IT TAKES MORE THAN BULLETS

The WWII Homefront in Portland, Oregon

Shift Change at Oregonship, Portland c1943

Authors Collection

For the Housing Authority of Portland
Portland, Oregon

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So I appeal to the owners of plants, to the managers, to the workers, to our own government employees, to put every ounce of effort into producing these munitions swiftly and without stint….We must be the great arsenal of democracy.

Franklin Roosevelt, 29-December-1940

INTRODUCTION:

Portland, Oregon is rarely considered as a part of President Roosevelt's "Arsenal of Democracy," the massive militarization of American industrial capacity that began nearly a year before the attack on Pearl Harbor. Thankfully far from the combat zone, and largely removed from the seat of political power and large populations, the role of Portland during the war is so infrequently included in most discussions of the American Homefront that few, even few Oregonians, have much understanding of what happened during that short period in the city's history. Today, Portland's efforts during WWII are largely overshadowed by the similar shipbuilding and defense industry activities that took place in Richmond, California. There the National Park Service's World War II/Rosie the Riveter National Historical Park celebrates the activities of women shipbuilders at the Kaiser yards and so, for many, Richmond has come to represent the WWII Homefront in the Western United States.

But as the following narrative documents, Portland, like Richmond, was also a major center in Roosevelt's "arsenal of democracy" and played a significant role in the nation's defense industry throughout World War II. Indeed Kaiser's major Portland shipyard, Oregonship, vied with, and usually bested, it sister company in Richmond for total production and speed. Kaiser's three yards in the Portland area were each national leaders in their particular focus, and received widespread governmental and public acclaim for their work. In addition to ships, Portland-based companies built much of the various equipment needed to get Liberty and Victory ships to sea, manufacturing products for both local consumption as well as export to shipyards in California, Texas, and elsewhere. Portland-area shipyards developed and built entirely new and innovative vessels from "Baby Flatops" to the world's first plywood lifeboats. Aluminum and other materials critical for airplane manufacture went from the banks of the Columbia River to Boeing and Lockheed where the nation's warplanes were constructed. All in all, between 1940 and 1946, Portland literally transformed itself in many significant ways and gained national recognition for the skills and diligence its workers brought to the important wartime tasks at hand.

It Takes More than Bullets documents that World War II era in Portland with a broad view, from the initial announcement and construction of the area's industrial plants to the massive influx of workers and families that streamed to the region to work in them. The tens of thousands of men and women that rushed to Portland, whether from a sense of pride, a desire to help relatives in

the military, or in search of a better life (or at least better wages), strained the local community, from housing to transportation, from retail supply, to police services. While other histories of Portland during the war have focused on the workers, especially on the women and minority workers in the shipyards, on the design and the construction of the ships themselves, and even on the massive housing program the city built, *It Takes More than Bullets* attempts to look at the larger homefront landscape in Portland, how the city changed, and was changed, by those events and, to a degree, what of those times remains today.

World War II never physically touched Portland in the normal sense — obviously there were no battles or enemy incursions in the area. But America in those years considered itself a giant fighting machine, providing material and emotional support to the Allied forces around the globe. With nearly inconceivable unanimity to the modern reader, most of the people working in Portland's defense industry during the war saw themselves as critical elements in a nationwide military machine, supporting our armed forces in Europe and the Pacific, and taking immense personal pride in the effort. That view is the inspiration for the title, *It Takes More than Bullets,* originally a slogan that Kaiser's shipyards used during a successful 1943 United War Chest campaign.

Certainly there were schisms of class and race in Portland during this period, between employers and unions, between public and private interests. The phrase *It Takes More than Bullets* reflects the basic unity of purpose during World War II, the recognition that the war was fought not only on the battlefront, but that those at home, as well as those on the front lines, were each required to assure victory. The phrase seemed a more poetic, if significantly less direct, title for this work than another that commonly used in Portland during the war — "Work, Fight, or go to Jail!"

The research and preparation of *It Takes More than Bullets* was funded by the Housing Authority of Portland [HAP] in partial mitigation for its New Columbia/HOPE VI Housing Project, built on the site of Columbia Villa, a National-Register eligible housing complex constructed by HAP in 1942 and significant through its association with the Defense Worker Housing Program during World War II. George Kramer, Senior Preservation Consultant for Heritage Research Associates, Inc., of Eugene, Oregon served as the principal investigator and author. Project oversight for HAP was by Berit Stephenson. Kathryn Toepel, Ph.D provided project management, formatting advice, and editorial oversight for Heritage Research Associates. Kurt Ranzetta, of Oregon

SHPO served as that agency's project contact and played a significant role in the development of the research focus.

This project is an outgrowth of *WWII Defense Worker Housing in the Portland-Vancouver Metropolitan Area*, an historic context statement prepared in connection with the removal of Columbia Villa. That work, focused upon the pattern of public housing developed by HAP and others in the region during World War II, made clear that significant wartime activities in Portland had received relatively little study, although some aspects, particularly women in the workforce, Vanport, and the influx of African-Americans to the region, had clearly been identified as significant historic events. Detailed reporting of the Victory and Liberty ships that were built in the region survives, much of it prepared by the men who served upon them, is also available through several excellent public and academic naval histories. The *Bos'n's Whistles*, the in-house publication of the Kaiser shipyards during the War, are a veritable trove of images and narrative that more than anything else document life in those yards. And, while virtually every historian to have written of Portland in the past century somehow acknowledges the huge changes that occurred in the city during the war years, there is not any specific history of the various issues in Portland as a result of WWII, or how the city responded to the many challenges they created.

So, this is an effort to document the "way this worked" in Portland, the way that a comparatively small city coped with an influx of nearly 25% its total population, how it housed them, shuttled them between work and dwelling, and accommodated their needs, all while producing literally hundreds of huge sea-going vessels at unheard of speed. This is a part of Portland's history that has been broadly acknowledged, buy infrequently detailed. *It Takes More than Bullets* represents an effort to document Portland's response to these times and so improve our understanding of Portland's truly remarkable achievements during the period between 1940-1946.

2. THE SETTING — PORTLAND, OREGON:

Portland's emergence as a major defense industry center during World War II was built upon a shipbuilding tradition that dated to the city's earliest settlement period. Portland was formally established in May 1844 by New England-born emigrants and the city's name is the result of a famous coin toss between two settlers, Francis Pettygrove and Asa Lovejoy. "Pettygrove's choice of Portland, after the principal seaport of his native Maine, won over the Lovejoy's Boston" (MacColl, 1988:7). Portland's founding on the muddy banks of the Willamette was a direct statement about the result of the importance of water-transport during the mid-19th century, an asset of the otherwise undistinguished location that was certainly evident to both Lovejoy and Pettygrove.

A retail and manufacturing center, Portland quickly developed as a significant shipping center. Its location at the confluence of the Columbia and Willamette rivers, both significant channels for intra- and inter-state shipping, made Portland an important inland port for Oregon's interior. This was especially so after the 1873 opening of the Willamette Falls Locks, allowing water transport around the dangerous falls at Oregon City and connecting the vast eastern part of the state with the populated Willamette Valley areas. With its success linked to water transport, it is no surprise that Portland early on developed a shipbuilding tradition. Small skiffs and barges had been part of the area's earliest settlement and small vessels were built at Ft. Vancouver by the Hudson Bay Company in the 1820s and 1830s. The first major hull built in the Pacific Northwest, the *Star of Oregon*, was launched in 1842 on the lower Willamette River, an event that is generally reckoned as the beginnings of the area's shipbuilding industry (Corning, 1956:222). The 52-foot long *Star* sailed to San Francisco, where she was traded for 350 head of cattle, never to see Oregon again (Riegel, 1988:10).

By the 1880s Portland was Oregon's largest city and an important commercial center, both positions she had never relinquished. The city's population of 46,000 in 1890, doubled over the next decade, when nearly one out of every four Oregonians lived in Portland. After 1904, when Portland hosted the Lewis & Clark Exposition, a successful fair that brought visitors from around the nation to the Pacific Northwest, Portland grew even more quickly than before. In 1910, with a population of 207,000, Portland was nearly fifteen times larger than Salem, Oregon's second most populous city. Of Oregon's total 672,000 residents in 1910, more than one out of every three lived in Multnomah County *(Oregon Bluebook*, 1913:145-7, 1935:201-2).

During the middle and late 19th and the first decade of the 20th century, Portland's shipbuilders built fine wooden vessels for use in the region's shipping and fishing industries. During World War One, shipbuilding in Portland increased with orders from the US Navy, when the city's Albina Engine and Machine alone built seventeen small

freighters for the intended for Norway but later acquired by US interests (*Oregonian*, 10-January-1941, 10:4).

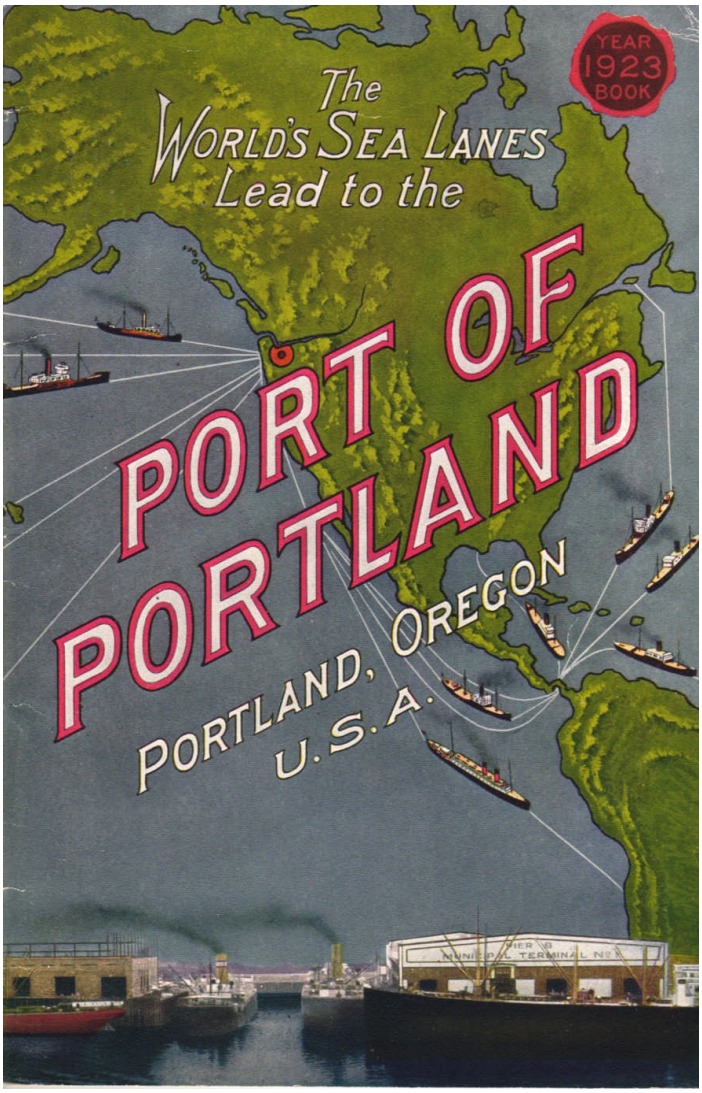

Photo xx: The Worlds Sea Lanes Lead to the Port of Portland
Port of Portland publication, 1923 (Author's Collection)

With the end of the first world war, in 1918, shipbuilding in Portland declined, as the city's small yards were unable to compete with larger facilities, particularly in the east. By 1935 only four shipyards remained in Portland, mostly doing repair work, a trend that was fairly typical of the entire industry's decline in the west. "The Commercial Iron Works was building the only ship under construction on the Pacific Coast in 1935, a Coast Guard Lighthouse tender…" (McColl, 1979:543).

2.1 THE DEPRESSION- PORTLAND IN THE 1930S-1940S:

The Depression hit Portland hard. The lumber industry, the state's largest employer, virtually halted with a decline in construction activity and the effect of that slump rippled through most other segments of the economy, putting thousands of Oregonians out of work. "There were over 30,000 unemployed in Multnomah County alone, one-third of the state's total jobless…" (MacColl, 1979:487). Efforts at relief, particularly in the early years before the election of Franklin Roosevelt and the increased role of the Federal government though the New Deal's job creation programs like the Works Progress Administration and the Civilian Conservation Corps, were much stymied by Portland's longtime business interests, many of whom saw the New Deal as little more than socialism and so limited its impact to less than was needed to address the area's problems.

As the Depression deepened, the Port of Portland became a focal point for worker dissatisfaction. "Conditions along the waterfront had always been bad: labor contractors, hiring favoritism, company spies, dangerous working conditions, ethnic rivalry and loan sharking were omnipresent" (Dodds, 1977:217). Political issues, charges of cronyism, and favoritism rocked the Port during the early 1930s, culminating in hearings, resignations, and even an unsolved murder. Fueled by the Depression, the long-held attitudes of ship owners and industrial interests toward workers led to increasing suspicion and distrust, amplified by the economic challenges and ready availability of replacement workers. In early May 1934, a year after the passage of the National Industrial Recovery Act made collective bargaining legal, dock workers on the West Coast were unionized. Following failed negotiations over wages and working conditions, Portland's dockworkers, along with those from Seattle to San Diego, walked off the job.

> The 82-day strike was to wreak havoc upon Portland's economy. Maritime commerce ground to a halt. Over 3000 waterfront workers were affected and at least 50,000 other workers were thrown out of employment…Unaccountable millions of dollars of business were lost before the strike ended on July 31st (MacColl, 1979:468).

Though Oregon's economy was distressed by the strike, by the decline in lumber purchases, and the general state of the economy, the state's climate still proved attractive for considerable in-migration, resulting in thousands of new residents who provided increased competition for the region's few jobs.

> By the middle 1930s thousands of farmers and urbanites, mainly from the northern Great Plains region, were driven by the depressed economic conditions….to seek homes in the Pacific Northwest. Though far less publicized than those who departed from Missouri, Arkansas and Oklahoma…their numbers were larger and their fate, in some respects, was similar to those of the 'Arkies' and 'Oakies' of the *Grapes of Wrath* (Dodds, 1977:186).

Portland's population in 1930 was 301,875, having slowed considerably since the earlier years of the century. The rate of growth over the next ten years was almost zero, as the 1940 census found only 3,579 more residents than a decade earlier (*Oregon Bluebook*, 1947:294). Certainly many were newcomers to the area and brought with them new ideas and ways, but in most ways they were still much like Oregon's earlier waves of immigrants — white, literate, mostly families, all looking for a better life. Portland's non-Caucasian population, indeed all of Oregon's non-Caucasian population, prior to World War II, was comparatively small. Certainly there were enclaves of Chinese and Japanese in Portland, as well as elsewhere, and a strong, if small, black community had developed in Northeastern Portland, but Oregon remained nearly uniformly white during the 1930s. In 1930 there were just 2,234 black people in all of Oregon, a mere 0.23% of the total. That figure would grow to only 2,565 (.024%) by 1940 (McLagan, 1980:185).

By the start of World War II, Portland remained the largest city in a largely under populated state, the only Oregon community that came even close to deserving the definition of a metropolitan area. But in many ways, despite its 305,000 residents, Portland retained a certain clubby-small town character. Strong connections between the government, between industry and financial groups, created clear class divisions that were only exacerbated by the financial woes of the Depression and the port strike. Longtime Portland Mayor Joseph Carson, described as "a special friend of the private utilities and an enemy of organized labor" (Lansing, 2005:328). Under Carson's leadership, Portland had voted 2-to-1 against public housing in 1938 and by an even larger margin against a measure to establish a public power district, both programs that would have helped the underprivileged while impacting real estate and private power interests. "Portland lost out on a good deal of federal funding that was available for the asking in the 1930s" (Lansing, 2005:333-4).

During the late 1930s, significant efforts in Portland had focused upon transportation systems, both the improvement or expansion of the State-funded highways that connected the City to Salem and elsewhere, as well as the creation of a new municipal airport facility on Swan Island. The Portland Planning Commission, as well as the city's Parks and Recreation Commission, were actively studying proposals and plans that would guide the city's future, bringing in such notables as Lewis Mumford to assist the process. Out this, though not without controversy, came a plan for Front Avenue (now Naito Parkway), lining the western bank of the Willamette River through downtown. Many old buildings in the area were removed to make way for an expanded roadway, opening up the waterfront for new opportunities.

3.0 A DEFENSE CENTER

While most of its shipbuilding activities went dormant after the end of the World War I, the Port of Portland would rise to new prominence as a defense contracting center during World War II. Portland's role was the result of a fortuitous alignment of national, geographical, and individual influences that combined to transform the city into a major shipbuilding center within a few short months.

3.1 BPA-THE BONNEVILLE POWER ADMINISTRATION

Growing public concerns about monopolies and large multi-state holding companies controlling electrical generation during the 1920s meshed well with Federal and local government interest in using public works projects as a way of creating employment during the Great Depression. In the Northwest, where abundant flowing water created opportunities for hydroelectric development, local Public Utility Districts [PUDs], were formed with increasing frequency after the passage of enabling legislation in the early 1930s. In 1932 Presidential candidate Franklin Delano Roosevelt addressed a Portland, Oregon crowd and issued a "…blistering attack" on the private power monopolies to huge positive response. FDR promised that if he were elected he'd build a great hydroelectric project on the Columbia River. Roosevelt went on to handily beat President Hoover, in the November 1932 election, carrying Oregon by more than twenty percentage points.[1] "In the summer of 1933, [FDR] made the decision to build the Bonneville and Grand Coulee dams" (Tollefson, 1989:110).

What would become the Bonneville Power Administration, the Federal agency charged with the oversight of the Columbia Basin Project, was the result of competing state and private interests, spurred by efforts in both Washington and Oregon to secure Federal dollars to create new jobs and a stable source of public power. Cheap electricity, generated by government-owned facilities, was seen as a method of putting folks to work in the short term through construction jobs but, more importantly, as a long-term method of giving the entire Northwest a competitive advantage, inexpensive electrical power, that would help attract increased industrial development in the future.

At the urging of Washington's U.S. Senator C. C. Dill, who convinced the state's Governor Martin to provide $337,000 in state funding for the project, the excavation of the Grand Coulee dam actually began before Congress authorized its construction. Not wanting their state to be shut out of the project, Oregon's two U.S. Senators, Charles McNary and Frederick Steiwer, quickly introduced a bill in Congress to authorize construction of a second dam on the Oregon portion of the Columbia, and in the process reminded the President of his campaign promise in Portland. This second, Oregon, project would become the Bonneville Dam.

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[1] This is an even more impressive feat when one considers that Herbert Hoover, though born in West Branch, Iowa, was raised in Newburg, the only US President to have anything approaching Oregon roots.

After considerable negotiation, Congress finally authorized the construction of both the Grand Coulee and Bonneville dams, along with eight others, to be built on the Columbia River, by November 1933. Management of the entire Columbia Basin Project was first given to the U.S. Department of the Interior and then vested in a new organization modeled after the Tennessee Valley Authority, the Bonneville Power Administration or BPA (Norwood, 1989:37-38).[2]

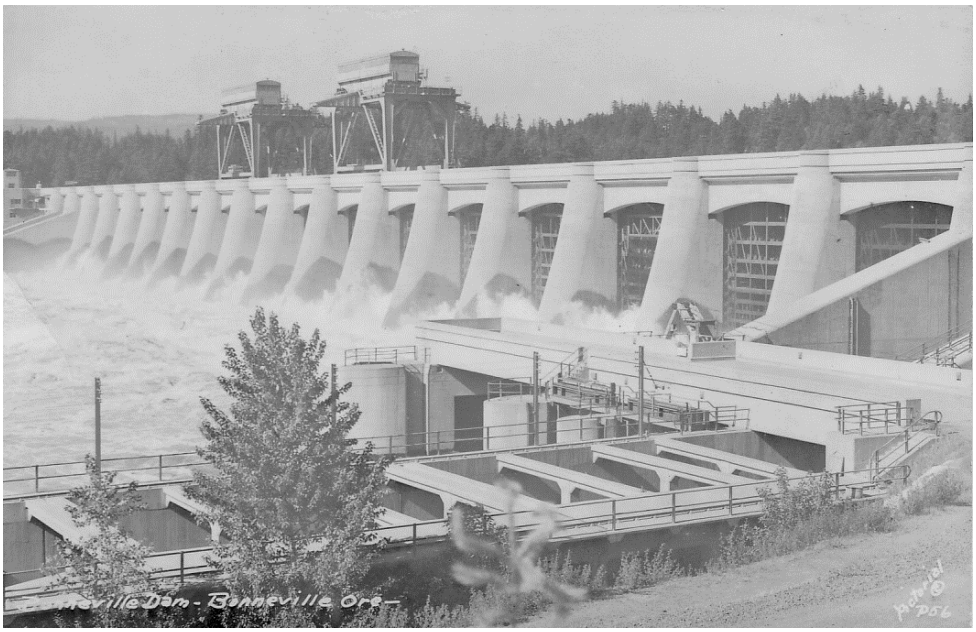


Photo xx: Bonneville Dam, c1945
Postcard Image-Authors Collection

BPA, through its oversight of the Grand Coulee and Bonneville construction projects, created thousands of much needed jobs and bolstered the economy of the entire Columbia River corridor. Young men flocked to the region in search of government work from across the nation, supporting local businesses and helping to offset the depression's effect on the region's industries. Richard Neuberger, who began his career in Oregon as a newspaper reporter and ended up a U.S. Senator, recalled having once met a South Dakota farmer 'high in the uplands of Washington' in the mid-1930s. "Out of a worn wallet he pulled a frayed newspaper clipping…handed it to me and gestured at the dozens of dilapidated automobiles …heaped high with household goods or coupled to heavy trailers…We been followin' that newspaper piece there ever since we left the Dakotas.." (Neuberger, 1938:43). The clipping reported FDR's speech at the beginning of

[2] This brief overview greatly simplifies the political and legal machinations that emanated from the precipitant construction of the dams and the ultimate assumption of the project by the Federal government, a tangle that would be ruled upon by the U.S. Supreme Court and ultimately not fully settled until August 1935 when the President signed the Rivers and Harbor Act, legitimizing the projects. See Norwood, 1989:36-39 for more detail.

Bonneville's construction and the number of workers that would be required. FDR called the Northwest "a land of opportunity," and for thousands of unemployed, it was.

The first dam on the Columbia was the Grand Coulee. It was too large a project to be built by any single construction firm and so a collective team consisting of the MWAK Group and Consolidated Builders Inc.. The later was a subset of a group known as the Six Companies, a collection of large western construction firms, that most significant to this study included Henry J. Kaiser. The MWAK/Consolidated Builders group won the $34 million dollar contract for Grand Coulee, continuing the excavation work that MWAK had already completed under the auspices of Washington State.[3]

Construction work at Grand Coulee, begun in December 1933, continued around the clock with peak employment in June 1937 reaching almost 7500 workers. "In the depression years few scenes had the visual impact and sense of excitement of the Grand Coulee Dam construction at night….the powerful lights allowed concrete pouring to continue throughout the night (and) it continued for six long years, though heat and cold, snow, wind, dust and grit" (Norwood, 1989:40). The Grand Coulee Dam was completed in June 1941, only six months before the US entry into World War II. Today, more than sixty years later, it remains the largest single concrete structure ever built in the United States. Although its capacity was later expanded, even its initial hydroelectric generation of 108,000 KW made Grand Coulee one of the largest electric producers in the world.

Construction on the second dam on the Columbia, at Bonneville, began in June 1934. Like the Grande Coulee, the construction of the Bonneville Dam was also beyond any single firm and so was undertaken by the Six Companies, a union of several of the largest construction firms in the West that had first came together to build Boulder Dam in southern Nevada. As the first completed element of the Columbia Basin Project, Bonneville represented a major step in the future industrialization of the Pacific Northwest.

> Bonneville emphasized the Columbia's potential as the greatest hydroelectric power stream in North America. About 40 percent of the nation's potential hydropower lay in the Columbia River system alone (Willingham, 1983:101).

Given the tremendous electrical capacity of the Grand Coulee and Bonneville dams, the Columbia Basin Project, created huge amounts of electrical capacity that not only reduced costs per kilowatt for area consumers, but provided a huge source of cheap and reliable power. At the dawn of World War II, all that surplus electrical capacity from the Columbia Basin Project created a considerable advantage for the Pacific Northwest in its

[3] MWAK, which had underbid the Six Companies team for the initial contract had only broke even on the excavation project and was probably in a bit over its head on the huge Coulee Dam project. When the next phase of the project came to bid, MWAK happily accepted Kaiser's suggestion of a joint venture to take advantage of the Six Company's considerable experience in dam building at Boulder (Heiner, 1991:61-63).

efforts to successfully attract new industrial development. Aluminum manufacture in particular requires vast amounts of electrical power and the changes that would remake shipbuilding, would make abundant electrical power a vital component in that industry as well.

3.2 LEND-LEASE AND THE ARSENAL OF DEMOCRACY

While Federal efforts on in the Columbia Basin were the result of interest in creating inexpensive public power and new jobs to help counter the effects of the Depression, international events in the late-1930s would also effect the Pacific Northwest and play a role in its later development as a defense center.

In the 1930s the growing militarism in Europe and Asia and the rise of increasingly oppressive governments there were coupled with a strong isolationist movement in America. After September 1939 and the Nazi invasion of Poland that took Britain and France into the war against Germany, President Roosevelt charted a middle path through his concerns about the future of world politics and his support for Winston Churchill and Britain, while still technically retaining a stance of neutrality as much of the United States was intent on avoiding any involvement in Europe's wars.

With the fall of France in the summer of 1940, more Americas began to see Britain as the only thing standing between the United States and the surging forces of Germany. Despite strong isolationist voices from respected figures such as Senator William Borah and the famed aviator Charles Lindberg, President Roosevelt increasingly looked for ways that America could support the British effort. In 1939, prodded by FDR, Congress revised America's Neutrality Act to allow the United States to establish what came to be known as the "Cash and Carry" plan, whereby the United States could sell war materials to the British for cash payments, payable at dockside upon delivery. This was clearly a stop gap measure that was of limited success due to the shaky financial conditions in Britain and the other anti-German countries, not to mention the risks involved in delivering war good across the Atlantic.

As a result of the limited practicality of Cash and Carry, in a June 1940 speech in Virginia, President Roosevelt waded even deeper against the isolationist tide and strongly cautioned against America becoming a "…lone island in a world dominated by the philosophy of force…" He vowed that America would "…extend to the opponents of force the material resources of this nation" (Sulzberger, 1966:130). And while isolationist voices still remained strong in the US, the growing concern about Nazi aggression was also beginning to create support for American involvement in the war, at least in a non-combat role.

Fighting on virtually alone, Britain was clearly in need of material resources. Its own factories were continually damaged by German bombers taking off from captured French airfields. Nazi U-boats were successfully stopping most shipping to the island nation and

British freighters were going down faster than the besieged nation could replace them, even it had the financial ability to do. "In July 1940 Churchill had cabled Roosevelt that the British had lost eleven destroyers in ten days and urgently requested help" (Sulzberger, 1966:130). Roosevelt quickly transferred fifty mothballed US Navy vessels to Britain in exchange for future leases on British military bases. The concept, which would become known as "Lend-Lease," would not be formalized by Congress until early 1941 but FDR continued to "lease" Britain ships throughout the rest of 1940.[4] Lend-Lease gave the British immediate access to much needed shipping, while delaying any expectation for payment until after the present hostilities were over.

Still, the British were struggling to maintain supply lines to support their military and FDR continued to seek new ways to support them. In a December 1940 Fireside Chat FDR called for total American commitment to help stem the rising tide of Nazi domination even though America was still technically a neutral in the European conflict. In that ringing and often quoted indictment of Nazism, FDR called for America to become the "Great Arsenal of Democracy" and devote its full industrial might toward building the supplies of war that others could not.

> But all of our present efforts are not enough. We must have more ships, more guns, more planes — more of everything. And this can be accomplished only if we discard the notion of "business as usual" (Roosevelt, 1940).

A week later, in the State of the Union speech delivered to Congress on January 6, 1941, eleven months before the US would formally enter World War II, President Roosevelt further laid out America's interests in seeing Germany defeated. This speech, famous for FDR's enunciation of the "Four Freedoms," included a formal request that Congress authorize the Lend-Lease program begun six months earlier.[5] FDR now proposed that Congress authorize the President to have full discretion over how the Lend-Lease program operated and the concept was accordingly opposed by the remaining American isolationists as well as some strict constitutionalists.[6] After the Lend-Lease Act (HR-1776) was ultimately passed in March 1941, Congress authorized an initial appropriation of $7 billion dollars, a virtually unheard of amount for war materials, especially when one

[4] FDR would be savaged by isolationists for circumventing Congressional oversight by transferring ships without formal authority and by fiscal conservatives who rightly questioned Britain's ability to "lease" bases after the conflict was resolved. At that point, Britain's odds of success were hardly overwhelming.

[5] The Four Freedoms, of speech, of worship, from want and from fear, became a rallying cry for Americans. There were famously portrayed by illustrator Norman Rockwell (shown in a later edition US Stamp set, above), and distributed by the Saturday Evening Post. Used on bond and recruiting posters throughout the war, the Four Freedoms, and Rockwell's illustrations of them, would become nearly iconic images during World War II.

[6] Constitutionalists feared FDR's increasing assumption of power and lack of coordination with Congress might lead to him becoming a "Dictator" himself and opposed the broad grant of authority in Lend-Lease independent of its war-related benefits.

remembers that the US was still not at war.[7] After the formal adoption of Lend lease "…military goods started to flow across the Atlantic with maximum speed and minimum red tape" (Sulzberger, 1966:131). By he end of World War II Lend-Lease expenditures in the U.S. would exceed $50,000,000,000.

In tandem with FDR's interest in the European situation, in 1937 the US Maritime Commission had begun the process of planning for increased ship production on the Pacific Coast, partially to revive the industry and create jobs in connection with the New Deal, and partially with an eye toward military preparedness in light of the situation in Europe.[8] Initially headed by Joseph P. Kennedy, an influential financier and diplomat,[9] the Commission was soon placed under the direction Rear Admiral Emory Scott Land USN (Retired). Land would remain a pivotal figure at the US Maritime Commission throughout the remainder of the war, playing an important role in the Commission's oversight of shipbuilding across the nation. One of the Commission's first tasks in 1937 was the review of the nation's existing shipbuilding facilities. Although no west coast area except Oakland-San Francisco even had facilities capable of building ocean-going facilities, the Commission considered several sites in the west, including Portland for potential new development. The scope of the Maritime Commission's plan recognized that they would require entirely new shipyards as well as the training of a skilled labor force to operate it (Quivik, 2001:1).

Meanwhile, across the Atlantic, the British had been investigating new methods of construction that would reinvent the entire process of shipbuilding, continuing that nation's seafaring traditions while incorporating the advantages of new technologies. Initially envisioned prior to the war as a way to help their own industry, as U-Boats were decimating the British fleet, these new ideas offered an opportunity for building dozens of badly need ships faster, and more efficiently, than had ever been previously attempted.

Armed with plans for both ships and the yards to build them, the British Shipbuilding Mission came to the United States in 1940 to give their designs to the US Maritime Commission as it moved forward in its plans to develop ships as a part of FDR's Arsenal

[7] Despite the debate, the Senate passed Lend-Lease by 60-31 and the House, which initially passed the bill 260-165 confirmed the amended Senate version by 317-71 on March 11, 1940. FDR signed Lend-Lease into law that same day.

[8] Congress established the US Maritime Commission by the Merchant Marine Act of 1936, with the goal of modernizing the nation's merchant marine fleet through private-public partnership that could provide subsidies to yards and enable them to compete with European competitors (Lane, 1951/2001: 10-11).

[9] Kennedy, though something of an isolationist, would later serve as Ambassador to England. He is primarily known today as the father of John Kennedy, 35th US President, as well as Robert and Edward (Ted) Kennedy.

of Democracy. Among the many meetings with Admiral Land and the established shipbuilding firms on the east coast, members of the British mission were introduced to Henry Kaiser, who had recently completed work on Grand Coulee and Bonneville dams. Kaiser had recently formed a partnership with the established Todd Shipbuilding Corporation and was actively seeking a role in the ship building industry and had been unsuccessfully pursuing a contract from the Maritime Commission to develop a West Coast shipbuilding yard. [The main concern the Commission had] "…was over Kaiser's shipbuilding experience, which was not much…and though Todd was an established firm, it was small compared with some others in the industry" (Elphick, 2001:44).

Ultimately, the fact the Henry Kaiser had absolutely no experience whatsoever in building ships would prove of only minimal concern to the British or the US Maritime Commission, and with good reason. Henry J. Kaiser had a proven track-record of doing what others thought impossible and succeeding at it beyond anyone's expectations.

3.3 HENRY J. KAISER; "PROBLEMS ARE ONLY OPPORTUNITIES IN WORK CLOTHES"

Born in Sprout Brook, New York in 1882, Henry John Kaiser moved to Spokane in 1907. After an initial foray into photography, in 1912 he saw the coming impact of the automobile and established a road paving company to take advantage of the growing market for new roads and highways. Over the next decade, Kaiser achieved considerable financial success as his firm built improved highways and other road projects throughout the West.

Following the market to California, Kaiser moved his road-building firm to Oakland, California in the 1920s and there he developed a reputation for quality concrete work and the ability to manage large teams of workers in isolated and difficult terrain. In addition to work all over the western United States, those skills would take Kaiser as far as Cuba, where his company built a highway across the island nation.

In addition to his business acumen, Henry Kaiser had an undeniable flair for publicity and self-promotion. As road-building work subsided after its initial flurry, Kaiser began to look for new areas in which to put his considerable energy. In 1928 he approached a sometimes business associate, Warren Bechtel, who operated a large construction firm based in San Francisco. Bechtel had been involved in several small dam projects and based on that experience, and his own ability with concrete, Kaiser now suggested that their two firms consider a joint effort to build a mammoth dam for the US Department of Reclamation on the Colorado River.

Eventually, Kaiser and Bechtel realized the project was too large even for their combined firms and the team would expand into what became the Six Companies, the collective comprised of some of the largest construction firms in the western United States. Banded together under Kaiser's financial and public relations leadership, the Six Companies won the contract to build the new dam in southern Nevada. Boulder Dam's construction, one

of the largest projects in the world up to that time, was completed to between 1928 and 1935 and brought Kaiser, the most visible of the otherwise retiring and publicity-shy partners in the Six Companies, national acclaim.[10]
The Six Companies remained active and was responsible in various combinations for a series of marquee construction projects in the west that included the Moffat Tunnel in Colorado, the San Francisco-Oakland Bay Bridge, the Caldecott Tunnel in Oakland, and the already mentioned Grand Coulee and Bonneville dams on the Columbia. Although the Six Companies lost the bid to built the Shasta Dam in Northern California, on his own Kaiser purchased one of the largest limestone deposits in the United States, located at place near San Jose called "Permanente," and successfully won the contract to supply the successful bidder will all of the concrete for the Shasta Dam project.[11]

During the decade of the 1930s, the Six Companies built projects that virtually changed the landscape of Western America. Kaiser's skill at public relations brought great public awareness of the company and he became a highly regarded public persona with a "can-do" reputation, a reputation which benefited the Six Companies but increasingly irked at least some of its leaders (McCarthy, 1988:61).[12] Despite the growing friction, Six Companies continued to work together in a variety of combinations and Kaiser's increasingly visible role, his recognized ability to manage ever-larger groups of workers in isolated settings, and his personal relationship with President Roosevelt, continued to swell his reputation.

Shortly after the completion of Boulder Dam, Kaiser and the Six Companies started the construction of the Grand Coulee and Bonneville dams. Again Kaiser assumed a leading role, in the public mindset if nothing else, as the driving force behind the monster project. These two Columbia River dams brought Kaiser back to the Pacific Northwest with an enlarged reputation, new skills, and perhaps most importantly, the international contacts that gave him access to world leaders. The national interest in the Grand Coulee, aided in part by the songs of Woody Guthrie, pushed Kaiser to what today would be considered superstar status in the public mindset. In one *Fortune* magazine article Kaiser was referred to as an "Atlas of Industry."

> Henry J. Kaiser was one of the boldest, most spectacular, entrepreneurs in American history. Of that, there can be little doubt. (Heiner, 1991:425).

[10] The Six Companies were Morrison-Knudsen, of Boise, Utah Construction, Pacific Bridge Company, of Portland, J. F. Shea, of Portland, MacDonald and Kahn, of Los Angeles and Bechtel Corporation, of San Francisco, the later in partnership with Kaiser. Bechtel, of course, would go on to become one of the largest and most influential engineering/contracting firms in the world. Bechtel's avoidance of the spot-light is legendary, aided in no small part by the fact that it still remains entirely privately-held (See McCartney, 1988).

[11] Kaiser "Permanente" would become better known for other, post-WWII endeavors, in the health-care and insurance industries.

[12] Most of the other firms in Six Companies were, initially, far more established, and far better financed than was Kaiser. These older, serious, construction firms tended to view Kaiser as an upstart and, later, as a glory-hound who over-stated his role in the projects.

Photo xx: Grand Coulee Dam, Washington
Postcard Image, Author's Collection

As work on Grand Coulee wound down, Kaiser recognized the era of big dam building, like road building before it, was also on the wane and he began to look for new projects for his team. In connection with the Shasta Dam and his purchase of the Permanente concrete plant, Kaiser had acquired two older freighters that he planned to use to transport concrete to the Shasta project site in northern California. These ships needed re-fitting and Kaiser took them to Seattle, where he was introduced to John Reilly, of Todd Shipbuilding. The two men struck up a friendship and Reilly, aware of the on-going U.S. Maritime Commission plans, convinced Kaiser that the European conflict was going to create a huge demand for ocean-going vessels, suggesting a joint venture between their companies. According to one version of events, Kaiser, already looking for new fields to plow, jumped at opportunity. According to another, Admiral Land, who knew he had a impossible job to do, sought out men and companies with the reputation for doing the impossible. "Kaiser was one of the key men in Six Companies, and it took us two years hook him….before we could get them mixed up in the shipbuilding business" (as quoted in Heiner, 1991:119). Whatever the truth, Kaiser did get 'mixed up in the shipbuilding business' and the details of his wartime activities in Portland are documented in a subsequent chapter.

After WWII, as the pace of the shipbuilding industry (like road-building and dams) slowed, Kaiser entered new areas of endeavor. His Kaiser Aluminum and Kaiser Steel, both of which were established during the war, remained important companies for many years and the aluminum operation is still in business today.[13] His "Kaiser-Frazer" automobile company struggled to compete with Ford and General Motors despite

[13] Though Kaiser's aluminum company would have a Northwest presence, it did not develop any of the Portland-area plants but would purchase them later.

Kaiser's energy, but it has survived, in a form.[14] Kaiser Permanente, named after the concrete plant Kaiser had purchased in the 1930s, grew out of his WWII shipyard worker health coverage plans, and today remains one of the largest healthcare systems in the country.

In his 70s, Kaiser "retired" to Hawaii where he soon became involved in building *Hawaiian Village*, eventually one of the island' s largest resort complexes. For the rest of his life he would remain committed to developing Hawaii's tourist economy and would play a huge role in that state's history. Kaiser's son, Edgar (who had managed the Portland shipyards during WWII) eventually took over the helm of the various family businesses and continued to expand their reach, acquiring, among other things, the Denver Broncos football team. Henry John Kaiser died in 1967, at the age of eighty-five.

While Henry Kaiser is not the focus of this document, it is probably safe to claim that the history of Portland, and perhaps of World War II itself, would have been different had he not jumped (or been pulled) into the shipbuilding business in 1940. It was an interesting bit of luck for Portland, for Henry Kaiser, and perhaps, ultimately, for the British, the US Maritime Commission and the nation as a whole, that the "Atlas of Industry" was wrapping up the Grand Coulee Dam at virtually the same time the Maritime Commission was looking to build ships on the Pacific Coast. Kaiser had the skills, the reputation, a group of skilled managers, and a huge and competent construction team, all looking for something to do, and all just a upriver from Portland.

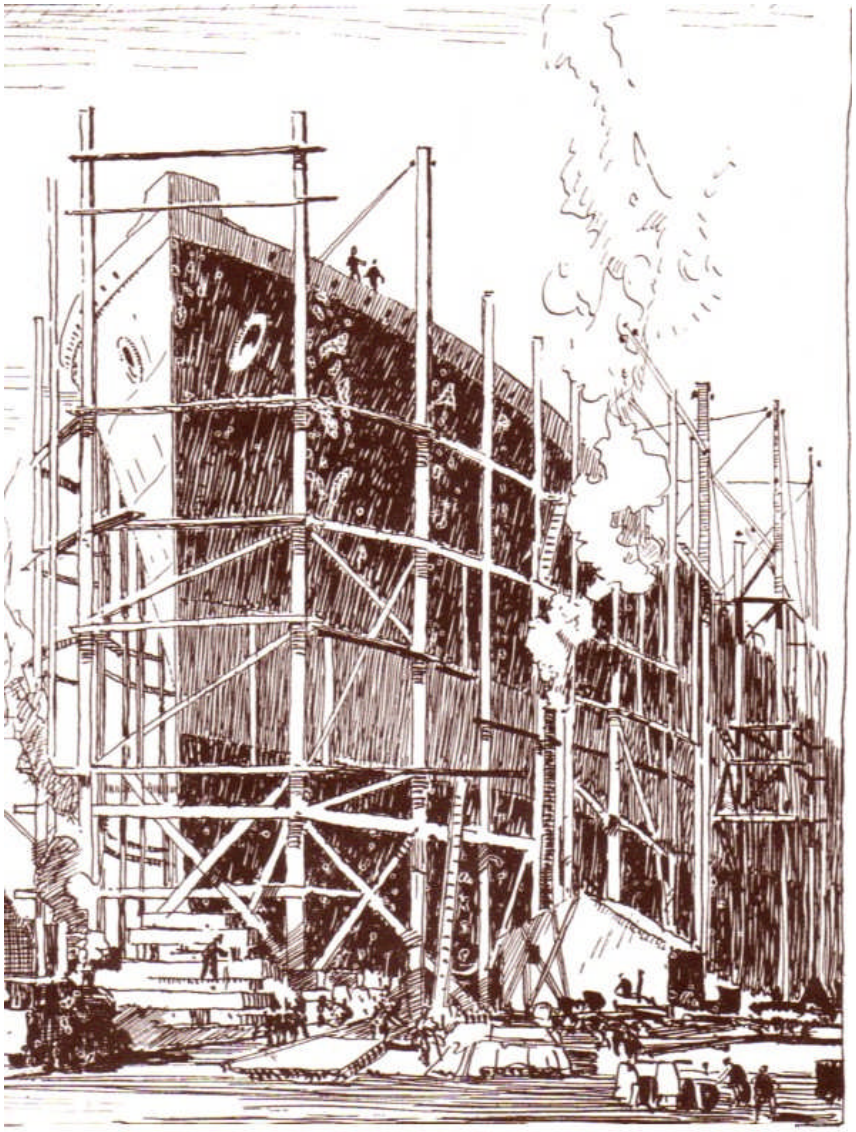
[14] Kaiser purchased Frazer's interested in 1952 and as Kaiser Motors Corporation purchased Willys-Overland in 1953, becoming Willys Motors, continued to build the famed "jeep." In 1970 the company became part of the American Motors Corporation, itself purchased by Chrysler in 1987, now Daimler-Chrysler. Among the cars Kaiser-Frazier produced during its 1945-1955 life under the Kaiser name were the "Henry J," a testament to Mr. Kaiser's personal fame at that time.

Photo xx: Henry J. Kaiser (2nd from left), with President Roosevelt
at the Launching of the Joseph N. Teal, the "10-Day Ship"
Bos'n's Whistle, 8-October-1942

3.4 LIBERTY SHIPS

The ship plans that the British developed and offered to the US Maritime Commission were for a simple, if sturdy, freighter called the "C1" that would soon become known as a "Liberty Ship". Eventually the famed New York based navel architects, Gibbs and Cox, were retained to make some modifications to the design, most intended to decrease fabrication times, to reduce the materials required for construction in anticipation of possible steel shortages, and to increase the cruising speed of the ships once they were completed. Most significant among the changes proposed by Gibbs and Cox was the decision to weld, rather than rivet, the steel plate hulls together (Lane, 1951/2001: 31).[15]

[15] Welded hulls had initially been developed in New York, in the late 19th century, but until WWII the technology was generally seen as a shoddy substitute for the more traditional riveted work that was considered considerably stronger and more seaworthy. Welded hulls, however, were easier to build, lighter, smoother, and consequently faster at sea compared to similar riveted work. The availability of cheap electricity from BPA made arc-welding hulls in the Portland far more economical than in other areas due to the lower-cost of the power.



HULLS BY THE HUNDREDS
MAKING READY TO JOIN THE "LIBERTY FLEET"

Photo xx: Hulls by the Hundreds
Bos'n's Whistle, 18-October-1941

Technically there were four versions of what were generically known as "Liberty Ships," ranging in length from 441'-6" to 492' with deadweight tonnage between 10,419 and 12,500 tons each. Each was designed for speed, cruising between 11 and 16 knots, balanced with maximizing cargo capacity. Liberty Ships were not particularly pretty, nor were they intended to be so — they were simply intended to be built faster than the U-Boats could sink them. Their goal was to help create what FDR, in September 1941, would call a "bridge of ships."

> To be ultimately successful in world mastery, Hitler knows that he must get control of the seas. He must first destroy the bridge of ships which we are building across the Atlantic and over which we shall continue to roll the implements of war to help destroy him, to destroy all his works in the end (President Roosevelt, *Fireside Chat*, 11-September-1941).

Two weeks after making that speech, on September 27, 1941, President Roosevelt proclaimed Liberty Fleet day," as the new yards of the US Maritime Commission, on the Atlantic, the Gulf of Mexico, and the Pacific, launched fourteen ships in a single day, including the first Liberty Ship, the appropriately named Patrick Henry (Elphick, 2001:68). At 3:30, on the same day, Kaiser's Portland, Oregon shipyard launched its first ship, the Star of Oregon, named after that pioneer-era vessel that had been the first ocean-going hull in Oregon's history. This second Star, whose keel had been laid May 19, 1942, had been built and launched in 131 days, a period in which a shipyard, Oregonship, had been literally built around her. Over the next four years there would be many, many, more launchings in Portland, at Oregonship and at area's other yards, each coming closer and closer together so as to nearly create a blur of shipbuilding as the industry grew ever more efficient.

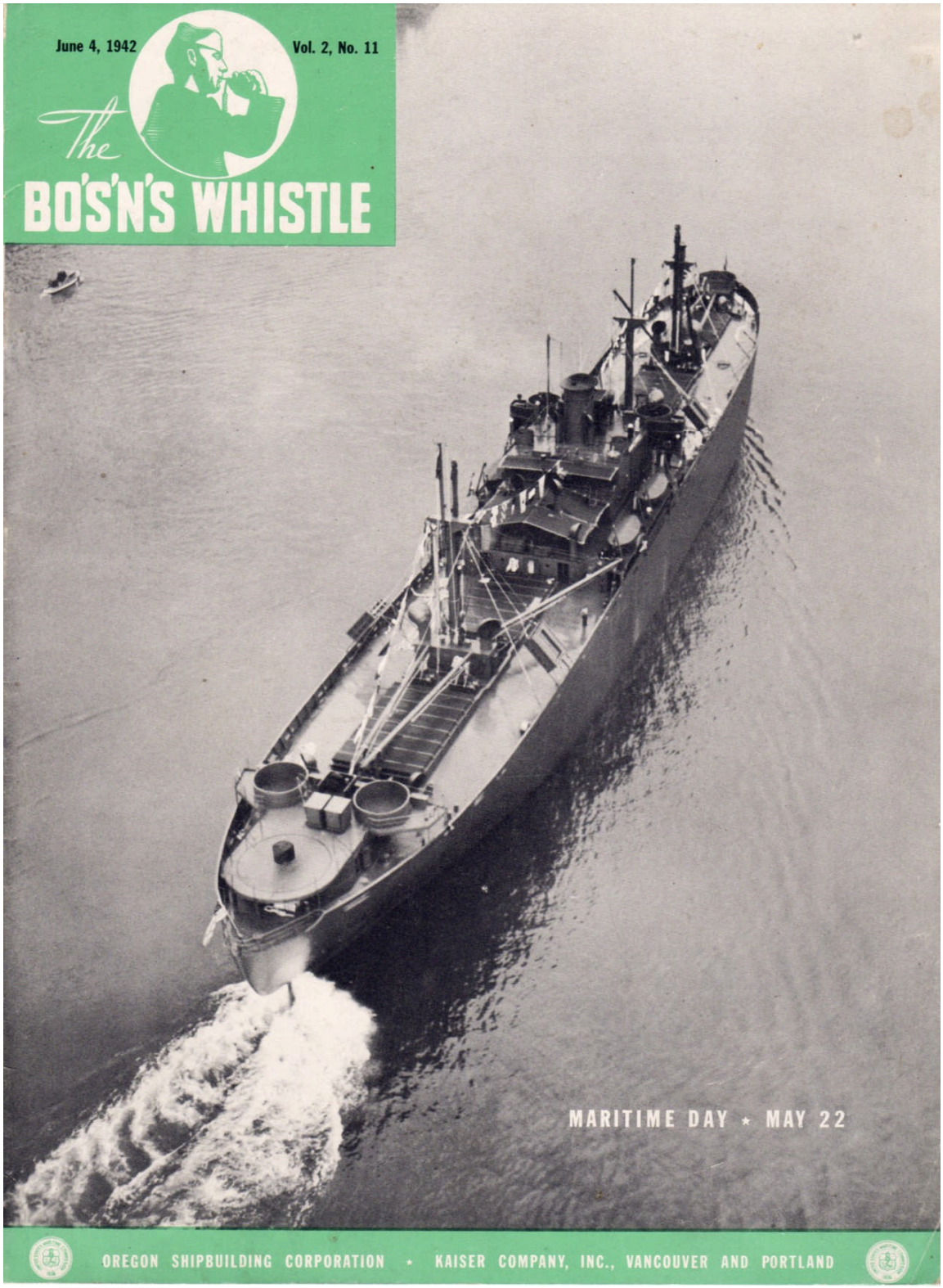

June 4, 1942
Vol. 2, No. 11
The
BO'S'N'S WHISTLE
MARITIME DAY ★ MAY 22
OREGON SHIPBUILDING CORPORATION ★ KAISER COMPANY, INC., VANCOUVER AND PORTLAND

Photo xx: Maritime Day, May 22, 1942
Bos'n's Whistle, 4-June-1942

4.0 BUILDING SHIPYARDS, BUILDING SHIPS, AND OTHER DEFENSE INDUSTRIES

By December 1940, Shipbuilding novice Henry Kaiser was armed with an order from the US Maritime Commission to build and launch thirty-one ocean-going vessels as quickly as possible. Kaiser, the "Atlas of Industry," set about building the shipyards he would need to do so. Kaiser tapped two young men on his staff, Clay Bedford, and his son, Edgar, both of whom were experienced, having run the Boulder and Grand Coulee dam projects respectively, to head up two entirely new shipyards.[1] Bedford would run an operation in Richmond, California (dubbed Californiaship). Edgar, then only 32-years old, would be the General Manager of a facility on the Willamette River to be called "Oregonship." A new corporation was created, the Oregon Shipbuilding Corporation (OSC), as a joint-venture between the Kaiser interests and Todd Shipbuilding, with Charles O'Shea, a Portland-based building contractor, as president.[2] Oregonship would be built on 87 acres leased from the Port Commission for a $1 per year on a three-year contract. Kaiser's yards in Portland, operated under the review of the US Maritime Commission, were accordingly considered "Maritime Yards," meaning they often suffered in procuring materials when competing with yards that built "fighting" ships, the ships required and contracted by the US Navy.

The following section details the history of the various shipyards that were active in Portland during WWII, as well as the other major industrial activities that developed in the area and helped to transform the city into a "Defense Center."

4.1 KAISER'S SHIPYARDS: OREGONSHIP

The first, largest, and, ultimately, most productive and best known, of Kaiser's Oregon yards, Oregonship was announced to the public in January 1941.[3] "Portland's new shipyard will be erected just north of Terminal No. 4 and will cost $4,700,000 to construct before any ships can be launched…[It] will have eight shipways and plans are being made for the launching of four ships from each way, or 31 ships in all, with prospects for additional ships being ordered later" (*Oregonian*, 12-January-1941, 1:6-7).

The site, north of Terminal No. 4, offered little to indicate its potential for building ships beyond access to the river. "183 acres of mud, some rented equipment and a few crews of men— that was the beginning of the Oregon Shipyard…" (Osborne, 1946:5). On May 19, 1941, Oregonship laid its first keel, almost a month behind Californiaship but, as

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[1] Wise in the ways of motivating workers, from the very earliest moment, Kaiser had established a friendly competition between the two young men, a rivalry that was transmitted to the massive workforce each would soon direct. The back-and-forth comparison for fastest and most efficient production drove both Oregonship and Californiaship to set a record pace that has never been equaled and set the standard against which virtually every other defense industry during WWII would measure itself.

[2] O'Shea was the head of J. F. Shea, a Portland-based building contractor, that was one of the Six Companies team. Kaiser would eventually trade interests in his several non-West coast yards, removing Todd from any connection with the Portland-area yards (See *Oregonian*, 25-February-1942, 13:3).

[3] The first Kaiser yard was owned and operated by the Oregon Shipbuilding Corporation and was variously referred to in print, both by the company and the media, as Oregon Ship, Oregonship and Oregon Shipbuilding throughout its existence. All direct quotation repeat the original form, with other textural references using "Oregonship," the most common term of reference to the yard.

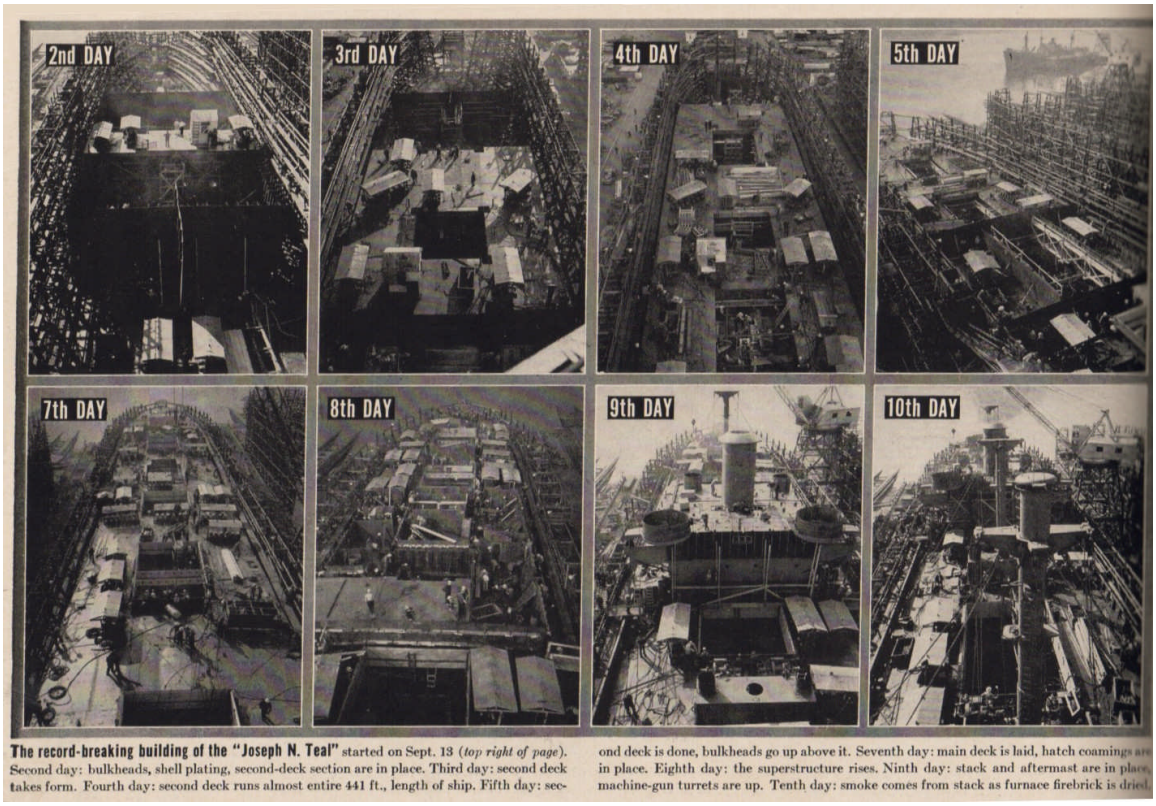
noted in the last chapter, it would be Portland, in September, that saw the Pacific's first Liberty Ship hull hit the water. The pattern of competition between these two yards, partially intentional on Kaiser's part, was set from the very start and would spur each to unheard of productivity.

Photo xx: Launching the *Star of Oregon*, Liberty Ship No. 1, 27-Sept-1941
Bos'n's Whistle, 21-January-1943

From its original eight-way plan, Oregonship was soon expanded to eleven shipways and established a record of production throughout the war, beginning with its first hull, that remains impressive by any standard. "In the hectic four years it has been in existence, Oregon Ship has broken more records and attracted more attention than any other shipyard any place else in the world" (Oregon Shipbuilding Corp, *Record Breakers*, 1945). In September 1942, just under a year after launching its first hull, Oregonship's *Joseph N. Teal* slid into the Willamette only ten days after its keel had been laid. President Roosevelt himself, under great secrecy, came to Portland to witness the historic launching, which was reported after the fact in both the *Oregonian* and *LIFE Magazine*.

> No shipyard in the world ever built a big freighter as quickly as the Oregon Shipbuilding Corp. of Portland, Oregon…owned by Henry J. Kaiser, who by now has hardly any shipbuilding records to break except those that he himself has set…(*LIFE Magazine*, 12-October-1942, 38).

Clay Bedford and Californiaship, with considerable pre-assembly, would shortly launch a ship in four days, though the Oregon yard dismissed that record as stunt, pointing out the *Teal* was launched as just one of a record-setting monthly production in Portland, a month in which the yard bested its Richmond rival despite have four fewer ways from which to launch hulls. In total, Oregonship launched nearly 500 ships, including 330 Liberty Ships, and then, later in the war, 136 Victory Ships and 30 Attack Transporters. Show-pieces and records aside, Oregonship retained a virtually unchallenged record as the nation's most productive shipyard month-by-month, throughout the entire WWII period, regularly building and launching Liberty Ships at the rate of sixteen to twenty each a month after the middle of 1942. Oregonship's highpoint, came in September 1943, when the yard launched a rather staggering total twenty-four ships in thirty days.



The record-breaking building of the "Joseph N. Teal" started on Sept. 13 (*top right of page*). Second day: bulkheads, shell plating, second-deck section are in place. Third day: second deck takes form. Fourth day: second deck runs almost entire 441 ft., length of ship. Fifth day: second deck is done, bulkheads go up above it. Seventh day: main deck is laid, hatch coamings are in place. Eighth day: the superstructure rises. Ninth day: stack and aftermast are in place, machine-gun turrets are up. Tenth day: smoke comes from stack as furnace firebrick is dried.

Photo xx: The record breaking building of the "Joseph N. Teal"
Life Magazine, 12-October-1942

To put this into perspective, in the 960 days of its operation, between the laying of its first keel for the *Star of Oregon* in May 1941 and the launching of the *Peter Moran*, the company's last ship, an ocean-going hull that slipped into the water on January 28, 1944, Oregonship, on average, launched an ocean-going vessel every other day for a period of

thirty-one months.[4] No other yard in the nation during WWII, or since, has come close to the standard production records maintained by the Oregon Shipbuilding Corporation between 1941 and 1945.

4.2 KAISER'S SHIPYARDS: VANCOUVER

In January 1942, less than a month after Pearl Harbor, work began on a second Kaiser yard in the Portland area. Vancouvership started out as an eight-way yard on the Columbia, to be built on a 186-acre tract of farmland. "The new yard, while slightly smaller than the Portland plant, is expected to prove more efficient…the men who designed the Portland plant, already setting records for the entire world, have noted certain mistakes in arrangement and now ….have drawn plans that will eliminate [them]" (*Oregonian*, 12-January-1942).

Ultimately, Vancouvership would be expanded to twelve ways, the largest yard in the area, and would be the only one of Kaiser's area yards to build US Navy ships, as opposed to maritime vessels. While it never challenged Oregonship for speed records, Vancouver gained recognition for its amazing versatility in efficiently building a wide variety of hull types that included not only Liberty and Victory ships, but a locally-designed aircraft carrier derived from a Liberty-ship based hull. Technically called Kaiser- or Casablanca-Class "Escort Carriers," these Vancouvership-built vessels were generally known as "Baby Flat-tops." Each 512' long, Kaiser-Class carriers were a response to the slow production required for traditional, full-scale, aircraft carriers. Typical of Kaiser's style, his proposal for the escort carriers was initially rejected by the US Navy (again because of Kaiser's lack of shipbuilding experience)[5] and their construction was only authorized after the personal intervention of the President Roosevelt. As FDR himself had come to Portland to christen the Joseph N. Teal at Oregonship, Eleanor Roosevelt was in Vancouver, to launch the U.S.S. Alazon Bay, the first Kaiser-Class Escort Carrier to slip down the ways into the Columbia River. In just over a year, Vancouver launched all fifteen ships of its initial carrier order and would go on to building another thirty-five before the war's end.

> The success of this class was a tribute to the ability of US designers to produce an eminently practical design in a very short time, and the speed with which the Casablancas were built was a demonstration — astonishing even the standards of the US industry during World War Two — of the

[4] This is even more remarkable when you consider that this war-long *average* includes the first hull, the Star of Oregon, that took 131 days to launch after its keel was laid. By the end of the war, Oregonship's *average* time for a ship to remain in a shipway was less than 20 days from keel laying to launch.

[5] The Navy took the attitude that Kaiser's rapid construction methods might be fine for the short life-expectancy of a Liberty ship, but was not adequate for a US Navy fighting vessel. Questions of design and construction dogged Baby Flattops during much of their existence.

prodigious energy of the American workforce and the effectiveness of US mass-production techniques.[6]

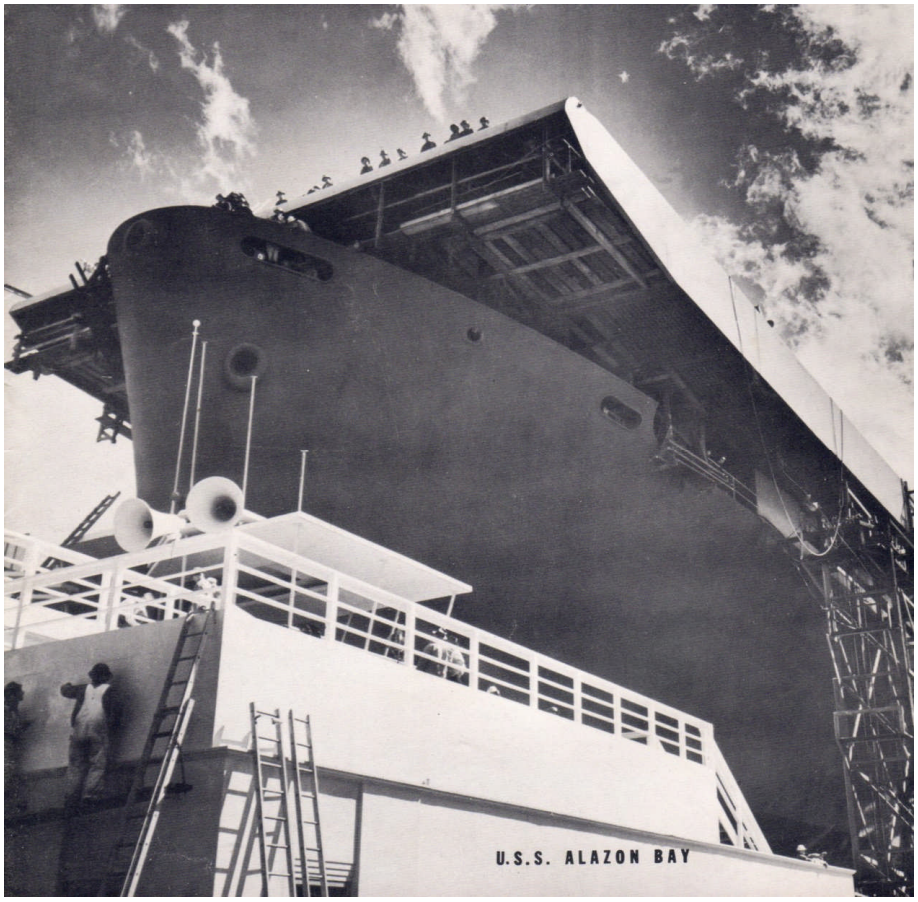


Photo xx: The *U.S.S. Alazon Bay*, First Kaiser-Class Escort Carrier, at Vancouvership *Bos'n's Whistle*, 8-April-1943

Baby Flattops played a major role in the air battles of the Pacific Ocean and served with distinction in many conflicts while freeing the nation's larger carriers for other tasks (MacDonald, 1962). In addition to the Liberty ships and escort carriers, Vancouvership also built Landing Ship Tanks (LSTs), cargo ships, tankers, fleet oilers, and troop transports, a total of 141 hulls that included 50 of the carriers (Del French, 2001:XV).

[6] http://www.angelfire.com/fm/odyssey/LEYTE_Casablancas_.htm (July 2006).

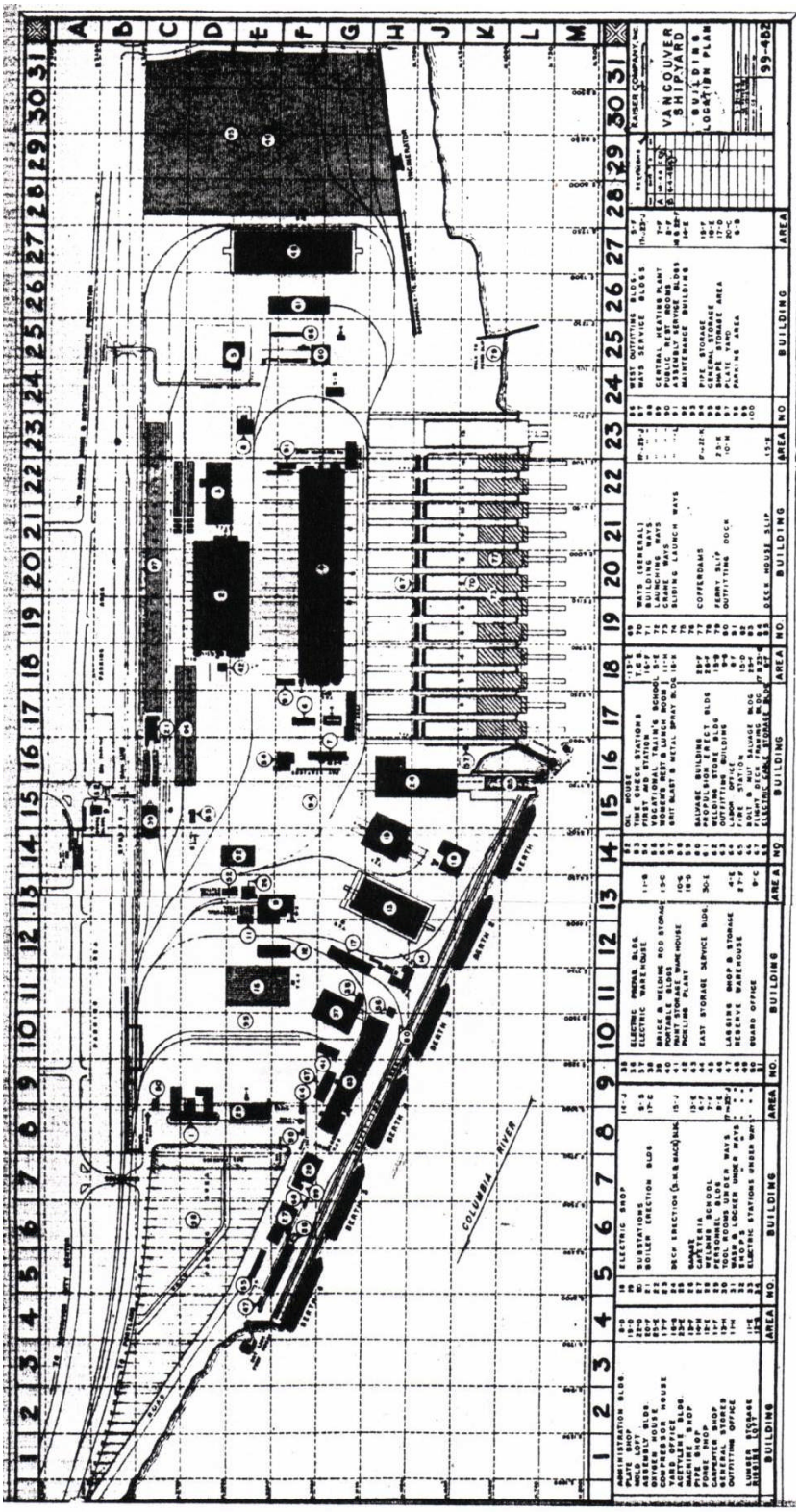


Photo xx: Vancouver Shipyard Site Plan
from *WWII History of the Supervisor of Shipbuilding*, 1945

4.3 KAISER'S SHIPYARDS: SWAN ISLAND

Kaiser's third and least celebrated yard in Portland was built on Swan Island, site of the city's former airport, a short distance south of the Oregonship. Construction of Swan Island was announced in March 1942, two months after work had started at Vancouver (*Oregonian*, 4-March-1942). The $17 million dollar Swan Island yard would have ten-ways and began with an initial order for a specialized version of the Liberty hull, a "C4," that was dedicated to tanker use, ferrying fuel and oil to the Allies' far-flung military and merchant forces around the world. Total employment at Swan Island would peak at around 30,000 workers. Swan Island laid its first keel at the end of June 1942, just 119 days after construction of the shipyard was announced to the public (*Oregonian*, 2-July-1942).

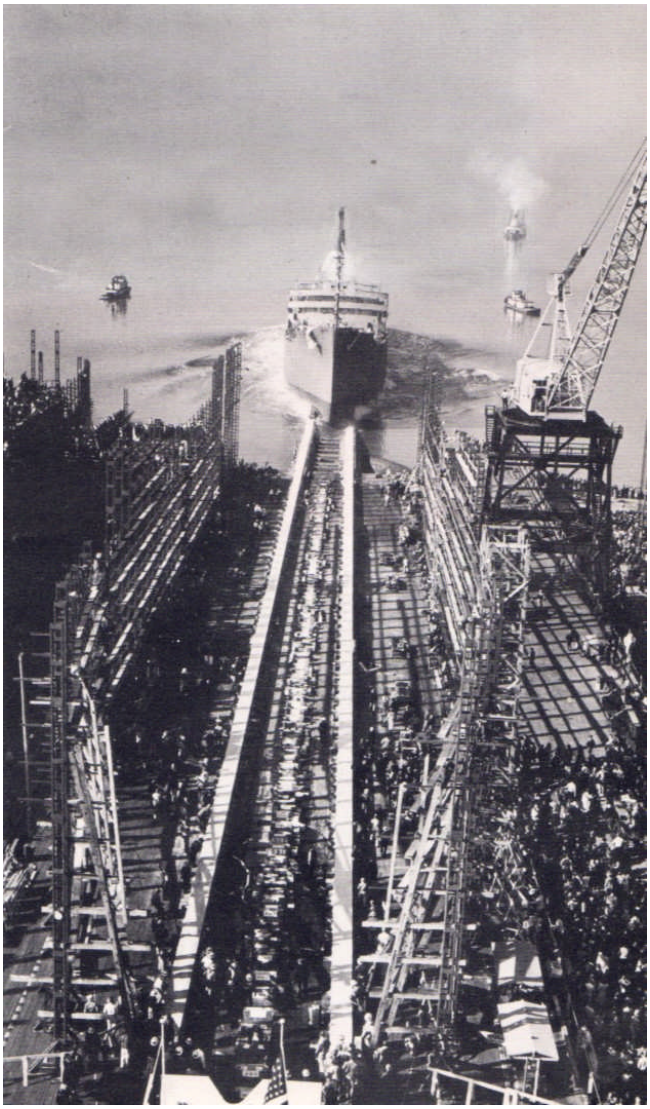


Photo xx: *SS Schenectady* Hits the Waters of the Willamette, Swan Island 1st Hull
Bos'n's Whistle, 5-November-1942

Like its sister operations, Swan Island developed a reputation for speed and quality of construction, not only meeting the seemingly impossible delivery deadlines set by the Maritime Commission at the start of the war, but besting those expectations so regularly that the Kaiser Yards became an emblem of American ingenuity and industry. The ships built at Swan Island, among the largest hulls ever built in the Portland area, were less glamorous than Vancouver's Escort Carriers and considerably less numerous than Oregonship's Liberty and Victory ships, but were again built in record time.

4.4 KAISER'S IMPACT IN PORTLAND

The three Kaiser-operated yards in the Portland area were responsible for the vast majority of the ships built in the area during World War II and, with a combined 100,000-plus employees at their peak, clearly caused the majority of the impacts that would effect the city during the war. Henry Kaiser, the yards' owner, was a skilled self-promoter and brought considerable attention to the city simply through his connection to it.

The fact that Kaiser's Oregon yards were as prolific as they were, and as efficient in shipbuilding, of course only bolstered his inherent ability to attract attention. Projects like the *Joseph N. Teal* and articles in *Life* magazine helped to make Oregonship in particular something a nationally-regarded entity, an example of American "Can-Do" that was seen as a model to industry all over the country.

The Kaiser yards' reputation in Portland itself was bolstered in mid-1941, when Oregonship established what was theoretically an 'in-house' communications tool, a bi-weekly magazine called "*The Bos'n's Whistle*." In January 1942, after Hal Babbitt took over as its editor, the publication quickly developed into a well-written professional journal, expanded to reach Vancouvership and Swan Island as those yards started production.

Amply illustrated by Kaiser's staff photographers, the *Whistle* chronicled the activities of the three yards and provided worker's information on safety, local events, and other matters on importance to the company's huge work-force (Osborne, 1946:89). With a circulation of nearly 100,000, the *Whistle* was a printed on slick glossy paper, included regular columns, a cartoon about yard life (drawn by a company employee and starring "Stubby Bilgebottom"). The *Whistle* made an consistent effort to educate the workforce on shipbuilding, educational opportunities, housing and transportation issues, while building a strong esprit de corps. A typical issue might include notes of bond winners, production records or what sort of footwear was most appropriate and comfortable for workers in the years. *Whistle* articles, and particularly photographs, were regularly reprinted in the *Oregonian* and *Oregon Journal*, increasing their regional impact as well as bridging community-shipyard understanding. All this, from Kaiser's own larger-than-life persona to the laudable production records and the company's ability to promote its activities, served to make Oregonship the "flagship," of the shipbuilding industry in the Portland area.

The BOS'N'S' WHISTLE

JULY 18, 1941 — OREGON SHIPBUILDING CORPORATION — VOL. 1, No. 1

Launched!

A CRITICAL MOMENT IS THE LAUNCH OF A VESSEL, WHEN THE FORE-PART OF SHIP RUNS OVER THE END OF THE GREASED LAUNCHWAY. AFTER THE LAUNCHING HAS TAKEN PLACE, TUGS TAKE THE SHIP AND TOW HER ALONGSIDE THE FITTING-OUT BASIN.

SO WE HAVE LAUNCHED THE "BO'SN'S' WHISTLE"!

Before she slid down the ways she was caulked and tested for water-tightness, her propellers placed in position, boilers in place, and, just to be different, machinery installed ready for operation . . . anxious and impatient for the trial run.

There may be some additional outfitting necessary: cargo gear, masts, funnels, derricks, etc. (Let's not forget the lifeboats! . .)

SPLASH! She has left the launchways, entered her element,and appears to float at light draught successfully.

We hope you, her owners, will accept her!

FULL SPEED AHEAD ! ! !

Slipping from the Ways

Photo xx: Bos'n's Whistle, Launched! Vol. 1, No. 1
Bos'n's Whistle, 18-July-1941

While Kaiser's Oregonship, and to an only slightly lesser extent Vancouvership and Swan Island, garnered most of the national acclaim and the local headlines, they were not the

only companies launching hulls in the Portland area during World War II or otherwise engaged in manufacturing activities connection with the nation's defense. Indeed, the Kaiser yards weren't even the first in the area to have garnered government contracts during WWII. Throughout 1940, the Portland shipbuilding was being re-energized as contracts flowed into the area, though not nearly to the degree locals hoped. "Shipbuilding of a sort, came back to Portland during 1940-, but thus far it has not developed the impetus expected" (*Oregonian,* 1-January-1941).

While perhaps not what the local business community hoped for, January 1941 arrived in Portland with Commercial Iron Works building two $500,000 anti-submarine net tenders for the US Navy and the Willamette Iron and Steel Corporation was under contract for two large minelayers, each estimated at $12,000,000. The latter "…constitute a ship building contract of the first order, and a fine one for Portland because it means steady work for many men (*Oregonian,* 1-January-1941). Even if Kaiser's yards ultimately grabbed most of the attention, during the course of WWII many other Portland companies, including some with long traditions of shipbuilding on the Willamette, would create their own impressive records during the war years.

4.5 COMMERCIAL IRON WORKS

Located at the western end of the Ross Island Bridge, south of downtown Portland and on the opposite side of the Willamette River than the Kaiser yards, Commercial Iron Works (CWI) was founded as a shipyard in the late 19th century and played an important role on Portland's waterfront for nearly half a century prior to WWII. The company built the first U.S. Navy vessel ever constructed in Portland, in 1898, and had a long tradition for quality work (*The Porthole,* 15-May-1943). It was one of three Portland yards contracted to build naval ships, rather the maritime contracts held by Oregonship and the other Kaiser yards.

During the war, CWI produced over 200 hulls, including net tenders such as those it had started work upon in 1940. CWI also built minesweepers, sub-chasers, landing craft, ammunition tenders and a wide variety of other vessels.[7] The company published a monthly magazine for its workers, *The Porthole*, and like Kaiser's yards took pride in setting production records of its own.

[7] See "Commercial Iron Works Scrapbook," Oregon Historical Society MS #460.

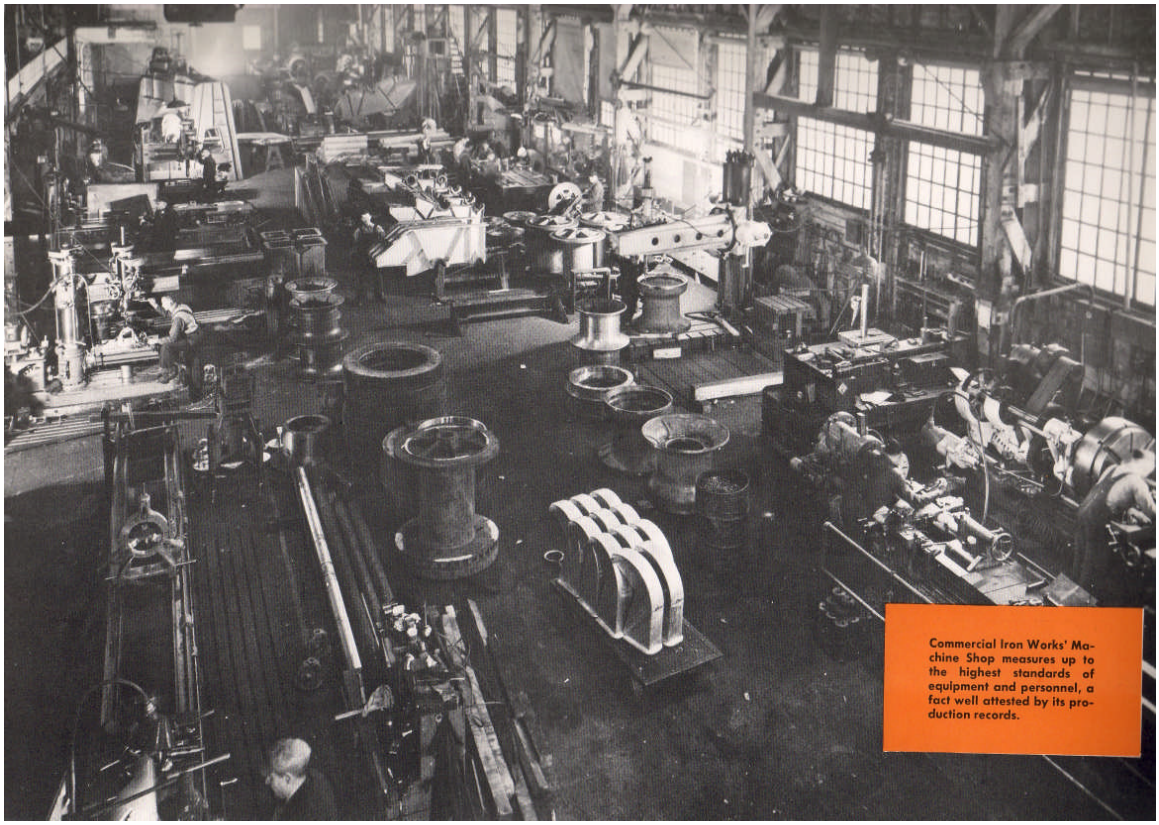


Photo xx CWI Machine Shop Measures Up
CWI Image/Oregon State Library Collection

4.6 WILLAMETTE IRON AND STEEL CORPORATION (WISCO)

Tracing its roots in Portland to 1865, the Willamette Iron & Steel Corporation or WISCO is today better known as a producer of gear-driven steam locomotives used in the logging industry but during its history the company built a variety of other steel products that ranged from fire hydrants to steam donkeys.[8] WISCO's shipyard was located on N.W. Front Street, extending for several thousand feet along the western bank of the river.

Among its other activities before WWI, Willamette had been a small scale shipyard and repair facility since 1904. Building on that tradition, the company significantly expanded its shipbuilding operations at the start of the second world war.[9] Indeed in late 1940 WISCO was awarded a contract to built two mine-laying vessels for the US Navy, the first WWII-era ship contracts in the Portland area (USN Bureau of Ships, 1945:III-1). Like CWI, Willamette would contract to have hulls built elsewhere, often in Tacoma, and then would complete the project in its own yards, including installation of power plants

[8] In earlier forms, WISCO was known under the corporate names of Willamette Iron and Willamette Iron and Steel Works.

[9] See http://www.coltoncompany.com/shipbldg/ussbldrs/wwii/navalshipbuilders/willamette.htm (July 2006).

and outfitting. WISCO was also and important engine manufacturer and in addition to providing engines for its own projects, was an important supplier of engines to other yards, most notably Oregonship. The scope of WISCO's work in Liberty Ships was included in an announcement of a $6 million dollar Maritime Commission order for 56 more engines. "Willamette Iron and Steel is building 71 engines for the commission under previous contracts, bringing the total ordered from this firm to 127 units" (*Oregonian*, 14-Feb-1942, 1:4).

During the war, WISCO launched the first aircraft carrier ever built in Oregon, the HMS Tracker, commissioned by the British Navy in January 1943 (WISCO, c1946).[10] WISCO also built dozens of ships for the US Navy

> Millions of dollars of more work was allotted to Portland shipyards when the Navy Department…announced the award of a contract for 14 mine sweepers to Willamette Iron and Steel…" (*Oregonian*, 13-Feb-1943, 1:8).

Photo xx WISCO Yards, c1946
Oregon State Library

Upon receipt of the minesweeper order, WISCO announced plans to build an additional shipway and plans to increase its workforce from 4000 to over 6000. By 1945, as the

[10] This was considered a true carrier, rather than the Kaiser-class escort carriers that Vancouvership was building on a Liberty Ship hull.

shipbuilding period wound down, WISCO would have delivered more than thirty minesweepers, sub-chasers, auxiliary vessels, and patrol craft to the US Navy. The company is also is of note for its launching the LSV-2 Catskill, a 453' foot long ship that along with its sister, the Ozark, were the first of their type (the "Catskill Class") ever built, and are considered the ultimate minesweeper form used in WWII.

4.7 ALBINA ENGINE & MACHINE WORKS

Founded in 1904, Albina was another veteran Portland-area shipyard. "Back in the world war days of 1918 and 1919, this company launched seventeen small freighters from the same site on which it is now proposed to build small tankers" (*Oregonian*, 10-January-1941,10:4). Albina was located on the east side of the Willamette River, at a sprawling compound lining N. River and N. Loring streets, just south of the US 30. Like most of the earlier Portland yards, Albina relied primarily on repair work during the 20s and 30s but returned to building ships as part of the Arsenal of Democracy buildup prior to Pearl Harbor (*Albina Subchaser*, 19-Nov-1942). Albina specialized in building "subchasers," 173' long steel-hulled ships that were specially designed to attack U-Boats and submarines in shallow coastal waters. In early January 1942, Albina launched the second of nine sub-chasers the company built under contract for the US Navy (*Oregonian*, 23-Jan-1942, 14:1). Albina was the first shipyard in Portland's history to win the Navy's "coveted E pennant," for efficiency (*Oregonian*, 13-Feb-1942, 4:1).[11]

Photo xx: The *USS Hubbard*, PC 815 (Albina Hull No. 99)
Oregon State Library Image

Like most of the other yards in the region, Albina published an in-house newspaper to keep its workers and the media informed. Not as professional as the Kaiser publications, the *Albina Subchaser*, was written and edited by the company's employees. The

[11] Oregonship and WISCO were awarded E pennants within the week, with several other yards also achieving this honor during the course of the war.

Subchaser was published semi-monthly and carried news of the company's bond drives, employee-based teams and other information.

Albina's workers took to referring to the subchasers during construction as "HellShips," and started to give each hull a provocative (if temporary) name that resonated locally, including "Hell for Hitler," Hell for Mussolini," "Hell-A-Plenty" and "Hell-in-General" (*Albina Subchaser*, 13-August-1942).[12] The Hellships were described as a "…lean, trim, 175-foot speedboat that is death to Axis submarines… a deadly craft that foretells hell for the enemy" (*Oregonian*, 29-August-1942). [13]

Albina established a record setting pace for its construction of the subchasers, averaging 140 days per hull and set a world record with the launching of the "Hell Harvest" in just 27 days. "The job was handled by what is believed to the smallest crew ever to turn out a fast job…which means (the ship) was built in the smallest number of man hours in the history of subchaser building. That is the real record, the record Albina workers take pride in" (*Albina Subchaser*, 27-August-1942).

Another notable aspect of the Albina Engine and Machine Company was its particular efforts to employ disabled veterans and the handicapped. After touring the Albina plant and reviewing its record-setting production practices, US Vice President Henry Wallace commented "The thing that has impressed me most at Albina is the manner in which you are utilizing veterans and civilians who are handicapped…who are unable to hear or speak" (*Albina Subchaser*, 15-Feb-1944).

4.8 GUNDERSON

Gunderson Brothers Company was another established Portland firm, noted for its experience in steel fabrication of various sorts, including trailers, wire wheels, truck bodies and other projects before it undertook re-tooling to supply defense-related work during the war. Started in 1919, Gunderson Brothers had enjoyed steady growth. "From a downtown garage in Linnton, the concern has expanded into one of the Pacific Coast's finest all-covered waterfront boatbuilding plants [and] ….payroll has jumped within a comparatively few months from a handful of 30 or 40 workers to a factory crew of 500 men.." (*Oregonian*, 9-August-1942).

During WWII, Gunderson turned to another traditional northwestern industry, lumber, in its search for ways around the growing iron shortages that were hampering shipbuilding nationally. The company developed and constructed the worlds' first laminated plywood

[12] Most of the other shipyards referred to hulls by number only, until they were launched and christened with their actual names.

[13] In keeping with the somewhat ribald tone that accompanies much of WWII shipbuilding, the Albina women's bowling team (a part of a city-wide league) were known as the "Hell Hussies."

lifeboats, using techniques that would later become more famous in the development of the famed PT-Boats.

> Portland's growing log of war contracts was boosted this week when the United States Maritime Commission signed a contract with Gunderson Brothers company for the construction of 1000 new-type plywood lifeboats" (*Oregonian*, 17-July-1942).

In addition to the thousands of small lifeboats it built during the course of the war, Gunderson Brothers also built a total of 442 landing craft, each 50 feet long and 14 feet abeam, used by the Navy to land tanks, construction machinery and other equipment on beaches all over the Pacific theater. These welded hulls, essentially barges, were simple but rugged enough to operate in exposed waters, each powered by a diesel engine (USN Bureau of Ships, 1945:IV-11).

4.9 OREGON WAR INDUSTRIES

Portland six major shipyards, three building maritime hulls and three working for the navy, sat atop a huge supply pyramid that relied on goods from all over the country, although much came from the west coast. For example Kaiser, to assure a ready supply of steel plate for all his yards, built his own steel foundry in Fontana, California. In Portland dozens of smaller companies including machine shops, patternworks, small foundries and other specialized fabricators, converted to defense-related work during the war and helped supply an entire range of components that were instrumental in keeping the big shipyards on schedule. Local firms cast anchor chains and propellers, built benches and tables, flanges, crow's nest assemblies and a vast range of products that were installed in Portland-built hulls as well as shipped to shipyard as far away as New England and Alabama.

To better deal with the massive military bureaucracy and streamline the bidding and billing processes associated with large government contracts, many of the region's smaller firms banded together as a collective under the banner of "Oregon War Industries, Inc."

> OWI is a pool of industrial facilities, principally metal working, in Portland, Oregon. Twenty of the largest and best equipped firms are members and stockholders…the pool brings together a wide field of equipment ranging from precision machine tools to plate and structural steel working machines…including all types of foundries (for) barge building and ship conversion facilities (OWI Papers, "Exhibit A").

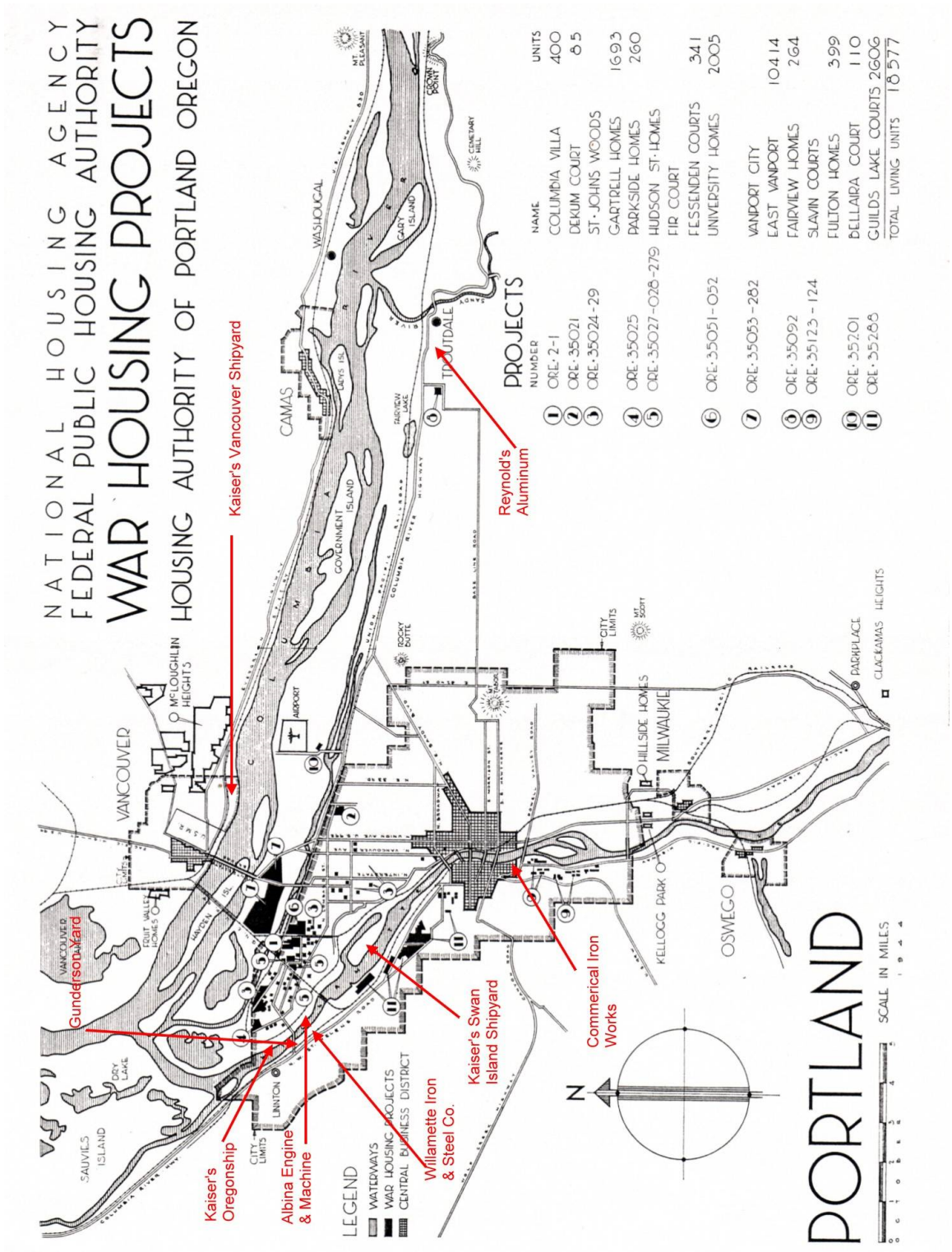


Photo xx: War Housing Map, Annotated to Show Shipyard Locations
From HAP, *Roses to Rivets*, 1946

Near the war's end OWI reported having been awarded nearly 200 separate contracts from various Federal agencies, with a total value of estimated at more than $50 million dollars (Portland Chamber, 1945:30). Among OWI firms one of the more notable was the Iron Fireman Manufacturing Company, a long-time Portland firm, that built huge ships engines for Kaiser's Californiaship and Marinship as well as for the Portland yards.

> The first engine made by the Iron Fireman Manufacturing company in co-operation with Oregon War Industries, Inc. (was launched) today at the Oregon Shipbuilding Corporation…OWI Inc. is under contract for 136 engines…" (*Oregonian* 18-July-1942).

4.10 MORE THAN SHIPS

While shipbuilding was the marquee defense industry in the Portland area, setting records for speed and production, garnering most of the press, and employing the majority of defense workers, companies that made other critical war-related materials were also established in the region during the WWII era. Chief among these were the several aluminum plants that were built almost entirely as a result of the abundant and inexpensive electric power produced by the Bonneville Power Administration. Aluminum demand during the war "skyrocketed" due to the material's utility in modern aircraft construction.

> The first (aluminum) reduction mill in the region was built by Alcoa at Vancouver, Washington. In December 1939 the signed a 20-year contract with the Bonneville Power Administration...and a second line was added in February 1940 (DOI/BPA, 1953:3).

The huge Alcoa Plant, with its 164,000 ton capacity, was alone capable of producing the equivalent of the rest of the nation's entire aluminum production upon its completion (DOI/BPA 1953:12). Even so, anticipating coming wartime demand, and interested in even further increasing capacity and avoiding monopoly, the Reconstruction Finance Corporation, prodded by the War Department, provided monies to build a Reynolds Metal Corporation plant at Longview, Washington that went into production in August 1941. Defense Plants Corporation, in cooperation with Alcoa, built the Portland area's third aluminum mill at Troutdale, Oregon within the year. After the war Reynolds Aluminum purchased the Troutdale plant and continued to operate it.[14] Collectively these three aluminum plants were responsible for a considerable percent of the entire aluminum production in the nation and provided most of the materials for the Boeing Aircraft Company's critical airplane production in the Seattle area. The Portland area aluminum

[14] DPC also built an aluminum plant in Spokane, Washington, which also relied upon BPA power. This plant was to operated by a newcomer the industry, the irrepressible Henry Kaiser, under the banner Permanente Metals Corporation, a company that later evolved into Kaiser Aluminum (DOI/BPA, 1953:14, see also Heiner, 1991264-65).

plants, while not as large in impact as the shipyards, still employed thousands of defense workers in the Portland area during the war.

Another key defense plant was the Electro Metallurgical Company, a division of Union Carbide. In March 1941 the company purchased a 100 acre tract north of St. Johns and announced plans to develop a calcium carbide and Ferro-silicon manufacturing facility. "About 300 men will be employed at the outset and the original plant investment will be about $2,500,000…(*Oregonian*, 20-March-1941, 1:2).

Other lesser-known and smaller scale industries related to the defense effort also operated in the Portland area during World War II. The Pacific Chain and Manufacturing Company, located at 1901 N. W. Wilson, expanded it operation to quadruple its output of anchor chains for use by Liberty Ships (*Oregonian*, 18-March-1942, 5:6). Oregon lumber yards milled Douglas Fir for use in manufacturing army truck beds of wood, at the time estimated to provide $75 million worth of worth for Oregon manufacturing plants while replacing the need for steel, needed for other uses during the war (Oregonian, 30-August-1942, 14:1-3). Such operations as these, and many others, competed for workers with the shipyards and aluminum plants, each creating more new jobs and putting additional pressure on the city's housing supply, transportation network and daily life. In addition to manufacturing, Portland-area firms with defense-related contracts included a wide variety of chemical plants. "Portland has two carbide plants, ...two soap plants, a sodium chlorate plant, a Ferro-alloy plant, a half dozen oxygen and acetylene plants, and several other specialty chemical plants" (Portland Chamber, 1945:35). A year end summary in 1941, reported that "Portland's dreams of centering an aluminum and chemical empire were translated from hopes into actualities in 1941," and elaborated upon the millions of dollars in new investment in the area from not only Alcoa and Reynolds, but also the Pennsylvania Salt Manufacturing Company, United Engineering and Foundry, of Pittsburgh, Pacific Carbide and Alloy, General Chemical and many others. (*Oregonian*, 28-December-1941).

4.11 GAINING RECOGNITION MERIT FLAGS & PENNANTS

In order to encourage quality work, and to promote the competition between the yard that Henry Kaiser had already shown could work to phenomenal advantage, the US Maritime Commission developed several awards programs to mark the achievements of the Maritime yards under its review. The Navy also recognized excellence in shipbuilding and industry through a series of awards programs. Oregon's shipyards, Kaisers as well as the others, all were regularly recognized for their continual production records, contract completion, and other achievements.

> The Oregon Shipbuilding Corporation is the first shipyard in the United States to receive the 'M' button for outstanding production. Wear it proudly! (Bos'n's Whistle, 2-July-1942).

A month later Oregonship became the first yard in the entire United States to receive a gold star on its Merit Flag. Rear Admiral Howard Vickery, Maritime Commission Vice-Chairman formally presented the award at the yard, stating "This is the yard of firsts. First to deliver a Liberty Ship on the West Coast, first to win the Maritime Commission award and the only Maritime yard to receive the Navy 'E" (*Bos'n's Whistle*, 28-July-1942). Oregonship's continual record of production, virtually unmatched nationally, brought that yard in particular almost every honor and award that was available. Having received its first flat in April 1942 and then adding gold stars for the rest of the year, the yard received as new award, the Gold Eagle flag, less than a year later.

> Already so weighted down with gold stars that it can hardly wave…the Commission has announced that Oregon is in line of anew award to be known as the Gold Eagle flag, the first of its kind to be presented to any yard…(*Bos'n's Whistle,* 25-March-1943).

Displaying Oregon's newest Flag of Merit are A. J. Fraser, principal machinery inspector; Charles H. Walls, resident engineer of the Maritime Commission; James P. McDonnell, purchase and supply officer, U.S.M.C., and Bill Owens, O. S. C. burner supervisor, who received the flag on behalf of the workers.

Photo xx: Oregonship's Star-Spangled Merit Flag
Bos'n's Whistle, 25-Merit-1943

Although Oregonship, and to only a slightly lesser degree the other two Kaiser yards, garnered most of the recognition and awards, Portland other defense contractors were also frequently honored by either the Maritime Commission or the US Navy for their record-setting production efforts. The first yard in the area to be recognized was Albina Engine and Machine Works, which raised the US Navy's "…coveted E [efficiency] Pennant, the first time in the history of this port that it has flown over anything but a naval vessel" (*Oregonian*, 13-February-1942, 4:1).

Albina Shipbuilders Honored by Navy's Efficiency Pennant

Presentation of the navy's coveted "E" pennant, for efficiency, and the white flag of the navy's bureau of ships to Albina Engine & Machine Works, Inc., of Portland Thursday was highlighted by the award of merit badges to the three oldest workers, shown above with George Rodgers, left, president of the corporation. The trio included Andrew Anderson, over whose shoulder the efficiency flags are shown; Percy L. Symons and Leo McCurdy. Announcement of award of contracts for six more submarine chasers to the company was made. The penants were won in national competition.

Photo xx: Albina Raises 'E' Pennant
Oregonian, 13-February-1942

In addition to national awards, most of the yards also had internal awards programs, to recognize workers. Kaiser's yards, in particular, took great pride in the improvements to its production, safety measures and even modifications to tooling that came from the workers themselves, offering regular prizes (usually a $25 bond coupled with a certificate) for suggestions. "A skilled workman on the bench or lathe knows more about his work than the man who designed the machine…We need his ideas today…the millions of little improvements that save an hour or a pound of brass make it devastating. In their aggregate, these will amass our production victory" (*Bos'n's Whistle*, 4-February-1943).

4.12 BUILDING FOR DEFENSE-A FEDERAL-PRIVATE PARTNERSHIP

In retrospect, Portland's defense industry was a collective of many different firms, including long-established, locally-based, companies like CWI, WISCO and Albina, complimented by entirely new collaborative ventures such as Oregon War Industries, that were formed simply to meet the incredible demands for production during the war. The war also brought new firms to the area with regional, or even national, scope including Alcoa Aluminum and, of course, the various Kaiser-connected firms such as Todd Shipbuilding and the Six Companies. All of these companies worked in partnership with a series of Federal agencies, both civilian and military, for the duration of the conflict, allowing them to meet tight production schedules, secure scare resources, develop improved product designs, and to find and satisfy the nation's wartime production demands.

Along with the Bonneville Power Administration, whose electrical output provided a major element in making Portland a defense center from the start, chief among the Federal agencies in Portland was the Supervisor of Shipbuilding, an office of the U.S. Navy's Bureau of Ships. The Supervisor's office was established in Portland along with the first contract for shipbuilding work in the area. "[T]he office of the Supervisor of Shipbuilding, Portland, Oregon was established on 2-January-1942, in the 13th Naval District, at the plant of the Willamette Iron and Steel Corporation" (USN Bureau of Ships, 1945:III-1). The Bureau of Ships maintained a presence in Portland throughout the war, working with the Naval yards in the same manner that the US Maritime Commission oversaw the three Kaiser Yards, that produced "maritime" ships under a different Federal funding and review system.[15]

Federal involvement played an important role in area defense manufacturing due to the increasing shortages of a wide variety of critical materials. In January 1942, six weeks after America's entry into the war, President Roosevelt appointed Donald M. Nelson as the head of the War Production Board Steel, transferring him from his previous role at SPAB, the Supply Priorities and Allocations Board. Nelson "…will be the big boss, the wartime czar, empowered to tell American industry what to do, and to expect its ready compliance. His only superior officer is President Roosevelt himself" (*Oregonian*, 14-January-1942, 1:4-5). Soon steel, rubber, copper, electricity and virtually everything else associated with manufacturing was allocated on a priority basis, with critical industries like shipbuilding taking preference over obviously important, if less directly-defense related, industries such as construction.

Priority determinations were a constant irritant for many Portlanders during the early days of the war, as shipbuilders sought high priority for their own production, but recognized

[15] This separation seems to have been less than absolute. Many hulls produced by the three "Maritime" yards, and inspected, received (and presumably paid for) by the Maritime Commission, were ultimately delivered to the US Navy and accepted by the Supervisor of Shipbuilding (USN Bureau of Ships, 1945). The best example of what was obviously not a maritime hull, was the "baby flattops" built by Vancouvership.

that their workers also needed rubber for tires and gasoline in order to get to the yards. Ship workers competed with other "non-essential workers" for clothes, food, housing, butter, meat, shoes, and virtually everything else the people flooding into the Willamette valley required, under a ration system established by the government. As a result of rationed materials and supplies, Portland, already faced with severe pressures on virtually every aspect of its life, was forced to look for ever more creative solutions to handle the influx of more than 100,000 new residents.

A third major area of Federal involvement was in housing. Providing quarters for the area's legions of workers was identified as a serious public concern almost concurrently with the announcement of the first Kaiser yard. In April 1941 Portland's Mayor, Earl Riley, appointed a 15-member commission to survey available housing units and recommend a system to shelter the expected influx of new workers (*Oregonian*, 20-April-1941, 14:1-2). During 1941 the Federal government, through the Division of Defense Housing, began to plan for various workers housing projects in Portland. Unfortunately that effort was stymied by local resistance to government involvement in the housing industry and concerns over the long-term impacts of public housing projects on the area's economy. While some defense housing planning was accomplished, serious attention to the area's growing housing needs languished and nothing was actually built or even started. Near the end of the 1941, eight month's after the Mayoral commission on worker housing had begun its task, the *Oregonian* reported that "…Oregon Shipbuilding officials state that there is not a vacant house within six miles of that plant (*Oregonian*, 4-December-1941, 12:1). The lack of local attention to this issue was obviously unacceptable to Oregonship and they began to make noises about solving the problem directly. The Division of Defense Housing began to look for projects it could pursue on its own, with or without City of Portland involvement.

The Portland City Council, faced with the entirely likely possibility that the Federal government would simply establish its own housing program in the area to deal with the problem if it did not do so itself, finally established the Housing Authority of Portland (HAP) on 11-December-1941, four days after Pearl Harbor. The HAP Board, which would ultimately oversee the single largest public housing authority in the United States during World War II, immediately set about figuring out how it could address Portland's critical housing shortage, a problem that was only going to worsen now that the nation was actually at war.

5.0 HOUSING- WHERE THE WORKERS LIVED

On their own, the three Kaiser shipyards in the Portland-Vancouver area created over 100,000 new jobs, the majority of which were filled by people who migrated to the area to seek employment in defense work. Other major industries, such as the three large aluminum plants, also required thousands of new employees, while established Portland-based firms like Gunderson Brothers, Willamette Iron and Steel Corporation or Commercial Iron Works, doubled, or even trebled their workforces. As the defense industry workforce grew, support industries such as transportation, food service and even entertainment venues, each faced increased demands for their services and so they too expanded, attracting even more new residents to the area to work in those non-defense related sectors of the economy.

Collectively, all these new employees and their families, some working in critical defense industries, others in the more mundane services the defense workers required to exist, put incredible pressure on the housing market. Realtors enjoyed a boom in housing sales, particularly in the early phases of the war, but many of the new workers were transient families, single men, or single women. These groups were more likely to seek shared rental units or other kinds of less-permanent living situations such as trailers to 'hot beds, than they were to purchase a home."[1] HAP, the Housing Authority of Portland, along with the Vancouver Housing Authority (established in February 1942) were the two local entities with the responsibility of assuring that defense industry workers had a place to live.[2]

5.1 PUBLIC HOUSING?

In the years before World War II, from its leaders down, Portland had long had concerns about the impact of public housing. This is perhaps most clearly documented by a 2-to-1 rejection of a 1938 ballot effort at establishing a local housing authority. That opposition in large part delayed the creation of the Housing Authority of Portland for nearly a year after the public announcement of the first Kaiser Shipyard in January 1941, despite clear indications that the housing market in Portland was going to escalate beyond the ability of private interests. Only after it became clear that the Federal government itself would step in and construct housing projects on its own, with or without the support of the City, and ultimately only after Pearl Harbor, on December 11, 1941, when America itself was in the war and the defense was our own, did the Portland City Council finally capitulate and form a local housing authority to house in flood of workers.

The City didn't embrace the concept of public housing entirely, however. To assure it retained control, the Council appointed a commission to oversee all of HAP's projects.

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[1] "Hot beds" was the term used when two or three workers shared an apartment, sleeping in the same bed when off their staggered shifts. Since the bed was rarely unoccupied, they sheets were always warm and thus the term "hot bed" came into common use to described the shared arrangement.

[2] The considerably smaller Clackamas County Housing Authority, formed to provide public housing, converted its projects to house defense workers during the war as well.

HAP's first chairman, appointed personally by Mayor Riley, was C(ecil) M. Gartrell, who had previously served on the Mayor's housing survey committee in April 1941 and then been Chair of the Greater Portland Defense Housing Committee, apparently a committee of the Portland Chamber of Commerce. Gartrell, born in Australia in 1900, educated in Chicago, entered the banking industry in California in 1922 and relocated to Portland only five years before the start of the war (*Who's Who*, 1948-207). In 1941 he served as an Assistant Vice-President at First National Bank of Portland. While not a public housing advocate by an means, Gartrell probably had more experience in studying the defense housing market in Portland than any other likely candidate at the time. Joining Gartrell on the HAP Commission, were Chester A. Moores, a prominent realtor (Vice-Chairman), Herbert Dalhke (Secretary), D. E. Nickerson, and Mrs. C. A. Jackson (*Oregonian*, 20-December-1941, 6:5-6). None of these appointees could be considered active proponents of public housing and in fact most had strong connections to the real estate and banking interests in Portland, the same group that worked to delay or avoid the creation of public housing in the city with such success.

Whatever their initial disposition, the HAP Board immediately began efforts to ramp up construction of Portland's long-delayed defense housing projects. Gartrell himself, although he who presumably brought little direct experience to the problem, became synonymous with a short term plan to house workers quickly, before any of the larger projects could be finalized.

5.2 THE GARTRELL GROUP

Upon its creation, HAP had only a single project of 400 new units under consideration and even that project, that would be known Columbia Villa, was still several months away from ground-breaking. In the meantime, with more workers flooding into the area as the shipyards expanded, the nation was at war, the housing situation reached truly dire proportions. In response, HAP developed an innovative program to quickly supply more than 700 new housing units through a program dubbed the Gartrell Plan.

As a banker, C. M. Gartrell knew that the City of Portland, as the result of foreclosures and back-taxes during the Great Depression, owned a considerable number of building sites, many of them in the NE and St. Johns area where Kaiser's Oregonship was located. These properties, some with dwellings upon them but many just lots, were already served by the city's street and bus systems, had access to existing water, electricity and sewer systems and were currently un-used. Through Gartrell, HAP proposed to lease these city-owned lots from the City for the duration of the war. HAP would build quick, temporary, shelters upon them and agreed to remove the structures immediately after the end of hostilities and return the land to the City (HAP, *Roses to Rivets*, 1945). Given the situation it was a fairly nifty response, allowing HAP to quickly begin construction of sorely needed units while the agency's larger projects were being planned. Perhaps even more importantly, though, the Gartrell Plan eased the City of Portland into the public housing business in a gentle fashion. The City would maintain ultimate of the "Lot

Lease" worker units and once the war was over, HAP promised they would be removed, guaranteeing that they wouldn't become 'slums' or otherwise compete with private property owners.

Portland's business community quickly embraced the Gartrell concept and HAP's chairman and the city were applauded for the innovative method of using publicly-owned lands. "Enthusiastic approval of the "Gartrell plan" for Portland defense housing was given by Landgon Post, regional director of the US Housing Authority …Projects similar to (the plan) have been considered at various times throughout the country…However this is the first time that a community has had initiative enough to try it…" (*Oregonian*, 18-April-1942).

Gartrell House (Typical)
City of Portland/Stanley Parr Archives image

In what would become a pattern, the Gartrell Group units were entirely designed by local architects and put out for bid in small groups that allowed smaller, Portland-based, contractors to successfully compete for the work. Architects involved with the Gartrell Group included such notable Portland firms as Wade Pipes, Margaret Fritsch, Annand & Kennedy, Richard Sundeleaf and Herman Brookman. Builders included A. Palumbo,

Howard Halvorson, Cephas Dunlap, among others.[3] While there was no standard "Gartrell Group" house type, all seem to have taken advantage of mass-production techniques and new materials, using plywood and some pre-assembly. The buildings had no foundations, rising from posts, and while entirely serviceable, were obviously not intended to last, but rather for speed. In July 1942 an entire unit was built on Burgard Ave, near Bruce, in just 44 minutes (Daily Journal of Commerce, 31-July-1944).

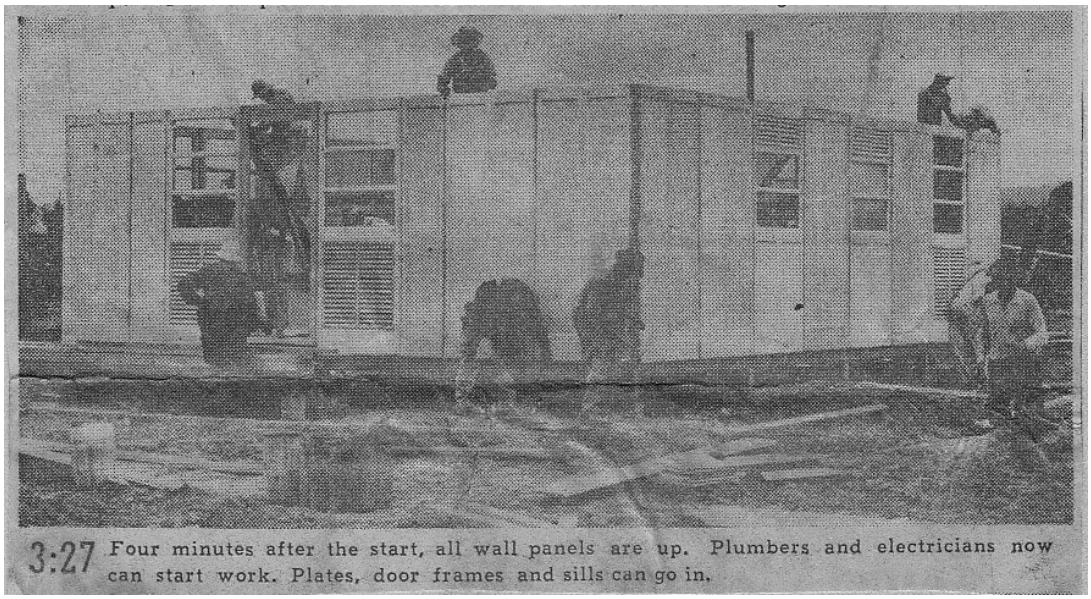


Photo xx: The 44-Minute House, July 1942
HAP Scrapbooks

The first group of five Gartrell sites were approved in late April, the first actual construction authorized under the HAP program. "The move will mark the formal launching of a program of construction of some 725 of the temporary housing units in Portland" (*Oregonian*, 28-April-1942, 12:5). All of the initial group of sites were within a 10-block area southeast of North Swift and Oswego, near what was now generally referred to as "St. Johns Shipbuilding District" in the paper. Each site would have 10-20 units.

In June 1942, more than six months since Pearl Harbor, George Philip Wood, a sheet metal worker at Oregonship, signed a lease with HAP for a Gartrell Plan house near North Swift and Oswego Avenue in St. Johns, becoming the first occupant of a federally-financed, HAP-built, rental in the city. "After Wood signed for two-bedroom home for his wife and son, six more families later initialed similar leases" (*Oregonian*, 18-June-1942, 16:3). Woods' thirty-day, automatically-renewable, lease was based on the agreed

[3] An incomplete listing of the majority of the reported 65 "units" within the Gartrell Group is included in above table. This listing, gathered from a variety of sources including newspaper accounts in both the Oregonian and the Portland Daily Journal of Commerce, accounts for 526 of the reported 725 units and includes any information available from the various sources regarding location, designer and builder.

upon Housing Authority rent scale for a two-bedroom unit at $39 per month, including utilities. "Specifications provide that the homes include coal circulating heaters, electric or gas cooking stoves and refrigerators, though acquiring refrigerators for the homes currently has posed a problem" (*Oregonian*, 18-June-1942, 16:3).

Housing projects for defense workers were funded through the National Housing Agency's Federal Public Housing Authority. Ultimately HAP would undertake eleven such projects, totaling over 18,500 housing units. The first of these, Columbia Villa, was one of only two HAP projects that were intended as "permanent" housing that would survive after the war for use as public, low-income, housing.[4]

5.3 COLUMBIA VILLA- PERMANENT HOUSING

Columbia Villa was located near the St. Johns area, south of Columbia Boulevard, between Woolsey and Fessenden streets. Planning for the project was announced in Fall 1941 and was already underway by the Federal government when HAP was established. Portland architects Glenn Stanton and Hollis Johnston were responsible for the design and Lease and Leighland, of Seattle, were the contractors responsible for the $1.3 million project. From ground-breaking in May 1942, the project was mostly completed by the end of the year. Columbia Villa, which would later win national acclaim for its "suburban" design and curvilinear interior transportation system, began with 400 units of mixed one and two story volumes, each having anywhere from two to six units, and all of which HAP rented to military personnel or defense workers.

In 1944, after the war, as Columbia Villa was converted to use as Veteran's Housing, noted architectural critic Catherine Bauer wrote "Columbia Villa, your present public housing project, is one of the very best in the country" (HAP Scrapbooks, Oregonian, 3-May-1944). The project would also achieve note as example of quality public housing design through inclusion in *The Urban Pattern*, a widely-reprinted urban planning textbook that went though multiple editions in the 1950s and 1960s.[5]

HAP's other "permanent" housing project was Dekum Court, located at NE Dekum and NE 27th. Funded under a slightly different program, the Public Buildings Administration, Dekum Court originally provided housing for military associated with the Portland Air Base and was only transferred to the Housing Authority after the war. Dekum Court also was used as Veterans Housing after the war.

In Oregon City, the Clackamas County Housing Authority was formed in 1938 to address the need for public housing at the end of the Depression. Unlike Portland, local

[4] Almost all the information related to housing developments in Portland is taken from *The WWII Homefront in Portland-Vancouver — Defense Workers Housing Projects: A Historic Context Overview*, prepared under contract for the Housing Authority of Portland in January 2003.

[5] Gallion, Arthur B. and Eisner, Simon. *The Urban Pattern: City Planning and Design*. (New York: D. Van Nostrand Company, Inc.), 1950, 1963.

government here was apparently supportive of the concept and two permanent projects were planned and developed between 1940 and 1942. Hillside Park, designed by Portland architect Roi L. Moran and built by the Portland construction firm Ross B. Hammond, was completed in 1940 and contained 100 units that are notable as Oregon's first public housing project. Moran later designed a second project for the Clackamas County Housing Authority, call the Clackamas County Housing Project, that was built by Viesko and Hammond. This 100 unit project was announced to the public on December 7, 1941 and completed the following year.

Among the thousands of units of housing for defense workers built in the Portland-Vancouver metropolitan area during World War II, only these four project, Columbia Villa, Dekum Court and the two in Clackamas County, totally just 685 units, were intended to survive the war. Today, only the two hundred units in Clackamas County, though considerably modified, remain.

5.4 TEMPORARY HOUSING

Unlike the 'permanent' units built at Columbia Villa and elsewhere, the majority of the defense workers housing projects in Portland were, by intent, defined as "temporary housing." Under that general umbrella description were several subcategories, designed to house a particular segment of the workforce (as in dormitories for single men that were built at or immediately adjacent to the shipyards themselves) or defined by construction character, as in 'trailers" or "demountables," which were essentially pre-manufactured wall and roof panels that were intended to be salvaged, transported to another location, and re-used. As the war progressed and the need for housing continued to grow, temporary houses and even multi-story temporary apartments were constructed in Portland, many virtually undistinguishable from the "permanent" units at Columbia Villa except for the fact that they lacked a permanent foundation.

In Portland, literally thousands of such temporary units were constructed in the early years of the war, most in locations near the "St. Johns Shipbuilding District" but also across the Willamette River near Guild Lake, where workers from WISCO or Gunderson Brothers lived. Other projects were located in Southwest, near Commercial Iron Works. In end, more than 8000 "temporary units" were built and constructed by HAP, excluding those at Vanport, discussed below.

The Vancouver Housing Authority (VHA) also built housing for defense workers during the war, many of whom, as might be expected, worked at Kaiser's Vancouvership. Vancouver, a considerably smaller city that Portland prior to the war, was no more enamored with the concept of thousands of permanent public units that its neighbor. But unlike HAP, the Vancouver Authority took a slightly different approach to the issue, building 1000 permanent units in three projects (Fruit Valley, Fourth Plain Village and

McLoughlin Heights) that were immediately sold as private dwellings after the war.[6] Like HAP, the Vancouver Housing Authority, which ultimately controlled some 12,000 housing units, built mostly temporary units, though. And like HAP, most were concentrated in a single project.

Many of the single men and women lived in "dormitories" that were located directly on the shipyard grounds, reducing transportation to work, and allowing them to benefit from company-provided food service and recreation. The most famous of these was "Hudson House," located at Vancouvership, but similar facilities were constructed at both Swan Island and Oregonship as well. Swan Island's "Bachelor City," housed more than 5,000 other workers and included mess halls, a separate recreation center, an auditorium, gymnasium, movie theater as well as an infirmary, a barber shop and a small commissary. "The mess hall will have two dining rooms each seating 504 men.

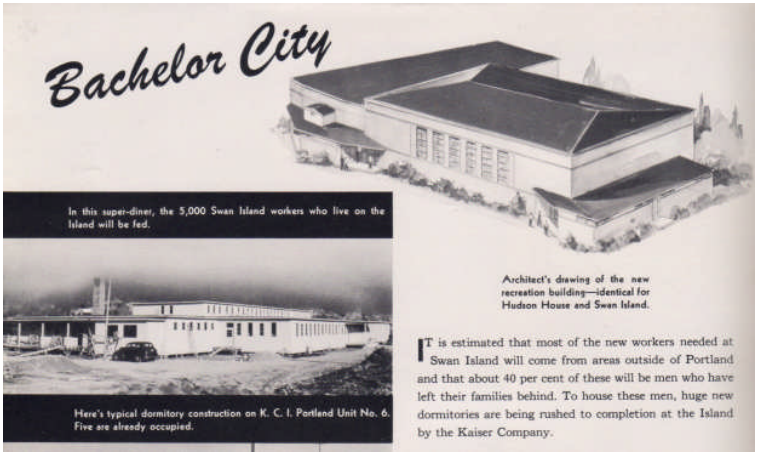


Photo xx: Bachelor City- Hudson House & Swan Island
Bos'n's Whistle, 10-October-1942

5.5 THINKING LARGE; VANPORT & MCLAUGHLIN HEIGHTS

While the early housing projects in the Portland area were small in scale, consisted of a few hundred units or a concentration of apartments or 'demountables' near the yards, the flood of incoming workers lead both HAP and the VHA to construct mammoth projects. In Portland more than half the agency's 18,500 units would be located at a single project, Vanport. Across the Columbia, in Vancouver, 5500 units were built at McLoughlin Heights, accounting for just under half of that agency's total 12,000 units.

Vanport, construction of which was instigated and ultimately directed by the irrepressible Henry J. Kaiser, first crept into public awareness as "The Denver Street Project " and was then known as "KaiserTown" or "Kaiserville" but was ultimately dubbed "Vanport," in recognition of its located on the Columbia Slough, between the two shipbuilding

[6] Many of these units survive, exhibiting an obvious uniformity of design despite more than a half-century of remodeling, addition, and change.

communities. Vanport, with 9,942 units, was the single largest workers housing project in the entire nation and contained more than half the total HAP units.[7]

Vanport was designed by Wolff and Phillips, who had worked with Kaiser on his shipyard buildings and hospital projects, and was constructed by George H. Buckler and Wegeman and Son builders at a cost of more $25 million dollars. Entirely constructed of temporary projects, Vanport was not only twice the size of any other public housing project in the nation, it contained many innovative elements including new schools, movie theaters and the first publicly-funded daycare centers ever built in the United States. Vanport, the "instant city," received national recognition for its sheer audacity, aided in no small part by its strong connection with Henry Kaiser. Upon its completion, with a population of up to 40,000 persons, Vanport was the second largest city in the State of Oregon.

As an element of Portland's wartime history, Vanport is likely among the best documented, having been the focus of several social science studies and magazine articles during its existence and fine retrospective history that was published in 1987. [8] Notable for its scale, it connection with the shipyards, and the racial component that resulted from its large black population both during and after the war, Vanport was seared into Portland's history on Friday May 28, 1948 when a portion of the dike that protected the community from the waters of the Columbia River failed, inundating those remaining buildings and sending many of the temporary structures floating down the Columbia River. Vanport was never rebuilt and virtually nothing of the 'instant city' remains on the site.

Across the Columbia River, overlooking Vancouvership, McLaughlin Heights was neither as large nor as socially-innovative as Vanport but is also notable as the second single largest wartime housing project in the nation. Designed by Pietro Belluschi, a Portland-based architect of some renown, what McLaughlin Heights lacked in size compared to Vanport, it more than compensated with through higher quality design.[9] The hundreds of units at McLoughlin Heights, along with four schools, a shopping center, community facilities and other amenities were examples of what would ultimately come to be known as the "Northwest Regional Style," using the natural woods and shingles for which the area is known. Pietro Belluschi is often considered a progenitor of the Northwest Regional Style, as well as one its most creative and influential proponents

[7] At 18,500 units, HAP was the largest housing authority in the nation while VHA, with 12,000, was the third largest.
[8] Maben, Manly. *Vanport*. Portland: OR: Oregon Historical Society Press, 1987.
[9] Belluschi, born in Italy, arrived in Portland in 192x and eventually became the principal and chief designer of the A.E. Doyle firm. His Equitable, or "Commonwealth," building in downtown Portland is widely recognized as the first glass curtain wall structure in the United States. After becoming Dean of the MIT School of Architecture in the early 1950s, Belluschi would serve as a design consultant on projects as varied as the Pan Am Building and Lincoln Center in New York City and the Cathedral of St. Mary, in San Francisco. Toward the end of his long and distinguished career, Belluschi served as the primary architectural consultant for Portland General Electric's Trojan Nuclear Power Plant near Rainer, Oregon.

As temporary units, McLoughlin Heights was dismantled after the war and the buildings were removed. The site was redeveloped for new residential construction, with a new street plan and today bears little or no resemblance to the wartime project.

5.6 PRIVATE SOLUTIONS

Although most of the new residents drawn to the Portland area in search of defense work found housing in public programs through HAP or VHA not everyone did. At the upper end of the salary scale, Edgar Kaiser, Henry's son who was in charge of the management of his father's area shipyards, lived in a fine old dwelling near the University of Portland campus. Presumably Kaiser could oversee the operations from his living room, at least on a clear day. Of course, Kaiser's wartime housing situation was hardly typical of the men and women that worked for him, nor for the many others that worked in other yards or defense manufacturing plants. Middle-managers, those with more established careers, or simply those that for whatever reason chose not to live in HAP or VHA projects or were unable to secure a place, found housing within the private rental market.

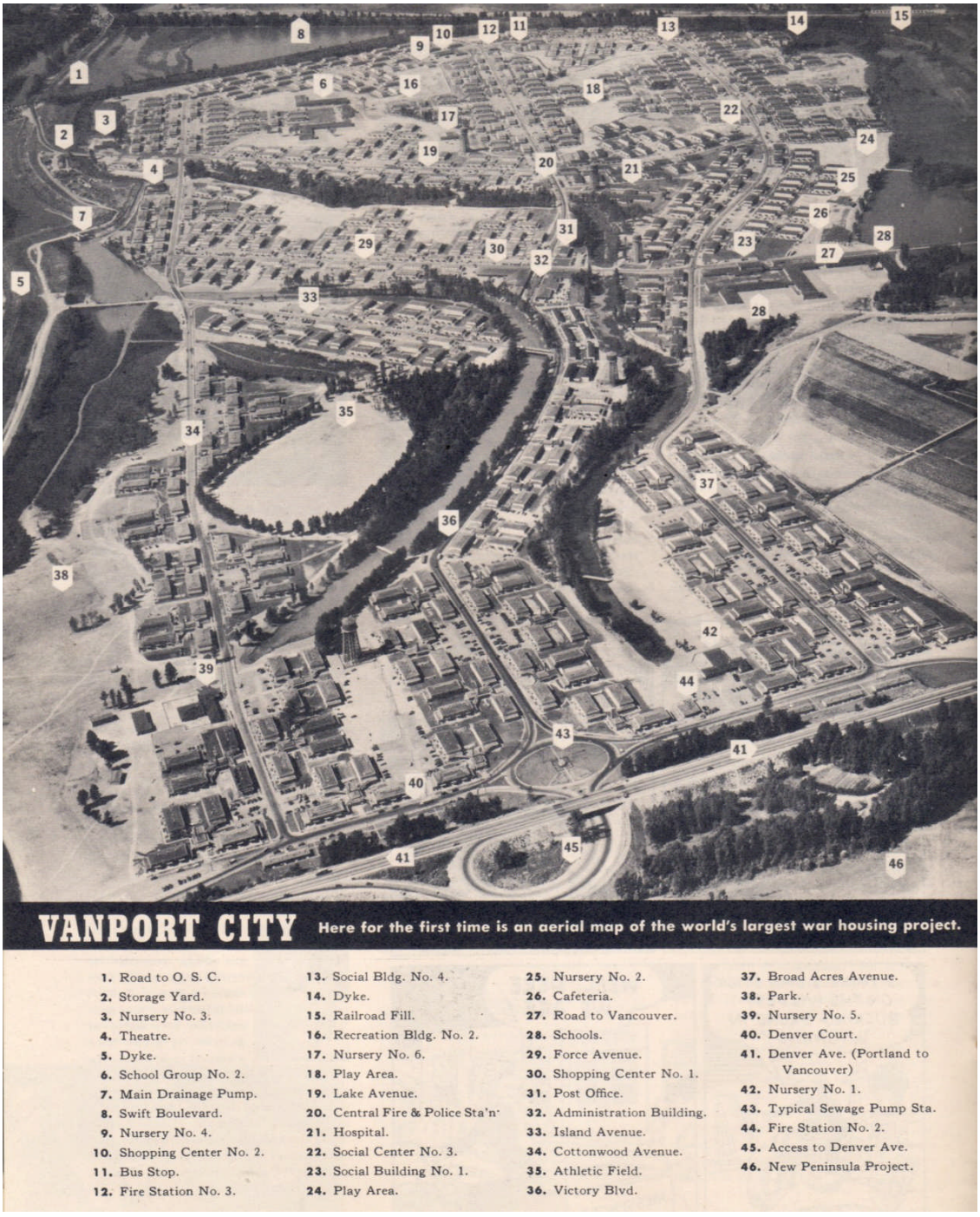


Photo xx: Vanport City, The World's Largest War Housing Project
Bos'n's Whistle, 21-October-1943

In March 1942, just as public housing agencies were started to move into construction, the Greater Portland Defense Housing Committee, reported to the Portland Housing and Planning Association its concerns that some landowners profiteering from the housing crisis. "Owners are not entitled to double or treble their rents with only small increases in costs, " reported William D. Byers, the committee's secretary-director (*Oregonian*, 12-March-1942, 8:7). Byers explained that while his committee had been empowered by the City Council to act "…as conciliators between renters and owners…." that they did not have the power or intention of establishing rent ceilings, however the group did request that the City petition to have Portland declared a "critical defense housing area." In April, in anticipation of the coming demand for building materials, the federal War Production Board issued a directive that prohibited all new construction of "non essential residences, roads, and commercial buildings."

> Specifically it bans any residential construction other than maintenance and repair work if the cost is $500 or more unless specific government permission is granted…No change was made in existing regulations permitting construction of residences costing up to $6000 in defense housing critical areas as designated by the government (*Oregonian*, 9-April-1942, 1:3).

In the early months of the war, when the final scope of the public housing in Portland was still unknown, private landlords attempted to respond to the challenge themselves, augmenting the public projects with a hoped-for massive development that would create some 50,000 units of housing. A high-level group composed of E. B. McNaughton, President of the First National Bank of Portland, Aaron M. Frank, President of Meier and Frank, Edgar Kaiser, of Oregonship, Philip J. Brady, President of the A.F. of L, and Ralph Peoples, Secretary of the C.I.O Oregon State Industrial Council, representing a laudable combination of management and labor, was sent as a delegation to Washington, D.C. in an effort to secure building materials (*Oregonian*, 2-July-1942).

> …[C]onsider the caliber of citizens who responded to a call for an emergency meeting in the council chamber yesterday..[they] will push the case for more houses and follow through on the priorities, running down water pipe, kegs of nails and copper wire before somebody else gets them…There should be no doubt in anybody's mind, after all this, as to the gravity of the [housing] situation…[Let] every business man, every industry and business house in the city stand ready to five instant help, either financial or otherwise, when it is asked (*Oregonian*, 3-July-1942, 8:1).

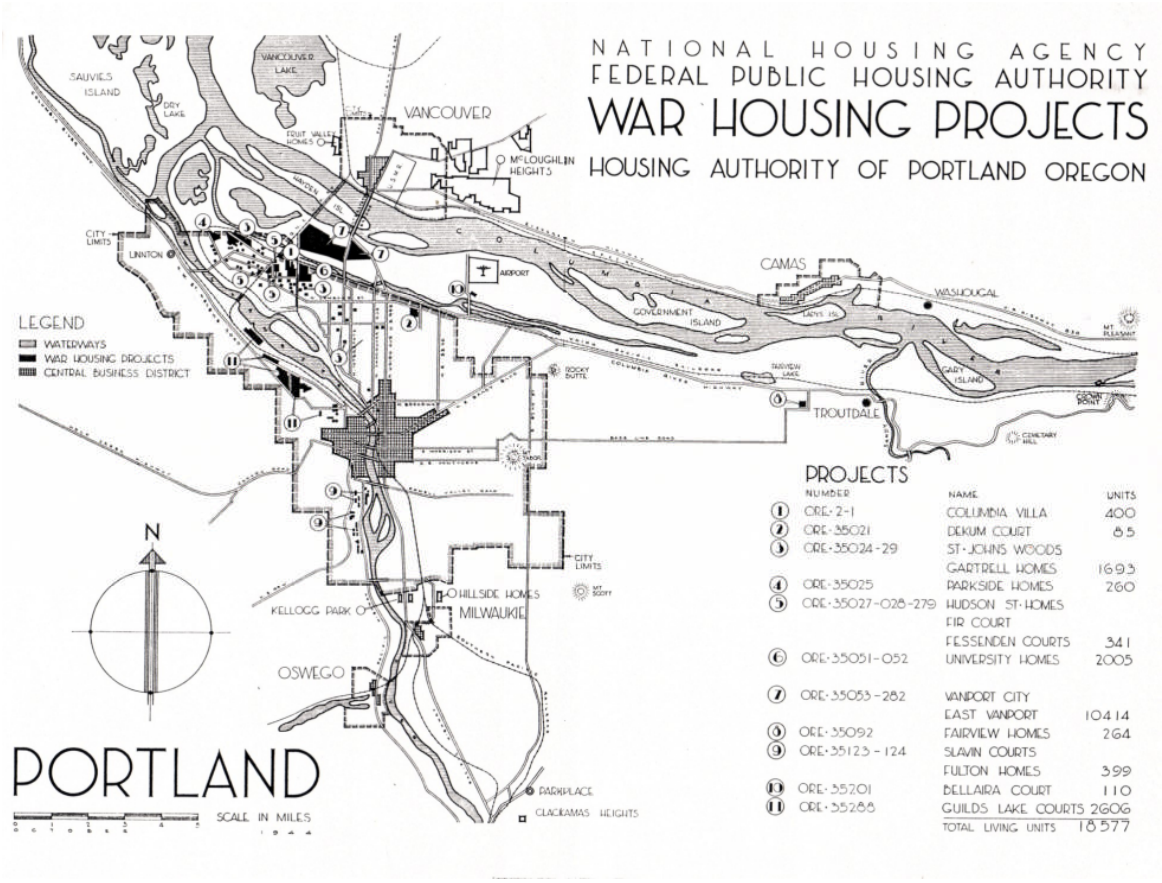


Photo xx: War Housing Projects, Portland-Vancouver
From HAP, *From Roses to Rivets*, 1945

To aide workers looking for housing outside the HAP programs, landlords were encouraged to register their rentals in several locations that would be advertised as clearing houses for civilian defense workers. "The landlords will start registering Wednesday morning and with 90,000 rental units represented, brisk business is expected at the offices throughout the area" (*Oregonian*, 14-July-1942).

> Singly or in pairs the come. Some are 'repeaters,' who have called back time and again with the same desperate plea. Some are arriving eagerly and hopefully for the first time, but all ask the same question…'Any houses today?' They're the wives of Portland's defense workers or, oftentimes the defense workers themselves, looking for homes for their families in a defense-industry-crowded Portland and they are registering at the Portland housing listing office…(*Oregonian*, 26-July-1942, 18:1-2)

In late July the high-caliber McNaughton group succeeded and secured for the City "A-1-A" status for all area housing projects except the Gartrell homes and much of the

materials shortages that had delayed work were eased. As a 'stopgap' measure, HAP took over management of a 100-unit trailer park in Fairview to provide housing for workers at Alcoa Aluminum and continued to rush more housing projects such as the 2000-unit University Homes into construction. Nevertheless, until 1943, when the bulk of the HAP projects were finally available for occupancy, workers in the Portland area continued to struggle with finding housing for themselves and their families. Indeed, even after the plans for housing projects were finalized and approved, the materials secured and prioritized for delivery, area contractors struggled to find skilled workers to erect the much needed dwellings as they too competed for employees with shipyards who often required the exact same skilled workers for their higher-paying jobs.

> That ripping sound you can hear around town these day is Portland splitting at its seams. You can find the part that couldn't fit inside along any highway leading from the city. You'll find it in groves of trees, in farmers cornfields, in country home front yards, in camps, in trailer parks…(*Oregonian*, 5-October-1942, 1:3-6).

6.0 WORKERS FROM ALL OVER

Attracted by high-paying jobs and opportunities, workers from all over the country pulled up stakes and moved to the Portland area. The city's new residents included families, single men and women, people of color, ex-patriate immigrants, skilled craftsmen and folks with nothing but a strong back and a will to offer to the cause. Portland found places for them to live, ways to entertain them in off-hours, and faced a full plate of social impacts as the result of their arrival.

Initially, labor leaders were hopeful that the bulk of the jobs could be filled by locals, providing employment for Oregonians, many just barely recovering from the Depression. A union-sponsored recruitment effort in February 1942 drew more than 20,000 men to Multnomah Civic Stadium for the purpose of filling out forms in search of obtaining entry to the A. F. of L. shipbuilders union. Tom Ray, "…the plainspoken secretary-agent…drew a cheer from the crowd when he declared that job preference would be given to …residents of the immediate Portland-Vancouver area" (*Oregonian*, 13-February-1942, 1:6). Ray dismissed reports that the area would face a labor shortage and might be forced to import workers from other areas to respond to the coming demand.

Of course, it was almost immediately obvious that Ray was wrong. Many Portland-area men, like young men all over the country, were needed by the military and so were subject to the draft. Others were already employed in so-called "critical" industries including agriculture and logging, providing much-needed food for troops or raw materials that were required to build everything from army training facilities to defense housing and warships. Less than a week after Mr. Ray's confidant statement at the Multnomah Civic Stadium, the *Oregonian* acknowledged that single young men, even those with some documented skill in war industry work, would not be eligible for draft deferments though work in the shipyards. Military service, then as now, would take priority.

> Employers will have to be content with workers from other age groups and those not classified for general military services…men not hitherto considered 100 percent employable will ultimately be called to work and …middle age and over will become less a barrier to employment…(*Oregonian*, 23-Feb-1942, 6:2).

In March, the *Oregonian* boasted of hoped for shipyard employment of that could reach as high as 85,000 workers, acknowledging that up to a third of them might have to be 'recruited' from other cities (*Oregonian*, 5-March-1942). That non-white workers would be one result of the demand first gained public notice later that month when the first union agreed to accept workers of any race, although some bias was obviously still present.

> A lot of people beside the Negroes themselves will be pleased with the decision of the Boilermakers union to admit qualified workers regardless of race, providing they are not Japanese. Portland has a small colored

> population and consequently there are few Negroes asking [for] admission to the union that does most of the shipbuilding employment, but these few are a symbol. They are American citizens who want to put their hands to the defense job (*Oregonian*, 13-March-1942, 8:1).

It didn't take to long before shipyards and other defense plants took to ignoring race in hiring. Very early in the war's history, yards began to ignore long-held views of worker's gender as well. Much has been written about women working in the defense industry during World War II and images of "Rosie the Riveter" are widely known. In reality though, a more accurate icon would probably have been "Winnie the Welder," since women shipyard workers far outnumbered women in the aircraft industry, and most ships were welded together. Portland's Oregonship, in particular, was at the forefront of hiring the 'fairer' sex to undertake what had previously been considered a man's job.

6.1 WOMEN IN THE YARDS

In early April 1942, "womenpower" was considered equally with manpower in solving the looming employee shortage. Kaiser, who for his time was nearly visionary in his liberal approach to a wide variety of social issues, was hiring women welders to work in his various shipyards as early as mid-April 1942, when Jeanne W. Wilde and Mrs. Mary C. Carroll, signed up for jobs at Oregonship. "Both have graduated from welding school and are ready to take their places with the men" (*Oregonian*, 15-April-1942, 1:4-6). While these pioneers were initially referred to as welderesses, "…the women came to the school from all walks of life and all parts of town…they expect to go into the welding world as a class of their own, working side-by-side with men who are already engaged in the construction of Liberty ships" (*Oregonian*, 21-May-1921, 1:1). Women welders, under no special name, soon became commonplace in the shipbuilding industry. And it wasn't just the Kaiser yards that saw the value of hiring women to do work previously thought of as "man's" alone.

> Women in overalls are infiltrating the manly art of shipbuilding. Nearly 12,000 of them now labor in six shipyards in Portland and Vancouver. Sixty percent of them are doing men's work and drawing men's pay as craftsman, helpers, laborers, and sweepers and their numbers are increasing at the rate of more than 2000 per month…the vast majority …are welders, welders' helpers and trainees (*Oregonian*, 20-December-1942, 18:1-8).

Although women welders tended to get the most attention, given the clear differentiation between their jobs and pre-war social norms, women and girls filled many other job categories in the yards. "In the light the flooded the engine room all of us discovered that the electrician who had hooked up the lights was woman. Brown hair peeped from under the yellow rim of her hard hat…" (Del French, 2004:5). Entire crews of women, some in the mid-60s, worked long hours deep in the bowels of Liberty ship hulls cleaning up scrap metal, grease and oil and otherwise doing what amounted to industrial cleaning.

Photo XX, Mrs. Iona Murphy, Oregonship Welder
Bos'n's Whistle, 27-September-1942

As men and boys sought higher paying opportunities in the yards, or entered the armed forces, women and girls were allowed to secure a wide variety of jobs previously reserved for men. "Fourteen girls have replaced men as chauffeurs for the United States maritime commission…'We find the girls are excellent drivers and their care has reduced accidents to a minimum" (*Oregonian*, 16-January-1943, 7:2). The Army Corps of Engineers had three women working on a survey crew diagramming the contours of the Columbia River, an important job in guiding the passage of Portland's ships to the ocean.

> The work requires intensive teamwork to insure accuracy and the girls have already proven themselves just as capable, if not more so, than the men who formerly held these positions, declares F. W. Rodolf, chief survey engineer of the Portland district (*Oregonian*, 22-January-1942, 4:2)

Nor was it just the shipyards and defense industry that looked to women to fill much needed jobs. The State Highway Commission announced plans to train at least 150 "lady juggernaut jockeys," meaning women who would learn "…the ponderous arts of operating Diesel road rollers and heavy gravel trucks" due to the acute shortage of manpower (*Oregonian*, 18-February-1943, 1:2). The Portland Traction Company, which operated the sorely needed bus system in Portland, hired its first women driver, one Zada F. Pratt, and announced plans to hire at least 75 more (*Oregonian*, 21-February-1943, 13:1-3). Yellow Cab hired its first women drivers, the 'comely Mrs. Evelyn Downs" (*Oregonian*, 5-September-1942, 25:2-3). Women fieldworkers were critical in bringing in Oregon's harvest during the war, accounting for three our every four harvest jobs (*Oregonian*, 12-May-1942).

Some of the jobs opened to women seem surprising to the modern ear, but were considered new during World War Two. "Something new had been added to the grocery business…your grocery clerk is likely to have a permanent wave [as] the Oregon Grocers Association had taken a lead in training women to be good grocery clerks" (*Oregonian*, 11-May-1942). Miss Ruth Brueninger r broke some sort of barrier when she was hired as a bellhop at the Washington Hotel. "It's one of the farthest far-reaching effects of the ware. It's the invention of a new field for femininity, that of serving as bell0hops, a move necessitated when Uncle Sam called the young men into his armed forces" (*Oregonian*, 8-June-1942,). And finally, even the financial industry capitulated to the times when women tellers, long a mainstay in the savings department, were finally given positions in the male-dominated commercial banking area. "…If women can do welding in shipyards as well as men…there is no reason they can not satisfactorily fill the various posts in a bank…" (*Oregonian*, 20-September-1942).

Photo xx: Ruth Brueninger, Portland's First Feminine Bell-hop
Oregonian, 8-June-1942

Not all employers were able to find women to fill their vacancies, at least not initially. Despite a critical lack of "Pin Boys," in area bowling alleys, the labor union that represented the workers could not find women to fill its jobs (*Oregonian*, 5-April-1942, 5:7-8).

The growth of women in the workforce did have a drawback, as some with a husband in the military and children to raise entered the labor market creating what were called "War Work Orphans," when much-needed women filled defense jobs without adequate childcare arrangements.

> The situation is complicated by the fact the while the city has day nurseries designed for low-income families in which the mother is compelled to work, there are no facilities whatever for people who [can] afford full pay…Women who have determined to have a part in the war job not matter what are taking

a chance that their children will be able to get along by themselves (*Oregonian*, 19-April-2942, 20:1).

Eventually this situation would be addressed, at least in part by Kaiser-sponsored child care centers for shipyard workers, but early on some children spent long hours alone while their mothers worked in the yards.

Photo xx, "While Mothers Work," The Swan Island Child Care Center
Bos'n's Whistle, 7-October-1943

6.2 VICTORY WORKERS AMONG US

Drawn by the offer of steady employment workers of all sorts flooded into Portland from all over the nation. Lawrence Barber, the *Oregonian's* Marine Editor, began a series of profiles in Spring 1942 titled "Victory Workers," described as "…a series of articles about interesting people who changed their occupations to work in Portland's defense industries. The articles, published sporadically throughout 1942, make for fascinating reading, documenting the wide range of individuals and their varied backgrounds that the war drew to Portland. Victory workers included Roy N. Shannon, the former Treasurer of the State of Montana, who found work as a swing shift guard at Oregonship (*Oregonian*,

30-April-1942, 26:2-3) and the Rev. H. Edward Pierce, a Congregationalist Minister with 14 years experience in the pulpit found himself working as a machinist at the Marine Electric Company (*Oregonian*, 2-May-1942, 24:5-6). Les Steers, a UofO graduate, found employment as a engineer's supervisor at Oregonship the year after setting the world's record for the high-jump at Oregon State (*Oregonian*, 19-May-1942). Louis Zanon, a steamfitter, had been known as Bull Dog Louie, when he was touring with the Barnum and Bailey Circus as a fire-eater (*Oregonian*, 21-May-1942, 14:2-3). Patricia Simmons, described as a 'brown-eyed brunette," worked as a statistical clerk at Oregonship, having represented Jefferson High School as a Portland Rose Festival princess in 1939 (*Oregonian*, 25-Jun-1942). Charles Lautrop, a graduate of the Royal Danish University and former director of the Portland Philharmonic Orchestra, found himself in charge of a pipe shop at Oregonship. "I like this work…it is reassuring to be hearing, instead of the symphony of the orchestra, the symphony of riveting hammers and American workmen doing their jobs" (*Oregonian*, 18-July-1942). Portland-raised Ah Wing Lee, who gained fame as a lightweight boxer in the early 1930s, found work at Commercial Iron Works as a draftsman (*Oregonian*, 19-June-1942).


VICTORY WORKERS

Les Steers, world's champion high jumper

World's High Jump Champ Supervisor in Shipyards

Photo XX: Les Steers, Victory Worker No. 14
Oregonian, 19-May-1942

Still, the local workforce was ultimately inadequate to meet the growing demand of the shipyards. Young men entered the military in larger numbers as the war continued and despite expanding the labor pool to include men over 60 years of age as well as women, in most defense plants jobs remained unfilled. "Many Jobs Go Begging in Portland," proclaimed one early headline, documenting the shifting demand for traditional workers and the crying need of more men and women in essential industries from shipyards to laundries and restaurants. The labor unions, despite some progress to the contrary, continued to block most significant increases in black employment, limiting the access to certain jobs and advancement opportunities for otherwise well-qualified candidates. The Alcoa Aluminum plant, in particular, seems to have had a difficult time attracting workers, running advertisements that it had both jobs and housing available.

Photo XX We Need Men- Alcoa Aluminum
Oregonian, 25-October-1942

In addition to attracting workers from throughout the United States, the Kaiser yards also included an international component. "America's bridge of ships is being built by workmen from practically all of the United Nations and numerous other countries" (*Bos'n's Whistle*, 18-February-1943:12). Workers from Nova Scotia, France, Belgium, Poland, Austria, Russia, China and the Philippines, among others, were all employed in various shipyard jobs, most with tales of having left their country just prior to occupation. For example Mrs. Viky Bush, a welder at Oregonship, were vesting in the United States in 1938 when Hitler invaded Austria. Her husband escaped to Belgium and the family was re-united in New York before moving to Oregon to work in the yards (*Bos'n's Whistle*, 18-February-1943:12).

6.3 THE KAISER KARAVAN

Possibly intended to chasten the labors unions, and perhaps just an effort to find enough workers to maintain the frenzied schedule at the shipyards, Henry Kaiser, in typical fashion, turned his search for employees into a national media event, the "Henry J. Kaiser Magic Carpet." In September 1942 the "master builder" sent agents to New York City, where some 300,000 workers were reportedly to be looking for jobs, and announced his intent to hire as many as 20,000 'without lost motions or wasted time. "Kaiser's hiring representatives said the first 600 men selected Tuesday would probably be bound for Portland Friday aboard a special train" (*Oregonian*, 23-September-1943, 1:8). Portland leaders, particularly those struggling with the city's housing issues, were less than supportive of Kaiser's plans. William A. Bowes, a Portland City Commissioner, stated that "…if 20,000 more workmen get here before the first of the year, they will be sleeping in the middle of the streets" and Cecil Gartrell, of HAP, noted that "…there just isn't any place that I can see to 20,000 more workers in Portland" (*Oregonian*, 24-September-1942, 1:7).[1]

Undeterred, Kaiser continued his New York hiring, accepting 1800 new workers in just two days and coming under the scrutiny of the Federal government who voiced some concern that the company might be 'draining workers from other essential war industries…" in the eastern portion of the country to fill his west coast yards.

> Nearly all the men are being accepted as laborers, for whom the Kaiser pay is 88 cents an hour for a 48-hour week…The cost of transportation and meals on the way (to Oregon) total about $80 a man (and) is financed by the Kaiser Company, but the men repay this from their wages over a period of about ten weeks (*Oregonian*, 24-September-1942, 2-4).

Oregonians compared this sudden influx of "Gothamites" on the special train that Kaiser assembled to deliver them to Portland, as something akin to a second Oregon Trail.

[1] It should be noted that the above comments, both taken from an article titled "N.Y. Workers Sign-up Hit," appeared on the same front page that lauded Kaiser's 10-day ship, the *Joseph N. Teal*.

Marine Editor Lawrence Barber traveled east and joined the "Kaiser Karavan" at Missoula, Montana, filing reports on its progress for the hometown news.

> This 17-car Northern Pacific train, more than a quarter of a mile long, has been winding and twisting over the plains and mountains for four day and these 490 Portland-bound emigrants are weary but happy. They plan cards, sing songs, argue why the Brooklyn Dodgers lost the series…and ask a thousand and one questions of the few westerners aboard the train (*Oregonian*, 30-September-1942).

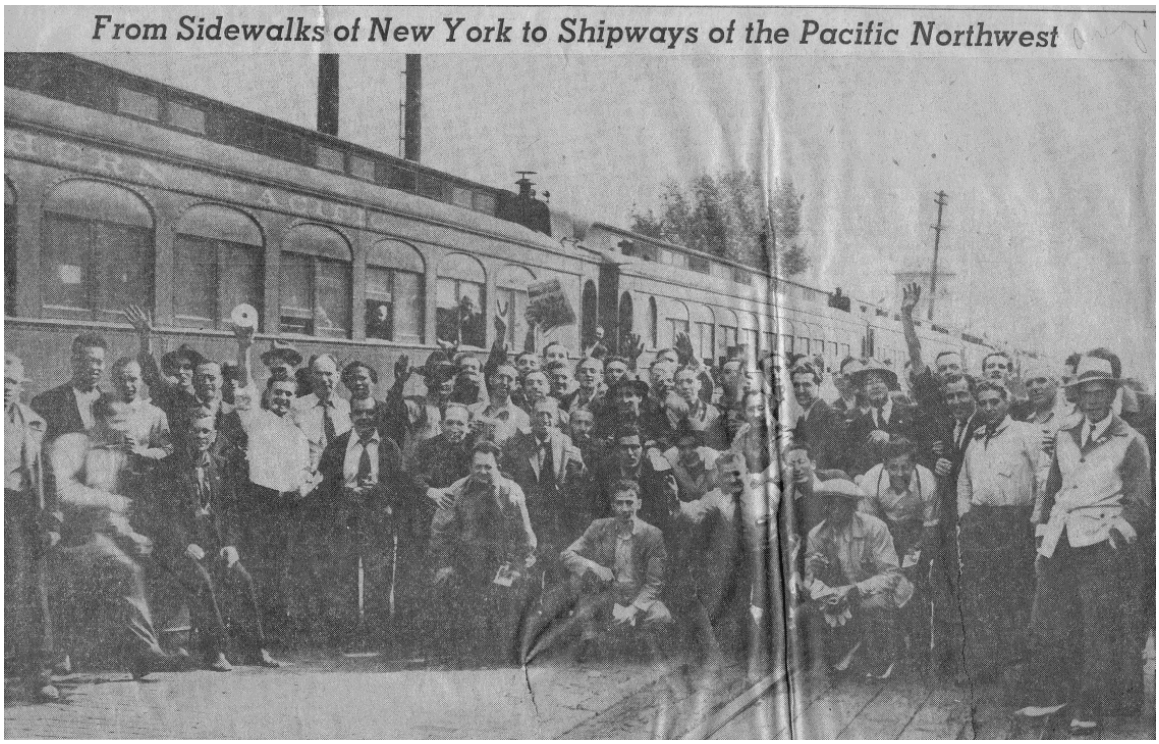


Photo xx: Kaiser Karavan Train, in Missoula, Montana
Oregonian, 30-September-1942

It wasn't just Oregon that was interested in the New York story. Newspapers as far away as Abilene, Texas cautioned Kaiser about the implications of importing New Yorkers into Portland, Oregon "…of all places." "Have you considered the consequences of turning 20,000 New Yorkers loose anywhere except in New York? Why, 20,000 guys 3,000 miles away from the Bronx, Queens and Brooklyn are the makings of a civil war… (HAP Scrapbook, 11-October-1942).

The Kaiser Karavan arrived in Portland on the last day of September. They had filled out paperwork, been given rooms in the on-site dormitories at three Kaiser shipyards, and were fingerprinted for their ID tags as the train approached the end of its journey so that they could be on the job and at work the following day. Local interest in the group

remained high, and periodic newspaper reports followed the groups "acclimation" to the western lifestyle and shipyard work. Most, ultimately, returned to the east although some did remain. Kaiser never returned to New York to hire the remaining 18000 workers he planned to. His ploy at bringing in new workers from outside the region had what may have well been his intended result. In mid-October the three Oregon yards announced an agreement with the Oregon Federation of Labor regarding hiring practices and a halt to the costly employee turnover rate that the company sought to improve upon (*Oregonian*, 15-October-1942). In late October the Portland Metal Trades Council took steps to improve recognition of black workers and soon the unions agreed to cease picketing non-union workers on defense housing project sites (*Oregonian*, 10-October-1942, *Daily Journal of Commerce*, 16-November-1942).

Neither the demand for workers, nor the shortage of housing for those that arrived, would be solved by the end of 1942. In October estimates were that the area's population would still grow by more than 100,000 persons as a result of war work. C. M. Gartrell, HAP Chairman, forecast another 54,000 workers would be needed in area shipyards by June 1943 and that fully 33,000 of them would have to come from outside the area (*Oregonian*, 28-October-1942, 1:6-7). Although HAP was still building units by the thousands, Gartrell appealed to the recently arrived New Yorkers and others that might be considering relocating for shipyard work, to leave their loved ones home (*Oregonian*, 31-October-1942, 4:1). By January 1943 Kaiser had again sent agents out to find workers for the Portland yards, not to New York this time and without the media circus of the Karavan. "During the last seven weeks, the local Kaiser yards have received 650 men from Chicago, 25 of whom are Negroes, 500 men from Minneapolis, 260 from Terre Haute, Indiana and about from (other) scattered points" (*Oregonian*, 30-January-1943, 3rd Sect., 2:7).

6.4 BLACKS IN THE SHIPYARDS

As mentioned above, the intense worker shortage brought not only women new opportunities, but allowed Black Americans, generally referred to during the era as Negroes, to seek more responsibility and higher paying jobs than had previously been open to them. Portland's small Black community, centered mostly in the Northeastern area of the city near Kaiser's two Portland yards, had been largely isolated from downtown and much of the Portland community. Now, with the sudden influx of workers from around the country, coupled with the housing crisis and the demand for anyone who could work, Portland's Black community not only grew in scale, but in visibility citywide.

The increase in Portland's Black population did not unnoticed and, sadly, was the subject of the typical bias of the era. "Lured by waiting defense industry jobs, several thousand Negroes have moved into Portland, taxing the housing facilities of the Albina district, center of the city's colored population and confronting housing authorities with a new housing problem (*Oregonian*, 23-September-1943, 1:3). White residents of the Albina

District responded poorly to the new influx to the area, holding a meeting in late September to protest the Housing Authority's plans to construct a dormitory for black workers on N.E. Flint Street. More than 500 residents attended the meeting at the Navy American Legion Post at 128 N.E. Russell.

> Charges the present Negro population already constitute a menace to the neighborhood, with marked increase in crime noted in the past three month, and fear that property values would depreciate if more leaders were allowed to move in were made by civic leaders (*Oregonian*, 30-Sept-1942, 1:2).

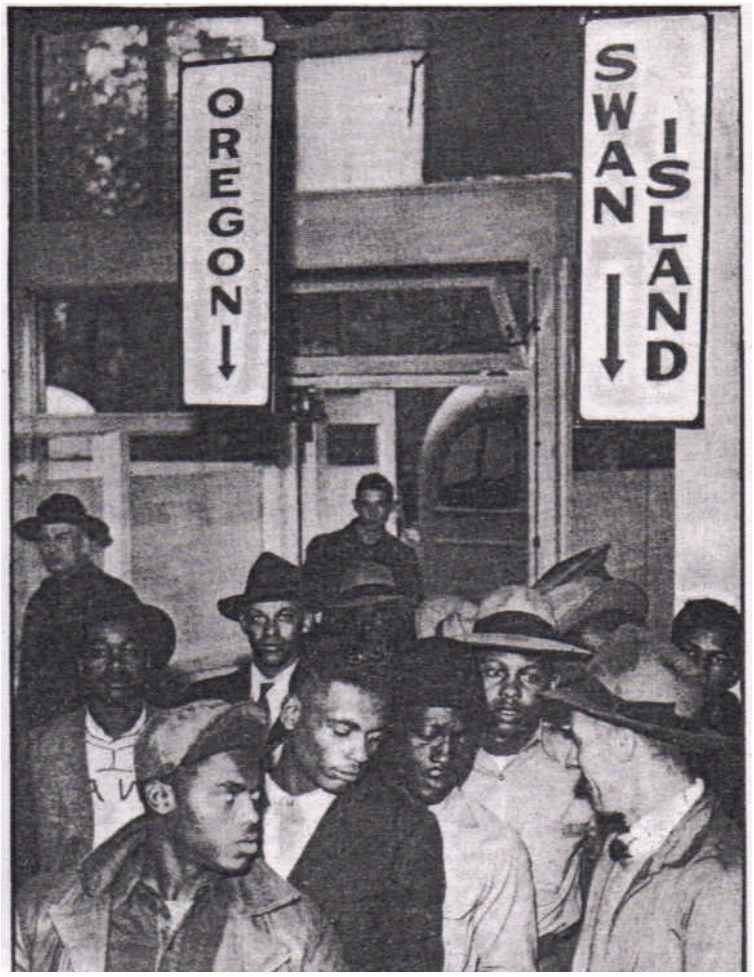


Photo xx: "Many Negroes were recruited from the east and mid-west"
Oregonian, 17-June-1945

Estimates of Portland's black shipyard workers in mid-1942 reported approximately 1000 workers among the 67,000 then employed in the industry with growth projections expecting both total employment, and black workers, to double within the year. Despite these small percentages, the issue of "imported" black workers was a cause of uneasiness for the white community. The Rev. James J. Clow, pastor of the Mount Olivet Baptist

Church expressed the view that if additional recreational opportunities were available for Negro war workers they would be less likely to create trouble. Mr. Ivy, President of the Fraternal Association, reported the conflict recent black workers from New York had created for the local population.

> We are disturbed. After all, they are our people and their problems are our problems. Certainly there are some bad ones in the lot, but there, perhaps, are some undesirables among the white people who have migrated to Portland too…One bad feature is that few of the Negroes who have come west are family men. They are single boys, most of them, and without proper recreational facilities (they) find it difficult to blow off steam (*Oregonian*, 4-October-1942).

Portland's Mayor, Earl Riley, expressed concern over the race issue and the ability of Albina to absorb additional influx. He did, however, encourage the citizens to be more tolerant. "We must remember that we are at war and have to forget some of our previous ideals" (*Oregonian*, 4-October-1942). While no conclusive numbers regarding Portland's WWII black population were located, it is clear that those numbers did increase substantially over pre-war totals. Given the tone of the times, crimes associated with black shipyard workers garnered highlighted press compared to similar incidents associated with whites, but there seems to have been no evidence of the "menace" Albina residents feared.

> The only true measure of the wisdom of importing Negroes to the West Coast was the cumulative effect of Negro labor on the war effort of the area. On the whole, that labor was good. Many Negroes brought highly developed skills with them (Del French, 2004:13).

6.5 THE "UNFIT" IN THE SHIPYARDS

During the war many individuals who were considered unfit for duty in the military were able to contributed to the war effort by working in the yards. As noted in Section XX, the Albina Engine Works was praised by Vice-President Wallace for its hiring practices to include the disabled and the 'handicapped," many of whom were returning wounded soldiers. Earlier in the war the Woodlawn Defense Training Center, one of many vocational schools that were established through the Portland School District to pre-train men and women for industrial work, established special coursework for blind students, who were taught how to operate drill presses and would work in electrical assembly work upon graduation (*Oregonian*, 5-May-1942).

> The stresses of war are giving a rude jolt to many preconceived and well-established notions. Not the least of these are generally-accepted ideas about the efficiency of physically-handicapped workers (*Bos'n's Whistle*, 22-April-1943:4).

Shipyards found places for amputees, paralyzed workers, the deaf and dumb, the blind and many other individuals who were previously considered unemployable. As the war had done for women, the elderly, and blacks, these workers benefited greatly from a willingness on the part of employers to broaden the labor pool. "Whatever the reason, industry is making a great discovery and learning a lesson that may mean much for the 'handicapped' worker when the war is over" (*Bos'n's Whistle*, 22-April-1943:4).

HANDICAP?

1. LEONARD E. GRAY, painter at Oregon Ship, suffered an infection in his right arm in 1936 and had it amputated. Physical danger or hardship, however, was nothing new to him. He served 10 years as a seaman and oiler on transport ships. In 1920 he was shipwrecked when the SS Aleutian went down off Kodiak Island. During the last war he served overseas as a bombardier with the Marine aviation corps. Gray has no difficulty wielding his paint brush any place on the ship from the scaffolds to the holds. He has been at Oregon since July, 1942.

2. WILBERT SINNER applied for a job at O. S. C. about three weeks ago. "Just anything to help build ships," he said. He was stricken with infantile paralysis when only six years old and his whole left side was paralyzed. After a little head-scratching they gave him a broom and told him to try his luck as a sweeper. It didn't take Sinner more than a few hours to discover he'd never make the grade. Before giving up, however, he hurriedly looked over the shop and discovered a grinder. "Give me a chance at that," he asked the foreman. This proved to be the perfect answer and Sinner, a paralysis victim, is now helping build Liberty ships. He was a dairy worker before the war came along.

3. DAN ENGELSON lost his left arm in a corn picking machine in Minnesota. Coming to Oregon on a visit he became interested in welding, studied it in school, and is now an arc welder at Swan Island.

4. VIC M. PALMER, at Swan Island, operates one of the biggest hammerhead cranes in the Northwest. He is a former locomotive engineer and conductor. About 12 years ago he lost both feet in a railroad accident. He operated an 80-acre anch in Klamath County before going into the shipyards. During World War I he was with the engineers' division.

Photo xx: "Handicap?"
Bos'n's Whistle, 22-April-1943

6.6 ABSENTEEISM

Not all workers were entirely dedicated to the war effort and absenteeism was a constant problem for much of the defense industry. Some workers, of course, likely just needed time off to recover from their grueling six-day shifts while others certainly were just shirking responsibility and basking in their new-found wealth for a day or two. The yards, which worked so hard to find workers, to train them, and paid them well for the labor, were aggressive in their efforts to reduce unnecessary absenteeism. It wasn't just a Portland problem, but one that faced plants nationwide, from Seattle to Detroit.

> As one [shipyard] executive put it, 'We can accommodate our routine to material shortages, and governmental red tape and acts of God; but when the men don't come to work, we're done for. We just can't produce' (*Oregonian*, 31-January-1943, 2nd Sect 1:1).

Pleas from the President, from celebrities and war heroes all attempted to encourage defense workers to stay on the job unless they were unable. At Vancouvership, the company developed the idea of the "Way Thirteen," on which the lost man hours "built" a ship for the Axis and erected huge billboards to track those hours. Not all workers were impressed. "Thousands of clerks were employed in administration, personnel and the various brass-hat offices and their presence or absence was never connected with building ships" (Del French, 2004:56-7).

Photo xx: Way No. 13, Vancouvership
Bos'n's Whistle, 11-March-1943

Each of the Kaiser yards had similar programs, tracking lost hours and appealing to workers patriotism to keep working. WISCO summarily fired 150 workers for excessive absenteeism, inviting them to return if they agreed to remain steadily on the job (*Oregonian*, 11-February-1943, 11:2). Early 1943 appears to have been the peak of concern about absenteeism and resulted in a nationwide effort to bring attention to the problem and improve worker attendance. As with everything else, the yards compared records of attendance and tracked "records" to spur workers to improve. Some firms replaced an absent workers time card with a colorful "AWOL" card in an effort to identify slackers and discourage them (*Oregonian*, 14-February-1943, 8:1-5). Still, nearly one of every ten workers was typically absent from work, whether for true health reasons or something more frivolous.

Henry Kaiser, motivator that he was, spoke of the success at Oregonship, telling his workers "Let's Talk about Presenteeism."

> Rampant in the land is the idea that workers in shipyards and other war plants are slackers at heart, lazy in body, committing with a closed mind the unpardonable crime of deliberate absenteeism in a time of national crisis. Nothing is farther from the truth. No conception is more unjust to those who toil long, sacrifice the comforts of home and family, and who endure silently the curse of the few….My hat is off to the 93% faithful men and women in those shipyards which are in the Portland and San Francisco areas (*Bos'n's Whistle*, 8-April-1943).

7.0 DAILY LIFE-HOW IT WORKED

Growing by more than twenty-five percent in less than a year, Portland was forced to take many innovative and creative steps to accommodate the influx of workers to the area during World War II. Some changes were governed by military priorities and the needs of the shipyards and defense contractors themselves, while others were occasioned by the physical requirements of tens of thousands of new, and sometimes different, residents. In the end though, most of the impacts on Portland were simply the result of scale, of the volume of demand on virtually every aspect of the city's life that was created by its huge new workforce. Transportation, commerce, entertainment, education, and most every other facet of the community faced challenges that needed to be addressed and dealt with, often on the fly, and often with limited materials.

7.1 GETTING AROUND

In the early years of the 20th century, Portland was served by a highly regarded system of trains and trolleys that connected the downtown with much of the upper Willamette Valley. Sleek electric-powered "interurbans" and smaller municipal trolleys offered regularly scheduled, inexpensive and efficient service to millions of fare-paying passengers every year through the mid-1920s. The system was considered among the best in the nation for a city's the size of Portland. But, as happened in many communities, the rise of the automobile signaled a sharp decline in public transportation systems and Portland's rail lines were abandoned, service ended, and in some cases entire routes dismantled. By the 1940s what public transportation service that did remain was almost entirely a system of bus lines, operated by privately-held Portland Traction Company.

Aside from their sheer volume, the very nature of the shipyard operations, particularly the three large Kaiser yards, created a huge burden on the entire transportation network in the Portland area. Point loads, where the thousands of workers on one-shift all converged on the same place at the same time, while the prior shift all needed to exit the same area, complicated bus scheduling. . Traffic jams, crowded buses and lack of parking for private vehicles were immediate problems, as Oregonship and the other yards boosted employment. Coordinated mass transit was clearly needed however transportation planners at all levels of government struggled to develop solutions that would ease the situation in a culture that generally considered mass transit as second-class option.

> In times of peace…workers in large part provided their own means of transportation to and from their employment. Mass transit became the convenience of those who had no automobiles of their own…Now there must be a rehabilitation of public transportation, probably special conveyances for groups of employees between public bus terminals and industrial plants…(*Oregonian*, 13-January-1942, 10:2).

Rationing of tires, and eventually of gasoline, coupled with the virtual end of all automobile production during the war, further limited the practicality of private

automobile use. Initially, the Portland Traction Company and other public transportation providers tried to meet the demand with new routes and increased service. Simply adding buses to existing lines, however, was practical if for no other reason that obtaining new buses during the war was almost impossible.

In outlying areas of Portland other providers increased service as they were able. The Oregon Motor Coach company ran 'stages' between smaller towns in Clackamas County and Oregonship as early as January 1942.[1] Ridership on the Portland Traction Company, the area's largest bus line, jumped by 25% in January 1942 over ridership the prior year. And there was virtually no reason to expect that ridership would diminish, even in these early months when the full scale of the area's defense industry was unimaginable. "There is already serious crowding of lines serving industries and there is delay…in the peak traffic hours of morning and evening" (*Oregonian*, 26-January-1942, 6:2).

Several ideas were floated as to how to deal with this problem, seen to be almost as critical to the community as the housing crunch in the months immediately after Pearl Harbor. Suggestions of using the rivers, through boat taxis and ferries, were first made in late January 1942. As tire rationing took effect, riding sharing was encouraged. Kaiser and other employers urged employees to form car clubs, where "members would ride together and rotate daily use of automobiles owned by the group…to preserve means of transporting workers to and from industrial plants" (*Oregonian*, 31-January-1942, 6:1).

By March 1942, it was obvious that the existing bus lines and car clubs were inadequate to the current situation and, with the announcement of plans for the Swan Island Shipyard, the transportation system faced potential collapse under the added volume of its 30,000 workers. Portland Traction Company appealed to the US Maritime Commission for assistance in procuring additional buses, already a scare commodity. In the meantime, the company decided to re-establish the old electric trolley lines from Portland's original mass transit network, the routes of which were still owned by the PEPCO, the Portland Electric Power Company.[2]

In addition to rehabilitating its old rolling stock, the Portland Traction Company purchased several new streetcars in mid-1942, from a line in New York, and began to provided service on the long-unused lines it had operated decades earlier. "One of the modern features of the new cars, operation of which is much like that of the new busses, is thermostatically controlled heat" (*Oregonian*, 7-July-1942, 14:1) Richard Neuberger, then a reporter for the *Oregonian* who would later serve as a US Senator from Oregon,

[1] "Stages" were an early form of gas-powered buses, generally built with wooden bodies on a truck chassis and not essentially different in function than a typical 'bus.' See *Oregonian*, 23-January-1942.

[2] The corporation machinations of the Portland Traction Company, split from its former ownership by the Portland Electric Power Company in the mid-1930s are beyond the scope of this document. In general, however, PEPCO retained the old electric-powered interurban rights-of-way for use as transmission corridors while the Traction Company converted to bus service. PEPCO is a forerunner of today's Portland General Electric. The Traction Company was eventually consolidated into the public transportation system operated by Metro.

wrote a piece about the return of the electric-powered interurban trains to the area, pointing out that only a decade ago PEPCO was sending them to the wrecking yard but now they were being returned to service. "Its almost unbelievable,' said a PEPCO employee, a few years ago we were confronted with the likelihood that not a single interurban car would be running out of Portland. The interurban seemed as dead as the dinosaur" (*Oregonian*, 7-June-1942, 2nd Section, 1:1-8).

Photo xx Re-Enlistment, Ralph Lee Editorial Cartoon
Oregonian, 9-March-1942

Another innovative approach to improve the efficiency of the limited number of buses in the city was the "skip stop plan." Essentially this amounted to a recognition that it took more time and gasoline, increased tire and brake wear, every time a bus stopped and started. Skip-stop simply meant that on the critically overburdened lines leading directly to the shipyards, buses would bypass every other stop, concentrating ridership at alternate locations and thereby reducing time and wear and tear. Some workers would just walk a little farther to get to the designated pickup location than had previously been the case. "The skip stop system is one of the transit economies recommended by the office of defense transportation…the company has found it necessary to obtain more efficient use of equipment with a 41-percent increase in patronage…" (Oregonian, 14-June-1942, 15:5).

Meanwhile, individual workers at the various shipyards began to band together and form cooperative "bus lines," that took the car club idea one better. An individual with a truck or large car would build a trailer and offer to haul workers back and forth to work on a regular basis. Such groups were required to petition the county rationing board for tires. Typical was "…the Bonney Slope Defense Club, headed by W. I. Worrall…[who] plans to transport some 45 workers to the Oregon Shipbuilding Corporation yard…" (*Oregonian*, 14-March-1942, 9:6). The buses, and the considerable number of private vehicles still in use, were barely accommodated by the 8000 parking spots at Oregonship (which even in these early months still had 12,000 employees), and all the roads leading to the plant were jammed to standstill. Public bus service was clearly the answer, but with only 300 units, the Portland Traction Company was unable to keep up with the demand the plants created and still provide acceptable service to the rest of the community.

In March, the Kaiser companies, which already had established a reputation for taking matters into its own hands when others moved too slowly, awarded a contract to the Russell Towboat and Moorage Company to operate a ferry for its employees across the Columbia River. "The Russell company proposed to employ three large covered barges, each equipped to carry 600 men at a time…[charging] passengers $1.25 for book of seven round trips, including parking…" (*Oregonian*, 26-March-1942, 14:4). Eventually the ferry idea would expand, when the Maritime Commission announced plans to buy two aged ships in San Francisco, the *City of Sacramento* and the *Sierra Nevada*, and use them to establish a ferry line between the various shipyards in the region. "[T]hese will be the first large ferries in this area for many years" (*Oregonian*, 21-May-1943, 14:1). They were huge ships, the *Sacramento* was 300 feet long and capable of carrying some 3500 people on its three decks while the *Sierra Nevada* was only slightly smaller, at 218 feet long. The boats, which would operate on the Willamette, between downtown and both Swan Island and Oregonship, were renamed *Victory V* and the *Liberty Clipper* as the result of a contest sponsored by the *Bos'n's Whistle*. Howard Stewart, a warehouse clerk, and Mrs. Robert G. Munter, wife of a welder, each won a $50 savings bond. More than 4000 names were suggested by Kaiser employees (*Oregonian*, 3-July-1942, 10:1).

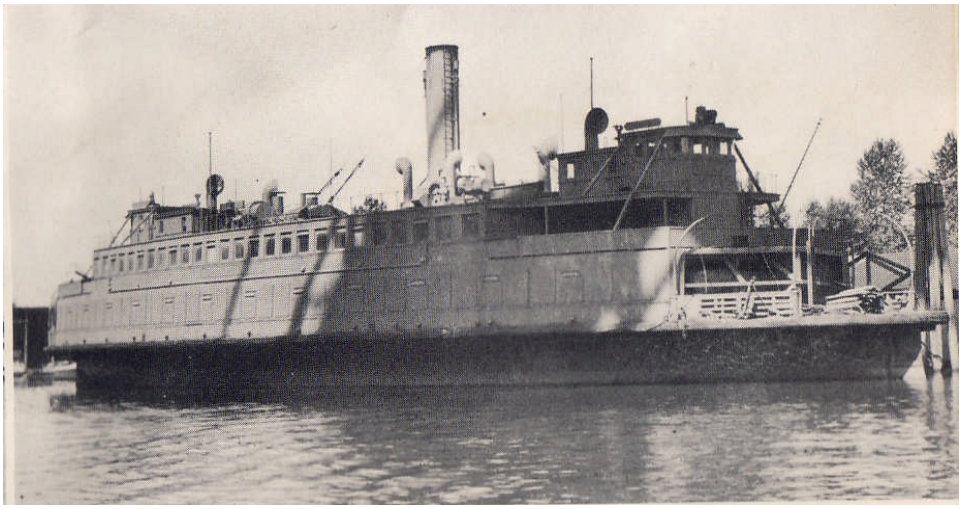


Photo: The Hayward
Bos'n's Whistle, 27-September-1942

Ferry service allowed large numbers of workers to be moved efficiently and reduced pressure on the surface transportation systems. The Maritime Commission announced its plan to requisition three more large ferries from the San Francisco area for use in Portland; the *Hayward*, *San Leandro* and *Russian River* each 225 feet long and capable of carrying 3000 workers (*Oregonian*, 23-July-1942, 1:4-6). For unexplained reasons the *Russian River* was apparently dropped from the plan, but the other two ships arrived in the Portland area by late-August.

Photo: US Maritime Ferry, Pulling into Oregonship
Bos'n's Whistle, 3-February-1943

As a part of the ferry service, new terminals were constructed at either end of the 20-minute run across the Willamette. On the downtown side, a loading area for two ferries was created near the harbor wall between N.W. Couch and N. W. Flanders, a distance of three blocks, while opposite the new terminals were built at both Swan Island and Oregonship (*Oregonian*, 25-September-1942). As the new ferry system was readied for service, the Kaiser shipyards urged its workers to "lay-up their cars, conserve both gas and rubber, and ride the buses and the ferries provided for them…" (*Oregonian*, 23-November-1942). Traction Company bus routes were re-designed to converge upon the ferry terminals at the appropriate times, allowing thousands of workers to streamline their commutes, with the ferries making the return trip with those employees going off-shift. Each of the ships was scheduled to make three round trips every day, coordinated with the shift-changes at both Swan Island and Oregonship. Although delayed slightly from what had been hoped, the ferries went into service by January 1943 (*Oregonian*, 27-November-1943, 1:3, *Oregonian*, 17-January-1943, 1:7-8).

> Men and women workers found the ferry exceedingly comfortable, virtually vibration-less, and a great improvement of the busses…"I'm going home and jack up my car. It's the ferry for me now," said one man (*Oregonian*, 19-January-1943, 9:1)

Despite high expectations, the ferry service was not particularly successful. Only 500 workers were on that first boat and while that clearly represented many bus and car loads of workers, it was probably not the massive ridership that had been anticipated. Modest use of the ferries may have been effected when, less than a month after the huge Maritime ferries went into operation, a small, privately operated, tug boat that was providing worker transport across the Columbia capsized, killing ten workers in what was reported as "…the worst in Columbia River history…" (*Oregonian*, 12-February-1943, 12:1-5). "The ride was pleasant, but slow [and] after several months of trial the plan was abandoned and the buses once more brought their loads directly to the yards (Osborn, 1945:77).

Yet another transportation form, the railroad, was called into service to try and alleviate the problems caused by the shipyards. In early 1943 the Maritime Commission purchased 22 coach cars and laid track along Front Street in west Portland, connecting the ferry terminals with Union Station and, ultimately, the Southern Pacific Shops in Vancouver. "It is the plan of the commission to run two ten-car trains from both the Portland and Vancouver shipyard terminals for the day, swing and graveyard shifts" (*Oregonian*, 16-February-1943, 4:2). These routes too were coordinated with the ferry service, providing another method of moving workers to and from the yards without impact on the road system. The train was dubbed the 'Vanship Limited" and went into service on March 1, 1943, offering a round trip fare of 25 cents, accommodating up to 1500 seated passengers (*Oregonian*, 28-February-1943, 21:2-3).

Photo xx: Oregonship Workers Head Home, 1942
The Sunday Oregonian, 15-March-1942

Despite the multi-faceted effort to develop and improve public transport, and despite gas and tire rationing, many shipyard workers continued to rely on private cars to get to work, continuing to clog the roads in and out of the "Shipbuilding district." In April 1942, the Federal government granted the Oregon State Highway Department $185K to improve the road access to Oregonship, including the construction of temporary viaduct to create a fifth lane next to the existing a 4-lane viaduct on North Burgard street, an underpass from North Terminal Road, and improved grading and paving on other routes (*Oregonian*, 9-April-1942). In June, the shipyards began the process of staggering the end of shifts among the larger shipyards, again in an effort to reduce the point loads on the transportation system around 'rush hours' as workers streamed into and out of the plants. The US Rubber Company started a campaign to promote "Traffic Control Groups," encouraging workers to fill out cards with information about their shift schedule and travel routes, hoping to match individuals who could share a ride and save both gasoline and reduce traffic. Standard Oil and other large corporations began similar programs, all coordinated through the Kaiser yards.

Despite all these efforts though, the bus company still struggled to keep up with demand. So rapid was the increase in the area workforce, coupled with the growing scarcity of tires and gasoline, that the traction company barely kept up. "In spite of fact that the Portland Traction Company is getting 150 school-type buses for hauling shipyard workers and is bringing its old street cares from retirement, the facilities for mass transportation in Portland will be insufficient" said Gordon Steele, the President of the company (*Oregonian*, 30-June-1942, 3:4). The company received it first third of the promised buses, only after the Maritime Commission interceded on its behalf, in mid-July 1943 and immediately put them into service. After the Portland Traction Company had finally

obtained enough equipment to meet the demand it turned to women drivers when it had trouble locating men, just had so many other industries. While some passengers were initially resistant, the women bus drivers soon proved not entirely capable but safer than their male counterparts. "Not only men, but women too, would peer into a pass, mutter 'a woman driver!' and pass on" (Osborn, 1945:78).

Photo xx: Portland Traction Company, Women Bus Drivers, c1943
Courtesy of METRO

7.2 GETTING THE GOODS-RETAIL SHOPPING AND BUSINESS IMPACTS

Like the transportation system, Portland's general business community also faced new demands as a result of the city's defense development. Coupled with a huge new prospective clientele, most of whom were highly paid by any standard but particularly so in comparison to the only recently ended Depression, local merchants had thousands of new customers faced an employee shortage, and, because of rationing, often had difficulty in finding goods to sell.

Early on, merchants were asked to modify their hours of operation, both to reduce transportation impacts but also to provide 'off-hour' opportunities for defense workers who would otherwise have no times available to shop for needed items.

> The stores will stagger hours to relieve mass transportation of some of the load that it must carry at hours when defense workers…are on the way to the job…On May 25 the retail stores except drug and food stores and restaurants will open at 10:00 A.M and close at 6:00 PM. (*Oregonian*, 20-May-1942).

Although initially appearing to be an advisory measure, by late Summer the City began to call public attention to stores that were refusing to cooperate with the program, encouraging those that were shifting their hours of operation to improve conditions to display "we comply" stickers that the city supplied. "So far the staggered work hours plan has been so effective that the reduction in rush hour traffic has made it possible for the Portland Traction company to divert 15 additional buses to service direct to the shipyards…" (*Oregonian*, 23-August-1942). The idea of staggering the flow of people to stores yielded a similar concept for the yards themselves. Portland City Commissioner William Bowes urged the three Kaiser yards to adopted staggered shift times, so that all workers wouldn't be rushing to and fro at the same time (*Oregonian*, 6-September-1941, 1:3-4). Soon, Kaiser's yard did indeed staggered their shifts, so that Oregonship's employees started two hours later than they had before. "In this way 164 buses were able to do the work of 267" (Osborn, 1954:77).

At least one industry, banking, also made accommodations to the working hours of the shipyards. The First National Bank of Portland, under the direction of E. B. McNaughton, who had traveled to Washington, D.C. to lobby on the City's behalf to secure priority housing status a year earlier, introduced "night banking" in early 1943. Branch hours were extended in all departments until 10:00 at night Monday through Friday and Saturday banking hours were added as well. US National Bank, Portland's other major financial institution immediately followed suit, expanding its hours as well. The ability to cash checks after their shifts was seen a major aide in combating worker absenteeism at the yards, a problem that was increasing and causing much concern (*Oregonian*, 23-February-1942, 3:2).

Portland's merchants quickly took note of the new shipyard market and its particular needs. Ads for leather pants, denim overalls, and lunchboxes became commonplace in

the pages of the *Oregonian*, which also advertised goods as "Shipbuilders' Boots" (*Oregonian*, 7-Aug-1942). Workers would hoard particular products, or have distant relatives purchase them in quantity for re-sale or to supply friends.

> All pre-war stocks of clothing in the Portland-Vancouver area were soon exhausted. Replacements, under governmental control, were made on a population basis — using the 1940 census…[T]he fact that 50,000 people had poured into the Vancouver area alone made no difference…Stores were canvassed …in a 100-mile circle [and] any kind of work garment was bought on the spot, wherever found and of whatever size. If it was too big, it could be altered…too small, it could be traded (Del French, 2004:15).

Photo xx: Free Goggle Inspection
Oregonian, 6-January-1943

In some cases, the targeted marketing of Portland's merchants are mildly laughable to the modern reader. For example, the War Damage Corporation ran an ad for "war damage and bombardment insurance" that would cost wise Portlanders only ten cents per $100 of protection (*Oregonian*, 14-June-1942, 15:6). The Holman & Lutz Funeral Home, at 14th

and Sandy, offered its services through a "Special Message to Newcomers to this Community." (*Oregonian*, 17-August-1942, &:4-5). Dr. William L. Corbin, an optometrist, offered shipyard workers free inspections for prescription welding goggles with eight months to pay! (*Oregonian*, 6-January-1943).

Photo xx: Franz Bread Advertisement
Oregonian, 19-December-1942

Wartime rationing of a wide variety of goods, couple with military demand (and military priority) for most items, changed the way Americans lived. The 1920s and 1930s had seen a rise in pre-packaged foods, many of which were no longer available in an effort to conserve steel. "For the duration there will be no pork and beans in cans, but the housewife can buy dry beans and pork…Spices, most of which come from countries now in enemy hands, are another thing the housewife will have to do without" (*Oregonian*, 11-May-1942). Grocery shoppers were encouraged to use their ration coupons wisely, but to purchase in larger quantities than they might have considered before the war. This would cut down on trips to the store that needlessly clog the roads and used scare gasoline and tires. Some merchants actually encouraged customers to 'make do, or do without." Lipman Wolfe, a longtime Portland Department store offered a series of "Make-it-Last Tips" to help customers get the most use out of what they owned, so as to avoid unnecessary purchases. Typical was a suggestion from Mrs. W. Steiner, who advised that you can "save yourself a job of patching by sewing heavy tape on the inside edge of the bottom of your husbands trousers, protecting them from wear" (*Oregonian*, 19-August-1942). Everyone, it seemed, was trying to balance staying in business with a recognition that there was less to go around than before, and more people in the area to share what was available.

> The story of most local merchants is that you can sell the merchandise, if you can get it. Small dealers with limited buying capacity are having difficulty getting orders filled…(*Oregonian*, 11-July-1942).

7.3 AFTER HOURS- RECREATION AND ENTERTAINMENT

Working long hours in the defense industry and earning salaries that were the envy of others, many of the shipyard workers found themselves "flush" beyond expectation.

Others, young, energetic, and looking for fun, stretched Portland's restaurant and entertainment industry to improve their offerings and expand their hours. Before the war, at least, Portland's 'nightlife' was modest at best but still met the demand.

> It's a 10 o'clock town. They used to say it of Portland. Night life was nil. Roadhouses starved, and night spots pleaded pathetically for patrons. When Father and Mother had an evening out, they usually took the children, had dinner, saw an early show, and got home not too much after 10 o'clock. Portland is still a 10 o'clock town. But how changed! (*Oregon Journal*, 16-May-1943).

Restaurants, faced with coffee shortages and rationing, quit serving breakfasts and stayed into the wee hours of the morning to serve graveyard shift workers. Ellen Loftis, a Portland waitress interviewed as part of an *Oregonian* series titled "How has the War Affected My Job" reported that "It's hard to keep help, and we're always short of experienced help, but the public is patient about everything. When we put up a sign that we're low on coffee, and can only sell it with a food order, they don't complain" (*Oregonian*, 13-January-1943). Theaters and movie shows offered "swing shift matinees" and even churches extended service hours, as throngs of workers could not attend on a the typical nine-to-five schedule.

The huge workforce created a market for nationally-renowned performers in Portland, attracting period 'headliners" to shows at local venues. Some of the shipyard workers themselves had backgrounds in entertainment and occasionally were given the opportunity to put down their tools and resume their former profession to entertain their fellows. "Headliners from national vaudeville circuits who have substituted the stage for the shipyards…will be the stars at a program for the payroll savings plan for buying wars bonds…its was announced Thursday…Featured entertainment will be Bill Mullins, a baritone, Bill Healy, whistler [and] Archie Parrot, pianist" (*Oregonian*, 30-April-1942, 26:1). National headliner Jack Teagarden, the "King of the Blues" was also to perform, along with his orchestra that had been recently featured in Bing Crosby's "Birth of the Blues (*Oregonian*, 5-May-1942).

Like any city with a large population of young males, Portland experienced the seedier side of prosperity as well as the wholesome. Less than a month after Pearl Harbor the Portland Police Department began a crackdown on "…the hazard of commercialized prostitution" when Chief Harry M. Niles '…ordered operators of 32 known houses of prostitution to close indefinitely" (*Oregonian*, 10-January-1942, 1:4). Local officials at the time acknowledged that there had been a considerable influx of prostitutes from other areas since the war began. And, as might be expected, staid Portland matrons voiced concerns about the impact on the community's moral character. Writing to the Portland City Council, which was considering an amendment to City Code that would relax the city's dancing ordinance to permit swing shift workers to dance after midnight, the Rose City Park chapter of the W.C.T.U. stated "We believe it would be an exploitation of the moral so the defense workers and of the community and in no sense would be a contribution to our maximum war effort, but [rather] a positive hindrance" (*Oregonian*, 7-June-1942, 14:4).

Athletic competitions were a wholesome way for workers outside of the yards and, as young and physically fit individuals, competition between the various divisions as each yard, as well and intra-yard and community-worker competition was a large part of Portland during the war. Kaiser's yards sponsors a series of teams, in softball, bowling and other sports, as did CWI, WISCO and Albina.

Photo xx WISCO Radio and Girls' Basketball Team
from *In War & Peace*, WISCO, c1946

In at least one instance, the yards competed on more work related skills. The Albina Engine and Machine Works issued a challenge to other shipyards as to who were the best welders. Two-man teams from Albina, WISCO and Oregonship agreed to compete for time and quality by undertaking three standard welds before a packed audience at the Victory Center. The Albina team handily won, besting the others (Oregonian, 9-August-1942).

Kaiser's yards competed amongst themselves, as well as with their sister-yards in California in feats of riveting prowess. Lloyd Howard Leknes, of Oregonship, drove more than 1700 rivets in one shift to break the "World Record" set just two weeks prior in Kaiser's Los Angeles yard. "This outstanding record typifies the spirit of Oregon Shipbuilding Corporation men to build ships faster and break more records," commented Al Bauer, Oregonship General Manager (*Oregonian*, 4-June-1942). A twenty-six year old Portland native, Leknes had never driven a rivet in his life until picking one up at Oregonship in November 1942. His record-breaking feat represented just seven percent of the total 26,500 rivets in each Liberty Ship.

Here is the record-breaking riveting crew, left to right: L. K. Martin, passer; L. H. Leknes, riveter; Fred Yount, assistant superintendent of riveters and foremen; Joe Hylands, heater; John Bowers, holder-on. Other crew members not in this picture were O. H. Hartwig, relief heater; L. Maggetti, relief passer; E. L. Blalock, relief holder-on; Jack White, bolt-up man.

LEKNES DRIVES 'EM FASTER!

Photo xx: Record-Breaking Riveting Crew
Bos'n's Whistle, 18-June-1942

Portland's churches also faced increased demands, with many offering extra services for workers, some even adding late-night and extra services in response to their schedules. The First Nazarene Church ran announcements under the banner "Are You a Newcomer to Portland?" while the Portland Gospel Tabernacle added a special service to "accommodate defense workers working Swing Shift" (Oregonian, 3-October-1942, 7:7-8).

7.4 EDUCATION:

The influx of defense workers, many of whom brought their families, quickly increased the enrollment in area schools. By October 1942 estimates were that the district had 10,000 more students than it had twelve months earlier (*Oregonian*, 16-October-1942, 1:2-3). This was particularly true in the St. Johns area, where most of the shipbuilding activity, and worker housing, was centered, and which would soon include the entirely new town of Vanport. Several schools, taking a page from the staggered shifts of the shipyards, offered two different sessions, doubling their ability to serve students by reducing the hours each was in a the classroom.

> With a rated capacity of 900 students, Portsmouth [Grade School] …was providing educational opportunities for 1300 students through the use of 'day' and 'swing' shifts… [T]he half-day shifts do not permit as rich a curriculum as …a normal schedule…[but] the pupils have all the fundamental subjects (*Oregonian*, 28-December-1942, 6:1).

Other schools also adopted a similar program, but Portsmouth was the most impacted by increased enrollment. "School officials hope that federally financed emergency school rooms will be built at Portsmouth before the school finds it necessary to tear another page from the shipyard book and add a 'graveyard' shift (Oregonian, 28-December-1942, 6:1).

The "retired" Sitton School, located between Smith and Hudson streets, had been closed for several years but was reactivated to accommodate the influx of students. "Like the many retired soldiers who been called back into active service…Sitton School, in the vicinity of Oregon Shipbuilding Corporation, will in all probability be 'drafted' back into service…" (*Oregonian*, 19-August-1942, 12:1-6). Sitton reopened to serve about 800 new students in September, somewhat easing the enrollment crunch. Eventually, though, educating the children brought into the area by the defense workers would largely be school at entirely new structures built at Vanport, along with new teachers who were recruited specifically to staff them. "As with almost all aspects of Vanport life, the public schools system was unique, differing greatly from the practices of the time. It experimented in ways that many local and state systems would later imitate…[receiving] much national attention" (Maben, 1987:62).

Photo xx: Vanport Schools
Bos'n's Whistle, 20-May-1943

Five new schools were opened at Vanport by July 1943, providing education for up to 5,000 students, but even so they used the double-shift system, to maximize their utility. Operated by the Columbia School District, not the Portland School District, Vanport students of high school age were bused to either Jefferson or Roosevelt high schools and the Portland District was compensated for their schooling (Maben, 1987:63).

Photo xx: "Training for Better Jobs!"
Bos'n's Whistle, 27-September-1942

Educating the children of defense workers and other new arrivals to the area wasn't the only impact during the war years. Many of the shipyard workers themselves needed vocational training to do their jobs, be it welders school or the work required for journeyman status in the various other skilled trades that were in demand by industry. To provide training, Oregonship and the other Kaiser yards, in cooperation with the Portland school system, was offering training in twenty-three separate trades by September 1941, long before the US entry into the war (*Bos'n's Whistle*, 18-October-1942). Huge vocational training buildings offered classes right on the shipyard sites, all geared to help workers learn the specifics of their jobs at the yards as efficiently as possible. Eventually the Kaiser yards developed similar vocational training programs in conjunction with schools all over Oregon, from Ashland to Ontario, working with the State Board of

Education. More than 90,000 workers had been trained by Autumn 1942 and the programs continued throughout the war.

To help workers interested in more traditional coursework, the yards developed specially scheduled programs, dubbed "Shipworkers University" at Reed College and the University of Portland. These programs allow defense workers to make progress toward obtaining college degrees or continue program that they'd interrupted in order to support the war effort (*Bos'n's Whistle*, 10-September-1942).

7.5 MONEY: MAKING LOTS AND GIVING SOME AWAY

Working in the defense industry, building ships and other products manufactured in the Portland-area during World War II, was backbreaking, demanding work. Most workers worked six-days on, one-day off, on one of the three shifts that allowed the yards to operate on 24-hour, around the clock, production schedules.

In mid-1942 a welder at Oregonship working on graveyard was pulling in $1.28 an hour, a lot of money at the time and, apparently, a cause of some resentment among those either not able to secure such work or working in other areas of the industry for considerably less. Journeymen in other trades at the shipyards (pipefitters, sheetmetal workers, electricians and others) made $1.12 an hour, with helpers making less. Welders, the 'royalty' of the shipyard, were somewhat proud of their status and sensitive to the complaints they were overpaid. "My husband is a welder…he gets his eyes burned…he gets fumes in his lungs...he squeezes into places one can barely squeeze..[you] get behind an electric arc welder in a confined space sometime and see how you like it!" (*Oregonian*, 10-May-1942, 21:5).

High-wage opportunities initially resulted in skilled-workers 'job-hopping," or moving from one yard or defense industry to another in search of better wages or improved working conditions. Such movement disrupted productivity and was considered counter to the war effort, eventually resulting in an agreement between most yards to simply not hire each others workers in most cases. "The more you move from place to place, the more you be slowing the construction of our ships which are needed most urgently to support our forces now in combat…" advised Commander James G. McPherson at the launching of the U.S.S. Catskill, built by WISCO (*Oregonian*, 20-May-1942, 4:1). By late 1942 almost all the plants looking for work, including the aluminum plants, adopted a standard policy of not hiring anyone already employed in a 'critical' industry such as logging or other defense-related job.

Photo xx: The Braukmillers of Iowa
Life Magazine, 16-August-1943

Although making a considerable income for the times, many of the defense workers lived comparatively frugally. Most had roommates due to the housing shortage and so could share housing expenses. Travel was also pretty economical, no matter what form you used, and so many workers socked away significant amounts of their income during the war years in the hopes of funding a postwar business venture or home purchase. One family, the Braukmillers, gained national recognition by combining their living expenses. Thirteen member of the family moved from Iowa to Portland to work in the yards. "Today the Braukmillers have staked out a rich claim and are thriving on it. Thirteen adults, all working for Kaiser…the aggregate family payroll is a staggering $996 a week, almost $52,000 a year!" (Life Magazine, 16-August-1943, 28-29).

Despite the high rate of pay, the work in the shipyards was fairly grueling, particularly for the workers new to industry. "Staid citizens on the outside looking in were puzzled by the men and women who daily entered the shipyard, sweat through a shift of uproar and toil, and emerged, disheveled and streaked, to crowd the busses and stores as if they owned the earth" (Osborn, 1945:84). Public interest in defense workers, and how they spent their money, was much discussed in Portland. In 1942 the Oregonian ran a feature story on the McNultys, Pat and Elisabeth, who were offered as more or less 'typical' of the thousands of young shipyard worker families in the Portland area. Pat worked as a draftsmen at Oregonship, earning $285 per month. In addition he taught other workers two nights a week at the Benson High technical program, earning another $50 per month. Elisabeth stayed home with the couple's daughter, Patsy. There were buying a house, and an automobile, plus all the normal monthly expenses of running a household. Meeting all their obligations, including putting aside $54 a month in a savings account for unexpected expense, the McNulty's bought $37.50 in war bonds through an Oregonship payroll deduction and $25 in war bonds.

> Both [the McNultys] feel that a depression in future peacetime is a possibility. With the nest egg they hope to buy a small acreage within hailing distance of Portland…they are not contemplating a return to the Spartan life in a pessimistic manner. It's just that having weathered one Depression, they'd like to be blessed with a reasonable amount of social security….just in case (*Oregonian*, 8-August-1942, 2nd, 1:1-7).

The McNultys were not alone in using what the Oregonian called "Pat's fatter paychecks" to purchase war bonds and other government bonds to support the war effort. All the defense contractors encouraged their workers to enroll in payroll deductions to purchase bonds with every paycheck and, in keeping with the times, the yards naturally competed against each other for highest percentage committed to the program during periodic drives. The Kaiser yards had full-time war bond promotional departments and at least one report claims the *average* Kaiser worker put fourteen cents of every after-tax dollar that he or she earned into savings, contributions or bonds.

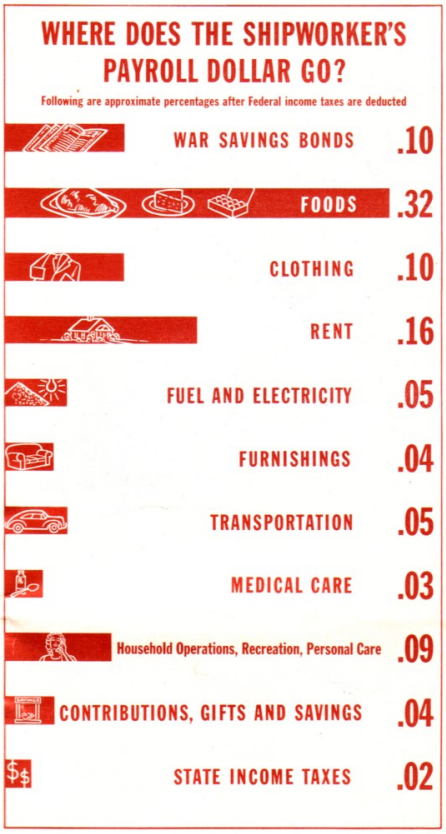


Photo xx: Where Does the Shipworker's Payroll Dollar GO?
Bos'n's Whistle, 27-September-1942

The U.S. Treasury encouraged all war workers to donate ten percent of each paycheck though the purchase of war bonds, the overall goal of '90-10' for each facility, designating that 90% of the worker force donated at least 10% toward bonds. It appears that all Portland's yards met or bettered that mark, but Kaiser's Vancouver yard was "in a league of its own," being the first defense plant in the nation to reach the 18% mark, meaning that eighteen percent of its total payroll each month went toward war bonds. In real numbers, for comparison, the average monthly bond sales from Kaiser's three Portland shipyards during the war was nearly $3million dollars (*Bos'n's Whistle*, 7-October-1943).

> Our defense workers are not just building the weapons of war, but are helping to finance it [too] (*Oregonian*, 24-May-1942).

In addition to payroll deductions, there were numerous special drives encouraged workers to sign up for payroll deductions, to buy bonds during a particular drive, or to donate to other charitable causes to support the war effort. "It Takes More than Bullets" was the name of United War Chest drive that sent monies to war victims in Europe and Asia.

"Back the Attack" was the name given to a "Third War Loan" drive that hoped to raise $15 billion dollars for Uncle Sam.

Photo xx: The Third War Loan—Over the Top
(note Vancouver sales exceeding quota)
Bos'n's Whistle, 7-October-1943

8.0 WINDING DOWN-MOPPING UP

By 1944, as the war continued in both the European and Pacific theaters, the threat to maritime shipping from submarines subsided and the crushing need for freighters ships that had inspired the rapid acceleration in American shipbuilding declined. In Portland, the yards continued to work on completing various contracts for Victory ships, Escort Carriers, landing craft and other vessels that the military still required, but the frenetic pace of the early war years was over. From the peak employment at the three Kaiser yards, estimated at 116,000 in mid-1944, work force numbers began to decline, as shifts were cut with the slowdowns in production (*Oregonian*, 14-August-1945). Portland began to consider its postwar prospects, and how it might maintain the success it had enjoyed as an industrial center once peace finally arrived.

8.1 INDUSTRIAL CAPACITY:

Initially, most of the area's yards hoped to build upon the phenomenal success that they had created during the war, continuing to build ships and other heavy industrial equipment and maintaining the now highly trained crews that they had each assembled. Of course, the massive expansion of the country's maritime fleet, with millions of tons of shipping capacity created during the war years, largely eliminated any post-war need for new freighters. "The Liberty ship is a product for war use. It can be classed with the tank, the fighting planes and other material of war. It was produced to be expendable if necessary" (*Bos'n's Whistle*, 9-December-1943). Many expected that the majority of Liberty and Victory ships would be sold for scrap, with the remainder flooding the worldwide market and reducing the need for new construction. Given that lack of need for additional tonnage, the Portland shipyards would become largely unnecessary. The future of the three huge Kaiser yards in particular, built on leased land specifically to build huge ships in large quantity, was not very bright, although the company did try to maintain the amazing workforce it had assembled.

In early 1945 the Kaiser companies announced a plan to compete for future shipbuilding contracts, most focused on repair or conversion of military ships once the war was over. As of March of that year there were still some 235 hulls scheduled to be built in the Portland under existing Navy and Maritime Commission contracts, 123 of which were to be built by the three Kaiser yards. In August, following V-J Day and the surrender of the Japanese, it was announced that the 38 vessels on the ways would be completed, but contracts for the remaining 35 were immediately canceled.

The repair plans at Oregonship never materialized and the company launched what would be its last ship, the *S. S. Brainerd Victory*, on October 24, 1945. It was the 455th hull to slide off Oregonship's ways into the Willamette. "Like a tired but very proud old race horse bearing down upon the finish line after a long and exhaustive run, Oregon Shipbuilding Corporation, the champion of champions among wartime shipyards, is set to run out its last war contract ship launching…" (*Oregonian*, 24-October-1945, 1:3). As work at the yard wound-down, so too did the need for workers. Only 5300 remained on the Oregonship payroll for the *Brainerd's* launch, down from a high of more than 30,000.

In-mid-1947 the Oregonship yards were formally declared surplus by the US Maritime Commission and turned over to War Assets Administration for disposal. At that time the facility was valued at $20.6 million dollars, including approximately 100 buildings but excluding the equipment within them.[1] WAA listed a surplus value of $10.6 million. "Disposal of the vast plant may offer a big problem for WAA, officials indicated, pointing out that the owners of the various components rests with the Maritime Commission, the city dock commission, and the shipyard corporation" (*Oregonian*, 15-July-1947, 14:2-3). Today portions of what was Oregonship, the "Champion of the Yards" are incorporated into the Schnitzer Steel operation. At least one building on the site appears to remain from the Kaiser period.[2]


Champion Shipyard Site Goes on Bargain Table

Transfer to the war assets administration for disposal as surplus property is to be the fate of the Oregon Shipbuilding corporation yard, which employed up to 34,000 workers and turned out hundreds of vessels for America's merchant fleet during the war. This aerial view of the once bustling shipyard is by Photographer Hugh Ackroyd.

Photo xx: Champion Shipyard Site Goes on Bargain Table
Oregonian, 15-July-1947

[1] Also excluded was the on-site childcare center although the ultimate fate of that building was determined.

[2] As shown in Photo xx, this building is now occupied by the Northwest Pipe Company, providing office spaces in connection with the company's nearby yards. Although not certain, it appears likely that this structure incorporated elements of the original Oregon Shipbuilding Company's administration office buildings. Most Kaiser-era structures, designed by the Portland firm of Wolff and Phillips, including a strong vertical tower element.

Photo xx: Northwest Pipe Company Offices, on the former Oregonship site
(O. S. C. Administration Bldg in 1945, inset)
Author Photo, May 2006

Like Oregonship, Kaiser's Vancouver yard also saw a reduced workforce as its completed its last contracts for the war effort. From a high of 38,000, only 13,000 remained on the payroll by mid-1945, as the last few hulls were completed.

> One by one, the big input plants went down — the plate shop, deck erection, assembly and boiler erection. After each launching, the way shut down and most of the workers on it were laid off…. (Del French, 2004:183).

Vancouvership's last hull, the *Scott E. Land*, was launched on November 24, 1945, named after the father of US Maritime Commission Chairman Admiral Emory S. Land. After a tedious outfitting, it was delivered on April 10, 1946, the last official activity at Vancouvership. Unlike Oregonship, the Vancouver yard was placed in 'reserve' by the government pending some future national emergency. Of the more than seventy-five US Maritime Commission shipyards active during the war, only four installations were held in reserve" (Del French, 2004:184).

Although maintained "in reserve" all through the Korean War and into the 1960s, Vancouvership was never re-opened. Eventually the land was converted to other industrial uses. Near the end of a street called "Victory Avenue" an interpretive center, partially funded by Kaiser Permanente, was constructed on the property. An observation tower allows visitors to get a good overview of the several original Kaiser-era buildings that remain, on the site, with historic site maps to help identify their original uses and also

to orient the visitor to the decaying concrete ways that still project along the northern shore of the Columbia River.

Photo xx: Vancouvership site, looking West from Exhibit Tower (inset), Concrete ways at the left, original (white) buildings in the distance
Author Photo, May 2006

Unlike Oregonship and Vancouvership, the destiny of Swan Island was to be more lasting. Built on the site of the municipal airport, the Kaiser facilities at Swan Island were destined to remain a shipyard, though hardly one as active as it had been during the war. In August 1944 Edgar Kaiser told the plant's workers that Swan Island would continue after the war. "It will never be an airport…In your hands is the industrial destiny of Portland," Kaiser told the workers (*Oregon Journal*, 17-August-1944). The Kaiser company had its Vancouvership yard build a drydock that was "….due to berth at Swan Island in October" to help "…break an existing monopoly in the drydock industry." Swan Island was envisioned as a repair facility. "There is more than wishful thinking in what Kaiser had to say. The Kaiser organization owns ships which are being operated now by the war shipping administration but after peace returns it could well operate those same ships an more into the Port of Portland" (*Oregon Journal*, 17-August-1944). Of course, Swan Island too saw sudden decline in its workforce as the military and maritime

contracts were completed. In January 1945, long before the end of the war, the construction pace plummeted, and with it more than 2000 employees were laid off. "The Swan Island yard…has reduced its new-ship building schedule from six ships a month to one ship a week, effective immediately" (*Oregonian*, 28-January-1945).

The last of Swan Island's 140 T2 Tankers was the *Bent's Fort*, launched in November 1945. The next month, as the wartime use of the yard was completed, Portland area pilots made an unsuccessful attempt to return Swan Island to use as a municipal airport. The Kaiser company had leases on the property through 1952 and the Port Commission remained committed to the facility as a ship repair yard and drydock. "Swan Island is industrial property and will so remain. There is no prospect of restoring it to airport use" (*Oregonian*, 16-December-1945). Ultimately, though not by Kaiser, portions of the Swan Island shipyard did remain in ship repair use. In 2000, the Port of Portland sold the facility to Cascade General, Inc., which still operates the upgraded Swan Island shipyard (*Oregonian*, 30-August-2000).

Photo xx: Overview of Swan Island Yards
Author Photo, May 2006

The other, smaller, shipyards in Portland (Albina, WISCO, CIW and Gunderson) had all existed prior to the war and, to one degree or another, appear to have reduced scale after 1946 and continued in repair or other, non-shipping, related, businesses. Albina Engine and Machine Works survived the war and continued to build and launch hulls at least through 1971, building tugboats, barges and other crafts until closing entirely in the

1980s.[3] WISCO's plant, on North Front, was eventually purchased by the Guy F. Atkinson Company, a large construction firm that operates throughout the western United States, and continued to build and repair ships for some time after the war. CIW's plant, near downtown, has been largely consumed by new development although some of the faculties may survive.

Gunderson, primarily a rail-car builder and logging company, continued on with various industrial services after the war that included some shipbuilding. The Gunderson Company was purchased by FMC in 1970 and is today a subsidiary of The Greenbriar Companies. The company continues to launch barges and others ships.[4]

The Portland-Vancouver regions other major WWII-era industry, aluminum, had a far better post-war record, as aluminum production remained a key basic need in 'modern' America after 1945. Although the three large plants saw reduced employment and production, each ultimately survived and continued to produce aluminum as the result of available power from BPA. The Alcoa Plant at Vancouver, location of the first aluminum smelter west of the Mississippi when in opened in 1940, continued to operated through the 1970s-1980s before being declared a Superfund site for environmental contamination. The plant at Longview, Washington, built in 1941, by the Defense Plants Corporation at least partially to break the Alcoa monopoly, was acquired by Reynolds Aluminum after the war and remained in production for until November 1991. The Longview site has also been declared a Superfund site for environmental contamination.

The aluminum plant in Troutdale, Oregon, in operation 1941, was shut down in 1991. After a thorough rehabilitation and restoration on the site, Alcoa announced plans to restart production at the plant in July 2003 (*Business Wire*, 16-July-2003).[5]

Few other, if any, of the other industrial plants that were developed in the Portland metropolitan area during WWII are believed to survive.

[3] See http://www.coltoncompany.com/shipbldg/ussbldrs/postwwii/shipyards/inactive/pacific/albina.htm for a listing of Albina's post-WWII construction record.
[4] See http://www.gbrx.com/page.php?view=GUNDERSON for a history of the Gunderson company.
[5] See http://www.alcoa.com/global/en/news/news_detail.asp?pageID=231974841&newsYear=2003.

8.2 HOUSING:

Of the more than 35,000 units of workers housing built in Portland and Vancouver only 1600 were ever intended as "permanent" and expected to survive once peace was declared. More than 30,000 units were gone with five years of the war's end, with the May 28, 1948 flooding of Vanport only serving to expedite the removal of wartime housing from the rental market.

Photo xx: Flood Destruction, Vanport, Ore.
Postcard Image (Authors Collection)

The Vancouver Housing Authority adopted a six-point plan after the end of the war that resulted in the removal of all of its temporary housing, including all of the McLoughlin Heights, and the sale of the 1000 permanent dwellings to private families. Although most of those permanent units, at Fruit Valley, Fourth Plain Village and Harney Hill, survive, none remain in public ownership. Although unmarked, these residential enclaves, despite their later alterations retain an overall uniformity of design not unlike the modern subdivision, that provide some indication of the once massive scale of Vancouver 's public housing development during the war.

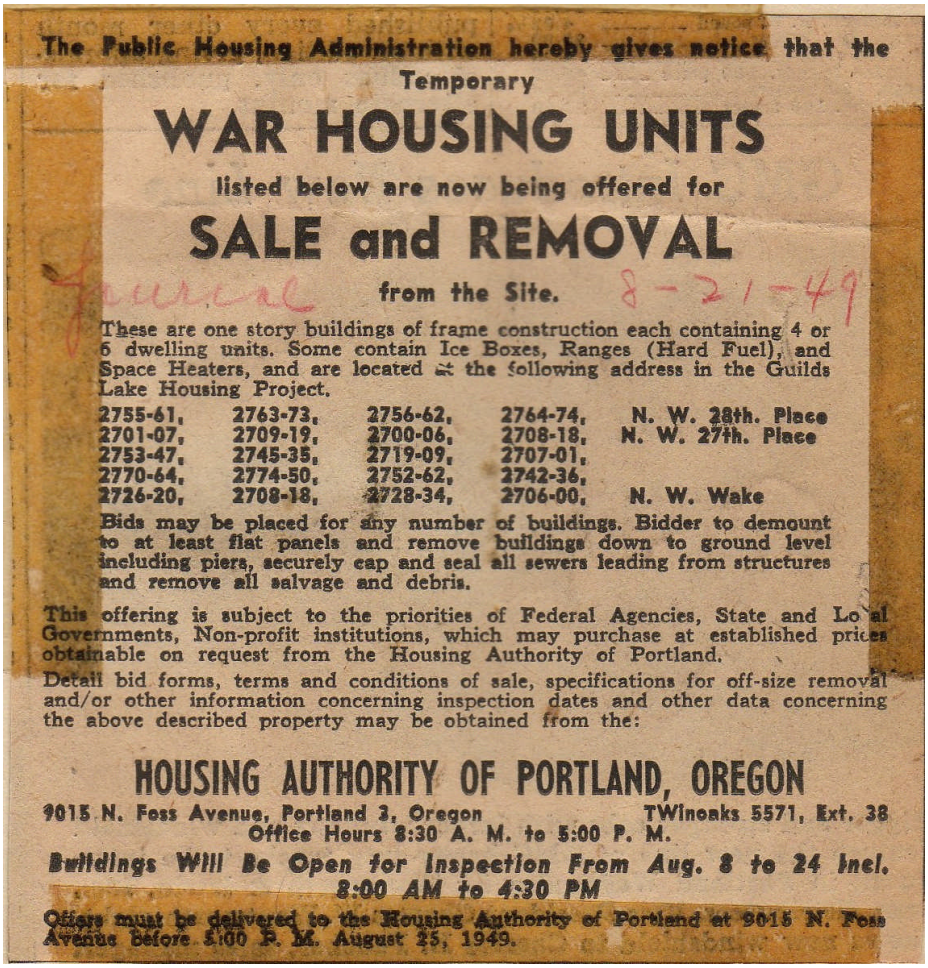
Photo xx: Fourth Plan Village, Vancouver — Typical View
Author Photo (December 2002)

In Portland, just like the shipyards, HAP shifted focus toward the end of the year, as the need for housing declines as defense workers left the area. C. M. Gartrell resigned from the Authority in August 1944, noting that there was no need to construct additional units (Oregonian, 18-August-1944). At Vanport, 1200 units were actually dissembled before the war's end and shipped to Bremerton, Washington to relieve critical housing needs in that community.

> Q. B. Griffin, Vanport project manager, explained that workman first take apart the top story, removing it by panels, walls, ceilings and floor, all of which are numbered for easy re-assembly. The ground floor apartments are sliced into six sections, one of which fits on the back of a truck (*Daily Journal of Commerce*, 14-August-1945).

After V-J Day, as the yards dropped employment, Portland faced what one commentator referred to as an "exodus," with 800 HAP units reported as vacant in early September 1945 (*Oregon Journal*, 8-September-1945). While returning veterans would soon arrive in the area and place some burden on the rental housing market, HAP quickly began to

remove its temporary dwellings, beginning with the shipyard-based dormitories and the scatter Gartrell units. The larger projects, University Homes, Guilds Lake and others, were soon slated for removal as well. Guilds Lake in particular was removed to allow for expanded industrial development in the Northwest Portland area, a move that was not without controversy. The buildings at Guild Lake, like almost every other wartime housing project, were demolished for their materials, sold to private parties attempting to build their own homes under the VA Home Loan programs or to remodel or improve an older dwelling.



The Public Housing Administration hereby gives notice that the Temporary

WAR HOUSING UNITS

listed below are now being offered for

SALE and REMOVAL

from the Site. 8-21-49

Journal

These are one story buildings of frame construction each containing 4 or 6 dwelling units. Some contain Ice Boxes, Ranges (Hard Fuel), and Space Heaters, and are located at the following address in the Guilds Lake Housing Project.

2755-61,	2763-73,	2756-62,	2764-74,	N. W. 28th. Place
2701-07,	2709-19,	2700-06,	2708-18,	N. W. 27th. Place
2753-47,	2745-35,	2719-09,	2707-01,	
2770-64,	2774-50,	2752-62,	2742-36,	
2726-20,	2708-18,	2728-34,	2706-00,	N. W. Wake

Bids may be placed for any number of buildings. Bidder to demount to at least flat panels and remove buildings down to ground level including piers, securely cap and seal all sewers leading from structures and remove all salvage and debris.

This offering is subject to the priorities of Federal Agencies, State and Local Governments, Non-profit institutions, which may purchase at established prices obtainable on request from the Housing Authority of Portland.

Detail bid forms, terms and conditions of sale, specifications for off-size removal and/or other information concerning inspection dates and other data concerning the above described property may be obtained from the:

HOUSING AUTHORITY OF PORTLAND, OREGON

9015 N. Foss Avenue, Portland 3, Oregon TWinoaks 5571, Ext. 38
Office Hours 8:30 A. M. to 5:00 P. M.

Buildings Will Be Open for Inspection From Aug. 8 to 24 Incl. 8:00 AM to 4:30 PM

Offers must be delivered to the Housing Authority of Portland at 9015 N. Foss Avenue before 5:00 P. M. August 25, 1949.

Photo xx: Guild Lake Salvage Sale Advertisement
Oregon Journal, 21-August-1949 (HAP Scrapbooks)

By 1959 the Housing Authority of Portland, once the largest single defense workers housing entity in the nation, retained just 526 units out of the more than 18,000 it had overseen during the war. These were 440 units at Columbia Villa, the first an only project developed by HAP as "permanent" housing, and 86 units at Dekum Court, built

for military personnel during the war and transferred to HAP afterwards.[6] Dekum Court, at N E Dekum and N E 27th streets, was redeveloped in the 1970s and while the land remains under HAP control, no WWII-era structures survive. The original units at Columbia Villa, along with those building on the site subsequently, were removed in 2003-2004 to allow the HOPE VI-funded construction of New Columbia on the site.

Photo xx: Columbia Villa, Typical View
Author Image, December 2002

In Portland, some remnants of the HAP housing program survive, almost entirely community centers such as that at University Park (formerly University Homes) and a relocated building at 8427 North Central, in St. Johns, that was originally a similar facility at the St. Johns Woods Housing project. The Fairview Homes community center has been converted for use as the Wood Village City Hall. Other community centers may also remain, but as far as is known, with the removal of Columbia Villa, not one unit of the 18,500 under HAP control in 1945 remains in residential use.[7]

[6] See Rossman, Memo to Portland Mayor Terry Schrunk, 5-June-1963 (Stanley Parr Archives, 0279-01 1/28 04-1-/14/1). Rossman catalogs HAP's projects as a part of a request to the City Council to expand HAP holdings through purchase of another 500 units.

[7] A more detailed, project by project, discussion of all HAP projects can be found within *The WWII Homefront in Portland-Vancouver* (January 2003).

While the 35,000 defense workers housing units in Portland and Vancouver, respectively the first and third largest authorities in the national, are entirely gone, two hundred WWII-era defense worker housing projects in the Portland area do survive. Hillside Park and the Clackamas Heights housing projects, both built in the 1940s by the Clackamas County Housing Authority are still in use as public housing under the agency's management. While modified, the basic character of the project remains.

Photo xx: Clackamas Heights Housing Project, Typical View
Kirk Ranzetta/SHPO Photo, May 2006

9.0 IN THE END

The events of the World War II homefront in Portland, when tens of thousands of workers streamed into the community from all over the continent, when "houses were built by the acre," as one period commentator put it, and when people joked that ships were being launched into the Willamette River so regularly that the fish were getting tipsy from the champagne, are more than half a century distant. Today, few remember, or appreciate, what Portland did during World War II, how it transformed itself into a vibrant center in the Arsenal of Democracy, or how women, blacks, the handicapped, the elderly, and others were melded into a production team of unprecedented efficiency. There are no ferries to make daily trips across the Willamette to transport workers, no skip-stop buses, no staggered retail hours to accommodate the crush of shift changes.

Photo xx: The Joseph N. Teal
Ralph Lee Editorial Cartoon, *Oregonian*, 25-September-1942.

If the events of World War II have receded in the public's memory, they are few physical clues to help remind anyone. With the exception of the deteriorating concrete ways at the old Vancouvership site, a few much modified buildings within the industrial areas of St. Johns, Swan Island, and Portland's Northwest Industrial area, plus a recreation center or two, there isn't much in the way of built reminders to demonstrate events in Portland between 1940 and 1946. The Port of Portland, home to several large plants, including some still involved in shipbuilding, is clearly an important part of the area economy and

industry and manufacturing still provides jobs and creates products that Portland firms ship around the globe. But industry hardly defines Portland anymore o the nation or to itself. Today the city is far better known for other products, for advertising and running shoes, for microprocessors and high tech firms than as an industrial center.

But there are some lasting legacies in the Portland metropolitan area from World War II. It is arguable that the Housing Authority of Portland, formed only when the City's entrenched opposition to public housing of any sort paled in the face of the wartime emergency, would not exist had not Portland's WWII defense industry demanded such an entity. Today, while it manages no surviving structures from the 18,500 units it built during the war, HAP provides valuable services to nearly 14,000 households in the Portland area, assisting more than 33,000 residents. The story in Vancouver, where the Vancouver Housing Authority was only formed due to the wartime needs, is much the same, benefiting Washingtonians with quality, affordable, housing. While both agencies would probably have ultimately been formed to address housing needs, they surely were formed earlier, and developed differently, than they would have without their wartime functions.

Oddly enough, Portland did play a role in the post-war history of the Liberty and Victory ships. After the war many, including many that were built in Portland, returned to the area to be scrapped. Zidell Marine Corporation, a longtime Oregon company founded in Roseburg and still operating in Portland, became the nation's largest ship dismantler by 1960. Over three decades they salvaged steel from 336 ships at their plant on North Front street. Of those, 149 of were Liberty or Victory ships, sixteen of which had been built in Portland, and had been launched into water on the opposite shore of the Willamette. [1] When their old yard was redeveloped for office and other uses by the Naito family, a small portion of the site was set aside as a memorial. Along a curved concrete path, visitors can enjoy a series of interpretative panels on Liberty Ships, on the Oregon Shipbuilding Corporation and the WWII activities in Portland. Several large pieces of concrete, remain on the site, one of the only publicly accessible reminders of Portland's immense shipbuilding activity.

> When constructed, the Bow sections (of Liberty Ships) were filled with concrete for reinforcing. These parts could not be salvaged and were buried on the site of this memorial (Oakgrove Designs, 2006).[2]

[1] See http://www.zidell.com/historical.html and http://www.oakgrovedesigns.net/homepage/libships/ for information on The Liberty Ship Memorial.

[2] The memorial is located at 1270 NW Naito Parkway (NW Front Ave). Portland.

Photo xx: Liberty Ship Memorial, Portland, OR
Frank Maskus/Oak Grove Design Images

While Portland's population declined slightly after the end of the war, as defense workers returned home, their pockets filled with war bonds, not all the workers left. Surveys in at the Kaiser shipyards indicated that many of the company's workers planned to relocate to the northwest, to buy a small ranch, or open a business. After a period of adjustment, Portland, and all Oregon, returned to a sharp period of population growth and economic development in the 1950s and 1960s. Many residents in the state, even today, have stories of Vanport, of working, or having parents who worked, in the area's shipyards or elsewhere. But for most Oregonians, many of who were born or moved to the state long after the World War II era, the Portland's wartime events are distant, and largely unknown.

So, while there is little remaining and every day there are fewer individuals who remember what Portland did during WWII, there is no denying those events and the important role the city played in securing the Allied victory. During a short period beginning in 1940, steel plate and other materials streamed into the Columbia and Willamette rivers, and huge ocean-going vessels, much-needed aluminum, engines and military necessities steamed out. Admirals and officers of the line were a common occurrence in Portland. President and Mrs. Roosevelt, Vice-President Wallace and too many other dignitaries to name came to Portland to see how the city's workers, and its

industry, kept breaking records, how it was building and launching ships faster than anyone believed possible. They wanted to know how a small west coast city could put so many ships into the water, could manage the huge influx of workers needed to build, construct millions of dollars of housing, and could do it all amid materials shortages, rationing, and other challenges.

Looking back, reading the *Bos'n's Whistles*, the *Oregonian* and *Oregon Journal*, it is clear that Portland was proud of itself during World War II. There is a sense that they felt their efforts during the war were of historic proportion, setting a standard that would be difficult to duplicate. HAP, in its post-war summary *From Roses to Rivets*, noted that "….the enterprise born of the war crisis, and launched with scant public attention, was to grow to a housing program ...that would develop new construction…reaching the proportions of a city with a city larger than Galveston, Texas or Springfield, Illinois" (HAP, 1946). Henry Kaiser, in a publication simply titled *Record Breakers — The Oregon Shipbuilding Corporation* published in early 1945, wrote;

> It is no exaggeration to say that the performance of this company has astonished the world. When this job is done, and history writes the story, the commentators will ask how such a record could have been established (*Oregonship*, 1945:1).

But Kaiser, the "Atlas of Industry," who was so forward thinking in so many ways, so attuned to the ways of publicity and production, was wrong. *Record Breakers* was privately printed and while distributed to the company's 30,000-plus workers was never available to the general public. *From Roses to Rivets*, was also largely an internal document, distributed to HAP's board members, the City Council, and others. In more recent years histories of Liberty and Victory ships have been written, many by men who sailed upon them, but these make only scant mention of the yards where these ship were built, with Oregonship and Vancouver simply being among the more productive.

Even late 20th century historians of Portland, aided by the perspective of time and a more specific focus, acknowledge the area's wartime events as key in the city's development history but rarely spend more than a few pages on the industrial achievements of the city during WWII. Contrary to Mr. Kaiser's claim, commentators have not asked how Oregonship could have accomplished what it did. There is little mention of Oregonship, or even of Portland, in most histories of the US Homefront during World War II..

There are men and women, though, who were a part of these events in Portland. Who climbed into the dark and dank bowels of a steel hull on the graveyard shift, wearing leather pants or overalls pocked with the burn marks of welding sparks, wearing protective glasses and festooned with steel brushes and rags that made walking on the uneven surfaces difficult. They hunted for shoes, and for coffee, jammed into buses and ferries to get to the yards, six days a week, eight long hours a day, and then dragged themselves back onto the buses to housing projects built just to accommodate their

numbers. Their story is compelling told by Chauncey Del French, who with his wife Jessie, toiled in Kaiser's Vancouver shipyards for most of the war and, with a fine eye, wrote down what they did. Women welders have recorded interviews for the Oregon Historical Society, reminiscencing about those days that are now of interest. That is as it should be, that the workers tell the stories of what when in Portland during this period, provide us with a glimpse of 'how it worked," from there perspective, for it was the workers who made it happen, who adapted, who followed the plan, and who produced the goods.

> This much is certain; every one of us is stronger for having done his job well. We have acquired new skills, new confidence in our ability, new willingness to venture. We know we can meet emergencies; that we can stand pressure; and that we can carry on against any obstacle (*Oregonship*, 1945:1)

Henry Kaiser may have miscalculated the acclaim that history would bestow upon Oregonship but he was surely correct on another matter. His words to his Oregonship workers in early 1945 are just as true of the people of Portland, of those that worked at Vancouver and Swan Island, at Alcoa and Reynolds, WISCO, Albina, CIW, Gunderson, of the women that drove the buses, the men who built the housing, and the poor waitress who politely denied them coffee unless they were also ordering eggs. If it took "more than bullets" to for the Allies to win WWII, in Portland the homefront was about more than ships, no matter the speed at which they were built.

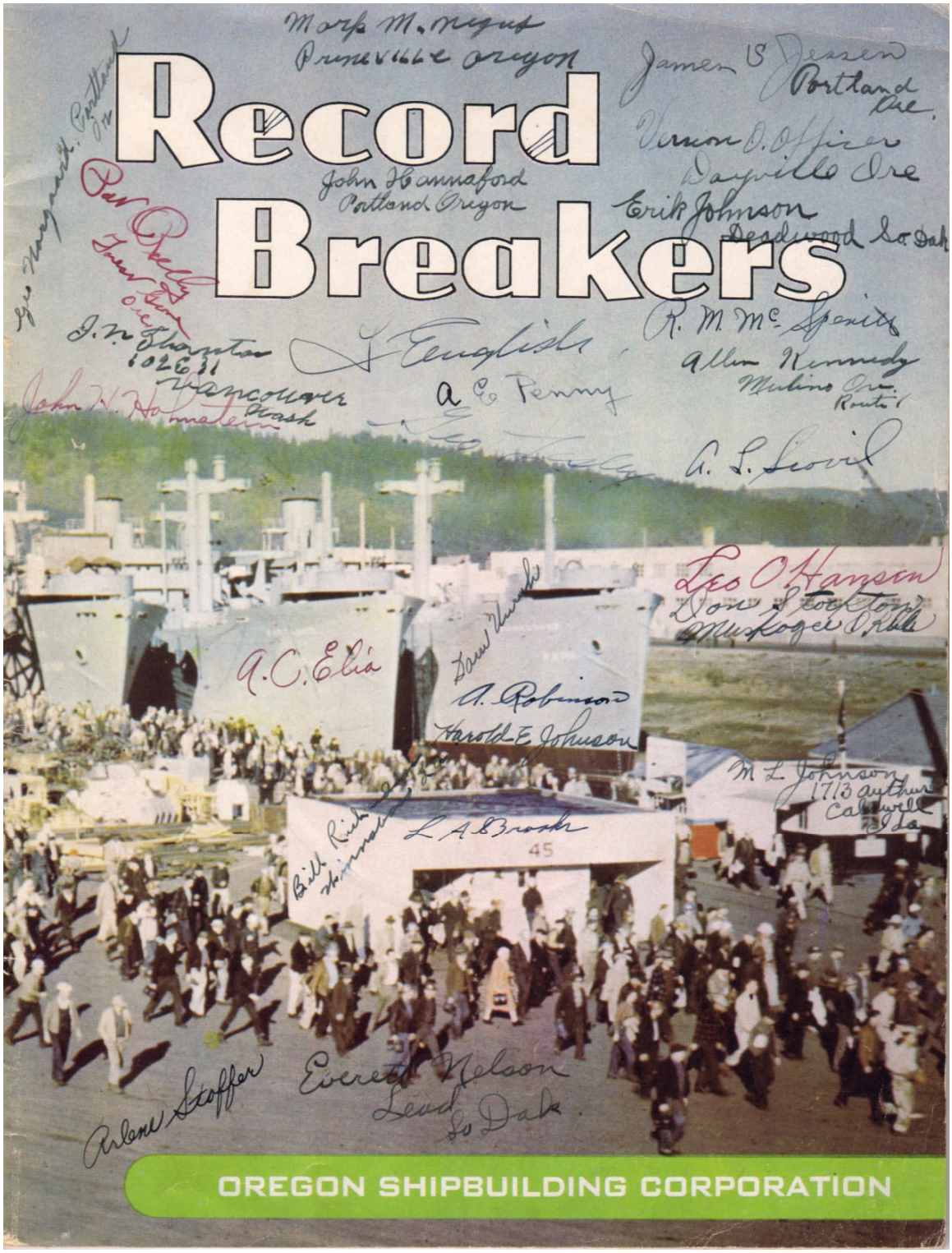


Photo xx: Record Breakers- Oregon Shipbuilding Corporation
As inscribed by workers to E. C. Bruns, Pipe Foreman, hired 4-December-1941
Author's Collection

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