



The Ancient Near East Today

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Fish Sauces – The Food that Made Rome Great

By **Benedict Lowe**

Recent research has done much to stress the importance of fish in the ancient Roman diet. But there were many ways to consume fish.

The most popular way to consume fish was fresh: according to Seneca the Romans could not taste a fish unless they saw it swimming in the dining room! A mullet was not considered fresh unless it had died in the hands of the banqueter about to eat it. Ownership of elaborate fishponds seems to have been quite a fad in the Late Republic with Cicero ridiculing their owners as *piscinarium tritones*. L. Licinius Lucullus even had a channel cut through a mountain in order to supply his fishponds at Baiae with sea water – prompting Pompey to dub him *Xerxes togatus* after the King of Persia who crossed the Hellespont. Large salt-water fishponds can still be seen in the Roman villas along the coast south of Rome.



Submerged Roman Fishpond, Formia.

Such was the popularity of fish on the tables of the elite that it may have resulted in depleted supplies due to over-fishing, leading to higher market values and a reliance upon imports. In the first century CE, the commander of the fleet at Misenum – Optatus – brought live parrot wrasses (*scari*) from the Southern Aegean to Latium where he scattered them at Ostia and the Tiber mouth and along the coast of Campania – presumably to replenish fish stocks depleted by the demands of the city of Rome. The satirist Juvenal paints a harrowing contrast between the fish imported from Corsica and Sicily enjoyed by the host of a dinner party, and the Tiber river pike bloated on sewage that is consumed by his poorer guests.

Fish spoils rapidly so for many people they will have relied upon preserved fish – either salted fish (*salsamentum*) or fermented fish sauces. Although popularly labelled today under a single type – *garum* – there were several types of fish sauce, the most important being *garum* – a salty liquid drawn off leaving a pulpy mass of undigested fish remains called *hallec*.



Mosaic depicting a “Flower of Garum” jug with a titulus reading “from the workshop of [the garum importer Aulus Umbricius] Scaurus”.



Remains of fish sauce, Antiquarium, Boscoreale. Courtesy of the Soprintendenza Archeologica di Pompei.



Garum.

(<https://www.degustarioja.com/noticias/201612/10/salsa-dioses-romanos-20161210005102-v.html>)

Several recipes survive from Antiquity that make clear that it was made in one of two ways. The first was a technique of dry salting whereby the fish was interspersed with salt and other spices and placed a large open air vat to ferment in the sun for a period of up to three months. The second method was a technique of brining in which the mixture of fish and salt was cooked in a pot until it had reduced by two-thirds.

The primary concern in both recipes was the level of salinity necessary to prevent putrefaction. Whilst the amount of salt needed varies according to the quality, size of fish, fat content, processing and desired end product a salt concentration of at least 20% was needed to make fish sauce.

The idiosyncrasies of its production go some way to explain the pejorative tone adopted by ancient moralisers and comedians when they referred to fish sauce. The Elder Pliny called it 'liquor from the putrefaction of these matters' whilst the Younger Seneca dismissed it as 'the costly extract of poisonous fish'. But fish sauce is included in 400 recipes in the fifth century CE cookbook named after the notorious Roman gourmand Apicius. Chemical analysis of the fish sauce found in the Garum Shop in Pompeii (I.12.8) revealed the dominant flavour was monosodium glutamate which will have imparted an 'umami' or 'glutamic' taste, whilst lesser quantities of sweet-tasting glycine and alanine will have given it a 'cheesy' or 'fishy' flavour.



Garum Shop, Pompeii with ceramic jars containing fish sauce. Courtesy of the Soprintendenza Archeologica di Pompei.

Taste could also be manipulated by different combinations of different meat or fish, such as the addition of other flavors such as *oxygarum*, a mixture of fish sauce and vinegar, *oenogarum* a mixture of fish sauce and oil, and *oenogarum* a mixture of wine and fish sauce. The presence of tartaric, succinic and syringic acid found in grapes in the lining of ceramic vessels carrying fish sauce may indicate that the fish sauce was flavored with red wine. A graffito from Pompeii refers to fish sauce mixed with chick-peas. A painted inscription on an amphora from the palace of Herod the Great at Masada records its

contents as Garum of the King – perhaps a form of kosher garum similar to the *garum castrum* referred to by Pliny. Analysis of biomolecular residues from the lining of fish processing vats at Baelo Claudia, Marsa, Troia, Etel la Falaise and Kerlaz Lanévry have revealed the addition of oysters and fruit such as grapes, rosaceae – apples, pears, quinces, sorbs, medlars, cherries etc – or berries.

Large-scale fish salting installations have been found at several locations in the Western Mediterranean and along the Atlantic coast – at Lixus, Troia, Baelo Claudia, Nabeul and elsewhere. They were situated to take advantage the migrations of shoaling fish such as tunny as they made their way to the Black Sea to spawn. Twelve workshops have been discovered at Baelo Claudia. The largest workshop (VI) extends over 250m² with ten processing vats arranged around the preparation area. Twenty-five workshops have been discovered extending along the banks of the River Sado at Troia in Portugal. At their height in the first and second centuries CE the workshops had a minimum capacity of 1,429 m³, although only 80 out of 165 visible vats were measurable. Production on this scale exceeded local demands and was bottled for shipment elsewhere in the Empire. Kilns producing the ceramic containers used to transport the fish sauce have been frequently found near fish salteries. Although not on the scale of wine and olive oil – the staples of the ancient economy – the distribution of shipwrecks carrying cargoes of fish sauce attest to the extent and vitality of this trade.



Factory I, Troia.



Factory VI, Baelo Claudia.



Kiln producing fish sauce containers, Torrox.



Fish sauce bottle with painted inscription identifying its contents as Garum made by the Pompeian producer Aulus Umbricius Scaurus. Antiquarium, Boscoreale. Courtesy of the Soprintendenza Archeologica di Pompei.

The scale of these installations reflects the popularity of fish sauce in the Roman diet. Finds of fish bones from Pompeii and Herculaneum and in particular fish commonly used in making fish sauce – anchovy, sardine, picarel and mackerel – together with the ceramic jars, *urcei*, used to carry fish sauce give no indication of varying according to wealth or social status being consumed throughout the towns.

Fish sauce was evidently a popular food amongst the lower classes – when the notorious third century CE Roman Emperor Elagabalus served *hydrogarum* – fish sauce mixed with water – at a public banquet he was criticised for serving the food of the common soldier. Fish sauce containers have been found in the Roman legionary bases along the Rhine and 8 *sextarii* of fish sauce were amongst the supplies requested by the soldiers at Vindolanda on Hadrian's Wall. When the Emperor Caracalla visited Egypt in CE 216 fresh fish, fish sauce and salted fish were supplied to the Imperial visitors.

Whilst visiting Antioch between CE 317 and 323 Theophanes – an official in the staff of the Governor of Egypt – arranged for fish sauce to be supplied to himself and his staff. Two types of fish sauce are included in the Edict of Maximum Prices issued by the Emperor Diocletian in CE 301: highest quality *liquamen primum* costing 16 denarii and lower quality *liquamen secundum* costing 12 denarii – prices that compare well to those of other

products in the Edict. A pound of first quality fresh fish, for example, cost 24 denarii whilst second quality fish cost 16 denarii.

In a diet that at least for the poor was heavily dependent upon cereals – the comedian Plautus mocks the Romans as *multiphagonides* or 'porridge-eaters' – fish sauce was an important source of protein. Affordable and with good preservative qualities fish sauce formed a staple part of the Roman diet. Its widespread popularity with ordinary Romans may further explain the disdain with which it was described by the Roman elite.

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