2 SURVEYING THE HOUSING FRONT

In the early 1940s, Luckhaus Studio counted among the first of Los Angeles's commercial photographers to find a new client in the young Housing Authority of the City of Los Angeles. Between the summer of 1941 and the winter of 1942, Luckhaus produced a collection of black and white photographs showing the demolition of some of Los Angeles's oldest low-income neighborhoods and the construction of at least five of the Authority's modern developments in their place. Over one hundred of these images survive as prints in the Housing Authority of the City of Los Angeles Photograph Collection at the Southern California Library, as copy prints at the Los Angeles Public Library, or reproduced in housing publications still held by libraries in the United States and Europe. Beyond these scattered objects and scant notes in census data and periodicals, any other records that might explain how Luckhaus Studio's work functioned as part of the Housing Authority's operations in its first few years remain lost.

An examination of the extant photographs against the backdrop of Luckhaus Studio's and its founder Arthur Luckhaus's largely overlooked history reveals that public housing, as client and subject, provided a new and stimulating challenge to photographic businesses with a reputation for creating salable images of local architecture. As will also be shown, however, Luckhaus Studio did more than draw on its experience in photographing Los Angeles's downtown commercial behemoths in portraying the Housing Authority's modern but modest public housing developments: it deployed a unique combination of photographic techniques that were practiced by army surveyors during the First World War. With this example of Arthur Luckhaus and his studio, this chapter thus aims to explain the meaning that public housing held for wartime commercial photographers and the role their photographs played in picturing public housing as part of an international conflict.

This approach to housing photography as war photography is based on several precedents. Although focused mainly on images for Congress and the United States Department of War in the second half of the nineteenth century, Robin Kelsey's Archive Style offers a model for bringing the surveyor's transnational biography to bear on pictures of geographic boundaries. This chapter follows a similar approach to the study of Luckhaus's work for the Housing Authority as a way of explaining Luckhaus's technical and creative approach to conducting a photographic survey of housing construction during its boom years at the beginning of the Second World War. It also, however, examines the Housing Authority's conception of the role of photographers as part of the wartime housing effort. Here, the present study responds to the sole sustained examination of Luckhaus's photography, architect and historian Rubén A. Alcolea's book, Picnic de pioneros: arquitectura, fotografía y el mito de la industria (Pioneer Picnic: Architecture, Photography and the Myth of Industry). In Picnic de pioneros, Alcolea presents Arthur Luckhaus as both a westward-moving entrepreneur and a "pioneer" proponent of the New Objectivity in the West.² Alcolea's close readings of Luckhaus's photographs from archives in Denver and Los Angeles reveal the photographer's position within the history of modern photography while laying bare Luckhaus's pragmatic approach to making clear and functional images for architects and the building industry—particularly in his photographs that promoted Los Angeles architect Richard Neutra's work abroad.3

Several of Rubén A. Alcolea's findings resonate with those of the present study. As with Robin Kelsey's analysis of nineteenth-century survey photographs, Alcolea's notes the hallmarks of Luckhaus's work for his Los Angelesbased clientele. Automobiles as modern machines par excellence form a motif through many of Luckhaus's photographs, while human figures are almost always absent.⁴ As Picnic de pioneros further demonstrates, these motifs carried into Luckhaus's work for the Housing Authority. Noting how Luckhaus's photographs of Aliso Village show only demolition and construction, but no finished housing projects, Alcolea identifies in them a "scientific rigor" and conduciveness to before and after comparisons. 5 These transnational, technical, and pragmatic dimensions of Luckhaus's practice all provide background for a closer examination of the present question: how did Luckhaus's photography fulfill the Housing Authority's commission? The answer may be found by taking Alcolea's astute application of the metaphor of the "pioneer" a step further to reveal an understanding of the photographer as a war figure. As Kelsey's study and the longer history of California show, photography in the western part of the United States has long been entangled with the violence of redrawing geographic boundaries. Luckhaus, as a photographer from Colorado and a veteran of the First World War, was both a pioneer and a soldier, and a prime example of a new concept of the photographer as a fighter on the wartime housing front.

COMMERCIAL PHOTOGRAPHY AND PUBLIC CLIENTS

The scant records of Arthur Luckhaus's life suggest that he learned the business of photography at a young age. Born in 1880 in London to the Alsace-Lorraineborn photographer August Luckhaus and the British woman Clara Luckhaus, Paul Adolph Arthur Luckhaus immigrated to the United States as a small child.⁷ He completed three years of high school before entering his father's trade, as did his younger sister, the now utterly forgotten photographer Gertrude E. Carpenter.8 Prior to immigrating to the United States, Luckhaus's father maintained a business producing cartes de visite and "views" in Falkirk, Scotland.9 Whether he reestablished this business in the United States, however, remains uncertain. August and Clara set up a homestead near the town of Pueblo, Colorado, in the years prior to the First World War.¹⁰ Their son Arthur Luckhaus, meanwhile, carried on the family's tradition of photography over one hundred miles away in the Colorado state capital of Denver.¹¹

Arthur Luckhaus spent several years of his early career based out of Denver. He found work at the Van Noy Railroad News Company as late as 1913—the same year his father, according to one sensational news report, died from a bullet wound allegedly inflicted in an altercation on the outskirts of Pueblo.¹² While providing a home to his mother who found work as a nurse in Denver, Arthur Luckhaus maintained an affiliation with Van Noy for at least a decade, taking on the job of "newsagent" by 1920, just around the time the company was renamed the Van Noy Interstate Company.¹³ Punctuating this work at Van Noy was Luckhaus's service in the American Expeditionary Forces as a sergeant in Company M of the Twenty-Ninth Engineers, the unit charged with the task of "surveying and printing" during the First World War. 14 Following the war, Luckhaus returned to Denver for only a few years before moving to California and taking his photographic business with him. Sometime between 1923 and 1926, Luckhaus began managing a photographic business by the name of Luckhaus Hoops in a rented space on West Seventh Street in Los Angeles. 15

Arthur Luckhaus set up shop in Los Angeles at the height of the "booster" era following the First World War when businesses began to actively promote California as a place where one could take a sunny vacation or settle down and enjoy a good life. 16 The timing was excellent for Luckhaus, for booster groups saw photography as instrumental in their promotional efforts. In 1927, two such groups, the All Year Club of Southern California and the Ambassador Hotel System, announced competitions with prizes of one hundred dollars each "for the best new scenic view of any place in Southern California" that was "suitable for reproduction" and had "advertising value." Finalists were to be exhibited at the Los Angeles Convention of the Pacific International Photographers' Association, where the All Year Club's Advertising Committee would select the winning photograph for use in an advertising campaign. The contest rules encouraged the submission of photographs showing "typical subjects" such as "mountains, palms, eucalyptus, missions, desert, sea-shore, canyons, or any phase of outdoor life or scenery distinctively reflective of Southern California."17 As a further testament to boosters' eagerness to encourage photography of Southern California, the Ambassador Hotel System hosted the convention. This sponsorship of the competition and hosting of the convention received warm welcome. The nationally circulating San Francisco-based photographic monthly Camera Craft printed the announcement of the competition together with the rules in its section regularly dedicated to the Pacific International Photographers' Association's news, extolling "the importance of these conventions" and the chance they presented "to bring credit to our craft." Such incentives were attractive to many commercial photographers looking to set up practice in the growing Southern California metropolis.¹⁹

Luckhaus rose to prominence in the midst of this flurry of commercial photographic activity. In the second half of the 1920s, the simple name "Luckhaus Studio" began receiving several bylines in the Los Angeles Times for various photographs of paintings. 20 In 1926, the Commercial Photographers' Association of Los Angeles elected Arthur Luckhaus to the position of second vice president.²¹ Unlike their neighbors at the Pictorialist-dominated Southern California Camera Club, the Commercial Photographers' Association fashioned themselves as a club of local photographic businesses.²² A press mention of the association from earlier in the decade indicates that it was an intimate organization of about thirty members, including Edward S. Curtis.²³ According to a 1923 report in the Los Angeles Times, this association recently "increased its membership 50 per cent, won the western cup awarded at the national convention; produced a cost survey for commercial photographers and worked out a credit system of value to its members."24 A few years later, the editor of Camera Craft reported that the group of Los Angeles-based photographic professionals began participating in an exchange of "new ideas" with the New York Commercial Photographers' Association.²⁵ Organized, networked, and in the photographic press, the Commercial Photographers' Association of Los Angeles purveyed exciting business prospects to its members as it placed Los Angeles on the map as a center of lucrative photographic enterprise.

In addition to joining the Commercial Photographers' Association, Luckhaus spent considerable time and energy developing his business prior to working for the Housing Authority. In 1930, at the same time Zeitlin's Book Store was showing photographs by Brett Weston, Luckhaus was showing his studio's photographs in the California State Exposition Building in Exposition Park. 26 In 1932, he hired a printer.²⁷ Around 1938, he appointed another man of the auspicious name William Talbot as an assistant photographer.²⁸ As a photographer in her own right, Luckhaus's wife, Margaret M. Luckhaus, might also have done more work for Luckhaus Studio than records attribute to her.²⁹

With several employees and an eponym whose résumé included work for the American Expeditionary Forces' surveying unit as well as membership in a local business group for commercial photographers, the question of how Luckhaus Studio came to work for the Housing Authority of the City of Los Angeles lends itself to several hypotheses. One of the most plausible is that the Authority sought-out a studio with a specialty in photographing local architecture. Dates ascribed to Luckhaus Studio photographs from the sizable collection currently on file at the Los Angeles Public Library allow a rough estimate that Luckhaus Studio started developing this specialty in the mid-to-late 1920s.³⁰ The photographs offer few clues to their context, thereby leaving open questions about who commissioned them and for what purpose.31 Yet, in addition to showing primarily large, multi-story governmental and commercial buildings ranging from Los Angeles City Hall to luxury apartments to grocery stores, they offer several insights into the visual conventions prevalent in Luckhaus Studio's portfolio at the time it took up work for the Housing Authority (figs. 8, 9, 10).³² As Rubén Alcolea's study outlines, extant photographs attributed to Luckhaus show that he (or his studio) adopted such conventions as composing images like drawings in two-point perspective (fig. 11)—a practice Alcolea suggests was both common in the first third of the twentieth century but also perhaps reinforced in Luckhaus's photographing of architectural drawings.33

A second hypothesis that could explain Luckhaus Studio's commission for the Housing Authority is that both the photography studio and the Housing Authority shared a mutual acquaintance. One of the most famous Luckhaus Studio clients during the 1930s was the Los Angeles-based architect Richard Neutra.34 Luckhaus Studio photographed Neutra's architecture, inside and out, including such historically celebrated structures as the Lovell Health House and the Von Sternberg Residence.³⁵ Although not as widely studied by scholars as the later photographs by Julius Shulman for John Entenza's Arts and Architecture





- **8]** Luckhaus Photo, Los Angeles City Hall, 1928, photographic print, 10.24 in. × 8.27 in. (26 cm × 21 cm), Ralph Morris Collection/ Los Angeles Public Library.
- 9] Luckhaus Studio, Château Élysée apartments, view 3, June 6, 1929, photographic print, 10 in. × 8 in. (25.4 cm × 20.32 cm), Ralph Morris Collection/ Los Angeles Public Library.

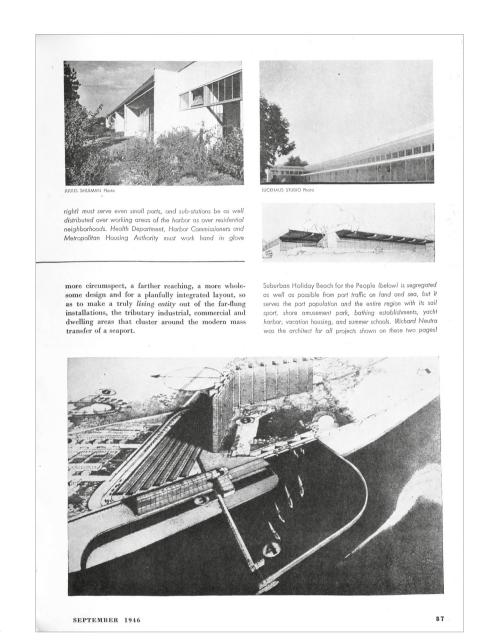


10] Luckhaus Studio, Ralphs Grocery Store, exterior view, 1928, photographic print, 8 in. × 10 in. (20.32 cm × 25.4 cm), Ralph Morris Collection/Los Angeles Public Library.



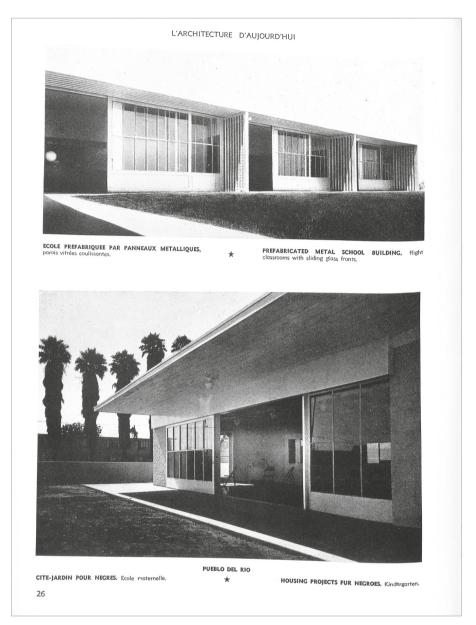
11] Luckhaus Studio, Standard Oil Building, 1929, photographic print, 10 in. × 8 in. (25.4 cm × 20.32 cm), Ralph Morris Collection/ Los Angeles Public Library.

magazine, Luckhaus Studio's photographs of Neutra's architecture enjoyed a wide circulation during the 1940s long after Luckhaus ceased to fulfill Neutra's orders.³⁶ Reproductions of Luckhaus Studio's photographs appeared in Built in USA: 1932–1944, a book compiled to accompany an exhibition at the Museum of Modern Art in 1944.37 In 1946, Neutra published a Luckhaus Studio photograph of a Los Angeles kindergarten in Architectural Record together with an article calling for a new view of the world's port cities—Los Angeles here a prime example—as communities that should be planned if they were to be fully integrated into the world's social and economic fabric (fig. 12).38 As Rubén Alcolea also notes, Luckhaus Studio's photographs further aided in building an international following for Neutra's architecture.³⁹ That same year, the Paris-based architecture journal L'Architecture d'Aujourd'hui published an issue dedicated to Neutra's work complete with an uncredited Luckhaus Studio photograph captioned "Prefabricated metal school building" (fig. 13). 40 Today, photographic prints by Luckhaus Studio showing the same school, its floor-to-ceiling sliding doors open to the outdoor sunlight, can be found in the CIAM Archive in Zurich.41



12] Richard Neutra, "Sea-Land Transfer," *Architectural Record* 100, no. 3 (September 1946): 87, ETH Library, Zurich.

The reproduction and international circulation of Luckhaus Studio's photographs showing the architecture of Richard Neutra invite a consideration of the extent to which Luckhaus's work for Neutra bolstered the studio's status as an internationally-networked local business. ⁴² Julius Shulman ultimately took the lion's share of Neutra's photographic commissions and remains today one of California's most celebrated photographers of modern architecture with several monographs, a documentary film, and an archive at the Getty Research Institute. ⁴³ Yet, it is doubtful whether Shulman's arrival ended Luckhaus Studio's



13 Alexandre Persitz, "L'ecole, centre vital de la commune," L'Architecture d'Aujourd'hui 16, no. 6 (June 1946): 26, ETH Library, Zurich.

work for Neutra. Recent research and a survey of photographs of Neutra's architecture from the latter part of the thirties suggest that Luckhaus and Shulman may well have shared work for the architect—or at the least for the magazines who showed Neutra's work—for several years. 44 Even once Shulman took over Neutra's commissions, Luckhaus Studio continued to photograph Neutra's buildings, only not in Neutra's employ.

In 1941, both Neutra and Luckhaus Studio were working for the Housing Authority of the City of Los Angeles. Luckhaus photographed the construction

of Aliso Village, William Mead Homes, Estrada Courts, and Pueblo del Rio, and Neutra contributed to the latter of these projects under chief architect Paul R. Williams as part of the Southeast Housing Architects Associated.⁴⁵ Julius Shulman, although still working for Neutra, soon followed suit. The Housing Authority listed his name along with Arthur Luckhaus's in the photo credits for the Housing Authority's annual report for the period from July 1941 to June 1942.⁴⁶ In 1943, Shulman also recorded payments from the Housing Authority as well as those from Neutra in his personal logbook.⁴⁷

At least for Shulman, the Housing Authority paid a sizable portion of his income. His diary's "cash account" page for March of 1943, for instance, shows that three of Shulman's eighteen jobs for that month came from the Housing Authority. Other clients included the Beverly Hills Hotel, John Entenza, House Beautiful, and Architectural Record. While Shulman's work for these other clients, especially his work for John Entenza's Case Study House Program for Arts and Architecture magazine, would become some the most celebrated projects of his career, the Housing Authority was by far Shulman's highest-paying client that month, netting him a total of one-hundred-thirteen dollars and fifty cents, or a third of his recorded cash received. 48 Shulman continued to take on work from the Housing Authority for the rest of the year. In April, he sold the Authority thirty prints for a total of fifteen dollars and fifty cents and in July he photographed Pueblo del Rio, a public housing development occupied mainly by Black residents. 49 Although indicative of work that was intermittent and hardly amounting to a full-time job, Shulman's records provide a sense of the attractiveness Housing Authority commissions might have had for Luckhaus and his studio a few years earlier.

Shulman's criticism of his competitor also begins to show the attractiveness of Luckhaus's portfolio to Los Angeles housers. In an oral history interview recorded for the Archives of American Art in 1990, Shulman described Luckhaus's practice as one that made no pretensions to the status of fine art: "He [Luckhaus, N.K.O.] tended to be very rigid and very technical about his work, and his photographs, albeit very good, lacked the imagination, the composition, the design, of a composition of photography."50 Shulman's choice of the word "technical" offers a valid insight into just what might have secured Arthur Luckhaus and his studio the commission from the Housing Authority in the first place.⁵¹ But as many of Luckhaus's photographs for the Authority show, when Luckhaus started working for the office in 1941, the studio took on a largely different subject in focusing on housing developments as opposed to gargantuan commercial buildings or luxurious residences. It also adopted a different approach to its work—one that indeed interpreted "technical" or "rigid" in ways particularly resonant with the Housing Authority's goals in those years that coincided with mobilization for the Second World War.

THE PHOTOGRAPHER AS LEGIONNAIRE

The earliest dated photographs suggest that the Housing Authority of the City of Los Angeles hired Luckhaus Studio at the start of its reporting period spanning from the summer of 1941 to the summer of 1942. This year was the busiest thus far in the Authority's short history. Six public housing projects filled with workers who had recently taken jobs in Los Angeles's shipyards and aircraft plants and three more projects were under construction while the Housing Authority worked to acquire additional sites for a new kind of public housing war housing—mandated by the Lanham Act of 1940 and placed by the Federal Public Housing Authority in local authorities' care.52

Nowhere was the effect of the war on the Housing Authority's presentation of itself more apparent than in Homes for Heroes, the report it published for this period from the summer of 1941 to the summer of 1942. Beginning with a quotation from President Franklin D. Roosevelt's message to Congress delivered May 27, 1942, the report proceeded with language that clearly situated the construction and management of public housing for workers migrating to defense centers like Los Angeles as essential to winning the war:

"This war involves a total national effort and industrial mobilization. Industry cannot effectively mobilize the plants and plants cannot expand with sufficient rapidity unless there are enough houses to bring the worker to the job, keep him on the job and maintain his efficiency and morale. The allocation of war funds for the shelter of the men and women leaving their homes to serve our war industries is a wise and established national policy. That policy should continue."53

Like the factories the workers filled, the housing these workers lived in was part of the war budget and wholly endorsed by the President of the United States and Commander in Chief. In short, the war presented the public housing movement with a "call to arms," incorporating housing work into that of the "home front."

This concept of the housing movement as a militant endeavor pervades the text of the report. Quoted in the first pages, Langdon Post, the Federal Public Housing Authority director of Region 10, offered nothing short of the highest praise for Los Angeles:

"In less than two years the Los Angeles City Housing Authority has initiated and brought to final completion 3,468 units of its regular program. It also has built and is managing 6,852 units of war housing for the important men and women who are working on our production lines so our men on the fighting lines can keep fighting democracy's battle.

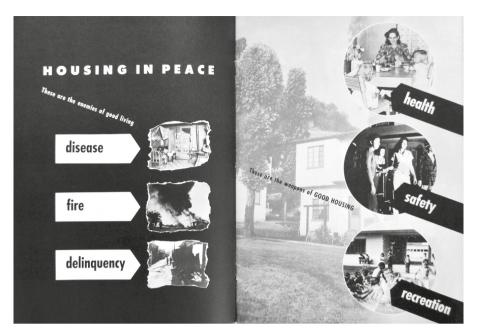
The Los Angeles Authority has been a major factor, perhaps more important than many realize at this critical period in our history, in making it possible for the United Nations to hold out against the crazed forces of ruthless aggression.

When awards of merit are given out for efficient, humane and miraculous work in the field of public housing, the Los Angeles City Housing Authority will be right in the spotlight of well deserved acclaim."54

Housing was part of the war effort and the Housing Authority and its supporters throughout the city of Los Angeles performed their wartime work with technical precision and efficiency. As further outlined in the report, the Housing Authority's wartime acclaim extended far beyond building and managing housing. From the organization of hospitals and victory gardens within the developments to the offering of courses in air raid preparedness and first aid, the Housing Authority ensured that the residents of its developments were both housed and ready should the battlefront come to the home front.⁵⁵

In the meantime, the Authority cast the housing movement as a battlefront of its own. Under the editorship of a columnist-turned-housing manager and activist by the name of Roger C. Johnson and designed by Alvin Lustig, the layouts in Homes for Heroes relay housing's lessons in wartime metaphors.⁵⁸ "These are the enemies of good living: disease, fire, delinquency," reads the text of one layout. Photographs with raw, torn edges illustrate these enemies by showing children crowded on a bed, a column of black smoke rising from a blazing home, and the dark shadows of two boys walking alone up a dirt street (fig. 14). The message "these are the weapons of GOOD HOUSING: health, safety, recreation" appears on the facing page. Pictured in clean-cut, affirming circles are a woman with small children seated at a table, a rather cryptic image of a group of adults with expressions illuminated as though watching a blaze from afar, and in the third photograph a scene that would soon become a motif of Los Angeles housing photography—children splashing in a wading pool.⁵⁷

Photography further foregrounds the housing of war workers as war work, itself. In the first part of the report, an account of the year's events as well as photographs showing men at work attest to the laborious process of public housing construction, challenged and sometimes thwarted by the material



14] Housing Authority of the City of Los Angeles, Homes for Heroes: Fourth Annual Report of the Housing Authority of the City of Los Angeles, ed. Roger C. Johnson ([Los Angeles]: s.n., 1942), n.p., Occidental College Library.

shortages of the war. To enumerate just a few of these challenges, in August 1941 the Housing Authority reworked plans for Estrada Courts and Rose Hill Courts to accommodate material rationing. In September, Executive Director of the Housing Authority Howard Holtzendorff led a delegation to Washington "to solve the problem of building material priorities."58 Finally, the Authority reported that in January 1942, a steel shortage slowed work on Rancho San Pedro.⁵⁹ A photograph at the beginning of the section describing these events offers a dramatic view of the integrated importance of material and labor to housing war workers. Shot from below, the photograph shows giant rolls of remesh suspended side-by-side from the hook of a crane (fig. 15). A construction worker, his face cast in shadow and framed by the circle of the roll of remesh, stands authoritatively with his hands on his hips, looking down at the photographer while another worker guides the lowering of the suspended remesh rolls from the opposite side, his figure visible through its screen of criss-crossing lines. On the opposite page, a member of Holtzendorff's delegation to Washington, City Councilman Rasmussen, stands with a construction worker "inspecting the substantial type of brickwork which went into the walls of the Aliso Village war housing development," according to the photograph's caption. 60 With facial expressions exhibiting a mix of scrutiny, approval, and even pride, the two men hold bricks in outstretched hands as though fully registering the small objects' importance to winning the war.

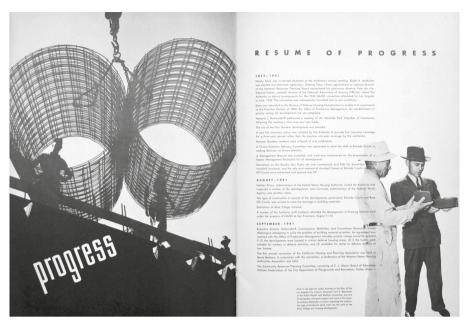
The second part of the report dedicates a page to each of the Housing Authority's sixteen projects. Each page follows the same formula. An uncaptioned photograph shows the completed project at the top of the page. In the middle, a brief description of the project includes the names of architects and contractors as well as technical details about construction. Finally, at the bottom of the page another photograph shows the site prior to or in the early phases of construction or, for two of the projects, during the inventory of the property (fig. 16).

These layouts are simple, but not intuitive. Based on the convention of reading from left to right and top to bottom, each layout places the public housing photographs so that the reader might presumably "read" them before they see the photographs showing the now demolished neighborhoods, tracts of graded dirt, or views of bent-backed construction workers. The story these pairings tell is retrospective, placing the public housing photograph at the start of each project's "story" but also in the visually prominent area at the top of the page. Proceeding from page to page, moreover, offers little insight into the ordering of the presentation of the projects. Ramona Gardens, the first project built and filled by the Housing Authority, fittingly comes first in this section. But the projects presented on the following pages proceed in no clear order of groundbreaking or completion dates. Turning from one page to the next and following the uniform-sized photographs from left to right across the gutters of the layouts, the reader might wonder what overarching story of housing during wartime, if any, this section aims to tell.

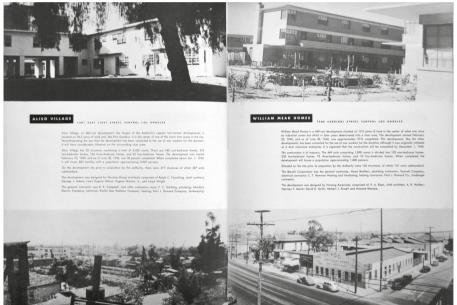
As a preface to these pages, the Housing Authority offers one of its few recorded statements on photography during this period:

"Pictorial records offer the only satisfactory method for displaying what has been accomplished. Photographs taken prior to, or in the early stages of, actual construction can be checked with other pictures showing completed jobs. On the following pages comparison after comparison is made to portray the miraculous transformations which have taken place on the face of the city."61

In this succinct statement, the Housing Authority describes what photohistorians Jordan Bear and Kate Palmer Albers deem "a strategy so commonplace that virtually every disparate photographic discourse has enlisted it"—namely, the making and arrangement of "before-and-after photographs."62 As the Authority hints and Bear and Palmer Albers attest, the reading of these pages should be active in its invitation to "checking"—to the analytical, perhaps even skeptical



15] Housing Authority of the City of Los Angeles, Homes for Heroes: Fourth Annual Report of the Housing Authority of the City of Los Angeles, ed. Roger C. Johnson ([Los Angeles]: s.n., 1942), n.p., Occidental College Library.



16] Housing Authority of the City of Los Angeles, *Homes for Heroes: Fourth Annual Report of the Housing Authority of the City of Los Angeles*, ed. Roger C. Johnson ([Los Angeles]: s.n., 1942), n.p., Occidental College Library.

comparison of the "after" photographs to the "before" or "during" photographs. This activated reading required judgement from the wartime reader in discerning from the photographs whether a "miraculous transformation" took place. This reading also required, as Bear and Palmer Albers claim, "the imaginative participation of the viewer."⁶³ That is, the pairings relied on the viewer to imagine the construction and in many cases also the demolition that occurred between the moment when a photographer snapped the photograph reproduced

at the bottom of the page and the moment when a photographer took the photograph reproduced at the top.64 Such a strategy lends support, in Bear and Palmer Albers's view, to the notion "that the more powerful way of articulating the central event is to leave it unseen."65 The central event in this section of the report is only visible in "comparison after comparison." The pages present numerous pairings of photographs on pages and pairings of pages, themselves, so that a photograph of the shaded courtyards of Aliso Village appears above a photograph showing a view from a hill overlooking The Flats, and this photograph of The Flats in turn might be viewed opposite a photograph showing the building for the Star Sign Company next to an older two-story residence (fig. 16). The effect is a linking of old sites to new projects and of an old city to a new city, utterly transformed.

The suggestion this ordering of photographs and text within the report seems to make is that while the before and after of each project was different, the forces that enacted each transformation were the same—a unified "housing front," to borrow a contemporary metaphor. 66 In a word of thanks printed in the same annual report, the Housing Authority again extended the war metaphor in its reference to "that great legion of public spirited citizens" who "encouraged and backed housing to the limit of their abilities."67 And in one of the few public statements on the contributions of photographers to the housing effort, the Authority's annual report for July 1941 through June 1942 specifically acknowledged the contributions of "the photographers" right alongside those of "the many architects and contractors whose genius is reflected in homes which are helping American war workers to win the battle of the production front."68 The implication of these associations could not be clearer: in the eyes of the Housing Authority of the City of Los Angeles, housing photographers were important figures in fighting housing's multivalent war. The final page of the annual report listed these photographer-legionnaires in a series of names both famous and obscure: Jackie Greene, Florence Homolka, Margaret Lowe, Arthur Luckhaus, Robert Wallace, and Julius Shulman.69

PUBLIC HOUSING AND THE "WAR PHOTOGRAPHY COMPLEX"

Research on war and photography offers several inroads into understanding the function of the housing photographer as a legionnaire during these months from July 1941 to June 1942. Marking this research is a turn away from the idea of war photography as the work of individual photographer-warrior-heroes and

a refocusing on photographic businesses such as Kodak, Agfa, and Life magazine. 70 Drawing on James Hevia's notion of the "photography complex" as well as Steve Edwards's "photography-as-business" approach to photographic history, historians Tom Allbeson and Pippa Oldfield posit war photography "as a complex of interactions criss-crossing the fields of culture, commerce, government and the military."⁷¹ Studies that adopt this perspective present new readings on topics ranging from the figure of the war photographer or photojournalist as a business-strategic invention of the American picture press to the ways in which war contributed to the expansion of photographic business operations beyond national borders. ⁷² In addition to broadening photographic history to such topics, Allbeson and Oldfield offer this integrative approach as a means to more comparative and contextualized scholarship and seeing "how connections and causalities might be drawn across eras and conflicts."73

War provided the Housing Authority of the City of Los Angeles with both an additional purpose for public housing and a useful metaphor for slum clearance. The notion presented in *Homes for Heroes* that photographers and public housing's supporters acted as legionnaires, in turn, reveals a criss-crossing of the histories of public housing, the war, and commercial photographic practice in Los Angeles—indeed, a war photography complex centered around the issue of wartime housing. Following Allbeson and Oldfield's line of inquiry advances an understanding of housing photography beyond comparisons to social documentary or architectural photography to an understanding of its functions as a business in the context of war—as war photography, created by photographerlegionnaires.

LESSONS IN HOUSING AND PHOTOGRAPHY FROM THE FIRST WORLD WAR

Returning to Arthur Luckhaus of Luckhaus Studio, one sees how war offered ample opportunity for the growth of even small photography businesses. But for Luckhaus, who in 1941 was sixty years old, the war that mattered most in this regard was the Great War of 1914-1918. In 1918, the thirty-seven-year-old Arthur Luckhaus went to Europe as part of the Twenty-Ninth Engineers of the American Expeditionary Forces. His company, Company M, was assigned as part of the eighty-second division to the Toul sector in France, where they remained from September 17 until the Armistice on November 11, 1918.74 In Toul, Luckhaus would have been charged with tasks aimed at bringing the lay of the land to the printed page in the creation and distribution of maps. According to one list compiled by Colonel William Barclay Parsons of the

Eleventh Engineers shortly after the war, the job of the Twenty-Ninth Engineers included

"surveying; restitution of aerial photographs; map making; map printing; map distribution; special maps and plans for staff branches; triangulation and traverse control of artillery fire; relief map making; panoramic photography and visibility studies; photographic reproduction; type printing, including publications, pamphlets and propaganda; engraving; adopting standards and furnishing technical advice and supervision."75

A photographer by trade before joining the American Expeditionary Forces, Arthur Luckhaus likely performed several of these tasks during his months in France.

Chroniclers of the war held the front-line photographic activity of the Twenty-Ninth Engineers in high esteem. As Colonel Parsons lamented in 1920, the contributions of the majority of the Twenty-Ninth Engineers employed in such dangerous tasks as "running artillery traverses or taking photographs under fire" or engaged in such technical challenges as "the development of airplane photography" risked being historically overshadowed by the tremendous material output of the printers. 76 This appears not to have been the case with Luckhaus. An account of Luckhaus's early career published in 1931 in the El Paso Herald-Post offers a striking example of the centrality of the photographer's wartime experience in his postwar public image. Titled "Photographer of War Fame Settles Down," the article announced that Luckhaus had set up shop in Hollywood before launching into an account of Luckhaus's past work. According to the article, prior to going to Toul, Luckhaus was stationed as a photographer at Fort Bliss in El Paso. From this post, Luckhaus answered the summons of Commander Pershing to serve as "chief photographer of the American expeditionary forces in Europe" (capitalization in original). In Europe, the article continued, Luckhaus "took pictures along the western front from Flanders to the French Alps...action pictures in the trenches...pictures from 'sausage' balloons... photographs from airplanes...pictures of North Sea mine fields" (ellipses in original).⁷⁷ In short, Luckhaus's work in the Great War, according to the El Paso newspaper, encompassed venturing with his camera into the conflict's most deadly arenas and exercising a cutting-edge knowledge of the latest techniques in aerial photography. Given the timing of the article, this celebration of Luckhaus as a heroic war photographer certainly aimed to fill the pages of the El Paso newspaper with a salable story from local history.⁷⁸ By 1931, Luckhaus had already spent quite some time in Los Angeles not settling down into retirement, but working. Still, the article also raises the question of the role of the Great War in the promotion of Luckhaus's photographic practice. What promotional weight did it carry? And how might this weight have carried beyond 1931?

As historian Jessica Hammett writes, "We have yet to understand fully the varied and complex uses that First World War memory was put to during the Second World War."79 This observation might extend beyond the history of photography to housing history, as well. In all the contemporary writings surrounding the war-related housing crisis in the United States' defense centers, conspicuously rare are references to the Great War, much less the housing of troops on the West Coast during this conflict. One example stands out: in 1942, houser Catherine Bauer took her summer session students from Mills College in Oakland on a tour of housing from the First World War near the Northern California city of Vallejo. 80 Led by Bauer, who had consulted several publications on housing in the United States during the Great War in writing her book *Modern Housing*, the tour doubtlessly offered several points for comparison with the nearby developments recently built in the response to the latest conflict.81

Los Angeles offered little in the way of a similar learning opportunity. World War I ended before the private builders commissioned by the United States Housing Corporation completed the construction of war housing in Long Beach. Housing for war workers in Los Angeles had until then been arranged solely through the Homes Registration Service—an agency that inventoried vacancies in existing housing and provided this information to in-migrant workers.82 In January 1941, the federal government set up a similar program, with World War I Homes Registration veteran James Ford as a "Consultant" and Sacramento Housing Authority Executive Director Harold Pomerov as the new director. The purpose of the new Homes Registration Division, the federal journal Defense reported, was to "supplement emergency building programs."83 Los Angeles took part in the new registration starting in 1942. As the Los Angeles Times reported, the proposal suggested including a survey of existing housing as part of a "scientific approach to the problem" and a way of avoiding "that government authority might feel obliged to step in with a program of massed low-cost homes designed to fill a temporary need but unsuited to the permanent development of this community."84 The homes registration program threatened the unimpeded construction of public housing to the extent that in the fall of 1941 USHA administrator Nathan Straus took the matter to the Senate. 85 In Homes for Heroes, any reference to the program or its First World War roots was avoided. For the Housing Authority, the First World War functioned mainly as a reminder to plan for after the current one: "Millions of discharged fighting men returned to their home towns only to find that they could not be absorbed by a crippled economic

system," the Authority reported of the Great War's aftermath. 86 The lesson for the present, it suggested, was to increase building activity to make more jobs, catch up on home repairs, and, finally, keep clearing the slums.87

LUCKHAUS STUDIO AT PUEBLO DEL RIO

Just as the Housing Authority of the City of Los Angeles saw little to be emulated in the housing programs of the First World War, so also Arthur Luckhaus's status as a war-photographer-veteran appears to have had little promotional value for the Authority. The Authority certainly credited Luckhaus for his contributions to Homes for Heroes on a final page of the report, but it did not include credit lines under his photographs. Nor did the Authority call upon Luckhaus to reinforce the contemporary notion of the fearless war photographer braving the dangers of housing's front lines.88 Rather, the Housing Authority's strategy in employing Luckhaus appears to have been one of pragmatism. Drawing on Luckhaus's combined experience of working with the Twenty-Ninth Engineers and as a local photographer of architecture, the Housing Authority commissioned a body of photographic work that resonated with its concept of housing and slum clearance as battlefronts of World War II. But instead of battlefields, Luckhaus Studio photographed the Housing Authority's sites for future public housing projects.

As shown by Rubén Alcolea, the photographs attributed to Luckhaus in the greater Housing Authority collection betray a practice that was methodical in its production of meticulously composed and labelled prints. 89 Inscribed in a thick pen or thin paintbrush most likely directly on the negatives are bold numbers and all-capital letters detailing the official housing development numbers and names (fig. 17). "CA 4-3," "CA 4-5," and "CA 4-6" classify the prints as images of both a California state-wide program ("CA") and a regional initiative ("4" for Los Angeles). The number separated from the 4 by a hyphen designates the local housing project. Luckhaus Studio further included each project's name in the inscriptions: "Wm. Mead Homes" (for William Mead Homes), "Pueblo del Rio," etc. Finally, the Studio noted the vantage points from whence the photographer aimed the camera and a date most plausibly indicating when the negative was exposed.

Taken together, these inscriptions offer clues to the photographic techniques that Luckhaus Studio employed as well as the nature of its assignment. The bulk of Luckhaus Studio prints in the Housing Authority collections bear dates between August 1941 and December 1942. These months were a time of intense on-site work for the Authority's various developments. The sites were

selected and the plans approved, but now the housing had to be built. In the case of all the sites Luckhaus Studio photographed, existing buildings also needed to be cleared. The Studio appears to have taken its cameras to five different locations in Los Angeles during this time: the sites of William Mead Homes, Pueblo del Rio, Aliso Village, Rose Hill Courts, and Estrada Courts. The Housing Authority's annual report of that year detailed the magnitude of the activity that Luckhaus Studio witnessed. The "demolition ceremony" in September 1941 at the site of Rose Hill Courts commenced the razing of seventy-one "substandard" buildings and eight buildings that met Housing Authority standards. The neighborhood on the site of the future Estrada Courts met a similar fate: the groundbreaking for head architect Robert E. Alexander's design for 214 dwellings first required the razing of 153 buildings, ten of which were deemed built according to standards. At the 17.5-acre site of Pueblo del Rio, 207 structures deemed "substandard" plus thirty-nine standard or above-standard structures were cleared so that principal architect Paul R. Williams's plan for four hundred new public housing units could be realized. Construction on it began little over a month before the Japanese military's bombing of Pearl Harbor; following the attack, the original plan to rehouse the Black families previously living in the now demolished housing in the area was amended to also house "war workers," nearly all of whom were also Black, but not necessarily residents of the former community where the new housing now stood. 90 The largest site of Aliso Village required more demolition: the Housing Authority razed a total of 417 buildings (387 of which were deemed substandard) to make way for nearly twice as many new dwellings. Likewise opened to occupation by war workers during the period in which Luckhaus Studio worked for the Housing Authority, the construction of Aliso Village began at the end of February 1942. The development was "in the center of one of the worst slum areas in the city," the Housing Authority reported. 91 Construction on the last of Luckhaus's photographed projects, William Mead Homes, began around the same time as the building of Aliso Village. Making space for William Mead Homes entailed the demolition of 145 buildings on the site of a once industrialized area that had "deteriorated into a slum area." The Housing Authority earmarked all but four of the existing buildings as "substandard."92

Apart from Pueblo del Rio on Long Beach Avenue, these sites presented a geographically compacted selection of the Housing Authority's classified "low rent" developments started before and during the war years. All were located not too far from Los Angeles's City Hall. Pueblo del Rio was number three of the Housing Authority's developments after Ramona Gardens and Pico Gardens. Aliso Village was the fifth development, followed by William Mead Homes,



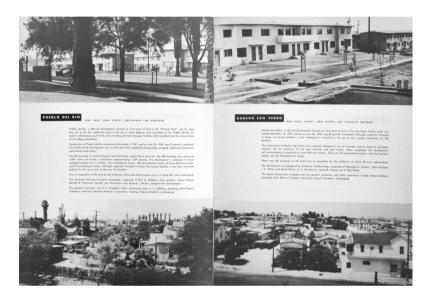
17] Luckhaus Studio, Photograph of site for William Mead Homes housing project, August 4, 1941, gelatin silver print, 8 in. × 10 in. (20.32 cm × 25.4 cm), Housing Authority of the City of Los Angeles Photograph Collection, Ph004, Southern California Library (Los Angeles, California).

Estrada Courts, and Rose Hill Courts. The curious absence of photos signed by Luckhaus showing the Housing Authority's fourth development, Rancho San Pedro, might be explained by the project's more remote location on the coast.⁹³

During the period spanned by the extant photographs, Luckhaus appears to have worked in the field on assignment for the Housing Authority for no more than three consecutive days a month on an almost monthly basis. In August 1941, Luckhaus Studio seems to have allotted one day to each of the sites it photographed. For example, several prints labelled William Mead Homes bear the date August 4, while those of Estrada Courts are dated August 5 and those of Pueblo del Rio are dated August 6. In September, however, the studio shot several sites in one day while also taking more than one day to shoot others. Luckhaus Studio spent two non-consecutive days in September photographing the larger Aliso Village development, possibly for the first time, while also visiting Estrada Courts on one of these same days. This practice persisted for most of the rest of Luckhaus Studio's work for the Housing Authority.

But what was the purpose of Luckhaus Studio's assignment? Most remarkable about this sizable group of meticulously positioned, timed, and labelled photographs is its relative silence regarding the functions it fulfilled for the Housing Authority. For the publication of select photographs in *Homes for Heroes*,

the Authority cropped out Luckhaus's notations and paired at least two photographs from this commission with photographs of completed housing projects. One of the selected photographs shows a neighborhood prior to demolition to make way for William Mead Homes (fig. 17). The other shows a neighborhood prior to demolition to make way for Pueblo del Rio, which is also shown completed in a separate photograph (figs. 18, 19). The Housing Authority otherwise appears to have not produced any special report of these photographs for broad circulation, nor do any records of its activities suggest that it showed Luckhaus Studio's photographs in a special exhibit.⁹⁴



18] Housing Authority of the City of Los Angeles, *Homes for Heroes: Fourth Annual Report of the Housing Authority of the City of Los Angeles*, ed. Roger C. Johnson ([Los Angeles]: s.n., 1942), n.p., Occidental College Library.



19] Luckhaus Studio, Pueblo del Rio Housing Project, August 6, 1941 [copy print made from the photographic print borrowed from the Housing Authority of the City of Los Angeles ca. 1990], 8 in. × 10 in. (20.32 cm × 25.4 cm), Housing Authority Collection/Los Angeles Public Library.

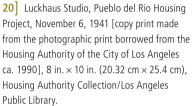
Judging from the quantity of photographs and the technical detail they relay both together and separately, the Luckhaus Studio contribution to the Housing Authority's collection of photographs likely functioned as a log for local and national housing officials or political stakeholders, as Steven Moga states in his study of the Housing Authority photographs at the Los Angeles Public Library. 95 Luckhaus's labelling made progress measurable both within and across projects, just as the detached nature of the prints conceivably made the photographs easy to rearrange or organize according to time or place. For example, an official could pull all the photographs from September 1941 to obtain a composite image of Housing Authority building activity in that month across all project sites. Likewise, anyone with access to the collection could chart the visible changes to a single site over time. Luckhaus Studio made this second reading possible on an especially fine level by taking photographs from mostly consistent points beyond the perimeter of a project area—an adoption of a "commonplace" before-and-after photographic technique of keeping the point of view constant to aid and invite the viewer to mark the visible evidence of change in the scene over time.96

Searching, gathering, and chronologically arranging these images from the online collections of the Los Angeles Public Library and the Southern California Library reveals a proportionately larger number of surviving prints showing the site for the future four hundred-unit development of Pueblo del Rio. Eight photographs dated to different months between August 6, 1941, and June 2, 1942, show a changing landscape as photographed from "Point #4"—a location just slightly beyond the project's perimeter. A picket fence stretches across the first photograph, dividing a vacant yard with two lone trees in the foreground from two rows of houses receding beyond the fence at an angle to the upper right (fig. 19).97 A cross-reading of this photograph with the Housing Authority's annual report of the previous year might explain the vacant yard: the Authority reported that demolition began two months earlier in June. Looking closer, one wonders whether the shadows in the scan of the copied photograph in the Los Angeles Public Library's online collection are plants or loosened soil—a visible reminder of housing that was either removed or demolished. 98 In the next photograph taken from this point dated November 6, 1941, the signs of this demolition are more apparent (fig. 20). Composed from a point of view only slightly to the right of the previous location of "Point #4," but nonetheless labelled the same, the photograph from this point for this month shows rubble beyond the large tree on the left where a house once stood. A section of the fence that previously divided the area has fallen, inviting a view into this breach. A car on a driveway beyond the fallen fence suggests that life in the neighborhood goes on. Yet, visible just above the car, beyond a grouping of small wooden structures, the one-story house positioned to the right of the neighborhood's tallest house has lost its once solid, smooth roof.

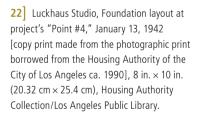
The transformations continue to unfold. In the photograph dated December 1941, the walls of this house, the rubble from the house on the left, the fence, as well as the large white house on the right are all gone (fig. 21). In the January 1942 photograph, the photographer moves slightly to the left of the previous point to reveal a scene where the driveway that once ran along the removed fence is also gone and replaced by a new grid of foundations being carefully laid by a handful of workers (fig. 22). One worker just to the right of the center of the composition stands holding a plank. Following the line of his posture reveals a small shack still standing just beyond the scene of construction, shaded by a few trees behind a brightly painted house to its right. But in the next month this shack, too, is gone, replaced at the center of the composition by pallets of new building materials, beyond which the viewer can see cleared ground reaching to a line of palm trees, their bases now visible from across the large lot (fig. 23). A photograph from March 1942 again renders this view temporary as the masonry walls of Pueblo del Rio rise from the foundations, their roofs missing much like that of the small white house in the photograph from November (fig. 24). By May, the base layer of the roofs is on and by June, wires extend from a pole at the center of the composition to these roofs, now shining a bright white (figs. 25, 26).

Such photographs doubtlessly provided the Housing Authority with concise records of the monthly construction progress at each of their sites much as they do for historians today. 99 A return to Rubén Alcolea's initial observations begins to reveal the meaning behind the photographs' rigid technical formulae. The emphasis on process over results is underscored by the scarcity in the archive of similar photographs inscribed with dates, locations, and points that show housing that could be considered completed. 100 Another emphasis of this archive is on topography and architecture over more obvious indicators of human activity. While human figures appear in several of the shots, they serve less to draw attention to the labors of demolition and construction but rather, like the man holding the plank in the photograph from January, to structure the composition by directing the viewer's eye to other physical aspects of the site depicted. The notion of "progress" rendered in these photographs, thus, contrasted with the progress of men moving remesh or inspecting bricks as depicted in the Homes for Heroes annual report. As historian of survey photography Robin Kelsey advises, the labor most apparent in these photographs might well be that of the photographers, themselves.¹⁰¹





21] Luckhaus Studio, Pueblo del Rio housing Project, December 5, 1941 [copy print made from the photographic print borrowed from the Housing Authority of the City of Los Angeles ca. 1990], 8 in. × 10 in. (20.32 cm × 25.4 cm), Housing Authority Collection/Los Angeles Public Library.



23] Luckhaus Studio, Photograph of the construction of public housing development Pueblo del Rio, February 20, 1942, gelatin silver print, 8 in. × 10 in. (20.32 cm × 25.4 cm), Housing Authority of the City of Los Angeles Photograph Collection, Ph004, Southern California Library (Los Angeles, California).













- **24]** Luckhaus Studio, Unfinished buildings at project's "Point #4," March 27, 1942 [copy print made from the photographic print borrowed from the Housing Authority of the City of Los Angeles ca. 1990], 8 in. × 10 in. (20.32 cm × 25.4 cm), Housing Authority Collection/Los Angeles Public Library.
- 25] Luckhaus Studio, Building shells at project's "Point #4," May 12, 1942 [copy print made from the photographic print borrowed from the Housing Authority of the City of Los Angeles ca. 1990], 8 in. × 10 in. (20.32 cm × 25.4 cm), Housing Authority Collection/Los Angeles Public Library.
- 26] Luckhaus Studio, Unfinished buildings at housing project, June 2, 1942 [copy print made from the photographic print borrowed from the Housing Authority of the City of Los Angeles ca. 1990], 8 in. × 10 in. (20.32 cm × 25.4 cm), Housing Authority Collection/Los Angeles Public Library.

A digression through Robin Kelsey's landmark study of nineteenth-century survey images offers a reminder that survey history is a part of military history in its bureaucratic ties to the United States Department of War. The War Department sponsored the survey for which the Civil War photographer Timothy O'Sullivan produced his now famous photographs of the American West. 102 Before O'Sullivan, however, the War Department also sponsored a "boundary survey" of the border between the United States and Mexico in the mid-1850s—a survey which Kelsey notes was motivated by further desires to expand railroad and mining operations. 103 Nineteenth-century surveys thus extended the work of the War Department into numerous operations dedicated to economic growth but not always directly motivated by impending armed combat. Luckhaus Studio's survey of the Housing Authority's five construction sites was a part of this tradition in its drawing on a long history of the military science of surveying that Luckhaus almost certainly practiced during his service in the First World War.

Returning to the photographs taken from point number four at Pueblo del Rio, one sees that change occurs at the site following two trajectories. First, the elevations of the different objects in the terrain change. Houses become shorter through the removal of their roofs, then disappear from one month to the next, eventually leaving a flat open field from which in turn first one story, then two stories of the Pueblo del Rio public housing units rise. Second, changes occur along a line extending from the position of the camera to the horizon. This trajectory is especially visible in the first photographs depicting different stages in the clearing of the old neighborhood. It recalls Steven Moga's comment on the recurring motifs of roads or other dividing lines that horizontally bisect this line of sight in several photographs of the Housing Authority's sites selected for public housing. These lines, Moga notes, appear to set the slums apart from the photographer, but also, one might add, apart from the viewer of the photograph.104

In Luckhaus Studio's photographs of the neighborhood off Long Beach Avenue prior to the construction of Pueblo del Rio, this dividing line is noticeably instable. The fence that establishes it in the first photograph taken in August 1941 appears fallen in the photograph from November. In December, the removal of the fence gives way to a view of the driveway that previously ran parallel behind it, until finally the photograph's line of sight reaches the base of the row of palm trees planted in the distance at the opposite end of the cleared neighborhood. This receding boundary marks both the extent the photographer can see into the old neighborhood, but also the advance of this neighborhood's demolition the extent to which the Housing Authority's operations radically altered the "face" of this neighborhood, to borrow a term from *Homes for Heroes*. ¹⁰⁵ This changing line quite literally realizes in the landscape the advancement of a housing "front line" behind which the Luckhaus Studio photographer stands their ground at point four, yet continues to look past. Looking back to the photograph from November 1941, the break in this line created by the partially fallen fence might recall an aggressive "breach" of the old neighborhood's defenses that allows "good housing" into "bad housing's" territory.

The metaphor of the housing front extends to Luckhaus Studio's points system, as well. As a veteran of the American Expeditionary Forces' topographical unit, Arthur Luckhaus would have been exceptionally adept at the process of mapmaking through triangulation methods, or the plotting and measuring of distances between points in a terrain. By the First World War, the use of photography in triangulation was an established practice, although the author of one contemporary military handbook noted that it was still used on a greater scale in Europe and Canada than in the United States. 106 Triangulation with photography was made especially efficient through the wide availability of phototheodolites, or tripod-mounted cameras specially designed for the job. 107 The primary advantage of the phototheodolite in 1918 was not that it did away with sketching the terrain altogether, but that it obviated the need for copious sketching in the field.¹⁰⁸ Like sketches, these photographs taken with a phototheodolite were used as tools in the making of maps. And in World War I, as historian of cartography Christopher Alario explains, accurately scaled maps became especially deadly weapons with the advent of "map shooting," or the practice of "carrying out artillery strikes and barrages without having to preregister targets and adjust fire." 109 Such practice allowed for "rolling barrages" behind which soldiers on the ground could advance closely. 110 Photography, in this sense, was critical to moving the fronts of the First World War.

Whether Luckhaus's photographs taken from these points around the perimeter of public housing sites were instrumental in mapping the areas is doubtful. The Housing Authority created several general maps showing the locations of the different housing developments in Los Angeles and included these with their publications after 1940, but none show the topographic detail of an intensive photographic survey. Their scattered collection of photographs, moreover, does not indicate the completeness required of survey photography for mapmaking. Handbooks from both the First World War and 1941 advised surveyors to take several photographs along the horizon line as seen from a single point or "station." Although one photograph at the Los Angeles Public Library shows a view of a housing project pieced together from two photographs, Luckhaus Studio appears to have created no such panorama of the different



27] Luckhaus Studio, Building of Aliso Village, view 32, December 10, 1942 [copy print made from the photographic print borrowed from the Housing Authority of the City of Los Angeles ca. 1990], 8 in. × 20 in. (20.32 cm × 50.8 cm), Housing Authority Collection/Los Angeles Public Library.

housing projects (fig. 27).¹¹² While Luckhaus's photographs appear to shift slightly in perspective from point number four from month to month, it is also doubtful whether these photographs created far apart chronologically would have served to provide stereoscopic views useful for calculating distances.¹¹³ Nor do the Studio's photographs show the characteristic markings created by cross wires found in the ground glass of surveying cameras from both the First World War and the early 1940s that would indicate the principle line and horizon line on the negative.¹¹⁴ Despite extensive labelling in the photographs, other critical information for mapping is missing, as well. Commensurate with survey practices, Luckhaus Studio stationed the camera at elevated points around the perimeter of the photographed sites, yet the operators failed to add the exact elevations to their notations on the images.¹¹⁵

It is also conceivable that Luckhaus's photographs aided the construction of the new housing by helping to plot and place the new buildings' foundations. Their use of elevated vantage points and established stations almost always located directly beyond the corners of the site boundaries that were usually marked by street intersections are hallmarks of topographical surveying. A boundary survey, which Luckhaus Studio could have easily accompanied and aided in, was an essential step in the placement of buildings on a lot. In a table of steps in housing construction published with the Housing Authority's third annual report, for instance, the line-item "Land Surveys" followed "Land Acquisition." Surveys were also almost certainly involved in creating the "Plans and Specifications" the Housing Authority of the City of Los Angeles made available to contractors seeking to submit project bids. Still, the Housing Authority recorded having completed "Land Surveys" for Pueblo del Rio on August 12, 1940—nearly a year prior to Luckhaus Studio's creation of its photograph from







- 28] Luckhaus Studio, Photograph of proposed site for William Mead Homes housing project, August 4, 1941, gelatin silver print, 8 in. × 10 in. (20.32 cm × 25.4 cm), Housing Authority of the City of Los Angeles Photograph Collection, Ph004, Southern California Library (Los Angeles, California).
- 29] Jesse R. Hinman, Ranging in France with Flash and Sound: An Official History of the Second Battalion of the 29th Engineers in France During the World War (Portland, OR: Dunham Printing, 1919), n.p.
- **30**] Jesse R. Hinman, *Ranging in France with Flash and Sound: An Official History of the Second Battalion of the 29th Engineers in France During the World War* (Portland, OR: Dunham Printing, 1919), n.p.

point number four on August 6, 1941. Housing architects doubtlessly consulted such measurements in the drafting of their designs and perhaps even supervised the surveying process, as well. 120

However adumbrate their functions beyond the *Homes for Heroes* report, a final observation about the style of Luckhaus Studio's photographs is worth considering here. Luckhaus Studio's photographs of empty lots slated for public housing construction exhibit striking similarities to photographs of empty battlefields and "no man's lands" before far-off enemy trenches that circulated in US histories penned shortly following the First World War (figs. 28, 29).¹²¹ Other Luckhaus Studio photographs draw more unsettling parallels. The missing roof of the brightly colored house in the old Pueblo del Rio neighborhood might

offer an analogue to the bombed-out roofs of French villages in photographs printed in one history of the Twenty-Ninth Engineers' flash and sound rangers, or soldiers charged with determining distances for the more accurate positioning of artillery and advancement of troops (fig. 30).122 Juxtaposed in some instances with photographs of French villages before the war, these photographs of "ruins," as the author labels the bombed-out structures in his caption, "Ruins at St. Agnaut [sic]," connote war as destruction and loss, especially when juxtaposed when another photograph labelled "Scenes in St. Maurice before the War."123 While a further investigation into unpublished photographs taken by the topographic unit would certainly offer additional insight into the ways in which the photography of the First World War figured in the photographing of the Second World War's home front conflicts, for Luckhaus Studio, at least, the connections are visible and historical in a very personal way.¹²⁴

A TRANSNATIONAL PRACTICE

Luckhaus Studio's photographs provide a compelling case study for understanding the historical intersections of housing, commercial photography, and war. But this case study also extends the present investigation beyond a charting of archival holdings and the circulation of photographs in magazines. Much scholarship has addressed the global migrations of people that occurred prior to, during, and after the Second World War. More recently, photohistorians have extended their study of the business of photography at this time to a global context, as well, charting the impact of war policies on the global distribution of technologies and their reception. 125 The topic of aerial photography especially has garnered considerable attention. 126 But the range of photographic practices employed during this conflict has yet to be fully registered in its transnational and intercultural dimensions.¹²⁷ As historians of cartography note, one of the main tasks of the Twenty-Ninth Engineers during World War I was to amend maps made by the French army. 128 What practices of creating and interpreting photographs came together in this effort? How did photographers meet the challenges of adding to and altering maps created by the army of another nation? What new practices emerged from this cooperation? What legacy did this cooperation leave, and how might it have functioned in mapping different geographic areas, both on the United States home front and in other areas of conflict during the Second World War? As one scholar points out, the centennial of World War I renewed interest in its photographs. 129 But as Luckhaus Studio's photographs for the Housing Authority show, there remains much work to be done on this photographic front.

The career of Arthur Luckhaus and the work of Luckhaus Studio for the Housing Authority during the third and fourth years of its operation expose the intersections of housing history and photographic history during a turbulent time. Luckhaus Studio gave form to the idea of a housing front for its client by adopting mapmaking's photographic techniques. The results were photographs which resonated with the housing movement's presentation of itself as in legion with the Second World War's home front war workers and frontline soldiers. In the end, however, one cannot help but wonder whether other ideological and emotional factors might have been at work in Luckhaus Studio's fulfillment of the Housing Authority's commission. The founder of the photographic studio, Arthur Luckhaus, certainly had practical skills to offer, but the housing front, quite possibly, also presented the veteran with a project that was meaningful on a personal level—a chance to offer his topographical skills in service to the United States once again. Together with many other men between the ages of forty-five and sixty-five, in the spring of 1942 he submitted his name in the Fourth Registration for the selected service. 130 But Luckhaus would never again be called.¹³¹ Whether he would have wanted to enlist is another question. In the absence of any diaries or photographs attributed to Luckhaus from his service in the First World War, this chapter has sought to fathom the meaning this conflict brought to his photographs for the housing movement during the Second World War. And while Luckhaus remains a single figure in this long transnational history of war photography, it is worth noting that he carried his topographic work in the First World War with him until the end of his life. When Arthur Luckhaus passed away in 1957, inscribed on his gravestone in Valhalla Memorial Park in North Hollywood was the housing-legionnaire photographer's transnational life in so many words: "Colorado, Sgt Co M 29 Engineers World War I."132