Housing, Urbanization, and the WWII Home Front Environment

During the 1940s, the mobilization of the home front led to many changes in the natural and built environments. Some places, like Richmond, California, industrialized rapidly, becoming cities. Others, like Los Angeles, were already urban. They faced extreme growth and required changes in infrastructure. Still others, like Claxton, Georgia, remained rural. Military developments marked a shift in how farmers and other agricultural workers lived and worked in and around military presences. This article will look at several case studies on how the environment and housing intertwine, continuing to affect each other today.

In the cases of Los Angeles, Richmond, and Claxton, it is important to note that the residents most affected by the changes to the environment and housing were those who were lower class. Harmful city planning practices, like redlining, institutionally segregated poor people of color. The new technologies developed during the war like the pesticide DDT aided in solving widespread problems like the spread of malaria abroad and in the American southeast, while they also had unintended consequences. At the same time, the shift to focusing on industrial and technological progress often meant that the lives of marginalized communities were devalued in the name of progress. When reading each of these sections, consider the ways in which the changing environments around production sites affected minority communities' quality of life.

Richmond, California: Housing Crises and Migrant Defense Workers

The Federal Housing Administration (FHA) formed as part of the New Deal in 1934. During WWII, the FHA continued to partner with local housing developers. Their new goal was creating affordable houses for members of the military and home front workers.[1] In Richmond, California, the Kaiser Shipyards became a profitable industry center. Four shipyards were in Richmond, which produced more ships than any other shipyard in the United States.[2]

To achieve such productivity, Kaiser Shipyards recruited thousands of workers. The total population of the city grew from 20,000 to 100,000 in three years. The number of African Americans in Richmond rocketed from under 300 to 5,673 by 1944.[3] Employment offered shipyard workers the opportunity for decent pay and to contribute to the war effort. However, massive expansion of Richmond's population resulted in drastic changes to its

environment. A severe shortage of housing was one of the biggest challenges defense workers faced.

Before the city received financial support to stop the housing crisis, shipyard workers reused existing buildings and claimed open space for their housing. Workers and their families rested in abandoned buildings, whitewashed chicken coops, boats, nightclubs, and all-night movie theaters. They also camped alongside creeks, creating their own housing where there had previously been none.[4] The Richmond City Council passed a resolution on January 20, 1941, creating the Richmond Housing Authority (RHA). This agency received aid from the Federal Works Administration (FWA) to create housing units. While the city now had the funding to create housing for its workers, there were concerns about having space available to do so.

Figure 1: Postcard displaying some of the newly-built public housing in Richmond, 1944. (Credit: Courtesy of the Richmond Public Library, via Calisphere.)

The RHA and suburbs of Richmond opposed the idea of using FWA funding to build permanent housing. City officials thought new construction would lower real estate values and lead to a change in the "character" of the community. Nearby cities like Berkeley were successful at keeping defense worker housing outside of their limits. This left most of the new construction concentrated in Richmond. To solve the concerns of the RHA, the federal government promised Richmond that most defense housing would be "temporary." Their

plan was to demolish housing in two years, which was why it was built with cheap materials. This was a general trend among WWII boomtowns.[5]

Some apartment complexes in Richmond were built immediately after the Pearl Harbor Attacks. These were meant to be permanent. However, permanent housing options were reserved for white workers. Harry Wheaton Williams, who belonged to a long-established Black family in Richmond, recalled in an oral history:

"It was restricted. There were a lot of restricted areas. A lot of blacks had gone to North Richmond. That's because they were forced, in a way, to move over there."[6]

Construction companies built temporary housing projects in different environments. These buildings were also created with different, less sturdy materials. The city's south side was closer to the shipyards but had swampy land. Open fields and marshes quickly became sites for housing. Richmond's temporary housing included duplexes and even a trailer park. The most common style of housing was 2-story apartment blocks. The RHA and FWA built 10,000 apartments in this style in Richmond. In addition to poor-quality structures and marshy locations, traffic congestion increased around apartments.[7]

Some workers living in these apartments were happy to have utilities like running water for the first time. Still, the quality of living in these temporary apartments was very poor. In addition to restrictive laws denying access to housing, real estate agencies denied workers housing on the basis of race. Richmond segregated Black shipyard workers to 20% of the total housing developed in Richmond during WWII. Later, Japanese Americans returning to Richmond after incarceration lived in segregated housing in apartments first built for shipyard workers.[8] Black residents of Richmond also relied on these temporary structures after the war ended. Because of restrictive housing processes like redlining, there were few options available. Residents of these structures fought against segregated practices and to keep their homes from demolition after the war. Over half of Richmond's population lived in "temporary" structures five years after the war ended.

Figure 2: Marvin Foster, a crane operator at the Kaiser shipyards, in front of his trailer home in 1944. The city of Richmond provided segregated trailer housing for Black shipyard workers. (Credit: National Park Service, RORI 1855)

Ultimately, though, the city's Redevelopment Agency removed all temporary public housing built during WWII.[9] The construction and demolition of over 10,000 buildings between the mid-1940s and the early 1950s resulted in another drastic change to the environment of Richmond. Richmond's Housing Authority barred Black residents from the single home suburban option pushed as "responsible for the quality and attractiveness of the typical residential neighborhoods of Richmond." Over 700 African American families lost their homes in 1952. A mere 16% were able to successfully find new housing through private real estate markets. Instead, displaced African Americans and other lower-class people of color who relied on public housing were forced into segregated neighborhoods with less resources and often took on predatory housing loans to afford a place to live.[10]

Today, the inequities of housing rights continue to affect people of color. The report *Housing Policy and Belonging in Richmond* states that, before the 2008 housing crisis, "Black and Latino homebuyers were over three times more likely to receive risky loans than white borrowers, even with similar credit scores and income."[11]

The natural environments of the neighborhoods where these homeowners live are still affected by historical events. The neighborhood of Seaport, for example, housed around 400 families when it was first built in 1944. However, its location next to a pesticide plant meant that the factory's emissions left a putrid smelling mist over the neighborhood that left a mustard-colored dust. The mostly Black families at the time were not told what the

factory's emissions contained. After the plant closed in 1997, however, the scientific reports found arsenic, heavy metals, lead, and other chemicals in the environment. The health of many of the families who lived there was deeply affected.[12] Today, environmental activists oppose building any new housing in Seaport because of the negative impacts of being so close to the plant.

Los Angeles, California: Smog Appears

Cities that were already high in population before WWII also had significant environmental changes. At the start of the 1940s, Los Angeles, California had a population of 1,504,277. It was the fifth largest city in the United States. However, the demands of WWII meant an exponential increase in wartime production. This, in turn, required an increase in buildings and people. Aircraft construction began across six defense plants, and other factories began supplying parts.[13]

To account for the increase in new workers, Los Angeles, like Richmond, constructed new housing for workers. New construction in both housing and industry increased the city's funding and employment. In 1942, the city had received over $3,000,000,000 of war production contracts. Accordingly, the manufacturing employment rate increased from 152,000 in 1940 to 446,000 in 1943. Hundreds of plants were constructed yearly for rubber, metal, machine, and chemical work. While suburban areas surrounding Richmond successfully prevented defense housing, both housing and industrial construction quickly spread into other areas of the county in Los Angeles.[14] The expansion of suburban residents led to both an increase in neighborhoods and in commuting. While Los Angeles had seen rapid adoption of the automobile beginning in the 1920s, World War II saw the increase in automobile drivers pick up again following the stalling of the Great Depression.[15] With this rapid expansion also came new environmental difficulties.

Beginning in 1940, Angelenos began experiencing dense, sulfurous, dark-colored fogs. Bouts of the condition had occurred off and on between 1940 and 1942, but in the summer of 1943, the effect of the pollutants reached a new level. Reporters began calling the mixture of air pollution and fog "smog," the first time the term was used. Visibility in smog was three blocks. It caused mass reports of eye and throat irritation to the point of nausea. Initially, the media reported that it was a gas attack on the city. Further inspection by the county's Health Officer and Industrial Hygiene Division Inspectors pointed to an internal threat: the factories.[16]

Figure 3: Smog-covering Los Angeles from Arroyo Seco Parkway towards the Los Angeles City Hall and Civic Center, 1948. (Credit: Courtesy of Mike Mullen, Herald Examiner Collection/Los Angeles Public Library.)

In particular, the city suspected a butadiene plant of causing the intensity of the smog of 1943. Housing and buildings surrounding the factory reported "'black carbon-like grease'" coating them. The nearby County General Hospital was also unable to block the fumes from affecting their tuberculosis ward. As fumes spread into nearby towns such as Pasadena, the calls to shut down the butadiene plant grew. For the rest of 1943, the factory closed, and filtration devices were installed.[17] The county government also established agencies devoted to enforcing the proper filtration of factories. These included the Smoke and Fumes Commission in 1944 and Los Angeles County Air Pollution Control District in 1947. The LA County Pollution Control District was the first such board in the nation.[18]

However, after the war, the smog remained even as the District passed restrictions on factories and chemical plants. It took until the 1950s for scientists and county officials to identify cars as the cause of smog. The increase in worker housing outside of city limits meant an increase in commuting. Today, Los Angeles continues to suffer from smog as a

result of automotive commuting, even after the city passed some of the nation's first Clean Air laws in the 1960s.[19]

Figure 4: Protestors at Southern California Association of Governments meeting, 1989. (Credit: Courtesy Los Angeles Public Library.)

Claxton, Georgia: Pesticides, Military Land Use, and Rural Housing

Rural Americans also saw significant changes in where and how they lived. During World War II, the United States government purchased significant amounts of land. Some National Parks and other land already owned by the federal government were repurposed as training grounds and medical sites. However, the government also bought a significant amount of private lands. The southern United States was the site of many training and ordnance sites. The abundance of rural land, warm climate, and lower costs of construction led to increased development. Rural communities became grounds for training camps, airfields, firing ranges, and production depots. Although this mobilization created some new jobs, it also displaced many of the previous communities.[20]

Figure 5: Training exercise with an anti-aircraft artillery, Fort Stewart, Georgia. Military training focused on aircrafts and artillery shelling was one of the reasons the United States government purchased and leased private and publicly owned land in the 1940s. Original residents outside of Fort Stewart had to move to other towns. (Credit: Courtesy of the Smithsonian National Museum of American History.)

People whose land the government purchased or leased faced challenges in relocating. Dottie Colson, her sister Mamie Pyler, and their families moved to Claxton, Georgia, in 1942. After the government purchased land to expand Fort Stewart, real estate agents raised the prices of land in nearby Georgia towns. Like in cities, rural communities also limited the mobility of those displaced by home front developments. Colson and Plyer were initially willing to move to Claxton after the government purchased their home. They viewed it as part of their patriotic duty.[21]

The government's prioritization of technological advancement shaped the new home environments of displaced communities, too. Beginning in 1942, companies introduced synthetic pesticides like DDT in the United States market. Previously used to stop the spread of Typhus in Italy and Malaria in the Pacific, DDT was also deployed in the States by the government. The Malaria Control in War Areas (MCWA) agency was formed in Georgia to create malaria-free zones in and around military sites. This task expanded to include all

“malaria-prone” sites across the Southeastern United States in 1944. MCWA workers sprayed over half a million homes with DDT in the program’s first year.[22]

Many homes that defense workers and rural communities inhabited were public housing. Prior to the introduction of DDT, pest maintenance in public housing was completed communally. With the introduction of synthetic pesticides, the treatment of public housing changed. People believed spraying DDT was a highly contained way to spread the chemical. This allowed for the treatment of public housing on an apartment-by-apartment basis.[23]

Beginning in 1945, DDT was also available commercially as an agricultural tool. While crop-dusting began in the 1920s, World War II exacerbated the practice. Wealthy farmers were able to purchase surplus fighter planes, equipped with pesticide tanks, and use them to spray their crops. Claxton’s history as a prominent agricultural production site extended long before the 20th century. Previous methods of treating crops spread pesticides less widely than crop-dusting did. Many of the farmers who could afford to engage in the practice lived in town, away from their agricultural land. They did not have to worry about living among DDT-sprayed environments.[24]

In the cases of agriculture, public health, and housing, technology developed over the course of World War II was beneficial in advancing productivity. However, it also presented new challenges and dangers. Public housing, like the apartments built for migrant workers in Richmond, used materials often meant to be temporary. The budgets for maintaining these houses were minimal and declined after World War II. DDT and other synthetic pesticides seemed as though they could be isolated to the rooms they were sprayed in. However, the neglect in public housing meant that the pesticides spread throughout the decaying apartments. Simultaneously, the housing also became more accessible to outside pests. Some, like the German Cockroach, were resistant to DDT.[25]

Figure 6: Advertisement for DIDIT insect spray, for interior use. The "pleasant odor" and lack of residue are some of the reasons the pesticide was used in public housing. (Credit: Courtesy of Retro-a-rama.)

Humans were not. DDT took longer to kill pests than older pesticides but could be applied and remain on a surface to kill pests over several weeks or months. In poor quality housing, however, DDT spread through the cheaper materials used to build walls. Furthermore, continued application of the spray increased the residents' exposure to the chemicals. The pesticides, along with the pests they were trying to kill, made homeowners ill.[26] In Claxton, Georgia, the airborne DDT traveled from the fields of the wealthier town farmers and onto the houses and crops of poorer farmers.[27]

The Colsons and Pylers suffered from health problems like headaches and mouth and throat sores caused by the pesticides. They were not alone, as reports from state health departments indicated. Records included deaths of crop duster pilots and people who accidentally ate sprayed crops and liquids. Dottie, Mamie, and other Claxton residents wrote extensively to the Georgia Department of Health, governor, and congressmen. In their petitions, they argued for the Health Department to control "the uses of, and methods of applying, insecticides in residential areas," in order to limit the chemicals' "distressing symptoms, acute suffering and even death in humans and other warm blooded farm animals and fowl." Land loss and adaptations towards new housing and technology were all factors that forced rural Americans to make drastic shifts in their lifestyles during the 1940s.[28]

In spite of the Claxton residents' efforts, the banning of DDT and other synthetic pesticides from WWII did not occur until after Rachel Carson published Silent Spring in 1962. One of the reasons banning took so long was related to what purposes and spaces DDT toxicity was tested for. Early commercial tests failed to consider rural use. They only observed industrial levels of exposure for those working in factories. Those who were most affected by the harms of DDT, however, were residents of farms and public housing. A shift during WWII towards industrial hygiene and military considerations of health and safety continued to leave many impoverished, rural residents of the south exposed to dangerous chemicals.[29]

The use of the pesticide was banned for commercial sale in 1972. However, the government continued to use the pesticide to control agricultural production and public health throughout the 1970s. Between 1972 and 1979, state governments in Louisiana, California, Texas, Wyoming, Colorado, New Mexico, and Nevada all used DDT with permission from the federal government to suppress pests carrying diseases like the bubonic plague.[30] While the United States no longer uses DDT today, the effects of DDT on the environment remain prominent.

Many contemporary concerns about DDT and other synthetic pesticides are related to their persistence in land and water. According to a fact sheet from the National Pesticide Information Center, DDT has a half-life of anywhere from two to fifteen years in soil, and a half-life of 150 years in water. Because degradation does not occur at a consistent rate, if the amount of material originally built up in the soil or water is large enough, the remaining concentration can cause harm. DDT used in agricultural sites is particularly prone to collecting in water supplies, meaning that rural sites like Claxton, Georgia may still suffer from the effects of synthetic pesticides.[31]

Conclusion

World War II was a time of intense development on the home front. Cities, suburban towns, and rural areas all grew as people moved for industry and the military. As communities shifted, the landscapes they lived in also changed. Richmond, Los Angeles, and Claxton residents all faced challenges related to poor quality housing and new types of pollution. Because of restrictive housing practices that targeted people of color and lower-class citizens, exposure to new environmental threats like smog and DDT disproportionately affected them. Although legislation has been introduced to combat the negative effects of chemical waste and pollution, the effects of these actions still linger. Local communities are able to work together to try to achieve better conditions today.

This article was written by Emma Gruesbeck, an intern at the National Park Service's Cultural Resources Office of Interpretation and Education, through a cooperative agreement with the National Council of Preservation Education (NCPE).

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