in just two manuscripts from 9th-Century France. Later copies of the manuscript have acquired the title *de re coquinaria* (“About Cooking”), but crucially this is absent from the original manuscripts and is a medieval addition. In our edition of Apicius (Grocock and Grainger 2020) we have concluded that the author and title of the book are combined in one word: Apicius. The original Apicius is believed to have been one of a number of the famous and notorious Roman gourmets, the key one being Marcus Gavius Apicius, although it is unlikely that any of these gourmets were responsible for the recipes themselves (Grocock and Grainger 2020, pp. 35-38).

When *liquamen* appears in meals it is added into the cooked food as seasoning, much as we would add salt. It is also often blended into sauces beforehand to accompany a dish. A recipe for forcemeat (the first recipe in the sidebar on the next page) demonstrates the complexity of fish sauce use. *Liquamen* is added at three separate stages of the recipe: first during the

pounding of the brains, then to balance and correct the flavor of the forcemeat, and finally it is used in the sauce that will be served with the forcemeat. Had a modern fish sauce been used here, then the finished dish would have been intolerably salty and unpalatable. The recipes for ancient fish sauce that are found in a Greek agricultural manual from the Byzantine period yield a sauce that is about 12.5% salt, the rest of it derived from the fish. When you realize that modern fish sauces can be as high as 25% salt or even higher, it becomes clear that modern sauces are not ideal to replace *liquamen*.

The accompanying sauces were called *oenogarum* and were largely, as is clear from the name, a mixture of wine and fish sauce. However, many named recipes in Apicius for *oenogarum*

are much more complex, with numerous wines, spices, herbs, oil, honey, vinegar. Thus, the term *oenogarum* appears to have been a generic term referring to all manner of different blends and mixtures, as long as fish sauce and some kind of grape derivative were included, and oil was a frequent addition.

These fish-based *oenogarum* sauces represent the fundamental basis of Roman food, as they were ubiquitous in recipes. They were used for dipping, for pouring onto cooked food, and also formed the liquor for compound dishes called *patina*: these resemble both custards and frittatas, depending on the quantities of eggs utilized. To prepare *patina*, a blend of oil, wine, fish sauce, honey, and herbs was mixed with the eggs and set under a layer of embers in a special dish.

We often also find reference to simple pre-blended fish sauce mixtures that appear to be a combination of just two ingredients: fish sauce with vinegar (*oxygarum*), with water (*hydrogarum*), with oil (*garolaion*), etc. The first of these appears sometimes to be a genuine dual mixture, as we find that fish sauce could be manufactured with vinegar (the process of making *liquamen* often involved the addition of wine at the production stage to counter the evaporation that occurs when the fish is exposed to the sun's heat, and vinegar could be substituted for the wine). *Hydrogarum* is seemingly a diluted fish sauce, which in some historical sources appears as a drink taken by soldiers. In Apicius it appears as a cooking liquor, a *court bouillon* ("short broth" in French), used to poach fish, seafood, or chicken rissoles. The liquid always contains water, and usually an acid such as wine or vinegar. In Apicius a 7:1 ratio of water to fish sauce is used, along with a little sweetener and a few green herbs.

The term *oenogarum* is Greek and therefore referred originally to *garos*, although later the blood *garum* was also blended into *oenogarum*. The nature of the dipping process is illuminated particularly well in the unique *Colloquia of the Hermeneumata*, which are Latin and Greek phrasebooks that describe everyday behavior in the dining room (Dickey 2012). There, diners were encouraged to "dip" foods into the premade *oenogarum*, the food being bread, vegetables, or meat depending on the context. The cup that was regularly used in Apicius to blend and serve these sauces is called an *acetabulum* ("little vinegar cup"), as shown in Fig. 2 on the next page. Based on the phrase books, it appears that *acetabula* were regularly used to blend sauces at table (Grainger in press).

Thickening was a common step in preparing *oenogarum*, and we can see this most clearly in the following pair of recipes that are included in the book on fish cooking in Apicius:

10.2.17. *Oenogarum* for fish: pound pepper, rue; stir in some honey, passum [dessert wine], *liquamen*, *caroenum* [reduced grape juice] and warm it through over the gentlest of fires.

10.2.18. *Oenogarum* for fish: make as above. When it has come to the boil, thicken it with starch.

In Horace's *Satirae*, a collection of satirical poems, there is a description of "simple sauce" and an allusion to a "double

continued on next page

How *Liquamen* was Used in Cooking: Three Recipes from Apicius

A great majority of the recipes in Apicius make use of *liquamen*. The three examples below are drawn from Christopher W. Grocock, and Sally Grainger, eds., *Apicius* (Totnes, UK: Prospect Books, 2006).

2.1.5. Another forcemeat recipe: put in a mortar pepper, lovage, oregano; grind it. Pour on *liquamen*, add cooked brains, pound carefully so it has no lumps, add 5 eggs, mix in carefully to make a smooth emulsion. Flavor with *liquamen* (*liquamine temperas*) and pour into a bronze pan. Cook it. When it is cooked, turn it out on to a clean board. Cut into squares. Put in a mortar pepper, lovage, oregano; grind them together. Add *liquamen* and wine. Put all together in a pan. Bring to the boil. When it has boiled, crumble *tracta*, stir it so that it thickens, pour out on to the serving dish. Sprinkle with pepper and set it forth.

5.4.1. With beans (peas): cook them. Pound pepper, lovage, cumin, green coriander, pour on *liquamen*, balance their flavor with wine and *liquamen*. Pour into the pan, add oil. Bring to heat on a gentle fire and serve.

6.8.5. Numidian chicken: prepare the chicken, (par)boil it and lift it out; sprinkle with *laser* and pepper and roast it. Pound pepper, cumin, coriander seed, *laser* root, rue, date, pine nuts; pour on vinegar, honey, *liquamen* and oil; balance the flavors. When it comes to heat, thicken with starch, pour over the chicken, sprinkle with pepper and serve.

[Notes from the *Repast* Editor—

1. *Tracta* was a dry pastry dough often used as a thickener.
2. Numidia was a province of the Roman Empire, its territory roughly corresponding to what is now northeastern Algeria.
3. *Laser*, also known as *silphium*, is a now-extinct aromatic plant that was imported to ancient Italy from the city of Cyrene, in what is now Libya.]



Fig. 2: Two *acetabula* (“little vinegar cups”) prepared with *oenogarum*.



Fig. 3: Garum Lusitano, a product from Portugal.

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sauce” that have a bearing on the idea of thickening a sauce. Horace did not name this as an *oenogarum* but we can be fairly certain that it was one, even though neither *garum* nor *liquamen* was used but instead the fish brine *muria*:

It is worth the effort to get to know thoroughly the nature of the double sauce. Simple sauce is made from sweet olive oil, which is worthy of being blended with fragrant pure wine and *muria* provided that it comes with a powerful whiff from a Byzantine jar (Horace, Sat. 2.4.63-71).

That Horace provides comprehensive recipes within his poetry is remarkable. He did not provide ingredient ratios, but with experimentation I have found that the recipes work remarkably well. A poem from 33 BCE described a dinner given by Nasidienus that included an eel served with a sauce described in full:

The ingredients of the sauce are as follows: oil from Venafrum of the first pressing, *garo di sucis piscis Hiberi* [garum from the juices of a Spanish fish], wine five years old... poured in while it is on the boil— after boiling, Chian suits better than anything else— white pepper and vinegar made from fermenting the Lesbian vintage. I was the first to point out that one should boil in the sauce green rocket and bitter elecampane (Horace, Sat. 2.8.42-53).

In following those instructions, I have found that a ratio adapted from vinaigrette works very well: 6 parts of oil to 1 part

each of fish sauce, vinegar, and sweet wine, for an overall ratio of 2:1 between the oil and the water-based liquids. The mixture needs whisking to keep it from separating— that adds an extra association with vinaigrette!

Fish Sauce in the Modern Kitchen

As to how to duplicate these recipes with today’s fish sauces: I would not suggest using a traditional Thai or Vietnamese sauce— they are too salty. I have long preferred Red Boat fish sauce as a good alternative, especially as it is quite low in salt. Still, it is very pungent and punchy, and does not work too well in recipes where you need to use a large quantity or you want a more delicate flavor.

A new variety that is admittedly hard to obtain and expensive is Garum Lusitano, a brand of sardine garum that is one of many products made by the Can the Can restaurant in Lisbon, Portugal (see Fig. 3 above). It’s exceptional in quality and taste, and I heartily recommend it. The recipe is very close to the original ancient techniques. For the firm’s historical discussion, see the webpage <https://www.canthecan.net/en/2021/05/29/garum-lusitano>; and for product ordering, see the webpage <https://www.canthecan.net/en/2021/03/06/garum-de-sardinha-3>.

There are many other options. *Colatura di alici* is a good substitute. It is made using fully cleaned anchovies— which means that technically it is a *muria* and, as a result, the fermentation and liquefaction of the fish protein is reduced, the nitrogen is low, and the taste not optimal— but it is adequate. The salt levels of *colatura* are not stipulated, and sometimes it can be too salty.

You can find information about many other proprietary fish sauces that claim an ancient origin. Some indeed use ancient techniques, while others move far away from the original production process. I have made a new film on fish sauce that will help you choose among these products, soon to be posted to my YouTube channel.

Alternatively, why not try to make your own? My home recipe for fish sauce is given in the sidebar below. ■

Bibliography

Dickey, Eleanor, ed., *The Colloquia of the Hermeneumata Pseudodositheana* (Cambridge Classical Texts and Commentaries) (Cambridge, UK: Cambridge Univ. Press, 2012).

Grainger, Sally, “Garum and Liquamen, What’s in a Name?”, *Journal of Maritime Archaeology*, 13:3 (2018), pp. 247-261.

Grainger, Sally, and Edward Biddulph, “Ancient fish sauce at the Roman table: Identifying archaeological traces of ancient recipes via experimental research into the use and deposition of cooking wares”, in Lee Graña, Tatiana Ivleva, and Bill Griffiths, eds., *Understanding Roman Archaeology by Experiment: A Handbook* (London: Bloomsbury, in press).

Grainger, Sally, *The Story of Garum: Fermented Fish Sauce and Salted Fish in the Ancient World* (Abingdon, UK: Routledge, 2021).

Grocock, Christopher W., and Sally Grainger, eds., *Apicius* (Totnes, UK: Prospect Books, 2006, reprinted 2020).



Above, a screen shot from Grainger’s YouTube channel about ancient fish sauce, <https://www.youtube.com/channel/UCM2QeASk1nMQEbL46rZbKhQ>

Sally Grainger’s Home Recipe for Fish Sauce

- 1 kg. (2.2 lbs.) fresh fish (sardine, anchovy, small mackerel— cut up if the latter)
- 125 g. (4½ oz.) sea salt
- 200 ml. (¾ cup) white wine

Place fish and salt in a large glass demijohn; seal, shake, and stir it regularly. Place in a warm spot. When the mixture looks thick and pasty, add the wine and stir. When the sauce has fully formed you will know it from the taste and color; 3 months is ideal. Use a sieve to remove all bones and undissolved fish pieces from the smooth liquor and paste. Put this liquor and paste aside in a new jar and stir regularly. Add to the remaining bones and flesh an equal volume of brine having 15% salt content so that you can generate more sauce in the future (yes, it’s messy, but bear with it). Wait for another month while the paste and liquor continue to dissolve. Filter the fish sauce from the remaining paste, through muslin to get a crystal clear liquid.

To re-use this paste, return it to the original vessel along with a little more fresh brine, in a quantity appropriate to how much of the paste remains intact. This technique will continue to supply you with fish sauce for at least a year if you keep re-brining.



Fish sauce in production after filtering out the bone residue.

CHAA FALL 2022 PROGRAMS



LOCAL MILESTONES

Our Fall 2022 programs celebrated three local food-related institutions marking anniversaries: the Dinnerware Museum (10 years), Zingerman's (40 years), and the Detroit tiki-style restaurant (80 years). The schedule included—another cause for celebration—the first in-person CHAA talks since the Feb. 2020 outbreak of the pandemic. Each talk was organized by program chair Glenda Bullock and attracted about 70 on-ground and/or online participants, plus later folks watching the recordings. Below, we provide brief summaries of the three talks; following that, there is an extensive report on the CHAA's December participatory meal, which was themed to the British Isles.

Not Your Average Deli

When world-famous Zingerman's Deli started in Ann Arbor in 1982, it was one of the first places in the Midwest to select ingredients from around the world based on its first-hand familiarity with the artisans who produce them. It had a rough first four years of business, though. In the modest college town, the partners—Paul Saginaw and Ari Weinzweig, young grads who'd met each other working at a local restaurant—had to become “evangelists” of gourmet eating. As we learned on Sep. 18 from **Micheline “Micki” Maynard**, their success flowed from three attributes that they also expressed in business mottoes: outstanding ingredients (“You really CAN taste the difference!”), great service (“Treat your customers like royalty”), and continuous improvement (*kaizen*, borrowed from Toyota Motor Corp.).

Maynard, a business journalist, author, and professor based in Ann Arbor and New Orleans, spoke on “Forty Years of Zingerman's and its Impact on the Global Food World” at the downtown Ann Arbor District Library. From the very start, she said, in an old red-brick corner storefront crammed with breads, cheeses, wines, oils, vinegars, Jewish delicacies, and a few tables and stools, Zingerman's most important sandwich was the Reuben. It was made with ingredients that were much more authentic, flavorful, and expensive than usual, and people noticed. Over time, a “buzz” arose about the place, and favorable reviews in the *New York Times* and elsewhere turned the buzz into renown.

After several more years, the partners were well-positioned to expand to other cities. Instead, they opted to evolve toward a “community of businesses” that produce and/or serve various types of food in a single town. Some early ones were a bakehouse (1992), mail-order (1989), and online (1999) retail operations. Others followed, including roadhouse-style

and Korean-American restaurants, a creamery, coffee roastery, candy maker, and corporate training center. Each business has its own managing partners, but all meet together in frequent “huddles”. Today, Zingerman's is a community of 17 Ann Arbor businesses, totaling roughly 700 employees and \$70 million in annual revenues. The biggest single component, with 45% of sales, is mail-order, which serves 100,000 customers a year and has a mailing list of two million people. As for the deli itself—which still occupies its original building, along with a few neighboring ones—most of its sandwiches are ordered online and then picked up by the customer in the old-fashioned way: face to face.

Dishing Out the Stories of Mealtimes

Most people think of dinnerware simply as objects, sometimes objects of beauty. But their social and historical aspects are what most intrigue CHAA member **Margaret Carney**. Collecting dishes and other tabletop items enlightens us about the times and places in which they were used, and how people have come together at mealtimes. Dr. Carney, a ceramics historian, is the founding director and curator of the International Museum of Dinnerware Design (IMoDD), established in 2012 to collect, preserve, and celebrate masterpieces of the genre, especially those by leading artists and designers worldwide.

As part of her Oct. 9 talk, “Ten Years of Culinary Delights from the International Museum of Dinnerware Design”, Dr. Carney presented slides of some of her favorites from the collection, which currently includes about 10,000 items. In the 1930s, the Salem China Co. manufactured an Art Deco dinnerware set in a bright red-orange “Mandarin” color and a modernistic “Tricorne” shape. To promote Depression-era sales, the firm associated the set with Hollywood glamour by creating publicity shots with film stars and by arranging “Dish Nights” at theatres, where women received a free piece of the china along with their movie ticket. Other examples included a Victorian-era celery-serving goblet in translucent green; a 1940s set of pearl-tone tableware from Castleton China, designed by Eva Zeisel; a 1966 Pop Art breakfast set from Jackson China, designed in bold black and white by Roy Lichtenstein; and a Japanese *ika tokkuri*, an edible type of *sake* decanter made of sun-dried squid.

IMoDD, based in Ann Arbor, has organized pop-up exhibits locally and at art shows around the U.S., as well as online exhibits and a series of regular Zoom talks by dinnerware historians and designers. The museum's inaugural exhibit, “Unforgettable Dinnerware” (Spring 2013), and its first international juried competition, “The Art of High Chair Fine Dining” (Fall 2014), were mounted at the Ladies Literary Club of Ypsilanti, MI. Other venues have included history museums, hospitals, and even a bed and breakfast. Every object donated to the museum, Margaret noted, must have a story explaining its context; e.g., a wedding piece must come with information about the “who, when, and where” of the wedding. As for the themed juried shows, she told us, they come with an additional element of fun and surprise: she never knows in advance what kinds of pieces the artists might submit.

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CHAA DECEMBER THEME MEAL



ACROSS THE POND

A pair of huge, beautifully-decorated pine wreaths, brought by Jen Henstock, graced a large banquet table as a centerpiece last Dec. 11 when Jen and nearly 30 other members and friends of the Culinary Historians of Ann Arbor gathered for a meal on the theme, “The Bonnie British Isles”. The collective feast— a semiannual tradition of the CHAA in most of its 40-year history— was held at the 1840s meeting house of the Ladies’ Literary Club of Ypsilanti under the supervision of meal organizer Phil Zaret and facility caretaker Emma Seibert. It was not only a taste fest but also a learning experience. Participants took turns explaining the foods that they’d brought before we all sat down to taste everything.

In what follows, we use the dishes at the meal to identify key factors that shaped a distinct culinary culture in Britain. Its climate, for example, underlies everything from the historical reliance on animal fats (instead of vegetable oils) to the need to preserve food stocks year-round. We learned that among the other forces shaping British cuisine are Christianity and its fasting and holy days; strong distinctions among social classes; the Industrial Revolution, which led to a massive urban working class and a powerful food industry; the resources of the sea and of a global maritime empire, especially in East India and the West Indies; and the custom of tea as a distinct meal.

Creamy Bliss

Cornish fairings, contributed to our meal by Randy Hockey, are a type of spicy ginger biscuit, or what Americans call a “cookie” (the first term is derived from French, the second from Dutch). Following suggestions in the recipe from Ben Mervis’s *The British Cookbook: Authentic Home Cooking Recipes from England, Wales, Scotland, and Northern Ireland* (London: Phaidon Press, 2022), Randy paired up the biscuits to make ‘sandwiches’, some filled with **clotted cream** and others

Some of Richard Kato’s sampler of British-import cheeses.

All photos are by Mariam Breed except where indicated.



with **strawberry jam**. Both the fairings themselves and the clotted cream are famous specialties of the Cornwall region of far southwestern England, where for centuries the fairings have been sold at country fairs (whence the name) or given as gifts.

The clotted cream filling merits some explanation. Traditionally, to preserve the butterfat portion of cow’s milk, some of it would be churned into butter and the rest would be *clotted*: the fresh milk was placed over a low, steady heat, often a soft peat fire, or else on the stovetop, perhaps in a steamer at the back corner of the kitchen range. It was then left to cool slowly in a pan, where cream would rise to the top and form clots (whence the name) that were skimmed off and saved. Clotted cream has a minimum of 55% fat, compared to butter (80%), heavy cream (36%) and whipping cream (30%). It was a much-loved foodstuff because it could be spread, spooned, or mashed onto a wide variety of dishes as an inexpensive way to make them tastier, more nutritious, and more exciting— dishes such as porridge, fried eggs, warm potatoes, baked apples, turnip pasties, and scones and other baked goods. (For more on the Cornish tradition of clotted cream, see Andrea Broomfield’s article, “Cornish Food Identity in the ‘Land Apart’”, *Repast*, Summer 2021.)

Milk and dairy products are ubiquitous in British cuisine, and their historical importance is undeniable. As late as World War 2, even urban families often kept one or two dairy cows or goats. They knew how to make cream and buttermilk, how to churn butter, and how to press cheese from curds. Early pre-industrial cheeses were “kitchen cheeses”, made at home and for home consumption only. But beginning in the 1700s, the most popular of them started to also be made at small commercial creameries, of which there were still hundreds in Britain before WW2. And even that wasn’t enough: Such is the British love of cheese that in 1878, 93% of U.S. cheese exports went to the Isles.

Nowadays, the making of high-quality artisanal cheese and butter for market has become the province of just a handful of small-scale producers, such as Graham Kirkham’s Beesley Farm in Lancashire, England. “Lancashire” and many other British heritage cheeses are known as *territorials* because they are named for the town or area in which they were originally made or sold. We were able to sample several artisan-quality English territorials made from raw (unpasteurized) cow’s milk: Cheddar, Cheshire, Lancashire, and a blue-veined Stilton. Those were some of the **eight cheeses** brought to our meal by Richard Kato, Crystal Keller, and Randy Hockey, many of them imported from Britain by Zingerman’s Deli in Ann Arbor. Almost all territorials are firm, dry cheeses, as the whey (the liquid portion of the milk) is pressed out in making them; an exception is Stilton, a soft, creamy, nearly spreadable cheese that has been marketed since the early 1700s and is considered by many to be the choicest in Britain. Other cheeses at our meal were made in Cornwall; in

County Cork, Ireland; and in Swansea, Wales.

No cheese from Wales was melted to make the **Welsh rabbit** [contributed by Jen Henstock] at our meal,

continued on next page

BRITISH ISLES*continued from page 17*

but the result was delicious nonetheless— quite vibrant in flavor when we tried it, dolloped from a chafing dish onto slices of baguette. The ingredients included Extra Sharp Yellow cheddar, the “All Day” brand of India Pale Ale or IPA (so called because it was designed for export to India when it was developed in England in the early 1800s), and three strong seasonings: smoked paprika, cayenne powder, and dry mustard. The dish evolved from the medieval *caws pobi* (roasted cheese) of Wales, where an early recipe called for the cheese-melt to be placed on a thin, very crispy slice of toast. In modern times it was classified as a “savoury” in both Wales and England, and was suitable for tea time. Its widespread popularity is reflected in the fact that Hannah Glasse’s *The Art of Cookery Made Plain and Easy* (London, 1747) gave four recipes for it— two labeled as English, one as Welsh, and one as Scottish. The odd name “rabbit” didn’t appear in print until 1725 and is still unexplained.

Not By Bread Alone

Kentish Huffkins [Phil and Barbara Zaret] are oblong little baked yeasted rolls made with plain flour, lard, yeast, salt, sugar, milk, and water. Phil gave them the dimple at the center that is traditional in their homeland of County Kent, in the southeast of England. The dimple is meant to hold a cherry, but instead Phil invited us to spoon on a dab of cherry preserves from a jar. The recipe was from Mary Norwak, *The English Farmhouse Kitchen* (Chicago: Follett Publishing Co., 1975).

Light or dark, yeasted or not, savory or sweet or semi-sweet— at our meal, there was a great diversity in the types of bread, not to mention cakes and puddings. One could hardly imagine a sharper contrast to a Kentish Huffkin than a **National Loaf** [Glenda Bullock], prepared using a recipe from the Imperial War Museums. This is a relatively coarse bread made with whole-wheat flour, potato flour, salt, water, and yeast. During the World War 2 era, as a measure to conserve refined wheat flour, shortening, sugar, and eggs as vital foodstuffs, the Ministry of Food leaned on British bakeries to offer this National Loaf as an option for shoppers.

Bread and several other staples were never rationed outright during the war, although they were sometimes missing from store shelves. But rationing actually intensified after the close of hostilities, and certain items not restricted previously, including bread and potatoes, at that point joined the rationing list for several years. “I remember the war bread, we ate it in the years after the war, too, as everything was rationed till the Coronation of Elizabeth” in 1953, a woman posted after meal participant Mae Sander logged a photo story (<https://maefood.blogspot.com/2022/12/culinary-historians-of-ann-arbor-winter.html>). For more on the British wartime shortages and austerity practices, see Glenda’s article, “Mobilizing the Kitchen Front: How the Ministry of Food Helped Britain Carry On in WW2” (*Repast*, Spring 2022).

A Harvest from the Waters

Surrounded by seas, and drained by broad rivers, the British Isles naturally came to rely on an abundance of fish and seafood.

Cured salmon with brown bread [Bob and Marcella Zorn, and guests Cindy and Bill Baker] is a classic pairing of Irish foods. Bob did all of the work for us, placing the salmon slices atop thin slices of the bread, and dabbed with his own honey mustard and dill sauce. The curing process, he told us, is similar to that for Scandinavian *gravlax*. He had first brushed the filets with Irish whiskey and rubbed them with salt and brown sugar before refrigerating for 2-3 days, then sliced them into thin strips.

Fish cakes and tartar sauce [Miriam and Larry Imerman] is another Irish classic, wonderfully made here. The recipe, from Abbe Odenwalder’s blog “This is How I Cook” (<https://thisshowicook.com>), calls for a skinless cod filet, potatoes, milk, herbs, and a breading made with panko and egg. The cod is boiled in milk, then flaked into mashed potato along with the seasonings. Cakes are formed in a disk shape, breaded, then fried in vegetable oil in a frying pan, not deep-fried.

Meaty Feasts, South Asian Heat

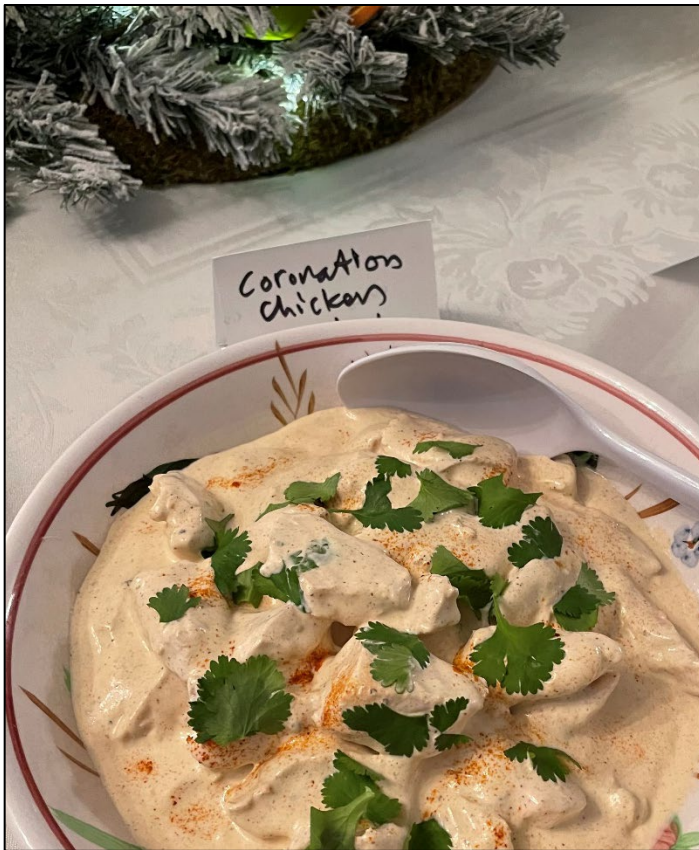
Justifiably world-famous is the English Sunday lunch of roast beef or of Beef Wellington, accompanied perhaps by gravy, horseradish, or Yorkshire pudding. England has been called “a nation of beefeaters”, but also integral to British culinary history is a whole range of other meat products, including those of pork and boar, lamb and mutton, rabbit and hare, offal and sausage, beef and mutton suet, and domestic and wild birds such as chicken, goose, pheasant, partridge, duck, and turkey. Until the keeping of pigs near houses was made illegal, most rural cottages in England had a sty to keep one or two; their meat and lard were dietary staples year-round.

Fat, especially beef fat, is often called “dripping” by Britons because in olden days, the fat was collected when it dripped off meat as it turned on a spit roast over the fire. Suet is the hard fat that forms around the kidneys and loins of cattle and other quadrupeds. Once clarified, it cools to a dense mass and can be used in baked dishes as a kind of sealant and preservative.

The entire British category of baked puddings, which can be savory or sweet, evolved out of the ancient practice of mixing cereal and meat scraps with fat, stuffing this in an animal casing, and baking it in low heat. After the pudding-cloth was invented in the early 1600s as an alternative to casings, there was an explosion of British pudding ingenuity. By the mid-1700s there were cookbooks devoted entirely to puddings, a trend that culminated 100 years ago in *May Byron’s Pudding Book* (1923) with its 1,070 recipes!

A few of the meaty dishes at our meal:

- **lamb casserole** [Phil and Barbara Zaret] is a long-simmered stovetop stew of chunks of lamb, bacon, carrot, celery, onion, and herbs. Phil used a recipe from the cook, writer, and food stylist Debbie Major in *Sainsbury’s Magazine* (<https://www.sainsburysmagazine.co.uk/recipes/mains/best-ever-lamb-casserole>).
- **Coronation chicken salad** [Judy Steeh and Bob DiGiovanni] is a delicious invention from the 1953 coronation of Queen Elizabeth II, whose life and reign ended only three months before our theme meal. Judy’s version, made from *The Cook’s Scrapbook: Secrets*



Judy Steeh’s Coronation chicken salad

from *Our Grandmothers’ Kitchens, Rediscovered for Today’s Cooks* (London: Reader’s Digest Assn. Ltd., 1995), has thick slices of breast meat in a mild, creamy sauce made with mayonnaise, cream, red wine, apricot jam, a small amount of curry powder, and a few other ingredients. For color, she sprinkled flat-leaf parsley and some paprika on top of the cream-colored salad.

- **roast-chestnut stuffing** [Crystal Keller and Randy Hockey] is traditionally used to stuff birds before roasting. It became popular due to Eliza Acton’s *Modern Cookery for Private Families* (1840s). Quite deservedly, the custom spread to other countries and seems immortal (is that what spawned the phrase “an old chestnut”?). Using a recipe from the Mervis cookbook, mentioned earlier, it’s made with sautéed onion and garlic, chestnuts (cooked, peeled, and chopped), breadcrumbs, and flat-leaf parsley; the mixture is held together with egg, then baked in a deep, covered casserole dish at 375° F. for 25-30 mins.

As a condiment for the lamb casserole, Phil whipped up his own batch of **Piccalilli**, a relish of chopped and pickled vegetables with mustard and other spices. One of the most notable aspects of the British palate is a fondness for such pickled items and all sorts of strong-tasting sauces and condiments used as “traclements” (accompaniments) for meats and cheeses. Many of these have long been available as commercial, off-the-shelf products such as Colman’s dry mustard powder, Harvey’s Sauce, Branston Pickle, Gentleman’s Relish (anchovy paste), HP Sauce, Lea & Perrins Worcestershire

Sauce, Crosse & Blackwell Piccalilli, and Major Grey’s Chutney. The last four of these were inspired by South Asian food customs.

Given the seagoing and colonizing history of the British Isles, its cuisine has long been shaped by foreign influences and immigrants. Some of the older food traditions there might be considered bland by modern standards; yet in South Asia, many of the colonials dabbled and delighted in the stronger-tasting local ingredients and customs that they encountered, transforming them to make them their own. As noted, Coronation chicken salad uses the spice mixture called curry powder in a very modest amount— just enough to notice. Other famous Anglo-Indian dishes include kedgerie, Mulligatawny soup, and Country Captain. These creations, as well as the more authentically Asian dishes of immigrant cooks and restaurateurs, were introduced to Britain and, in time, they became extremely popular there. Another example at our meal was a **curried rice salad** [Judy Steeh and Bob DiGiovanni] made with white rice, green peas, onion, and bits of fresh fruit.

Baked in a Pie

Shepherd’s pie [Sandy Regiani, a guest of Sonia Manchek] is a famous and homey dish of ground beef and chopped vegetables, topped with a layer of mashed potatoes. Sandy baked it casserole-style in a round Pyrex-type pie dish. In the days of old, it was made with leftover roasted meat that would be minced by hand. A pastry-crust topping was once common, especially in Scotland. But later, when the potato of the New World became widespread in Britain, mashed potato would be used to line the pie in the baking dish— bottom, sides, and top. “Cottage pie” is an older name, first recorded in 1791, while “shepherd’s pie” is a term that didn’t appear until the 1870’s, when mincing machines were developed. Contrary to popular belief, either name can be used, regardless whether the meat is lamb, mutton, or beef.

Pork-apple pie [Randy Schwartz and Mariam Breed] is a similar baked casserole of diced pork and sliced apple and onion, topped with mashed potatoes. Randy and Mariam used *Recipes: The Cooking of the British Isles* (Alexandria, VA: Time-Life Books, 1969), part of the Foods of the World series. This book was also included in a set of cookbooks of British food that member Sherry Sundling displayed on a side table at the meal, part of her large collection.

Shepherd’s pie and pork-apple pie are one-dish meals; they need no accompanying side dish, and are thus ideal to prepare for dinner on a busy day. They make a satisfying meal by shrewdly combining a modest amount of meat with fruits and vegetables. To take economy even further, a pie can be made with less-desirable cuts of meat— in which case it is called a “humble pie”, a term that goes back to Elizabethan times.

Clearly, the Brits use the term “pie” more broadly than do Americans; in particular, pies need not have pastry crusts. The crustless pies are referred to generically as “dish pies” because they must be formed and baked in a dish. Anything that’s layered and baked is liable to be called a pie, including many dishes to

continued on next page

BRITISH ISLES*continued from page 19*

which Americans would apply the French-derived term casserole. Alongside dish pies are the pastry pies, such as apple pie, mincemeat pie, and “raised crust pies”, including the famous English pork pie with its tall, firm, lard-based crust.

Larder, Pantry, and Root Cellar

Colcannon [Phil and Barbara Zaret] is a classic mashed-vegetables dish that’s most traditional in western Ireland and northern Scotland. Following a recipe in Lizzie Boyd’s *British Cookery* (Woodstock, NY: Overlook Press, 1976), Phil boiled Irish potatoes, green onions, and kale (cabbage is a common variant), then mashed these together with butter, milk, and cream to produce the desired creamy texture.

The mashed potato that’s central to the three last-mentioned dishes exemplifies how Britons developed ways to economize and feed themselves handsomely year-round. Even in the depths of Winter, when fresh meats and produce weren’t available, a family could rely on home-canned or otherwise conserved foods together with long-lasting fruits and vegetables such as apples, onions, potatoes, and beets. Over centuries, the food customs of the Isles were strongly shaped by these urges to extend or preserve foodstuffs, notably seen in the creation of the dairy foods discussed above (especially cheese, cream, and butter, the last one widely used as a cooking medium), dried or canned fruits and vegetables, salted or smoked fish, and meat-based products such as pies, puddings, potted conserves, and salt-cured beef and hams, bacon, and sausage. Dishes of sausage or offal, which make use of seemingly useless parts of an animal, are ways to get the most out of the family budget for meat, a form of thriftiness that has characterized the diet of the British laboring classes.

A brace of beet salads graced our feast:

- **Winter salad** [Phil and Barbara Zaret] is a chopped salad of boiled beets and onions with raw hearts of celery, and a rich dressing. The name, which perfectly captures the purpose of the salad, is at least as old as the famous *Mrs. Beeton’s Book of Household Management* (London, 1861). Phil relied instead on Theodora Fitzgibbon, *The Art of British Cooking* (Doubleday, 1965).
- **beet-root salad with goat’s cheese** [Crystal Keller and Randy Hockey], made with a recipe from the Mervis cookbook mentioned earlier, uses roasted beets, orange segments, arugula, and crumbled goat’s cheese, and is dressed simply with olive oil, salt, and pepper. Crystal topped it with walnuts, a nice addition.

White-bean mash [Mae and Len Sander], served with crackers as a dip or appetizer at our meal, traditionally functioned as a protein-rich main course that could be made year-round with dried New World beans. Dried beans were routinely boiled with pieces of pork, so that the expanding beans would absorb the flavor as they cooked. “Bean butter”, in which the dried beans are boiled and then mashed with mutton broth, was spread on coarse oatcakes as the centerpiece of a plowman’s lunch, a cold midday meal for farmers and other outdoors rural laborers. Bean butter was especially useful during fasting— a

total of about 120 days per year in Elizabethan times— when the consumption of meat (but not meat juices) was forbidden. Instead of mutton broth, Mae used a recipe flavored with garlic *aioli*, from a book by the London chefs Yotam Ottolenghi and Ixta Belfrage, *Flavor: A Cookbook* (Ten Speed Press, 2020).

Potted shrimp [Sonia Manchek], which was presented in a stoneware crock and served with sliced bread, is a cold dish of shrimps and ground nutmeg preserved in clarified butter. It is quite an old dish; in the centuries before refrigeration, the shrimps (more often called prawns in Britain), immersed in the butter in a stone pot (whence the name), could be kept in the larder for months, protected from spoilage by the antimicrobial action of the fat. The recipe that Sonia used, from James Martin of BBC Good Food (<https://www.bbcgoodfood.com/recipes/classic-potted-shrimps>), adds cayenne powder along with the nutmeg; both are antimicrobials.

Potted seafood or meat used to be common breakfast fare in Britain. To preserve meat, typically it would be moistened with fat— often, rendered from the meat itself— and seasoned with salt, pepper, bay leaf, and ground mace or nutmeg, all of which have preservative properties. Then it was placed in a stoneware crock and topped with some clarified butter. The fat-moistened meat could also be ground to a paste with mortar and pestle before seasoning it. If the fat was lard, then the term “potted” was usually replaced with “larded”. The word “larder” originally referred to the storage place for such preserved meats; by the 1700s, its meaning had broadened to include any area for keeping foods long-term.

Rounding out our own larder are some types of preserved meat that were used for our meal:

- **Lorne sausage** [Phil and Barbara Zaret] is a square-shaped Scottish meatloaf of minced beef and pork, eggs, breadcrumbs, and spices. It’s often sliced and eaten for breakfast in a roll with a condiment— Phil’s choice was HP Sauce. This meat is also known as “square sausage” because of its shape; it was traditionally made in a square tin, cooled, then sliced for frying in a pan.
- **sausage rolls** [Judy Steeh and Bob DiGiovanni] use pastry dough rolled around a sausage filling. The “log” is baked, then sliced into disks. There’s a recipe for “sausage rolls” in the above-mentioned *Mrs. Beeton’s* (1861), in a section entitled, “Small dishes of pastry for entremets, supper-dishes, &c”; it calls for rolling pieces of sausage in individual squares of puff-paste and baking these.

Tea as a Meal

Glenda Bullock *brought us a selection of black tea bags* riding passenger-like in a tin disguised as a red British omnibus. **Cucumber-dill tea sandwiches** and **smoked-salmon tea sandwiches** [Sherry Sundling] are dainty classics of the tea-table spread, made with slices of brown and white bread paired facing each other for a pleasing effect.

In America today, hot tea is widely known, but its consumption is dwarfed by the coffee habit (by a ratio of about

Tea Time Arrives

Tea got its first foothold in Britain when King Charles II married the Portuguese princess Catherine of Braganza in 1662: her dowry included not only the colony of Bombay (now Mumbai) but also a chest of tea leaves from India, and the exotic hot beverage fascinated the royal court. “Twinings” became a very popular tea purveyor after 1717, when Thomas Twining opened The Golden Lion, a tavern on The Strand in London; unusual for the time, women were allowed in.

At first, tea was enjoyed in the Asian style, “black” and in handle-less cups; later, the drop in sugar prices in the 1700s helped establish cravings for sugary tea. Formerly, ale or other alcoholic beverages had often been drunk at breakfast; substituting a stimulant for a depressant in the morning routine had a big effect on British society. One writer of the time called tea a “sober infusion”, while English poet William Cowper referred to “the cups that cheer but not inebriate.” Tea and coffee were also served in taverns and coffeehouses, and there were tea parties where young people could gather and socialize.

Tea was already a common beverage among the upper classes by the mid-1700s, but after the Commutation Act of 1784— when the tea tax was slashed from 119% to 12.5% to eliminate smuggling— tea time as an actual meal gradually became established not only among the privileged but also among the lower classes. At tea meals, women almost always presided at the head of the table— which was not the case at other meals or even at after-dinner tea.

On the other hand, distinct class differences arose within the tea meal custom. Among families of modest means, “afternoon tea”, as the meal was called, was taken at 4 pm and was rather basic. It might consist of black Indian tea with milk and sugar, some dainty sandwiches, raw celery dipped in salt, scones, and either fruit, cakes, or biscuits (cookies).

But among the wealthy, “high tea”, as it was called, served in the late afternoon or early evening, was an elegant, substantial, dinner-like meal that included meat dishes. Here is how Dorothy Hartley, a columnist for the *Daily Sketch* tabloid, recalled the “white cloth spread” of a traditional high tea in her native Yorkshire a century ago:

There was always a white jar of potted fish, or potted meat on the table. Of course there would be the usual chops or steaks, and game pie, and ham, and a cold round of beef, and apple tart, and pie and pikelets [the local variety of crumpets, i.e., griddle-cakes], and a slab of parkin [a Yorkshire gingerbread cake of oatmeal and black treacle] and boiled eggs, and hot tea cakes, and jam (two sorts, red and yellow), and plum cake, and cheese, and all the *usual* things one had for one’s tea in Yorkshire, but you always left space for the potted meat, and salt butter, and watercress, and home-made loaves, because they were *good*.

12:1) and even by iced tea (3:1). Nor do we have much experience making tea the centerpiece of an actual repast. Tea drinking in the Thirteen Colonies plummeted with the protests against Parliament’s Tea Act of 1773, and it never recovered. Of course, in Britain the tea custom continued right along and expanded, including a tea meal that became a fixture of society in virtually all classes (see the sidebar at left).

There were three other contributions from Sherry and the Zarets that would have felt quite at home on the cloth spread of a British tea table:

- **Selkirk bannock** [Phil and Barbara Zaret] is a semi-sweet, yeasted bread loaf made with wheat flour, butter, milk, raisins, currants, and chopped, mixed candied peel. Phil’s ring loaf drew raves. Following a recipe in the Fitzgibbon book mentioned above, he glazed the surface with milk and sugar for the oven baking, and served the sliced loaf with a tub of butter. Bannock is a Scottish genre of breads, usually unyeasted oat griddle-cakes that are sliced into quarters for eating, but the bannock is clearly very different in Selkirk, a town near the southeastern border of Scotland.

continued on next page

Below, Sherry Sundling’s cucumber-dill tea sandwiches and Phil Zaret’s Selkirk bannock



BRITISH ISLES

continued from page 21

- **maple spiced apple compote** [Barbara and Phil Zaret] is a Scottish “topper” for scones, muffins, sliced breads, crumpets, griddle-cakes, and the like. In the recipe that Barb used, posted by Claire Jessiman on her Scottish food blog, Foodie Quine (<https://www.foodiequine.co.uk/2016/08/maple-spiced-apple-compote.html>), the apple slices are simmered in maple syrup with cinnamon, ginger, star anise, and cloves.
- **sponge-cake roll filled with lemon curd** [Sherry Sundling] was sliced and served on a platter decorated with fresh strawberries, a beautiful presentation. This type of dessert roll is also sometimes called a Swiss roll.

Devoted to Christ

Provisionally, our desserts table was situated beside one of the venue’s well-trimmed Christmas trees. And for a theme meal in December it was only fitting to include some traditional holiday sweets, as described below.

Shortbreads [Patty DeMaria, a guest of Crystal Keller and Randy Hockey], the world-famous unleavened biscuits from Scotland, are typically made from white flour, butter, and sugar in something like a 4:2:1 ratio, along with vanilla or other flavorings. Patty’s were not only delicious but also gorgeous, bearing an elegant design imparted by a stoneware mold, and served from a biscuit tin bearing a Scottish tartan pattern. She regularly makes this holiday treat, and explained to us:

I got the mold about 30 years ago from a company called Brown Bag Cookie Molds. The main sources of my recipe were the Brown Bag recipe that came with the mold, and one I found in *Mary Cullen’s Cookbook* from Oregon in the 1930s. Mary Berry’s recipe is similar, but she adds semolina for crunchiness; I, personally, do not want crunchy shortbread! I switched from granulated sugar to confectioner’s sugar to get a smoother dough.

Christmas pudding with brandy butter [Glenda Bullock] was also excellent, with the dense and moist richness that everyone strives for in an English steamed pudding. Based on a recipe contributed by Anne Sheasby to Susannah Blake et al., *Traditional British Cooking: Simple Recipes for Classic British Food* (New York: Ryland, Peters, & Small, Inc., 2007), Glenda used bread crumbs, beef suet, eggs, sugar, almonds, apples, dried fruits such as raisins and prunes, spices, and plenty of brandy. She recounted later:

I made the pudding at the end of October and kept it in “a cool dry place” for six weeks. The pudding was steamed for 6 hours when I made it and another 2 hours on the day it was served. Traditionally, it would have been flamed with brandy just before serving, but I thought the Ladies Literary Club would take a dim view of open flame in their building!

Making the pudding two months before the holidays is customary; it allows the flavors to develop fully as the pudding



At right, top to bottom: Patty DeMaria’s shortbreads, Glenda Bullock’s Christmas pudding, and Rita Goss with her sherry trifle (that photo is courtesy of Rita).

“ripens” in the larder. Historically, Christmas pudding evolved from “plum porridge”, an old dish that was made by boiling the Christmas cut of beef or mutton in a broth along with brown bread, spices, and dried plums and other dried fruits. The resulting porridge, a sweet and savory thick sauce, would be served along with the meat as part of the same course at dinner. But in the early 1800s, the custom shifted: the same ingredients that had formerly been used in an early-course porridge dish were instead used to make a late-course pudding.

Sherry trifle [Rita Goss and guest Charlie Peters], which is most famous in England, is a cold— not a baked— dessert. Rita made hers in a deep trifle dish whose bottom she lined with jellyroll and moistened with sherry. This was topped with a layer of gelatin, then custard, raspberries, and blueberries, before it was refrigerated overnight. Prior to serving, she covered it with whipped cream, candied cherries, and sliced almonds.

Mincemeat pie [Jan Arps-Prundeanu and Octavian Prundeanu] had a great flavor and texture, and a nicely-decorated upper crust. For the filling, Jan chose apples and other tree fruits, dried fruits and peels, muscovado sugar, vegetable suet (a flour-and-oil imitation), citrus zest and juice, brandy, and spices such as ground cinnamon, nutmeg, and ginger. She served the pie with whipped cream; in Britain, brandy butter or Cumberland rum butter are traditional.

Mincemeat was not a pie at all in 13th-Century England, but instead a preserved, potted mixture of shredded meat, suet, fruits, and spices. The basic concept is believed to have been brought back from the Middle East by Crusaders, and the mixture of ingredients came to be construed as symbolic of the gifts of the Magi. By Victorian times, mincemeat had pretty much lost its meat but had gained loads of sugar: it had become a sweet, and it was ready in short order, not potted. It was generally not cooked, although it could be used as a pie filling, in which case the pie was often made in an oval crust to imitate the nativity crèche, and decorated with dough on the top in the form of the infant Jesus. The above-mentioned *Mrs. Beeton's* (London, 1861) gave a mincemeat recipe using no meat except finely-chopped beef suet; a second version, in the chapter on “Vegetarian Cookery”, called for chopped pine-nuts and almond butter instead of suet; and a third recipe was for making mincemeat pie.

“Christmas would not be Christmas but for the exchange of good wishes”— that’s how people often phrase the message of Charles Dickens’s *A Christmas Carol* (London, 1843). As a corollary, “Christmas would not be Christmas but for the exchange of good *dishes*.” That was certainly the moral of the story on Dec. 11! ■

FALL PROGRAMS *continued from page 16*

IMoDD is seeking funding and venue for a bricks-and-mortar presence. It’s a 501(c)(3) non-profit organization with a Board of Directors and a large and enthusiastic group of supporters and donors, who are kept informed via an e-mail list and a newsletter, *Menu*. For more information, including links to all past exhibits, visit <http://dinnerwaremuseum.org>.

Freaky Over Tiki

In America, already in the mid-1800s there was a public fascination with the South Pacific. Adventure novels portrayed the islands of the South Seas as “exotic”, and Hollywood would follow suit in the 1920s and 1930s. Places to eat, drink, and enjoy “tiki culture” first arose on the Pacific Coast— beginning with Don the Beachcomber, a Polynesian-themed restaurant in Hollywood, CA in 1933— and would remain most common there. But as we learned on Nov. 13 from **Renée Tadey**, the craze had spread to the rest of the country within one decade, even to the Midwest. Tadey, a Detroit native, is author of *Detroit Tiki: A History of Polynesian Palaces and Tropical Cocktails* (The History Press, 2022).

The era of nationwide Prohibition had just ended; whiskey and rum were legal, cheap, and plentiful. The alcohol menu at The Tropics (1941-63), Detroit’s first tiki-style eatery, was three pages long, including a page of cocktails. The three-story air-conditioned nightclub in a downtown hotel featured fake palm trees, waitresses in sarongs and leis, private “bamboo huts” instead of booths, and a stage for a band that played music for the free rhumba lessons.

In the 1960s, restaurants in the U.S. were often partitioned into different theme rooms as a way to boost their appeal: it created a more intimate atmosphere and increased the variety of customer experiences. This explains why the Huki Lau Restaurant— established in 1961 at the 14-acre Hawaiian Gardens Resort in Holly, MI— included four rooms called Banyan Court, Polynesian Longhouse, Kahili Room, and Waitoma Grotto Lounge, which variously offered American, Polynesian, or Cantonese fare. The Kahili Room was built under a geodesic dome and featured a fabulous Sunday buffet and royal Hawaiian luau. Similarly, the Mauna Loa (Detroit, 1967-71) included three kitchens (American, Oriental, and Banquets) and several themed rooms (Tonga, Maui, Bombay, Papeete, Lanai, and Mediterranean). It was one of the world’s most elaborate restaurants, built beside an artificial lagoon, and with interior décor featuring carved tiki poles, war canoes, and a stream with real glowfish and pearl divers. Tadey also discussed the restaurant empire of automotive engineer Marvin Chin, including his Chin Tiki (Detroit, 1966-80), which offered, among its dishes, Seasoned Meatballs, Curried Shrimp Singapore, Fish Steak Lapo-Lapo (a Filipino grouper), Beef à la Maki, and rum-based drinks served in glazed tiki mugs, such as The Scorpion.

Several tiki places can be found today in Detroit and Michigan, but the trend peaked in the 1960s and 1970s, when even backyard barbecues featured the paraphernalia. Tiki culture began to seem old and “square” alongside the youth counterculture of the time. Ironically, it is young people who have led the revival of tiki-style drinks as part of the new cocktail movement, although this time around the ingredients are more authentic. ■

CHAA CALENDAR

Programs are scheduled for 4:00-5:30 p.m. Eastern U.S. Time, both in-person at the Downtown Ann Arbor District Library (343 S. Fifth Ave.) and streamed live on YouTube. For the latest information, check the CHAA homepage at <http://culinaryhistoriansann Arbor.org>.

Sunday, March 19, 2023

Lisa McDonald, owner of
TeaHaus in Ann Arbor, MI,
and co-author of

Tea for Dummies (forthcoming, Mar. 2023)

Sunday, April 16, 2023

Juli McCloone, Curator of Special Collections
Research Center, UM Library,
“Highlights from the Janice Bluestein Longone
Culinary Archives at the Univ. of Michigan”.

On the Back Burner: We welcome ideas and submissions from all readers of *Repast*, including for the following planned future theme issues. Suggestions for future themes are also welcome.

- Spring 2023: Foods of the Ancient Roman World, Part 2
- Summer 2023: Roots of American Foodways.

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