

A Class Apart
Shifting Attitudes about the Consumption of Fish
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Introduction

This paper explores the cultural meaning of fish. It examines fish remains recovered from excavations at the National Constitution Center site in Philadelphia and compares the data with other 18th and 19th century urban deposits from Philadelphia and New York City.

The city of Philadelphia PA was like all other cities in colonial and post-colonial America, filthy. Fortunately for archaeologists there were few organized solid waste removal services. Consequently, archaeological excavations at sites like the National Constitution Center yield vast quantities of trash which include organic refuse. The organic refuse deposits found at the NCC site were diverse and included large quantities of fish, hardly surprising since Philadelphia is a major port city. The fish component of the assemblage prompted a side study of cultural attitudes towards fish, both private and commercial, and a comparison with other fish deposits from other Philadelphia sites and lower Manhattan sites in NYC.



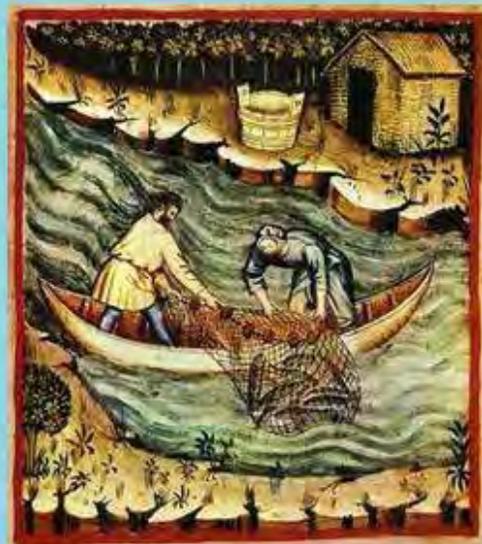
A street in lower Manhattan.

In post-medieval times, western attitudes towards fish were heavily shaped by Christian ideology and by legal and religious legislation. Church law required Christians to eat fish twice a week, on Wednesdays and Fridays. These were days of fasting, a term which did not mean abstinence, but rather a specified diet which was meatless, usually involving fish.

ICHTUS Greek word for fish
I = Jesus, C = Christ, TH = God's, U = Son, S = Savior



Christ feeding the masses with fish, bread



The Apostles, John and Andrew, fishermen

Since the 18th century meat has been easily acquired in urban areas. However, prior to that time meat was expensive and hard to come by in English cities. The start of the Industrial Revolution and influx of large populations into cities created a meat crisis. Provisioning urban areas with meat and other products was a problem solved by restructuring agricultural practices. The problem was further solved by legislating the consumption of fish on Wednesdays and Fridays, in continuance of church law. This worked well as fish were extremely abundant and a great source of protein. In urban areas, this controlled the rate of meat consumption and mitigated shortages. Within a century, regional farms were able to meet the demands of industrial cities.

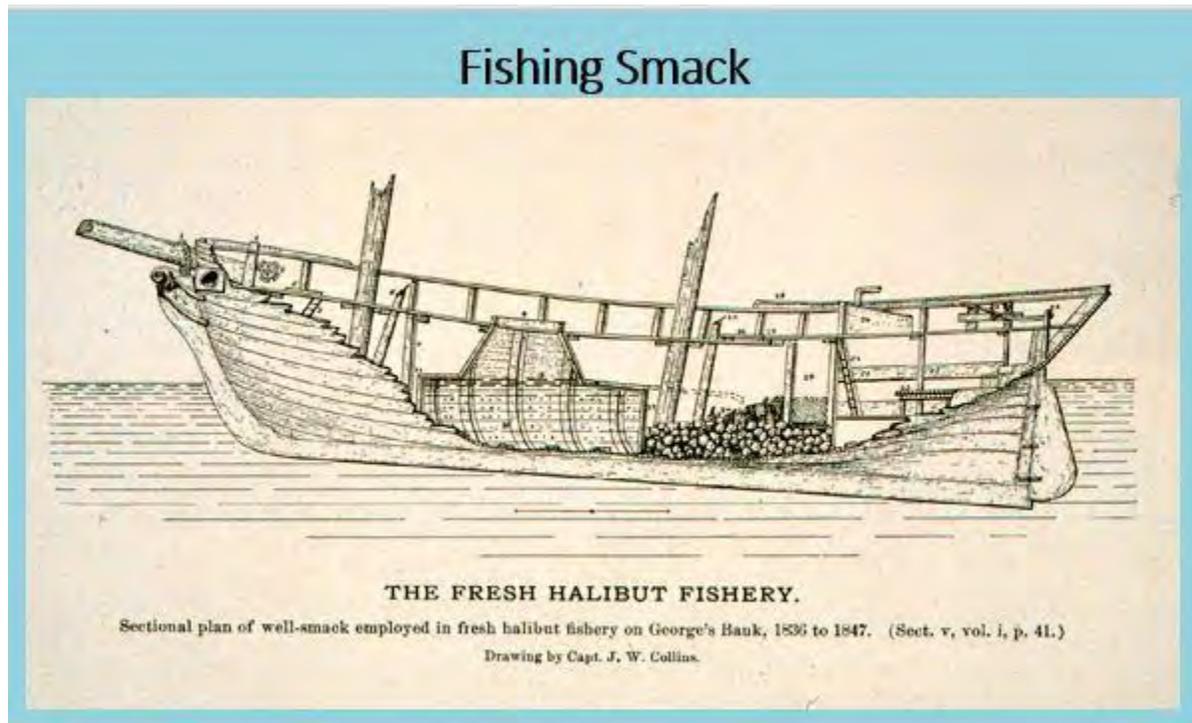
In early colonial America, farmers had to establish solid agricultural practices and build up livestock herds. As most people know, the 17th century colonies in North America struggled but eventually managed to move beyond basic subsistence to generating enough surplus to supply urban areas. Meanwhile fish were commonly consumed by all and remained extremely important in colonial diets over the centuries, especially among the lower classes. Attitudes towards fish began to shift once meat production took hold in urban areas. Fish became less popular among the upper classes (Singer, Crabtree and Milne, Rothschild and Balkwill).



Colonial fisheries were installed along major rivers during the 18th century. Fisheries were regulated by the crown which declared that all citizens were free to fish. Private citizens were given the legal right to set up fisheries so long as they did not impede river transportation. Fishing rights were also permitted along the coasts though the crown retained the rights to sturgeon and whales (Bogue, 1987, Jones 1856). Some areas rich in marine resources, such as the Grand Banks off New England, were at times contested. Many other nations fished in the western Atlantic including Portuguese, Spanish, French, and Irish. Western Europe received vast quantities of marine fish from the Americas throughout the 17th into the 18th century. Political,

economic and religious attitudes acted in concert to promote, drive and maintain the fishing industry in Europe.

American fisheries continued to thrive along rivers until the late 19th century when industrial pollutants and slaughterhouse waste impacted local environments, killing off many fish species and contaminating those that managed to survive. In addition, poor colonial fishing practices extirpated many marine and anadromous species within local estuaries. However, these fish continued to appear in the markets of Philadelphia and New York thanks to the invention the *Smack* in the 18th century. This was fishing vessel contained a free-flowing tank or well located in the hold in which live fish obtained at a distance from port were stored. They provided fresh fish to the markets.



Fish remained important economic commodities in large urban areas like Philadelphia and New York until the late 19th century. These cities experienced exponential population growth from the early 18th through the early 20th centuries. Many immigrants were poor, and fish were an affordable food source for them. That is not to say that all fish were priced the same, but many of the most abundant species in local waters were inexpensive.

Social attitudes towards fish were greatly influenced by socioeconomic status. The arrival of large numbers of Irish Catholics to major cities added to negative associations with fish. Fish-on-Friday was required of Catholics until Vatican II ended the requirement in 1962. Anti-Popish movements were common in 19th century American cities. For Protestant Americans, the strong association between Catholicism and fish was a dietary turn-off.

Anti-Catholic Propaganda

A PAPER ENTITLED THE

AMERICAN PATRIOT.



IN FAVOR OF

The protection of American Mechanics against Foreign Pauper Labor. Foreigners having a residence in the country of 21 years before voting. Our present Free School System. Carrying out the laws of the State, as regards sending back Foreign Paupers and Criminals.

OPPOSED TO

Papal Aggression & Roman Catholicism. Foreigners holding office. Raising Foreign Military Companies in the United States. Nunneries and the Jesuits. To being taxed for the support of Foreign paupers millions of dollars yearly. To secret Foreign Orders in the U. S.

We are burdened with enormous taxes by foreigners. We are corrupted in the morals of our youth. We are interfered with in our government. We are forced into collisions with other nations. We are tampered with in our religion. We are injured in our labor. We are assailed in our freedom of speech.

All fish were not thought of in the same way however. Some were highly ranked and valued. 'Game or sport fish' were more tightly regulated than others. In 1860, legislation appeared protecting such species as brook and lake trout. It was prohibited to catch them during fall and winter, in order to limit their take and preserve populations. Other species, especially anadromous fish such as shad, striped bass, and herring, were less regulated and had lower status. These seasonally available fish 'ran' up the rivers to spawn and were harvested in vast numbers. Nonetheless, there were regulations concerning the size of fish that could be taken. Small fry or brood fish were to be protected at all costs.



Writing about American fish markets at the end of the 18th century, Richard Parkinson, author of *The Experienced Farmer*, noted that freshwater fish were more commonly sold (cited in Roberts 2008). According to DeVoe, who wrote extensively on the markets of New York and Philadelphia, there was a general preference for freshwater fish. He said they tasted better though marine fish were believed to be healthier. The opening of the Erie Canal in 1825 was expected to increase availability of large freshwater fish but instead barrels of salted fish such as salmon and lake trout were brought in which commanded higher prices. However, with the opening of the railway a few years later fresh frozen fish began to appear in coastal markets, especially during the winter months. Additionally, fish ponds, which are today thought of as ornamental garden elements, were built by farmers. These ponds were used to farm freshwater fish which were supplied to local markets. Some British travelers (date) noted that fish ponds were especially abundant in the Philadelphia area (Roberts 2008).

In recent years American attitudes towards fish have improved though the timing could not be worse for the environment. Growing concerns over personal health issues, such as high cholesterol, have resulted in a decreased consumption of red meat and an increased consumption of fish. Until the late 1990s fish was relatively inexpensive compared to beef. Growing popularity and consumer demand for stock fish such as salmon, cod, red snapper, mackerel, and haddock among other species has driven prices higher. However, as the climate warms and pollutants continue to be dumped in oceans and other waterways, fish populations are in steady decline. Fish farms have been established in many places along the coast to increase market production. Unfortunately, there are growing concerns over sanitation and health issues associated with these fish farming methods.

The Archaeology

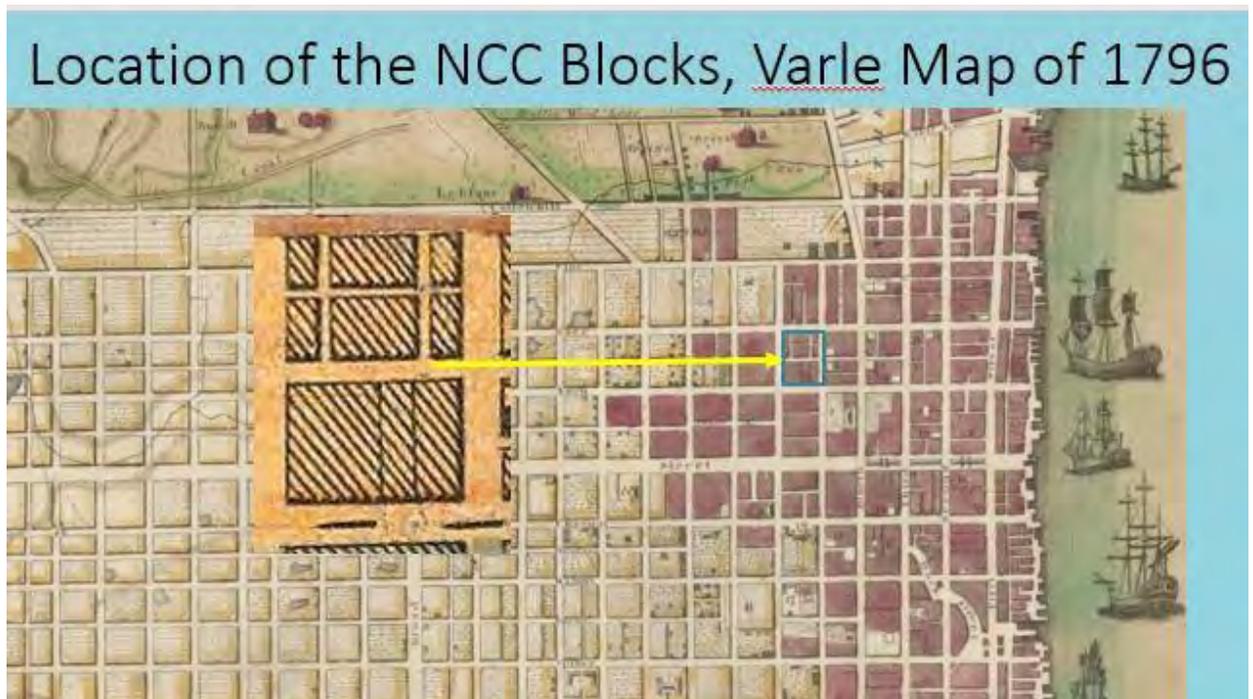
As a class of animals, fish are among the most diversified, with an estimated 22,000 plus species. Fish are found inland along rivers, ponds and lakes, in coastal bays and estuaries. Not all fish species are consumed by humans which why generally only economically important fish tend to be recovered from archaeological excavations. As such, their remains represent the best source information concerning consumption practices as well as market availability. Fish remains are also found on rural inland sites but never in large concentrations. Some argue that is due to poor preservation, but I think it's more likely that fish consumption was simply less frequent. That is not say that it was an uncommon dietary element. We all remember Tom Sawyer and Huck Fin. However, fishing was not done on a commercial scale by households and so fewer remains were generated, and fish were probably eaten on seasonal basis.



For the past two years I've been working on the faunal assemblage from the National Constitution Center site, also known as Block 3. The site is located two blocks east of Market Street, so-named because that is where the public markets were located throughout the 18th century into the 19th century. The site was excavated by Kise, Straw & Kolodner, Inc. under the supervision of the National Park Service, Independence National Historical Park. The faunal analysis is currently overseen by AECOM on behalf of the National Park Service. Excavations encountered large deposits composed of household refuse and faunal remains.

Philadelphia sites located in the old city tend to yield rich material culture assemblages often difficult to associate with households and businesses. The NCC faunal assemblage from feature deposits is estimated to be about 300,000 specimens. This vast assemblage, of which fish are a significant component, makes it a reliable indicator of the kinds of fish consumed during the late 18th to early 19th centuries. The contents of the features examined so far date to the 1790s

to the early 1815s. These features were full of artifacts and faunal remains. The volume of bone, when considered in conjunction with the diversity of species and the wide range of refuse types represented, suggests market and commercial refuse. The vast amount of trash seen across the backyard areas and in well and privy features is hard to reconcile with the fact that these properties were inhabited by wealthy and middle-class households. It's as if the backyard areas of the houses were a city dump. The same refuse disposal pattern was seen at the Detention Center site just a couple of blocks west. Both sites were located on the western edge of the city during the late 18th century. The excavation encountered large deposits composed of a mix of household and commercial refuse. Philadelphia sites located in the old city tend to yield rich material culture assemblages often difficult to associate with specific households or businesses. In my opinion, the faunal assemblage represents commercial refuse rather than household trash. The refuse is like a carpet across backyard areas. It is hard to reconcile the practice of dumping so much trash with the fact that these properties were inhabited by wealthy and middle-class households.



So far, I have analyzed the faunal remains from six shaft features. The bone count so far sits at 50,000 specimens which the fish comprise 13%. To better understand the significance of this assemblage I looked at sites reports from Philadelphia and New York City sites located in Manhattan and compiled the data by broad time periods.

The two cities have very different historical trajectories. Philly was founded by the English and New York City by the Dutch. The English eventually gained control over all eastern seaboard colonies including New York. In terms of location, Philadelphia is situated between two freshwater Rivers, the Schuylkill and the Delaware, and is just under 60 miles from Delaware Bay. The city of New York was originally located at the southern tip of Manhattan, where the East and Hudson Rivers feed into New York Harbor. During the colonial period both

cities were blessed with abundant aquatic food resources. Since Philadelphia was located further away from the ocean I expected to greater frequencies of freshwater fish. This was further reinforced by the knowledge that local farmers were raising freshwater fish in ponds for the market. And since New York City was close to the Atlantic I expected to see higher frequencies of marine fish.

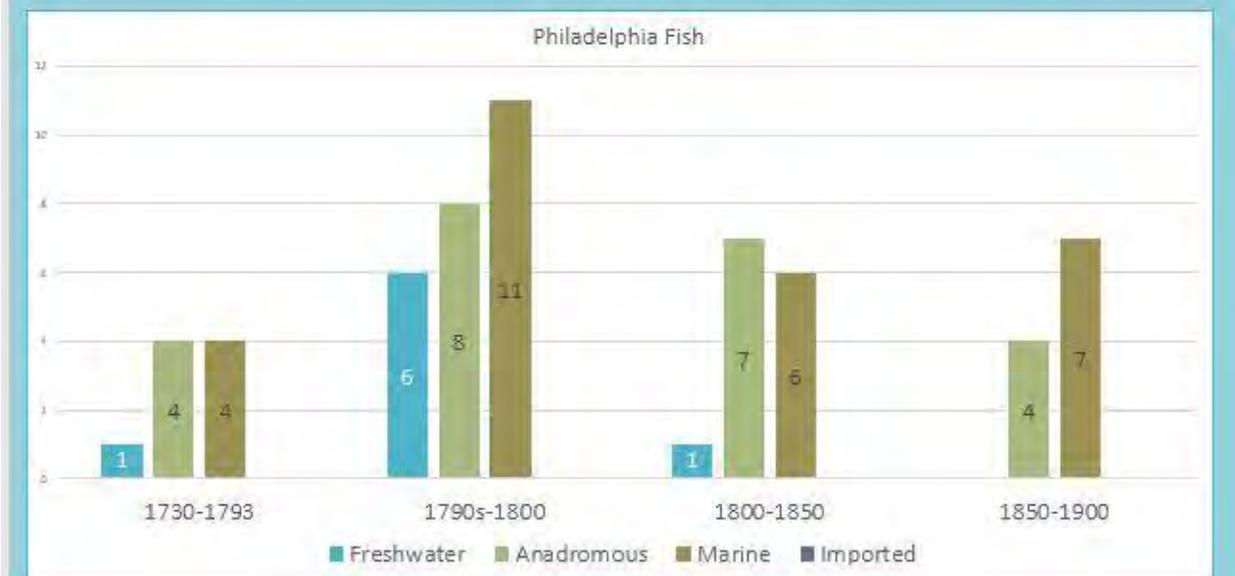
The Philadelphia data is grouped into four time periods of variable lengths. The fish are organized by habitat which include freshwater, anadromous, and marine species. The greatest diversity was seen during the last decade of the eighteenth century. This period also corresponds with the greatest number of freshwater fish species. These data were graphed to illustrate the number of species by habitat and time-period. The earliest period had the least number of species overall. During this time-period commercial fishing was not yet fully developed. By the end of the 18th century fishing *Smacks* commonly sailed coastal waters and returned to port with live fish. The success of coastal fishing is reflected in the increased number of marine and anadromous species at the end of the 18th century. By the mid-19th century anadromous and marine species were far more common than freshwater fish. And by the second half of the 19th century freshwater fish were gone, anadromous fish were fewer, and marine species more abundant. This decline in freshwater and anadromous species is likely the result of a combination of extirpation and the effects of extensive and intensive riverine pollution.

Habitat		1730- 1793	1790s- 1800	1800- 1850	1850- 1900
Freshwater	Cutfish	x	x	x	-
	Largemouth Bass	-	x	-	-
	Smallmouth Base	-	x	-	-
	Sucker	-	x	-	-
	Trout	-	x	-	-
	Yellow Perch	-	x	-	-
Anadromous	Shad	x	x	x	x
	Striped Bass	x	x	x	x
	Bass	x	x	x	-
	Black Seabass	-	x	x	x
	Herring	x	-	x	x
	Salmon	-	x	x	-
	White Perch	-	x	x	-
	Atlantic Eel	-	x	-	-
	Sturgeon	-	x	-	-
	Mackerel	x	x	x	x
Marine	Cod	x	x	x	x
	Sheepshead	x	x	x	x
	Blackfish/Tautog	-	x	x	x
	Porgy	-	x	x	x
	Bluefish	-	x	x	-
	Flatfish/Flounder/Halibut	x	-	-	x
	Scatroun	-	x	-	x
	Blue Runner/Jack	-	x	-	-
	Haddock	-	x	-	-
	Monkfish	-	x	-	-
	Red Snapper	-	x	-	-

Fish species,
Philadelphia sites:

- Meadows
- Metro Detention Center
- NCC
- Area F
- Block 2-Hudson Square
- Stenton House

Total Number of Species by Habitat over Time



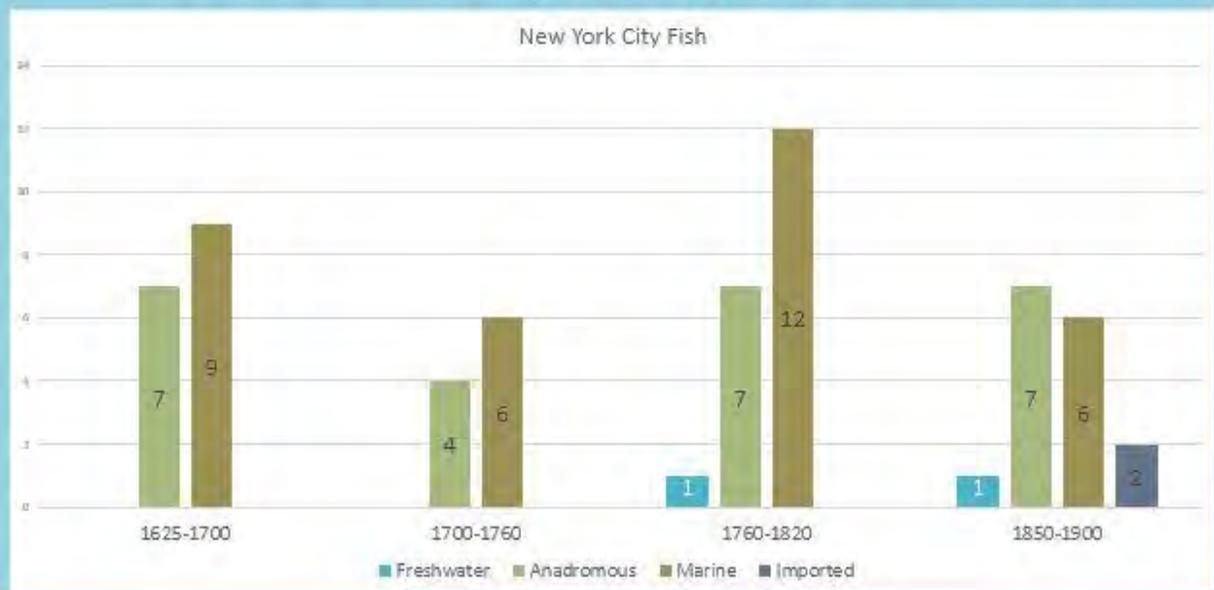
The New York City assemblages were also highly diversified. But they are different in that freshwater fish were uncommon. The greatest diversity of fish is the late 18th into the early 19th century. Though the time periods are not quite the same, the pattern of diversity is similar. Once again, anadromous and marine species are quite abundant. However, here marine species were far more common overall. This is probably because both cities experienced enormous population growths right after the Revolutionary War. It's possible that livestock herds took a while to rebuild and so meat may have been scarcer. Don't know. There was no data available for the period 1820-1850. So we skip to 1850-1900 where we see the appearance of new species of fish coming from greater distances. These were grey grunard and plaice which are eastern Atlantic species. In other words, they were imported.

Fish species, NYC sites:

Stadt Huys
Hanover Square
Assay
Broad Street
Barclay's Bank
Five Points

Habitat:		1625- 1700	1700- 1760	1760- 1820	1850- 1900	
Freshwater	Whiting	-	-	-	X	
	Yellow Perch	-	-	X	-	
Anadromous	Striped Bass	X	X	X	X	
	Black Seabass	X	X	X	X	
	White Perch	X	X	X	X	
	American Eel	X	X	X	-	
	Salmon	X	-	X	X	
	Shad	X	-	X	X	
	Bass	-	-	-	X	
	Herring	-	-	-	X	
	Sturgeon	X	-	-	-	
	Tom Cod	-	-	X	-	
	Marine	Cod	X	X	X	X
		Porgy	X	X	X	X
		Blackfish/Cunner/Tautog	X	X	X	-
Flatfish/Floounder/Halibut		X	-	X	X	
Scup		X	X	X	-	
Sheepshead		X	X	X	-	
Drum		-	X	X	-	
Haddock		-	-	X	X	
Mackerel		X	-	-	X	
Seatrot		X	-	X	-	
Seatrot		X	-	X	-	
Bluefish		-	-	-	X	
Blue Runner/Jack		-	-	X	-	
Bonito		-	-	X	-	
Imports	Grey Grouard	-	-	-	X	
	Plaice	-	-	-	X	

Total Number of Species by Habitat over Time

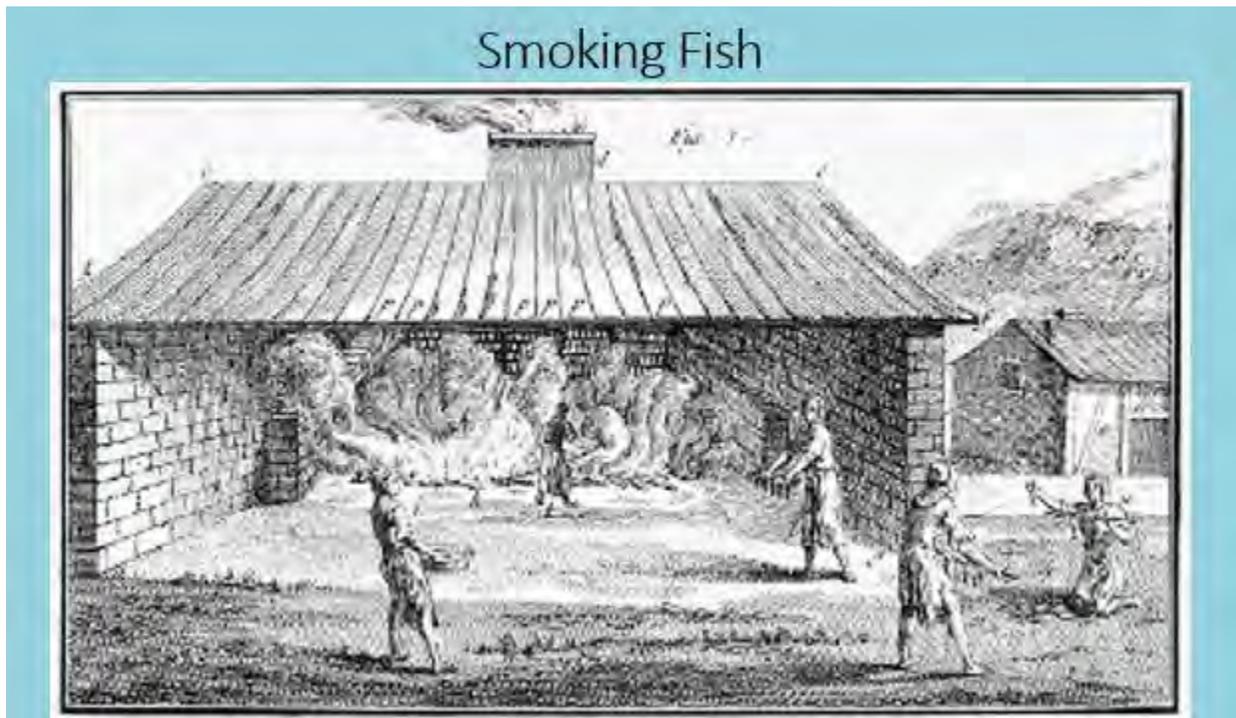


There are several factors operating to skew the results presented here. First, it must be recognized that preservation is an issue difficult to evaluate but which include cooking methods, scavengers and soil conditions. Also, the refuse contained in most of the deposits typically represents parts of fish. Rarely are any species indicated by all skeletal elements.

That was not the case with the National Constitution Center fish. They are represented by most skeletal elements. Many of the bones exhibit butcher marks and of the material is cranial bone. The great range of fish seen in the period 1790s-1800 comes from this site. Other

Philadelphia sites with deposits dating to this period did not yield this wide range of fish. I think argues for the disposal of fish from the market as well as local restaurants. The fish were dumped into the features.

Shad was by far the most common species recovered. The only other species present in large numbers were sturgeon and striped bass. It is worth noting that sturgeon completely disappeared after this period. Eye witness accounts indicate that during the 18th century they were extremely abundant. The most likely explanation is that the population crashed early in the 19th century due to over-fishing. Over the course of the 19th century many local fish disappeared and were replaced by fish brought in by *smacks*. Starting in 1800 Philly newspaper ads offered imported fish that were formerly available locally, live as well as pickled, smoked, and dried.



Concluding Remarks

In conclusion, cultural attitudes towards the consumption of fish are complex. Historical documents reveal that fish consumption was important and that social factors such as religious affiliation and socioeconomic status were linked fish consumption patterns in urban areas like Philadelphia and New York City. Fishing industries, both riverine and coastal, supplied the fish markets. Historical and environmental data indicate that over-harvesting in local waters occurred during the 18th century and was responsible for the decline fish returns. By the end of the 19th century Canada and the United States were aware that fish populations were in serious decline and needed to be regulated. Environmental problems impacted local fish populations resulting in a need to fish further out. Nonetheless the supply of fish remained constant though the species compositions changed. So, though the volume of fish sold at markets did not decrease a shift occurred in who consumed fish on a regular basis.

The fish from the National Constitution Center most likely represent the discards from the fish market and possibly restaurants and households. They represent a narrow period of time during which great changes were taking place in the city as well as the newly independent United State. The people who lived on this city block were a mix of well-to-do and middle-class people. The great variety of fish seen in the last decade of the 18th century represents a peak in terms of species variety. It may have been a period during which fish was more important due because of a large population increase.

References Cited

Bogue, M.B.

1987 In the Shadow of the Union Jack: British Legacies and Great Lakes Fishery Policy. *Environmental Review*: ER, Vol. 11, No. 1 (Spring, 1987), pp. 19-34.

Gerhardt, J.

2006 *Life on the Philadelphia Waterfront 1687-1826: A Report on yhe 1977 Archeological Investigation of the Area F Site, Philadelphia, Pennsylvania. "Area F" Investigations, Second to Front Streets between Gatzmer and Ionic Streets.* Prepared for Independence National Historical Park by Juliette (with contributions by Daniel G. Crozier, Betty Cosans-Zebooker, Roberta Zullick Taylor, Claudia Milne, Leslie E. Raymer, Karl J. Reinhard, Lori Aument, and Alexander B. Bartlett) of John Milner Associates, Inc., 2006.

Jones, J., Hon.

1856 Hon. Joel Jones' Opinion in the Case of the Fisheries Annexed to the Shores of the River Delaware Source. *The American Law Register (1852-1891.*, Vol. 4, No. 10 (Aug, 1856), pp. 582-591.

Liggett, B.

1970 *Summary Report on Archaeology at Stenton, 1970.* For the National Society of Colonial Dames of America in the Commonwealth of Pennsylvania. Manuscript on file, Stenton archives, Stenton Museum, Philadelphia.

Milne, C.

2002 Appendix C: The Faunal Assemblages From The Block 2 Features. *Hudson's Square - A Place Through Time: Archaeological Data Recovery on Block 2 of Independence Mall.* John Milner Associates. Submitted to Day & Zimmerman Infrastructure. Copies available from Independence National Historic Park, Philadelphia.

2004 Dining with the Ogles and Turnbolls on South Sixth Street: The Faunal Assemblages from the Liberty Bell Center Site. *After the Revolution -Two Shops on South Sixth Street: Archaeological Data Recovery on Block 1 of Independence Mall.* John Milner Associates. Submitted to the National Park Service, Denver Service Center.

2006 V: Faunal Analysis of Area F Site. *Life on the Philadelphia Waterfront 1687-1826: A Report on the 1977 Archaeological Investigation of the Area F Site.* John Milner Associates. Submitted to Independence National Historic Park

Milne, Claudia and Pam Crabtree

2002 Revealing Meals: Ethnicity, Economic Status, and Diet at Five Points, 1800-1860. Tales of Five Points: Working-Class Life in Nineteenth Century New York, edited by R. Yamin,. *vol. II. An Interpretive Approach to Understanding Working-Class Life.* John Milner Associates, West Chester, Pennsylvania.

Roberts, S E.

2008 "Esteeme a Little of Fish": Fish, Fishponds, and Farming in Eighteenth-Century New England and the Mid-Atlantic. *Agricultural History*, Vol. 82, No. 2 (Spring, 2008), pp. 143-163.

Rothschild, Nan A. and Darlene Balkwill

1993 The Meaning of Change in Urban Faunal Deposits. *Historical Archaeology* 27(2):71-89.

Singer, David A.

1982 Fish in Foodways Systems - Data Integration and Patterning. *Northeastern Historical Archaeology* 11:39-47.

1985 The Use of Fish Remains as a Socio-Economic Measure: An Example from 19th Century New England. *Historical Archaeology* 19(2):110-113.

1987 Threshold of Affordability: Assessing Fish Remains for Socioeconomics. *Consumer Choice in Historical Archaeology*. S. M. Spencer-Wood (Ed.), pp. 85-99. Plenum Press, New York.

Schweitzer, Teagan

2008 Appendix IV. Faunal Analysis Report. *Phase I/II Archaeological Investigation and Resource Management Plan for The Speaker's House, 36MG421, 151 West Main Street, Trappe, PA*. Kise Straw & Kolodner. Submitted to Board of Trustees The Speaker's House.

Twiss, K.

2012 The Archaeology of Food and Social Diversity Author(s): *Journal of Archaeological Research*, Vol. 20, No. 4 (December 2012), pp. 357-395

Yamin, Rebecca (editor)

2002 *Hudson's Square - A Place Through Time, Archaeological Data Recovery on Block 2 of Independence Mall*. John Milner Associates. Submitted to Day & Zimmerman Infrastructure, Inc.

2004 *After the Revolution, Two Shops on South Sixth Street, Archaeological Data Recovery on Block 1 of Independence Mall*. John Milner Associates. Submitted to National Park Service, Denver Service Center.