

STICKS IN

**NO FISHING POLES
NEEDED HERE!
FIND OUT WHY.**



An amazing find in 1939: Workers examine the wooden stakes uncovered while digging the foundation for an office building. Top: This fishweir stake was uncovered in 1986. It was then soaked in a polyethylene glycol preservative solution.

THE MUD

BY ROSS MILLER

Suddenly, crooked wooden sticks appeared in

the blue glacial clay as construction workers, 30 feet below street level, dug

the first subway tunnel under

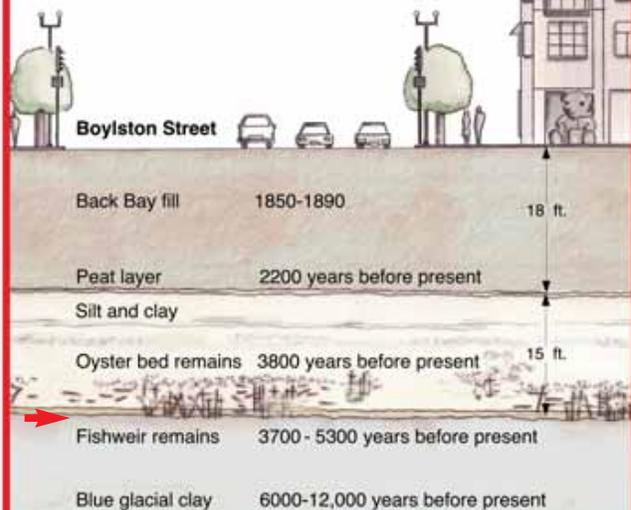
Boston's Boylston Street. The year was 1913, and the discovery of dozens of hand-cut wood stakes, 2 inches or less in diameter, buried deep within layers of river sediment and urban fill, raised many questions. Because of the depth of the surface, researchers thought the wood might be 2,000 years old, perhaps part of a fence built by early people to contain animals or a prehistoric fishweir.

Zoom ahead to 1939: Workers are digging the foundation for an office building near the 1913 subway tunnel. At 32 feet below street level, they uncover irregular rows of wooden stakes. Archaeologists connect this discovery with the 1913 discovery and estimate that there may be 65,000 wooden stakes covering a three-acre area. A geologist on the team studies the sediments surrounding the buried wood and estimates the stakes are 3,400 to 3,700 years old. Further study identifies the structure as a fishweir, similar to the fish-catching structures built by indigenous people throughout the world. In one early interpretation of this find,

archaeologist Frederick Johnson wrote in 1942:

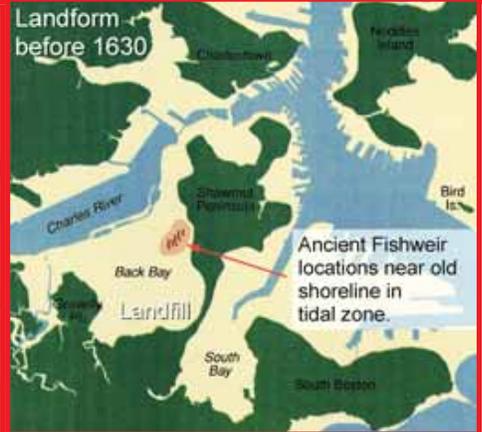
The very size of this structure implies, if it does not constitute proof, that at some time the region supported a community of appreciable size. It is impossible to conceive of such a structure being built and maintained by a few people, especially when one realizes that all these stakes had to be laboriously cut, sharpened, and driven with handmade stone and wooden tools.

A cross-section of the land below Boylston Street in Boston's Back Bay. The arrow indicates the layer where the fishweir remains have been uncovered.





A reconstructed view of the ancient fishweirs



knows that his goal is to keep the construction on schedule. She also knows that his crew encountered bits of fishweir stakes while digging. So, to stay ahead of the shovels, archaeologists begin excavating—during the day, at night, and in the snow. Slowly,

NEW EVIDENCE, NEW IDEAS

Zoom ahead now to 1986: Archaeologist Dena Dincauze is standing in a muddy open pit at a construction site just two blocks from the 1913 tunnel. It is a bitter-cold winter day, and she has difficulty holding her pencil to take notes. With her is a building developer. Dincauze

stick by stick, a series of fragile fishweir stakes is uncovered. Now seen for the first time in almost 5,000 years are remnants of sassafras, hickory, and dogwood that had been pounded into the mud along an ancient shoreline.

Dincauze also observed that groups of fishweir stakes were being uncovered at different depths below the surface. Radiocarbon dating



Boston students help re-create a section of a fishweir on Boston Common, not far from where ancient fishweirs still lie buried.

indicated that the sticks were not part of one huge fishweir, as had been thought. Rather, they belonged to many different fishweirs built between 3,700 and 5,300 years ago.

According to Dincauze, the fishweirs were built by family groups of 35 to 50 people. Each spring, the people would migrate from inland hunting camps to the coast, following the best seasonal food resources. Imagine the scene:

It is late spring. Mothers with small babies, children, and grandparents at the spring camp have just finished their fishweir. They wait as the tide comes in, covers the wood stakes, and then ebbs to expose the fishweir again. Soon a few fish are flipping and splashing in the lowering water, caught as the curved fishweir acts like a net, holding fish against the receding tide. A few of the smallest fish wiggle and escape between the brush and stakes; larger fish, about the size of an adult's outstretched hand, are caught in the weir. Like collecting fish left in a tidepool, everyone wades into the water to quickly scoop up silvery slithering fish. Some fish will be used for food; others will be buried to nourish the soil prior to planting. Still today, herring and other small fish can

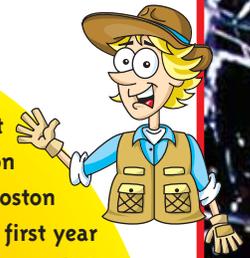
be caught when they return from the ocean to lay their eggs in remaining freshwater streams along the Northeast coast.

Dr. Dig says:

The Ancient Fishweir Project has been working with Boston students to build a fishweir on Boston

Common each spring since 2001. The first year of the re-creation, a Wampanoag Indian medicine man helped locate the best site and blessed it in honor of the ancestors. Once building began, 50 fourth-grade, middle-school, and high-school students made a 120-foot-long fishweir in less than two hours. Even though this fishweir was not in the water, the work suggested that without training, but with lots of enthusiasm and the right size rocks to pound in the wood sticks, the building of a fishweir was not that difficult.

An awareness of the fishweir story changes our view of Boston, or perhaps we should say, the place we now call Boston. If only a few thousand years ago the landscape and community were so vastly different, what creativity and resourcefulness will we need to respond to the vast changes that will take place over the next 5,000 years?



A fishweir on Boston Common was built along the edge of what was the shoreline before the 19th-century landfill. After the fishweir was completed, a celebration with the Wampanoag Nation Singers and Dancers honors the original makers of the fishweirs.

CLIMATE CHANGES IN ACTION

Still, the question remains:

Why do the youngest fishweir stakes date to 3,700 years ago? What happened then? Pollen samples found in sedimentary layers near the fishweirs indicate that the climate 5,000 years ago was a few degrees warmer than today's. The ocean level was 3 to 6 1/2 feet lower than today's, but it was rising with the melting of the remaining Ice Age glaciers. The height difference between high and low tide in the



Rows of herring being cured in a smokehouse

area was much less than today. Studies suggest that by approximately 3,700 years ago, the ocean level had risen to the

point that the tidal change became too high and too strong to allow the shallow-water type of fishweirs to be used. The spawning streams for the fish may also have moved. As a result, the early Native people were forced to adapt to a changing environment.

Ross Miller conceived of the Ancient Fishweir Project and works to expand the time frame of history told in Boston's public places. For more information, please see www.fishweir.org

A SACHEM SPEAKS

In Native understanding of our place in the universe, there is no concept of linear time. Many Native storytellers begin with the words, "In a time before the present..." indicating that the story could have happened 5,000 years ago or just a few days prior. We exist in all time, spiritually and physically.

We do not see in terms of archaeological time. All time is the same. The fish that is

caught this year is no different from the fish that was caught last year. It is the same fish, living out its drama just as we do.

In relation to the fishweir, our people lived with the earth, not upon it. At the proper time, the fish would return to us, and this was a time of celebration and thanks.

Harvesting fish from the weir was not considered sport but a basic activity of community life in which all members

participated. The fish we received were honored for their part in the cycle of life. The fish were caught in the weir, collected, salted, dried and eaten, with some stored for future sustenance. The fish were also used to fertilize our fields of corn.

In short, as Native people to this land, we lived with the earth and all of its animal people. We celebrated all creatures. And, in the present day Commonwealth of Massachusetts, we are still here.

—Gill Solomon
Nanepashmequin
(Feather on the Moon)

Sachem to the Massachuseuk people



Native American dancers perform an Honor Dance during the fishweir celebration.