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Los Angeles

Pacific Ready-Cut Homes:
Mass-Produced Bungalows in Los Angeles, 1908-1942

A thesis submitted in partial satisfaction of the
requirements for the degree Master of Arts
in Architecture and Urban Planning


By

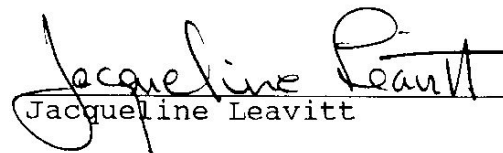
Carolyn Patricia Flynn

1986

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For
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ABSTRACT OF THE THESIS

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By

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Master of Arts in Architecture and Urban Planning
University of California, Los Angeles, 1986
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The 1920's was a unique decade in which the industrial production of housing intersected with the rising demand for single-family homeownership to produce hundreds of thousands of mass-produced single-family homes on the American landscape. Pacific Ready-Cut Homes was a major producer of these houses. William Butte, Pacific's aggressive co-founder and President, built a 24-acre plant capable of producing a complete home every twenty minutes. The factory was one of a handful in the country where workers mass-produced precut lumber and manufactured components for "ready-cut" houses.

This study of Pacific Ready-Cut Homes explores the many social and political implications of the ready-cut production process and its mass-produced product, the single-family home. First, the ready-cut building system de-skilled the labor of carpenters into the relatively simple process of nailing together pre-prepared materials, and put more building workers in factories. Second, it produced, quickly and cheaply, a pattern of single-family homeownership which became part of a political movement to pacify labor and to confine women to the home.

While many progressive Americans had criticized the single-family home as outdated, wasteful of women's labor and too expensive to house the working class, industrialists and businessmen staunchly supported single-family homeownership as the backbone of the American capitalist system.

They supported a technological strategy to decrease the cost of the single-family home so that working-class families could afford it.

The ready-cut system was the most successful part of this technological strategy, and in the Western United States, William Butte of Pacific Ready-Cut Homes sold 40,000 mass-produced ready-cut bungalows, *becoming* the third largest industrial producer of housing in the country.

CHAPTER 1

INTRODUCTION

"A Complete Home Every Twenty Minutes"

The 1920's was a unique decade when the industrial production of housing intersected with the rising demand for single-family homeownership to produce hundreds of thousands of mass-produced single-family homes on the American landscape. Pacific Ready-cut Homes was a major producer of these houses, lining the low-density neighborhoods of Los Angeles with thousands of small bungalows. William Butte, Pacific's aggressive cofounder and President, built a 24-acre plant which produced 40,000 houses. The plant was one of a handful in the country where workers mass-produced pre-cut lumber and manufactured components for "ready-cut" dwellings. This study is an exploration of the many social and political implications of the ready-cut production process and its mass-produced product, the single-family home.

Though the application of industrial factory techniques to the production of houses met with great success during the 1920's, the phenomenon has not been widely studied. It has not been addressed in the context of the political debates regarding housing or in the context of the broadening of the mass-production economy during the period. Only a few scholars have written, briefly, about Pacific Ready-cut Homes. In A History of Prefabrication, originally a series of articles for Architectural Forum published in 1942, Alfred Bruce and Harold Sandbank described the Pacific building system, including a photograph of the factory and of a typical Pacific bungalow.

They recognize the ready-cut system as the most successful application of factory mass production methods to housing, surpassing remarkable innovations with cement and steel structures. But Bruce and Sandbank are an exception; many scholars of prefabricated housing focus on architects' marginally successful experiments with designing prefabricated dwellings.

In The Dream of the Factory-Made House, for example, Gilbert Herbert focuses on the work of Walter Gropius and Konrad Wachsmann, two major German architects who led in the development of prefabrication design and theory beginning in the 1920's. Herbert's history of their dream of applying industrial techniques to the production of housing overlooks the success of non-architects during the same period. Although he briefly mentions Sears' Roebuck -- the major builder of ready-cut houses in the 1920's -- he puts it in the context of the demand for "less substantial" houses after World War I. This not only misses the significance of the ready-cut system as a major provider of 300,000 suburban homes for American families, but also fails to take note of a successful period of mass produced housing in a study which has this as its subject.¹

Robert Winter briefly discusses Pacific Ready-Cut Homes in a completely different context in his architectural history, The California Bungalow. Winter treats the widespread popularity of the bungalow in the context of the Arts and Crafts movement, but he focuses on architects who designed rustic Craftsman dwellings in harmony with the natural environment. Clay Lancaster, the best-known architectural historian of the American bungalow, traces its architectural roots to Japan and India. Most of the architectural literature on the bungalow focuses on well-known architects and their most creative designs, such as the Gamble House by Greene and Greene. Yet many more thousands of bungalows were produced from standardized designs for average working-class families, and Winter's mention makes a welcome addition to his study and an important nod to social history.²

In this study, I make use of a rich set of studies on housing and suburbanization from the 1880's to World War I which provide a broad social and economic analysis of the period in which William Butte first formed his factory construction company.

Gwendolyn Wright in Moralism and the Model Home: Domestic Architecture and Cultural Conflict in Chicago, 1873-1913 emphasizes the social and economic relations which influenced models for the suburban single-family home, exploring the transition

from a highly-ornate, individualized Victorian dwelling to a simple, restrained, scientifically arranged dwelling. This transition made it possible for Pacific Ready-cut Homes to mass-produce small, simple houses and market them as middle-class status dwellings. Dolores Hayden presents the feminist critique of the single-family home in the same period in Grand Domestic Revolution: A History of Feminist Designs for American Homes, Neighborhoods, and Cities. Hayden emphasizes that feminists in the mid-19th century were aware that increasing privatization of the home and family was not in their interest. They responded to the isolation of the rural housewife by proposing that new patterns of home life be established for urban and suburban families. Hayden explores the many feminist designs for alternative forms of housing and collective approaches to housework which resulted from this critique. Much of the debate over women's labor in the home subsequently shaped the design and marketing of Pacific's houses, and the critique of the isolated single-family home was repeated during the 1930's as one of the problems with the ready-cut system of mass production.³

In his seminal study of Boston's suburbanization, Streetcar Suburbs, Sam Bass Warner views Boston's suburbanization prior to World War I as a process of thousands of isolated, separate decisions. Matthew Edell, Elliott Sclar and Daniel Luria offer a contrasting view in Shaky Palaces: Homeownership and Social Mobility in Boston's Suburbanization, focusing instead on the decisions of a few major developers. Their study is the best analysis of working-class homeownership. They recognize that although business hoped that homeownership would make workers less politically assertive, the American working-class, fought for and obtained suburban homes. Although they critically analyze the impacts of homeownership on the working class, both negative and positive, they reject the "social control" viewpoint that homeownership was foisted upon the working-class in the first place.⁴

Housing and suburbanization during the 1920's has not received the same in-depth attention by architectural and urban historians as the period prior to World War I.

Several scholars, though, have discussed the 1920's in the context of larger studies. Gwendolyn Wright provides the broadest discussion of the period in Building the

Dream: A Social History of American Housing. She emphasizes the importance of Herbert Hoover, Better Homes in America, "Own Your Own Home" campaigns, and the trend toward suburban conformity. I will make two complementary notes to her analysis. First, she argues that most new dwelling units were set in large planned residential communities, but this probably leaves out a large number of working-class suburbs which were quickly subdivided into unimaginative grids. In Los Angeles, working-class suburbs sprang up next to the booming industrial areas to the south and east. While Westwood, Beverly Hills and Culver City were planned communities, industrial suburbs like Maywood, Southgate and Huntington Park were not. Pacific Ready-Cut Homes built houses in all of these communities, but it is in the working-class suburbs that one finds blocks and blocks of ready-cut bungalows. Second, Wright, like Winter, places the importance of the ready-cut houses in the Craftsman movement of the previous era, arguing that mass production offered the allure of personal craftsmanship for the owner. I will try to show that the ready-cut system had a much larger significance for housing than providing Arts and Crafts enthusiasts with their own kits to build houses, and that the 300,000 ready-cut houses built during the 1920's are best seen as a response to post World War I housing needs and as the solutions to housing problems during the 1920's.⁵

Christine Boyer's analysis of the urban planning discourse in America, Dreaming the Rational City, provides an important political context for scholars concerned with housing during the 1920's. She discusses the reliance upon engineering and technological solutions to the housing crisis, and explores the development of zoning as a tool to regulate suburbanization and building. Yet few architects and urban planners in the 1920's discussed the ready-cut system in any detail (it was happening in private industry all by itself), and therefore Boyer, whose book uses urban planning literature as the object of study, does not discuss the major solution to the technological problem she aptly describes.⁶

Dolores Hayden provides the best political analysis of housing in the 1920's push for home ownership, traditional gender roles and pacified labor relations in the context of the post-World War I Red Scare, when socialists, feminists and even modern home economists were red-baited. She suggests that the policy of working-class

homeownership was in many ways a reaction to social unrest; in 1919 women's suffrage was passed and four million workers were on strike. Her research on the feminist designs for alternative forms of housing suggests that the 1920's was a pivotal decade for American housing, a time when things might have gone another way. In Redesigning the American Dream, Hayden points out that the post-World War II suburban boom was a continuation of conservative homeownership policies begun by Herbert Hoover during the 1920's.⁷

Finally, Stuart Ewen provides an important context for the mass-production of housing in Captains of Consciousness: Advertising and the Social Roots of the Consumer Culture. Ewen argues that business, in order to sustain demand for mass-production, began to plan for consumption just as carefully as for production, and that advertising took on a pervasive role as the conduit for the ideology of consumerism. His study touches both the production and the consumption of mass-produced housing. He points out that the single-family home provided the best urban basis for the consumption of mass-produced commodities. Yet his analysis of how mass-production industries must struggle to maintain demand applies to the mass-production of housing as well. His explication of the advertising strategies used to create needs and to stimulate dissatisfaction, particularly "planned obsolescence," the strategy of constantly introducing new models, provides an important context for understanding the role which model homes played for Pacific.⁸

This study is divided into three parts. Chapter 2 covers Pacific's early period, from 1908 to 1915, when it produced factory-built, portable bungalows. The chapter explores the social and economic issues which were influenced by the attempt to produce houses in factories. Chapter 3 explores Pacific's boom period after World War I, when it operated from the 24-acre plant and mass-produced pre-cut lumber for the ready-cut building system. The chapter discusses the national context for housing after the war, the housing shortage, and chosen priorities for housing during the period.

Finally, Chapter 4 describes the legacy of housing in the 1920's and the ready-cut system after World War II, when a new generation of builders used industrial production methods not only to mass-produce houses, but whole suburbs.

I will argue that there were widespread social implications in the mass-production of houses both from the standpoint of production and of consumption. The issues of consumption are easier to trace because they appear as part of the debate over homeownership for the working-class and the critique of the single-family home. This side of the story deals with the product itself; exploring the process by which the single family home became the mass-produced form reveals a great deal about the fundamentally political process of defining the way in which Americans would live. These issues intersect with the implications of a changed process of building houses. In exploring the ready-cut system from the production standpoint, one can better understand the economic process whereby industrialization changes skilled handcrafts labor into machine oriented, specialized processes. The ready-cut building system put more building workers in factories and contributed to the de-skilling of carpentry. And of course, at the center of the distinction between production and consumption is the American working class, which provided the labor to build "ready-cut" houses, as well as bought the less-expensive, mass produced product. In working-class neighborhoods throughout Los Angeles, one can find the built form which was the product of these essentially social processes: The mass-produced, ready-cut bungalow.

CHAPTER TWO

THE PORTABLE BUNGALOW, 1908-1915

In 1909 when William Butte and Francis Barker formed Pacific Portable Construction Company to produce factory-built bungalows, they entered a field which had been the subject of public debate for several decades. Since 1850, building trades unionists, socialists, housing reformers and feminists had debated the complex social issues involved in American housing. Trade unionists and feminists were concerned with the way industrial capitalism had dramatically altered the labor necessary to both build and maintain the home. Socialists and housing reformers were concerned about the best way to house the working-class, debating the pros and cons of working-class homeownership. Much of the debate centered on competing architectural and technological models for American housing, from the modernized single-family dwelling, to multi-family housing, to suburban neighborhoods with facilities for housekeeping, child-care and community dining.¹

Butte and Barker's choices about what to produce, how, and for whom, were inevitably shaped by this debate. This impact was by no means unreciprocated; their choices, along with those of a few other major builders, would eventually significantly alter the debate itself. First, by producing houses in factories, they began the final stage of what had been the progressive de-skilling of the building trades during the nineteenth century. Second, by making sturdy single-family houses at low-cost, they made possible more widespread homeownership for the working-class. Third, by manufacturing small, simple houses they incorporated into the built environment a powerful alternative to the large-ornate Victorian style home. And fourth, by designing their homes to be labor-saving for housework, they demonstrated the possibilities for the commercial use of home economics while maintaining a traditional view of women's roles.

Some commentators hailed Pacific Portable Construction Company as the answer to the country's housing ills. Certainly William Butte thought so. It does not appear, though,

that he arrived in Los Angeles with the idea. Moving in 1907 from Stuebenville, Ohio with eight years management experience at a roofing company, he began work in Los Angeles as Supervisor at a large roofing organization. Here he noticed a small nearby factory which manufactured portable bungalows, and began to spend his lunch breaks studying the operation. He was quickly converted; within two years of his arrival in L.A. he had formed a partnership with the owner of the factory, Francis Barker.

William Butte was just 28, a short, bald man accustomed to supervising and management. As a teenager he had learned the upholstering trade, but at 18 his taste (and subsequent genius) for management led him to business college. The following year he became assistant superintendent of a paper mill, working there steadily for eight years until he came to Los Angeles for health reasons. A first generation German-American raised on strict “Old Country” values, he was a serious, stern man, known to his family and employees as someone who “meant business.” It was Butte whose visions and unwavering belief in factory construction shaped the small portable bungalow organization into a major mass provider of housing in the Western United states.²

(Illustration 2.1)

But it was Francis Barker who first had the idea. Barker was by 1908 an experienced entrepreneur, having worked in the lumber manufacturing industry in New England since approximately 1880. In 1898 Barker had organized and become President of the Springfield construction Company, where it is likely he first experimented with factory construction. Barker was politically active as a resident of Springfield, Massachusetts; in 1896 he was elected to the city council and the following year was made its president. He moved to Los Angeles in early 1908 and purchased a factory and the equipment to manufacture portable houses. He was 54. Upon incorporation of Pacific Portable Construction Company, Barker became President, Butte Secretary/Treasurer.

They began with six employees and could manufacture one full house each week. Their goal was to construct as much of the house in the factory as was possible and still be able to ship by railroad. Therefore the floor, roof, ceilings and walls were nailed together and entirely finished in the factory, with the wood stained or painted and the hardware installed. Doors and windows were hung in position at the mill and then crated for

shipment. All built-in furniture was shipped in “completely assembled form, sand-papared and stained, ready to be set into proper place and nailed solid.” As such, these homes could be shipped anywhere - to neighboring Santa Monica or out of the country to Mexico. (Illustration 2.2)

Once arrived on-site, the houses were “assembled” -- not constructed -- remarkably quickly. Their advertising claimed that a small bungalow would take just two days. After four hours “the floor should be down and some of the side sections fitted in place.” At the end of the first day, all sections of the house would be nailed together, including the roof. (Illustration 2.3) “Finishing touches” were added the second day.⁵ Although each section arrived plainly marked to correspond to simple plans, the purchaser was entitled to the free labor of a foreman to “superintend and assist in the erection,” provided the purchaser paid his “carfare, room and board.”⁶ Otherwise the buyers hired their own carpenters, or erected the house themselves.

Pacific's factory-built houses and other structures were erected several hundred miles from L.A. -- all over California, in Arizona, New Mexico, Nevada and Utah, as well as in Latin America. The product was, in fact, most essentially portable. First, it could be shipped to any locality nominally connected to a railroad. Second, it could be disassembled, moved, and erected again. These were important characteristics in a developing region like the southwestern United States. They made it possible to erect houses in boom towns so new there were few skilled trades people, and provided temporary housing for the workers who were building the infrastructure of the region, such as in the railroad and oil companies. For example, the Los Angeles Department of Water and Power bought Pacific factory built structures to house the workers building the city's famous aqueduct beginning in 1913.⁷

Pacific Portable Construction Company was moderately successful prior to World War I; in the first six years it sold 5000 factory-built houses. A 1915 history of Los Angeles included a biographical entry on Francis Barker, noting that he was President of “Pacific portable Construction Company which manufactures factory built houses of all descriptions.” (Illustration 2.4)

Pacific, it continued, employed "fifty to seventy-five experienced workmen," and had built "a fully equipped plant and special varieties of machinery particularly adapted to this line of work." They had opened a sales branch, as well, near the Mexican border in El Centro, where eight salespeople took orders for portable bungalows.⁸

Barker and Butte sold quite an array of factory built structures -- bunkhouses, mess halls, apartment buildings, schools, gasoline stations, garages -- proving that their factory construction system could work on any relatively modest frame structure as well as small detached houses. (Illustrations 2.5 and 2.6)

Their bunkhouses, for example, were undoubtedly used as housing for the thousands of migrant farm workers in the region. But by far the most popular item sold was the small portable bungalow.

DE-SKILLING THE CARPENTER: THE BUILDING TRADES

Not everybody thought that the increasing factory manufacture of housing was a good idea. Certainly building trades people, particularly carpenters, had realistic fears about the progressive introduction of machine technology into homebuilding. Almost exclusively native-born or Western European white males, carpenters had for centuries passed on their relative privilege to family and friends. They had enjoyed a good deal of control over their trade, earned healthy incomes, and often owned their own businesses. Labor historian Paul Bullock maintains that the earliest craft guilds were often used "as an exclusionary measure, to maintain monopoly over their craft and to keep 'undesirables' out."⁹

By the 1850's carpenters were experiencing an increasing lack of control over their trade due to larger concentrations of capital being invested in the built environment in major U.S. cities. As they organized to mitigate these developments, their traditional strength as elite craftsmen enabled them to form powerful and effective labor unions. Yet their trade was becoming increasingly mechanized, a process which was sped up considerably during the 1880's by the introduction of steam-powered machinery. "Productivity improved dramatically," writes architectural historian Gwendolyn Wright. "Higher-grade steel blades allowed the steam-powered machines to be used at full speed, without cease,

with no danger of metal fatigue.” She cites a case reported in 1898 by the commissioner of labor that mechanical saws could produce in four hours as many irregular forms in wood as would have required 110 hours by hand.¹⁰ In the average case, woodworking machining was 12 to 14 times faster than the hand worker.¹¹

By 1881 these developments stimulated the carpenters’ locals to organize the united Brotherhood of Carpenters and Joiners of America, with Peter McGuire as its charismatic leader. A carpenter, tireless labor organizer, committed Socialist and talented editor of the prominent journal, The Carpenter, McGuire was by all accounts "one of the most remarkable figures in the labor movement."¹² His reasons for forming a national union spoke directly to the increasing use of machinery:

By the introduction of woodworking machinery operated in planing mills the old workshops and their handwork gave way very largely to machine-made moldings, window frames, etc., so that consequently a larger amount of work could be done with less labor in a given time, resulting in protracted periods of idleness and unsteady work. And in addition, in many cities, the time-honored custom of day-work has rapidly given way to piece-work, with the minutest subdivision of the trade into petty branches, lessening the demand for skilled mechanics, and making the introduction of unskilled labor not only a possibility, but more and more generally the rule.¹³

By 1900, the united Brotherhood of Carpenters and Joiners had led the labor movement in two decades of intense labor unrest, organizing major strikes in several cities where unionization was strong. This labor activity, coupled with the actual de-skilling of carpenters, led to a change in the popular view of the building worker. "Once romanticized as a traditional craftsman preserving noble skills," writes Gwendolyn Wright, lithe building laborer came to be seen as a petty tyrant holding up progress... a pawn of corrupt unions, ready to cut off a city's supply of housing for ever higher wages."¹⁴

This form of animosity towards unionized building workers was particularly strong in some quarters of Los Angeles, backed by a few particularly powerful institutions within the city. Some of this was undoubtedly due to the timing of the city's development. Los Angeles experienced its first major surge of growth in the 1880's; its powerful business institutions became consolidated during a time when building workers' strikes elsewhere could paralyze a city. Los Angeles gained a reputation as a staunch "open shop" town,

with the Los Angeles Times, the largest and most influential paper in the region, at the forefront. A bitter printers' strike against the Times lasted from 1890 to 1910 without success. The Merchants' and Manufacturers' Association also led in the open-shop campaign. The M&M "pressured employers to remain non-union, gave them assistance during strikes... and, in 1910, secured passage of the toughest municipal anti-picketing ordinance in the country."¹⁵

But there were many quarters in Los Angeles where the opposite sentiments were held dearly. These forces combined in 1911 when the Socialist Party's slate of candidates topped most of the city's primaries, and socialist Job Harriman won a plurality of votes for mayor. The Socialists did not win the final election, a political occurrence attributed in part to the untimely confession of union workers to the dynamiting of the L.A. Times building in October 1910. The ultimate failure of the city-wide movement for the union shop also served to stop the momentum in unionization of the Los Angeles building trades.¹⁶

This was, of course, the labor environment in which the Pacific Portable construction grew and prospered. Butte and Barker ran an open shop, and agreed with the M&M's union policy.¹⁷ The Pacific method had its own implications for the building trades. It moved the site of production from the site almost wholly to the factory, where workers manufactured interchangeable components for portable bungalows. The outcome of this rationalization of the labor process was predictable; it has occurred countless times in industrial America.

Productivity increased dramatically, with a resulting drop in prices. With more sophisticated machinery, by 1915 they could produce sixteen houses per week.¹⁹

Why, though, did Butte and Barker invest in this factory to build small, standardized houses at a time when investment in small houses had not proved itself as profitable as investment in larger buildings?²⁰ Their goal was to make houses affordable to more working-class buyers, betting that opening a new market would pay for the investment.

HOMEOWNERSHIP FOR THE WORKING-CLASS

But was it possible for homeownership to become common working-class fare? Moreover, in whose interest was this? Housing reformers had since the 1880's worried about workers and their families, lamenting the fact that so many of them lived in large tenements rather than in their own neat little cottages. They usually implicitly assumed that homeownership for workers was an unquestionable ideal. When the National Housing Association sponsored a session titled, "Should we encourage the workingman to own his own home?" at its second annual conference, the first response was:

Naturally, in our own minds, we answer, "Of course the workingman should own his home." This is from the point of view of the American ideal each man should have his own place, from the point of view that makes for economy and thrift.²¹

Yet the existence of the session at all suggests that there were problems in achieving this goal. First, housing capital was being primarily invested in tenements. Second, experiments in building workers' homes had resulted in a product which workers could not afford.²² Third, some reformers worried that working class homeowners would not be able to invest in the betterment of their neighborhoods, or worse, that unskilled workers would always inevitably disrespect and ruin any type of housing in which they lived.²³

Some discussants at the unusual 1912 session were not sure that working-class homeownership could be accomplished, nor that it was necessarily in workers' best interest. Objections were on two grounds: first, it could be too severe a financial strain, and second, it could be politically harmful to workers. Not only did homeownership require a high and steady wage, but a worker "must remember that if he buys this home and gets it half paid for, it is likely, as in the case of a strike, pressure may be brought to bear which will prevent him from getting a raise in wages or betterment in conditions."²⁴

One discussant suggested that there would be two perspectives on the issue: that of the worker and that of the employer.

There is... a point of view which I think should be borne in mind: this workingman owning his home, which is purchased after many years of saving, puts himself to some extent in the hands of the employers as are most convenient for him to go to for

employment. In some cases this may not be good for him ... The point of view of the employer enters into it from the opposite side, namely, he encourages workingmen to own their homes so that there will not be a desire for change in case of industrial disturbance... I think it is reasonable to presume that the man who owns his home near his job is not going to be hysterical in decision whether he will strike or not.²⁵

The issue of mobility of labor had been part of the radical discussion of working-class homeownership since Frederick Engels wrote in 1872. Urban economist Matthew Edel views Engels' argument against homeownership as both economic and psychological, the former focusing on the workers' need for mobility. Edel cites Engels' reasoning that, "the workers must shoulder heavy mortgage debts... they are bound to their houses, they cannot go away, and they are compelled to put up with whatever working conditions are offered to them."²⁶

The psychological aspect concerned class consciousness. Engels had much more radical goals for workers than merely the freedom to strike when industrial conditions became stifling. Engels felt that homeownership could hinder the development of the class-consciousness on which the workers' revolution depended; it could "stifle all revolutionary spirit in the workers." Capitalists favored it for just this reason. But Edel concludes that Engels believed it was the worker's objective status in production, not homeownership status, which ultimately determined consciousness.²⁷

Labor unions rarely shared Engels' revolutionary goals. Even in the early radical era when the carpenters' union was led by Socialist Peter McGuire, his journal The Carpenter pictured the ideal carpenter as a family man, a stable homeowner. "There were strong reasons for encouraging such behavior," writes Peter Bullock. "A property-owning carpenter, with family ties, was less likely to be ... moving from one jurisdiction to another in search of work and more likely to be concerned with protecting his economic status in the trade and the local community."²⁸

Labor unions represented the most powerful sector of the American working-class: skilled white men most able to buy homes under the existing system. To the extent that they had a policy on housing, it was that a living wage should be provided to allow workers' to afford their own homes. Indeed, a 25-year member of a union remarked at

the 1912 Conference on Housing:

Some members of this conference, and a great many people elsewhere, are striving to bring the home down in cost, down to where the ten-dollar-a-week man can afford it. They have not yet succeeded in bringing that about. There is another great body of citizens, 3, 000, 000 strong, who insist in this country that the right way is to bring wages up to where a man can afford to have a decent home.²⁹

Housing reformers, though, continued to view the need to lower the cost of the small single-family home as one of the most pressing national housing concerns, second only to tenement house reform. How could the cost of decent houses be lowered to \$1000 each? with labor comprising 40% of the building cost,³⁰ the relatively high wages of building workers were sometimes popularly viewed as the problem. Certainly the differences between the wages of unskilled laborers and unionized trades people were quite distinct. The national average wage for an unskilled worker in 1914 was \$.20 per hour, yielding \$10 per week on a ten-hour day. By contrast, unionized building workers earned \$.53 per hour, or \$26.50 per week.³¹ Always reluctant to become overtly involved in political and economic issues, housing reformers would not make a general demand for higher wages for semi-skilled and unskilled workers as a way to solve their housing problems and neither would they call for lower wages for the building trades in order to decrease home construction costs.

One proposed strategy to build the \$1000 home did address the issue of high labor costs, while "not criticizing wages." J.G. Schmidlapp, a Cincinnati builder of working-class housing, proposed that carpenters help to lower housing costs for their "co-wage-earners" by working at "100 per cent efficiency instead of approximately 60 per cent as we are now getting."³² Schmidlapp claimed that this inefficiency, in many cases intentional, was paid for by other wage earners in their high housing costs. If we can get the builders' trades to take an interest in the welfare of their co-wage-earners, we should here be able to make a saving of 15 per cent."

This would allow him to build duplexes with two bedrooms each at \$1000, plus \$200 for the real estate. The wage earner would pay \$100 down payment, and \$2.75 per week, or 1/5 of the income of semi-skilled workers.³³ Schmidlapp's proposal, which lacked ideas for enlisting the support of building workers in the interest of their "co-

wage-earners," was primarily to suggest that the building trades were the major obstacle to low-cost housing.

Even in his best scenario Schmidlapp could not build the \$1000 single-family home, a problem with stumped most housing reformers. Butte and Barker, though, could offer, at their most basic, a "comfortable, small 5-room Pacific House erected" for \$1000. With the average cost of the lot at \$600, and including 6 percent interest, taxes and upkeep, the total cost per year was \$131, or \$10 per month.³⁴ This would be one-fifth the average monthly income of wage-earners in the manufacturing industry.³⁵

The house, though, was tiny. It was probably 600 to 640 square feet, kitchen 8' by 10', living room 12' by 14', the dining area and bedrooms each 10' by 12'. To offset this drawback, Butte and Barker stressed the advantages of small houses. The rooms were "conveniently arranged," they said, and the whole house efficiently designed. The kitchens were "planned to save many a weary step."³⁶ These advertising claims had credibility in an environment where architects, builders, housing professionals and the popular press all advocated smaller, more efficient single family houses, for all classes.

THE NEW SUBURBAN HOME

A remarkable array of people concerned with domestic architecture and homebuilding had, in the 1890's, united in rejecting the large, individualized Victorian dwelling, and called for a radical simplification of the single-family home. Victorian ornamentation, they said, was meaningless, purposefully extravagant, somewhat freakish, and full of unnecessary nooks and crannies which only collected dust, now thought to be the carrier of germs. Popular writers put this critique in social terms, claiming that houses designed for display rather than function exacerbated class differences, and wasted the housewife's energy and time in unnecessary cleaning.³⁷

Radical economist Thorstein Veblen fueled this critique in 1899 with his widely read book The Theory of the Leisure Class. In it he claimed the Victorian upper class used "conspicuous consumption" for the display of social status. An obviously idle upper-class wife, with a large staff of servants and no employment outside the home, was an

important part of this display. Victorian architecture, based upon pretense and exhibition rather than comfort and utility, embodied for Veblen the idea of conspicuous consumption.³⁸

There were popular journals which, for widely varying reasons, made the critique of the Victorian home broad based. They published thousands of plans for smaller, simpler, less-expensive houses, thereby providing advertising for builders like Butte and Barker, who were selling these homes. The Ladies' Home Journal, with over one million readers, is the most prominent example. Edward Bok, the journal's editor from 1889 to 1919, was a key figure in the movement to reform domestic architecture. "Bok had a clearly formulated mission: To reform and simplify the American home and to keep women in it. He... assured his readers that the right kind of home environment could preserve the family, strengthen the nation, and thereby give women more than enough meaningful work to do."³⁹ Bok printed plans for thousands of small houses, ranging from \$1500 to \$5000 in price. He campaigned to reduce ornamentation and to simplify domestic architecture. Victorian bric-a-brac and overstuffed chairs, he editorialized, had become "bad taste."⁴⁰

Much of the new sense of aesthetics in home furnishing and domestic architecture which overtook the nation's popular culture drew broad support from the Arts and Crafts movement. Gustav Stickley, the movement's major American figure, promoted the ideas of English socialist William Morris in his popular journal The Craftsman. The movement stood for the replacement of mass-produced, useless ornament with simple and functional handicrafts. Stickley popularized the austere mission furniture which, ironically, was mass produced by Sears' Roebuck and marked in its mail-order catalogs.⁴¹ In 1903 Stickley began to publish model "Craftsman Houses" in a popular drive to demonstrate small, simple, well-planned and democratic American homes. The bungalow was the movement's most popular architectural form, with its overhanging eaves, simple built-in furniture and low rooflines.⁴²

The widespread critique of the Victorian home evolved into what Gwendolyn Wright calls a shared "minimalist" aesthetic for domestic architecture. She writes, "Houses became simpler in outline and ornament, inside and out. Square-footage was

dramatically reduced and ... houses became more alike in their plans and their general appearance."⁴³ Butte and Barker's \$1000 portable bungalow couldn't help but be small, simple and standardized. But with the new minimalist concept it could be marketed as the latest in domestic design. In turn, the appearance of smaller homes on the American landscape was vital to the endurance of the new minimalist ideal. Butte and Barker, and many other builders like them, incorporated into the built environment the small, minimalist house, providing a powerful alternative to the Victorian home.

Many of the proposed changes in single-family domestic architecture were due to the development of industrial capitalism, which by the turn-of-the-century had radically altered the function of the household within the economy. Households now used many store bought goods which has previously been produced domestically.⁴⁴ The domestic technology for plumbing and electricity was now becoming available on a widespread basis, promising to alter domestic labor further.⁴⁵ The state of flux promoted widespread discussion of the changes in women's traditional labor. The kitchen assumed a new, central importance in the minimalist home. It became "the focus of attention in most pattern books... It replaced the parlor as the favorite subject of housing guides and books of decorating advice. Butte and Barker built houses based on a model which assumed that each house would have a private kitchen, but this was not the only architectural model being debated regarding women's labor in the home. Many feminists, in fact, were proposing a reorganization of the home and neighborhood which would support collective approaches to cooking and laundry, women's primary domestic work at the turn of the twentieth century."⁴⁷

SAVING THE HOUSEWIFE MANY A WEARY STEP: HOME ECONOMICS

When Butte and Barker began selling portable bungalows in 1909, American feminists had participated in an organized movement for over 60 years. They challenged the narrow and rigid definitions of women's realm in Victorian society and included in their debate proposals for the reorganization of domestic work.

One of the movement's best theorists was Charlotte Perkins Gilman, a well-known lecturer and best-selling author whose classic work, *Women and Economics*, was

published to rave reviews in 1898. In this and subsequent work, she analyzed women's domestic labor, or "domestic industries." This term applied, she wrote, "to a stage of development through which all kinds pass. All industries were one 'domestic.'"⁴⁸ The fact that women's domestic labor remained at a "primitive" stage of development meant that it was inefficient, wasteful, and harmful to both men and women. The current private system of "feeding, clothing and cleaning humanity," she wrote, "...costs men more money, women more work, both more time and strength than need be by more than half."⁴⁹

Looking at domestic work as one would look at any other industry, Gilman saw the endless repetition of the work site in suburban neighborhoods as hopelessly inefficient and uneconomical. "We pay rent for twenty kitchens where one kitchen would do," she pointed out. "All that part of our house which is devoted to these industries, kitchen, pantry, laundry, servants' rooms, etc., could be eliminated from the expense account by the transference of the labor involved to a suitable workshop."⁵⁰

Gilman wanted new architectural and neighborhood design. She called for kitchenless suburban houses which would be grouped together and linked to a common eating house by covered pathways. She wanted apartment houses with professional child care, common dining rooms and laundry facilities. "If there should be built and opened in any of our large cities... a commodious and well-served apartment house for professional women with families, it would be filled at once."⁵¹

Many other professional and academic women at the turn-of-the-century were reevaluating the prevailing mode of home life using the tool which they had acquired in the academy: science. One of the most important, both for her innovative ideas and her leadership, was Ellen Richards, a chemist at the Massachusetts Institute of Technology.⁵² Richards gathered with other professionals in 1899 to discuss the need to establish a new field of study and applied science. Nine years later they formed the American Home Economics Association, which in its first year had a membership of 830 professionals in varying fields.⁵³

Through the leadership of Ellen Richards, home economics was defined as a broad,

inter-disciplinary study of the problems facing domestic life -- as science and technology called for a redefinition of the home and those who worked there. Her description of the meaning of home economics demonstrated her broad, scientific approach:

- 1) The ideal home life for today unhampered by traditions of the past.
- 2) The utilization of all resources of modern science to improve home life.
- 3) The simplicity of material surroundings which will most free the spirit for the most important and permanent interests of the home and society.⁵⁴

In 1895 Helen Campbell, a journalist and home economist, laid out the underlying principles of the profession in a series of lectures sponsored by Richard Ely of the University of Wisconsin. The result was her popular book Household Economics, which was dedicated to her protégé and housemate, Charlotte Perkins Gilman.⁵⁵ In a reference to possible more narrow interpretations, she stressed that the purpose of home economics was not to study "how to keep house." Rather, it was to be an inquiry in "social economy."⁵⁶

Campbell wanted more and stronger organizations of women involved in this field of study. Until college women "trained to logical processes of thought," could settle "the meaning and bearing of the science of Household Economics, the organization that will change the face of the world remains impossible."⁵⁷ Her statement of general principles was meant to focus home economists on the transformative capabilities of their profession.

Her far-reaching approach included a critique of poorly planned houses:

If common sense were brought to bear, the woman would soon put an end to the type of thing the average builder offers her. Why should we perpetually go up and down when going sideways is so much easier? Why should we accept stupidly planned and inadequate closets or no closets at all, and kitchens in which everything is calculated to bring the greatest unhappiness to the greatest number?.. The difference between a pantry opening close to the sink and one at the opposite end of the room may seem a small matter; but when it comes to walking across the room with every dish that is washed, the steps soon count as miles.⁵⁸

Along with Charlotte Perkins Gilman, she proposed a radical reorganization of the suburban neighborhood as the solution. "Given a perfectly managed, carefully

administered kitchen and laundry for every block of houses ... it means not only more time for the higher aspects of living, but more money to spend in real things." ⁵⁹

Campbell thought that women should be included in house design. She wrote that college training in home economics should include drawing floor plans. Her approach was to educate women about all aspects of the home; in addition to the floor plan this included knowledge of plumbing and municipal systems, concrete foundations and construction techniques, and heating and ventilation systems. This was to be a complete demystification of the domestic built environment. ⁶⁰

The radical reorganization of domestic labor was not endorsed by the next generation of professional home economists, who were seeking to legitimize their new field. ⁶¹ But Campbell's proposal to include women in domestic design was carried out at several major universities. ⁶² Helen Binkard Young, an architect with the Department of Home Economics at Cornell University, taught house planning to her students. "We must realize that forceful and direct arrangements of floor plans do of themselves create conditions favorable to simple housework." she wrote in 1914. "As long as we attempt to fit economic housekeeping into uneconomic arrangements, there will be lost motion." ⁶³

"Lost motion" was a concept borrowed from Frederick Taylor, the expert in industrial efficiency studies since most home economists did not view the existence of private housework as the essential problem, applying the guidelines of industrial efficiency provided a way to improve private housework without changing its essential condition or position in the social and economic structure. Christine Frederick, Household Editor of the Ladies' Home Journal, popularized this approach with her 1914 book, The New Housekeeping. Frederick knew from the letters she received from Journal readers that American housewives were unhappy. "The burden of their story has always the same terrible minor note of cowed despair," she wrote, "...the same outcry against something that seems to stifle and bind them; the same despairing resignation that there is no possible relief." ⁶⁴

Frederick applied Taylor's principles of industrial efficiency to her own housework, using motion studies to find the "one best method" to perform each task. She maintained

that homemaking could be rationalized into standardized motions rather than remain in its present disorganized state. "Far from being dull drudgery," Frederick wrote "homemaking in all its details is fascinating and stimulating if a woman applies to it her best intelligence and culture."⁶⁵

Almost everyone agreed that the current system of housework was inefficient, but Frederick's proposals for its improvement were compatible with patriarchal gender relations, while Gilman's sought to radically alter them. The private kitchen was an important ingredient in the fight against feminist demands for women's broader participation in public life. Frederick embraced the private kitchen as women's true workplace -- pending improvements, of course.

Frederick added her voice to those who insisted that kitchens had to be designed more efficiently. She endorsed small, compact designs, approximately 10' by 12', and suggested a kitchen cabinet with special containers for sugar, flour, tea and coffee and a counter work area. Here the housewife could "reach all foods needed in the preparation of many dishes, without getting up or down." Kitchens also needed good light and ventilation, and should have few crannies where dust could accumulate.⁶⁶ Other writers followed with popular books on Taylorized methods of housekeeping.⁶⁷

Butte and Barker marketed their "convenient" kitchens with rhetoric found in Christine Frederick's chapter on kitchen design. "Have you ever longed for a strong, clean, sanitary flour bin?" they asked their customers. "Have you ever wished for a kitchen with plenty of cupboard space all at arm's length? It is a pleasure to prepare your cooking in the kitchen of a Pacific House." They pictured a kitchen cabinet organizer with counter, similar to Frederick's. The small 8' by 10' kitchens, they advertised, "have been planned to save many a weary step. They are so arranged as to give the maximum of ventilation and light and to eliminate awkward corners where dust may collect."⁶⁸

Pacific Portable Construction Company was demonstrating an important principle: home economics could be put to profitable commercial use.

LOS ANGELES: "TEN SUBURBS IN SEARCH OF A CITY"

There were factors which acted in favor of Butte and Barker's factory production of portable bungalows which were specific to Los Angeles. First, the area was known for its many bungalows, a single-family architectural form well-suited not only to the spatial criteria of the new housekeeping but also to the new minimalist aesthetic in domestic architecture. Bungalows were so commonly built in the region that it developed its own unique Southern California bungalow, with local Spanish influence. Some of its popularity had to do with the mild climate, which lessened the need for a basement for the heater, a front hall for winter wraps, and insulation.⁶⁹ But more importantly, small, inexpensive houses were popular due to the sprawling urban form of Los Angeles, which encouraged suburban expansion.

From the city's first land boom in the 1860's, to the major boom of 1888, Los Angeles fortunes had been made in suburban real estate speculation. steam railroads and interurban lines connected downtown Los Angeles with Pasadena, Glendale, Santa Monica and Long Beach as early as 1888, shaping the 100-mile metropolis of today. Real estate developers built the interurban lines which made these functional connections possible, and by the turn of the century Henry Huntington had purchased most of these and consolidated his famous Red Car interurban line. While areas like Long Beach, 40 miles south, had industry of its own, the areas in between were subdivided in endless grids of small lots, 50' by 100'. During boom times developers sold these lots for as low as \$50 each, but even in the more stable economy there were hundreds of small, cheap vacant lots for sale within commuting distance of Los Angeles.⁷⁰ This land use pattern shaped the demand for Pacific Portable Construction Company's inexpensive bungalows in Los Angeles, and made possible the working-class suburb.

NECESSARY BUT NOT SUFFICIENT: THE WORKING-CLASS SUBURB

There were powerful forces contributing to the creation of the working-class suburbs which were necessary to Butte and Barker's success. First, they and other builders lowered the cost of suburban homes, and expanded their home-buying market to include the working-class. Second, housing reformers often held working-class homeownership and suburbanization as the ideal, which Marxist geographer David

Harvey suggests was fueled in part by the fear of urban unrest and the desire to disperse the poor and working-classes. "Cheap suburban land, housing and cheap transportation were all part of the solution entailing... a certain form and volume of investment in the built environment on the part of the bourgeoisie." ⁷¹ In this sense, the working class suburb was the logical conclusion to housing reform. ⁷²

Third, there were architectural changes in the average suburban home which tended to blur class distinctions, an important phenomena in support of the working-class suburb. The dwelling became simpler in character and easier for low-cost builders to copy. Its form de-emphasized class differences, and encouraged the notion that suburban homeownership meant middle-class status. Fourth, home economists who supported private housework further blurred class distinctions by infusing unpaid domestic labor with an air of importance, and by encouraging working-class wives to adopt this model. Cheap land and inexpensive houses in some cases made it financially possible for working-class wives to be fulltime homemakers. Their houses were designed with the functional assumption that this would be true.

But what of the men and women of the working-class themselves? Many were little aware of the debates over their labor in the work-place and in the home. Many were subject, though, to the Jeffersonian ideal which had evolved from early American agrarian tradition: each family with its own plot of land, its own homestead. The powerful symbols evoked by this image -independence, self-reliance, sturdy character -- were inevitably deeply imbedded in many Americans. Martin Wachs argues that the mid-western newcomers to Los Angeles arrived with a deep sense of this dream. ⁷³ And as the demand for Pacific Portable Construction Company's factory-built bungalows suggests, the working-class portion of these families apparently wanted any version of this dream they could assemble.

CHAPTER THREE

THE READY-CUT BUNGALOW, 1916-1925

One thing that impressed me was when one of your men arrived to help erect the house...all the tools he needed he carried in a suit-case with his clothes.

-Pacific customer, 1920

The answer to the threat of Bolshevism in this country is the "Own-Your-Home" movement.

-The Los Angeles Times, 1919

William Butte faced the prospects for housing after World War I with optimism. He had perfected a new "ready-cut" homebuilding system, and its popularity was sufficient to justify building an entirely new factory. The production plant was designed to make a reality what for many was only a dream: the mass-production of houses, modeled after automobile mass-production methods. Already he could produce fifteen houses per day, and he planned to increase his capacity still further. His optimism was probably best expressed by the size of his new industrial property: he had built a ten-acre production plant on a sprawling 24 acre site.¹

[Illustration 3.1]

There was indeed an urgent demand for housing after World War I. During the war any building for purposes other than war production had been curtailed by the government in order to direct all available resources to the war effort. Tax-exempt government bonds had further discouraged capital investment in housing.² The housing shortage was variously estimated at between one and three million homes,³ and the problem was not easily solved. A post-war economic recession lasted until 1921, and the cost of building materials – influenced by labor disputes and transportation difficulties - remained at inflated war time levels.⁴ Rather than rallying after the Armistice was signed in 1918, building was 58% its prewar level in 1919, and only 37% in 1920.⁵ And the crisis was not restricted to the United States. Housing reformer Lawrence Veiller had visited Europe and could claim with authority that the housing shortage was "not merely national," but "universal."⁶

England instituted a major program of government built housing which would eventually keep British cities in good stead during the Depression. But many Americans demanded a different solution; government-housing was an idea which conflicted with strongly-held notions of non intervention in the market and a romantic attachment to an ethic of rugged individualism. Even government subsidized housing was widely rejected as "wrong in principle."⁷ There were, however, two strategies which American leaders in government, business and industry did employ to stimulate the production of housing by the private sector. The first and most dominant was the technological strategy in which William Butte had become a major entrepreneur: decrease the cost of the single family house using innovative mass-production techniques so that both middle-class and working-class families could afford it. This strategy was hailed from disparate corners as key to breaking the deadlock in housing. As Harlean James, Secretary of the American Civic Association put it, "If electric supplies, hardware and mill parts were sufficiently standardized to make it possible to buy a house, like a Ford car, manufactured by the thousand, costs could be greatly reduced, without the least necessity of making the houses all look alike."⁸ Technological approaches dominated the discourse about the post-World War I housing crisis in the U.S. And with them came a new class of technical experts and entrepreneurs whose approach to housing would change the face of housing reform.

The technological solution was coupled with an equally powerful government policy to strengthen the ideology of single-family homeownership, particularly for the working-class. The U.S. Department of Labor initiated the "Own Your Own Home" campaign in 1919, organizing a broad coalition of realtors, builders, bankers and government officials to stress that good citizens owned their own homes, and that buying a home immediately would be a patriotic act. The campaign was most vigorously promoted by the National Real Estate Association. The goal in the short run was to end the building slump and to curb unemployment, since "a movement to erect homes would automatically act to absorb idle labor."⁹ But in a larger sense the homeownership policy was part of the conservative backlash against socialists, unionists and feminists known as the Red Scare. The editors of the Los Angeles Times wholeheartedly supported the campaign, writing

that "the man who owns his own home will never raise the red flag of anarchy over it."¹⁰ Home ownership, it was hoped, would stabilize the working class and curb labor unrest.¹⁰ Later the government policy took the form of Herbert Hoover's Better Homes in America, an nationwide organization of local committees with Hoover, the Secretary of Commerce, as President. Better Homes extended its ideological focus on working-class homeownership to include an endorsement of full-time homemaking for women.¹¹ The government policy was forceful enough to eclipse the debates of the previous era in which housing reformers had questioned whether homeownership was in the best interest of the working class and feminists had proposed a radical reorganization of domestic labor.

There was a strong economic relationship between mass-production technology and the politically conservative policy of homeownership. By the 1920's business mergers had consolidated capital sufficiently to create what economic historians have defined as monopoly capitalism, which was heavily invested in the mass-production industries. As Stuart Ewen points out, with mass-production came a dependence upon quantity consumption unparalleled in the history of capitalist expansion; simply put, profits depended upon consumption by the masses of people, rather than by the elite. Ewen shows how business began to plan just as carefully for consumption as for production in order to sustain demand for mass-produced articles. Planned consumption meant that advertising would exploit human insecurities, turning them into material needs which could be filled through consumption.¹² Like many sectors of the economy, housing was an important component of this equation. Suburban neighborhoods of single-family houses with private kitchens provided the best urban basis for individual mass-consumption on the part of millions of American families. This was the architectural form which emerged from the housing debates of the Progressive Era, and William Butte, following the trends of his time, mass-produced it.

THE AUTO AND THE HOME: MASS-PRODUCTION TECHNOLOGY

While Americans like William Butte and Francis Barker had dreamed for decades of houses produced in factories, the development of mass-production techniques for

automobiles gave this dream a new impetus. Historian Martin Pawley suggests that ever since the architectural theorist Le Corbusier "first compared the Parthenon with the motor car, gloomy comparisons between the performance of the automobile industry and the building industry have] been part of the stock in trade of the modern architect..."¹³ For example, architect Walter Gropius quoted figures which showed that between 1913 and 1926, the average cost of building a home increased by 200%, while the cost of automobiles fell by 22%, and the cost of a Ford car by 50%.¹⁴ Pawley points out that architects' designs abounded in the twenties and thirties for prefabricated housing.¹⁵

Certainly there was a desire on the part of non-architects concerned with social issues that the means be found to mass-produce houses. In their classic 1924 study of Middletown, sociologists Robert and Helen Lynd blamed the housing shortage on the fact that "standardized large-scale production, the habit in industry that makes Middletown's large automobile shops possible, is coming very slowly in the complex of tool using activities concerned with making houses."¹⁶ A decade later Stuart Chase, respected economist, regional planner and social critic, proposed that housing be "brought...up to date by mass-production, so that one secure[s] as much housing, for a given cost of energy and materials, as one now secures motor car transportation."¹⁷ Even the president of the AFL-CIO pointed out in an essay on housing: "Mass production was introduced and today thousands of wage earners own their own cars. Can we not hope for measures which will reduce the cost of homebuilding as the price of automobiles has been reduced?"¹⁸

Why then did the futuristic models for mass produced housing such as the Dymaxion I fail? Architects, theorists and historians seem to agree that the problem was rooted in public desires. As Le Corbusier put it in 1927, to the public the purchase of a home was equivalent to writing one's will and consequently the correct state of mind for buying mass produced housing did not exist.¹⁹ Gilbert Herbert in Dream of the Factory Made House, frames the issue this way:

The most conservative forces are in operation, when we build a home -- and the term "conservative" is used here deliberately, with no prejudicial connotations. The

function of the home is to conserve, to protect privacy, family life, cultural and social values, traditions... The early prefabricated houses challenged and denied most of these attributes.²⁰

There was, however, a way to apply mass-production to housing without changing the basic structure of the house or challenging accepted notions of the home as representative of permanence and stability. It was the "ready-cut" system. Like a few other major pre-war factory producers of housing, such as Sears Roebuck and the Alladin company, William Butte rejected any attempt to build whole houses in factories and instead developed a system to produce pre-cut lumber in mass-quantities. With this type of mass-production, houses could be sold at 15 to 20% less than with conventional building techniques.²¹ Together, the ready-cut companies built at least 300,000 pre-cut houses, primarily during the 1920's.²² This was the building technology which dominated the technological strategy to providing low cost housing.

The ready-cut home represented a technological rather than a design solution in the sense that its design arose from American architectural tradition rather than from an attempt to make it accessible to mass-production. The house was based upon the democratic, minimalist bungalow which had emerged over the previous several decades as the prototype of the modern American home. Ready-cut bungalows were small, simple, one-story houses, with informal designs characterized by rooms which opened onto each other due to the lack of hallways and entry-halls. Pacific's least expensive bungalows were Craftsman style, with a low, horizontal emphasis, gabled roofs, overhanging eaves, and entry porches with shed roofs supported by simple posts or columns. (Illustration 3.2) Another Pacific style popular in Los Angeles was a Spanish-style with stucco exterior. (Illustration 3.3) The straightforward floor plans made them ideal for mass production; almost every room was designed with even dimensions, so that interchangeable pieces of mass produced pre-cut lumber could be used to build the house. There were approximately fifteen basic designs upon which Pacific expanded to produce hundreds of floor plans. Rarely, though, were two models offered with identical plans.

The fact that ready-cut bungalows were permanent was clearly important to their popularity. Herbert points out that the very terms "temporary cottage," or "portable

bungalow," became "pejorative when considered in a more enduring architectural context."²³ People wanted their houses to be enduring and permanent, and Butte and his staff found that their "greatest handicap" was to overcome the public's "prejudice" towards portable bungalows, "which were never beautiful and which carried with them the idea of lack of permanency."²⁴ Butte changed the name of the company to "Pacific Ready-cut Homes", which reflected his new homebuilding system, but more importantly, discouraged the idea that his product was portable.²⁵ And he would include strong disclaimers in Pacific catalogs and advertisements. "A few people are under the impression that ready-cut houses are portable. Pacific Homes are NOT portable - neither are they sectional or fabricated. Just the opposite. They are not built at the mill and cannot be taken down after built."²⁶

Of course, William Butte could have produced sectional houses which were permanent structures to resolve the problem of permanency. But there was another key factor in favor of ready-cut bungalows: they could be mass-produced, and sectional bungalows could not. Mass-production required the application of machines to every part of the factory labor process, and while machines could be made to cut mass quantities of lumber, Butte could not develop the necessary technology to fabricate the whole sections by machine. Instead, sections of portable bungalows were nailed together by hand in an assembly room. William Butte was a practical entrepreneur, not an architect devoted to prefabricated housing. When it became unprofitable, he rejected it without hesitation.

What he chose instead was an industrial scale, mass-production approach to traditional homebuilding. The key was to rationalize the building process in its every detail, from purchasing, to handling and cutting, to construction. Professional Pacific buyers purchased lumber in mass-quantity, timed for the least expensive time of year. They also purchased other building materials, such as nails and plumbing hardware, in carload quantities to be kept in stock. The production plant was carefully designed for the most efficient handling of lumber, with special Pacific tracks connected to the major railroads so that piles of lumber could be delivered to the kiln to dry, then sent to the cutting rooms, without ever having been unloaded.²⁷ Hundreds of factory employees operated large cutting saws, producing pre-cut lumber in uniform, even-numbered lengths. Large-

scale production was the goal; the greater the volume of lumber pre-cut in the factory, the less each piece cost to produce. Butte soon began to manufacture the other materials used in building houses, and the plant eventually housed separate factories to produce window sashes, window shades, doors, screens, electrical fixtures and paint.²⁸ Upon receipt of an order, all the materials needed to build a ready-cut house -- specific lengths of precut lumber, paint, nails, plumbing and electrical hardware, roofing -- were quickly assembled into bundles for shipment to the buyer. [Illustrations 3.4 and 3.5]

It was inevitable that these houses would cost less than houses built by the small-scale, individual builders and contractors who predominated not only in Los Angeles, but throughout the country. For example, while Lawrence Veiller worried in 1920 that the "ordinary mechanic's home which in 1918 could be built in most parts of the country for \$3,000, today costs from \$6,000 to \$8,000,"²⁹ William Butte was selling mass-produced houses that cost as low as \$2,000 when built.³⁰ [Illustration 3.6] Five years later, Pacific's most popular model, style No. 388 with an Spanish stucco exterior, cost \$2750 built,³¹ while the average single-family house built in Los Angeles was valued at \$3224.³²

As Butte had hoped, the inexpensive ready-cut houses were bought in sufficient number to justify his large-scale, mass-production approach to homebuilding. Sales resumed quickly after the war,³³ and increased steadily throughout the next five years. Much of the demand was fueled by a population boom unparalleled in Los Angeles' history. "People fairly poured in," states one planning report, "in one year alone, 1920, at least 150,000 people entered." By the decade's end the population of Los Angeles county had increased from just under one million to 2,208,492, or by 136%.³⁴ While the reasons for this influx are numerous, including the development of the oil and motion picture industries, the implications for the new mass-production industry in housing were obvious. Further, Los Angeles experienced an economic boom which surpassed any in the previous half century of big boom and bust cycles, and the building industry soared. Residential building activity, which was already double its pre-war level in 1921, doubled again in 1923, reaching a peak of approximately 24,000 residential building permits in fiscal year 1923/24 alone.³⁵ Pacific experienced an identical boom. In 1921

Butte mass-produced 1500 ready cut bungalows in his factory. His sales doubled to 3000 in 1923 alone, and increased substantially again to 4000 in 1924.³⁶

For a period then, Butte's mass-production worked. The example of the automobile industry -- that mass production decreased costs, encouraging demand, stimulating more capital investment in quantity production, increasing productive capacity still further -- could be applied to the housing industry. Butte was able to expand his plant continuously, adding more factories, better simultaneous loading equipment, and faster, more efficient cutting saws.³⁷ In 1925 Butte had indeed met the challenge of his 24 acres; his plant covered the entire industrial site and he employed 1000 factory workers. And the expansion increased productivity. At the end of World War I Butte had the technology to produce the materials for 15 houses per day. By 1925, he had driven that capacity up to 25 houses per day. He could produce, at peak demand, a complete home every twenty minutes.³⁸

The enormous sales volume and expansion campaign made Pacific Ready-cut Homes into a major producer of ready-cut houses, with a total output of 40,000. And Butte was not alone. Sears Roebuck, the Alladin Company and many other smaller-scaled builders experienced similar success. Sears, for example, is generally conceded to have been a major provider of housing during the twenties, having sold 110,000 mail-order, pre-cut houses in middle-Atlantic and Eastern states. Alladin also sold 100,000 houses in the Midwest.³⁹ Pacific Ready-Cut Homes was their largest counterpart in the Western United States, and the third largest manufacturer of ready-cut houses in the country.³⁴ These were the firms which pioneered the technological solution to solving the housing crisis, and in the context of the fact that housing reformers and government officials alike had turned to commercial builders to provide affordable homes for the American working-class, William Butte had become an important individual.

TECHNOLOGY AND HOUSING REFORM

While there had always been a tendency for housing reformers to hope that the problem of working-class housing could be solved by a technological approach which decreased the cost of single-family houses, this tendency became a dominant force in housing reform after the war. Certainly the imaginations of housing reformers were as subject to

dreams of mass-produced housing as were those of other Americans. But there were deeper reasons for the new focus; professional housing reformers now worked in the context of a new post-war national planning mentality which championed a technological approach to solving social problems. Secretary of Commerce Herbert Hoover, a leader in the establishment of this new mentality, saw engineers as the principal builders of a new social order based upon scientific planning, efficiency and technology. Detached and trained in rational thought, engineers were to stand midway between labor and capital; as such, the new national planning mentality was based in the belief that science and technology could be politically neutral. "Promoted by Herbert Hoover," points out historian Christine Boyer, "engineers... were thus to become the national efficiency experts and disciplinary organizers who shifted planning from the local to the national level."⁴¹ Ironically, Hoover, an avowed antistatist, was to build an expanded federal bureaucracy to coordinate the country's march towards a new, more rational social and industrial order.⁴² The expanded bureaucracy, though, was established to nourish and aid private enterprise rather than supplant it or compete in any way.

The new rational order was, of course, to prevail in the field of housing, and Hoover established the Division of Building and Housing in 1921 to oversee the process. The Division distributed information on zoning, mortgages and real estate development, developed scientifically based building codes, established clear cut minimum housing standards, and set out to rationalize the building industry. Engineers were hired to develop standardized homebuilding hardware (there were twenty-two thousand items of house hardware listed in catalogs), and advisory committees studied new factory construction methods. It was a context in which William Butte must have felt very much at home; certainly the ability to quote the Secretary of Commerce in his 1925 advertising catalog was an advantage the government was happy to extend.⁴³

Because national, scientific planning was meant to aid the private sector and to foster technological innovations in the commercial production of housing, it was inevitable that the nature of the group of people most active in low-cost housing would change, as well as those attending the conferences of the National Housing Association. While the first

conference in 1911 had been planned to coincide with the National Conference on Charities and Correction in New York so that social workers could attend both conferences,⁴⁴ the eighth national conference on housing held in 1920 was dominated by builders, realtors, bankers, manufacturers, employment officers of large industrial plants and chambers of commerce officers.⁴⁵ As Secretary Veiller described it: "This is about the first Conference we have ever had where the predominant group was not the housing reformer. This happens to be a conference of businessmen; and the financial and real estate interests predominate about 95 to 5."⁴⁶

The conference wholeheartedly endorsed the technological strategy towards solving the housing shortage. Three full sessions were devoted to new construction methods; the first two on the standardization of parts and on the use of new building materials. The third, titled "Factory Production Applied to the Housing Problem," was offered by Robert Tappan, an architect who spent the next decade exploring methods to mass-produce houses. Tappan's proposal for factory homebuilding was similar to the ready-cut system which Butte, Sears and Alladin were already employing to mass-produce houses. "The producer," he said, "ought to be able to make up complete consignments of carefully standardized lumber sufficient to construct one house...and to ship this lumber, packed in a box car, directly to the individual home builder at a saving to him of at least 25%."⁴⁷ He had trouble, though, convincing lumbermen in the Pacific Northwest -- who he said used an totally different language with words like equipment, production, transportation, profits, and "a host of other terms that were quite new to me" -- that he was proposing a profitable venture.

It certainly looks as though the producer and the consumer ought to be brought in closer contact for their mutual benefit; but, unfortunately, it is impossible for the lumber manufacturer to produce economically for direct retail distribution. He must manufacture in large quantities or his whole system of lumber production will be slowed down to an unprofitable pace. This...forced the conclusion that the only way to secure manufacturing economies was to standardize the product.⁴⁸

Tappan's standardized designs were based upon the 16-inch unit used by carpenters but usually ignored by architects. Tappan was, in fact, a rare architect with extensive knowledge about carpentry and construction methods. He pointed out that it required the labor of twenty different trades, comprising thousands of skilled experts, to build an

ordinary house. "As an architect," he told the conference somewhat poetically, "nothing has caught and held my imagination more than the realization that every line I draw will tend to set in motion, or keep in motion, some wheel, somewhere, in [a] gigantic, world-wide machine."⁴⁹

William Butte, who was accomplishing in Los Angeles much of what Tappan proposed, was impressed enough with the architect to quote him in the Introduction to Pacific's 1921 catalog:

A prominent architect remarked that nothing has caught and held his imagination more than the realization of the infinite operations which are set in motion by every stroke of his pen. Before a home is ready for occupancy, literally thousands of skilled workmen have participated directly or indirectly in the completion of the structure, beginning at the Forest with the hewing of the tree and ending when the carpenter hands the owner the key. To co-ordinate the forces, to bring the economics of the "Producer-to-Consumer" idea to practical, successful application and to evolutionize the handling methods of every piece of material entering the construction of a home - these have been the purposes and Accomplishments of the PACIFIC SYSTEM.⁵⁰

Thus, despite the fact the William Butte was an entrepreneur and a businessman -- a far cry from social workers, housing reformers and public philanthropists - the National Housing Association in 1920 sponsored talks which not only informed his work, but which he could use in promotional literature. Housing reform had been substantially changed since 1911.

The change was evident in the posture the conference took towards homeownership for the working-class. Delegates at the 1912 National Conference on Housing had debated the pros and cons of working-class homeownership, noting that mortgage financing could be a strain for some working families, and that financial debt could hinder the ability to strike when necessary. The 1920 conference, by contrast, was described by a progressive journalist from Survey magazine as "almost passionately devoted" to the ideal of homeownership for wage-earners.⁵¹ Certainly businessmen -- who now dominated the conference 95 to 5 -- had always supported homeownership for workers as a labor stabilizing strategy. And in the tense atmosphere of the Red Scare they clearly endorsed the conservative propaganda of the Own Your Own Home movement. The major speaker in 1920 on working-class housing dramatically

called for single-family homeownership, warning that deteriorated, overcrowded housing guaranteed "the making of a radical of the reddest hue."⁵²

The Red Scare rhetoric of the Own Your Own Home campaign was popular in Los Angeles where William Butte mass-produced houses. William Garland, President of the National Association of Real Estate Boards announced the movement in Los Angeles in 1919, claiming that "the man who owns his home... is not likely to raise the red flag over it every time these sporadic labor agitations stir the world."⁵³ The Los Angeles Times was so emphatic in its support of working-class homeownership that it proposed an employee plan in which "promotion, increased salary, wage and participation bonus awards... will go first to the employee that owns his own home."⁵⁴ When William Butte advertised to Los Angeles workers, "Though you may be possessed of but moderate means you need not live in a humble home for the Pacific system of construction has been perfected with a view of providing better homes at lower costs,"⁵⁵ he was not only offering what many wanted. He was providing the physical means to live in accordance with 1920's conservative propaganda.⁵⁶

In fact, the new composition of businessmen attendees at the National Housing Conference in 1920 was noted by outside observers. The journalist from Survey magazine, for example, commented upon "three notable absences" at the conference:

While labor, both in relation to house production and as a prospective occupant of homes was foremost as a topic of discussion, no representative of labor took part. While much was said about more practical arrangement of homes and about women's part in the economy of home purchase, no woman took part. A third absentee was the radical reformer...who might have emphasized the theoretical implications of the business men's and architects' growing interest in large-scale operations.⁵⁷

The implication of businessmen's and architects' growing interest in large-scale operations was, of course, that if they profited from a particular solution to low-cost housing, it was difficult to know in what spirit it had been proposed. But the Survey journalist had identified several other complicated political issues, and one was the role of labor in relation to mass-produced houses, both as consumers and producers. Without doubt, the ready-cut system de-skilled carpenters' labor substantially. Yet the low-cost product was targeted to the skilled portion of the working-class, which included, of

course, carpenters. And despite the belief that homeownership would render workers less politically potent, many working-class families were demanding decent housing and the opportunity to own their own homes. Thus the ready-cut system not only divided the interests of skilled and unskilled building workers, but divided the working-class between its own interests in retaining control over the production process and its growing interest as consumers of mass-produced houses.

NAILING THE PIECES INTO PLACE

In the largest sense, what William Butte accomplished with the ready-cut system was to reduce labor's share in the price of the home, since all building costs, even those related to transportation and building materials, originated with labor. At least this was how Butte viewed the issue when he wrote in 1919,

Analyzing home-building, the situation resolves itself into one question, "What will be the future cost of labor?" The production and manufacture of materials are brought about by the application of labor. It takes labor to cut trees in the forest, send them to the saw mill, saw them up and ship them. Labor is necessary to keep the boats in running order, to man the boats and to load and unload the cargoes. Labor is the dominating element which enters into homebuilding.⁵⁸

But most directly, it was the expensive skilled labor of the carpenter which Butte sought to reorganize by removing it from the handicraft stage. For although factory-made products had been introduced into the construction industry since 1850, carpenters in the building trades had been able to maintain a good deal of control over their trade -- more than other types of carpenters, and more than many other trades as well. Labor historian Paul Bullock writes,

Over the years, most skilled trades in the United States were gradually broken down into simpler components such that semi-skilled workers could take over the tasks of craftsmen and undermine their control over esoteric skills...But the building trades were remarkably resistant to these trends. Perhaps the major reason lies in the nature of their work. First, they "produced" for strictly local markets, limiting the possibilities of mass production. Second, the site of work was not fixed, nor was a fixed product produced. Consequently, a detailed and rigid division of labor could not be easily developed.⁵⁹

Butte eradicated many of the characteristics of the building industry which had aided the carpenters in retaining control over their labor. He reached beyond the local market; he

fixed the site of production; he standardized the product; and he mass-produced it. A division of labor in the construction of houses was his ultimate objective. Carpenters, Butte claimed, were paid a great deal of money to do work which could be accomplished by unskilled workers with machines in a factory, in a fraction of the time and with a fraction of the cost.⁶⁰ By contrast, carpenters who built ready cut houses could spend the entire time "actually nailing pieces into place."⁶¹ Time and money was saved, Pacific advertised, because "everything is all figured out beforehand and there is nothing left for the carpenter to do but follow the drawings and instructions."⁶² Four carpenters could build the frame of a ready-cut houses in just two days. Further, the whole house could be ready for its new owners, with interior decoration as well as landscaping, in less than a month. [Illustration 3.7]

Butte claimed that the ready-cut system saved 15 to 20% in carpenters' labor,⁶⁴ and this meant no small savings. Skilled carpenters continued to command extremely high wages relative to other workers. For example, while the average wage in the manufacturing industries in 1925 was \$.56 per hour, or \$28 per week, carpenters in building trade unions earned on average twice as much: \$1.20 per hour, or \$60 per week.⁶⁵ In Los Angeles, where most carpenters were not unionized, the average wage was \$1.00 per hour.⁶⁶ Butte avoided paying expensive carpenter's wages both by lessening the amount of time the carpenter spent building the house and by simplifying the labor process so that relatively less skilled carpenters could do it.

It is probably not coincidental that Pacific Ready-Cut Homes grew unhampered in a city which was not dominated by a strong carpenters' union. Labor unions, though, lost ground in the united states during the post World War I era, and building trade unions were increasingly seen as a major cause of the housing shortage. Housing professionals complained that building workers were purposefully inefficient, as well as overly paid. It was no surprise then that the 1920 conference of the National Housing Association, in which no representatives of labor took part, came out largely in support of the anti-union sentiment expressed by one of its speakers, builder A. H. Ham:

The waste that is going into the workingman's home today is manifestly the cost of inefficient labor. I feel that this is a fair statement for me to make...because of the

results with houses being built today under my direction on the open-shop basis, where every man is furnishing an honest day's work, every day.⁶⁷

The post-war backlash against labor unions was nowhere more strongly felt than in Los Angeles, a city with a tradition of strong, well-organized anti-labor forces.⁶⁸ The Los Angeles local of the Brotherhood of carpenters and Joiners, although the strongest in the city, was occupied primarily with the fight to exist and to gain membership, as well as with jurisdictional disputes with other trade unions.⁶⁹ Abe Muir, the local Brotherhood organizer, called two carpenters' strikes in 1923 and 1924, and union organizing drives continued throughout the first half of the decade. But the Merchant and Manufacturers' Association was able to recruit strike-breakers,⁷⁰ and it is unlikely that Pacific was affected by union activity. William Butte ran a strictly open shop company,⁷¹ and unionized carpenters therefore would not have worked for him. There is, in fact, no record of a union organizing drive on Pacific until the 1930's.⁷²

Individual carpenters, though, did complain about the ready-cut system, using their influence as skilled craftsmen to discourage the public from buying homes built with ready-cut lumber, claiming they were not as sturdy.⁷³ Butte made specific attempts to refute such claims, constantly emphasizing the high quality of Pacific lumber, and the "staunch framing" of his homes. For example, one catalog contained a reprinted (no doubt solicited) letter which asserted, "At the time I contemplated building, I took the matter up with my contractor who tried to discourage me from buying the Ready-cut material." The letter then went on to say that even the contractor was convinced by the quality of the lumber, telling the customer that it could not be "duplicated on the open market today."⁷⁴ Further, Butte made this even more direct overture to carpenters, builders and contractors in his catalog:

Some contractors and builders feel that the ready-cut system is going to take some of their business away from them. We can easily understand how this viewpoint may be taken by those who have not investigated the possibilities of the ready-cut system. Pacific houses do not infringe upon the rights of the carpenter and contractor, but rather are a great benefit. To the thrifty carpenter who desires to accomplish more... we wish to say that you can greatly benefit by our modern system. We furnish the plans, we do all the slow hand cutting by fast machinery, we work out the intricate details... so that can devote your entire time to the actual erection of the structure... the ready-cut system makes available... the chance to reap more legitimate profits.⁷⁵

The problem, as Butte saw it, was that contractors and speculative builders felt that he took their business away, while carpenters felt that he infringed upon their rights. Perhaps he was right on both counts, but he resolved the opposition in varying ways. To builders and contractors he successfully extended the opportunity to open Pacific Ready-cut Home offices outside Los Angeles, resulting in fifty "Authorized Builders", concentrated on the West Coast, who exclusively marketed and sold Pacific ready-cut homes. The franchise system brought in "several million dollars per year" in revenue to Pacific.⁷⁶ By contrast, although many master carpenters were also small contractors, they generally did not take Butte up on his offer to reap more profits by building with ready-cut lumber. Putting together a house with pre-prepared material, no matter how complicated the process remained, was evidently not what they understood their trade to be. Eventually Butte took on a more aggressive rhetorical tone towards carpenters, abandoning direct overtures and calling traditional building techniques "deliberate waste."⁷⁷ But carpenters did find one way to benefit from Pacific's system without benefiting Butte. "It was common practice," according to William Butte's son Robert, for carpenters to use the Pacific catalogs, which attractively displayed scores of bungalows with floor plans and general specifications, as sales tools. Once their customer had chosen their favorite model, they would buy the lumber from a lumberyard, cut it by hand on the job, and build the house according to the catalog. Robert Butte remembers that his father "didn't like those guys," but there was little he could do.⁷⁸

Carpenters in other cities were sometimes effective in keeping the ready-cut system out of their territory. Catalog mail-orders from outside Los Angeles had been moderately successful for Pacific from the onset. But, according to Pacific sales manager Sylvester Hoffman, there had always been a problem: the "opposition of the local carpenters and especially of the local lumber yard." A prospective client, complained the salesman, would "inquire from a number of carpenters as to the cost of the of the labor... with the result that only a small percentage of our inquiries developed into sales."⁷⁹ Pacific would attempt in this case to find a local builder or contractor to open a Pacific office in the area, with varying degrees of success.

Despite such efforts to block the ready-cut system, it was a strongly supported

technological approach which was used with great success throughout the country. The effects on carpentry as a trade were deeply felt and widespread. As early as 1930 economist William Haber wrote,

Less than fifty years ago... window frames and doors were cut, fitted together and put finally into place by the carpenter. Even the carving of ornamental pieces such as moldings was done by hand. Today a great part of all this work is done by machinery at the mill. Doors and frames come ready to be put into place. The craftsman in this trade no longer needs a high degree of skill... Few carpenters now are versatile enough to do the work which their predecessors did two decades ago.⁸⁰

Carpenters themselves were divided by the mass production of low-cost houses, both as producers and as consumers. Obviously, many semi-skilled carpenters did build with ready-cut lumber, splitting the trade along skill lines. And, of course, carpenters wanted to buy low cost houses too. Even the Southern California Labor Press, the progressive labor newspaper published by the Los Angeles carpenters' union, strongly endorsed homeownership for union members. "Every man who has others depending upon him for their livelihood owes it to himself and to them to own a home." And further, "unless you own it, it's not a home." Although most trade unionists in Los Angeles were homeowners, the paper encouraged those who rented: "If you can afford it, buy a lot, then have a contractor (one who employs union men; of course) build the kind of home you want."⁸¹

The reality, though, was that the house built with union labor (or with non-union carpenters using traditional building techniques) was probably more expensive than a ready-cut house. And while determining to hire union carpenters and/or to boycott ready-cut materials was a viable solution for highly paid, skilled members of the working-class, for other families the difference could determine whether or not they could own their own homes. It was a situation which would have tested even the allegiance of those workers devoted to labor unionism and supportive of carpenters who maintained traditional skills. But many members of the working-class were no doubt influenced by the public attack on building trade labor unions during the period. And in Los Angeles, where the "good life" was marketed in middle-class terms of owning your own auto and your own home, tens of thousands of moderate income working-class families were no doubt happy to have the opportunity to buy a ready-cut bungalow from

Pacific.

Buying a home, of course, was just what many people hoped every family would do, but some government and business leaders were unwilling to leave it to chance. While local Own Your Own Home campaigns had taken hold in various cities, many saw the need for a national organization to "educate" the public on the social and spiritual values inherent in homeownership. Better Homes in America became just this. Begun by Marie Meloney of the Delineator magazine, Better Homes in America was an umbrella organization of local committees charged with promoting homeownership in their communities. Herbert Hoover served as its President, eventually tying the organization to the Division of Building and Housing and calling it a "collateral arm" of the government.⁸² Thousands of local committees opened model homes during the celebration of Better Homes Week each year, and the exhibitions were more than physical models. They were strict social models for family life which allowed few, if any, alternatives.

MODEL HOMES AND HOUSEWIVES

The keen observer from Survey magazine had wondered why women were absent from the 1920 National Housing Conference, particularly in light of the fact that women's role in the home was a key topic for discussion. But in the context of the political milieu for women during the period the absence is not surprising. Dolores Hayden points out that although women had been victorious in their long struggle for the vote just the previous year, a backlash towards feminists followed World War I which weakened many mainstream women's organizations such as the Young Women's Christian Association and the American Home Economics Association, as well as women's rights groups such as the League of Women Voters.⁸³

The new political climate intensified the conservative trend in professional home economics. Its original goal had been to reorganize home life and housework so that women could have more time for activities outside the home, but in the 1920's home economics was primarily informed by the assumption that homemaking was a full-time "profession" to which all women should aspire.⁸⁴ And despite the popular mythology

that women had an inborn capacity to be housewives and mothers, it was also believed that they had to be trained to do it right. Home economists both helped to create and to fill the need for this training. They devised the most efficient methods to clean houses and manage households, taught women how to use electrical labor-saving appliances, and designed kitchens to best accommodate the work done there, saving steps and motions by keeping all cupboards and sinks within easy reach.

The leaders of Better Homes in America supported these goals, calling for the establishment of home economics departments in public schools. They proposed that demonstration homes be used to teach strict gender roles; boys were to build and repair the houses and girls to clean and manage them."⁸⁵ But the largest goal of Better Homes in America was to educate adults, and thereby generate a greater, more "discriminating" demand for single-family houses, especially by families with "small incomes."⁸⁶ The organization was enormously successful, and became a nationwide movement of over 7000 local committees. These groups sponsored the Better Homes Week in their community near the end of April each year, opening model houses, organizing homemaking exhibits, providing information on 'building and home financing. For a businessman like William Butte it must have been similar to being part of a national advertising franchise which charged no fee.

Better Homes in America was successful because people liked model homes. They could walk through the house, dream and plan; the experience was powerful, and William Butte was well aware of it. From the earliest days of selling portable bungalows, model Pacific houses had been open year-round in downtown Los Angeles. One of the earliest was located at 8th and Broadway – opposite Hamburgers and diagonal to Barker Brothers furniture store -- attracting thousands of visitors and shoppers. The Pacific model home was almost too popular, since "hundreds of people visited... who were not in any way prospects, just as great numbers of the merely curious would visit any exhibit."⁸⁸ Butte eventually purchased a large parcel of land six blocks south at 14th and Hill, and built a full two block Exhibition Grounds, with ten model homes, a sales office and a display room. (Illustration 3.8) The new location was far enough away from the business center to keep the merely curious away; it also

"increased the quality of the visitors and the average sale per caller." ⁸⁹ Over 100,000 people visited the Pacific Exhibition Grounds each year, met by women who showed them the models, and by salesmen who helped them choose their favorite from the catalog. ⁹⁰ (Illustration 3.9)

Butte celebrated Better Homes Week at the Exhibition Grounds with much fanfare. He planned special exhibits by electric companies and furniture dealers, and built a new model home to be opened each year at the onset of the celebration.⁹¹ (Illustration 3.10) But he was perhaps at his most creative when he hired directory Baby Betty of a "leading Hollywood studio" to make a film about Pacific. He transformed one of his model homes into a movie house and showed the film four times daily as a tribute to Better Homes Week in 1923. The Los Angeles Times reported:

The film is a graphic presentation of the ready-cut system and more than 700 employees of the firm take part ... [S]ome of the locations are in the northern forests where giant redwoods are shown being hewed and sledded through snow embanked passes to the lumber mills. It shows the lumber schooners bringing the logs and sawed timbers to San Pedro Harbor and then transported to the firm's mill... All of the special machines required to cut, notch and prepare ready-cut materials are shown in action. Scenes in the cabinet shops, frame cutting departments and the sash and door mill give a keen insight to the working of a modern house factory. A demonstration of how a French door is produced in twenty-eight seconds in one of the scenes of interest. The play carries the audience to the final conclusion by showing the house under construction, and the house when finally completed. ⁹²

Butte enthusiastically supported Better Homes in America, saying it was led by the most "distinguished men and women in the country," and commending its aims in the Los Angeles Times. His support extended to the ideology of homemaking for women; he was himself a firm believer in strict gender roles. ⁹⁴ When he told the Times that Better Homes in America was meant to "assist and encourage home-makers and home-builders," he no doubt assumed a clear gender breakdown in the categories. ⁹⁵ His advertising rhetoric echoed this model for family life.

Seventy per cent of a housewife's time is spent in and about the kitchen. If you will ask any woman who lives in a Pacific Home why she likes it so much she will tell you that, more than its distinctiveness and substantial construction, she likes its

many, many wonderful conveniences. She rejoices in the arrangement of the kitchen cupboards and drawers, for they are just as she would plan them.⁹⁶

While only a few professional home economists dealing with actual household work would have tried to claim that women "rejoiced" in their work sites, they did say that women would be less fatigued in efficient workspaces. Even the remaining home economists who still supported collective solutions to housework as the "eventual" solution, called for better arranged kitchens for the millions of American women who were performing private household labor.⁹⁷ Butte claimed that Pacific kitchens "were designed by women -- those who fully appreciate the value of well arranged built-in features."⁹⁸ Perhaps he hired a home economist to design his kitchens; more likely the Pacific plans were based upon the many kitchen designs published by home economists during the period.⁹⁹ In any case, the rhetoric of home economics certainly informed Pacific advertising, and even harked back to the earliest days of the field, when Helen Campbell had complained that in inefficient kitchens, "the step soon count as miles."

How many miles a day does the mistress of your home walk in her kitchen? Every step that can be saved helps relieve the burden of kitchen work... On this page are shown four types of Pacific kitchens that reveal the very practicable placement of cupboards and drawers. There are no awkward corners. Sinks are built to the proper height and in correct position; every cupboard is easily accessible.¹⁰⁰

Single-family houses with efficient private kitchens also filled the country's economic need to encourage the consumption of mass-produced household gadgets. Christine Frederick, already a popular home economist prior to World War I, became the best known home economist of the 1920's, and the key ideologue of the importance of a key new role for housewives in the economy: consumption. As Dolores Hayden points out, to Christine Frederick houses "did not imply shelter... but rather endless possibilities for sales."¹⁰¹ As Frederick wrote in her 1929 book Selling Mrs. Consumer, "There is a direct and vital business interest in the subject of young love and marriage. Every business day approximately 5,000 new homes are begun; new 'nests' are constructed and new family purchasing units begin operation."¹⁰² When William Butte mass-produced single family houses he was providing the domestic form for women to live according to the dominant political theme for women of the period, with homemaking as their fulltime "profession" and consumption as their primary activity.

Of course, mass-producing the "nests" for 40,000 new family purchasing units in the Western United States was a powerful contribution to the American economy. The ready-cut bungalows were sturdy, state-of-the-art houses, and many people were fortunate to buy them. But despite the great success and the remarkable innovation, despite the lower prices and a greater chance for homeownership, it was a mixed contribution. First, the ready-cut system contributed to the de-skilling of carpenters and to their increasing loss of control over their own labor. Second, the single-family ready-cut bungalows were extremely limited models of housing and family life for Americans, and were part of a movement to discredit radical alternatives. The narrow model for the production of housing which emphasized single-family homeownership and patriarchal gender roles would pervade the American domestic built environment for decades to come, and the technological innovations would be used again "to mass-produce working-class suburbs after World War II.

CHAPTER FOUR

THE SOCIAL AND TECHNOLOGICAL LEGACY

It is my firm conviction that within fifteen years 75% of all frame buildings erected in America will be built with ready-cut materials.

- William Butte, 1925

At the peak of his success in 1924, William Butte printed "The Most Important Homebuilding Message We Have Ever Released" in the Los Angeles Times. In it he told Los Angeles residents that facts had to be looked squarely in the face: the building and real estate boom was over, and homebuilding would now progress steadily without the "taint of hectic boom days." In its "return to normalcy" homebuilding was testing the builder's stability. "The day has arrived," he wrote, "when 'the survival of the fittest' is the issue... We do not anticipate the slightest recession in sales."¹

Butte was not at all alone in misperceiving the economic cycles in housing of the 1920's -- most people assumed that steady conditions would follow the 1923 boom. But in 1925 residential building in Los Angeles was down to half its 1923 level, and, far from leveling off, it dropped each year by an average of 15%.² The same was true throughout the country: after 1924 homebuilding consistently declined.

It was in this context that Butte ran his race for survival of the fittest, determined to continue to massproduce without a boom market.

Although Butte did not predict that decline would follow boom, by the end of 1925 it was clear that he was operating in a very different market which required different strategies. And his was a bold one. With building at half its 1923 level, and with sales for 1925 down dramatically to 500, he decided to expand Pacific by nationalizing its homebuilding service. Pouring yet more capital into the production plant, he revamped his shipping department so that orders from anywhere in the country could "be prepared and shipped within forty eight hours of receipt."³ The plan rested entirely with his network of Authorized Builders, which already reached Nebraska, Oklahoma, New Jersey, Maryland and Florida, not to mention scores of California cities. Butte put his

energies into expanding this network, and in 1928 there were fourteen full Pacific offices outside the West Coast; two in each of the states of New Mexico, Arizona, Texas, Wisconsin and Illinois, and one in Miami, Las Vegas, Oklahoma City and Salt Lake City, Utah. ⁴ The strategy was successful; the extensive network kept Butte producing about 1000 houses per year throughout the decade -- no small feat in a declining market. He was clearly a "survivor," and successful at it. But still, he could not sustain the large-scale mass-production for which he had built his plant. William Butte never again produced houses at or even near the capacity of his 24-acre production plant.

THE PROBLEM WITH MASS-PRODUCED HOUSES

There were many reasons why Pacific could not sustain mass-production over a long period. Despite his social Darwinist rhetoric, Butte did depend upon the economic boom to stimulate demand and to give buyers the confidence necessary to buy a house. ⁵ For the industrial producer of housing, the problem of decreased demand was essentially one of overhead. Butte had a 24-acre production plant with fifteen separate factories. Mass-production required that he stockpile acres and acres of lumber bought in advance. The capital investment was a losing one when capacity production could not be maintained.

Furthermore, there were critics of mass-produced housing who pointed out that there was a logical inconsistency in attempting to mass-produce houses, a permanent product, when inherent in the mass-production process is a need for constant turnover. Lewis Mumford, a well-known author and regional planner, was one of mass-produced housing's most outspoken and articulate critics. He wrote in 1930,

Mass-production brings with it the necessity for continuous turnover... When mass methods are applied to relatively durable goods like furniture or houses, there is a great danger that once the original market is supplied, replacements will not be made with sufficient frequency to keep the original plant running. Our manufacturers of furniture and motors are driven desperately to invent new fashions in order to hasten the moment of obsolescence.⁶

Mumford was referring to the strategy of "planned obsolescence," which many mass-production industries used to sustain demand by getting people to buy new models of the same products. This worked well for the automobile industry: new models were unveiled

each year to encourage people to regard their own car as out-of-date. But there were obvious problems in applying this strategy to housing. Ready-cut houses were popular in the first place precisely because they were permanent. Despite increasing mobility, people do become attached to their houses. In the absence of favorable real estate conditions to stimulate another investment, people did not keep buying the latest "models" to put on their lots. And Butte was in no Position to encourage them to do so, or to try to hasten the moment of obsolescence of his product. After all, he had stressed for years that ready-cut houses were permanent.

Nonetheless, the introduction of "new and better" models did play an important advertising role for Butte as sales declined and he began to need to convince the public to buy a house in the first place. At the same point that he expanded his network of Authorized Builders, he also began to emphasize the "modern" design of his latest model home more than he emphasized his innovative production process. His most ambitious attempt, "1930 Model Home," was announced in late 1925 and advertised as "five years ahead of its time." The model opened the following Sunday, with music from 2 to 5 p.m., and 4500 people spent their Sunday at the Exhibition Grounds. Although the model was essentially a more elegant version of Pacific's standard Spanish Revival house, Butte advertised it as "pages from future history." The new emphasis on design rather than price also suggests that Butte was hoping to reach more comfortable middle-class families, who comprised the home buying market of the late 1920's. The 1930 Model Home cost \$4000, a moderate price which would not have been affordable to the working-class.⁷ (Illustration 4.1)

In fact, by late decade Butte and his Authorized Builders were primarily selling moderate-priced houses to middle-income buyers. (Illustration 4.2) While this was due in part to the fact that the economy had slowed down, the reality was that the ready-cut system -- the most successful component of technological strategy -had only been partially successful at reducing the costs of homeownership. Lewis Mumford pointed out that it was a mistake to assume that the cost of the building was the largest element in the cost of homeownership. Land, manufactured utilities, site-improvements, and finance comprised a greater share in the cost than materials or labor. "To cut the cost of

the shell in half," he wrote, "is to lower the cost of the house a bare ten per cent... the lowering of the interest rate one per cent would effect as great a reduction."⁸

Essentially the technological strategy as a whole had failed to provide housing for unskilled and semiskilled workers. As Edith Elmer Wood pointed out at the 1929 conference of the National Housing Association, the third highest income group was well-housed, the middle income group only fairly, and the lowest-income group badly.⁹ The Conference devoted three full sessions that year to proposals for slum clearance.¹¹ The problems with housing apparent in the late 1920's, and the subsequent Depression, gave rise to a new group of architects, social critics and planners who articulated a fundamentally new approach to housing and urban development known as regional planning. Lewis Mumford was a central force in this new view of housing; in this context he rooted his criticism of the mass-production of housing most strongly in the architectural form chosen by mass-builders. The "engineer and mechanically-minded architect," he wrote, "has kept, with charming unconsciousness, the most traditional and sentimental tag of all, namely, the free-standing individual house." Mumford proposed an "integral architecture," a component of regional planning which would solve the problem by treating economics, community planning, technology and architecture as one -- and which would allow for many different residential building types for a variety of families and domestic needs.

Others agreed that mass-producing single-family houses did not make sense in the modern age. Stephen Voorhees and Ralph Walker proposed in a 1930 article on the relationship of the machine to architecture that the "old sentiment" in favor of the single-family house be put aside in order to obtain economics in building. Their critique rested in part upon the feminist analysis of the isolated single-family home articulated three decades earlier by Charlotte Perkins Gilman:

A great many attempts have been made to devise the mass-production house... While there is no doubt a saving in cost in the manufacture and assemblage... it is fundamentally wrong in its conception. It is based on the thought that women will still occupy a relation to the house similar to that of the past... The idea of individual service plants is a wasteful one... The fundamentals of future housing should be, other than those of human occupancy, low initial costs and maintenance and a pooling of the responsibility for service and operation.¹¹

It is unlikely that Butte took much time to consider the complaints of regional planners and other critics of mass-produced housing. After all, why should he? He was not particularly politically open-minded, and besides, Mumford and his colleagues faced formidable opponents who gave substantial support to Butte's strategy.¹²

Herbert Hoover, now President, put the federal government firmly behind suburban homeownership and mass-produced housing in the 1932 President's Conference on Home Building and Home Ownership. The Conference itself was fascinating. The Depression had made it painfully clear that the government would have to involve itself more directly in housing; yet, with millions of Americans homeless, Hoover asked the large and impressive committee to consider just two questions: "How can we facilitate the ownership of homes and how can we protect the owners of homes?" Scant attention would be paid during this Conference to other forms of housing, he said, since "to possess one's own home is the hope and ambition of almost every individual in our country."¹³ Most conference participants had little difficulty with single-family homeownership,¹⁴ nor with the idea that women would occupy the same relationship to the home as in the past. Two major conference volumes were, in fact, published on homemaking for women, with state-of-the-art discussions and designs for efficient kitchens.

Although President Hoover's Home Ownership Conference reinforced the fact that Butte had powerful allies, its findings were published at the height of the Depression and no builder was *in* a position to carry them out. Butte operated a scaled-down Pacific Ready-Cut Homes during the Depression drastically reducing the number of employees to about 30. He sold the Exhibition Grounds and moved the main office building, a large, two-story bungalow, to the plant in Vernon. Although Pacific sold ready-cut houses throughout the thirties, homebuilding did not really recover until after World War II, and William Butte died in 1936. As his son Robert put it, Butte had been the "chief," the one who made it go. The eldest son became president of the firm, and operated it until 1942, when the Butte sons sold the business and enlisted.¹⁵ (Illustration 4.3)

THE MASS-PRODUCED HOUSE RETURNS

For those who supported Hoover's 1931 Home Ownership Conference, post World War II America must have been something of a dream come true. The bulk of the federal government's financial backing went to suburban homeownership for returning veterans. Mortgage guarantees from the Veteran's Administration and the Federal Housing Authority fulfilled Hoover's 1931 goal of helping families buy and keep single-family homes. Generous federal financing was available to the developer/builders who provided them. The building boom far surpassed that of the 1920's, and some progressive writers predicted early, based on the post World War I experience, the political environment to come. For example, Loula Laska, Associate Editor of The Survey, wrote in 1945:

It is starting allover again, that great American sport, the Own-Your-Own campaign. It gets a shot in the arm whenever we enter a boom period. But let the buyer remember that so far, every time the economic curve goes up, later it comes down - accompanied by a shower of foreclosures. If in the thirties you had asked "the men who-owned-them" or thought they did, some 1,600,000 would have told you that between 1926 and 1936 foreclosures had ended their dreams of owning a home.¹⁷

Like William Butte in the 1930's, major mass builders after World War II were unconcerned. In fact, Lasker's comments were printed as a counterpoint to those of Los Angeles builder Fritz Burns, who waxed eloquently about the home as "the most tangible and desirable of possessions," and homeownership as "an antidote for disintegrating influences, communistic or otherwise."¹⁸ There were strong reasons for Burns to feel this way. Government financing available for those who built single-family houses had made possible a completely new scale of homebuilding. Both he and William Levitt mass-produced not only single-family homes, but whole suburbs.

The most famous mass-produced suburb was built by William Levitt in New York between 1948 and 1951. Eventually housing a community of 75,000 people, Levittown was lined with look-alike Cape Cod bungalows, inexpensive and available "no-money-down" to returning veterans. The houses were "as identical as so many Ford cars parked on some parking lot,"¹⁹ but thousands of new families jumped at the chance to own a house for less than it would cost to rent in New York City.²⁰ Across the country

Fritz Burns mass-produced his own suburb in Los Angeles' San Fernando Valley. The community was known as "Panorama City" and Burns based the designs for thousands of houses there on two standard plans. Five thousand people visited Panorama City model homes each week; one weekend in 1949 the police had to be called in to hold back the crowds.²¹

Most of the families who used the VA guarantee to buy these houses fit a narrow model of family life and gender relations reminiscent of the 1920's Better Homes in America. As architect and historian Dolores Hayden put it, the Better Homes movement had "tried to house the post-World War I family in segregated suburban residential communities, and this attempt, thwarted by the Great Depression, only intensified commitment to the same prescription for family bliss after World War II."²² Hayden described Levittown this way:

Each new Cape Cod house is designed to be a self-contained world, with white picket fence, green lawn, living room with television set built into the wall, kitchen with Bendix washing machine built into the laundry alcove. Every family is expected to consist of male breadwinner, female housewife, and their children.²³ (Illustration 4.2)

The 1920's social legacy to post-World War II America, the dream of single-family suburban architecture based upon a prescription for men to be homeowners and for women to be homemakers, was accompanied by another, technological, legacy. Thousands of the post-war suburban dream houses were built with the 1920's ready-cut system of construction. Even after three decades, even after the progress in prefabrication made during the war, builders who mass produced single-family houses found that the ready-cut system was still the least expensive, and looked the best. Levitt and Burns, though, were able to heed Mumford's criticism that mass-producers focused too exclusively on construction technology. Instead they controlled the complete environment, bulldozing acres at a time, subdividing thousands of lots, installing their own street and utility systems, building ready-cut houses and selling the land and house package themselves -- the whole process subsidized by the mortgage guarantees available to returning vets.

Nonetheless, the similarities between the operations of William Butte and those of

William Levitt and Fritz Burns are interesting. Both Burns and Levitt built huge factories and hired largely unskilled workers to pre-cut lumber with big power machines. They both developed strong organizations with over 1000 employees, and were non-union. They were so independent of skilled workers that unions were unable to break them. Levitt described the actual construction as "a lot of hammering, and very little sawing."²⁴ By 1950 the Levitt factory produced ready-cut houses at only a margin above Pacific -- a complete home every sixteen minutes.²⁵

The differences in scale between Pacific Ready-cut Homes in the 1920's and Levitt and Sons in the 1950's had important ramifications for both the process of buying houses and the product itself. While Pacific's houses were built from standardized plans, the customer had a wide range of choice about exterior design and interior amenities. Imagine an order for Pacific Style 41 which specified Bookcase No. 1201, Buffet No. 104, Breakfast Nook Set No. 702, and so on. Despite its standardization, the Pacific Ready-Cut home retained a faint reminder of the Victorian notion that domestic architecture could be individualized. It stood midway between the individualized Victorian suburban home of the 1880's and the uniform working-class tract home built after World War II.

The ready-cut system did not come to dominate the construction of frame structures as William Butte had thought. The most fundamental reason is that after World War II, electrically powered hand-tools were available to workers on the job. This gave carpenters and small contractors the lumber cutting speed and accuracy which Butte had been able to claim were only available in a big factory. The new technology made it possible for more carpenters to go into their own small businesses as contractors.²⁶ Thus, while federal financing was pushing homebuilding towards a large industrial scale, technology was pushing it towards greater decentralization and flexibility.

CONCLUSION

Today one can drive through Los Angeles and find thousands of bungalows built by Pacific Ready-Cut Homes. In the mid-west one can find many more thousands of Ready-cut houses built by the Alladin Company, and still more thousands in the east

ordered from the famous Sears Roebuck mail-order catalogs. These ready-cut houses are the product of a historical period when the industrial production of housing, the economy, and the political milieu all converged to put 300,000 of them in American cities and towns. There were important social implications in the ready-cut system, embodied in both the new method of producing houses and in the product itself, the single-family home.

During the 1920's streets upon streets of detached houses were built, and a powerful physical pattern emerged. Builders like Pacific Ready-Cut Homes found a way to produce the pattern quickly and cheaply at a crucial time when housing could have gone in another direction. Many progressive Americans had criticized the single-family home as outdated, inefficient, wasteful of women's labor and too expensive to house the working-class. But American industrialists and businessmen supported single-family homeownership as the backbone of the American capitalist system. Homeownership for the working-class was widely seen as a tool to stabilize labor. There were also fortunes to be made in real estate speculation, and in the mass production of houses. This intersects with the mass production process, and its implications for the labor of carpenters and other building workers.

Ironically, mass-builders like William Butte, believing that the single-family home was the spiritual and moral basis of society, constructed first an economic commodity and secondarily, shelter. The plans for ready-cut houses were universal, unrelated to the natural environment and to the topography of the site they would inhabit. Their designs were unconnected to the surrounding neighborhood. They were assumed to be functionally unrelated to the nearby houses, designed instead to be an isolated unit. But the ready-cut system kept what many thought was most important: a private house on a plot of land.

FOOTNOTES

CHAPTER ONE

INTRODUCTION: A Complete Home Every Twenty Minutes

1. Alfred Bruce and Harold Sandbank, A History of Prefabrication (New York: Arno Press, 1972); Gilbert Herbert, The Dream of the Factory-Made House (Cambridge: The MIT Press, 1984).
2. Robert Winter" The California Bungalow (Los Angeles: Hennessey & Ingalls, Inc., 1980); Clay Lancaster, The American Bungalow: 1880-1920 (New York: Abberville Press, 1984); and Anthony King, The Bungalow: The Production of a Global Culture (Boston: Routledge and Kegan Paul, 1984)
3. Gwendolyn Wright, Moralism and the Model Home Domestic Architecture and Cultural Conflict in Chicago, 1873-1913 (Chicago: The University of Chicago Press, 1980); Dolores Hayden, The Grand Domestic Revolution: A History of Feminist Designs for American Homes, Neighborhoods, and Cities (Cambridge: The MIT Press, 1981).
4. Sam Bass Warner, Streetcar Suburbs (Cambridge: Harvard University Press, 1973); Matthew Edel, Elliott Sclar and Daniel Luria, Shaky Palaces: Homeownership and Social Mobility in Boston's Suburbanization (New York: Columbia University Press, 1984).
5. Gwendolyn Wright, Building the Dream: A Social History of Housing in America (Cambridge: The MIT Press, 1983). See Chapter 11 "Planned Residential Communities." Wright discusses Sears Roebuck on P 166; see also Moralism and the Model Home, 129-132.
6. M. Christine Boyer, Dreaming the Rational City: The Myth of American City Planning (Cambridge: The MIT Press, 1983).
7. Hayden Grand Domestic Revolution; Dolores Hayden, Redesigning the American Dream: The Future of Housing, Work and Family Life (New York: W. W. Norton and Company, 1984).
8. Stuart Ewen, Captains of Consciousness: Advertising and the Social Roots of the Consumer Culture (New York: McGraw Hill, 1976).

CHAPTER TWO

THE PORTABLE BUNGALOW, 1909-1915

1. These competing models for housing are the subject of two in-depth historical studies. Gwendolyn Wright explores the mainstream debate regarding the suburban home in Moralism and the Model Home: Domestic Architecture and Cultural Conflict in Chicago, 1873-1913 (Chicago: The University of Chicago Press, 1980). Dolores Hayden analyzes the feminist designs which were offered as alternatives to the suburban home in The Grand Domestic Revolution: A History of Feminist Designs for American Homes, Neighborhoods and cities (Cambridge: The MIT Press, 1982).
2. John S. McGroarty, Los Angeles: From the Mountains to the Sea, Vol. II (Chicago: American Historical Society, 1921) 69-70; and Carolyn Flynn, interview with Robert Butte, William Butte's youngest son, August 9, 1985.
3. A History of California and an Extended History of Los Angeles and Environs: Biographical, Vol. 3 (Los Angeles: Historic Record Company, 1915) 844. According to the City Directory, Butte became secretary and General Manager in 1914; Los Angeles City Directory (Los Angeles: Los Angeles City Directory Company, 1914).
4. Pacific Portable Construction Company, Pacific Houses, Ready-Cut and Factory-Built: The Ultimate Types (Los Angeles: Pacific Portable Construction Company, 1919) 9.
5. Pacific Portable Construction Company, Pacific Houses, 11.
6. Pacific Portable Construction Company, Pacific Houses, 9.
7. Flynn, interview with Robert Butte, August 9, 1985.
8. History of California, 844.
9. Paul Bullock, et. al., Building California: The Story of the Carpenters' Union (Los Angeles: Institute of Industrial Relations Publications, University of California Publications, 1982) vi.
10. Wright, Moralism, 87.
11. Peter McGuire, testimony before the United States Industrial Commission, 1899, cited in Walter Galenson, The united Brotherhood of Carpenters: The First Hundred Years (Cambridge: Harvard University Press, 1983) 76. When asked about the impact of the new machinery on the carpentry trade, McGuire, as head of the national carpenters' union, replied: "It has been very injurious, There was a time when we cut out the doors and the sash base in a room - all the wood-work in the construction of a building was prepared by hand or motor power machinery. with the use of steam-power machinery the northwest sections, where children are employed at tender years... On some machines the product, for instance on a planing machine, is fourteen times greater than by hand..."
12. Galenson, United Brotherhood, 21.

13. Peter McGuire, "A Chapter in Our History," six-page typescript, united Brotherhood of Carpenters, n.d., cited in Galenson, United Brotherhood, 21.
14. Wright, Moralism, 172.
15. Bullock, Building California, 108.
16. Bullock, Building California, 111.
17. Flynn, interview with Robert Butte, August 9, 1985.
18. Bullock, Building California ii-iii
19. This is a conservative estimate based on simple arithmetic: 5,000 houses in six years equals sixteen houses each week. Since their technology improved over time, it is likely that Pacific's factory actually produced a higher number of houses each week by 1915.
20. M. Christine Boyer, Dreaming the Rational city: The Myth of American City Planning (Cambridge: The MIT Press, 1983) 101. Boyer suggests that it was the rate of return on capital investment which determined the predominance of large buildings and tenement houses in many major U.S. cities. She cites the Vice-President of the Metropolitan Life Insurance Company regarding their "careful consideration of the advisability" of making low-interest loans to workingmen in 1912: "It is evident that the cost for examination, appraisal, supervision of the architect, and the other incidental expenses in lending \$1,000,000 on several hundred small mortgages would be considerably larger than to place one such mortgage on a large office building in the heart of New York city, or any other large city, whose present value and whose future value during the period of the mortgage can be definitely determined" (p.101).
21. Paul L. Feiss, "Should We Encourage the Workingman to Own His Home?" Housing Problems in America: Proceedings of the Second National Conference on Housing, Philadelphia, December 4, 5, and 6, 1912 (Cambridge: Harvard University Press, 1913) 277.
22. For descriptions of some of these experiments, see "How to Get Cheap Houses," in National Housing Association, Housing Problems in America: Proceedings of the Third National Conference on Housing, Cincinnati, December 3, 4, 5, 1913 (Cambridge: Harvard University Press, 1914) 118-129, and "What Are the Best Types of Wage-Earners' Houses," in Housing Problems (1912) 203-219. One exasperated participant in the 1912 conference remarked: "As long as we talk about a workingman's home at \$1,000, he will never own it. It takes more ingenuity... to contrive a home for \$1,000 than for \$2,500 or \$3,000. We shall never be able to construct homes for the 10,000,000 workingmen getting under \$13 a week... For that reason it seems to me a mere loss of time to talk about whether he shall own his home or not" (p. 285).
23. See, for example, John Ihlder, "Should We Encourage the Workingman to Own his Home?" Housing Problems (1912) 284-285. Ihlder noted that working-class homeowners had voted against a pure water filtration plant, not because of a "lack of public spirit," but because they could not afford the extra taxes. See also, Boyer, Dreaming the Rational City, 100-101, for a discussion of the influential housing

reformer Lawrence Veiller, who felt that the mass of ordinary laborers neither had the resources nor the spare time to maintain the yards of single-family homes. For them, homeownership was undesirable.

24. John C. Kennedy, "Should We Encourage the Workingman to Own his Home," Housing Problems, 1912, 283.

25. Paul L. Feiss, "Should We Encourage the Workingman to Own his Home," Housing Problems (1912) 277-278.

26. Frederick Engels, The Housing Question (New York: International Publishers, n.d.) 35, cited in Matthew Edel, Elliott Sclar and Daniel Luria Shaky Palaces: Homeownership and Social Mobility in Boston's Suburbanization (New York: Columbia University Press, 1984). This discussion of Engels' views of working class homeownership is based upon their analysis.

27. Edel, et. al., Shaky Palaces, 191-193.

28. Bullock, Building California, 82.

29. Henry Sterling, "Should We Encourage the Workingman to Own his Home?" Housing Problems (1912) 279.

30. J.G. Schmidlapp, "How to Get Cheap Housing," Housing Problems (1913) 121-122.

31. Committee on Recent Economic Changes of the President's Conference on Unemployment, Recent Economic Changes in the United States (New York: McGraw-Hill Book Company, 1929), 435-347. These figures are based on data compiled from the United States Bureau of Labor Statistics and the National Industrial Conference Board. Even unskilled workers in the building industry earned more than their counterparts elsewhere; their average hourly union rate was \$.34 per hour (p. 438).

32. Schmidlapp, "Cheap Housing," 121.

33. Schmidlapp, "Cheap Housing," 122-123

34. Pacific Portable Construction Company, Pacific Houses, 104.

35. Committee on Recent Economic Changes, Recent Economic Changes, 432. This is based on figures from the National Industrial Conference Board for 23 representative manufacturing industries. The hourly rate for workers in 1914 was \$.25 per hour; at a fifty-hour week this would be \$50 per month.

36. Pacific Portable Construction Company, Pacific Houses, 104.

37. See Wright, Moralism, for a comprehensive inquiry into the changing models for the suburban single-family home during this period. She explores the transformation "from an exuberant, highly personalized display of irregular shaped, picturesque contrasts, and varieties of ornament, supposedly symbolizing the uniqueness of the family, to a restrained and simple dwelling, with interest focused on its scientifically arranged kitchen." She emphasizes the interplay between architectural design and social, economic and political relations. "It is the interaction between architects and non-

architects, between groups that sometimes have a common purpose and often are in bitter conflict, that leads eventually to any widespread change in the way buildings look and how they are used" (p.3).

38. Thorstein Veblen, The Theory of the Leisure Class (New York: MacMillan, 1899). Gwendolyn Wright briefly discusses the response to Veblen's criticisms in Moralism, 113.

39. Cynthia Rock, Susana Torre and Gwendolyn Wright, "The Appropriation of the House: Changes in House Design and Concepts of Domesticity," in Gerda Wekerle, ed., New Space for Women (Boulder: Westview Press, 1980) 84. For more on Edward Bok, see Michael D. Hummel, The Attitudes of Edward Bok and the "Ladies' Home Journal" Towards Woman's Role in society, 1889 1919, unpublished Ph.D. dissertation, North Texas State University, 1982; and Bok's autobiography, The Americanization of Edward Bok (New York: Charles Scribner's Sons, 1924).

40. Rock, et.al., "Appropriation of the House," 85.

41. Wright, Moralism, 139-141. For more on the Arts and Crafts movement, see Robert Judson Clark, The Arts and Crafts Movement in America (Princeton, 1972). Regarding Gustav Stickley, see John Freeman, The Forgotten Rebel: Gustav Stickley and His Craftsman Mission Furniture (Watkins Glen, N.Y.: Century House, 1966).

42. Wright, Moralism, 140. See also Robert Winter, The California Bungalow (Los Angeles: Hennessey & Ingals, 1980). Winter discusses the bungalow not only as a phenomenon of the Arts and Crafts movement, but also as a representative of "certain qualities which were specifically Southern California" (P.7).

43. Wright, Moralism, 234-235.

44. Ruth Schwarz Cowen, More Work for Mother: The Ironies of Household Technology from the Open Hearth to the Microwave (New York: Basic Books, 1983). Cowen shows how industrialization invented new chores in the home for which women became solely responsible. "The processes of housework had changed in such a way that adult males and small children of both sexes were no longer needed to do domestic labor: wood did not have to be chopped, nor water carried, nor grain hauled to the mill... Merchant flour, cast-iron stoves, municipal water and manufactured boots did not free women... from their labors. Angel food cakes, strawberry preserves, clean clothes, ironed ruffles, and leavened bread may have made life easier and pleasanter for their families, but they also kept women working at home" (p.66-67). Another important work on the history of housework is Susan Strasser, Never Done: A History of American Housework (New York: Pantheon Books, 1982).

45. Joann Vanek offers a description of the typical urban housewife's week at the turn of the century in "Housewives as Workers," in Ann Stromberg and Shirley Harkess, eds., Women Working (Palo Alto, Mayfield Publishing Co., 1978) 393-394.

46. Wright, Moralism, 234.

47. See Hayden, Grand Domestic Revolution, for a comprehensive analysis of the proposals for the radical reorganization of women's domestic labor. She notes as early as

1868 Melusina Fay Peirce proposed cooperative housekeeping, where "groups of twelve to fifty women would organize cooperative associations to perform all their domestic work collectively and charge their husbands for these services" (p.68). Hayden documents the intellectual tradition which evolved from Peirce's proposals.

48. Charlotte Perkins Gilman, The Home: Its Work and Influence (1903; reprint Urbana: University of Illinois Press, 1972) 30.

49. Gilman, The Home, 52.

50. Gilman, The Home, 118.

51. Charlotte Perkins Gilman, Women and Economics: A Study of the Economic Relations Between Men and Women as a Factor in social Evolution (1898; reprint New York: Harper Torchbooks, 1966) 242.

52. Richards developed the community kitchen, a rationalized center for nutritious food production for working parents in poor neighborhoods, and displayed it at the World's Columbian Exposition in Chicago in 1893. See Hayden, Grand Domestic Revolution, 151-167.

53. "Announcement," The Journal of Home Economics, Vol. 1, No.1 (February 1909), 1. Membership was open to "teachers of Domestic Science and Art, Home and Institutional Economics, allied educational fields, housekeepers, institution managers, social and municipal workers, interested housewives and homemakers, physicians, hygienists, sanitary experts, architects, and others" (p. 1).

54. Grace M. Henderson, Development of Home Economics in the United states (Pennsylvania state University College of Home Economics Publication No. 156, 1954) 7.

55. Dolores Hayden discusses the mentoring relationship between Helen Campbell and Charlotte Perkins Gilman in Grand Domestic Revolution, 185-187.

56. Helen Campbell, Household Economics: A Course of Lectures in the School of Economics of the University of Wisconsin (New York: G.P. Putnam's Sons, 1896) 6.

57. Campbell, Household Economics, 9.

58. Campbell, Household Economics, 33-34.

59. Campbell, Household Economics, 243-244.

60. See the home economics course outline from Stanford University which Campbell includes in her book, Household Economics, xiv.

61. See Hayden, Grand Domestic Revolution, 174-179, for a discussion of the effects of professionalism on home economics. She notes that "professionals could not risk being associated with unconventional experiments, which were technical or financial failures, or with unconventional people who might show sympathy for socialism or challenge conventional sexual morality" (p. 177).

62. Isabel Bevier, Head of the Department of Household Science at the University of

Illinois is perhaps the most prominent example. Bevier taught architectural history and the history of plumbing and heating in her department. She taught her students to draw floor plans to scale, and lectured extensively on house construction. See her textbook, The House: Its Plan, Decoration and Care (Chicago: American School of Home Economics, 1919).

63. Helen Binkard Young, "The Relation of House Planning to Home Economics," The Journal of Home Economics, Vol. VI, No.3 (June 1914) 229. Young urged all home economics teachers to become familiar with house planning, and taught an extensive architecture course to her home economics students at Cornell.

64. Christine Frederick, The New Housekeeping: Efficiency Studies in Home Management (New York: Doubleday, Page & Company, 1914) 182.

65. Frederick, New Housekeeping, 186.

66. Frederick, New Housekeeping, 47-59. Frederick included both good and bad examples of kitchen plans based upon the spatial organization of cooking. Her goal was to achieve efficiency principles: no lost motions, no wasted steps.

67. See, for example, Mary Pattison, The Principles of Domestic Engineering (New York: The Trow Press, 1915).

68. Pacific Portable Construction Company, Pacific Houses, 104.

69. See Winter, California Bungalow, 23.

70. The best single source on the historical development of Los Angeles' urban form is Robert M. Fogelson, The Fragmented Metropolis: Los Angeles, 1850-1930 (Cambridge: Harvard University Press, 1967). See also Glenn S. Dumke, The Boom of the Eighties in Southern California (San Marino: Huntington Library, 1944).

71. David Harvey, "The Urban Process Under Capitalism: A Framework for Analysis," in Michael Dear and Allen J. Scott, eds., Urbanization and Urban Planning in Capitalist Society (New York: Methuen, 1981) 117. Harvey argues that "the urban violence which accompanied the great railroad strikes of 1877 in the United States and the Haymarket incident in Chicago... clearly demonstrated the revolutionary dangers associated with the high concentration of the 'dangerous classes' in certain areas. The bourgeois response was in part characterized by a policy of dispersal so that the poor and working class could be subjected to what nineteenth century urban reformers on both sides of the Atlantic called the 'moral influence' of the suburbs," (p. 117).

72. Edel, Sclar and Luria argue that although suburbanization improved the material standards of the working-class, it weakened it politically. They suggest that the dispersal of the urban working-class to the suburbs contributed to the decline of municipal socialism in the first decade of this century. They base this conclusion in part on a statistical comparison of voting strength in a sample of 145 U.S. cities, finding that the greater the suburbanization, the weaker the Socialist strength in local elections. Working-class suburbs, they claim, undercut a potentially more radical urban political base. See Shaky Palaces, 306-310.

73. Martin Wachs, "Autos, Transit, and the Sprawl of Los Angeles: The 1920's,"

American Planning Association (Summer 1984) 297-310.

CHAPTER THREE

THE READY-CUT BUNGALOW, 1916-1925

1. Flynn, interview with Robert Butte, William Butte's youngest son, August 9, 1985. The city of Vernon gave William Butte the industrial site at the corner of Slauson and Boyle Avenues in the hopes of attracting business to the area. For the plant's capacity, see Pacific Ready-Cut Homes, Inc. Pacific Homes: Ready-Cut and Factory Built, (Los Angeles: Pacific Ready-Cut Homes, Inc., 1921) 6.
2. Harlean James, "Lessons From Government Experience in Housing," National Municipal Review, Vol. 10, No.8 (August 1921), 429. See also Christine Boyer, Dreaming the Rational City: The Myth of American City Planning (Cambridge: The MIT Press, 1983) 142-143, 148.
3. Boyer, Dreaming the Rational City, 149.
4. James, "Lessons," 429.
5. Edith Elmer Wood, Recent Trends in American Housing (New York: The Macmillan Company, 1931) 84. In this important book on American housing options, Wood is critical of the attempt to meet the need for shelter through private enterprise alone.
6. Lawrence Veiller, "Housing Progress of the Year," Housing Problems in America: Proceedings of the Eighth National Conference on Housing, Bridgeport, December 9, 10 and 11, 1920 (New York: National Housing Association, 1921) 319.
7. James, "Lessons," 429. See also Lawrence Veiller, "Government Housing: The Example of England," Housing Problems, 1921, 122-123.
8. James, "Lessons," 430.
9. "All Urged to Own a Home," Los Angeles Times (February 16, 1919) Part V, 1. See also Lawrence Veiller, "Housing Progress of the Year," Housing Problems, 328. Veiller reported: "One of the important efforts of the Government during the year has been the campaign organized by the U.S. Department of Labor, known as the "Own-Your-Own-Home" campaign, and which was organized by that Department with a view to stimulating construction in the building industry."
10. "All Urged to Own a Home," Los Angeles Times (February 16, 1919) Part V, 1. See Dolores Hayden, The Grand Domestic Revolution: A History of Feminist Designs for American Homes, Neighborhoods, and cities (Cambridge: The MIT Press, 1981) 281-285, for a discussion of housing and feminism in the 1920's in the context of the Red Scare.
11. On Better Homes in America, see Ellis W. Hawley, "Herbert Hoover, the Commerce Secretariat, and the Vision of an 'Associative State,' 1921-1928," Journal of American History, Vol. LXI, No.1, (June 1974) 133-134; and Gwendolyn Wright,

Building the Dream: A Social History of American Housing (Cambridge: The MIT Press, 1981) 197-198. For a discussion of the political implications of Herbert Hoover's housing policies, see Dolores Hayden, Redesigning the American Dream: The Future of Housing, Work and Family Life (New York: W. W. Norton, 1984) 34.

12. Stuart Ewen, Captains of Consciousness: Advertising and the Social Roots of the Consumer Culture (New York: McGraw-Hill Book company, 1976) 15. Ewen argues that advertising was developed by businessmen as a tool of social control, providing the means to offer the ideology of mass-consumerism to the American public as a panacea for what he terms the social crisis of industrialization. He argues that mass-advertising was an attempt by business to "control the entire social realm" (p. 19) which was, of course, constricted by its ability to deliver what it promised.

13. Martin Pawley, Architecture versus Housing (New York: Praeger Publishers, 1971) 51.

14. Walter Gropius, American Architect and Architecture (February, 1938), cited in Pawley, Architecture Versus Housing 50.

15. Pawley, Architecture 51. Pawley points out that the most famous of these designs was by Buckminster Fuller, whose 1927 Dymaxion I was to be a prototype for mass-production. It was a hexagonal light alloy house which incorporated air-conditioning, plumbing, kitchen and bathroom units in a central structural mast. In mass quantities, it was to be produced at \$3000 each. Although the design continues to impress architects as "staggeringly advanced," it was never produced in quantity (p. 51).

16. Robert S. Lynd and Helen Merrell Lynd, Middletown: A study in Contemporary American Culture (New York: Harcourt, Brace and Company, 1929) 106.

17. Stuart Chase, The Economy of Abundance (New York: The MacMillan Company, 1934) 34.

18. William Green, "Home Ownership and the Wage Earner," in Blanche Halbert, ed., The Better Homes Manual (Chicago: The University of Chicago Press, 1931) 44.

19. Pawley, Architecture 51.

20. Gilbert Herbert, The Dream of the Factory-Made House: Walter Gropius and Konrad Wachsmann (Cambridge: The MIT Press, 1984). Herbert traces the careers of Gropius and Wachsmann, both architects, writers and theorists, with a discussion of the theory and practice of prefabricated housing in Germany, the United States, and Palestine. The book is limited as a discussion of factory-produced housing, since it focuses on architectural theorists' largely unsuccessful attempts to prefabricate houses while mentioning only in passing those companies which during the same period successfully mass-produced pre-cut houses, such as Sears Roebuck, the Alladin Company, and Pacific Ready-Cut Homes.

21. See Pacific advertisement, "Advantages of Buying All Materials for Your New Home From One Source," Los Angeles Times (July 9, 1922) Part V, 10. Pacific claimed that their houses were 15 to 20% less expensive than houses built by the traditional method, and although exact figures are difficult to verify, evidence indicates that in

many cases this was true. A review of the Sunday Real Estate Section of the Los Angeles Times, for example, shows that Pacific did offer houses at prices below those quoted by other builders, though it is difficult to know the size of the houses in question. Pacific claimed to be able to save 15 to 20% in carpenter labor, and 10 to 20% in lumber; see Pacific, Pacific Houses (1919) 15.

22. Alfred Bruce and Harold Sandbank, A History of Prefabrication (New York: Arno Press, 1972) 57. In this reprint of a series of articles published in the Architectural Forum in 1942, Bruce and Sandbank point out the importance of pre-cut houses to the history of prefabrication. "At first blush this type of construction, familiar to most Americans because of its popularity as a subject for movie comedies of the custard pie era, would seem only remotely connected with the question of prefabrication. This is not actually the case. As a matter of fact, the lowly precut probably represents the most extensive application of factory production to housing made to date. This is true not only because of the great volume of work that has been done according to the precut method in the past 40 years, but also because in most of the widespread applications of this plan house designs were rigidly standardized, with all of the materials sized and numbered under factory conditions by belt line techniques" (p. 56)

23. Herbert, The Dream of the Factory-Made House 18.

24. Sylvester Hoffman, "Marketing Homes Cut to Fit," Western Advertising (March 1923) 64.

25. Pacific, Pacific Homes (1921) 3.

26. Pacific Ready-Cut Homes, Pacific's Book of Homes: An Exhibition of Notable California Architecture (Los Angeles: Pacific Ready-Cut Homes, Inc., 1925) 6. Pacific's disclaimers sometimes went so far as to suggest that their houses were even "more permanent" than houses built by traditional methods. See, for example, Pacific advertisement, Los Angeles Times (July 23, 1922) Part V, 8. This ad assured customers: "Pacific Ready-Cut Homes are in no way portable or sectional. The construction is immovable, erected on the same principle as a modern skyscraper - pieces prepared at the mill ready for actual placing and nailing. Pacific Homes are actually more permanent than ordinary structures by reason of the accurate machine cutting and extra fine materials used."

27. Pacific, Pacific's Book of Homes (1925) 9.

28. Pacific, Pacific's Book of Homes (1925) 8.

29. Lawrence Veiller, "Housing Progress," Housing Problems 320.

30. For example, building permit records of the city of Los Angeles show that in 1925, a year when prices were at their 1919 levels, Pacific was issued permit numbers 275, 321, 366, and 959 to build "residential dwellings" with valuations (including labor) of \$2000, \$1990, \$2000, and \$1900. It is misleading to make too direct a comparison between Veiller's figures and the cost of Pacific's bungalows because it was less expensive to build in Los Angeles anyway, where mild climate and local custom had evolved the practice of building with no basements and no attics. The figures are offered to show that Pacific was building houses at a cost below the lowest end of the range of

working-class houses during the period.

31. Pacific advertisement, "We will Build This 5-Room Home for Less than \$2750," Los Angeles Times (June 14, 1925) Part V, 9.

32. Board of Building and Safety Commissioners, Annual Report of the Board of Building and Safety Commissioners for the Fiscal Year June 30, 1928 (Los Angeles: The City of Los Angeles, 1928) 15.

33. Letter from Motley Flint, Vice President of the Los Angeles Trust and Savings Bank, to William Butte, July 1919, in Pacific, Pacific Houses (1919) 112. In Butte's favor was the fact that the Los Angeles economy recovered immediately after the war, despite the nationwide recession, because the city had not housed war industries. Boosters used this fact to claim that Los Angeles was the "White spot" of the country, encouraging Americans to migrate west. Building permits in Los Angeles began to recover as early as fiscal year 1918-1919. The following fiscal year building permits more than doubled, from 8,053 to 17,752. This not only met pre-war building levels, but surpassed them by 34%. Board of Building and Safety Commissioners, "Number of Permits and Valuation From 1894 to 1938," Annual Report of the Board of Building and Safety commissioners for Fiscal Year June 30, 1939, the City of Los Angeles, California, n.p.

34. Constantine Panuzio, "Growth and Character of the Population," in George W. Robbins and L. Deming Tilton, eds. Los Angeles: Preface to a Master Plan (Los Angeles: The Pacific Southwest Academy, 1941) 30.

35. Board of Building and Safety Commissions, "Number of Permits," n.p. Building permits for all construction equaled 13,279 in fiscal year 1913/1914; 30,984 in 1920/21; and 60,618 in 1923/24. For more on the suburban boom in Los Angeles during the 1920's, see Robert Fogelson, The Fragmented Metropolis: Los Angeles, 1850-1930 (Cambridge: Harvard University Press, 1967) 85-107; Mark S. Foster, "The Model-T, the Hard Sell, and Los Angeles' Urban Growth: The Decentralization of Los Angeles During the 1920's," Pacific Historical Review Vol. XLIV, No.4 (November 1975); and Ashleigh Brilliant, "Some Aspects of Mass Motorization in Southern California, 1919-1929," Southern California Quarterly, Vol. XLVII (1965); and Mark S. Foster, "The Decentralization of Los Angeles During the 1920's," (unpublished Ph.D. dissertation, History Department, university of Southern California, 1971).

36. In the absence of Pacific's business records, these sales figures were compiled by the author from various sources. See Pacific, Pacific Houses (1919) 7; Pacific, Pacific Homes (1921) 143; Pacific, Pacific's Book of Homes (1925) 5; and Pacific advertisements, Los Angeles Times (July 2, 1922) Part V, 8; (July 30, 1922) Part V, 9; and (January 27, 1924) Part V, 8.

37. "Ready-Cut Homes Have New Office," Los Angeles Times (October 29, 1922) Part V, 6; "Ready-cut Firm Plans Hospital," Los Angeles Times (February 17, 1924), Part V, 17; "Ready-Cut to Have Addition," Los Angeles Times (March 3, 1924), Part V, 19; "Concern Plans Offices," Los Angeles Times (March 9, 1924) 15; and "Home Builders Plan to Enlarge Factory Here," (October 29, 1925) Part V, 8.

38. Pacific, Pacific's Book of Homes (1925) 8.
39. On Sears, see Boris Emmet and John E. Jeuck, Catalogues and Counters: A History of Sears, Roebuck and Company (Chicago: The University of Chicago Press, 1950) 519-530; and Tim Snyder, "The Sears Pre-Cut: A Mail-Order House for Everyone," Fine Homebuilding 28 (August/September 1985). On Alladin, as well as the other ready-cut companies, see Bruce and Sandbank, History of Prefabrication, 56-57.
40. Bruce and Sandbank, A History of Prefabrication, 57.
41. Boyer, Dreaming the Rational City, 146.
42. Hawley, "Herbert Hoover," 117-119. Hawley argues that Hoover was able to maintain this paradoxical position through his unique vision of an "associative state." The term is Hawley's, meant to describe Hoover's plans for government wherein private institutions such as trade associations, professional societies and labor organizations would form the units of "a type of private government" (p. 117), with the expanded associative state helping to guide and develop the new order.
43. Boyer, Dreaming the Rational city, 150; Hawley, "Herbert Hoover," 125, 133. For Butte's quotation of Herbert Hoover, see Pacific, Pacific's Book of Homes, 11.
44. "Forward," Housing Problems in America: Proceedings of the National Conference on Housing, Philadelphia, December 4, 5, and 6, 1912 (Cambridge: The University Press, 1912) 3.
45. "Big Problems and Small Houses," The Survey (December 18, 1920) 415.
46. Lawrence Veiller, "Reports by the Delegates," Housing Problems (1920) 307.
47. Robert Tappan, "Factory Production Applied to the Housing Problems," Housing Problems (1920) 60.
48. Tappan, "Factory Production," Housing Problems (1920) 60-61.
49. Tappan, "Factory Production," Housing Problems (1920) 57.
50. Pacific, Pacific Homes (1921) 3.
51. "Big Problems," 415.
52. Henry S. Pitts, "The Housing Shortage and Labor Discontent," Housing Problems (1920) 198.
53. "All Urged to Own a Home," Los Angeles Times (February 16, 1919) Part V, 1. In Los Angeles, realtors and business leaders formed the Los Angeles Forward Movement to promote the Own Your Own Home campaign in the area. See "Will Aid Home Building Drive," Los Angeles Times (February 12, 1922) Part V, 2; "Own Your Home Move Indorsed," Los Angeles Times (March 22, 1925) Part V, 3; "Board Behind Own Home Idea," Los Angeles Times (March 29, 1925) Part V, 10. The Times regularly published articles by realtors encouraging--homeownership. For example, Harry Culver, a major Los Angeles real estate developer and President of the California Real Estate Association wrote, "You never hear of a home owner in jail. He is too busy. Busy

developing self-confidence, self-esteem, financial stability and social prestige." See "Ownership of Home is Urged," Los Angeles Times (March 7, 1926) Part V, 12.

54. "Fact and Comment," Los Angeles Times (March 7, 1926) Part V, 1.

55. Pacific, Pacific Houses (1919) 2.

56. Matthew Edel, Elliott Sclar and Daniel Luria in their comprehensive analysis of working-class suburbanization in Boston stress that despite the fact that employers hoped that homeownership would render workers less politically potent the desire for homeownership was not imposed upon the working-class from above. They point out that this "social control" view ignores American workers as active agents who demanded decent housing and suburban homeownership, arguing that the working-class suburb is best seen as a compromise between the demands of workers and those of employers. They conclude that the suburban compromise offered economic benefits and a rise in workers' standard of living, yet also weakened the urban base for socialist and labor organizing, costing the working class politically. See Shaky Palaces: Homeownership and Social Mobility in Boston's Suburbanization (New York: Columbia University Press, 1984).

57. "Big Problems," 415.

58. Pacific, Pacific Houses (1919) 21.

59. Paul Bullock, et. al., Building California: The story of the Carpenters' Union (Los Angeles: Institute of Industrial Relations Publications, University of California Publications, 1982) ii-iii.

60. Pacific, Pacific's Book of Homes (1925) 10.

61. Pacific, Pacific's Book of Homes (1925) 11.

62. Pacific, Pacific Houses (1919), 10.

63. Pacific, Pacific's Book of Homes (1925) 18.

64. Pacific, Pacific Houses (1919) 15.

65. Committee on Recent Economic Changes of the President's Conference on Unemployment, Recent Economic Changes in the United States (New York: McGraw-Hill Book Company, 1929), 432, 435. These figures are based at data compiled from the United States Bureau of Labor statistics and the National Industrial Conference Board.

66. Bullock, Building California, 339.

67. W. H. Ham, "Lessons From Housing Work in Bridgeport," Housing Problems, 107. Ham complained that unions were as detrimental to consumption of workers' housing and to production, since in some cases there was a "belief of the workman that something is being done for him with an ulterior purpose and in this belief he has had ample false instruction from the agitators of unions allover these United States" (p. 109). Housing reformers also claimed that unionized building workers were colluding with speculative builders to keep wages and building costs high. In his annual report at the 1920 conference, for example, Secretary Lawrence Veiller referred to the "Unholy

Alliance between organized labor and employers of labor in the building industry to keep up prices and the public has been the sufferer, as usual." See "Housing Progress of the Year," Housing Problems, 321.

68. On the Los Angeles labor movement, see Louis B. Perry and Richard S. Perry, A History of the Los Angeles Labor Movement, 1911-1941 (Berkeley: University of California Press, 1963); and Grace Heilman Stimson, Rise of the Labor Movement in Los Angeles (Berkeley: University of California Press, 1955). Los Angeles faced probably the strongest anti-labor forces of any city in the country, according to Perry and Perry, who write: "With the possible exception of San Francisco during the 1920's, it is doubtful if the labor movement has ever faced antiunion employer groups so powerful and well organized as those in Los Angeles. Although the open shop... was popular over much of the country in the period between World War I and the Great Depression, it was virtually a law in Los Angeles for half a century" (vii).

69. Ironically, jurisdictional disputes with other trade unions had their roots in the introduction of machine technology into the building trades. Nationwide, the Brotherhood of Carpenters and Joiners adopted an aggressive policy to claim jurisdiction over any work previously done by them, regardless whether it was now performed at a machine or with different materials. In Los Angeles; bitter fights with the Sheet Metal Workers and Machinists Union resulted ultimately in the expulsion of Los Angeles chapter of the Brotherhood from the American Federation of Labor Building Trades Department. At a point when the building trade unions were the backbone of the Los Angeles labor movement, the conflict damaged not only the carpenters' union, but the city's labor movement as a whole. On jurisdictional disputes, see William Haber, Industrial Relations in the Building Industry (Cambridge: Harvard University Press, 1930) 152-169. For more on the Los Angeles conflict, see Bullock, Building California, 47; and Perry and Perry, A History of the Los Angeles Labor Movement, 203.

70. Bullock, Building California, 149; and "Drive on Los Angeles by Unions starts Soon," Los Angeles Times (April 6, 1924) Part V, 1.

71. Flynn, interview with Robert Butte, who worked for his father at the Pacific factory part-time as a teenager and full-time during the Depression.

72. Flynn, interview with Robert Butte. A review of the Los Angeles Times and the carpenters' union newspaper, The Southern California Labor Press indicate no union activity at Pacific. If any organizing activity did occur, it was probably small scale. Further, William Butte, along with many large employers of the period, instituted a labor welfare management policy meant to keep workers away from unions. For example, at peak success he built a hospital at his plant in order to "properly look after the welfare of... mill employees." See "Ready-Cut Firm Plans Hospital," Los Angeles Times (February 17, 1924) Part V, 17. He also established a Pacific baseball team, and organized Pacific employee picnics (Flynn, interview with Robert Butte).

73. The complaints of carpenters, contractors and builders are evident in Pacific's rhetorical attempts to assuage such criticism in their catalogs and advertisements. For example, in the 1919 and 1921 catalogs, William Butte devoted two full pages to addressing the complaints of carpenters and contractors. Another page, addressed to the consumer, described in detail the ways in which the ready-cut system was superior to the

average carpenter's building technique. See Pacific, Pacific Houses (1919) 13-15; and Pacific, Pacific Homes (1921) 12-14.

74. Letter from Mary Mohr, Whittier, California, to Pacific Construction Company, dated January 3, 1920. Reprinted in Pacific, Pacific Homes (1921) 135.

75. Pacific, Pacific Houses (1919) 13-14.

76. "Ready-Cut Agents to Meet Soon," Los Angeles Times (February 4, 1923) Part V, 12. Authorized Builders from throughout California and the Southwest U.S. attended two Pacific Ready-cut Home conventions in Catalina in February of 1923 and 1924. Forty-seven builders from other cities attended the 1924 conference. See "Meeting Here in January," Los Angeles Times (December 2, 1923) Part V, 9; and "Sales Meeting Planned," Los Angeles Times (February 24, 1924) Part V, 13.

77. Pacific, Pacific's Book of Homes (1925) 10.

78. Flynn, interview with Robert Butte. 79. Hoffman, "Marketing," 64.

80. Haber, Industrial Relations, 34.

81. "Buy a Lot - Own Your Own Home," Southern California Labor Press Vol. 1, No. 1 (February 29, 1924) 1.

82. Hawley, "Herbert Hoover," 134. Hawley points out that "social and spiritual values were especially common themes with Hoover."

83. Hayden, Grand Domestic Revolution, 281.

84. See Hayden, Grand Domestic Revolution, 281-289, for a discussion of the conservative backlash in home economics during the 1920's. For examples of the many popular home economics texts of the period, see Christine Frederic, Household Engineering: Scientific Management in the Home (Chicago: American School of Home Economics, 1920); Della T. Lutes, A Home of Your Own (New York: Bobbs-Merrill Co., 1925); Lillian Gilbreth, The Homemaker and Her Job (New York, 1927); and Mary L. Matthews, The House and its Care (Boston: Little, Brown and company, 1930).

85. James Ford, "Better Homes in America," in Blanche Halbert, ed., The Better Homes Manual (Chicago: The University of Chicago Press, 1931), 743.

86. Hawley, "Herbert Hoover," 133.

87. Ford, "Better Homes in America," 743.

88. Hoffman, "Marketing Homes," 61.

89. Hoffman, "Marketing Homes," 61.

90. Pacific, Pacific's Book of Homes (1925) 5.

91. "To Exhibit Mode Home," Los Angeles Times (May 11, 1924) Part V, 1; "Better Homes Week Planned," Los Angeles Times (April 14, 1924) Part V, 15; "New Agency Opened," Los Angeles Times (April 20, 1924) Part V, 11; and Pacific advertisement, "10 Facts that Urge Immediate Building," in Los Angeles Times (May 11, 1924) Part V,

- 11.
92. "Ready-Cut Homes Shown in Pictures," Los Angeles Times (June 10, 1923, Part V, 9.
93. "Better Homes Week Planned," Los Angeles Times (April 13, 1922) Part V, 15.
94. Flynn, interview with Robert Butte, August 9, 1985.
95. "Better Homes Week Planned," 15.
96. Pacific, Pacific's Book of Homes (1925) 5.
97. Hildegard Kneeland of the Bureau of Home Economics, U.S. Department of Agriculture, is an example of a prominent home economist who believed in the eventual necessity of transferring housework to commercial laundries, housecleaning services and meal provision agencies. See "Is the Modern Housewife a Lady of Leisure?" Survey Graphic Vol. LXII, No.5 (June 1, 1929). Yet at the 1929 National Housing Conference she pragmatically urged architects and builders to provide houses with efficient kitchens, pointing out that currently 26 million kitchens were the workshops for American housewives. See "Abolishing the Domestic Lock Step - The Scientific Kitchen," in Housing Problems in America: Proceedings of the Tenth National Conference on Housing, Philadelphia, January 28, 29, 30, 1929 (New York: National Housing Association, 1929) 15-25. Dolores Hayden discusses the tendency for the second generation of home economists to reject cooperative housekeeping in Grand Domestic Revolution, 174-179. She points that although many home economists "never completely forgot the vision of cooperative housekeeping, they consigned it to the distant future, when goodness and wisdom characterized every housewife in the land (p. 178-179)."
98. Pacific, Pacific's Book of Homes (1925) 152.
99. See, for example, "Reducing Kitchen Mileage to a Minimum," The Architect and Engineer Vol. LIX, No.2 (November 1919) 83-84; Frederick, Household Engineering, 22; and Greta Gray, Convenient Kitchens, Farmers' Bulletin 1513 (Washington, D.C.: Bureau of Home Economics, U.S. Department of Agriculture, 1926).
100. Pacific, Pacific's Book of Homes (1925) 152. 101. Hayden, Grand Domestic Revolution, 285.
102. Christine Frederick, Selling Mrs. Consumer (New York: Business Bourse, 1929) 388.

CHAPTER FOUR
THE SOCIAL AND TECHNOLOGICAL LEGACY

1. Pacific advertisement, "The Most Important Homebuilding Message We Have Ever Released," Los Angeles Times (June 15, 1924) Part V, 9.
2. Board of Building and Safety Commissioners, Annual Report of the Board of Building and Safety Commissions for the Fiscal Year June 30, 1928 (Los Angeles: The City of Los Angeles, 1928).
3. "Homebuilders Plan to Enlarge Factory Here," Los Angeles Times (November 29, 1925) Part V, 8.
4. Pacific advertisement, "10 Ways Homebuilders Can Save Money," Los Angeles Times (June 27, 1926) Part V, 8; and Pacific advertisement, "Free Plans Specially Made for You," Los Angeles Times (June 3, 1928) Part V, 7.
5. Boris Emmet and John Jeuck conclude that Sears Roebuck homebuilding declined in the late 1920's for similar reasons. See Catalogues and Counters: A History of Sears, Roebuck and Company (Chicago: The University of Chicago Press, 1950) 521.
6. William Mumford, "Mass-Production and the Modern House - Part I," The Architectural Record Vol. LXVII (January 1930) 18.
7. "Home Firm to Exhibit 1930 Model," Los Angeles Times (November 8, 1925) Part V, 11; Pacific advertisement, "Grand Opening of the 1930 Home," Los Angeles Times (November 8, 1925) Part V, 6; "Many People Visit Building Firm's Exhibit," Los Angeles Times (November 15, 1925) Part V, 6.
8. Mumford, "Mass-Production - Part I," 17.
9. Edith Elmer Wood, "Is Government-Aid Necessary in House Financing?" Housing Problems in America: Proceedings of the Tenth National Conference on Housing, Philadelphia, January 28, 29, 30, 1929 (New York: National Housing Association, 1929) 59.
10. Mumford, "Mass-Production - Part I," 20.
11. Stephen Voorhees and Ralph Walker, "The Machine and Architecture," in Charles A. Beard, ed., Toward Civilization (New York: Longmans, Green and Co., 1930) 223.
12. Mumford complained about the "vested interests" opposed to his ideas: "not merely the interest of the small builder, used to doing things in a small way, or the individual home-buyer who has been vainly dreaming of the twenty-thousand dollar house he will someday buy for a thousand dollars down and the balance in installments, but against it are such organized bodies as the 'own-your-own-home' movement, to say nothing of a good many sincere and honest people who have concerned themselves with the evils of congested housing. We have all these groups, to say nothing of the standard Fourth-of-July orator, to thank for the notion that the freestanding individual house must be preserved at any cost, as if 'home' and America were inconceivable without it." See

"Mass-Production and the Modern House - Part II," The Architectural Record Vol. LXVII (February 1930) 113.

13. Herbert Hoover, Housing Objectives and Programs, Volume XI of the Proceedings of the President's Conference on Home Building and Home Ownership (Washington, D.C.: The President's Conference on Home Building and Home Ownership, 1932) 1.

14. There were enough complaints by the public, though, to prompt John Gries and James Ford to write in their Introduction, "The purpose of this Conference has at times been misquoted. It has been charged that its aim was to induce every American family to own its home." See Home Ownership, Income and Types of Dwellings, Volume IV of the Proceedings of the President's Conference on Home Building and Home Ownership, 1932) xi.

15. Carolyn Flynn, interview with William Butte's youngest son, Robert Butte, August 9, 1985.

16. Gwendolyn Wright, Building the Dream: A Social History of Housing in America (Cambridge: The MIT Press, 1983) 248-253; and Dolores Hayden, Redesigning the American Dream: The Future of Housing, Work and Family Life (New York: W. W. Norton, 1984) 35-38.

17. Loula Laska, "On the Contrary," Tomorrow's Town (November 1943) 2, quoted in Dorothy Rosenman, A Million Homes a Year (New York: Harcourt, Brace and Company, 1945) 247.

18. Fritz Burns, "To Own - Certainly," Tomorrow's Town (November 1943) 2, quoted in Rosenman, A Million Homes, 247.

19. Architectural Forum (April 1946) 85.

20. Hayden, Redesigning the American Dream, 55-57.

21. "Built-In Salesmanship," Architectural Forum (April 1949) 118-121.

22. Hayden, Redesigning the American Dream, 42.

23. Hayden, Redesigning the American Dream, 6.

24. Eric Larrabee, "The six Thousand Houses That Levitt Built," Harpers' Magazine Vol. 197 (September 1948) 83. Further note on Levitt and unions.

25. Wright, Building the Dream, 242.

26. Flynn, interview with Robert Butte.

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ILLUSTRATIONS

- 2.1 William Butte at 34, in 1914. That year he became General Manager as well as Secretary/Treasurer of Pacific Portable Construction Company. (Union League Club of Los Angeles, Twenty-Fifth Anniversary Booklet. Los Angeles: Birely and Elson Printing Co., 1914).
- 2.2 Built-in furniture for a portable bungalow loaded on Pacific Portable Construction Company truck to be delivered in the Los Angeles area. A second truck behind it carries the wall components. (Courtesy Robert Butte, circa 1918)
- 2.3 The sections of portable bungalows were nailed together at the mill and then delivered to the site. Advertising claimed that a small house could be assembled in two days. (Pacific Portable Construction Company, Pacific Houses, 1919 catalog.)
- 2.4 A basic, two-bedroom portable bungalow, 24' by 36'. (Pacific, Pacific Houses, 1919 catalog.)
- 2.5 Pacific Portable Construction Company bunkhouses were possibly used to house migrant farm workers. (Pacific, Pacific Houses, 1919 catalog.)
- 2.6 The new construction process could be used on many types of structures, such as the gasoline stations here shown. This was, of course, a new built form in the early 20th century, the beginning of the auto era. (Pacific, Pacific Houses, 1919 catalog.)
- 3.1 The Pacific plant covered 24-acres, although much of it was used to stockpile lumber and other materials. The plant had train tracks connected to major railroads. (Pacific Ready-Cut Homes, Pacific's Book of Homes, 1925 catalog.)
- 3.2 Typical Craftsman style ready-cut bungalow from their 1925 catalog. This house is very small, and the floor plan has a major flaw: in order to reach the bathroom one must enter through one of two bedrooms. This was a common design problem with Pacific's inexpensive designs. (Pacific, Pacific's Book of Homes, 1925 catalog.)
- 3.3 The Spanish style stucco home was another popular Pacific style, particularly later in the decade. This house was built by Pacific in Montebello, near Los Angeles, in the late 1920's. (Courtesy Robert Butte)
- 3.4 Ready-cut material displayed in the 1925 catalog. Plumbing and electrical fixtures are not shown, but each piece of pre-cut wood, and each factory-built window and door is pictured. (Pacific, Pacific's Book of Homes, 1925 catalog.)
- 3.5 Deliveries were made by truck in the Los Angeles area. This truck is parked outside the main office at 14th and Hill, late 1920's. (Courtesy Robert Butte)
- 3.6 This 1922 advertisement emphasized the production process and the low cost. \$1164 is the price of materials upon delivery. Labor would have made this house cost close to \$2000. (Los Angeles Times, October 22, 1922, Part V, p. 12.)

- 3.7 This photolog shows a duplex being built in 28 days, not including laying the cement foundation. This house stood at the corner of 14th and Hill as a model home. (Pacific, Pacific's Book of Homes, 1925 catalog.)
- 3.8 Butte welcomed customers to the Exhibition Grounds on page four of his 1925 catalog. Here is pictured the front office, two model homes on either side, and a large display room building. Directions by streetcar were printed next to this invitation. (Pacific, Pacific's Book of Homes, 1925 catalog.)
- 3.9 A photograph of two models demonstrating a Pacific kitchen; the woman is shown describing the kitchen's features, the man is listening. Circa mid-1920's. (Courtesy Robert Butte.)
- 3.10 Butte used Better Homes in America to his advantage. Here he urged the public to buy a home immediately, and also announced the celebration of national Better Homes Week in 1924. (Los Angeles Times, May 11, 1924, Part V, p. 11.)
- 4.1 The "1930 Home" was to be an elegant celebration of fine architecture. This advertisement was a turning point for Pacific, away from focusing on the production and low-costs, and towards architecture and design for more middle class buyers. (Los Angeles Times, November 8, 1925, Part V, p. 6.)
- 4.2 Authorized Builder Walter Neumann in Wisconsin, for example, built larger houses than the average ready-cut bungalow with Pacific Ready-Cut materials in the late 1920's. (Courtesy Robert Butte.)
- 4.3 Photograph of the northwest corner of Pacific plant in 1946, after it was sold to the Penberthy Lumber Company. The bungalow style office building, moved to the Boyle Avenue site during the Depression, is pictured at bottom right. Penberthy operated a lumber company from the site until 1986, using the Pacific office, and many of the original Pacific structures as well. (Courtesy Penberthy Lumber Company)