The Shipyard Experience

GRADES 6-12

Overview

This activity is geared toward participants in grades 6-12. The estimated amount of time to deliver this lesson is 45 minutes.

Navy Shipyards were crucial to the success of the U.S. Navy during World War II. Private companies ran some shipyards. The U.S. Navy also operated a number of shipyards, known as navy yards. The men and women working in the yards built massive aircraft carriers, battleships and destroyers. They repaired ships damaged by enemy fire and maintained many others.

During the war, shipyards across the United States employed over a million people. Some shipyards already hired women in office positions and limited numbers of Black laborers, but the rise of World War II meant that shipyards began to open their hiring processes.

Objective

Participants will be able to discuss how the war effort on the home front gave opportunities to women, immigrants and people of color.

Materials

- ☐ Collection of Shipyard photos
- ☐ Oral history compilation of Charles Chu and Rose Abbonizio
- ☐ Chart paper
- ☐ Drawing materials

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💬❓ Inquiry

Provide participants with photos of shipyards. The photos included in this activity guide have a variety of people, locations and jobs represented in them. They feature the Brooklyn Navy Yard, the Bethlehem-Fairfield Shipyard in Baltimore, Maryland, the Puget Sound Navy Yard, and the Kaiser Shipyard in Richmond, California. Allow participants to look through the photos and discuss the following questions:

- What jobs do you see represented in the photos?
- What kinds of people do you see represented in the photos? What jobs are they doing?
- Who is not represented in the photos?
- What is the function of a navy yard/shipyard? What kind of work is done there?

Provide background information on the function of a Navy Yard and its different major parts.

- Can you see any of the parts in these photos? (i.e. dry dock, subassembly shop, slipway)

🔍 Investigation

Listen to or read the transcript of the [oral histories](#) from Charles Chu and Rose Abbonizio. Charles Chu worked in the Pearl Harbor Navy Yard, while Rose Abbonizio worked in the Philadelphia Navy Yard. Discuss the following questions:

- What jobs did Charles and Rose have? How did they get those jobs?
- How did shipyards support the Navy during World War II?
- Why did Japan target Pearl Harbor (where a shipyard was located) as a way to attack the United States?
- How did Rose's gender impact her experiences in the shipyard?

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Activity

Design Your Own

Share oral history transcripts and photos of shipyards from around the United States. Participants will design a map of their own shipyard. Distribute large paper and drawing utensils and include the following list of things to incorporate in the map:

- Dry dock
- Crane
- Slipway
- Classification Yard
- Subassembly Shop
- Factory
- Train tracks

Discuss the choices participants made in their maps.

- How does your shipyard support the Navy?
- How many ships can your shipyard support at one time?
- What jobs are available at your shipyard?

Lesson Connection

Hear from more women working in the Philadelphia Shipyard and explore the many industry roles played by women during World War II with our lesson, **Winnie the Welder**.

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📖 Background

Navy Yards

A navy yard is a hub for shipbuilding and ship repair. The Brooklyn Navy Yard, which participants can see in some of these photos, was one of the many active Navy Yards throughout the 20th century. The Brooklyn Navy Yard was the birthplace of such famous ships as the battleship USS *Missouri*, the battleship *North Carolina*, and the aircraft carrier USS *Franklin D Roosevelt*. Other ships would come to the yard for repairs when they were damaged during service. The Yard was established in 1801, and would repair 5,000 ships before it closed in 1966.

The Brooklyn Navy Yard had 70 buildings, and grew in area by 50% during World War II to accommodate the increased need for ships. New piers, dry docks and buildings were built to expand the yard, and land had to be acquired from the city to fit all of the new structures. The Yard had its own railroad tracks for a train that transported pieces of ships around the yard for assembly.

The Bethlehem-Fairfield Navy Yard was an emergency shipyard, only active from 1941 to 1945 when the Navy needed support during World War II. The yard was primarily used to build cargo ships, including Liberty and Victory ships, as well as LSTs (tank landing ships). The Kaiser Shipyards were also active only during World War II, and the four yards in Richmond, California built hundreds of ships during the war. The Puget Sound Navy Yard was primarily used during World War II to repair battle damage to ships in the U.S. fleet and those of its allies. Later, it was used to modernize aircraft carriers and build smaller warships called frigates.

Shipyard Components

Most shipyards have the components listed below:

Dry docks are large basins in a navy yard used for the construction, repair and maintenance of ships. Water can be pumped in to allow ships to float in or out of the basin or drained so that the ship can be worked on.

A **subassembly shop** is an area of a shipyard where a piece of a ship is built. Many Navy ships are built in pieces in subassembly shops and then assembled at a separate location.

A **slipway** is a ramp on supports where a ship is assembled or repaired. After the ship is completed, it is slid off the ramp into the water.

A **classification yard** is an area at the edge of the water in a shipyard. Railcars filled with materials would be sent on barges across a waterway and then arrive at the navy yard and placed

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immediately on railroad tracks. In the classification yard, they would be sent to whatever location their materials were destined for.

A **crane** in a shipyard is used for moving and assembling sections of ships. They are also used to move around heavy materials on board vessels.

Philadelphia Naval Shipyard

The Philadelphia Naval Shipyard was the first Navy Yard established by the new United States in 1776. It has changed locations since, but remained in service until 1996. The yard was especially busy during the World Wars, reaching its peak production during World War II, employing around 50,000 people. Navy Yard workers built 53 warships and repaired 1,218 during World War II, including the battleship *New Jersey*. The Yard during this time had its own sports leagues, bands and newspaper.

Brooklyn Navy Yard

In the summer of 1942, the Brooklyn Navy Yard brought in its first women as production workers. The 120 women were not the first women to work in the yard, as many women had worked as seamstresses and in other typically feminine roles. However, they were the first women in production roles. Women were not allowed to go on ships, but did welding and other production in factory spaces. This was because the ships were considered more dangerous and physically demanding. They were also staffed with many young men, and the administrators of the yard considered it inappropriate for young women to work side by side on ships with the men.

Until 1944, women in the yard had different titles and a different pay scale. Pressure from unions eventually changed this and women were given equal pay in the yard. However, women continued to be given menial and often repetitive jobs, inspecting small pieces and doing the same things over and over.

There was a small population of Black workers in the yard, especially during World War II. During this time, the need for labor increased dramatically. Before the war the Brooklyn Navy Yard employed around 18,000 people. This number grew to 72,000 people at the peak of the war. However, much of the labor in the yard was highly skilled. Black workers often could not access the training necessary to do highly skilled work, so they were kept in menial roles and could not advance. This also meant that after the war, when the need for labor decreased again, many Black men and women were fired. This policy was called RIF (reduction in force).

Pearl Harbor Naval Shipyard

Unlike the Brooklyn Navy Yard, the Pearl Harbor Naval Shipyard is still active. It is physically a part of the United States Pearl Harbor military base in Hawai'i. Before World War II, it was staffed largely by locals of the islands. As the war approached, new dry docks were built and the supply depot was expanded rapidly. On December 7, 1941, the Pearl Harbor Naval Base was attacked by Japanese forces looking to prevent the United States from interfering in its military actions in Southeast Asia. The shipyard was mostly unharmed, but 21 ships were damaged and 2,400 people died in the attack, including civilians as well as military personnel. It was then that hundreds of

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shipyard workers from the mainland flooded to Pearl Harbor to bring their skills and support the war effort in Hawai'i. They wanted to help where the United States had been hit, and brought extensive experience from the many mainland shipyards. The Pearl Harbor shipyard took up the role of repairing many of the 21 ships that were damaged in the attack, and would repair thousands of ships over the course of World War II.

Additional Resources/References

Pearl Harbor Shipyard Factsheet:
https://www.navalshipyards-nhpa.com/Documents/PHNSY_Fact_Sheet.pdf

For more on race in shipyards during World War II:
https://www.ferris.edu/HTMLS/news/jimcrow/links/misclink/shipyards.htm

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Documents and Images
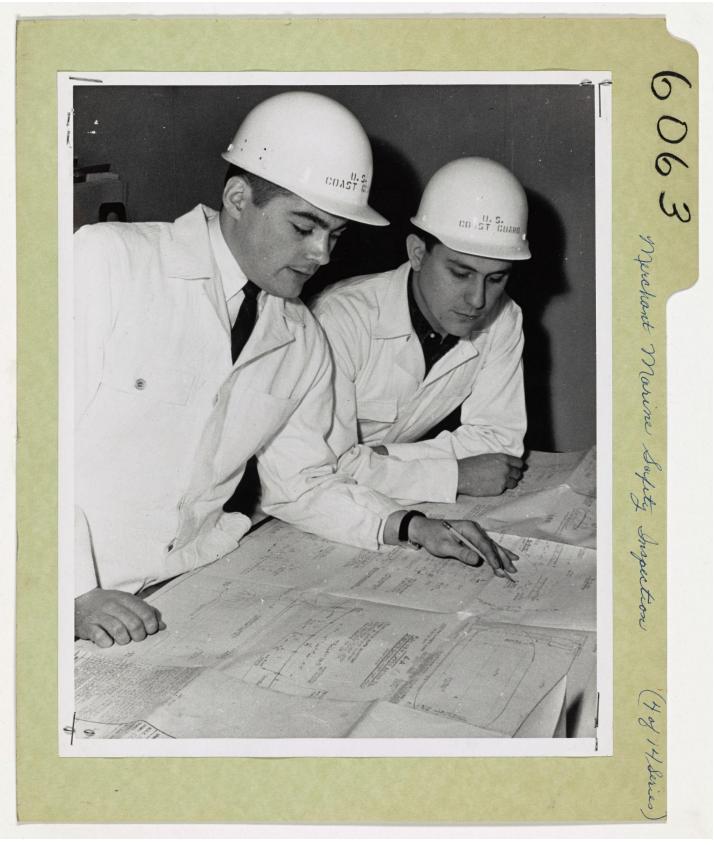
Collection of Shipyard Photos

Credit: National Archives and Records Administration

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"230-42" Puget Sound Navy Yard. 6 January 1942.
Contract NOy-3712, Dry Dock No. 5 - Looking southeast.

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