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COMMERCIAL FALLOUT:
THE IMAGE OF PROGRESS, THE CULTURE OF WAR,
AND THE FEMININE CONSUMER,
1939-1959

by

CYNTHIA LEE HENTHORN

VOLUME I

A dissertation submitted to the Graduate Faculty in Art
History in partial fulfillment of the requirements for the
degree of Doctor of Philosophy, the City University of New
York

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This manuscript has been read and accepted for the Graduate Faculty in Art History in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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Abstract

COMMERCIAL FALLOUT:
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by

Cynthia Lee Henthorn

Advisor: Rosemarie Haag Bletter

This dissertation explores the role of consumer culture in World War II by examining how and why wartime advertising and commercial propaganda forged a link between the home, the middle-class housewife, and the theatre of war, and thereby set a precedent for the military rhetoric found in many Cold War advertisements featuring the promises of a super-powered domesticity that visually affirmed the presumed moral authority of American capitalism and the white, suburban middle class.

By investigating wartime advertisements and articles found in women's magazines and business trade, design, architectural, and pop-science publications, women's recruitment and consumer war bond propaganda, and archival documents, the dissertation argues that consumer culture, the "consumer engineering" professions and the American corporate infrastructure shaped the war's public image--an aspect of World War II which has not been thoroughly explored, especially from the vantage point of art history.

This dissertation reveals the ulterior political motives behind wartime commercial propaganda about the product conversion and postwar reconversion processes sponsored by corporate entities, including the War Advertising Council, the National Association of Manufacturers, and many industrial designers. The American corporate infrastructure sought to build middle- and working-class confidence in big business and capitalism through commercial imagery depicting how industry was winning the war and would democratize higher standards of living in peace, thereby attempting to undermine the public's faith in the New Deal. The business community sought to ensure that the free-enterprise system, corporate authority, and a consumption-oriented society would prevail over wartime collectivism and New Deal business regulations by constructing an image of postwar progress in which a "new and improved" America would emerge, "revolutionized" with the technological advances, product designs, and prefabrication building techniques developed for the war.

The dissertation also examines whether or not the wartime promises for a "democratized" and "revolutionized" domesticity came true after victory by exploring representations of gender and class identity, forecasts for the "house of tomorrow," as well as the paradoxes behind Levittown, the Atomic Age, and the role of African-American consumers in the mainstream vision of postwar progress.

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A dissertation of this size and scope is not completed by one person alone, but is shaped by a nexus of ideas, relationships, and experiences. I am indebted to several scholars and teachers whose work gave me a foundation on which to build my thoughts, and to several family members and friends whose encouragement accorded me the perseverance to see years of study culminate in this dissertation.

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ABBREVIATIONS

AAAA	American Association of Advertising Agencies
AC	Advertising Council
ADI	American Designers' Institute
AFA	American Federation of Advertisers
ANA	Association of National Advertisers
CED	Committee for Economic Development
FCDA	Federal Civil Defense Administration
FHA	Federal Housing Administration
FSA	Farm Security Administration
GAT	General American Transportation Corporation
GE	General Electric
GM	General Motors
L-O-F	Libbey-Owens-Ford
MM&R	Magnus, Mabee, and Reynard
NAM	National Association of Manufacturers
NIIC	National Industrial Information Committee
NYWF	1939 New York World's Fair
OPA	Office of Price Administration
OPM	Office of Production Management
OWI	Office of War Information
RA	Resettlement Administration
WAC	War Advertising Council
WMC	War Manpower Commission
WONS	Women's Own Nutrition Service

INTRODUCTION

I. Statement of Thesis

It is one of the major ironies of human history that modern war has contributed so much to material progress. Barbaric and wasteful as the two wars of this century have been, each has brought some compensating gains that may be said to make up in some measure for the staggering loss in blood and treasure. . . . Science and industry have proved their amazing ability to work together in the interests of destruction. Their partnership, strong before the war, has become stronger still. And now both have new tools to work with. Anyone with a knowledge of these tools can have no doubt that tremendous changes in American living lie directly ahead. . . . Most of us have realized that **the war would bring new developments** - that this country could not take an active part in the world conflict and remain the same. . . . These facts alone mean a **great abundance of beautiful, durable** articles for everyday use at a fraction of the cost of prewar merchandise. [T]here are many more new inventions and processes of almost equal importance now being employed for war production . . . that will later mean **greater comfort and convenience** than we have ever dreamed possible. . . . **The world we knew yesterday has already slipped around the corner and a new one beckons.**

The irony of gaining "great abundance," "greater comfort and convenience" from the progress produced for war was not lost on wartime visionaries, like Norman Carlisle and Frank Latham, who found in the war's chaos a watershed for technological advancement and its ensuing commercial fallout. Their postwar forecast Miracles Ahead! merely confirmed the prevailing wartime opinion that domestic,

¹Norman V. Carlisle and Frank B. Latham, Miracles Ahead! Better Living in the Postwar World (New York: MacMillan, 1944), 1, 5, 10. (My emphasis.)

industrial, and economic problems would be conquered when the military products employed for war came marching home for use in peace.

How is it that the progress of war came to be associated with "revolutionary" improvements in civilian domestic life? Why was it assumed that victory on the battlefield would translate into victory for higher standards of living at home? This dissertation seeks to explore those questions by examining the image of progress fashioned in the United States during World War II, and by investigating how the technological and scientific advances geared for war became associated with domestic progress and improvements for American women and their homes. Such a study is significant, not only for bringing to light documents and images long buried in the past, but it is also revealing of American perceptions and assumptions about progress in our own peacetime culture of war, which to this day still look to military science and technology for "miracles" that promise to "revolutionize" our lives.²

This dissertation will reveal who was responsible for constructing and disseminating the wartime image of

²For an example of the "revolutionary" products we have gained from the Cold War and the post-Cold War's military-industrial complex, see: "Employing the Lessons of War to Make Better Clothes," New York Times 20 November 1994, 11.

On American militarization, see: Michael S. Sherry, In the Shadow of War: The United States Since the 1930s (New Haven and London: Yale University Press, 1995). (This book examined later.)

progress, such as that depicted in Miracles Ahead and other forms of commercial propaganda. I examine how and why the advertising industry, the design profession, and manufacturers of domestic products helped shape American wartime propaganda and the meaning of American participation in the war effort to further their own political and commercial agendas. Much of the commercial wartime media were concerned with the Depression's stagnating standards of living, uneven distributions of technological progress, and a housing shortage crisis left over from the First World War. Consequently, the housing problems exacerbated by the Depression, and the middle-class fear of diminishing domestic standards and social values, dominated much of the business community's discourse during the war, and as a result a great deal of commentary and speculation evolved about deriving benefits for improving society and igniting economic prosperity by harnessing the lessons of war to the production of "revolutionary" consumer products and houses in peace.

Herein lies the key to the image of progress from this period. The war was looked to as a remedy for irrevocably solving pre-war domestic dilemmas and for assuaging pre-war fears as they pertained to class disparities, standards of living, and the home. As a result, the progress generated by war was considered as the ingredient for attaining "revolutionary" higher domestic standards and elevating the

moral stature of low-income families by giving them affordable access to the domestic affectations of the white middle class.

A major aspect of this dissertation is to show how military ordnance and wartime developments in science and technology were justified and glorified not only as signs of progress, but also as vehicles for resuscitating the American public's faith in the "Machine Age" and free enterprise system that had been shattered by years of economic depression. Therefore, I will be emphasizing the mystique and symbolic value attributed to perceptions of progress instead of tabulating the tangible consequences of wartime developments in science and technology that led to new consumer products for the Cold War era.

Equally important to the study of the image of wartime progress is a critical examination of what "revolutionizing" domesticity and housing actually entailed. Throughout the dissertation, I will emphasize how the link between women, the home, and the progress of war conveyed an image of "revolutionized" and "liberated" domesticity, but, paradoxically, entrenched conventional assumptions about gender and limited women's participation in the roles traditionally dominated by men.

This dissertation will explore both the utopian promises and the after effects of wartime progress, and how they renewed and strengthened stereotypical perceptions of

class, race, and femininity in American society during the 1940s and 1950s.

II. Methodology

Before outlining the dissertation's chapters and explaining my work's relationship to past scholarship, let us examine how this study begins within and then moves beyond the parameters of art historical methodology. While industrial design and housing histories (and even film) have found a welcome haven in the discipline of art history, advertising, publicity, and commercial imagery are sometimes still treated as the illegitimate offspring of American visual culture. This is an unfortunate oversight because the advertising industry, design, film, and housing professions do not function in a vacuum, but rather interact and feed off each other's established idioms. As a result, the commercial motivations and products--let alone the histories--of these professions overlap.³

In this particular study, I am placing less significance on stylistic attribution and more significance

³The following books are examples of how American visual culture (including design and advertising) is now being explored in a broader commercial context, which includes the examination of its interrelationship to the aforementioned image-producing industries:

Michele H. Bogart, Artists, Advertising, and the Borders of Art (Chicago: University of Chicago Press, 1995); Pat Kirkham, Charles and Ray Eames: Designers of the Twentieth Century (London and Cambridge, Mass: MIT Press, 1995); Jeffery Meikle, Twentieth Century Limited: Industrial Design in America, 1925-1939 (Philadelphia: Temple University Press, 1979); Meikle, American Plastic: A Cultural History (New Brunswick, N.J.: Rutgers University Press, 1995); Terry Smith, Making the Modern: Industry, Art, and Design in America (Chicago and London: University of Chicago Press, 1993).

on the way in which the commercial representation of houses and domestic products (i.e., architecture and design) in advertising function as persuasive media. Conceptions of progress are represented not only by a physical object or a graphic rendering, but rather involve a discourse about a complex of attitudes, which can be found not only in pictures of objects, but also in texts. As a result, I am interested in the ways in which certain objects and structures were promoted and perceived within the context of an ideological debate over how progress was defined, especially during World War II. This study is not concerned with the stylistic references or conventions in commercial representations, but rather is geared to examining the messages such imagery conveyed, especially about progress, class, and gender, and how they communicated and shaped certain social ideas.⁴

⁴Due to the parameters I have set for this dissertation, I was unable to make a complete study of the typographic and layout design conventions in advertising at this time. However, in a future publication of this work, I plan to include an examination of the visual conventions employed by the advertising industry, and reveal what techniques were unique to this era.

A future study will also examine the difference in visual conventions that may have been employed by magazines targeted to diverse audiences. In Chapter 6, I have made distinctions between the ways in which women's magazines represented images of the postwar "house of tomorrow," versus the business press' renderings. However, in my next study, I plan to compare the layout and typographic design conventions employed by individual magazines (such as Life compared with Better Homes & Gardens)--instead of just examining the contrasts between the different magazine categories.

Furthermore, many of these advertisements were printed anonymously without reference to the designer (although the

I stress again that I am examining a perception of progress, and as a result, my study is more concerned with how concepts of "proper" domesticity and the home were part of the wartime perception of progress. The "image of progress," which this dissertation seeks to reveal and study, does not always refer to a physical structure or object, but rather deals with the embodiment of cultural assumptions and ideals. Although it relies on concrete sources and refers to actual historical figures, this study offers a history of responses and critiques of an abstract ideal; it is concerned with a popular perception toward a definition of what constituted progress, and how it was publicized during World War II.⁵

business press usually provided an index of ad agencies and their clients, as did annual year books). As a result, I did not uncover each artist for every ad illustrated or referred to in this dissertation, but in a future study, I will try to uncover some of these identities.

⁵My study of visual culture, its commercial manifestations, and social meanings has been shaped by my exposure to a variety of sources, but this dissertation's approach to consumer culture, advertising, and design as persuasive media has been especially influenced by the historical methodologies used in the following: Michel Foucault, Discipline and Punish: The Birth of the Prison, trans. Alan Sheridan (New York: Vintage Books, Random House, 1979); Siegfried Giedion, Mechanization Takes Command: A Contribution to Anonymous History (New York and London: W. W. Norton, 1948); Lewis Mumford, Technics and Civilization (New York: Harcourt, Brace, and Company, 1934); Warren I. Susman, Culture as History: The Transformation of American Society in the Twentieth Century (New York: Pantheon Books, 1984).

My method and interests have also been influenced by my association with Stuart Ewen, whose writings and teachings on the social history of consumer culture have broadened my conception of the media and the ideas that I have used to

Consequently, I am interested in discovering the intention behind an image in an ad, or a product or house's design by examining the message it conveyed within a commercial, social, and political context. Thus, in order for us to understand how advertisements, products, and house designs are themselves images of progress, it is important to examine debates and archival material from the various industries that shaped, disseminated, and packaged them as validations of modernity and presumed mobility into the middle class.

The arena where this study takes place resides in an on-going public, governmental, and corporate debate where the concept of home and ideals about progress conjoined. As a result, I will be examining visual and textual material that takes part in this debate, and much of it will derive from persuasive media focused on product and house design. Because I am interested in the commercialized image of progress, I will be examining images and texts from articles and advertisements found in women's, trade, business, and science magazines as well as promotional booklets produced

expand my work in art history. See for example Ewen's following books: Captains of Consciousness: Advertising and the Social Roots of the Consumer Culture (New York: McGraw-Hill, 1976); with Elizabeth Ewen, Channels of Desire: Mass Images and the Shaping of American Consciousness (1982; reprint, Minneapolis and London: University of Minnesota Press, 1992); All Consuming Images: The Politics of Style in Contemporary Culture (New York: HarperCollins, Basic Books, 1988); PR! A Social History of Spin (New York: HarperCollins, Basic Books, 1996).

by the advertising industry, designers, architects, manufacturers, and other members of the business community during the war. I am interested in how news, corporate propaganda, and promotional advertising about wartime ordnance, production, and product development were communicated to the public and how such military products were bestowed with an aura of the miraculous and revolutionary.

Although I have limited my study to print media, I do not rank one medium over another⁶; nor is a hierarchy made between text and visuals--both are vehicles for conveying images and ideals about progress, thus both are equally significant for my purpose. This point is important, especially for a study of advertising imagery from this era, because the pictures in the ads do not function as narratives by themselves, but rather, similar to cartoon strips, their full meaning is very dependent on the ad's extended text. By looking at the total message communicated in this visual/textual nexus, the significance of these ads' role in conveying the business community's political agenda

⁶The image of progress developed during the war, which linked domesticity with militarization, was prevalent throughout several media.

Throughout the dissertation I will refer to certain wartime films and cartoons, but because of the overwhelming wealth of print material generated during the war, I have concentrated mostly on magazines and books simply for the sake of limiting the size of the dissertation at this point. However, in a future publication of this dissertation, I would plan to use more non-print examples.

becomes very clear.

My interest lies in drawing from all the visual and textual evidence I can glean about a given period or topic. I am not inclined to tailor my study around material derived from only the professions which are specifically geared to generate visual culture. As a result, I have gathered writings from home economists, corporate leaders, government officials, women's and trade magazine editors, science journalists, manufacturers as well as ad men, designers, and architects.⁷ The importance behind the information I have gathered, no matter the source, and no matter if they are advertising images or copy, is derived from what it tells me about the concepts and perceptions under study.

Because my dissertation is concerned with the way in which domesticity and the progress of war were conjoined, I will be looking at many architectural sources for domestic housing, but my objective is not to write a history of wartime architecture. The aspects of housing in which I am interested revolve around interior planning, especially that of kitchens and bathrooms, instead of the overall

⁷Although women were prevalent in the advertising industry, as evident by the existence of professional organizations, like the Advertising Women of New York, I will refer to those who worked for ad agencies or departments that were involved with design, copy writing, and the selling and organizing of ad space, as "ad men" for the sake of simplicity and because it was a term used by the industry to refer to members of both genders in its industry. This terminology will distinguish those working for ad agencies from "advertisers," who were the clients.

architectural structure or community layout. References will also be made to architectural idioms that conveyed ideas about progress and encouraged conformity as well as a nostalgia for tradition. In addition, I will look at how certain isolated architectural features were used in media to mold public opinion regarding prefabricated housing. Therefore, for the purposes of this study, I will not be emphasizing the historical development of architectural features, but rather I will focus on the housing field's response to the social needs for efficiency design and the interaction between housework, the interior layout, domestic appliances, and the myth of labor saved.

Furthermore, this study is not a history of industrial design in the conventional sense. Because I am fashioning this dissertation from the study of consumer culture, I am more concerned with the commercial responses and social issues within the industrial design field, rather than the aesthetic responses that surfaced in a given product's appearance. Therefore, I will be looking at the industrial design profession's contribution to the issues in the housing industry, such as prefabrication, higher domestic standards, and lowered costs. I am interested in designers' responses to the New Deal, as well as to the pre-war and wartime housing crisis, and designers' reactions to rising levels of cleanliness and the drive for rational planning in household work spaces. Consequently, the study of

individual products and their surface styles are not the focus of my intent.

Lastly, this is not a history of advertising. Although I do refer to historical developments in that industry during the war, I have not organized my entire study around them. The image of progress generated and disseminated by the advertising industry cannot be looked at only as a phenomenon of that profession, because it is a by-product of more than one industry and is influenced by responses from the client and consumer as well. A study of the image of progress involves an examination of not only perceptions of science and technology, but also the role of corporate authority in shaping public awareness and attitudes. Consequently, this study examines advertising within the larger context of corporate capitalism and the business community's political and economic agendas.

Accordingly, this dissertation is not about only one profession's wartime accomplishments because all the aforementioned industries, along with manufacturers, scientists, government officials, and consumers left their mark on the image of progress that emerged during the war. This study is about tracing the history of an image, a way of seeing that surfaced during the war, whose imprint still haunts our perceptions about progress today.

As a result, this dissertation is not intended to carve out a specialized niche in design, architecture, or

advertising history, but rather by drawing material from these sources and others, I will provide a historical investigation of how several professions and industries worked together in order to solidify, popularize and disseminate a particular image of progress. In the design, advertising, and housing professions this image of progress was developed in order to make a profit and undermine adversaries. Therefore, it is important for me to look at the social, political, and commercial context into which these professions fit, rather than examining their products strictly as a backdrop to art history's canon or a given individual's career.

My dissertation approaches design and architecture as the product of a consumer culture--a business venture--subject to the shifting currents in the social/political/economic systems that affect fashion trades, aesthetic trends, and their industries. This study emphasizes how the industrial design profession, and architecture too, operates within consumer culture, and does not just passively reflect values and beliefs of a society through the objects their members fashion, but as a business, these industries actively function as potent instruments in communicating social conventions and reinforcing them. Because designers and architects help in selling products, like advertising, they also assist in selling, and thus transmitting ideas. Accordingly,

examining home and product designs as active participants in business and consumer culture requires a study of the commercial language that verbally defined what ideas a given design was expected to communicate and what conventions it was required to preserve. Such a commercial language is also buttressed by a political ideology, and as a result, consumer culture, like design and architecture, will be considered within the context of its political ken.

This leads me to an important methodological disclaimer. When I describe a given technological development or product as "revolutionary," I, myself, am not supporting that claim, but rather, in such a statement, I intend to reveal the perception of that development as it was valued and understood within the context of its time. One of the complexities behind studying the history of science and technology (and their public image) is trying to avoid succumbing to "technological determinism," a historical method and point of view which claims that "changes in technology," including science, "cause social changes," and that these changes operate independently and autonomously "'outside' of society, literally or metaphorically."⁸ The opposing point of view, non-determinism, as it were, claims that the "characteristics of

⁸Donald MacKenzie and Judy Wajcman, eds., The Social Shaping of Technology: How the Refrigerator Got its Hum (Philadelphia: Milton Keynes and Open University Press, 1985), 4. For a thorough examination of this issue, see MacKenzie and Wajcman's introductory essay.

a society play a major part in deciding which technologies are adapted."⁹

My thesis does not intend to provide a revisionist reading of technological determinism, but rather to look at the mystique of wartime science and technology that easily lends itself to the technological-determinist point of view. Despite scholarly attempts to question technological determinism, progress is still commercially advertised as "revolutionary," "liberating," and a catalyst for social and domestic change.¹⁰ I am interested in the perception of progress as such, and how it was defined during the war. Therefore, I will be reporting, as it were, on the perceptions of wartime progress that were technological-determinist in nature. I will be examining the technological-determinist reaction to wartime "miracles" of production, and exploring why they were attributed with the power to "revolutionize" the home, and thus presumably improve the entire world. Because the technological-determinist point of view shapes the image of progress, it also defines the promises attributed to "revolutionary" advances. Therefore, I intend to explore the promises

⁹Ibid., 6.

¹⁰Lewis Mumford's Technics and Civilization is one example of this scholarship. See also Mumford's The Myth of the Machine, 2 vols. (New York: Harcourt Brace Jovanovich, 1964-66); Neil Postman, Technopoly: The Surrender of Culture to Technology (New York: Random House, 1992); Stephen M. Fjellman, Vinyl Leaves: Walt Disney World and America (Oxford, Boulder, Colo., and San Francisco: Westview Press, 1992.)

offered behind the technological-determinist image of progress.

Interestingly, the technological-determinist perception of progress from this time period focused attention on "women's work" and household technology. Throughout the 1920s and 1930s, electricity, automatic appliances, and "streamlined" designs were credited with alleviating the burden of household drudgery for those who could afford the new technologies. Yet, the myth of household progress blurs the fact that the labor process only changes as a result of new automatic devices; the cooking, housework, and child care still need to be done. And despite the fact that advertisers claimed that their products saved time for more leisurely pursuits, the reality was that the "revolutionary" household technologies were accompanied by new chores and higher standards of cleanliness, which middle-class proprieties demanded be met.

Wartime advertising of new household "miracle" products and appliances, which were intended to be available after victory, fell into the technological determinist trap. War production, and its stimulus to scientific and technological development, was credited, by advertisers, with launching the greatest household revolution of all time. Therefore, not only was war perceived as the impetus for progress, but, as this dissertation will assert, such concepts of progress were paradoxically associated with ideals about women's

supposed "liberation."

No war can be examined without tracing its roots in diplomacy and global rivalries before a given conflict. Likewise, no image of war's perceived progress can be examined without understanding the ideals about progress prior to mobilization for defense. Therefore, this dissertation will also periodically look at the technological-determinist definition of progress which existed before the war.¹¹ In so doing, I will show that the prevailing pre-war social attitudes toward progress actually helped shape the idea that the war would "revolutionize" the home and American society after victory.

The following chapter outline will briefly show how I apply this methodology and how I arrived at my conclusions through examining various issues and facets of World War II media that popularized an image of domesticity and femininity that was linked with the progress of war.

¹¹Although I will be referring to certain technological and commercial developments that occurred during the 1920s and 1930s throughout the dissertation, I have chosen the date "1939" for my title for the sake of convenience, and also because it was the opening year of the 1930s last monument to progress (the New York World's Fair) prior to America's involvement in the war.

III. Chapter Outline

Chapter I, "Commercializing the War: Conversion and Consumer Progress," examines commercial propaganda explaining the conversion of household appliances and domestic products to military ordnance. Many of the descriptions of wartime conversion examined in this chapter were tailored to mesh with the domestic values, sensibilities, and proprieties upheld by the middle class. As a result, the war effort was sanitized for the home front public's consumption through information packaged in the form of advertising and commercial rhetoric. As this chapter will show, such a sanitary image of modern warfare served more than one propagandistic function. This chapter will reveal that war information about the conversion process was not only intended to restore consumer faith in its country's ability to win a global war, but also re-open channels of corporate influence in the routines of daily life.

One of the problems facing business and government upon America's entry into the war was the fear that the public had lost its faith in "Machine Age" progress due to the Depression, and thus would be unable to muster the confidence in its industrial ability to win the war. Furthermore, the U.S. had not engaged in any substantial military research and development after World War I, unlike Germany and Japan, and had to rely on the commercial

products and manufacturing facilities that were already in place. As a result, manufacturers, designers, and government propagandists attempted to ignite public confidence in wartime industry (and big business) by showing where the source of America's industrial strength and victory lay: the mechanized middle-class household, mass-produced consumer products, corporate "scientific" management, and free enterprise.

Because wartime publicity and advertising pictured conversion as a process in which household goods, glamour products, and appliances, etc. were marching off to war, it is important to briefly trace the history of the domestic progress and consumer culture that developed before World War II. Furthermore, because so much of the industrial production of the war, as well as women's role in the war effort, relied on developments in "scientific" management, mass communication, mass merchandising, "rational" efficiency design, sanitary engineering, mass-produced convenience products, and mechanization, this chapter will outline key pre-war developments that later chapters will refer to again in relationship to the image of progress disseminated during the war.

Chapter II, "The Arsenal of Domesticity," examines women's conversion to the war effort and how femininity and middle-class housework were used and promoted as the home fronts' weapons of war. The purpose of this chapter is to

show how advertising and wartime publicity associated the home, "women's work," and household technology with a power equal to the male contribution to victory. As a result, this chapter will also deal with how government and corporate publicity sought to recruit a vast untapped work force for use in war production: middle-class housewives. Such propaganda persuaded women who had never worked outside the home that their homemaking skills could easily translate into production for war, and thus contribute to victory in a significant way.

Wartime officials and advertisers also recognized the victory potential behind "recruiting" those middle-class women whose family obligations barred them from factory work. Thus, advertising and propaganda also showed how housewives could help win the war by staying at home, and in turn it trained, through women's magazines, a domestic Quartermaster Corps, in which professional homemakers filled their time with war-oriented household chores (such as rationing and salvaging cooking grease) for victory, which contradicted middle-class sensibilities about sanitation and several years of inculcation in the commercial culture of planned obsolescence. Thus, conventional middle-class homemakers, no matter in what capacity they contributed to the war effort, were equated with soldiers on the battlefield, and in this respect, not only femininity, but also both the social concept and private function of the

home, became intricately tied with the cause of war and the result of victory.

Consequently, sustaining the gender status quo, as this chapter will show, was perceived as being important for the war effort because it helped shore up a sense of stable home and family life, despite the social changes and destructive effects of the war. Traditional perceptions of femininity fit well within this paradigm of "normalcy," and attention to beauty and "proper" appearances were labeled as significant facets of a woman's many patriotic duties.

Lastly, this chapter will show how wartime advertising promoted women's reconversion back into the traditional homemaker role and out of the male business of war, even before victory was achieved. Advertising imagery showed how women's roles in the postwar world would regress, while their household technology supposedly would progress as a result of wartime research and development.¹²

Chapter III, "Profits From Symbolism," and Chapter IV, "The Politics Behind Designing the Postwar 'World of Tomorrow,'" examine the roles of the advertising and industrial design professions during the war, and what economic motives their clients--i.e., manufacturers--had in

¹²While other books have focused on women's roles in the war and the entrenchment of traditional femininity in the postwar era, they have not looked at these issues as they were communicated through advertising and other forms of commercial propaganda. This distinction will be dealt with in the state of scholarship section.

continuing to advertise consumer products, which they were no longer producing as a result of the war. I will examine how these professions fit within the political/economic context of the war in order to explain why there was so much advertising and corporate propaganda generated during this period, and what its political and economic significance entailed. Consequently, these two chapters will show how members of both the design and advertising fields (as well as manufacturers) felt threatened by New Deal politics and wartime regulations, which were perceived as detrimental to the free-enterprise system as well as the "consumer engineering" functions of the advertising and design industries.

Unlike the design profession, however, the ad industry had a more difficult time securing an acceptable role for itself during the war. As a result of this dilemma, the history of how this role developed will be examined at length in Chapter III. Such a controversy did not exist for the design profession although the anti-business, anti-commercialism flak the ad industry received from certain New Dealers and consumer advocates could have easily turned on designers since the two "consumer engineering" professions were interrelated.

Examining the role of the wartime advertising and design professions in detail is significant for three main reasons. First, such a study explains why there were so

many advertisements and articles about postwar products at a time when consumer spending was curtailed and conversion to the war effort had left manufacturers with nothing concrete to sell. Secondly, it shows how the ad industry became part of the government's propaganda machine to sell civilians, especially women, on the business of war (an aspect covered in Chapter II). And third, it establishes the reasons for the animosity between the New Deal and the business community, hostilities which would motivate the ad industry, designers, and manufacturers to plan postwar reconversion schemes that were intended to undermine the basic tenets of New Deal collectivism and "state capitalism."

Advertisers, ad agencies, and designers were largely responsible for the news about how domestic products had been converted to the war effort and how they were undergoing an alchemical transformation that would ignite a "revolution" in postwar domesticity after victory was achieved. Advertising and promotional literature that discussed the postwar world (while the war was still being waged) harbored a variety of political agendas, which these two chapters will cover.

As will be revealed throughout the dissertation, wartime media encouraged Americans to believe that they were fighting for a utopian, fantasy life generated by the progress of war, which manufacturers would make available once victory was achieved. Images of how American industry

would not only win the war, but also automatically secure higher standards of living in the postwar peace were not only intended to shore-up the public's confidence in industry's ability to win a global war (despite the fact that it had not been able to avoid economic depression), but also strengthen consumer faith in corporate authority and the free enterprise system. Thus, visions of a utopian postwar world built on the progress of wartime industry and product development, as science writers Carlisle and Latham had forecast, were not only about selling consumers the business of winning a war, but also sought to entice them with the perceived consumer benefits of capitalism, as opposed to the state-controlled economic plans of the New Deal. While Chapters III and IV will examine the political and economic ramifications of the advertising and design industry's influence on the wartime forecasts about the postwar world, Chapters V and VI will explore exactly what the promises and images entailed.

Chapter V, "Out of the Crucible of War: Forecasting the Postwar Commercial Fallout," and Chapter VI, "From Submarines to Suburbs: Constructing the 'House of Tomorrow'" examine the anticipated reversal of the conversion process: dreams of reconverting progress from the battlefield back to the female consumer and her home. These are the pivotal chapters in the dissertation because they examine how the "new and improved" postwar house and household products were

touted as spoils won from the progress of war.

Chapter V analyzes forecasts for postwar products, such as synthetic fabrics, plastics, and electronics, and shows how the war was depicted as a product proving ground that could only benefit the consumer in the postwar world.

Postwar forecasters for these industries claimed that if synthetics, plastics, and electronics had stood the test of war, then they were capable of "revolutionizing" domesticity by dispelling filth and drudgery, and thereby could raise standards of living to higher levels in peace.

Likewise, the blueprints for the postwar house, the focus of Chapter VI, were used as means to rally consumer support for the war effort and entice consumer anticipation for a "better America" built with the material progress generated with war production. According to wartime visionaries' forecasts of the postwar world, the revolutionary, automatic, push-button "house of tomorrow" and the "kitchen of tomorrow" would become an affordable reality for the masses as a result of wartime research and development in the housing and domestic product industries.

This chapter will also refer to pre-war housing experiments in standardization and prefabrication that were converted to the war effort, and will show how their use in war shaped the postwar "house of tomorrow." Consequently, architects and designers relied on the housing research and development mobilized for the war effort in order to attempt

to make their pre-war blueprints for the "house of tomorrow" materialize after victory.

However, it was not the products or house designs themselves that would entice consumers to embrace the business community's commercial plans for the postwar world, but rather such products and household designs were sold as ways to maximize domestic efficiency, cleanliness, raise standards of personal hygiene, and facilitate a more sanitary and well-ordered world automatically at an affordable price. Thus, according to postwar forecasters, the progress of war would democratize the values and cleanliness standards of the middle class by making appliances, houses, and kitchens designed for effortless, sanitary living within reach of the working class. The progress of war was not solely perceived in terms of postwar consumer bounty, but rather touted as the means to achieve a cleaner, more rationally designed America after the war, and to eradicate (through more affordable progress) the social decay and chaos presumably fostered by filthy inner city slums and inefficient, substandard housing. Chapters V and VI will show how the war and its progress were perceived (and promoted) as the ingredients for eradicating the social strife, drudgery, ubiquitous unsanitary conditions, and housing problems of the past by offering affordable access to the domestic trappings of the middle class.

Chapter VII, "Postwar Progress: Myth or Reality?,"

examines criticisms aimed at wartime advertising about the postwar world and explores for whom the visions of effortless living and democratized progress in the postwar utopia were an illusion. Would freedom be gained and labor saved from the reconversion of wartime progress to civilian use in peace? Well before the war ended, skeptics questioned and exposed the unrealistic predictions about labor-saving houses and miraculous products intended for the postwar world.

This chapter will also examine whether or not the Levitts and their reconversion of wartime construction techniques completely fulfilled the wartime forecasts about prefabricated "miracle" suburban houses that were accorded the ability to provide low-income families with access into a higher class status.

African Americans, however, found that their country's wartime production "miracle" did not live up to expectations. While the white-dominated business community recognized the rise in the black standard of living during the war, it never include black Americans in its image of the postwar progress publicized in the white mainstream media. As this chapter will show, their exclusion from the wartime image of the "world of tomorrow" was not limited to the pages of magazines. Established racial attitudes prohibited black Americans from white housing developments, and thus limit their participation in the "democratization"

of middle class suburbia.

The consequences of World War II and the image of progress, which popular attitudes toward the war helped to mold, did not stop in 1945 with the collapse of Nazi Germany in May and the atomic bombing of Nagasaki and Hiroshima in August that same year. Chapter VII will conclude by showing how Cold War realities helped redefine the social meaning of progress and the postwar "house of tomorrow."

Exploring the postwar visions myth will lead to the dissertation's Conclusion, "Cold War Housework and the Postwar Commercial Fallout," which briefly deals with issues from the early Cold War era that reveal the social and global consequences of wartime progress, and whether or not the promises of a domestic "revolution" came true as forecast.

Although I will not be exploring the early Cold War years in detail, I have chosen to end my study in 1959 because it was the year of the U.S. trade exhibition in Moscow. The purpose of this conclusion is to show how military science and technology was associated with rising standards of cleanliness and household efficiency, and in so doing reveals how the culture of war became further solidified in the culture of housework. The conclusion will show how the commercial imagery and rhetoric of wartime militarized domesticity was also utilized during the early years of the Cold War in corporate propaganda which sought

to undermine Communism with visions of "super-powered" domesticity. During the Cold War, domesticity continued to be "revolutionized" by the technological progress of war because commercial product research and development was dependent on financing through defense contracts. Thus, the American military-industrial-complex was touted as the "winning weapon" that infused progress into the Cold War house.

The moral authority of a "super-powered" clean house celebrated the capitalist way of life that helped achieve it. In support of this thesis, the conclusion will recall the Nixon/Khrushchev "kitchen debate," which took place at the 1959 trade fair, where the technological rivalry between the U.S. and the U.S.S.R. was discussed in terms of household appliances and consumer products for the home. The U.S. attempted to flaunt its "superiority" (both morally and technologically) over the Soviets through displays of consumer goods and a push-button kitchen, rather than a military exhibition of rockets and bombs. Thus, the "kitchen debate" will conclude the dissertation's focus on the relationship between domestic progress and the culture of war.

IV. State of Scholarship

In recent years, scholarly interest in American consumerism has burgeoned in several fields, but conspicuously absent is a thorough assessment of consumer culture, design history, and "consumer engineering" practices in the context of World War II. Perhaps the lack of attention given to wartime consumer culture, the industrial design profession, and the latter's relationship to the advertising of this era, has been justified by the fact that conversion diverted the materials and industrial production intended for household consumer goods into military ordnance, and also recruited the professions that designed, advertised, and disseminated this merchandise.¹³

¹³Although some attention has been given to the advertising profession during the war, designers' participation in World War II has been generally overlooked, but this trend is changing as scholars of design history look more at this industry as "consumer engineering," as opposed to "decorative art."

Pat Kirkham's study, Charles and Ray Eames: Designers of the Twentieth Century (Cambridge, Mass. and London: MIT Press, 1995), for example, analyzes details of the Eameses's careers in a socio-economic context. She examines their work as a business, and unlike designer monographs, provides more details about the Eameses's commercial roles in the war years and Cold War international politics.

Another example of this shift is Rosemarie Bletter's catalogue essay, "The World of Tomorrow: The Future with a Past," in High Styles: Twentieth-Century American Design (New York: Whitney Museum and Summit Books, 1985). Although her catalogue essay deals mostly with 1930s architectural and design trends, she points to related developments during the war and their relation to postwar suburbia.

Although World War II design is a small part of his book, Arthur Pulos includes a great deal of information about the design profession during this era. However, his examination of certain designers' activities for the war effort and their

However, the fact remains that a consumer culture still existed and the influence of commercial media (which espoused a consumption ethic) flourished in America during the war. Furthermore, the housing, "styling," and advertising professions continued to work extensively.¹⁴ One of the points made by this dissertation is that designs and materiel geared for the war effort were intricately tied to proposals for new products targeted to the civilian domestic market. A Firestone ad from 1944 expresses this

postwar plans is not examined in the larger context of World War II politics, business, and advertising. Arthur J. Pulos, American Design Adventure, 1940-1975 (Cambridge, Mass. and London, England: MIT Press, 1988).

Jeffery Meikle's American Plastic: A Cultural History, is another example of the new attention given to the design projects and proposals created during the war years, although Meikle's book is more focused on the industrial development of plastics and their public perception.

¹⁴The architecture of the World War II era has begun to receive more attention lately, and those studies that best represent this shift will be referred to in detail later in this section.

Although histories of housing have acknowledged the influence of World War II on building entrepreneurs like the Levitts, such studies have tended to emphasize the **postwar** construction boom, which is credited with expanding the suburban dream to the lower middle class. See for example: Gwendolyn Wright, Building the Dream: A Social History of Housing In America (Cambridge, Mass. and London: MIT Press, 1981); and Kenneth T. Jackson, Crabgrass Frontier: The Suburbanization of the United States (New York: Oxford University Press, 1985).

Designers were also busy redesigning conventional household utensils, products, and packaging in substitute materials in order to release priority resources to the war effort. More on this issue later.

Fashion designers were also engaged with creating "proper" factory and military uniforms for women as well as experimenting with substitute fabrics. See wartime issues of the garment trade periodical Textile World.

link succinctly: "Producing For War . . . Preparing For Peace."¹⁵ The wealth of publications and documents generated during World War II reveal that ad men, designers (the "consumer engineers"), and architects were not in a professional hiatus, and that although consumption of certain products was curtailed, the American consumer culture and the "consumer engineering" professions were not inactive for the duration. As this dissertation will show, consumerism, the capitalist ethic of planned obsolescence, and "consumer engineering" played an important role in the American wartime propaganda machine.

Although the aforementioned professions did not always advertise and "style" products and houses for the civilian public to consume during the war, their wartime ordnance, civilian and military defense housing, and proposals for postwar products were not created in a historical vacuum. Rather, the housing projects, proposals, product developments, and commercial visual culture generated by these professions throughout World War II were tied to the design trends, consumer engineering practices, construction techniques, etc., which had existed before the war (some in experimental stages), and this wartime work helped shape what these professions did in the postwar years to follow.

Only one study has significantly examined the

¹⁵Business Week 22 July 1944, 60-61. This ad is illustrated later in the dissertation.

architecture and industrial design fields during the war years, and has recognized the significance of World War II ordnance and the home front's domesticated culture of war to the consumerism and product design of the postwar years. The National Building Museum's exhibition and accompanying catalogue, World War II and the American Dream: How Wartime Building Changed a Nation, emphasizes the direct impact of World War II on architecture and product design from 1943 to 1950.¹⁶ The series of catalogue essays provides an

¹⁶Donald Albrecht, ed., World War II and the American Dream: How Wartime Building Changed a Nation (Washington, D.C.: National Building Museum; Cambridge, Mass.: MIT Press, 1995).

Numerous articles, government publications, and books on how war production and ordnance facilitated victory were published within the ten years that followed the war. (See subsequent chapters.) For a more recent, but dated, study that deals with the history of the conversion process to a certain extent see: John Morton Blum, V Was for Victory: Politics and American Culture during World War II (New York: Harcourt Brace Jovanovich, 1976).

For more on World War II architecture, see the exhibition catalogue, Blueprints for Modern Living: History and Legacy of the Case Study Houses (Cambridge, Mass. and London: MIT Press, 1989). Blueprints, however, does not provide the depth of study into World War II building that the National Building Museum catalogue does, primarily because its focus is on the Arts & Architecture Case Study housing experiments of the postwar years and not housing designed to address the war effort. It is an important book for anyone studying the architecture of this era. Thomas Hines, Dolores Hayden, and Kevin Starr, more so than the other contributors, attempt to put some of the architects involved in the postwar program in a wider context by showing either what they did for the war effort or examining the broader trends in architecture before, during, and after the war.

Hayden's essay is interesting for my work because it shows what pre-war visions the Case Study architects wanted to see emerge from the building lessons of the war in order to address the on-going housing shortage. Yet, she is critical of how their ideals and experimental modernist "mansions" failed to play a significant role in the overall postwar

invaluable contribution to future scholars exploring the ordnance history of World War II, which at the time, was credited as the "winning weapon" behind the Allies' victory. While the show's catalogue essays point to further areas for study in World War II ordnance and war production history, those by Peter S. Reed and Robert Friedel were especially helpful to my research.¹⁷

In his catalogue essay, "Enlisting Modernism," Peter Reed examines the conversion of modernist architects to wartime use in U.S. defense building projects for both civilian and military use. Reed's essay chronicles such projects, including construction of war plant facilities, undertaken by European emigré architects, like Mies van der Rohe, and war-worker community housing projects, by Walter Gropius, Marcel Breuer, Frank Lloyd Wright, and Louis I. Kahn. Reed also highlights the attempts of modern architects and designers, like R. Buckminster Fuller, Charles Eames, and Ray Eames, to reconvert their war-won knowledge in defense housing and design problems to solve the postwar housing shortage. Reed's main thesis is to show

housing industry, and provide shelter as well as "good" design where it was most needed.

¹⁷Catalogue essays from the National Building Museum's show not highlighted below, but equally informative, include: Margaret Crawford, "Daily Life on the Home Front: Women, Blacks, and the Struggle for Public Housing;" Greg Hise, "The Airplane and the Garden City: Regional Transformations During World War II;" Joel Davidson, "Building for War, Preparing for Peace: World War II and the Military-Industrial Complex;" Michael Sorkin, "War is Swell."

that the wartime use of modernist architects helped popularize the International Style as a postwar building type for identifying corporate and government culture, although its use for household design remained on the fringe.

Robert Friedel's catalogue essay, "Scarcity and Promise: Materials and American Domestic Culture during World War II," deals with how wartime shortages in resources and building materials, prompted product developments in plastics, plywood, and new construction techniques. Friedel covers several cases in which a given modern designer or architect was called upon to solve a design or materials problem, and also shows how such wartime developments were perceived as "miracles," which would usher in the postwar consumer utopia of tomorrow.

While my topic overlaps with these two theses, my intent is to reveal how war production and product development transformed the symbolic values attached to the scientific and military authority and associated it with the dominant image of progress. In so doing, I intend to explore this issue further by showing how this image of progress, which was identified with war, also became affixed to ideals about domesticity.

Furthermore, despite the immense contribution this groundbreaking catalogue and exhibition have made, no one has examined how designers were part of the business

community's wartime mandate to undermine the New Deal and reestablish consumer confidence in capitalism, which my study will show. This aspect is very significant because derailing the New Deal represented the business community's main motivation behind advertising and publicity about the postwar era during the war. The prosperous postwar "world of tomorrow" was offered as a prize held out by the organized business community (of designers, ad men, manufacturers, etc.) to consumers if they supported the American Way's free-enterprise system and denounced New Deal collectivism. This topic generated a wealth of published documentation and unpublished archival material that has not been thoroughly explored by World War II scholars, and has not been examined by anyone in the design/architecture history field.

In the annals of household technology histories, Ellen Lupton's exhibition and catalogue, Mechanical Brides, provided a valuable contribution to the growing body of feminist scholarship in design history, and has inspired my work a great deal.¹⁸ Her show and accompanying catalogue

¹⁸Ellen Lupton, Mechanical Brides: Women and Machines from Home to Office (New York: Cooper-Hewitt National Museum of Design; Princeton Architectural Press, 1993).

For proposals of feminist methodology in design and architecture histories, see: Judy Attfield, "Form/Female Follows Function/Male: Feminist Critiques of Design," in Design History and the History of Design (London: Pluto Press, 1989); Cheryl Buckley, "Made in Patriarchy: Towards a Feminist Analysis of Women and Design," Design Issues 3 (1987): 3-15; Leslie Kanes Weisman, Discrimination by Design: A Feminist Critique of the Man-Made Environment (Urbana and Chicago:

examine the relationship between women and technology from the 1920s to the present. While the issues central to her research overlap with my concerns, Lupton looks at women's general relationship with technology as a patriarchal authority both in the home and work space, whereas my emphasis examines femininity, "women's work," and household technology within the context of the war years, and how the culture of housework became "empowered" through its association with war production and Allied victory.

Furthermore, Lupton's earlier work, The Bathroom, The Kitchen and the Aesthetics of Waste, written with J. Abbott Miller, has helped shape my thinking about the way in which rising standards of cleanliness were related to developments in kitchen and bathroom designs.¹⁹ Significant to my study, Lupton and Miller show how the architecture and design communities in the years before the war were not immune to debates about social health and middle-class

University of Illinois Press, 1992).

For other feminist approaches to design history and women's roles in the design profession, see: Judy Attfield and Pat Kirkham, eds., A View From the Interior: Women and Design (London: Women's Press, 1995); Dolores Hayden, The Grand Domestic Revolution: A History of Feminist Designs for American Homes, Neighborhoods, and Cities (Cambridge, Mass. and London: MIT Press, 1981).

On gender and design in consumer culture, see: Kirkham, ed., The Gendered Object (New York and Manchester, England: Manchester University Press; New York: St. Martin's Press, 1996).

¹⁹Ellen Lupton and J. Abbott Miller, The Bathroom, The Kitchen, and the Aesthetics of Waste: A Process of Elimination (Cambridge, Mass.: MIT List Visual Arts Center, 1992).

obsessions with attaining universal standards of sanitation through efficient product and house design and scientific management techniques. My study will build on their groundbreaking work by looking at these issues within the context of World War II, especially in terms of the commercial visions of the postwar "world of tomorrow," which promised effortless housework in a maintenance-free, super-sanitized home environment at an affordable price.

While feminist examinations of household technology have mushroomed since the early 1970s, no work has been done on the promises and paradoxes of household technology made during the war.²⁰ It is surprising that no one has

²⁰For critiques of women's relationship to household technology and mechanized housework, see: C. Bose, P. Bereano, and M. Malloy, "Household Technology and the Social Construction of Housework," Technology and Culture 25 (January 1984): 53-82; Ruth Schwartz Cowan, More Work for Mother: The Ironies of Household Technology from the Open Hearth to the Microwave (New York: HarperCollins, Basic Books, 1983); Hayden, Grand Domestic Revolution (cited earlier); Christina Hardyment, From Mangle to Microwave: The Mechanization of Household Work (Cambridge, Mass.: Polity Press, 1988); Suellen Hoy, Chasing Dirt: The American Pursuit of Cleanliness (New York and Oxford: Oxford University Press, 1995); MacKenzie and Wajcman, eds., The Social Shaping of Technology: How the Refrigerator Got its Hum (cited earlier); Maxine L. Margolis, Mothers and Such: Views of American Women and Why They Changed (Berkeley, Los Angeles, London: University of California Press, 1984); Phyllis Palmer, Domesticity and Dirt: Housewives and Domestic Servants in the United States, 1920-1945 (Philadelphia: Temple University Press, 1989); Joan Rothschild, "Technology, Housework and Women's Liberation: A Theoretical Analysis," in Machina Ex Dea: Feminist Perspectives on Technology (New York: Pergamon Press, 1983), 79-93; Witold Rybczynski, Home: A Short History of an Idea (New York: Viking, 1986); Susan Strasser, Never Done: A History of American Housework (New York: Pantheon Books, 1982); Wright, Building the Dream (cited earlier).

undertaken this study in depth, primarily because the war is still, to a certain extent, popularly perceived as a galvanizing force behind the women's movement, which developed later. My study will make a contribution to this body of scholarship by examining how wartime propaganda and commercial imagery visually communicated and reinforced conventional myths about household technology, and consequently solidified assumptions about male and female identity. Unlike other gender or household technology studies, my work emphasizes the visual representation of these cultural assumptions, and will show how wartime advertising and publicity that promoted visions of the postwar years promised to empower feminine consumers by associating domestic product features with masculine machines designed for war.

Even scholars of women's role in World War II have left untouched a vast field of commercial imagery and corporate propaganda about ideals concerning women, the family, and the home, which dominated wartime media.²¹ Maureen Honey's

²¹On the history of the wartime female labor force and issues of women's labor, see: Karen Anderson, Wartime Women: Sex Roles, Family Relations, and the Status of Women During World War II (Westport, Conn.: Greenwood Press, 1981); Susan Hartmann, The Home Front and Beyond: American Women in the 1940s (Boston: Twayne, 1982); Eleanor Straub, "Government Policy Toward Civilian Women During World War II" (Ph.D. diss., Emory University, 1973); and Straub, "United States Government Policy Toward Civilian Women During World War II," Prologue 5 (Winter 1973): 240-54.

For a feminist analysis of women and war, see also:

book, Creating Rosie the Riveter: Class, Gender and Propaganda during World War II, does, to some extent, depart from this trend.²² Honey gives a lengthy account on the work of the Office of War Information and Magazine Bureau, which sought to encourage women's participation in the war effort through magazine fiction. While the main focus of her book, however, is wartime fiction, she provides an excellent examination of middle versus working-class wartime messages, and she does look briefly into the role of the War Advertising Council and its commercial messages targeted to middle-class women during the war, although her examination of wartime advertising imagery is sparse.

Leila J. Rupp in Mobilizing Women for War: German and American Propaganda, also provides an informative overview of propaganda targeted to women during World War II.²³

What is most helpful about Rupp and Honey's work is their examination of the organization behind the wartime

Margaret Randolph Higonnet, et al., Behind the Lines: Gender and the Two World Wars (New Haven and London: Yale University Press, 1987). See especially Susan Gubar's essay, "'This Is My Rifle, This Is My Gun': World War II and the Blitz on Women," which analyzes women writers' responses to the way in which the greater mechanization of this war endangered and invaded not only the private sanctity of women's home front realm, but also encouraged social changes which gave rise to greater sexual antagonism toward women from men.

²²Marueen Honey, Creating Rosie the Riveter: Class, Gender and Propaganda during World War II (Amherst: University of Massachusetts Press, 1984).

²³Leila J. Rupp, Mobilizing Women for War: German and American Propaganda (Princeton: Princeton University Press, 1978).

propaganda machine, which in other studies of wartime women is not emphasized. Despite the strengths of these two studies, and the wealth of books already written about women's lives in World War II, no scholar of women's studies has looked at the significance behind the commercial imagery, the conversion of household products to war use, the reconversion process of war-improved goods to civilian use, and wartime visions of the postwar world. In short, an immensely important aspect about women's lives and their image in World War II--a facet of the war which had so much impact on domesticity during the Cold War too--has been left unstudied. This dissertation will fill this gap in World War II scholarship, and provide a new dimension to the body of literature on women's history in this area.

Examinations of gender and the early Cold War years have been important for my study because I intend to show how the image of wartime progress, which linked the home with the culture of war, became an important symbol of U.S. superiority in its technological rivalry with the Soviet Union.²⁴ Susan Hartmann's World War II study, The Home Front and Beyond, is one of the rare exceptions in the body of World War II scholarship which, not only states, but documents how the wartime experience shaped gender attitudes

²⁴This area, however, is so rich in historical records that I can only discuss my ideas in the concluding chapter of this dissertation, and will have to reserve a fuller examination for a later book.

in the postwar years. However, the most comprehensive study of gender issues of the postwar and early Cold War years is Elaine Tyler May's Homeward Bound: American Families in the Cold War.²⁵ May's book sheds light on the domestic, class, and consumer roles of women in the Cold War as American society emerged from World War II, but like the feminist World War II scholarship, she barely examines the commercial imagery and products that reinforced the traditional gender roles she explores.²⁶

While studies of the wartime advertising industry and the government's propaganda machine have provided much needed documentation of the organization and function of communications and commercialism during the war, none have addressed issues concerning class and gender, as Honey did. But surprisingly, such studies of wartime advertising have overlooked the political and economic significance behind the commercial image of progress, which manufacturers, designers, and other publicity organizations sought to build during the war. Frank Fox, utilizing articles published in advertising trade magazines, provides an excellent study of

²⁵Elaine Tyler May, Homeward Bound: American Families in the Cold War (New York: HarperCollins, Basic Books, 1987).

²⁶Another study of 1950s Cold War culture, although it makes a significant contribution, also does not examine the commercial imagery of the era: Lary May, ed., Recasting America: Culture and Politics in the Age of Cold War (Chicago and London: University of Chicago Press, 1989). Lary May, et al., cover several 1950s issues and cultural forms in their anthology, from painting to jazz, suburbia, gender, corporate culture, and the Red Scare in Hollywood.

the issues plaguing the wartime ad industry in his book, Madison Avenue Goes to War.²⁷ Fox also reveals the animosity between the ad industry and the New Deal administration, and how ad men attempted to make a role for themselves in, and eventually take over, the government wartime propaganda machine. However, Fox's book, although invaluable, is confined to studying the narrow field of the advertising profession, and does not show how this industry shared wartime concerns, profit motives, and political strategies with other consumer-oriented professions, as my dissertation will show. And although Fox does refer to forecasts about the postwar world generated during the war, he does not examine them in depth, nor within the context of the pre-war image of progress, as my study does.²⁸

Stuart Ewen's examination of the rise of the public relations field from the Progressive Era to the Cold War, in

²⁷Frank Fox, Madison Avenue Goes to War: The Strange Military Career of American Advertising, 1941-1945 (Provo, Utah: Brigham Young University, 1975).

See also: Blum, V Was for Victory, who deals in part with advertising during the war.

²⁸For a brief, but helpful, overview of the War Advertising Council and its Cold War role, see: Robert Griffith, "The Selling of America: The Advertising Council and American Politics, 1942-1960," Business History Review 57 (Autumn 1983): 388-412.

For studies on the government side of wartime communications, see: Alan Winkler, The Politics of Propaganda: The Office of War Information, 1942-1945 (New Haven and London: Yale University Press, 1978); David Lloyd Jones, "The U.S. Office of War Information and American Public Opinion During World War II, 1939-1945" (Ph.D. diss., State University of New York, Binghamton, 1976).

PR!, unlike previous studies of wartime advertising, provides an examination of the National Association of Manufacturers' (NAM) wartime publicity machine, which was geared to undermine the New Deal, as my study also has found.²⁹ Although his book does not entirely focus on World War II, it is significant because it traces the historical development and consequences of the NAM and business community's animosity toward the New Deal. Therefore, from his study, we can see how the roots of wartime propaganda developed in pre-war hostilities between government and business, and discover how they influenced the consumer culture of the Cold War era.

Michael Sherry's book, In the Shadow of War: The United States Since the 1930s, traces the roots of American militarization and its role in U.S. politics, foreign policy and the domestic economy.³⁰ His focus is on how militarization became an entrenched aspect of American culture as a result of the institutionalization of defense spending. By contrast, my study examines cultural responses to this militarization and how attitudes toward progress

²⁹Ewen, PR! A Social History of Spin.

Ewen's book was not available when I conducted my research and wrote my chapter on the wartime ad industry and the NAM's role in shaping perceptions of postwar progress during the war. However, since its release, his book has confirmed many of my suppositions, and helped put my study of these issues and the industrial design profession's wartime role in a wider historical context.

³⁰Sherry, In the Shadow of War. (cited earlier)

were an important feature of fashioning and sustaining the defense mentality, which became the hallmark of American national identity during the Cold War. My emphasis is on the visual culture that not only resulted from, but also helped define American militarization and its domestication of war.

Therefore, no single study in any field has conducted a detailed and comprehensive examination of the media infrastructure, commercial imagery, and social attitudes prevalent during the war years, and how they contributed to popularizing a dominant image of progress in which the war and the home were conjoined. This dissertation will fill this void, and contribute to the expanding World War II scholarship, as well as the history of household technology and feminist examinations of "women's work." Most significantly, it will close a gap in studies of visual culture, and offer a suggestion for ways to expand art historical methodology and subject inquiry utilizing archival evidence from advertising, corporate publicity, and consumer culture.

CHAPTER 1

COMMERCIALIZING THE WAR: CONVERSION AND CONSUMER PROGRESS

Dear Mom, I know where your Brillo went . . . because they are using [it] for camouflage in the Army - bales of it - painted green like grass!¹

Domesticity and femininity gained a military purpose during World War II because nearly every product associated with the home, feminine glamour, or "women's work" was recruited for war. [FIGURE 1] Like American Magazine's "picture story of weapons forged from everyday peacetime articles," Revere Copper and Brass juxtaposes the "before" and "after" versions of its domestic products. [FIGURES 2 & 3] Here, two distinct world's, women's realm versus the battlefield, become one through the "miracle" of conversion. However, dark and gritty images of the battlefield, overlaid with smiling and contented female consumers, as Revere's ads show, were not considered diametric, but rather, as American Magazine suggests, symbiotic parts of the same equation which would add up to victory. Images such as these (in which cosmetics, fabrics, kitchen utensils, cleaning supplies, and appliances are put to military use) established the idea that the mobilized domestic world of women could help win a war fought by men:

¹Ladies' Home Journal September 1943, 151.

Here are some examples of how we have converted our peacetime industry to war production: From lingerie to camouflage netting; baby carriages to field hospital food carts; lipstick cases to bomb fuses . . . hair clipping machines to projectiles; silk ribbons and silk goods to parachutes; beer cans to hand grenades; mouse traps to tripod mounts . . . vacuum cleaners to gas mask parts. The aluminum for one pursuit plane would make 2,700 average pots and pans. . . . [And] [t]wo thousand, eight hundred pneumatic rafts could be made from the rubber used to make baby pants in just one month last year.²

Mass-produced consumer products, modern design ethic, labor-saving technologies, "scientific" assembly and management techniques, etc., had steadily increased mechanization in the middle-class household prior to World War II. This industrialization of the home, which gave rise to higher standards of living and cleanliness, was associated with traditional concepts of progress and heralded by advertisers and designers as the purveyors of an unprecedented domestic "revolution."³ According to wartime

²War Facts: A Handbook for Speakers on War Production (n.p.: Office of Emergency Management, no date.), 46, 81, 82. See also: "The drastic reorganization of American industry quickly bore fruit EXAMPLES OF CONVERSION [S]park plugs [to] Bayonets; Egg poachers [to] Percussion caps; Electric driers and heaters [to] Parachute flares; Food machinery [to] Amphibian tanks;. . . . Motors, fans [to] Machine-gun turrets; Steel kitchen cabinets [to] Antiaircraft shells." From: Nation at War: Shaping Victory on the Home Front (n.p.: Reprinted from Compton's Picture Encyclopedia, no date.), 12n.

And: "All of our manufacturers are performing as expected in using substitute materials, producing only their quotas **Some . . . are now producing armaments instead of household conveniences.**" From: "Another Kind of National Defense," American Home April 1942, 10. (My emphasis)

³This middle-class domestic "revolution" was launched shortly after the First World War and, despite the Depression, increased during the 1930s. See: Ronald C. Tobey, Technology

advertisers and commercial propagandists, this American industrial progress would be transferred--converted--from its job of "revolutionizing" the middle-class household to "revolutionizing" the battlefield in order to win the war. Thus, the conversion of the country's domestic consumer products--the perceived sustenance of the American Way and symbol of capitalist progress--would provide the materiel for waging a war of attrition against the totalitarian enemies of democracy. This chapter explores how the conversion process was justified to the public by American business, and how these explanations of product mobilization fit into the corporate wartime propaganda scheme.

As the reader will note, the majority of wartime sources referred to in this chapter and the next are promotional articles and advertisements sponsored by manufacturers of glamour products, household goods, and appliances, whose industries and production facilities had been converted to churn out the materiel for waging war. The wartime explanations about the conversion process were also intended as commercial messages. As such, the distinction between propaganda, war information, and advertising was completely blurred.⁴

as Freedom: The New Deal and the Electrical Modernization of the American Home (Berkeley: University of California Press, 1996).

⁴The amount of paper devoted to ad space, magazine fiction, editorials, advice articles, books, pamphlets, and posters used to sanitize the war in the media through its

What is interesting to note about World War II media is that the government propaganda machine was not an entity sealed off from the corporate world, and vice versa-- corporate America helped the government shape media and war information policies, and offered many of its media services for free. As will be explored in depth in Chapter III, ad agencies, including their copywriters and art staff, feared that if they found no useful role for their industry in wartime, that their adversaries (who had proliferated during the Depression) and a war-minded New Deal administration might stifle their work for the duration, and as a result, the ad industry--considered by many as a monument to American democracy--might possibly never survive into the postwar world. This fear sparked the creation of the corporate-sponsored and operated War Advertising Council (WAC), which worked with the government on behalf of the business community, and offered to help disseminate to the American public (through advertising channels and with advertising techniques) "useful" and "sanitized" information about the war and how Americans at home could help win it.

portrayal of consumer product conversion and reconversion is so virtually inexhaustible that one must continually remind oneself that a full-scale war was taking place.

Not only are there mountains of material of this nature in print media, but Hollywood, animators, newsreel companies, radio stations, and military-sponsored film makers (like director Frank Capra) were also generating their own stockpile, which I could not explore in depth here. Therefore, I limited myself largely to print media, although at times I refer to select non-print materials.

The Office of War Information (OWI), a government bureau in charge of disseminating news about the war at home and overseas, provided guidelines for the media to follow and worked with the WAC, which was dominated by businessmen who eventually overran the liberal, intellectual faction behind the OWI.⁵ Of course, there were abuses in this new relationship between government bureaucracy, advertising, and the business community because in essence it was not about the war, but rather it embodied a power struggle for which entity would control and define the course of the postwar economy and uphold middle-class values identified with the American Way.

As a result of these ulterior motives, much of the "free" advertising that the government received was very much self-aggrandizing on the part of manufacturers, who were anxious to hold on to public recognition of their brand names and trade marks during the war in order to successfully secure a niche in the postwar market. Despite the fact that most manufacturers of durable products (and

⁵Such guidelines directed manufacturers as to how much money they could spend on war-related advertising and still deduct it from their taxes. It also instructed them as to how much information they could safely tell the public about what kind of war-related products they were manufacturing without leaking critical details to the enemy. Furthermore, the guidelines gave manufacturers and storeowners, etc., ideas for advertising, which they could incorporate into government-sponsored campaigns for rationing, recruitment, Victory Gardens, etc., and informed them on what concepts, regarding patriotism and sacrifice, they wanted all types of advertising to convey to American citizens. More on this in Chapter III.

even non-durables, like Brillo cleansing pads) had virtually nothing to sell the wartime consumer as a result of the conversion process, business was concerned that in order for the free-enterprise system to survive the war, it needed to advertise the wartime role that manufacturers were contributing toward victory. As a result, messages to consumers that conveyed information about government war bonds, rationing, or recruitment campaigns were also intricately "tied-in" with advertising that meant to retain public recognition of American brand names and also lay a foundation for the postwar economy, thereby anticipating the reconversion process from war to peace.

Manufacturers, designers, and the ad industry, working in conjunction with the government's war information and propaganda machine, saw an opportunity to profit symbolically by publicly aligning American business and industry with the products and machines that would help win the war. Such a strategy would not only pay off in the postwar economy by demonstrating the patriotic "sacrifices" of manufacturers, but, as this chapter will show, also served a propagandistic purpose by re-instilling public confidence in the power of the American "Machine Age" and its supporting corporate infrastructure--both of which had become suspect in the public eye as a result of the 1930s economic depression.

This chapter will examine how business attempted to

restore confidence in the "machine," corporate authority, and American industrial might by employing established commercial rhetoric in its war information campaigns, and drawing on popular assumptions about modern progress. The promise of a wartime "Machine Age" would contribute greatly to American confidence in their superiority over their adversaries during the conflict. Furthermore, if middle-class Americans were shown that their country's technological progress could win a global war, and simultaneously retain "decent" standards of living, then their shaken faith in American industry, business, and free enterprise could be restored as well.

The "miracle" behind the pre-World War II, "Machine Age" revolution was perceived in its ability to replace debilitating domestic labor with glamorous leisure at an affordable price. It promised to transfer the burden of household drudgery to the "omnipotent" machine, and because such triumphant "miracles" had won the battle for higher standards of living prior to the war, they would be perceived and publicized as the natural and most advanced tools of progress with which to win the war.

Commercial messages (such as advertising and other promotional literature) about conversion showed that American industry's success in war was dependent on the established level of middle-class household mechanization-- as well as its accompanying experts in science and industry.

This chapter will briefly outline the rise of household mechanization and its supporting corporate infrastructure in order to understand how significant this "revolution" in domesticity would be for fabricating corporate America's sanitized image of modern warfare.

Harnessing the corporate engines of capitalism and mass production for the war effort would be publicized, and thus publicly perceived, as the power behind American victory on the battlefield. However, the sanitized image of modern warfare functioned not only as a means to celebrate American industry's success in war, but also, as this chapter will show, to habituate the public to a stronger corporate presence in the fabric of daily life.

I. The "Miracle" of Household Mechanization

Before mechanization could transform the home and raise standards of living with less effort on the part of the housewife, electricity and water had to be hitched to utility systems fabricated for domestic use and thus made into automatic, convenient, and efficient sources of household power. From the 1890s to the 1930s, the middle-class, domestic "revolution" entailed the introduction of cleaner and more convenient sources of power in a price range that the average consumer could afford.

This access to sanitary living answered the growing concerns of the urban middle-class, who feared that the widening schism between wealthy industrial monopolies and poor (largely immigrant) laborers threatened their values and existence as a class.⁶ While nineteenth-century cities continued to industrialize and expand, filth and disease,

⁶For more on Progressive ideology and the concept of progress, see: Christopher Lasch, The True and Only Heaven: Progress and Its Critics (New York: W. W. Norton, 1991). Lasch documents the inconsistencies in the opposition to Progressive ideology, and in so doing makes an important critique about middle-class values from this era.

On class conflict and the rise of American corporate/consumer culture during this era, see: Ewen, Captains of Consciousness, 23-30.

On Progressive ideology and social control (especially in the context of the history of consumerism and mass-communications), See: Ewen, PR!, 39-145. While Ewen's emphasis is on the history of the idea of the public mind and mass-persuasion, he also shows how certain Progressive era ideals did not necessarily die out after World War I, but rather underwent various transformations during the 1920s and 1930s.

likewise, proliferated in urban slums, and especially engulfed an increasing urban immigrant population.⁷ The Progressive Era produced a variety of solutions to society's ills (albeit not always successfully and not always with unbiased intentions), but significantly turn-of-the-century reformers on the whole recognized the link between class conflict, industrialization, and inefficient home life, and widely sought to evoke social order (and thus control) through domestic reform which relied on "scientific" methods and mechanized progress harnessed for social "good."⁸

The dogged pursuit for higher standards of cleanliness and housing alternatives that would facilitate more sanitary and efficient living was not an idle obsession of well-educated, proper, middle-class female reformers.⁹ Although

⁷Eighty percent of new immigrants who entered the U.S. in 1907 (a total of 1,285,000 for that year alone) had come from eastern and southern European countries. By contrast, only 13% of immigrants to the U.S. in 1882 had originated from these countries. These immigrants, for the most part, had lived rural, peasant lives and were unfamiliar with the domestic standards of the American, urban middle class. Hoy, Chasing Dirt, 88.

Hoy provides a historical analysis of middle-class and Progressive ideals regarding personal cleanliness, public sanitation, and immigration, see pp. 85-121.

⁸For more on the Progressives's notion of housing as a moral barometer for society, see: Jackson, Crabgrass Frontier, 174-75, 185, 217-21.

⁹Early domestic crusaders like Jane Addams founder of the settlement project, Hull-House (1889), agreed on the need for universalizing higher standards of cleanliness, advancing the human race by alleviating female drudgery, applying scientific planning to the domestic space, and adopting new housing designs that would facilitate efficiency and replace the burden of household labor with professionally-oriented reason

many ethnic, class and racial prejudices were galvanized by the moral authority of middle-class values that linked righteousness with cleanliness, congested nineteenth and early twentieth-century cities harbored epidemics just waiting to infect entire districts at a moments notice, and as a result, the near messianic quest of domestic reformers was not without some justification.¹⁰ Unsanitary and crowded living conditions were perceived as breeding grounds for not only poverty and ill-health, but also socially unacceptable behaviors and the over-all demise of middle-class Christian values.¹¹ Thus, power sources, which facilitated convenience and efficiency (with the flick of a switch or a turn of a faucet) were attributed with the ability to reform social ills by raising standards of cleanliness to be emulated by all classes, and thus provide

and logic. For more on this subject, see: Hayden, The Grand Domestic Revolution, 162-74.

See also Hayden's Seven American Utopias: The Architecture of Communitarian Socialism, 1790-1975 (Cambridge, Mass.: MIT Press, 1976.); Wright, Building the Dream, 156-57.

¹⁰Hayden, Grand Domestic Revolution, 153. Hayden refers to a survey of urban immigrant, living conditions by Robert Hunter, Tenement Conditions in Chicago: Report by the Investigating Committee of the City Homes Association (1901; New York: Mss. Information Corp., 1972), 100.

On the horse as a contributing factor to urban squalor and the automobile as a seemingly "cleaner" alternative, see: Jackson, Crabgrass Frontier, 173.

¹¹The "home" for many Progressives, especially educated middle-class women, became the locus through which they attacked social chaos and attempted to reform society at large.

accessible "tools" toward decent living so that those of the lower echelons could achieve healthier domestic conditions and adopt middle-class ethics as well.¹²

While household mechanization and automation certainly entailed the adaptation of electricity and electric-powered motors to domestic appliances, such a transformation in domestic tools also required that these machines lose their factory-like appearance in order for middle-class housewives to accept mechanized automation into the "sanctity" of their households.¹³ Because many manufacturers simply attached

¹²For more on the institutionalization of middle-class values linking righteousness and cleanliness in city immigrant services and private social reform movements, see: Elizabeth Fee and Steven H. Corey, Garbage! The History and Politics of Trash in New York City (New York: New York Public Library, 1994). Corey and Fee reveal that although reformers and agencies for the urban poor did not always concur on the root of poverty's problems, they wholeheartedly agreed that impoverishment was no excuse for slovenly housekeeping, p. 22.

Stuart Ewen in Captains of Consciousness analyzes how the U.S.'s immigrant population was "educated" about the perceived inadequacies of their "dirty alienness" through advertising imagery that encouraged self-conscience introspection about how one's bodily smells, manners, and habits were publicly judged. Ewen shows how advertising played a decisive role in molding and homogenizing behaviors to solve problems of perceived inadequacies by relying on mass-produced consumer products.

¹³ Until electricity was made available to more than just the wealthy few, manufacturers had little incentive to create electrically powered labor-saving devices for the middle-income household.

See Tobey, Technology as Freedom. In the 1920s, according to Tobey, most houses if they were wired at all, were only equipped to handle the low wattage of light bulbs and sometimes small appliances, like radios and irons. They were generally not designed for the heavier load capacity of large electrical appliances, like washing machines and ovens. This situation did not change until the 1930s, especially after the intervention of the New Deal. See pp. 10-39.

the motor to the existing appliance, moving parts and wires were dangerously exposed to the domestic user. During the 1920s and 1930s part of the "revolution" in domesticity attributed to mechanization was achieved when the emerging field of industrial design encased electric mechanisms in a safer package, thus making them not only aesthetically acceptable, but also easier to use and more efficient.¹⁴ Consequently, an efficiency aesthetic, often times lauded as a "machine aesthetic," accompanied labor saving devices into the house, and helped facilitate the mechanization of "women's work," thus also contributing to the domestic "revolution" in the pre-World War II middle-class household.

A 1930s publicity picture from Henry Dreyfuss's design firm illustrates not only the style of the efficiency aesthetic (which in this case includes rings of gleaming, "sanitary" chrome), but also its symbolic connotations. [FIGURE 4] Depicted as an icon representing the glorious age of affordable, mechanized convenience, the electric-powered, wringer washer is paired with its obsolete

¹⁴Issues related to the industrial designer's role and raising standards of domestic labor and living through efficiency design will be referred to again later in the chapter.

For more on design and its implications of cleanliness, see: Lupton and Miller, The Bathroom, The Kitchen and The Aesthetics of Waste; and Adridan Forty, "Hygiene and Cleanliness," in Objects of Desire: Design and Society Since 1750 (London: Thames & Hudson, 1986), 156-181.

For more on the rationalization of the manufacturing process of a product, as well as its design, see: "Some Call It 'Streamlined,'" Scientific American June 1941, 339.

predecessors: the tyrannical washtub and primitive scrub board. In order to emphasize its superior, automatic features, the electric-powered machine is depicted standing alone, unattended, unlike the washtub and scrub board, which are shown as contributing to taxing, back-bending labor--a chore so strenuous that the frazzled housewife's hair has fallen out of place.

Increased factory automation, mass production and standardization, which accelerated after World War I, helped fuel the domestic "revolution" by cutting costs and lowering prices, thus giving middle-class families of the 1920s and 1930s access to a standard of living reserved only for the wealthy a decade or two earlier.¹⁵

Mechanization, thus, escorted more than just machines into the home, but also accorded the domestic sphere an aura

¹⁵Following this trend, the combustible engine, fabricated with Henry Ford's "scientifically" managed assembly line, offered inexpensive and convenient mobility in the form of the automobile. Stanley Lebergott, Pursuing Happiness: American Consumers in the Twentieth Century (Princeton, N.J.: Princeton University Press, 1993), 130. For more auto industry production statistics, see: For more on the automobile's impact on community planning and household design, see: Jackson, Crabgrass Frontier, 156-89.

For an examination of the role of radio and the cinema in contributing to the expanding consumer culture during the 1920s, see George E. Mowry, The Urban Nation, (1965; reprint, New York: Hill and Wang, 1968), 4-7, 17-18.

Besides radios and other electric household appliances, adding to the rise in domestic mechanization and conveniences was the growing use of telephones as more homes and businesses were connected to phone lines throughout the 1920s. See: Ross Gregory, Modern America 1914 to 1945 (New York: Facts on File, 1995), 153.

of bureaucratized professionalization (similar to that of the business community), which was meant to maximize the efficiency of the middle-class housewife and her household.¹⁶ Engineers and electricians oversaw the "revolutionary" appliances and sources of power, while industrial designers standardized products to work more efficiently in the home, and advertisers guided consumers on how to adjust to the fast-paced demands of modern living by urging them to purchase more convenience products through the use of guilt (and other psychological manipulations), scolding them if they failed to live up to established standards.¹⁷

The complementary team of "scientific," expert authority and psychological manipulation helped foster the perceived need to "professionalize" domestic standards with

¹⁶For a feminist overview of women and the male scientific expert see: B. Ehrenreich and D. English, For Her Own Good: 150 Years of the Expert's Advice to Women, 13th ed. (1978; reprint, New York: Doubleday, Anchor Books, 1989).

¹⁷For more on the historical development of the advertising industry and rise of the American corporate/consumer culture, see: Ewen, Captains of Consciousness and his PR!; Jackson Lears, Fables of Abundance: A Cultural History of Advertising in America (New York: HarperCollins, Basic Books, 1994); Roland Marchand, Advertising the American Dream: Making Way for Modernity, 1920-1940 (Berkeley: University of California Press, 1985).

For a broader cultural picture of this era and rise of a consumer-oriented American society, see: Susman, Culture as History. For a critique of media propaganda manipulation, see: Noam Chomsky and Edward S. Herman, Manufacturing Consent: The Political Economy of the Mass Media (New York: Pantheon Books, 1988).

products and appliances that would make it easier to be clean. Such attitudes are well illustrated in a 1928 ad sponsored by the New York Cleanliness Institute. [FIGURE 5] Here, an anxious business-class husband watches his neat, trim wife worry (probably not for the first time) over what sort of impression her rambunctious children (playing in the yard) are making on the "neighbors." A crowd of menacing question marks, dancing in a frame below, attest to the connotations between one's credibility and the stigma of dirt. "Questionable characteristics" associated with "grimy clothes" and "unclean faces," which, according to the Cleanliness Institute, could tell a judgmental public more about the parents than their children.

Experts, like those of the Cleanliness Institute, and even the design and advertising profession, were guided by a new emphasis on the scientific approach to living and the rationalization of human emotions and movements to fit the rhythms and pace of the machine. The trend to "scientifically" measure and control (or, as ad men put it, engineer) human behavior was derived from theories about the division of labor. "Scientific management," popularized by Frederick W. Taylor prior to World War I, proposed a method to re-organize the human workforce in the factory and office along the assembly-line method. The worker's function was minimized so that productivity, and thus profits, could be maximized. Each laborer only operated one fragment of the

entire production process, thus restricting his movements and concentration to the one repetitive task he was assigned. Likewise, Frank and Lillian Gilbreth's time-motion studies confirmed Taylor's theories by visually demonstrating how labor could be rendered more efficient if extra steps in the work process were eliminated and all necessary motion was compressed. Factory automation referred not only to machines, but also to a "scientifically" regimented and rationalized labor force. As a result, products could be produced more quickly and efficiently with fewer workers, and thus make consumer goods more affordable to a greater segment of the population.¹⁸

¹⁸Giedion, "The Assembly Line and Scientific Management," in Mechanization Takes Command, 77-127.

Jobs on assembly lines in factories, such as Henry Ford's plant at River Rouge, beckoned sharecroppers and farmers to industrial centers, like Detroit and Pittsburgh. Automation in factory production, which generated the steel and appliances that fueled the middle-class acquisition of domestic progress, also held out the hope that such standards could one day be acquired by the working-class and low-income, rural families. Indeed, Henry Ford's vision of creating a mass of consumers for his own products by offering higher wages and low cost cars obtained with easy credit promised to disseminate the American dream of higher standards of living, comfort, and convenience to even the poorest, subsistence farmer. See: Mowry, The Urban Nation, 8-17.

Ewen argues that manufacturers offset labor unrest of the 1920s by replacing it with consumer desire and aspirations for affordable higher standards of living. Labor was given access to the trappings of a middle-class lifestyle with shorter hours and higher pay, which were to compel workers to become better consumers. But, the trade off was that labor had to comply with the monotonous, dehumanizing dictates of the "Taylorized" assembly-line. Working conditions would worsen, but the dismal factory would be overshadowed by the promise of access into the consumer progress of the middle class. Captains of Consciousness, 23-30.

The rationalization of manufacturing, distribution, and product design through the theory of scientific management was another element of the mechanized, "Machine Age" progress, launched into the middle-class American household prior to World War II. "Scientifically" calculated mass distribution methods facilitated the growth of massive department stores, mail-order catalogues, chain stores, and supermarkets, in which a monumental variety of goods could be purchased whole-sale by retailers and stored in bulk. Such large-scale retail operations consequently lowered costs for consumers, making it easier, and thus more convenient, to rely on mass-produced, store-bought goods than producing foods, clothes, and other necessities in the home by hand. Mass merchandising represented another aspect of rationalized retail selling. Producing and merchandising an army of goods resulted in the rise of national brands and universally-recognized trade marks, which standardized the design, quality, packaging, and distribution of appliances, automobiles, fixtures, processed foods, cleansers, and personal hygiene supplies.¹⁹

Time and motion management techniques, which allowed for higher production levels, arose to fulfill the need of growing companies and factories to control the elaborate

¹⁹For more on the perception of packaging as part of the parade of mechanized progress, see: Egmont Arens, "Packaging Engineering," [article] Box 48, Arens Collection, Syracuse University.

hierarchy of their work force, from managers to common laborers. Thus, scientific management was institutionalized by the rise and expansion of the modern corporation. The growing output of facilities geared for mass production and mass distribution depended on a specialized division of labor to ensure that the goods were produced and sold in the most expedient manner for the highest profit. As a result, the modern corporation also eventually helped implement and popularize the modern mechanized household because company growth and profits relied on maintaining a public hungry for ever-increasing levels of progress and efficiency, which were promised by the new convenience products spun out from factories designed to make goods cheaper, faster, and easier with fewer men and maximum profits.²⁰ As a result, mass-merchandizing and mass-distribution strategies helped develop the rise of a consumer-oriented society, which relied on the convenient "bounty" of mass-production for everyday living and for perceived social success.²¹

Ad men and designers, utilizing "consumer engineering" techniques and the "scientific" approach to molding

²⁰William Leach, Land of Desire: Merchants, Power, and the Rise of a New American Culture (New York: Random House, Vintage Books, 1993), 3-38.

For more on rise of corporate culture and mass merchandizing, see: Alfred D. Chandler, The Visible Hand: The Managerial Revolution in American Business (Cambridge, Mass.: Harvard University Press, 1977.)

²¹Ewen and Ewen, "Consumption as a Way of Life," in Channels of Desire., 23-52.

See also, Hayden, Grand Domestic Revolution, 281-289.

behaviors and opinions, assisted in habituating the public to put their faith in mass-production and consumer products.²² Consumers were encouraged to stay continually dissatisfied with a lifestyle that did not live up to the expectations for higher standards of living and stylish leisure as depicted in advertising. The seductive advertising images and "styling" of mass-produced consumer products assured manufacturers a loyal consuming public because ad men and designers equated out-moded products with the much feared "unscientific" past and new products with the efficiency of modernity and the omnipotent "machine."²³ Thus, modern, national advertising, and design "styling" contributed to the proliferation of the post-World War I domestic "revolution" by employing the "scientific" management techniques for selling goods, which corporations had initially institutionalized to better control their labor force on the assembly-line.²⁴

Like convenient power sources and mechanized household technologies, consumer culture demanded less hard, debilitating labor from the middle-class housewife because it required only the minimal effort of spending money and

²²Egmont Arens and Roy Sheldon, Consumer Engineering: A New Technique for Prosperity. New York: Harper, 1932.

²³For more on planned obsolescence and the rise of corporate-devised style trends as a way to sustain constant consumer dissatisfaction with the old and a lust for the new, see: Ewen, All Consuming Images.

²⁴Ewen, Captains of Consciousness, 31-39.

thus offered the middle class an affordable, part-time ticket to an upper-class luxury: leisure.²⁵ Mechanization, as a result, was credited with democratizing the privileges of the wealthy, and as a result mass production, mass consumption and hoards of consumable choices were many times confused with "freedom," especially for the middle class. The promise of "democracy" through consumer purchases was also held out to the factory laborers and migrant farmers on whom the trajectory of middle class progress depended.²⁶

However, the standard of middle-class living was not only mechanized and elevated by the scientifically-managed products that entered it. The rationalization of "women's work" along the assembly-line method, also contributed to introducing "scientific" techniques and domestic technicians, who accompanied and helped to usher mechanization into the home.

Attempts to reorganize housework around a rational plan

²⁵See also: Thorstein Veblen, The Theory of the Leisure Class (1899; reprint, New York: Dover Publications, 1994). Progress, was thus measured not on the merit of the domestic labor, but rather it was gauged by how much one's household tools and power sources could diminish the effort.

²⁶For a discussion of the paradox of democratization and mass production, see "Fashion and Democracy," in Ewen and Ewen, Channels of Desire, 75-188. This issue is also raised throughout Ewen's Captains of Consciousness.

Members of rural communities, farm families, and the urban poor, including many black Americans, remained trapped in dire poverty throughout the "affluent" 1920s. See Mowry, The Urban Nation, 64-65, for more on the decline of agricultural prices and farm foreclosures during the 1920s.

had begun in the nineteenth century with Catherine Beecher's Treatise on Domestic Economy in 1841²⁷, and culminated in an organized home economics movement, founded at the 1893 Woman's Congress, where the National Household Economic Association was begun. Its leader, Ellen Swallow Richards, a chemist trained at MIT, sought to apply "the resources of modern science to improve the home life."²⁸ This she and her colleagues tried to achieve by elevating the management of the household not only to a "science", but legitimizing it as a "feminine" profession for women to pursue outside the home.²⁹

In a similar fashion, Charlotte Perkins Gilman sought social reform for women and children (mainly of the middle class) with designs for kitchenless apartment hotels, where

²⁷For more on Beecher in relation to rising middle-class concerns with social propriety and cleanliness, see: Hoy, Chasing Dirt, 19-23.

See also: Catherine Beecher and Harriet Beecher Stowe, American Woman's Home (1869; reprint, Hartford, Conn.: Stowe-Day Foundation, 1985).

²⁸Giedion, Mechanization Takes Command, 522.

Richards, a trained chemist and the first woman on the MIT faculty, scorned household drudgery because it was inefficient and unscientific, not because she believed that easing women's labor through science would free them for careers traditionally held by men. Hayden, Grand Domestic Revolution, 152-62, 165. Richards's career and its influence is also examined throughout English and Ehrenreich, For Her Own Good.

²⁹Richards was an outspoken advocate (as was Jane Addams) of community kitchens for the poor, which were intended to provide, low-cost, scientifically calibrated meals for maximizing nutrition in a sanitary, controlled environment. Hayden, Grand Domestic Revolution, 155.

members paid a staff of trained domestic scientists to prepare their meals, provide rational day care for their children, and manage their dirty laundry. Gilman recognized the way in which household labor and the conventional single-family house entrenched women's economic dependency on men and also contributed to an empty life of irrational drudgery.³⁰

Richards and Gilman, as well as Jane Addams, agitated for a scientific approach to solving domestic and social inequities, and although they many times differed in their biases, they found scientific, cooperative housekeeping, and collective kitchens to offer the most rational route to progress and higher standards of living.

Despite these nineteenth-century inroads in domestic reform, the principles of factory and motion management, popularized by Frederick Taylor and Frank Gilbreth, were not adapted to "women's work" until 1912 with the publication of Christine Frederick's series, "The New Housekeeping," which appeared in the Ladies' Home Journal, and was published in book form the following year.³¹ Poorly arranged kitchens

³⁰Through her designs and writings, Gilman sought to give career-oriented married women with children, like herself, access to social and economic power by designing feminist dwelling units in the form of kitchenless apartments and shared domestic housekeeping and child-rearing facilities. Hayden, Grand Domestic Revolution, 182-205.

³¹Frederick's book was titled: The New Housekeeping: Efficiency Studies in Home Management (Garden City, N. Y.: Doubleday, 1913). Frederick's other household efficiency books include: Household Engineering: Scientific Management in

expended energy on unnecessary steps between appliances, storage areas, work surfaces, and eating areas that were built too far apart. The tools of the housewife needed compact arrangement, so that her efficiency would be maximized and unnecessary movement minimized, much like the arrangement of an assembly-line.³² According to Frederick (the Martha Stewart of her day), the home itself was heralded as a smoothly operating, efficient factory for achieving convenience, family cleanliness, togetherness, and leisure, and not for performing chores made obsolete by modern household engineering, automation, and factory-made goods. Although irrational drudgery was alleviated by "the science of efficiency," housework would still have to be done.³³ Nevertheless, for middle-class homemakers who adopted rational housekeeping techniques, a patina of "professionalism" erased housework's unglamorous and low-class stigma.

the Home (n.p.: American School of Home Economics, 1919); The Ignoramus Book of Housekeeping (New York: Sears Publishing, 1932).

See also: Hayden, Grand Domestic Revolution, 265, 274-75, 282-85; Ehrenreich and English, For Her Own Good, 162-64; Giedion, Mechanization Takes Command, 519-522.

³²Hayden, Grand Domestic Revolution, 280-86; Lupton and Miller, "The Modern Kitchen: At Home in the Factory," in The Bathroom, the Kitchen and the Aesthetics of Waste, 41-63.

³³Quoted from Christine Frederick, "The New Housekeeping," Ladies' Home Journal September 1912. Found in: Giedion, Mechanization Takes Command, 520.

See also: Hoy, Chasing Dirt, 154-56; Lupton and Miller, The Bathroom, the Kitchen and the Aesthetics of Waste, 43-47.

Likewise, Lillian Gilbreth, helped popularize the image of the middle-class housewife as a "home manager," who was simultaneously supervisor and laborer in her own household. Such a dual role could only be carried out in the private, middle-class household, according to Gilbreth, Frederick, and the corporations for whom they worked. To achieve adequate domestic perfection, these "reformers" argued, the middle-class housewife, who was both executive and common laborer, must be assisted by an array of the latest electric-powered appliances and an efficiency-designed, "stream-lined" kitchen in a new suburban house.

In order to stimulate consumption of more domestic consumer products, manufacturers of appliances and household furniture hired industrial designers to apply a "rational" and "scientifically" managed aesthetic to the kitchen as a whole. Appliances, cabinets, and counter tops were "cleaned up," standardized in height and width to create a continuous, uninterrupted working surface, much like the uninterrupted assembly-line of a factory. Like Frederick and Gilbreth's "scientific" housekeeping techniques, the perceived rational aesthetic of the "streamlined" kitchen design scheme was also intended to convey the idea that such an organized plan would automatically facilitate efficient work with minimal drudgery. Consequently, such a seemingly logical design was imbued with the aura of scientific authority, and as a result the "streamlined" kitchen also

bore a strong resemblance to a laboratory.³⁴

Twentieth-century "streamline" kitchen design seemed to answer the quest for domestic reform, put forth by Catherine Beecher, Charlotte Perkins Gilman, and Ellen Swallow Richards in the nineteenth century.³⁵ But unlike Gilman and Richards's Progressive-era brand of rational housekeeping, at the heart of Gilbreth and Frederick's corporate-sponsored domestic "revolution" was the promotion of household mechanization through the consumption of mass-produced, consumer products. Manufacturers, professional "domestic scientists," and designers used the lure of rational domesticity and leisure to help sell mountains of consumer products targeted to women. Thus, the efficiency engineering of "women's work," which became part of the mass-marketing schemes of domestic product manufacturers during the 1920s and 1930s, reinforced the housewife's role as shopping specialist and assured manufacturers of domestic supplies and appliances that the ocean of mass-produced products spinning off their assembly lines would be readily

³⁴See: Lupton and Miller, "Streamlining: The Aesthetics of Waste," in The Kitchen, the Bathroom and the Aesthetics of Waste, 65-70; Adrian Forty, Objects of Desire: Design and Society Since 1750, 156-181.

³⁵See for example: Charlotte Perkins Gilman, Women and Economics: A Study of the Economic Relation Between Men and Women as a Factor in Social Evolution (1898; reprint, New York: HarperCollins, Torchbooks, 1966); Gilman, The Home: Its Work and Influence (1903; reprint, Urbana: University of Illinois Press, 1972); Ellen S. Richards, "Scientific Cooking Studies in the New England Kitchen," Forum 15 (May 1893).

consumed by a bevy of insecure, guilt-ridden homemakers, seeking to secure a "proper," "scientific" appearance for their families and homes.³⁶

The Progressive-era ideals about women's domestic progress from Richards, as well as the corporate-sponsored schemes of a generation later offered by Gilbreth and Frederick, helped standardize "women's work" at a time when their energy and former homemaking skills were being replaced by machines and mass-produced goods. Thus, the organization of household labor according to the dictates of corporate culture impacted on the management and execution of housework just as big business was seeking to promote consumption of more convenience-oriented goods.

Furthermore, household mechanization not only helped eliminate unwanted filth and odors, kept foods fresher longer, and made clothes cleaner, but it also, according to advertisers, preserved women's youth and delicate beauty. Instead of freeing women from the constraints of domestic responsibilities, the emphasis on efficient, convenient living promised to save housewives from a fate of reaching middle-age too soon through old-fashioned housework that sapped energy and drained women of attractive vigor. In

³⁶Hayden, Grand Domestic Revolution, 285.

For Christine Frederick's role in this corporate scheme, see: Ehrenreich and English, For Her Own Good, 180; and Hoy, Chasing Dirt, 155. In her role as corporate spokeswoman, Frederick wrote: Selling Mrs. Consumer (New York: The Business bourse, 1929).

addition to gadgets and efficiency-management techniques that, presumably, allowed women to retain their beauty by lessening their labor, modernized glamour products--another aspect of the domestic "revolution"--also emphasized the need to preserve and heighten femininity.

Thus, coinciding with the rising standard of cleanliness in the middle-class household was also a heightened insecurity surrounding personal hygiene and grooming, which was supported by a "scientifically designed" beauty industry of special soaps, deodorants, feminine napkins, tampons, shampoos, cosmetics, and other mass-produced grooming supplies. Like modern, mechanized domesticity, mass-produced beauty in the form of personal hygiene required store-bought science sealed in sanitary packaging, not unhygienic home-made remedies.³⁷

The "domestic" revolution, and the consumer society that accompanied it, were well established facets of American life on the eve of World War II. The convenience technologies, efficiency ethic, and automation power behind this "miracle" of perceived democratized progress were lauded as the sources for America's successful defeat of her enemies overseas. Domesticity's progress represented, in

³⁷Synthetic fabrics and perfumes, plastic jewelry, "scientific" cosmetics, soaps, and cremes derived from the laboratory and mass produced made it possible for more women to afford the trappings of aristocratic luxury and leisure. See: "Chemists Make a New World," National Geographic November 1939, 600-632.

principle, democracy's "winning weapon," and as a result of its success (albeit largely for the middle class) in peacetime, American government, business, and the ad industry encouraged consumers to believe that its conversion to the battlefield would assure victory as well.

II. Advertising the Conversion: American Progress Goes to War

Wartime business leaders feared that the Depression had caused many average Americans to lose their faith in industrial progress and their country's ability to provide adequate standards of living and jobs.³⁸ Consequently, Depression-era doubts in business and its "Machine Age" progress had to be eradicated and replaced by a renewed faith in the popular mystique attached to American

³⁸As will be shown later, planners of the 1939 New York World's Fair were aware of the growing public mistrust of big business and industry during the Depression, and as a result sought to counter this animosity with a commercial spectacle of corporate-sponsored science and technology as the "proper American" benign solutions for reversing economic hard times, as opposed to New Deal social legislation.

See: Robert Rydell, World of Fairs: The Century-of-Progress Expositions (Chicago and London: University of Chicago Press, 1993) and Ewen, PR!, 321-36.

For more on the role of the New Deal in disseminating technological progress during the 1930s as opposed to (and in spite of) corporate America, see: Tobey, Technology as Freedom. Tobey argues that corporate America actually did not seek to create a mass market for electricity consumption and electrical appliances because business leaders conceived the domestic market as unprofitable and not worthy of their investments to democratize electrical consumption. As a result, most households in the U.S. were not "modernized" until the 1930s when the New Deal created business and housing reform legislation, financial opportunities for new housing start loans, and public works, which lowered the cost of electricity, electrical wiring for appliances, and thus disseminated power and light to the mass market.

Consequently, the New Deal threatened the corporate monopoly on science and technology in American life, and contributed to the image of big business and industry as responsible for withholding technological solutions to social ills on the basis of profit. Some of the corporate-sponsored technology displays at the New York World's Fair represented one way that business tried to counter these negative connotations.

technology as a solution for guaranteeing industrial and social progress, and in the context of the war, victory:

Everybody knows that the United States has the greatest capacity in the world to manufacture an almost limitless variety of products. . . . **Phonographs, radios, refrigerators, vacuum cleaners- all the comforts and conveniences of modern civilization. . . .** In short, the country has enormous resources of raw materials and matchless industrial plants to turn these materials into finished goods. But we could not fight Germany and Japan with ice boxes and automobiles; our tremendous industrial power had to be shifted from peacetime production to war purposes. . . . Automobile manufacturers -and one of them alone can fabricate more metal than all Japan- are making tank engines and plane engines and antiaircraft guns. Machines to make vacuum cleaners have been shifted to making weapons. . . . [I]t was confidently forecast well along in 1942 that we would produce 45 billion dollars' worth of munitions during the year- more than the total national income in 1932, the low point of the depression.³⁹

During the Depression, corporations and industry on the whole had made several enemies, especially among labor leaders, their liberal supporters, and their working-class followers. Automation, mass-production, and assembly-line techniques were viewed by labor-minded liberals and poverty-stricken workers as one of the catalysts that had helped

³⁹War Facts: A Handbook for Speakers on War Production, 46. (My emphasis)

See also: "The reason [why the U.S. is able to produce so much for war] is the high degree of our industries and our skill, acquired in making automobiles and other products." From: Burnham Finney (editor and publisher of American Machinist), "The Miracle of American Production," American Mercury September 1943, 279-85.

generate the country's devastating economic woes.⁴⁰ Depression-era photographs of destitution and progress gone wrong, like those depicting dilapidated shanty towns and unsanitary migrant camps, implied that the free-enterprise system and "Machine Age" mass production had failed in their capacity to sustain ever-advancing progress.⁴¹ Capitalism, industry, and the business community in general, were viewed by their liberal critics as guilty participants in facilitating the Depression's economic woes and shirking social responsibility.⁴² Labor had perceived the increase in automation as a threat to working-class jobs, and the Depression seemed to support its case. Greater production capability, labor argued, had fattened industrialists'

⁴⁰Mowry, The Urban Nation, 69-72.

⁴¹The photographs taken under the direction of the Resettlement Administration during the 1930s and its successor the Farm Security Administration were intended to expose American poverty in order for Roosevelt to gain support for his federally sponsored social programs especially in rural areas. Consequently, the icons of the Depression Era, like those taken by photographers Dorothea Lange and Walker Evans, were part of a calculated New Deal media campaign. This issue will be raised again in Chapter VI. See: Carl Fleischhauer and Beverly W. Brannan, Documenting America, 1935-1943 (Berkeley: University of California Press, 1988).

⁴²Mowry in The Urban Nation explains the reasons behind the 1929 crash as evolving from rampant urbanization in the 1920s and the accompanying rise of a "mass-production-consumption economy." Among other social and economic forces, he highlights how easy credit and the cultural acceptance of personal debt and maximized leisure especially contributed to the economy's instability and ultimate stagnation. Increased levels of factory automation had already started to force many low-skilled (and even white-collar) workers out of jobs prior to the crash. (pp. 16-17) Mowry emphasizes that the prosperity of the decade was not universally felt.

profits at the expense of poor, under-skilled factory workers by allowing industries to churn out more products in less time with fewer men.⁴³

Industrialists, managers, salesmen, corporate giants, and ad men in particular, received the brunt of public and labor discontent. Consequently, corporate culture's hegemony, faith in mechanization, the businessman's aura of expertise, and the advertising industry's reputation (which was never stellar to begin with) plummeted into a social purgatory. Along with media attention highlighting the Depression's widespread poverty and unemployment, New Deal consumer advocates and the recently formed Consumers' Union (1936) added to the public hostility and mistrust directed toward ad men and manufacturers by declaring that copy writers, industrialists, and businessmen had intentionally mislead the public interest and compelled Americans to waste their hard-earned cash on superfluous goods and turn their skilled labor and humanity over to machines.⁴⁴ Faith in mechanized progress had to be restored as Americans prepared for war while economic depression and irregular employment

⁴³Carroll Pursell, The Machine in America: A Social History of Technology (Baltimore and London: John Hopkins University Press, 1995), 251-69.

⁴⁴For more on the ad industry's fall from grace, see: Lears, Fables of Abundance, 233-47.

still engulfed most of the country.⁴⁵

Fabricating the image of wartime progress and American industrial might was dependent on the ways in which advertising and the business community had defined and displayed the technological "good life" to the American public before the war.⁴⁶ For example, images of modern,

⁴⁵Certain historians have traditionally viewed the war--in somewhat simplistic terms--as the production catalyst that pulled the country out of the Depression, and as such tended to view the New Deal administration, by comparison, as relatively unsuccessful in stimulating job growth and quelling the economic crisis during the 1930s.

However, according to Jordan Schwarz, conversion and the war effort, which required massive amounts of federal spending in housing and industry, actually salvaged the New Deal administration, which in turn produced millions of jobs by mobilizing production for war. Roosevelt and New Deal liberals were able to put their ideas for state capitalism in motion (at least during the war years) because the necessity of war had quelled (to a certain extent) conservative opposition to government "meddling" in the direction of the nation's economy. See: Schwarz, The New Dealers: Power Politics in the Age of Roosevelt (New York: Alfred A. Knopf, 1993), 309-10.

However, as this dissertation will show in subsequent chapters, the "success" of the New Deal in wartime actually helped strengthen and unify its enemies' conviction to destroy it.

⁴⁶Newsreel footage, newspapers, and magazine articles would have informed Americans about Germany and Japan's military build up during the inter-war years. As a result, it was imperative for Americans to believe that their country's industrial might could be revived again in order to defeat the Axis powers, whose energies had been focused on converting their countries' full resources to military use, while America's had not. For more on U.S. isolationism and its standing military of the 1930s, see: Sherry, In the Shadow of War, 15-63.

See also: "[T]he enemy for many years has devoted much time and skill to devising instruments of destruction while Yankee ingenuity was concentrating on better standards of living, not standards of killing." From: "Gadgets Must Wait," Scientific American April 1944, 181.

store-bought feminine glamour dominated much wartime advertising--both in the business press and women's magazines. Airco, in its ad from 1945, depicts a pair of lady's legs (their sensuality accentuated by the short skirt and high-heeled mules) flying to victory with their wartime counterparts: glider tow ropes. [FIGURE 6] And Real-Form, makers of the "Girdles of Grace," explains to its female clientele that the requirements for camouflage netting take priority over the well-molded feminine form. [FIGURE 7] In its 1943 ad, "Military Needs Come First," Real-form points to a crucial source for its contribution to World War II ordnance: the female buttocks. A half-clad blonde turns her head toward the viewer as she sensuously licks a ration stamp. As if to reassure its customers that wartime conversion of girdle products to military use would not hinder their femininity, Real-form has accentuated its model's tiny waist and shapely derriere.⁴⁷ In these two examples, the industries which aid in perfecting the female form are credited with an essential role in facilitating victory, suggesting that the mass-produced products that possess the power to reshape and mold "nature" can easily win a war.

What other commercial arguments did big business use to

⁴⁷More on this issue in Chapter II. Tiny waists and large bustlines in women's conversion advertising also attempted to reassure the public that conventional American femininity was not at risk from the war.

simultaneously gain consumer support for the war effort, American industry, and corporate authority? According to manufacturers, the technological progress that had modernized housework through the conveniences of mechanization also harbored the "miracle" ingredient that would revolutionize warfare.⁴⁸ For example, Owens-Corning in its 1943 ad defines the locus of military progress and American victory in terms of the modern "streamlined" kitchen, complete with the latest automatic appliances, continuous steel cabinets, and uninterrupted surfaces. [FIGURE 8] American industry's potential for victory is measured against its pre-war success in facilitating a smiling, satisfied housewife, whose domestic work is so effortless that she can perform it in high heels.

Likewise, Norge depicts its 1943 model as a rotating machine-gun turret, instead of a "Rollator Refrigerator." [FIGURE 9] Set within a modern "streamlined" kitchen where the refrigerator or stove once stood, the 1943 Norge

⁴⁸See for example: "I never guessed that my [Knapp-Monarch] K-M appliances would be helping fight a war," confesses a housewife now donned in military uniform. "Knapp-Monarch, once engaged in building irons, toasters, food mixers, grill stoves, waffle irons and other electrical appliances, are now making munitions." From: Ladies' Home Journal August 1943, 58.

See also: "Out of Frying Pans into the Firing Line. . . . A stove factory in Indiana is making lifeboats . . . a manufacturer of frying pans and egg poachers is now making flap hinges and other bits and pieces for aircraft. . . . A maker of rouge containers designed parts of an incendiary bomb." Albert W. Atwood, "The Miracle of War Production," National Geographic December 1942, 713.

startles an unsuspecting housewife, but shows how American business' industrial acumen was playing a crucial role in "manufacturing" victory for the Allies: "Into [the New 1943 Norge gun turrets] have gone, too, the bold imagination, the conscientious skill, the mechanical deftness, the 'know-how' which have made Norge refrigerators so fine in the past . . . [and] the finest ever built."⁴⁹

Other symbols of modern, industrial life, such as, disposable aluminum packaging, were shown advancing the progress of wartime aviation: "Remember the crackling of the aluminum foil that was used to package and protect so many products in daily use? You don't hear it any more, do you? . . . [W]e put. . . all of our precision experience . . . into the war effort. . . . Today . . . Reynolds Aluminum flies into battle in virtually every American plane."⁵⁰

[FIGURE 10] In Reynolds' 1943 ad, a giant hand crumples a wad of tin foil from which a series of fighter planes erupt, symbolizing how a banal domestic product could easily and successfully convert into efficient fighting machines.

Touting its role as a corporate sponsor of victory, U.S. Steel, in its ad from 1944, juxtaposes a submarine with

⁴⁹Gary Miller and K. M. Scotty Mitchell, Price Guide to Collectible Kitchen Appliances from Aerators to Waffle Irons, 1900-1950 (Radnor, Penn.: Wallace-Homestead Book Company, 1991), 8. Miller and Mitchell credit Ladies' Home Journal for this ad, but provide no specific citation.

⁵⁰Fortune September 1943, 74.

its domestic origins in the modern, "streamlined" refrigerator. The ad naturally assumes that the materials of peacetime progress will translate into successful victories at sea. [FIGURE 11] Like other manufacturers converted to the war effort, U.S. Steel was banking its future postwar sales on its wartime image: "These pictures are worth remembering. Someday you will want to buy something for long use. A refrigerator. A stove. A car. Better steels will be ready then. War has proved them."⁵¹

Manufacturers of modern science and laboratory-perfected products claimed to supply the essential solutions for winning the war, just as they had (presumably) contributed scientific progress to raising higher standards of living in peace. Magnus, Mabee, and Reynard, (MM&R) suppliers of imitation oils for perfumes and flavorings, claimed that their wartime industry would grant wishes of victory and abundance. [FIGURE 12] In its ad from 1943, a photograph of an assembly line is cut in the shape of Aladdin's Lamp from which a laboratory "genie" emerges with test tubes full of "a host of miracles" behind secret weapons of ingenuity and efficiency, which would win the war.

Likewise, the General American Transportation Corporation (GAT), shows how the powers of science, which

⁵¹Business Week 1 July 1944, 95. More on this in Chapters V and VI.

had "revolutionized" pre-war domesticity and femininity, were rechanneled to modernize the American fighting machine, "Right out of a test Tube!" by packaging him in the latest, up-to-date equipment.⁵² [FIGURE 13] However, GAT, unlike MM&R, was not a corporate laboratory, but rather a manufacturer of railroad freight cars. Nevertheless, it seeks out a competitive wartime market niche for itself by aligning its company's freight cars with the efficient "revolutionary" powers of modern science: "The Chemical Industry helps send our American men to war. . . . From the bullet-proof nose of our bombers to the welded hull of our ships, the managers, technicians, and workers of our chemical plants give superiority to American fighting-equipment. . . . [O]ur specialized tank cars carry metal-eating acids, alkalies, and vital chemical compounds--with speed and safety that can mean the margin of victory."⁵³

By showing how domestic and feminine product industries, harnessed for war, were facilitating higher levels of efficiency for the Allied military machine, the business community launched three major objectives: 1. They stirred American patriotic fervor by demonstrating how the products and industry behind capitalism and consumer culture possessed the power to win the war. As a result, they were able to restore America's battered faith in "Machine Age"

⁵²Fortune August 1943, 63.

⁵³Ibid.

progress and build the public's confidence that the Allies, with the aid of home front production, would triumph. In so doing, the business community was able to capitalize on this revived faith in mechanized progress, and 2. reconstruct its tarnished reputation with the public. By aligning their trade marks and brand names with particular war materiel, manufacturers showed their civilian customers and manufacturing clients how generous their industrial sacrifice was toward winning the war.⁵⁴

With renewed public faith in American progress and business, manufacturers were also able to satisfy their third objective, 3. restore public acceptance of an economy run by the tenets of free enterprise and the American Way, as opposed to the state capitalism proposed by Roosevelt and

⁵⁴In its ad from 1942, for example, Nash-Kelvinator juxtaposes its former business in car and refrigerator manufacturing with its current work: "This, Mr. Hitler - is a picture of a refrigerator and an automobile going to war!" The ad depicts Nash-Kelvinator's new models: U.S. Navy cargo planes, the wartime uniform of its peacetime domestic products. American Magazine December 1942, inside front cover.

In another Nash-Kelvinator ad: "Swarms of British and American bombers that have been blasting the Axis are equipped with Nash-Kelvinator propellers. Yes, made by the men who yesterday built the refrigerators and automobiles for America at peace." From: Business Week 30 January 1943, 93.

These two Nash-Kelvinator examples underscore the fact that the same companies and types of persuasions were being used in magazine advertising targeted to the business community as well as the general public.

See also: "Making its mark..on a Nazi Mark IV [tank]. . . . [the Cadillac M-5 tank design is based on] two innovations from Cadillac peace-time engineering. . . . [and] all that the Cadillac reputation and tradition imply." Fortune September 1943, 27.

the New Deal.⁵⁵ In so doing, manufacturers sought to restructure the public perception of American progress and lay the groundwork for an anticipation of postwar economic prosperity, instead of the much feared, but plausible, scenario of postwar depression.

If free enterprise, industry, and big business could win the war, then they could also build a successful bridge toward higher standards of living and democratize progress for all. As a result, wartime advertising and commercial propaganda harbored within it a potluck of political and patriotic sentiments that pointed to American industrial success of the past and its potential for even better things in the future.

Such a sanitized image of war-related progress was structured on the assumption that American victory was dependent not only on the technologies, but also the big business institutions and bureaucratic systems that had facilitated progress in the past. For example, an American Magazine article from 1945, explained how "scientific"

⁵⁵The business community, who on the whole championed laissez-faire economics, was threatened by the New Deal's legislative reforms (which they perceived as "socialist") that gave government an unprecedented active role in helping administer aspects of the nation's economy. Government's intervention in economic affairs was sometimes referred to as "state capitalism." The New Deal's reform policies were influenced by the writings of British economist John Maynard Keynes, who advocated private enterprise, but emphasized government's role in keeping big business more socially accountable. See: Ewen, PR!, 237-40. More on these issues in later chapters.

management techniques were "revolutionizing" war through rationalization, just as such methods had "revolutionized" the peacetime factory and middle-class household: "Uncle Sam takes into battle all the fabulous skills and tricks he's devised for mass production and distribution. Supplies and materials are handled on a chain-store basis, weapons and machines pour off the assembly line. The result: a new kind of warfare that amazes our Allies and overwhelms the enemy."⁵⁶

In a similar fashion, Monsanto Chemicals and Plastics depicted the soldier of democracy as a product of both the corporate-run assembly line and the laboratory, an amalgam of the scientifically managed "miracles" that had comprised modern progress prior to the conflict. [FIGURE 14] Monsanto trumpets the success of the pre-war "American spirit of free competitive enterprise," the engine of progress which "built a chemical industry that was ready not only to help win this war but is ready for the tomorrow when it will help build a greater peacetime future." Thus, the established institution of laissez-faire capitalism was heralded as not only the galvanizing force behind science's winning weapons,

⁵⁶Vance Packard, "When Yankee Genius Goes to War," American Magazine March 1945, 29. (Ironically, Packard's postwar writings critique the system behind American consumer culture and its role in shaping behaviors and eroding certain traditional values. See for example: The Hidden Persuaders (1957), The Status Seekers (1959), and The Waste Makers (1960). All published by David McKay, New York.)

but also was forecast as the cornerstones of progress for building postwar abundance and prosperity. In this respect, Monsanto attempts to not only use the mystique of bureaucratized science for patriotic purposes, but also employs it to shore up faith in the perceived heartbeat of "Machine Age" progress--laissez-faire economics--by showing how it would prove the fascist enemies of the American Way wrong and win the war.

A similar argument was made in a 1943 Coty cosmetics ad for its wartime contribution in insect repellent, which it illustrated with a giant mosquito, a "Dive Bomber . . . deadliest model," shown hovering like a menacing enemy flyer above an unsuspecting battalion of U.S. troops disembarking on a South Seas island: "It is fortunate that this wartime service combines so naturally with the production of our internationally known perfume and cosmetic creations that do so much for the comfort and morale of our women."⁵⁷ According to Coty, their company could not have had any role in facilitating victory if it had not been for the scientifically-managed hierarchy of the modern corporation. According to Coty: "In this [war] work we have been aided greatly by the experience and research of our laboratories in South America and other branches of our far-flung organization."⁵⁸

⁵⁷Fortune September 1943, 53.

⁵⁸Ibid.

The business community's sanitized war information was not free of hype. Accompanying the details about how the parts of refrigerators or the ingredients of face cream could give the Allies the advantage, was a great deal of patriotic baggage, which cloaked corporate ulterior motives. While the conflict made it necessary to depict domestic progress as a weapon of war in order to excite public patriotism, such a link between the products of the home and their contribution to the battlefield also attempted to build bridges of consumer loyalty, and thus were intended to ignite postwar production and a consumer buying frenzy once victory was achieved. Such ads sometimes implicitly, but often openly, argued that consumer products, which had proven their superiority in battle, could surely increase levels of domestic convenience, comfort, and efficiency automatically once they had returned from their military jobs overseas.⁵⁹ As a result of their wartime advertising, the corporate engines, which had helped build the mechanized infrastructure and patterns of consumption before the war, would have a public record of their contribution to victory and be celebrated along with their domestic products that, presumably, "revolutionized" the battlefield and helped the Allies win the war.

⁵⁹More on this issue in Chapter V.

III. The Sanitized Image of Warfare and Middle-Class Domesticity

When war came, our armed forces found that hundreds of products from peacetime industry could readily be converted to vital war uses. Here are [three] typical peacetime products- and their war babies: Remember the newfangled electric blanket that appeared just before the war? Today it is serving as a featherweight electric flying suit on 200,000 of our high-altitude fliers. Many prewar kitchen sinks had a gadget that chewed up and disposed of the garbage. That 'disposall' [sic] is now on our warships grinding garbage, so it doesn't leave a trail in the water. . . . Our bathing beauties used to wear polaroid glasses to remove the nasty old glare while they sunned themselves. Now our snow, desert, and sea fighters wear these glareless goggles - and the polaroid principle had made it possible for us to outwit enemy camouflage by using three-dimensional aerial photography.⁶⁰

In order to shore-up Americans' faith in "Machine Age" progress for the duration, conversion could not be perceived as a threat to progress as had photographs of Depression-era destitution, like those taken in the 1930s for the Roosevelt administration by the Resettlement and Farm Security Administrations.⁶¹ Copy writers and journalists, therefore, depicted American production as so abundant that it required civilians to simply delay acquiring new gadgets, which had made attaining cleanliness more convenient and efficient, rather than revert to a primitive, and thus dirtier, standard of living for the duration: "[The consumer] will be forced to forgo his fads and fancies in

⁶⁰"Yes, Even the Kitchen Sink," American Home March 1945, 142.

⁶¹More on this issue in Chapter VI.

electrical equipment and many gadgets as military priorities cut down the rampage of styles and models in the retail field."⁶²

This propaganda technique, instigated in order to stimulate patriotism and confidence in American industry, not only demonstrated to consumers the veritable omnipotence of American industrial progress, but it also tried to prove why consumers should put their faith in the business community as a source for access to higher standards of living instead of the New Deal's platform for state capitalism. Apologists for capitalism claimed that free enterprise, in the form of unrestricted business and consumer choices, fueled American progress and sustained American democracy. As a result, such advocates of capitalism suggested that even war could not interrupt, for very long, or in a very significant way, the on-going democratization of ever higher levels of convenience, efficiency, and automation. The mechanization and capitalist engines that powered rising standards in cleanliness, comfort, and leisure would be redirected toward the war effort, but would not entirely disappear from American middle-class households altogether.

For middle-class Americans, relinquishing a modicum of

⁶²"The Consumer's War," Fortune August 1941, 118.

modern levels of hygiene and sanitation was explained as making "relatively unimportant sacrifices."⁶³ According to corporate-sponsored government propaganda, magazine articles, and advertisers' claims, mobilizing progress only required restrictions on reaching for an even higher standard of modern cleanliness, not dismantling the ones currently in place. War would pinch the progress of rising middle-class standards in sanitary comfort and automatic cleanliness, but it would not reduce levels of hygiene to a life or death situation.⁶⁴ For example, home economists assured the public that American showers would still be plentiful, but perhaps the public would have to cut back on the use of sterilized rubber or plastic shower curtains; cleaning supplies could be purchased, but not rust-proof stainless steel for modernizing and rationalizing kitchens; and fresh food would be available, but not delivered in the most protective and sanitary wrapping:

Consequently, your next loaf of bread may be delivered in waxed paper instead of Cellophane. . . . For Linens. . . . The contents of the linen closet will probably not be diminished below the necessary level. . . . Bathroom linen, like other cotton textile products, will be available, although not in the present extravagant range of patterns and colors. . . . The recurrent rumors of a soap shortage are unfounded,

⁶³"Uncle Sam's Housekeeping Job." Journal of Home Economics September 1942, 424.

⁶⁴"Facing facts and deciding to see this thing through boldly doesn't mean that you'll have to give up every convenience and comfort and bit of beauty- not by any means." From: "Join the Millions Cooperating for Victory," American Home May 1942, 7.

partly because glycerine, an essential war material, is a by-product of certain soapmaking processes . . . The shortage of metal will be most apparent in the kitchen. Metal table tops, drainboards, cabinets, and vegetable bins will soon be unobtainable. . . . New laundry equipment will not be produced, but repair parts will, together with tubs, boilers, and pails. Floor waxes and polishes will be out of production, but there will be no decline in the output of other cleaning and polishing supplies.⁶⁵

Magazine articles published prior to official U.S. entry into the war painted a picture of Europe engulfed in a level of hygienic and domestic depredation foreign to the American housewife and abhorrent to her middle-class sensibilities. Comforts and conveniences that had accompanied the pre-war domestic "revolution" and rose standards of American living were now unheard of in war-torn France and Germany:

To the American homemaker intent on problems of choosing a proper drape or a fine beefsteak, or whether to houseclean this month or next . . . it comes as a crushing shock to learn what her European counterpart has on her mind and on her twenty-four-hour schedule. . . . [F]ew women in France were not red-eyed and haggard [after seeing their men off to war]. Yet there they were, running subway cars . . . shoving heavy baskets at public markets, and presiding at the first soup kitchens drawn up in the public squares. . . . [In Germany] for two full years the average hausfrau had never seen more than one egg at a time in her kitchen. . . . Since 1938, her children had dutifully picked over the garbage pail every morning for fat scraps to take to school and place ceremoniously in the 'Fatherland Fat Barrel.' . . . All German housewives have one main job today - standing in line and scheming

⁶⁵"Uncle Sam's Housekeeping Job," 421-24.

to get food for their children and relatives.⁶⁶

According to the government's corporate-sponsored propaganda machine, the American middle-class home front would see only a pause in improvements to its standard of living for the duration. Exacting standards of cleanliness and convenience were more at risk as casualties of the war in America, in contrast to Europe.

Although basic survival needs and "proper" cleanliness standards were given national priority in wartime America, keeping up a middle-class appearance would not be so easy. Wartime curtailment in the silk, nylon, metals, and rubber industries, which had helped raise standards of American living especially in the personal grooming department, now put the well-kept middle-class appearance at risk: "The needs of war strike at some unexpected spots, among them the usually well-groomed leg of the American woman. The expanding of the air force requires an expanded supply of

⁶⁶Charles E. Hewitt, Jr., "Housewives and War," Good Housekeeping February 1940, 32-33, 80, 82.

See also Fannie Hurst, "Glamour as Usual?" New York Times Magazine 29 March 1942, 10-11, for discussion of glamour and personal hygiene depredations due to the war experienced by British women, and the fear that American women might suffer "an atavistic somersault back to the days when grandmother surreptitiously colored her lips with the red off a peppermint stick and patted her face with a cornstarch bag."

Consumption was curtailed in the U. S. , not survival: "Consumers heard that . . . women would have to do with fewer hairpins. . . . Women lose 25 million hairpins a day [to conversion]. . . . [and] [e]lectric-refrigerator manufacturers began to supply fewer aluminum icecube trays per unit, saving some 800,000 pounds of aluminum a month." From: "The Consumer's War," 94-95, 116.

parachutes and every one of them absorbs enough silk to make 185 pairs of stockings."⁶⁷

Mass-produced cosmetics, girdles, hosiery, and hairpins--products of the glamour industries--were perceived as measurements for gauging the effectiveness and modernity of a woman's personal hygiene. Advertising before the war had heaped guilt upon women who failed to comply with conventional standards of grooming through the purchase of glamour products, and made their personal hygiene suspect in the public eye.⁶⁸ Wartime advertising and promotional literature conveyed fears that shortages due to conversion in the personal grooming and glamour industries would put middle-class standards of feminine hygiene (not to mention

⁶⁷"Uncle Sam's Housekeeping Job." 421.

See also: "The metals shortage hits the consumer many other curious but hardly agreeable ways Makers of toothpaste, shavingcream . . . and the like have gone from pure-tin collapsible tubes to tin-coated tubes. . . . Cosmetics people . . . are having a terrible time getting metals for compacts, rouge cases, and lipsticks. . . . This is war, total war, and the only thing to count on is: nothing as usual." "The Consumer's War," 116, 118.

"[American women's] girdles may not continue to be manufactured from rubber. . . . American women are already beginning to face the music and adapt their dress to the exigencies of warfare." From: "Glamour as Usual?" 11.

⁶⁸For examples, see ads in: Marchand, Advertising the American Dream, 344-46. For more on the historical development of advertising techniques that offered solutions to the flawed self through consumption, see Ewen, Captains of Consciousness, 43-48, 73. Ewen makes the point that advertising heightened insecurities about the flawed self by showing individuals, especially women, how to measure themselves against the perfect lives, bodies, families, and households depicted in advertising.

proper femininity itself) in jeopardy:

Before and after taking-away. At left- You see her with hair tint, rouge, powder, lipstick, nail polish, metal bracelet and necklace. Above - She's still the same girl, but de-glamorized of materials war may take. . . . The [Office of Production Management] OPM's August list of critical commodities - meaning items perilously short - showed at least eighteen affecting glamour, all the way from acetone through castor oil to zinc. . . . The figure-molding industry, a natural Patsy for defense headaches, shows how the industrial problems arise. . . . Suppliers of stainless-steel garter clasps [on girdles]. . . don't know where future supplies are coming from. . . . Nylon will be hard pressed to keep a minimum of glamour on American legs. Rubber, however, troubles the figure molder most. . . . Figure molders have already been ordered to cut rubber use by 20 percent by December.⁶⁹

Companies of cleaning and plumbing products were apt to portray the efficiency they brought to their military contributions as a way of facilitating progress despite the war. The fear that middle-class standards of personal hygiene would falter due to the war inspired advertisers to shore-up patriotic support for the war effort by restoring American faith in the "revolutionary" potential of its sanitation industries. Sanitation management, such companies asserted, allowed the military to maintain a middle-class level of hygiene and standard of living for troops in any part of the world, even the perilous, microbe-riddled jungle overseas: "How'd THIS get out of our kitchen?" exclaims a soldier, face painted with grime and camouflage, who crawls out of his primitive tent, to meet

⁶⁹"Glamour Goes to War," Saturday Evening Post 29 November 1941, 18-19, 56.

that symbol of American progress and triumph over filth and disease: a pristine, white, sterilized, enamel kitchen sink.

[FIGURE 15] Monsanto Chemicals (which would create a plastic House of Tomorrow for Disneyland in the 1950s), explains how wars can only be won if the proper plumbing systems and measures of sanitation are planned in advance:

[E]ven out here in the steaming jungle swamps, Army and Navy health engineers are on the job to keep your drinking water as safe as if the tap from your family kitchen stood just outside your tent. Long before you started overseas, these sanitary engineers and chemists . . . tackled this job. They knew a drop of untreated water from a South Pacific jungle swamp, a tepid desert pool or a polluted European stream could be deadly as a bullet. . . . [M]iniatures of the scientific water treatment plant in your own home town - travel with you right to the battle fronts . . . That's one reason why you and your companions are the world's healthiest soldiers. And another reason, too, why American standards of sanitation, now being carried by you around the globe, will mean a healthier, better world tomorrow.⁷⁰

The moral authority of middle-class sanitation would accompany democracy's spread through war-torn countries once dominated by fascism and improper hygiene. Advertisers, guided by middle-class platitudes on cleanliness, assumed that the Axis powers undoubtedly bred not only totalitarianism, but also unsanitary habits that needed to be put to a halt. By assuring the home front public that their "boys" overseas were safer from germs than enemy bullets, sanitation corporations also helped to revive American confidence in the businesses and technologies that

⁷⁰Fortune August 1943, 25.

had "revolutionized" personal hygiene prior to the conflict, and showed that the paragon of American progress would, obviously, prove victorious, not only in battle, but in spreading democracy and its high standards of cleanliness throughout the world.

While advertisers painted a perilous picture of the health risks that American "boys" were subjected to overseas, they also showed how corporate "saviors" would rescue them from the compromises war inflicted on their personal hygiene. Sailors and soldiers at war were especially at risk from a possible lowering of sanitary standards due to the close quarters of pillboxes, cockpits, and ships at sea. The Public Health Committee of the Cup and Container Institute--a public relations front for the disposal utensil industry--defended its manufacture of critical paper, despite shortages, by showing how paper cups protected the public and soldiers from the threat of germs, which, in their estimation, posed a greater hazard than the dangers of war. Their ad, "There is No Dishwasher in a Bomber's Crew," suggested that the combination of close quarters and piles of dirty dishes fostered perilous germs. Therefore, middle-class consumers were encouraged to relinquish the convenience of paper cups at home in order to preserve the health of fighting men and war workers whose good health was critical to victory: "The best way to eat in a bomb shelter! As the British know, the safe, practical way

of mass feeding in emergencies is to use single-service paper utensils. . . . Cities here are storing millions right now - just in case. . . . And of course you'll help too - by not complaining if you find paper cups are going to the Army and Navy . . . and . . . factories first!"⁷¹

While giving up the conveniences of disposable utensils may have assured Americans that they were contributing to a clean and hygienic victory, other advertisers preyed on fears that cleanliness on the home front faced a greater risk during war than in peace. As a result, the pursuit of higher levels of cleanliness were awarded a patriotic patina, and also secure a wartime market niche for those cleaning companies who still had products to sell civilians. For example, Lysol persuaded homemakers to model their housekeeping habits after the scrupulously scoured U.S. military. The authority of Uncle Sam, according to Lysol, even surpassed the standards of cleanliness of the middle-class housewife. Accordingly, Lysol admonished mothers to "keep house clean the way Uncle Sam does. . . . Uncle Sam uses Lysol to help protect the men in his service. . . . Like a good housekeeper, Uncle Sam disinfects and deodorizes as he cleans. You ought to clean house the same thorough

⁷¹Life 12 October 1942, 65.

Getting foods fresh to soldiers and sailors in battle also maintained a standard of living that would help fuel American victory. For example, see Continental Can ad: "The can that keeps a paratrooper's food fresh will keep your bacon fresh indefinitely!" Business Week 30 September 1944, 92.

way . . . Kill the germ enemies that lurk in your basin . . .
. Rout the germs in your bathroom Wage relentless
war on germs in the sick room."⁷²

Wartime industry and corporate-sponsored science was credited with exceeding the highest level of middle-class cleanliness and hygiene through wartime research and development. For example, Dovicides, advertised in 1943 by the Dow Chemical Company, provided a chemical coating to textiles and packaging, any "materials susceptible to deterioration resulting from mold and bacteria."⁷³ A secret weapon among the tools of war, Dow fungicides and germicides accorded sterilized protection with a science that not even the cleanest middle-class homes could yet offer.

By showing how the Allies would win the war through their righteously observed sanitary habits, personal and domestic hygiene industries helped elevate not only standards of cleanliness during the war, but also contributed to resuscitating Americans' belief in their country's ability to secure victory with the equipment of its domestic progress.

The sanitation argument in wartime advertising and propaganda was a compelling instrument of persuasion because it had served business so well in the past. The fear of not

⁷²American Home May 1942, 35.

⁷³Dow Chemical Corporation, Post Street Archives.

meeting acceptable levels of cleanliness had helped sell Americans, especially members of the middle class, on their need for consumer products that would efficiently, comfortably, and conveniently help them successfully surpass society's expectations in personal hygiene and domestic sanitation. Because the concept of cleanliness and the state of being clean harbored so much cultural and class baggage, it was easy for manufacturers in the sanitation trades (and related industries) to associate their pre-war successes with victory. And, thus it was easy for them to garner support for the war effort by showing how mechanized cleanliness--the moral backbone of American society--could win a war for democracy.

Consequently, the war was defined and sold as a temporary inconvenience to the middle class. The basic mass-produced comforts and amenities they had come to depend on for their survival as consumers since the years following World War I did not vanish from their homes, and as a result the proper appearance and cleanliness standards of the middle class were hardly compromised despite the veritable hysteria voiced in the media about the conversion of women's girdles and cosmetics to the battlefield.

However, such media campaigns and sterilized images of the war effort were not only intended to build public confidence in American industry's production capability to defeat the Axis, but they also sought to reinforce

unquestioning faith in a consumer way of life. In so doing, commercial media portrayed middle class values as sheltered from the hardships and hygienic compromises that the war had waged in Europe. As long as basic, store-bought amenities remained plentiful enough to save middle America from such a perilously unsanitary fate, the home front public would support the war effort and, businessmen hoped, would also celebrate the wartime job that industry had contributed to victory in the form of plentiful purchases in an ebullient postwar, capitalist economy.

Rational Design and The
Efficiency Aesthetic of War

Through their association with the perceived logic of "scientific" management and "rational" design in the middle-class household, designers found a ready-made role for themselves in the Allies' "Taylorized" war machine:

Plane design has demanded the use of sculptors and designers. . . . Models must be built for wind tunnels, designs must be made for new planes. . . . Industrial design has been given new impetus through the development of plastics. Substitute materials must be constantly developed for materials under priorities. . . . Barracks are being designed to be premanufactured and at the same time be more attractive. Grounds and interiors of military posts are being beautified in type of functional beauty.⁷⁴

⁷⁴Waldemar Johansen, "Military Uses of Art," School Arts September 1943, 28.

"Rational" design, or an "efficiency aesthetic," as they referred to "styling" and packaging products in a perceived modern "Machine Aesthetic," was actually part of the over-all corporate scheme to frequently supply the public with new models and fashions in order to increase consumer dissatisfaction with the "old" and consequently stimulate

The "scientific" rhetoric and displays of rational efficiency used in articles and images that publicized designers' wartime contributions complemented and reinforced the business community's sanitized image of the U.S. involvement in the war.

R. Buckminster Fuller, for example (who had before the war proposed visionary "scientific" housing projects based on his conception of "rational" planning) offered the federal government his solution to the migrant war worker housing problem. The influx of migrant workers and their families into shipyard and war plant towns added to the nation's already severe housing shortage in manufacturing areas and consequently posed dire public health hazards. Many of the poorest white workers, and blacks shunned from white neighborhoods, were forced to reside in quickly

sales for the "new."

Designers were hired not only to refashion the outer "shell" or coloring of a product, but also the package in which it would be sold. In this respect, the work of the design profession represented another form of "advertising."

The two image professions--advertising and design--geared to "engineer" consumer behavior, overlapped a great deal. One can see this very plainly in the pages of trade magazines, like Advertising & Selling, in which both ad men and designers used much of the same commercial, pseudo-scientific rhetoric to define their industries' objectives, and map out new sale strategies for their clients.

For an example of the multi-faceted use of the "styling" term, "streamlining," from the 1930s (which many times referred to an aerodynamic appearance, which suggested speed), see: Egmont Arens, "Streamline America," New York Herald-Tribune May 1936, 18. Documents in Arens collection at Syracuse University state that the article had been originally titled, "Streamlining for Recovery." See Box 48.

And see: "The Industrial Design Consultant," Art & Industry March 1944, 66-79.

constructed shanty or tent towns, which surrounded the plants. With no running water, electricity, laundry, or proper toilet facilities, defense shanty towns threatened war-workers' health and hygiene, which was believed could ultimately take its toll on war production, and thus hinder victory.⁷⁵

In 1941 Fuller, set out to solve the defense boom town shelter problem (and its accompanying threat to public health) with a prefabricated single-family house design that could be quickly mass produced and shipped anywhere in the world.⁷⁶ Originating as a farmer's grain bin, his Dymaxion Deployment Unit consisted of a round shell of light-weight corrugated iron, and cost only \$1,200 including furniture,

⁷⁵Conversion had made the defense boom town problem more acute by directing critical housing materials and skilled construction workers to military use overseas. See: Margaret Crawford, "Daily Life on the Home Front," in World War II and the American Dream, 90-143.

⁷⁶For Albert Kahn's factory designs see: "Architects and Defense," Pencil Points October 1941, 657-64; "Producer of Production Lines," and "Architecture for War Production: A Military Aircraft Plant in the East, by Albert Kahn," Architectural Record June 1942, 39-52.

See also: "Saarinen's Studies for Defense Housing," Box 5, Folder 7, Saarinen Family Papers, Cranbrook Archives.

On the Willow Run Townsite near the Ford Bomber Plant in Michigan, see: "Build Frontier Town to House Bomber Builders," The Hotel Monthly May 1943, 14-21.

For Russell Wright's furniture design contributions to defense housing, see: General Files, Box 3, Defense Housing Portfolio folders, Wright Collection, Syracuse University. The folders also contain design specifications distributed by the Public Building Administration.

See also Blueprints For Modern Living for more on certain California architects' contribution to the war.

prefabricated kitchen and bathroom.⁷⁷ [FIGURE 16] Because it took advantage of existing manufacturing systems, requiring no expensive retooling, it was cheap and easy to produce: a thousand could be fabricated in one day. And its collapsible, compact design made it easy to transport: fifteen could be compressed into a single box car for shipment.

Wartime promotions for the Dymaxion Deployment dressed up the house's corrugated iron walls, conical metal ceiling and exposed rivets with cozy houseplants, convenient shelving, a tiny efficiency kitchen, as well as chairs and chaise lounges with tubular legs, while quaint curtains downplayed the industrial appearance of the round, port-hole windows. Despite the middle-class domestic affectations, the technocentric, battleship-like interior overshadowed the possible benefits of its efficiency design, and the circular plan made it difficult for its users to adapt standard

⁷⁷The Deployment's bathroom consisted of another smaller, circular room attached to the exterior of the principal shelter. Fuller's Dymaxion Deployment Unit was a wartime version of his 1927 Dymaxion House, which will be discussed more in Chapter VI.

Another article about demountable, prefabricated shelter solutions to the defense town housing dilemma suggest that Fuller's cost of \$1,200, including furniture but not lot and foundation costs, was low, but typical for small houses of this sort. Allison H. Dean, a Portland, Oregon, realtor, devised the factory assembled "Haul-a-Way Home," which, similar to Fuller's idea, included bathroom, appliances and furniture, and could be mounted on the back of a truck or flatcar for transport. The three-room "Haul-a-Way" model cost \$1,800, while the smaller two-room unit cost \$1,100. See: "Building for Defense . . . Prefabrication Takes New Shape," Architectural Forum April 1941, 20, 110.

pieces of furniture and appliances.⁷⁸

Industrial designer Russel Wright's attempts to "rationalize" Navy dinnerware by replacing inefficient ceramic crockery with unbreakable, sanitary plastic proved a more successful wartime experiment than Fuller's.⁷⁹ Wright's plastic tableware, made of melamine from American Cyanamid, would not only reduce breakage, but also (according to publicity it received early in the war years) economize space through a rationalized design that would maximize the "nesting of the pieces." Plastic dishes offered a logical and "scientific" solution to the Navy's domestic needs because they weighed less and held more food than their ceramic counterparts. Furthermore, Wright's choice of plastic material emitted no offensive odor, which would have hampered the logic of their use in the

⁷⁸For views of the interior, see: "Building for Defense . . . 1,000 Houses a Day at \$1,200 Each," Architectural Forum June 1941, 425-29. Despite the perceived "rational" solution Fuller had proposed, only a few hundred were built before priorities curtailed the use of corrugated iron--the very element which had made the design so expedient. Albrecht, ed., World War II and the American Dream, 20, 23-24. Other modern architects' proposals for defense worker housing, war factories, and military installations were more successful than Fuller's. See National Building Museum catalogue for more examples.

⁷⁹Normal Bel Geddes, who had been a set designer prior to his career as an industrial designer, also found a successful niche for himself by creating miniature models of battles that had occurred in the Pacific and Atlantic to be photographed by Life magazine. See Norman Bel Geddes, War Maneuver Models Created for Life Magazine, (New York: Museum of Modern Art, 1944).

encapsulated living spaces of battleships and submarines.⁸⁰ Progress in efficiency design, which had helped rationalize middle-class domesticity prior to the war, would lend unprecedented convenience to ships at sea by relieving the Navy from the nettlesome burden of having to sweep up broken dishes after torpedo attacks.⁸¹

⁸⁰"Reducing Breakage in the Navy," Modern Plastics November 1942, 80-81, 122. See also: Albrecht, World War II and the American Dream, 68.

⁸¹According to Walter Dorwin Teague, the business of war was providing a valuable impetus for "good" modern design: "In making weapons of war we are advancing our arts with a speed no mild peacetime urge could ever evoke." From: Teague, "Design for Peace," Studio International April 1943, 154-55. Teague's war work included designing a rapid fire rocket launcher for P.T. boats. See: Teague patent files, Bemis Collection, MIT, Cambridge, Mass.

Donald R. Dohner, Head of the Department of Industrial Design at Pratt Institute, also saw the war as a sort of "renaissance" for the design profession: "We face a world seriously depleted of such familiar and necessary products as motor cars, typewriters, refrigerators, household appliances, furniture, and thousands of articles so essential to the American standard of living. . . . Herein lies an unprecedented opportunity for those students of creative ability. . . . [T]his post-war period . . . will usher in a veritable renaissance of design." From: "Preparing for Industrial Design," Design May 1943, 8. This British publication was available in the U.S.

Designer George Nelson, editor of Architectural Forum, agreed that war accelerated the need for "functional design," see: Architectural Forum September 1943, 4.

Writing in 1955, Henry Dryfuss explained how the wedding of "scientific" management with the human body through rational design was especially necessary for military assignments:

"On military projects, the industrial designer's procedure remains the same as on commercial assignments but there is a shift in emphasis. Instead of profits for clients, the goal in government work is a contribution to morale, the intangible force that impels soldiers to have confidence and pride in their weapons and therefore in themselves and that, in the long pull, wins battles and wars. **The industrial designer strengthens this force by giving military weapons**

Egmont Arens also tried to apply his work from the 1930s on the "science" of color standardization to Army, Airforce, and war plant equipment and facilities.⁸² By 1943, he had established a niche for himself as an expert in an entirely new rational planning system for the military through "functional," "engineered" color, as opposed to conventional camouflage: "[W]hile color may be used artfully to conceal, it may also be used scientifically to reveal. . . . In camouflage we try to slow down the enemy's vision [but] [o]ur object [with engineered color] is to speed up our own fighting men."⁸³

As a result, the operators of the machines behind the

added safety, utility, ease of maintenance, and convenience and comfort." From: Henry Dreyfuss, Designing for People (New York: Simon and Schuster, 1955), 160. This quote is from the chapter, "Working For the Government," in which he discusses other military projects.

⁸²Arens wrote and collected various articles on "rationalizing" defense plants and military equipment with the "science" of color as well as references to civilian opportunities in "Protective Concealment." In his papers are mimeographs of army camouflage practices, requirements for camouflage officer duty and forms that an artist, designer, or engineer could fill out in order to be considered for a military design contract or art-related war work.

⁸³Egmont Arens, "Color on the War Front," 28 June 1943, 5. [typed manuscript] Fighting with Color Folder, Box 49, Arens Collection, Syracuse University.

From the same collection and box, see his other articles: "Fighting With Color: Dynamic Use of Pigments is Helping to Lick Hitler - Faster," 1943; "Fighting With Color: How We're Smearing Der Fuhrer's Face With Paint," 1943; "Color in the Factory ["Call to the Colors"]," 1943.

war effort (whether at the war plant, on the battlefield, in the air or at sea) would be more efficiently and conveniently wedded to their machinery through "scientifically" managed color, much like Frederick Taylor's concept of the assembly line. Rational design promised to speed up the war effort and hasten victory by "scientifically" managing worker and soldier responses through specific uses of color:

Engineered color is the new tool with which our war technicians are licking Hitler - and faster. A newly developing scientific application of color to control and direct human reaction is becoming part of war engineering practice, as it is of all engineering practice. . . . The war machines have become so powerful and so fast that the wits of the men who direct and control them are often not quick enough to keep pace. . . . What is new is the scientific understanding of human reactions to color, and the use of color dynamically to get faster action at a time when speed is the essential ingredient. Thus throughout the whole war effort we find color being used ever more effectively to accelerate human response. On training field and battle front, on battleship and bomber, color stands by to organize, simplify, and direct action.⁸⁴

Coming out of a packaging background, Arens understood the psychology of color appeal and how its application could alter the mood, and thus increase the efficiency of soldiers in battle, just as color in packaging could alter the buying habits of the consumer: "There comes a time when a man's

⁸⁴Egmont Arens, "Color on the War Front," [typed manuscript], 28 June 1943, 1-3, Fighting with Color Folder, Box 49, Egmont Arens Collection, Syracuse University.

The article also discusses more efficient uses of color in the war plant factory in order to increase worker production.

nerves say: 'I've had enough!' But if you paint the inside of a tank a delicate tint of green, you do amazing things to the psychological pattern of the fighter. . . . [T]he new color science . . . is proving as good as bullets on the battlefield."⁸⁵

Although the details of weaponry designs were not disclosed to the public during the war, and some designers' plans remained only proposals, from the publicity of projects like those cited above, it was commonly known that the industrial design profession's "efficiency aesthetic" and "rational" ethic had been harnessed for the war effort and was touted as partially responsible for victory.⁸⁶

The efficiency management and consumer engineering needs of the modern corporation had ignited the growth of the industrial design profession prior to the war. Thus, well before America's entry into World War II and the

⁸⁵From: Egmont Arens, "Color on the War Front," 28 June 1943, 6. [typed manuscript] Fighting with Color Folder, Box 49, Arens Collection, Syracuse University.

For more on Arens's pre-war career in color engineering, see his articles available in his collection at Syracuse University: "Color," December 1932. Color Folder, Box 48; for more on packaging, see his: "Package Engineering," cited earlier.

⁸⁶See also: "Defense Called Spur to Industrial Design," New York Times 4 October 1941, 28.

For more on industrial design's call to arms, see: "The Duty of Industry," Design March 1944, 18-19.

On the Museum of Modern Art's exhibition on daily use objects redesigned in non-priority materials, see: "Useful War-Time Objects," Art & Industry August 1943, 45-48.

Other designers' war work, which was not heavily publicized during the war, will be referred to in Chapter IV.

initiation of conversion, the "scientific" rhetoric and visual language of a "rationalized," efficiency aesthetic had been securely reinforced in the operations of American industry and business. As a result, the convenience products generated from this relationship between manufacturers and designers had helped to make the philosophy of rational planning and efficiency management an integral part of daily life in middle-class America, whether it was at the office, the store, in the car, or at home. Therefore, design, as a business "science" that had helped to usher industrial mechanization and higher standards into the middle-class household, found a useful niche in the modern business of war and its sanitized public image.

Publicizing how the modern design ethic and consumer products were converted to the war effort helped "clean up" war information for the civilian public. Although government may have intended such messages to solidify its influence on the public during the war, packaging war information in the form of advertising and business publicity reinforced and cemented the dominant role of the corporation in American life. Primarily, these sanitized wartime messages were fabricated in order to revive many Americans' shaken faith in the ability of their country's industrial progress to win a war even though it had largely failed to avoid monumental economic depression. By showing how household mechanization and its supporting institutions

and systems (like corporate-sponsored science, the industrial design profession, scientific management, channels of mass-distribution, the assembly line, and sanitary engineering) were "revolutionizing" the battlefield, as they had "revolutionized" the pre-war middle-class household, manufacturers offered the public a compelling case for not only supporting the war effort, but also holding on to the free enterprise system which, business claimed, had made mechanized progress and Allied victory possible in the first place.

Thus, the war gave businessmen an opportunity to rebuild consumer faith in the infrastructure of free enterprise and the American Way that Depression-era world's fairs never could.⁸⁷ Through its sanitized image of modern warfare, business also tried to "clean up" its public reputation by demonstrating how the institutions of capitalist-run industry functioned as the infrastructure behind the progress that would be credited with winning the war. Consequently, the image of commonly-used, consumer products as weapons of war provided the business community with the ammunition to not only inspire patriotic confidence in American industry, but also fuel consumer dependence on the mass-production/mass-merchandising infrastructure of corporate capitalism.

⁸⁷This issue will be examined in more detail in Chapter VI.

Such messages about domestic product conversion were also meant to stimulate the public's expectations about the progress they would encounter in the postwar world on the other side of victory. As a result, the business community (including the design profession) capitalized on the propaganda needs of government by using it toward its own commercial and professional ends.

Furthermore, wartime advertisers entrenched the desire for ever higher standards of convenient comfort, leisurely cleanliness, and efficient automation in the home by associating the "miracle" of the middle-class domestic "revolution" with winning a monumental, global war. In other words, war provided manufacturers and industrial designers with product endorsements intended to stimulate postwar consumption. Consequently, the advertising and publicity of products converted from their use in the middle-class household to military ordnance helped shape a definition of progress that wedded domesticity and war--an image that would prevail even after victory was achieved.

CHAPTER 2

THE ARSENAL OF DOMESTICITY

This is not a fireside chat on war. It is a talk on national security. . . . American industrial genius, unmatched throughout all the world in the solution of production problems, has been called upon to bring its resources and its talents into action. **Manufacturers of watches, of farm implements, of linotypes and cash registers and automobiles, and sewing machines and lawn mowers and locomotives, are now making fuses and bomb packing crates and telescope mounts and shells and pistols and tanks. . . .** I appeal to the owners of plants - to the managers - to the workers . . . to put every ounce of effort into producing these munitions swiftly and without stint. . . . **We must be the great arsenal of democracy. . . .** to increase our production of all the implements of defense, to meet the threat to our democratic faith.¹

Roosevelt's "great arsenal of democracy" relied heavily upon making an arsenal out of domesticity. His petition for the mobilization of American production, resources, and labor power in response to threats aimed at its democratic values, was also a rallying cry for the massive conversion of textiles, utensils, cleaning products, building

¹President Franklin D. Roosevelt, "The Preservation of American Independence (Radio speech delivered from Washington, DC., 29 December 1940)," Vital Speeches of the Day 15 January 1941, 194, 197. (My emphasis.)

The U.S. had not officially entered the war at the time of Roosevelt's speech, but was gearing up production in order to supply weapons, materiel, food, and other services to its allies. In March of 1941 Congress passed the Lend-Lease Act, a means by which the U.S. could commit to the British cause without violating U. S. neutrality. (The act was extended to include China and Russia later that year, and eventually aided thirty-eight nations deemed vital to American interest by the war's end.)

materials, and household appliances that comprised the physical structure and concept called "home," as examined in the previous chapter.

However, Roosevelt's "arsenal of democracy" needed manpower to out-produce its enemies. His call for the womanpower of the country to operate and sustain the "arsenal of democracy" on the home front represents another reason why the American industrial conversion process is also more aptly titled, the "arsenal of domesticity." Women were called upon, not only to ration their household supplies and donate kitchen tools for scrap, but also to convert their domestic skills in scientific management and household engineering to manufacture the materiel of war. The call for the full-time homemaker, schooled in the "science" of home economics, to join the "arsenal of democracy" provides a way to examine further how the middle-class household and "women's work" became associated with the progress of war. Victory was heralded as a woman, but by and large her image was that of the professional middle-class homemaker, and it was the tools of her modern, "streamlined" kitchen that would go to battle in defense of democracy and the American Way. [FIGURE 17]

Unlike other studies of women's conversion in World War II, which focus primarily on gender in the work place, this chapter will look at the image of that conversion and how it conveyed a concept of progress in which domesticity and the

culture of war were conjoined.

While the feminine and domestic contribution to the war effort was celebrated as equal to men's, paradoxically, as this chapter will show, conventional attitudes toward gender prevailed. Sustaining brand names and trade marks through wartime advertising (as will be shown in Chapter III) also involved preserving the gender status quo. Throughout the war, government officials and advertisers refashioned the image of the middle-class homemaker to fit their needs. At heart, Victory was represented as stereotypically feminine. Wartime advertising, and the government propaganda geared to recruit women for the emergency, assured American society and business that conventional femininity would stay intact, despite the wartime request for women and their household products to perform a "man's job."

Plans for the postwar economy, as will be shown in Chapters V and VI, also influenced this retention of the gender status quo, despite the demands that war made, for the most part, on expanding women's roles. In response to fears that an upset in the market would lead to postwar depression, government propaganda and advertising assured businessmen that their female consumers would return to their limited, conventional domestic roles once victory was achieved. Postwar prosperity, according to the business community, depended on reinforcing stereotypical assumptions

about the female consumer, just as it required all Americans to hold steadfast to the free enterprise system, in order to avoid repeating the economic disaster of the previous decade.

As will be shown in later chapters, the business community's anticipation of the postwar economy impacted nearly every message printed, broadcast, or displayed during the war, and had an equally strong effect on how consumers viewed the war and women's roles toward Allied victory. Consequently, it is important to see where women's work (like their glamour and household products) fit within the "arsenal of democracy" in order to understand the significance of their reconversion after the war and how this translated into a revised image of domestic progress for the postwar world. This latter issue will be examined in Chapters V and VI, which concentrate on how the improvements made in household technologies and products during the war promised to further revolutionize women's lives after victory was achieved.

I. Women's Conversion and
Housework at War

The campaign to convert the consumer products of home front progress into an efficient war machine included welding middle class values of home, wife, and mother to the "arsenal of democracy". The concept of "home" was joined to the national fight for democracy and as a result, domesticity was seen as an integral cog in the "Taylorized" Allied war machine. Victory was contingent on utilizing all domestic resources, and that included mustering the professional, full-time homemaker into service. Consequently, the War Manpower Commission (WMC) targeted the moral guardians of the middle-class standard of living as a workforce that needed to be tapped: "[The WMC has] the job of organizing and directing an intensive information campaign in . . . Critical War Area[s] to persuade women **not normally in the labor market** to accept jobs in local war factories and necessary civilian business."²

The government's campaigns, carried out by the Office of War Information (OWI), the War Advertising Council (WAC),

²America at War Needs Women at Work: A Plan Book Published by the Information Services of the War Manpower Commission For Use in Recruiting Women in Critical War Areas for War Factories and Necessary Civilian Services (n.p.: War Advertising Council, 1943), 1. From: J. Walter Thompson Collection, Hartman Center, Duke University. (My emphasis)

See also, Augusta H. Clawson, Shipyard Diary of a Woman Welder (New York: Penguin Books, 1944). Written by a paid government agent, who went to work undercover in a ship yard. The book was intended to encourage other women to join up by unveiling the mysteries of factory work.

and the WMC, largely ignored working-class homemakers who were compelled for financial reasons to simultaneously hold down a job and care for their families and households.³

Therefore, calls for the full-time housewife to "man" the machinery of the "arsenal of democracy" carried appeals that fit within a middle-class domestic paradigm. Proper nutrition, cleanliness, orderliness, and gender-segregated facilities characterized incentives that were intended to draw the woman who had never worked outside her home, let alone in a working-class factory, into war plants: "Rest periods, lunch hours, cafeterias and rest room facilities [at war plants] have been planned on a scientific basis."⁴

Middle-class women, according to government officials, would not be forced to lower their standards of public or personal hygiene if they engaged in war work.⁵

³Rupp, Mobilizing Women for War, 142.

⁴Women In The War . . . For the Final Push to Victory [Not for general distribution- For the use of media....] (n.p.: Office of War Information with U.S. Army, U.S. Navy, U.S. Marine Corps, U.S. Coast Guard and War Advertising Council, 1944), 3. Advertising Council Archives.

See also Hoy, Chasing Dirt, 151-57; for discussion of how "middle class" identity was characterized by a full-time housewife who didn't work outside the home, but rather focused on maintaining "proper" standards of cleanliness for her family's social and moral success.

⁵See catalogue essay, Margaret Crawford, "Daily Life on the Home Front," 90-143, for more on war plant conditions and attempts of manufacturers, like Kaiser, to sponsor child-care facilities for war workers.

For another example of how factories were made over into acceptable, sterilized arenas for proper middle-class women, see the advertisement for Pittsburgh Paints: "By following the principles of Color Dynamics . . . [the] Gilbert Clock

Always the advocate of corporate and capitalist power, the War Advertising Council argued that advertising represented the key ingredient that would attract the middle-class housewife to war work. In her role as "professional" consumer, advertising represented a form of communication whose persuasive powers had molded her behaviors and opinions before. Government brochures, radio spots and other forms of media could not efficiently convey the need for the full-time housewife to turn in her apron and don overalls.⁶ Rather, the advertising strategy of the tie-in allowed a corporate sponsor (usually one with financial interests in the female market) to congratulate himself on his company's wartime contributions, while persuading women through commercial messages that their labor was needed in war plants⁷:

[A]ll advertisers, particularly those with women's products, have been asked to tie their advertising . . . in with [the] woman-at-work promotion, and include in

Corporation caused a modern sensation. . . . Women who saw the factory were so impressed with its tranquility, its 'homeyness,' that employment applications began pouring in." From: Box 49, Folder: Fighting With Colors, Clippings. Egmont Arens Collection, Syracuse University.

⁶As will be shown in Chapter III, war advertising, no matter what rationale for its existence was concocted, provided jobs for the ad industry and also a way for businessmen to keep their trade names before the public, despite wartime curtailments. Through corporate tie-ins with war-related messages, business men were able to establish public support for their achievements toward victory, which all interested parties agreed would be good for the economy in the postwar world.

⁷See also Honey, Creating Rosie the Riveter, 8.

their advertising a reproduction of the campaign emblem. . . . To get a woman to respond to the serious need for more workers when it comes in her community, she must be 'sold' on the idea. And one of the best places to convince her is in the advertisements she reads every day - both in newspapers and magazines.⁸

In addition to the ad tie-in approach, the OWI and WAC distributed Plan Books to local Womanpower chapters, theaters, department stores, newspapers, and magazines with suggestions on how to broadcast messages that would persuade middle-class housewives to take war-related jobs, especially in factories producing critical materials for the front:

This Plan Book is designed to give you tools with which to work in getting the recruitment job done. . . . Get the woman's page editors [of local newspapers] to develop frequent features on Women in War Work. . . . Radio Stations Can Help [by broadcasting] . . . 5-Minute Dramatic Spots. . . . How Local Theaters Can Help. . . . The Office of War Information, through the War Activities Committee of the Motion Picture Industry, is already working with your local theater managers on the regular showing of important Government films. Your local theater managers will be officially asked. . . to run a dramatic 4-minute 35mm. film...called 'Wanted-Women War Workers' and is filled with dramatic, emotional material that will move women to action and will furnish them with information they want about war jobs.⁹

Thus, the media and commercial channels that had sought the middle-class housewife's consumer favors prior to the war were recruited to garner and direct her interests in the war effort. Utilizing familiar appeals that spoke to her

⁸How Industry Can Help the Government's Information Program on Womanpower (n.p.: Office of War Information, War Manpower Commission, and War Advertising Council, 1943): no page number. Advertising Council Archives.

⁹America at War Needs Women at Work, 1, 5.

role as guardian of middle-class values, government propaganda (cloaked in corporate clothing) enticed the full-time housewife into an environment that, prior to the war, would have been an improper place for her to be seen. By picturing the war plant as a clean and orderly run operation, wartime factory work was made equivalent to the standards exacted in the proper, respectable middle-class household. And by using messages derived from the established "science" of consumer engineering, propagandists felt they could entice middle-class housewives to flock to factories in droves.

From Following Recipes
To Loading Shells

Not only did wartime propaganda attempt to reconcile the middle-class housewife with the environment of the factory, but it also tried to make the machinery of the war plant, or shipyard less daunting by explaining factory automation in familiar domestic terms. Government officials in the WMC, the OWI as well as members of the WAC strongly believed that the middle-class housewife could be persuaded to take on war work if she were shown that her homemaker skills could be adapted to war production.¹⁰ Most

¹⁰"The resistances of women to war jobs should be met as directly as possible. . . . [A resistance to war jobs:] The jobs are monotonous, boring. [Answer:] So are many household jobs [Resistance:] I have never worked in a factory. I know nothing about machines. [Answer:] Many war factory jobs are very similar to running a sewing machine or vacuum cleaner, assembling a meat grinder, sewing by hand, and other

significantly, her presumed fear of confronting factory mechanization, it was believed, could be assuaged if electric appliances with which she was familiar were shown to be similar to machines she might operate in a war plant. From the same Plan Book cited above, the WAC suggested ways this idea could effectively be communicated to women by channeling it through the familiar setting of the department store:

How Retail Stores Can Help. . . The Retail War Campaigns Committee has already worked out a plan for the cooperation of retail stores in connection with this Womanpower Campaign. . . . [Y]our major department and retail stores can set up specific displays of actual machines being worked to acquaint women with the kind of factory jobs they can do. A sewing machine, for instance, can be set up alongside a drill press, with a placard reading: 'If You Can Do This, You Can Do This!'¹¹

Women were sent the message that their "natural" domestic skills and their knowledge of household mechanization could be translated into military power, and

familiar household tasks. War jobs for women are easy to pick up. Most use skills already acquired." In Women in The War . . . For the Final Push to Victory, 3.

See also: "Women in Democracy's Arsenal," New York Times Magazine 19 October 1941, 10-11, 29.

¹¹America at War Needs Women at Work, 7.

See also: "EDUCATION WILL PUT WOMEN TO WORK! Millions of American Women have never worked outside their homes." [gives ways to counter resistance to war work by housewives:] [Resistance:] "I have never worked in a factory - I know nothing about machines. . . . [Answer:] This resistance can best be overcome by likening machinery to household practices with which women are familiar." in How Industry Can Help the Government's Information Program on Womanpower, no page number.

See also: Honey, Creating Rosie the Riveter, 128.

thus American victory. A Women's Bureau pamphlet entitled, "What Job is Mine on the Victory Line," encouraged women into war work by illustrating how simple it would be to convert their household chores into jobs traditionally reserved for men. Most significantly, however, the mechanization they were accustomed to in their houses was shown to be equated with the automation they would find in the munitions factory, aircraft assembly plant or shipyard:

If only you could see what women are doing with the skills they use at home, or in their hobbies, or in a peacetime job, to make the weapons of war for our boys overseas! . . . If you've sewed on buttons, or made buttonholes, on a machine, You can learn to do spot welding on airplane parts. . . . If you've used an electric mixer in your kitchen, You can learn to run a drill press. If you've been a manicurist, You can learn to do hand filing of rough edges off metal parts. . . . If you've followed recipes exactly in making a cake, You can learn to load shells. . . . If you've been a good housekeeper, spotting every speck of dust, You can learn to be a good inspector of war equipment. . . . American women, more used to mechanical gadgets in their homes than any other women in the world, are fortunate in having experience to help them make a record as soldiers of production in war work.¹²

Such campaigns were not only directed toward housewives, but also to husbands and male employers who resisted the idea of hiring women to work a "man's job."

Following WAC suggestions, Allis-Chalmers Manufacturing, for example, encouraged other businesses to hire female workers in war plants. If its inspiring tale of

¹²U.S. Department of Labor, Women's Bureau, What Job is Mine on the Victory Line (Washington, D. C.: Government Printing Office, April 1943), 2-5. Advertising Council Archives.

women who "came out of the Kitchen - to do a 'next-to-impossible' war job!" failed to convince businessmen to hire housewives, then their film, "Woman Power," just might, by offering instructions on how to assimilate "women with no previous training or experience" into factory work. Most importantly, the film showed "how to provide for their comfort, health, and happiness in a factory job."¹³ Allis-Chalmers argued that making the factory resemble the comforts and conveniences of a middle-class household would attract women workers and make them more productive on the job. Likewise, Bethlehem Steel, touting its corporate patriotism, and trying to convince the readers of Fortune magazine to hire housewives, also used the approach that knowledge of domestic appliances converted easily to war production work: "The deft hands that in peacetime wielded the skillet and the dryer are now managing the boring mill and the welding torch - and to good effect."¹⁴

Interchemical, makers of inks and industrial finishes, also became part of the campaign to sell the idea to the male readership of Fortune--many of whom were in the position to decide whether or not to send their middle-class wives to work or hire other men's wives for war-plant jobs. In their ad, a father in suit and tie tries to persuade his

¹³Business Week 26 August 1944, 60-61.

¹⁴"[Bethlehem Steel Advertisement]," Fortune November 1943, 111.

son that he has judged "feminine nature" too critically. The son, a metaphor for the conventional male point of view, complains that women are always seeking new frivolous gadgets, thus suggesting their inferiority when it comes to the serious business of war. The father responds:

Son, women challenged us to win this war! . . . Women do ask for new gadgets! . . . They challenge our - ahem!- inventive genius, and we give them new labor-saving devices, higher standards of packaged food, more comfortable homes, more attractive, longer-wearing clothes. Then they yell for lower prices, and we develop mass production methods - the very methods that are making it possible for us to win this war! They want a better world to live in. . . . And they are willing to fight for it!¹⁵

The modern woman's dogged resistance to irrational household drudgery, according to the ad, provided the impetus for raising standards of living through automation, which translated into the domestic and manufacturing "revolutions," and which also promised to win the war.

By showing their unique role in American progress, Interchemical, like other industries, argued that women had a right to protect the domestic standards which made them middle-class: "Women supplied a lot of the motive power in building America. Now, they want a part in the fight to protect it."¹⁶ Applying her household knowledge to the "arsenal of democracy," Interchemical claimed, would do just that.

¹⁵"[Interchemical Advertisement]," Fortune November 1943, 89.

¹⁶Ibid.

War Work and
Femininity

Government officials in the WMC and the OWI as well as members of the WAC were forced to alter the popular image of the middle-class housewife, and encouraged magazine writers, ad men, and businessmen to do the same.¹⁷ Likening domesticity with war work helped, but showing how women could take on a certain amount of masculinity and remain stereotypically feminine conveyed the idea that the war would not permanently alter their gender in a way threatening to men: "Twenty-two, six feet tall, weighing 135 pounds, Juanita Anderson works in the Boeing Aircraft plant at Seattle, Wash. . . . Boeing officials [say] proudly, Juanita and the other super-women tackle the job of unloading a freight car as if they were wading through a bargain counter."¹⁸

Advertisers showed how women could do a "man's job" and still remain feminine by exaggerating tiny waists and large bust-lines on their models of wartime womanhood. Air Reduction Company's "Seamstresses of Steel" advertisement, for example, attempts to reassure other businessmen that the female figure would not be compromised by welding battleships. In its 1944 ad, one welder's gender is

¹⁷See Rupp and Honey for more on the organization of the mainstream media as a propaganda machine during the war.

¹⁸"Amazons in the Arsenal," Nation's Business July 1943, 65.

obscured by coveralls, and is only suggested by the name, "Vera," painted on the headgear. As if to underscore Vera's gender identification, a co-worker in the background looks up from her task, revealing an attractive face and erotic figure--despite the coveralls. [FIGURE 18]

Likewise, Sylvania Lighting tried to show that their women war workers were just as appealing on the assembly line as they were at home. Their ad for florescent light bulbs, claimed their product was "Right - for a Bomber Line" and also "Right - for a Boudoir," and emphasized this dual role by depicting a woman, donned in kerchief and overalls, working diligently on an aircraft engine with the aid of Sylvania light. This same woman is shown applying lipstick in her bedroom mirror, assisted by a band of Sylvania fluorescent light, just as effectively as she had assembled the plane engine in the fluorescent lighted war plant. However, the light bulbs are overshadowed by the message to the male readership of Business Week that femininity is undiminished by war work, and like florescent lighting, is appropriate for the factory or the bedroom.¹⁹

Ads and articles published during the war associated feminine strength and domestic skills with the demands of military discipline traditionally only expected from men. However, the image of womanpower was represented as not just a new labor supply, but rather a substitute power for men:

¹⁹Business Week 15 July 1944, 3.

"The reserves, in every war, decide the final issue. Womanpower is this country's reserve of industrial labor and military strength."²⁰ The image of super-women trained at factory work was diluted of its revolutionary implications because it was shown as a proving-ground for training super moms: "[T]housands of women stand ready to rear munitions as well as children."²¹

Typical of this new image of the wartime housewife were women like Emily Mallia, [FIGURE 19] whose middle-class propriety and tidy femininity, according to the Underwood, Elliott, Fisher Company, has not faded, despite her exposure to the war plant environment and new-found factory skills. Here, her neat, well-groomed appearance and the rifle she wields are not meant to be contradictory, but rather complementary.

Ad men appropriated this wartime image of the resourceful, yet resilient middle-class housewife, trying to counter the peacetime image of the leisurely woman dependent on electric appliances, a motif which had been the mainstay of their ads before the war: "American women have had many things to make life easier for them... but it hasn't made them soft," argues an ad for Hoover Vacuums. In response to the implied insult, a blonde, cherub-faced housewife wearing

²⁰Women In The War . . . For the Final Push to Victory, 2.

²¹"Manpower--Women & Machines," Time 11 May 1942, 62.

a frilly apron, looks out sternly at the viewer as she rolls up her sleeves, preparing for hand-to-hand combat with her household dust and dirt: "Nobody's going to call me a Softie!" In accord with its message that the American housewife's labor is not solely dependent on mechanization, Hoover avoids showing the housewife comfortably using its product, as it would have done before the war.²²

By associating warfare or combativeness with traditional domestic duties, wartime advertising conveyed the idea that "women's work" and the housewives who performed it were "naturally" suited for the war effort. In a 1943 ad for Hinds hand lotion, which also includes a message about war work in fine print, a slim, attractive, blond housewife (in frilly apron and high-heeled shoes) shows how she is able to maintain her femininity with the use of Hinds lotion despite "Fighting the War in the kitchen sink!" Nevertheless, this revised image of women as perennial domestic soldiers also carried with it the assurance that whether their work was deployed at home or at a war plant, feminine youth and beauty would still receive priority attention.²³

Whether represented by moisturized hands or lipstick-painted mouths, women were metaphors for a feminine identity that was to remain unchanged and unchallenged despite the

²²Ladies' Home Journal May 1943, 10.

²³Woman's Home Companion November 1943, 121.

progress they had made in the male business of war. [FIGURE 20] As "War, Women & Lipstick" of 1943 suggests:

For the first time in history woman-power is a factor in war. . . . In fact, you are doing double duty - for you are still carrying on your traditional 'woman's' work of cooking, cleaning and home-making. . . . It's a reflection of the free democratic way of life that you have succeeded in keeping your femininity - even though you are doing man's work! If a symbol were needed of this fine, independent spirit - of this courage and strength - I would choose lipstick.²⁴

Here, democracy becomes confused with consumer choice, and women's liberation to pursue careers like men is contradicted by the reinforcement of gender stereotypes.

Thus, taking on a factory job would not put beauty at risk, and nor would it lead to women's liberation from the household or her motherly duties. Government officials and the media understood that this transition in the image of the middle-class housewife was a temporary measure, due to the emergency of war, and their insistence on its temporariness also assured husbands and male employers that women in war work would not threaten traditional labor demarcations of femininity and masculinity.²⁵

Conventional female roles would remain intact at home and in the work place, which also meant that working-class women would be relegated back to low skill and underpaid jobs after the war, and not jeopardize the paychecks and

²⁴Ladies' Home Journal, August 1943, 73.

²⁵See Rupp and Honey for discussions of gender and women's symbolic roles during war.

higher-skilled positions commanded by men. Women were asked to consider themselves as more than just sex objects or housewives during the war, but were discouraged from continuing this assumption after victory was achieved.²⁶

Therefore, propaganda sought to convey that traditional female commitment to home and family could be channeled into preserving community and democracy (and also the economy) by taking a war job. Shouldering the responsibilities of home, family and war work were represented as extensions of traditional female sacrifice: "The Nation owes a special debt of gratitude to the thousands of women who have rearranged their household duties to spend eight hours a day on the war production line or in essential civilian work."²⁷ Despite the encouragement to venture beyond the home in a role which shaped and manufactured the progress of war, the middle-class housewife was pressured to preserve the past in the wake of social changes brought on by the emergency of war.²⁸

²⁶Honey, Creating Rosie the Riveter, 136-37.

²⁷Women In The War . . . For the Final Push to Victory, 3.

²⁸For examples of how the war impacted on traditional family structure, and thus called for new attitudes (and even government policies) toward women and work, see: Eva Lapin, Mothers in Overalls (New York: Workers Library Publishers, 1943).

Domestic Engineers and Household
Efficiency Managers at War

The prevailing pre-war attitude that women and factories were incompatible actually contradicted more than thirty years of home economics advice that had persuaded women to adopt automated gadgets and the factory techniques of "scientific" management into their housework routines.²⁹ Although assembly-line production techniques had transformed "women's work" by applying scientific management to household tasks, it had not liberated women from their domestic duties to pursue full-time careers outside the household.

Because the efficient middle-class homemaker had been trained through advice books, advertising, and women's magazines to adopt factory techniques into her household routine prior to the war, the wartime assembly line was described as a natural extension of modern, rationalized housework, just as operating household appliances were shown to be a natural segue to running war plant machines. Thus, household engineering techniques adopted from the assembly line, were reapplied to the factory. In "Kitchen Lore Speeds War Production," women's domestic contributions to the war effort are shown to increase their efficiency and

²⁹For an example of a contemporary theory of gender roles and capabilities as biologically determined, see the 1939 genetics textbook for the layman, written and illustrated by Amram Scheinfeld (assisted by Dr. Morton D. Schweitzer of Cornell University), You and Heredity (New York: Frederick A. Stokes Company, 1939).

war plant productivity:

[In war industries] The women are contributing ideas that save time, money and materials just by applying their housewifely common sense and by using or adapting the household things they've been used to all their lives. . . . At the Fort Worth plant of Consolidated-Vultee, they used adhesive tape to hold materials temporarily in place on the elevator fin of Liberator bombers until they could be riveted. Why not giant clothespins? asked Mrs. Mary C. Shelton out of her homey background. Another Mrs. Fixit in the same plant . . . got tired of packing fiber glass insulation into place by hand. . . . So she brought a pancake turner from home and found it worked very well as a packing tool. Any woman who has made her own dresses knows that it saves time and material to place all parts of the pattern of the goods before starting to cut. Ida Basham, a punch press operator, suggested this plain homebody technique would also save material in laying out patterns on sheet metal. Now wouldn't you think even a man would have thought of that? In all, hundreds of women have made suggestions which. . . . have saved 81,501 man-hours of labor. . . . Mrs. Vaughn, when war came, left her housewife's chores and took a job at the Bendix Radio Division plant. In her own kitchen Mrs. Vaughn had learned that proper arrangement of her cooking equipment would save many steps, and many hours of work. At Bendix she saw a way to apply the same principle. She worked out a design for simplifying production by rearranging the resistors and condensers in the radio compass [for airplanes].³⁰

The automation of the factory, just like the mechanization of the kitchen, lightened the work load in munitions plants and made it easier for industry to convert its war production to being run by womanpower. An ad for Dowmetal Magnesium conveys this idea to other manufacturers by showing how its lightweight tools will speed war production: "More and more manufacturers of portable tools are going to take maximum advantage of lightweight MAGNESIUM

³⁰Laurence Hammond, "Kitchen Lore Speeds War Production," Independent Woman December 1943, 362.

. . . the metal of motion. These tools will make jobs easier for workers." While the text is not gender specific, the image is. It shows an attractive female riveter lifting with ease a tool made of Dowmetal magnesium, implying that the female workforce will be made more effective with comfortable and convenient lighter weight tools.³¹

Because the modern factory was largely automated on assembly-line method, in which the burden of labor was carried by the machine, as was the modern, electric middle-class household, the National Association of Manufacturers argued that women could be assimilated into the factory:

[T]he development of mass production methods and tooling has greatly lightened and simplified the task of the individual industrial worker. Under the assembly-line system, no one worker handles any one part of the product-to-be from its start to its finish. Machine tools have been so altered in design, so stripped down to single fundamentals . . . that physical strength is no longer a requirement for the running of most of them, and dexterity [for which women are credited] rises higher and higher in importance.³²

According to this argument, the repetitive motion of the assembly-line made a "man's job" as easy as "women's work."

Francis Walton, writing in 1956 about the American "miracle" of war production, credited inroads in

³¹Dow Chemical Corporation, Post Street Archives.

³²Frederick C. Crawford, Women In Postwar Industry (n.p.: National Association of Manufacturers, 1944), 4. NAM #1411, Box 860, Series III, Postwar Publications Folder 1944, NAM Collection, Hagley Museum and Library.

standardization for making women's war work so successful. In order to accommodate the average woman's height, reach, hand size, and physical strength, new standards for factory equipment had to be attained. Restructuring the factory to fit the female body, he said, made workers more efficient, and thus increased productivity, which of course, influenced the outcome of the war. Furthermore, he noted that women adapted quickly to the rhythms of assembly-line production because, contrary to the popular male opinion, it resembled the work processes housewives were already accustomed to in their households:

The margin for victory in terms of the nation's labor force proved to be completely feminine. . . . [A]n American middle-class propriety caused women to be ignored as a possibility. . . . The erroneous belief that American women had no background and demonstrated record in industry generally delayed their training and employment on the assembly lines of the Home Front. . . . The question of training came first. . . . [defeated by] the profound conviction that modern machinery and the feminine mind were congenitally antipathetic. . . . The advent of women into American factories in war, time after time, resulted in a definite upswing in the already remarkable flow of goods. . . . In raft making, women worked on both sides of long tables, like seamstresses, but employing techniques and practices of assembly lines. . . . The perceptive works manager, viewing his 'Great Find' [the woman worker] noticed with approval her completely relaxed stance at work, her preoccupation with her work . . . much like a woman shelling peas in the kitchen. . . . [T]he woman worker often saw short cuts in individual operations which had escaped the notice of the male.³³

³³Francis Walton, Miracle of World War II: How American Industry Made Victory Possible (New York: MacMillan, 1956), 372, 375, 382, 384-85.

See also: "Seamstresses of steel. . . . Today their traditional feminine dexterity--and their modern steel-sewing implements--are meeting a crucial need of the nation." From:

War work was touted as having improved women's skills as homemakers, a suggestion which was meant to coax other homemakers into war work, and lessen husbands' fears that they may lose a way of life that entirely pandered to their masculine comforts: "[What] women today are learning and seeing and doing in the industrial world will be reflected in a home life modified to fit [her family]. . . . Women will not go 'back'. . . . Women will go forward to share with those they love . . . whatever rewards come to them with their new industrial, commercial and professional skills."³⁴

A study conducted by Consolidated Vultee Aircraft confirmed that war work made better wives and mothers, and contrary to middle-class fears, did not masculinize women or compel them to entirely take over the jobs of men: "And what will become of them when they go back to their homes? [According to the study:] 'They'll be better wives and homemakers . . . They will have learned the value of time, and how to budget it; their new knowledge of the value of system and order will be reflected in their housekeeping.'"³⁵ Nevertheless, such suggestions also

"[Air Reduction advertisement]," Business Week 30 September 1944, 91. The ad is illustrated in this chapter.

³⁴Dorothy Canfield Fisher, "From the Lathe to the Hearth," New York Times Magazine 5 December 1943, 6.

³⁵Gretta Palmer, "They Learned About Women," Readers Digest September 1944, 107.

According to designer Peter Müller-Munk, women defense

implied that women in war work were recognized as only a temporary response to an emergency, which required them to radically adjust their household routines, but not their traditional role in the family, household, or society.

factory workers would translate their war-won knowledge of mechanics to the household, and as a result, turn into more finicky consumers: "[T]he woman who has operated a drill press, handled a rivet gun, driven a Red Cross ambulance, taken apart a M-1 rifle . . . will not be frightened by the complexities of mechanical construction. She will, however, insist that her household appliances be as functionally perfect as the tools or weapons which she has been handling during the war." From: "Kitchen Prototype--Designed for Plastics," Modern Plastics June 1945, 98. (More on this issue in Chapter V.)

II. Enlisting a Domestic Quartermaster Corps

Magazine articles, which showed how to turn the home into an efficient factory in order to facilitate victory, offered housewives tips on how they could juggle being Victory Homemakers and Production Soldiers at the same time.³⁶ Servants, who had been so hard to come by after World War I, had flocked to the better pay and hours of war factory jobs. Consequently, magazine articles instructed these (relatively rare) mistresses with tips on how to perform the menial chores they had previously relegated to servants, but were now forced to do themselves: "One million more American Families are doing their own housework. . . . In Fairmont, VA., virtually every wife and mother cooks, cleans, looks after the children and at the same time holds down a paid or volunteer war job. . . . For the average middle-income family . . . the maid-of-all-work has faded into memory. . . . Many an American woman who never touched a mop before has had her housework education thrust upon her in the last two years."³⁷

³⁶This is especially evident in working-class magazines of the period, like True Story, in which women's "double duty" was not a novelty, but a taxing reality even in peace: "[T]his entire section of the Victory Homemaker is dedicated to suggestions of ways to make housework quicker and easier, to short cuts you can use in the kitchen. . . . The dress shown above is really your Victory Homemaker 'dress uniform.'" In "Victory Homemaker," True Story November 1942, 85.

³⁷Mrs. Shelby Cullom Davis, "Household Servants Are Gone Forever," American Magazine March 1945, 32, 92.
In the film, "Since You Went Away", directed by John

In addition to appeals to take on a "man's job," middle-class housewives were also encouraged to turn their actual households into arsenals of domesticity. Campaigns for rationing, conservation, scrap drives, and Victory Gardens appealed to traditional middle-class ideals about women as nurturing wives and mothers, but at the same time showed how staying at home could help win the war: "Home-front battles require the same devoted sacrifice that soldiers in service give to make possible their hard-fought gains. . . . There is a great need for welding the home front and the battle scene [if we are to win the war]."³⁸

As a refueling station for the family at war, the household also functioned as the "food front," according to Chef Boy-Ar-Dee, and housewives, as the "soldiers of food,"

Cromwell (1944) Anne Hilton, played by Claudette Colbert had to let her servant go after her husband, an advertising executive, was drafted for service. The film shows the new housework responsibilities thrust upon the middle-class housewife as a result of the war.

For more on the servant issue see: Palmer, Domesticity and Dirt.

³⁸Margaret A. Hickey, "Bound for the Future: Women's Responsibility in New Age," Vital Speeches of the Day 10 (November 1943): 49.

See Also: "Adapt your home to wartime living." House & Garden October 1942, 56-7.

As if taking care of a home in wartime weren't enough sacrifice, one article showed how housewives who were unable to leave their homes for work due to family responsibilities were encouraged to turn their homes into a personal assembly line for the war by performing certain jobs at their kitchen tables. See "Yankee Kitchens Go On The Production Line," Better Homes & Gardens June 1943, 17, 64-66.

were enlisted to uphold and surpass middle-class nutritional values by keeping family war workers well fed with convenient, pre-packaged "ammunition," like Chef Boy-Ar-Dee ready-made spaghetti.³⁹

Likewise, women's magazines and advertising offered ways for housewives to creatively approach shortages in their pantries with time-saving recipes or processed foods. In one such wartime advertisement, Mrs. G. shows other typical home front housewives how to be an efficient, but nurturing, "Home Front General" by planning their busy war schedules "as generals have to do" around the conveniently packaged, pre-cooked, processed meat substance, Prem.⁴⁰ In a similar fashion, patriotic recipes, like "Citation Dishes" pictured in Woman's Home Companion, including "Battalion Beans" and "Camouflage Loaf," reinforced the military image of rational efficiency, which the housewife was encouraged

³⁹Ladies' Home Journal May 1943, 145.

See also: "She, Too, Is Making History! . . . Not just in overalls or a uniform--but even more in an apron--the American woman is serving her country today as never before. . . . To you is entrusted the most powerful of weapons--the one that helps build all other weapons--the best food in the world. No one knows better than you how to use it!" From: "[Chef Boy-Ar-Dee advertisement]," Woman's Home Companion September 1943, 91. In the ad, a broad-shouldered, aproned housewife calmly mixes what looks like batter (not a processed food like Chef Boy-Ar-Dee), as images from "great" moments in American History float above her head.

⁴⁰American Home September 1944, 11. The Prem ad shows how Mrs. G, and other full-time homemakers (i.e.: Home Front Generals), can juggle all her additional wartime chores by serving Prem. As a result, she can adequately address her family's nutritional needs and also turn her kitchen into "H.Q. for all the home-canners in the block."

to adopt and in which she was expected to automatically excel.⁴¹

Ads like Prem and Chef Boy-Ar-Dee's, as well as military titled recipes, encouraged women to consider supper time and family nutrition, not just as a repositories of middle-class values, but also as weapons of war. Accordingly, the National Dairy Productions Corporation in its 1943 ad entitled, "This army was raised to attack," show how America's plentiful food supply (especially milk, cheese, butter, eggs, and ice cream) was marching off to war, like the rest of the kitchen, and should be considered just as vital to victory. [FIGURE 21]

Articles and ads in women's magazines played up the wide-spread fear that the war might lower standards of health, cleanliness, and home efficiency because its demands had added so many other jobs to the housewife's already taxing schedule. Editors and advertisers suggested ways to combat this potential hazard to home and family by further vilifying dirt, and making it an enemy of the housewife akin to the Axis powers. General housekeeping in war for the full-time mother and homemaker was obviously more strenuous due to threats of enemy invasion--in the form of menacing

⁴¹Woman's Home Companion January 1944, 58-59.

Unable to sell new refrigerators due to priorities, Frigidaire, in a similar fashion, offered in its advertising, "wartime suggestion on how to keep meat" fresher longer and "54 suggestions for leftovers." From: Woman's Home Companion January 1944, 44.

disease and enemy germs, according to Lysol: "Infectious disease is as likely to endanger your children as war itself. Germs are on the march, too, in wartime. This is your fight, Mother. Your home this minute, may harbor germs. . . . For home defense kill germs as you clean - with Lysol." In addition to suggesting "four simple ways to 'blitz' germs [including]. . . . Attack Bathroom Germs Regularly," Lysol offered a "War-time Manual for Housewives," with "timely wartime guidance [in housekeeping] every family needs now."⁴²

The full-time housewife was asked to exceed middle-class domestic standards in household management for the war effort: "I will save - Money, Health, Space, Food, Time Steps. . . . You can't have everything, of course. And when it comes to choosing between a new pot for the kitchen and a new plane to help defend that kitchen, there's no question about which is of the first importance."⁴³ Furthermore, the housewife was told how she could help fight the war just by being more efficient and self-sufficient in the home so as not to waste time, energy, or materials that could be

⁴²Ladies' Home Journal August 1943, 13.

⁴³"Another Kind of National Defense," American Home April 1942, 10.

See also: Caroline F. Ware, The Consumer Goes To War: A Guide to Victory on the Home Front (New York and London: Funk & Wagnalls, 1942). Ware's book gives advice on and explains the importance of rationing, conservation, home repairs, price controls, "Wise Buying in Wartime," "Conserving Health and Strength," "Community Housekeeping," and "The Consumer Front."

utilized more effectively for the war effort. According to Royledge Paper Shelving, the war was training women to be more thorough housewives: "General Efficiency that's Me! Sure, my husband . . . marvels at how much work I plough through these war days. It's a snap! I've learned to run the house as smoothly as a war plant. Cut out the waste. Kissed the extravagances goodbye."⁴⁴ In order to underscore the positive effects of the war on housework, Royledge Paper Shelving's housewife wears a general's cap along with her polka-dot apron.

The domestic application of "scientific" management was intensified for the duration, and as in pre-war advertising, the kitchen was the locus of this attention to maximize women's efficiency on the home front.⁴⁵ Following this trend, Youngstown Kitchens took the opportunity to praise those foresighted (and financially better off) housewives who had purchased and installed a rational, "streamlined" kitchen prior to the war: "Thousands on thousands of [women] had equipped their kitchen laboratories

⁴⁴Ladies' Home Journal December 1943, 147.

⁴⁵"It was a battle to make our kitchen into the refueling base for a family throwing their energies into a dozen home front activities. In "Our Kitchen at War," American Home September 1944, 92-3. The article shows before and after plans of the kitchen reorganized for the war. Home was a base for the army of civilian war workers.

See also, "Double Shifts on the Home Front," Ladies' Home Journal April 1941, 108.

with YOUNGSTOWN Pressed Steel kitchens before civilian production ceased - and how they have blessed the convenience that has been theirs during these crowded days!"⁴⁶ In its 1943 ad, "WONS in Action!" (referring to the domestic quartermaster corps, which Youngstown has dubbed "Women's Own Nutrition Service") a happy wartime homemaker is able to complacently rise to the occasion and shun the stress of war days in her clean, steel-pressed kitchen, complete with a continuous row of cabinets and an uninterrupted counter top work surface. [FIGURE 22]

Thus, the mechanized, rational, laboratory-like kitchen was pictured as the home front weapon of the middle-class housewife quartermaster corps from which she would personally wage a war against inefficiency, wasted time, and squandered resources. Consequently, domestic efficiency at home was depicted as playing a vital role in winning the war, and as a result, women were encouraged to focus more energy and attention on household management because it, too, was a crucial ingredient for expediting victory:

ON GUARD, THE HOME FRONT, COOPERATING FOR VICTORY In Your Home, Your share in the road to victory may be under your own roof-tree, in your everyday affairs. . . . [B]eginning with this issue, The American Home launches an 'on guard' campaign for our whole national home front. . . . [W]e shall assemble . . . ways in which you householders of America can best play your part in democracy's determination to win this war for the decent way of life. It won't be just a matter of conserving rubber or aluminum or paper, vitally essential though these things are. Rather we see it as

⁴⁶American Home October 1943, 57.

a call to put every element of our home lives alertly on guard - everything that centers around our homes and what we do there must be made to throw its full weight into the victory scales. . . . [Y]ou are doing your bit to keep the home front on that high level of fitness and courage that means success on the fighting front. There is nothing quite equal to knowing that waste had gone out the window and full efficiency come in. . . . You will find, too, that time and time again the appearance and convenience and all-around satisfaction of your home will be definitely improved by what you do.⁴⁷

Along with excessive attention to household management, rationing, conservation and recycling added more chores to wartime housekeeping, but advertising and government messages turned the inconvenience and discomfort into a "proper," patriotic duty, akin to war production work, or even fighting on the front lines:

Percolators and Ash Trays Help Provide Wings for Defense. . . That aluminum percolator and that aluminum roasting pan your wife contributed to the Scrap Aluminum Collection in your town. . . may or may not be part of a bomber. . . . In any case, it certainly will serve an important part in the efforts to get more aluminum for defense purposes. . . . [Robert E. McConnell, Chief of the Conservation Unit for OPM on July 15 said:] [T]he housewives' contributions of at least fifteen million pounds of usable scrap aluminum would permit construction of more than 2,000 additional fighting planes or 500 additional four-engine bombers. . . . A fighter plane containing 7,000 pounds of aluminum could be built with the metal freed by every donation of 5,000 dishpans or 10,000 coffee percolators or 2,000 roasters or 2,500 double boilers.⁴⁸

⁴⁷"Join the Millions Cooperating for Victory," American Home May 1942, 6, 7.

From same issue, see also: "Maintenance--The Most Powerful Weapon on the Home Front!" 8-9.

⁴⁸Alcoa's "Aluminum Newsletter" August 1941, no page number. From: Aluminum box, File 28, Warshaw Collection, Archives Center, National Museum of American History.

See also: "The consumer has been asked to kick in on a

Likewise, an OWI scrap salvage campaign label turns a housewife's delicate high-heeled shoe into the secret weapon of Allied victory, depicting recycling as a feminine attack in the domestic theater of the war. [FIGURE 23] In this case, a housewife crushes a vilified caricature of a Japanese soldier with the toe of her pump. Just as the "proper" housewife sanitizes her home of menacing dirt, germs, and trash, so too, does she dispel of the wartime enemy. The Japanese soldier and his race are shown as the leftover garbage of a consumer lifestyle. Here, the middle-class aversion to "unsightly" trash has been reified for the war effort, and as such, the refuse of consumer culture is shown as an instrument toward victory, signifying the "proper" display of women's patriotism, and downplaying the low-class stigma of collecting garbage.

Ordinary kitchen grease, which in peace-time would have been discarded in disgust as repugnant waste, was also elevated to a wartime priority, requiring housewives to package and return their meat fats to butchers in order to receive ration points: "In 21 days your kitchen grease is glycerine for gunpowder to fire bullets pointed at the

nationwide scale with every scrap of aluminum he can lay his hands on. He may even be asked to tap the vast pools of scrap copper, zinc, chrome, and nickel that are lying about American households." In "The Consumer's War," 118.

For a postwar look back on how pots, pans and pressure cookers won the war in their roles as airplane parts, PT boats, submarines, radar equipment, etc. see: "Kitchenware, Home From the Wars," U.S. Department of Agriculture Consumers' Guide February 1946, 6-8.

Axis!" In a "Fat Salvage Information" poster from the War Production Board, images of spoons filled with conserved fat, are lined up against their military counterpart, showing how kitchen waste was converted to weaponry: "3 tablespoonfuls [of kitchen grease] fire a 50 cal. bullet. . . . 8 tablespoonfuls fire an anti-tank shell. . . . 31 tablespoonfuls make 1/2 pound of dynamite."⁴⁹

In a wartime advertisement for fat salvaging, the well-manicured hand of a housewife efficiently pours old cooking grease straight from a hot frying pan (which it appears she has just lifted from the stove) into the line of fire. [FIGURE 24] The war job that "only a WOMAN can do" is depicted as supplying the ammunition for victory.

Saving rancid garbage, rather than disposing of it promptly and efficiently, was something the middle-class housewife had to be re-educated to accept after years of being inculcated with advertising and "domestic science" advice that had taught how immediate disposal of refuse preserved family health, hygiene, and social status. War advertising showed that collecting and sending rubbish and "all waste-paper to your local salvage headquarters," was a patriotic habit, not a filthy, improper one. Visually demonstrating this reversal of the middle-class preoccupation with cleanliness as a direct contribution to

⁴⁹"Fat Salvage Information," #1411, NIIC, Box 843, National Association of Manufacturers Collection, Hagley Museum and Library.

the war effort was intended to elevate these new habits and align them with victory.⁵⁰ [FIGURE 25] A 1943 OWI and WPB ad for conserving paper products speaks to middle-class proprieties by showing (rather metaphorically) how a proper housewife could retain her tidy, respectable appearance and still "pass the ammunition" by salvaging and organizing her garbage for the battlefield.

Wartime housework was perceived as so much more strenuous than peacetime homemaking, that it was worthy, not only of comparison with the battlefield, but also the honor of a medal. Accordingly, the Los Angeles Times nominated the American housewife, "for distinguished Wartime Service at home." Preparing more nutritional meals, battling enemy germs, rationing, stretching budgets and household supplies, was equated with "fighting a great war!"⁵¹

In addition to elevating household drudgery to an honorary status, attitudes toward consumption also had to be changed. The American throw-away standard of planned obsolescence⁵², which on the one hand had raised standards of hygiene, but also taught middle-class consumers to

⁵⁰Business Week 16 September 1944, 107.

⁵¹Advertising & Selling September 1942, 91.

⁵²For more on this issue, see: Jane Celia Busch, "The Throwaway Ethic in America" (Ph.D. diss., University of Pennsylvania, 1983); Suellen Hoy, "The Garbage Disposer, the Public Health, and the Good Life," Technology & Culture 26 (October 1985): 758-84.

See also: "Form Follows Waste," in Ewen, All Consuming Images, 233-46.

discard usable, but still functional goods, needed to be reversed for the war effort:

Wanted; Housekeepers to help the Army and Navy. . . . You don't have to take a physical. . . . or wear a uniform. Just keep on doing the swell housekeeping job you're doing now. . . only do it a little better. . . . It takes millions of tons of supplies - housekeeping supplies - to keep [soldiers] fit and fighting. Cotton fabrics [like sheets, blankets and towels] are among those supplies. . . . The more efficient you are with your housekeeping at home, the less of these goods you require. . . And the more the Services can get.⁵³

In the 1943 Pepperell ad quoted here, a middle-aged, full-time housewife receives instructions from a paternal wartime expert, an army general, who attempts to persuade her to put aside any aversion to using worn-down towels and sheets in order to facilitate victory for the Allies.

The wartime propaganda launched at full-time housewives utilized the rhetoric and visual language of rational housekeeping promoted by domestic product manufacturers and home economists prior to the war. As a result, the "scientific" management and efficiency ethic, put in place prior to the conflict, encouraged women to exceed their high standards of cleanliness because victory, presumably, depended on their business-like commitment to their families and households. Consequently, domestic "scientific" management techniques and the middle-class desire for a rational, well-ordered household played a crucial role in defining the full-time housewife's function for the war

⁵³Ladies' Home Journal August 1943, 66.

effort.

War not only forced the housewife to strengthen her efficiency arsenal, but it also required her to shore-up the traditional concept of home. The wartime concept of home was bestowed with a magical aura that would keep the social and economic changes of war from irrevocably disrupting traditional middle-class family life: "Symbols of Freedom and Faith . . . these homes [pictured in the article] are true embodiments of the American way of life. . . . homes that our soldiers and sailors are fighting for."⁵⁴

Naturally, the households depicted in the article, which were intended to evoke nostalgic sentiments about perceived traditional family life, were decked in conventional architectural idioms associated with proper middle-class life, and the American pioneer spirit, such as salt-box design, pitched roofs, red-bricked fireplaces, sash windows, and neatly shrubbed suburban lawns.

In "Your Home is a Weapon," the editors of Better Homes & Gardens sought to convey their concept of home as an emotional bulwark against the war's invasion of private family life. Strengthening the image of home as a stronghold of middle-class values was perceived as

⁵⁴"Symbols of Freedom and Faith," American Home June 1943, 9. In the article, the middle-class, detached, single-family house in the idyllic, well-manicured suburbs is pictured as the paragon of the American Way and the cause for which the war was being fought. Consequently, conventional attitudes and ideals were to be secured during the war's period of social change.

contributing to victory, but also preserving the epitome of the proper American way of life despite the home, mother, and family's conversion to war:

[W]hat is to be the part of the home in this struggle? The home is the place where resolution is to be strengthened; where rest -it may be rest from arduous labor- is to be found; where the reservoirs of purpose are to be replenished. It is to be the governor of our energies and our anxieties. It is to be the source of personal strength for the orderly and energetic performance of our part, day after day and week after week, in wartime production. It is to be a place free from panic and depression - a place where the workers and fighters of our country may drink of the fountain of courage. . . . With the American home as our support, one need not fear that anyone will fail to assume and to discharge with credit any public duty which may appear. But with the inspiration of a steadfast American home, we shall not find any duty too onerous or any sacrifice too great. That is because we are working for America - for our families and homes, and everything that upholds American traditions and way of life.⁵⁵

Professional homemakers were defenders of not only middle-class family life and its embodiment in the suburban ideal, but also the American Way, which had raised their standard of living by offering affordable power and domestic mechanization. The social changes intensified by the wartime emergency were seen as threatening middle-class standards of social and physical hygiene. Therefore, the well-maintained household and the efficient, professional

⁵⁵"Your Home is a Weapon," Better Homes & Gardens February 1942, 7. The article was printed in the shape of a V for victory.

This sentiment is also expressed in the opening scene of the 1944 film "Since You Went Away," directed by John Cromwell. Superimposed over a middle-class, suburban home is the message, "This is the story of the Unconquerable Fortress . . . The American Home . . . 1943."

homemaker were looked to as symbols of stability and the moral status quo: "Run-down, neglected, weed-grown homes and communities breed run-down, half-hearted inefficient citizens - not the kind we want [for the war effort]." ⁵⁶

Maintaining high levels of cleanliness and an appearance of domestic logic and moral order were not only indicative that middle-class virtues were still in place (despite the war effort), but also symbolized confidence in American society's ability to win the war. Thus, wartime propaganda targeted to full-time housewives sought to keep up appearances of order and normalcy at a time when chaos and social change dominated. ⁵⁷ In so doing, it helped buttress the home front citizen's belief that America could win the war, while sustaining her faith that war would not irrevocably change the most cherished symbols of American democracy and free enterprise: the full-time housewife and the suburban, middle-class family household.

⁵⁶"Another Kind of National Defense," 17.

⁵⁷"Possibly the sole substantial hope of the world is the home." From: "How Can the Home Shape the Future?" Better Homes & Gardens July 1945, 7.

III. Maximizing Femininity for the War Effort:
The Gender Status Quo

Adding to women's wartime work was the attention they were encouraged to lavish on their appearance: "I pledge myself to guard every bit of Beauty that he cherishes in me."⁵⁸ Women were urged to maintain their beauty for men when they returned home, and not to slack on their femininity while performing traditionally masculine jobs:

Beauty Up! . . . Don't forget to accentuate femininity, when donning a new uniform. . . . [A] uniform does not mean that one must stop being feminine. . . . Even the girl on the assembly line . . . will surely feel the effect of this new military age in which we live. Nevertheless, she must keep her hands soft and smooth Daintiness is more than ever a 'must.' . . . There is a new cream deodorant that is a boon to the busy defense worker. . . . Now we must find how the new tempo affects our routines of beauty care. . . . Our men more than ever need our feminine influence. . . . We must keep ourselves lovely for them.⁵⁹

Juxtaposing women in military uniforms with symbols of pure femininity, like lipstick or nail polish, represented the idea that despite the new roles women were acquiring in

⁵⁸"[Palmolive Advertisement]," True Story July 1942, 50.

Although True Story is considered a working class magazine, (see Honey), many of the ads can also be found in middle-class homemaker magazines, like Ladies' Home Journal, and definitely the same issues were discussed.

See also: "Beauty is really a duty today." From: "Beauty--an Aid to Morale!" Independent Woman January 1942, 25.

⁵⁹Helen Channing, "Beauty Up!" True Story July 1942, 97.

wartime, their chief vocational duty was to remain feminine.⁶⁰ [FIGURE 26] The April 1945 cover of American Magazine suggests that women's wartime activities complemented femininity and that war did not absorb a woman's time spent at her toilette. To illustrate this point, a wartime vixen, clad in army khakis and pit helmet, looks up from her important make-up duty, unvexed by the duality of her image, at a viewer, who (one gets the impression) has just interrupted her in a serious pursuit toward victory.⁶¹

Like the American Magazine cover, military recruitment brochures also stressed that femininity would not be lost if women joined the services. Rather, they would be motivated to work on enhancing it once they had signed on:

Women have not been told in national publicity that military service does not destroy their femininity nor detract from it. There has not been sufficient emphasis . . . that [women] are not remolded into some other kind of half-male, half-female hybrid. Women have been educated and continually encouraged not only to remain feminine, but to try and become 'more so.' . . . Women in uniform are no less feminine than before they enlisted. Feminine interests are encouraged among women in the services. Their work is the kind that women do in civilian life. . . . femininity . . . remains unchanged. Actually [women] develop new poise

⁶⁰"Patriot Red" a wartime lipstick color, equated maintaining femininity with being patriotic. True Story July 1942, 2. See also the advertisement for Ivory "Keep Your Beauty on Duty!" True Story October 1942, 17.

⁶¹On British women and femininity during the war, see: Pat Kirkham, "Beauty and Duty: Keeping Up the (Home) Front," in War Culture: Social Change and Changing Experience in World War Two Britain (London: Lawrence and Wishart, 1995).

and charm [when they enlist]. . . . [They] are permitted to use cosmetics and are encouraged to look [their] best at all times.⁶²

The military's sales pitch that women could remain feminine and simultaneously acquire an active lifestyle echoed the types of appeals advertised by the makers of feminine hygiene products. Manufacturers of tampons saw the war and women's more active role outside the home as a golden opportunity to sell women on the benefits of tampons, new since the 1930s. Tampons were a form of domestic progress that had been mobilized for active, wartime women, rather than the battlefield. Tampon advertisers claimed that their product helped maintain the level of middle-class sanitation and hygienic femininity that was threatened by the social changes accelerated during wartime: "When is a Tampon right for you? Now more than ever - when days are so busy and hectic - the wonderful freedom of internal sanitary protection makes sense!"⁶³ [FIGURE 27] Not only did tampons battle the odors and visible signs of menstruation, so taboo to middle-class hygiene sensitivity, but they also

⁶²Women In The War . . . For the Final Push to Victory, 4, 5, 6.

See also: "Whether it's baking apple pie or rigging parachutes, women Marines are taking over from combat Marines. . . . Your Wardrobe Uniforms and Accessories. . . . Lipstick and nail polish should match or blend with the scarlet hat cord [of uniform]." From: United States Marine Corps Women's Reserve (n.p., no date), 16, 21. From: War Contributions 1941-45, Box 1, J. Walter Thompson Collection, Hartman Center, Duke University.

⁶³"[Meds Advertisement]," True Story July 1942, 88.

satisfied government officials and managers of war plants because they promised to cut down on absenteeism, by keeping women, "Fit as a Fiddle. . . . every day of the month" on the home front assembly line.⁶⁴ Likewise, underarm odor and sweat stains, equally offensive to middle-class senses, were combatted by feminine deodorant that promised to "defend daintiness" no matter if a woman was "engaged in war work . . . or the important job of being a woman."⁶⁵

[FIGURE 28]

Thus, the most intimate aspects of femininity were also used to convey the idea that war had not altered the status quo. Just as women were encouraged to guard the traditional concept of home and family in the wake of changes wrought by the war, so too were they instructed that safeguarding conventional perceptions of femininity were crucial to achieving victory. Images of women in military uniform actively engaged in jobs traditionally associated with men, yet utilizing products that enhanced or preserved their femininity, actually confirmed conventional female stereotypes that would be reinforced, not dispelled, after victory.

⁶⁴"[Kotex Advertisement]," True Story August 1942, 55.

⁶⁵"[Neet Advertisement]," True Story September 1942, 110.

Gender as Usual

As the tide began to turn toward victory for the Allies in 1943, campaigns to engage women's participation in the war effort accelerated. At the same time, however, advertisers and business men began intensifying their campaigns for postwar sales. Anxious to avoid economic depression after victory, advertisers, conveyed the idea that if commercial prosperity were to be won, then a return to conventional male and female identities would have to be achieved.

Advertising assured the businessmen, who hired women, that females in war, instead of in the kitchen, posed only a temporary arrangement, and that their female market would return intact once victory was achieved. For example, "Victories Today Bring the Realities of Tomorrow," an American Central Manufacturing ad from 1943, promotes a stereotypical image of femininity, but at the same time champions the mobilization of domesticity.

[FIGURE 29] Here, jeeps and airplane parts convert magically into equipment for the postwar kitchen as they pass through an hour glass, symbolizing the transition of the progress developed by war to peacetime use. However, women's place in postwar progress is depicted much differently from her wartime role in the advance of American Victory: Her wartime image as a muscular-armed welder clad in coveralls sporting a blowtorch, shown at the top of the

hour glass, is magically transformed into the picture of conventional domesticity, complete with frilly apron and sheet of cookies. The more petite, thin-armed housewife at the bottom of the hourglass symbolizes women's reconversion back to the home, out of the male business of war and also the manufacture of progress. The return of women's conventional femininity and the reassurance of her limited role in postwar progress is reinforced by a sheet of freshly baked cookies, supplanting her wartime blowtorch. Postwar prosperity would depend on the smooth transition back to conventional gender stereotypes and middle-class assumptions about women's perceived proper role.⁶⁶

Likewise, "Putting Plastics in their Place" of 1944, [FIGURE 30] a Dow Chemical ad for its new plastic war product, Styron, exemplifies these ideals about recouping conventional gender identities for the benefit of the postwar economy. Discharging men and women back to their "natural" pre-war roles is resolved in the ad by dividing the spoils of wartime progress, namely Styron, into HIS and HERS. Stationed at a command console, at the top of the ad, a soldier monitors the progress of technology, while below, seated before a vanity table, a woman checks the progress of her beauty. The postwar uses of Styron are pictured in between the man and woman, and defines the boundaries of their separate, gendered worlds: a king-size coil of cable

⁶⁶Fortune August 1943, 54.

and a giant strand of fake pearls separate the "feminine" plastics and vanity from the "masculine" plastics and technological pursuits.

Women's role in the guardianship of progress and democracy on the home front was perceived as only a temporary substitution, and pushed back to the margins when the men returned home.⁶⁷ The cavalier dismissal and

⁶⁷"Though thousands of women are in the armed forces and 45 women have been killed and 250 decorated, women have not won the right to lead or to be recognized as leaders. Men in politics and in industry go right along acting as though women are a favored economic class, to be kept nicely to reflect the success of the male. . . . It is up to women to go into action to stop that old-fashioned attitude from denying them jobs and opportunity." In A. G. Mezerik, "Getting Rid of the Women," Atlantic Monthly, June 1945, 83.

See also: "[T]he folk-lore of America holds that women do not normally work, or if they do it is for social or patriotic causes; or perhaps, out of desire for pin money. Since war work of women is born of patriotism, it is held that the advent of peace should cause women, and especially married women, to abandon the factory and office and trek gleefully back to the kitchen and dustpan. . . . Women are just women: a reserve of workers to be called upon in an emergency and subsequently returned with dispatch to home duties. . . . [T]he women in question have tasted better living standards during the war. They had had independence. . . . [T]heir entrance or return to the marital role after the war will bring no easy adjustment to the cookstove and absence of a personal paycheck." From: Colston E. Warne, "The Reconversion of Women," Current History March 1945, 201, 204.

"Sisters under the apron- Yesterday's war worker becomes today's housewife." From: Frieda S. Miller (Director of Women's Bureau, Department of Labor), "What's Become of Rosie the Riveter?" New York Times Magazine 5 May 1946, 21.

For literature on encouraging a new outlook of woman's labor role in postwar world--some more radical than others--see: "What Women Want," Fortune December 1946, 172-75; Margaret Hickey "Task Ahead for Women," Independent Woman August 1945, 213, 214, 237.; Hickey, "Bound for the Future," 49-51.

exclusion of women from facilitating the postwar progress their efforts toward Victory had helped achieve was criticized, but not deterred:

[Women on the production front] by their numbers and by the quality of their workmanship, have justified their position in peacetime industry on the basis of merit. They should not be looked upon as a mere labor reserve to be permitted to work in emergency only. . . . It is essential that [a postwar plan for women workers] be worked out, not only for the sake of the women themselves, whose magnificent contribution to the creation and maintenance of the arsenal of democracy deserves at least that much recognition, but for the sake of sound economy. . . . Many [college-educated or specialty trained] women are suited by mind and temperament to careers, not to domesticity. As past performance shows, some of them have creative contributions to make to the **progress of industrial methods, practices, and devices.**⁶⁸

As wartime thinking turned to postwar planning, the access to male progress women had thought they had won during the war, but lost when it ended, was offered to them again in the form of an image of domestic progress they

⁶⁸Frederick C. Crawford, Women In Postwar Industry, 2, 3, 7. (My emphasis)

See also: "It is only simple justice that these women be given full opportunity to share the fruits of the victory they helped to win. . . . **They are the women who have found a new, often hard-won economic status, and adjusted themselves to better living standards.** . . . They are the women who have shared responsibilities with me during the war, both in industry and the Armed Services." Margaret A. Hickey, "The Task Ahead for Women," 214. (My emphasis)

For statistical figures of women in various war-related industries, see: U.S. Department of Labor, Bureau of Labor Statistics, "Women Workers and Recent Economic Change," by Mary Elizabeth Pidgeon, Monthly Labor Review 65 (December 1947): 666-71.; U.S. Department of Labor, Bureau of Labor Statistics, "Recent Occupational Trends," by Harold Wool and Lester M. Pearlman, Monthly Labor Review 65 (August 1947): 139-47.

could buy. Modern consumer goods promised women that their postwar role in progress was only a purchase, or a "magic" push button away. Women were still perceived as the natural consumers of progress, rather than participants in its production, as they had been during the war.

This culture of consumption constituted the heart of the American Way, which manufacturers and the ad industry were so adamant to preserve in response to the social and economic upheavals of the Depression and the war. Female consumers' presumed pursuit of a middle-class standard of living and their studied patterns of consumption were, according to business experts, the fuel that drove the economy. A drastic change in the role and lifestyle of the American middle-class housewife as a result of the war could upset the institution of capitalism, and this possibility was feared by the business community just as much as the dreaded New Deal social policies set in place during the Depression and entrenched throughout the war years.

At the same time, manufacturers and ad men used these justifications not only for rallying the public's patriotism, but also for their own commercial gains. Rebuilding the American public's confidence in industry and mechanized progress was perceived as good for the war effort, and good for business. By showing how domestic products were winning the war, the business community could contribute to the government propaganda machine and

simultaneously set the stage for postwar sales and profits.

While women's roles in the war effort were crucial to victory, the perception that femininity, homemaking, and motherhood had not been damaged in the conversion process was just as important in keeping the public's wartime confidence level high as it was in a prosperous postwar economy. Therefore, the survival of free enterprise and American business relied heavily on preserving popular ideals about home and progress as well as maintaining limited perceptions about the female consumer whose tastes and standards the ad industry could continue to predict and guide in the postwar market. Postwar prosperity for American business would be assured by hanging on to traditional images of progress, home, and housewife, and associating them with winning the war and preserving the American Way.

Tying the American Way to the material objects and middle-class values that comprised the concepts of home and femininity suggested that if middle-class identity were drastically disrupted as a result of the war, so too would be the American Way. Thus, advertisers pushed the American Way and its middle-class standard of living into the arena of reasons as to why the war was fought, and as a result the gender status quo would also be preserved. Chapters III and IV will examine the business community's motives and strategies for sustaining these middle-class, capitalist

values throughout the war, and will show how postwar progress, another facet of the American Way, and the promise of a higher standard of living, were sold as important incentives for women to participate in the war effort.

CHAPTER 3
PROFITS FROM SYMBOLISM

With nothing to sell the public, advertising must concern itself with intangibles.¹

In Chapters I and II, we explored the ad industry and manufacturers' wartime media campaigns, and discovered how they forged a link between the image of domestic progress, the war and victory. And, we revealed how business profit motives merged with a wartime propagandistic function. But **why** was it imperative to do so? What specific threats loomed on the horizon not only for the business community as a whole, but especially the "consumer engineering" industries of advertising and industrial design? What specific, professional motives did the advertising and industrial design professions have for continuing to promote the benefits of progress, which they could not package and sell? Of course, ad men and designers were financially compelled to find a useful place for themselves during the war, but what extenuating circumstances, fears, and animosities drove them to it?

Chapters III and IV seek to answer these questions by examining how the advertising and design industries created not only specific roles for themselves, but also established

¹"Impact of the War on Advertising," Advertising & Selling March 1942, 21.

niches of power during World War II, and how they managed to prosper in terms of their professions' reputations when virtually no new consumer goods were being produced. Ad men and designers were able to shift their emphasis from selling immediate gratification to promoting patriotism and faith in the future, but, as this chapter will assess, for whose profit and at whose expense?

One of the purposes of Chapters III and IV is to show how the advertising and design industries (which will be collectively referred to as "consumer engineering") survived in order to perpetuate and expand an image of progress based on the perceived miracles of modern science and technology. It is important to establish how the war and the New Deal political environment (left over from the 1930s) shaped the consumer engineers' response to the wartime economy. Despite excess profit taxes (which cut into advertising and "styling" budgets), hostile criticism from left-wing liberals, and a lack of consumer products to sell, consumer engineers took up the cause of championing the war effort and associating victory with "the American Way," a vague, yet nostalgic, term for corporate capitalism and the perceived democratic, free-enterprise system. If free enterprise and America's consumer culture collapsed as a result of the war, consumer engineers argued, so too would advertising, product design, and the business community.

This chapter will show how advertising was able to

survive the war by associating democracy and victory with capitalism and the progress it generated for consumers. In so doing, advertising (along with designers) helped reshape existing expectations of progress, which would become the cornerstone of the postwar economic recovery and the bedrock of Cold War ideology.

Advertising managed to prosper both financially and symbolically during the war. Profiting most from symbolism, it capitalized on the popular mystique attached to science and technology, and was able to devise an image of progress that would be connected with the new and improved products developed for the war. Of course, neither World War II nor advertising in the 1940s created the concept of progress associated with science and technology. But the war and wartime advertising helped fashion an image of domestic progress (as we'll see in the following chapters) associated with "advances" in military science and technology. Progress for the home in the early Cold War years would celebrate the science and technology that not only "liberated" the housewife from domestic drudgery, but also kept Communist Russia at bay. This chapter will provide the background for why advertising--the prophet of progress--gained so much authority at a time when the consumption of progress and the quest for improved standards of living were put on hold.

I. Advertising and the War: A Crisis Looms

[Here are] some things that this war is going to mean in terms of consumption of materials which normally are part and parcel of our civilian life. . . . As for refrigerators, the rubber used for them in 1941 would have made 4 million army raincoats and 1 million gas masks. . . . War-plane production calls for 75 per cent of our entire aluminum supply. In a recent 12-month period enough of this metal went into refrigerator production to have completed 900 heavy bombers, and the new stop-order on radios will release enough aluminum for 1,300 fighter planes. . . . [In 1939] the steel used in making refrigerators was enough for 56 thousand anti-aircraft guns, or 20 thousand light tanks, or the hulls of about 21 heavy cruisers.²

In 1941, with American involvement in the European conflict looming on the horizon, members of the advertising industry struggled to save their industry from a crisis more threatening to their profession than the previous economic depression: conversion to all-out war.³ As shown in Chapter I, America's involvement in the war signaled the total subordination of business and industry to the military needs of government. But what did this mean for the advertising industry? It meant that materials, goods, and

²"Join the Millions Cooperating for Victory," 6-7.

³1941 represents a key year in wartime advertising history. It was then that panic began to spread unabated throughout the industry and voiced itself in the trade's press. That year, shortly before Pearl Harbor, Advertising & Selling launched a series on how wartime issues might affect the "consumer engineering" industries with the following article: "The Impact of Defense on Advertising," Advertising & Selling December 1941. (Note that after the U.S. government declared war on Germany and Japan that same month, the series title in the next issue changed from "Impact of Defense" to "Impact of War.")

services essential to the war effort--priorities--would be removed from the consumer market.

Furthermore, production facilities would be converted to the war effort, thus eliminating or severely restricting the manufacturing of most consumer goods. Consumer durables, like automobiles and refrigerators, would be unavailable for purchase over the duration, which meant that the large advertising budgets these types of goods commanded would consequently evaporate: "Washing machines, radios, and all products using considerable metal, will taper off production and advertising."⁴

Anxieties, generated by conversion, forced many ad men to predict a scenario for their industry far worse than the depression. Their distress was echoed throughout the ad industry's trade magazines: "[The] inability to fill orders for weeks to come will lose old customers and discourage new

⁴"Advertising Trend," Business Week 9 August 1941, 41. See also: "I-Priorities and Advertising" and "II-The Real Problems Facing Advertising," in "Impact of Defense," 19-27. See also Fox, Madison Avenue Goes to War, 68; "I-Advertising After Singapore," "II-Advertising in Conversion Era," and "III-Three Pressing Problems," in "The Impact of War on Advertising," Advertising & Selling March 1942, 17-24. See also: Robert Griffith, "The Selling of America," 390. Many of Frank Fox's sources are from Printers' Ink, while I relied primarily on articles from Advertising & Selling and documents from the "archives" of the Advertising Council in New York (which consisted of manilla envelopes piled on metal shelves in a broom closet), and the J. Walter Thompson Collection at the Hartman Center, Duke University. While doing the bulk of the research for this chapter, Printers' Ink was unavailable to me due to the move of the New York Public Library's business collection to its new facilities for its Science and Business Library.

ones. [Our clients'] operation and deliveries will be hampered by lack of material, denied by priorities. . . . [T]he Government will tax profits to the point of confiscation. [K]ey men will be drafted. . . . [F]amiliar markets will shift beyond reach through changes of habits or residence. . . . **Tomorrow will be worse than Yesterday.**"⁵

Indispensable consumer goods, which would be available in limited supply for the duration, such as food, medicine, and sanitation products, ad men lamented, would need no advertising.⁶ Furthermore, the advertising of any consumer product, those rationed and those unavailable, could be considered non-essential to the war effort and stigmatized as an economic waste to industry. Possibly all advertising might be seen as superfluous and counterproductive to the war effort:

[A]re advertisers becoming frightened at the alleged prodding determination of Thurman Arnold [the New Deal's Assistant Attorney General] to write advertising out of the industrial picture as an economic waste- a charge which Arnold says is groundless, but persists in advertising circles? What shall an advertiser do when, because of priorities he has nothing to sell, and when he knows the Treasury Department, Thurman Arnold, or Leon Henderson [Director of Office of Price Administration] may demand a justification for advertising? . . . **The government and public opinion are treacherously close to believing that 'unnecessary'**

⁵"Impact of Defense," 22. (My emphasis)

⁶Fox, Madison Avenue Goes to War, 25.

advertising is unpatriotic.⁷

Would industries, which were converted to war production, fail to see the need to advertise what they could not sell, and thus cause the advertising profession to dissolve altogether? Ad men were fearful that their clients would neglect to support the industry in war, and, therefore, sought to convince business as well as government that advertising was an essential necessity, even in wartime: "Advertising appropriations must be set up in emergency years as well as normal times. . . . The advertising of an individual firm must go on, to a greater or lesser degree; promotion must continue if there is likely to be anything to promote, and trade mark promotion must go on."⁸ The war's threat to trade marks and brand names posed a strong reason why business needed to support advertising in war: "[P]ublic morale . . . will suffer more, [and] will magnify [commercial] evils more highly, if consumers are forgotten by the corporations that have been in the pattern of their lives for years."⁹ If removed from

⁷"Impact of Defense," 19, 23.

See also: "Defense in the Ads," Business Week 5 April 1941, 34-36, for more on the fears within the advertising industry. (My emphasis)

⁸"Impact of Defense," 19. See also, "Why Advertise in Wartime?" Advertising & Selling November 1942, 98, 102.

⁹"Impact of Defense," 21. For ad industry's attempt to convince clients of the postwar benefits of wartime advertising, see also "War Ads that Pay," Business Week 5 June 1943, 92, 96.

For a study of whether or not corporate patriotism was

the public eye for the duration, ad men argued, trade marks and brand names would lose their appeal. Ad men reminded businessmen that they too would go down with advertising's sinking ship if the ad industry were dismantled for the war effort: "[O]nce a corporation or its products become forgotten, then they are well on the way to becoming non-existent."¹⁰

Contrary to other forms of media, advertising's inherent purpose was not to disseminate news or raise morale through entertainment, but rather to create desire, facilitate dissatisfaction and obsolescence, and encourage self-indulgence. These seemingly trivial features contradicted the collective sacrifice and individual self-denial, which a wartime economy demanded, and thus put the advertising industry in the awkward position of defending its right to exist. Even if government were convinced to use advertising in wartime, its expenditures would be one-fifth the amount spent by the private sector, whose ad budgets, economic pundits predicted, would be cut by about

working in wartime ads, see: Marion Harper, Jr., "What is Your Brand's Equity in Postwar America?" Advertising & Selling January 1943, 24, 72, 74. Such articles were intended to convince advertisers that their postwar survival depended on channelling their profits into a big-budget ad campaign well before victory was won.

¹⁰"Impact of Defense," 28. For more on the trade mark issue see: "Impact of War," March 1942.

eighty percent for the duration.¹¹ H. A. Battan, president of the N. W. Ayer ad agency, summed up the anxiety that clouded the industry: "A great many people today are worried about advertising. They are deeply troubled by the present wave of criticism. They lie awake nights wondering what the effect of the war and the period after the war is going to be."¹² The specter of total war, which ad men measured in all-out consumer conversion, was worrisome indeed.

Battling the Odds on Two Fronts

Compounding advertising's wartime survival problem was the anti-business, pro-consumer atmosphere, which had dominated the 1930s, and had come to characterize politics of the New Deal.¹³ The liberal antagonism toward big business (which included advertising) did not cease with the threat of war, but rather intensified. Furthermore,

¹¹This statistic based on Fox, Madison Avenue Goes to War, 10, 25.

¹²H. A. Battan (President of N. W. Ayer), "This, or Silence," Printers' Ink 14 November 1941, 11.

¹³For more on the anti-business atmosphere of the 1930s, see Lears, Fables of Abundance, 235-60.

For more on the New Deal and Roosevelt administration's policy in the conversion to a war economy see: Paul A. C. Koistinen, "Mobilizing the World War II Economy: Labor and the Industrial-Military Alliance," Journal of American History 55 (June 1968): 443-78. Koistinen says that Roosevelt was more interested in preserving corporate capitalism, rather than dismantling it, wishing it to be more publicly responsible. Roosevelt also supported the idea of state capitalism, which was put forward as a strategy to sustain a healthy economy through government regulation, but perceived by the business community as a maneuver toward Communism.

Roosevelt's programs and policies toward devising a controlled economy (sometimes referred to as state capitalism) were perceived by the business community as pointing the country in the direction of communism. As a result, advertising's gravest danger from the war was in the form of government economic policies and regulations, especially as they pertained to businesses with wartime government contracts:

[N]ational advertising is geared to production estimates which, in turn, hinge on consumption forecasts. It follows, therefore, that if either production or consumption (or both) is violently upset, or if an intangible (such as more government control) enters the equation, advertising arithmetic must be considerably revised. . . . [T]he best that can be done is to keep one eye on Washington and the other on Europe and plot accordingly. Rarely, if ever, have advertisers and their agencies been forced to put together such a gigantic jigsaw puzzle.¹⁴

How much a manufacturer under government contract could spend on advertising and how much profit he could acquire was entirely up to the government.¹⁵ Furthermore, new tax laws under a defense economy could eliminate advertising expenditures as a business write-off entirely. The future prospects of the advertising industry looked grim

¹⁴"Advertising Trend," 36. See same article for examples of the advertising cutbacks, rises, and changes that were expected per given industry as a result of the war.

See also Fox, Madison Avenue Goes to War, 39, 40.

¹⁵For criticism of war industry profits, see: "Profits Above Patriotism," The Nation 17 August 1940, 123. For statistics on war industry and business profits, see: "War, Cash, and Corporations," Fortune April 1945, 114-15, 259-60, 263-64, 266, 269; "Some Facts to Remember on Business Profits," Newsweek 10 August 1942, 48.

indeed.¹⁶ Would New Dealers prohibit appropriations for advertising or develop wartime restrictions on the ad industry, creating rules they would keep in place once the war ended? In the absence of a practical and profitable solution to their crisis, ad men added to the chaos and confusion with speculation and despair: "The problem of anticipating the future conduct of advertising and business under the new rules is apparently more nearly the crux of today's unoriented thinking than present dislocations caused by the defense effort. **All of American industry is in a mental state like anticipating a trip to the dentist.**"¹⁷

Like most members of the business community, ad men believed that the war would grant more power to an administration that put government in the driver's seat of the economy. Many perceived the New Deal's economic reforms as anti-free enterprise, and thus also anti-advertising. The war, businessmen felt, would fuel the collectivism, regulations, and growing bureaucracy that had accompanied the 1930s New Deal politics. As a result, ad men and their clients speculated that a colossal New Deal government, more threatening to free enterprise than ever before, would greet the business community at the war's end:

There are indications that the 'revolution' that has been taking place during the years of the New Deal may be climaxed, with the emergence of peace, by a strange

¹⁶Griffith, "The Selling of America," 390.

¹⁷"Impact of Defense," 26. (My emphasis)

new world. . . . [T]oday the strong arm of Leon Henderson [New Deal Director of the Office of Price Administration] is flexed to overrule the law of supply and demand. The defense boom's prosperity is prohibited from bringing high prices. This, combined with the complications of priorities, high taxes, government long term finance superseding private long term finance, and limitations on instalment buying have changed the entire complexion of advertising, as well as of business generally. . . . In this new world, we are finding a whole new set of Basic Facts which govern economic behavior. We are meeting up with new standards of values, a new pattern of social relationships, a new breed of people - educated by the New Deal social philosophy.¹⁸

Accompanying these remarks in Advertising & Selling was the illustration: "How Wartime Controls Challenge Management Controls," representing how the business community perceived the administration's threat to free enterprise. [FIGURE 31] In the pre-war panel, corporate management sits at its Mount Olympus, the executive desk, hovering god-like above its domain. All aspects of the "natural" chain of "supply and demand" are shown operating under his sole control. By contrast in the wartime panel, "meddlesome" government bureaucrats (symbolized by a giant Uncle Sam) interfere with the "natural order" between management and those under its power. This panel shows how government's wartime controls were perceived as hindrances to the corporate executive's chain of command, thus diminishing his power and company profits. New Deal regulations, represented by a continuously growing bulwark, strengthened by bureaucratic

¹⁸"Impact of Defense," 25, 26.

reserves, are shown as having severed management's "autocratic rule" over its commercial domain. Thus, believing that its foes were gaining in power, it seemed to ad men that they had more to fear from the New Deal and mobilized consumer advocates than the war.

Hostilities toward advertising had mobilized effectively in times of peace.¹⁹ What damage, then, could the emergency legislative powers given Washington in wartime impart on the industry? Consumers and their New Deal advocates saw the upcoming war effort as an avenue to rid society of the "unsavory" field of advertising pitches and slogans. Their campaign against advertising during the Depression argued that the industry "was economically useless, culturally vulgar, and intrinsically mindless of truth."²⁰ With the sacrifices demanded by war, consumer advocates charged, advertising, whose function was superfluous in peace, was even more wasteful in wartime. Ad men had countered the consumerists attacks during the 1930s by justifying advertising's existence as a stimulator of the economy because it encouraged consumption. However, their defense in peacetime became their downfall in war. Consumerists argued: "Since inflation results, in part, from

¹⁹The Consumers' Union had been founded in 1936. The Wheeler-Lea Amendment was passed in 1938, which granted greater power to the Federal Trade Commission to police advertising fraud and half-truths. For more on this subject, see Lears, Fables of Abundance.

²⁰Fox, Madison Avenue Goes to War, 30.

demand exceeding supply, isn't it harmful to encourage demand of supply-pinchd products through advertising?"²¹

Wasteful advertising and deceitful business practices, brought on by the circumstances of war, were further criticized in The Nation:

Advertising depends on and inspires competition. In a nation doing most of its heavy business with the government, competition is minimized. This situation has its obvious advantages for business; on the other hand, business is desirous of keeping the public's good-will, protecting the popularity of its trade names. . . and preparing for the post-war period, when cutthroat competition promises to flourish in all fields. And so business advertises heavily, even when it has nothing to sell to the public. . . . Now under the stress of a national crisis, patriotism is often used as a screen behind which to sell merchandise - a device which depends on emotional transference from a worthy to a more or less unworthy object, from desire for freedom to desire for candy or fur coats."²²

Thus, advertising faced battles on two fronts during the war. Its peacetime clients had to be convinced to continue to advertise for the duration, while its peacetime enemies were mobilizing to energize its total demise. The strategies to combat these diverse fronts were, at first, confused and often self defeating. Nevertheless, the fear of bankruptcy and professional destruction helped unite the industry and launch a campaign to not only establish an essential role for itself in wartime, but also secure a powerful, political niche in anticipation of postwar peace.

²¹"Impact of Defense," 19. See also "Impact of War," May 1942, 20, for comments on advertising's opposition.

²²Charles Neider, "Advertise for Victory," The Nation 29 May 1943, 770-71.

Advertising Attempts
To Muster its Forces

How did ad men attempt to survive the wartime economy and their liberal opposition? The advertising industry countered its opponents' attacks by associating New Dealers and Consumer Unionists with Socialists and Communists, bent on destroying the American Way through by deriding the advertising industry. In defending themselves from New Deal attacks, ad men hid behind the vague, but emotionally charged, label of the "American Way," whose interests, they claimed to be putting before their own. An assault on advertising was an assault on the American system of free enterprise, which the business community felt it had to protect from reform-minded New Dealers. The following statement, published in 1939 as Europe stood on the brink of war, puts forth an anti-New Deal argument that would be echoed throughout American advertising copy and trade magazines of the war years:

Advertising is the mouthpiece of free enterprise in this country. . . . It is therefore naturally the target for all those who prefer collectivism and regimentation by political force. It is being attacked insidiously by radical elements both in and out of our Government which are aiming, consciously or otherwise, to subvert the present order and convert the American way into ways of alien and sinister origin.²³

²³Fox, Madison Avenue Goes to War, 20. Originally quoted from Printer's Ink 29 June 1939, 67.

By 1944, the ad industry press in the pages of Advertising & Selling criticized members of the industry for taking this former stance, an obvious misunderstanding between "friends": "[B]ack in the years of peace advertising and advertising men had become increasingly unpopular in

Such fears, generated by "the gravest threats to national brands and the advertising of them,"²⁴ dominated a crucial meeting held in Hot Springs by the American Association of Advertising Agencies (AAAA) and the Association of National Advertisers (ANA), on November 13-15, 1941, shortly before Pearl Harbor.

Convention speaker, Leon Henderson, Director of the Office of Price Administration and a Roosevelt appointee, tried to assuage fears and lay to rest rumors of Washington's hostility toward advertising in wartime.²⁵ Speaking to a room full of adversaries, Henderson embraced the view that ad men and New Dealers needed to "bury men of straw and unite in the recognition that we have a common enemy that is real and threatening. He is called Hitler. To lick him we must submerge our prejudices and overlook petty annoyances and irritations. And we must . . . be prepared to make sacrifices and adjustments for a common cause." Henderson criticized ad men for wasting energy

Washington. . . . In desperation some advertisers and practitioners laid the criticism to incipient communism in the U.S. Government." From: "Impact of the War," July 1944, 52.

²⁴"Ad Men's Arsenal," Business Week 11 October 1941, 14. See also Fox, Madison Avenue Goes to War, 22.

²⁵Advertising & Selling tried to reassure its readers that the Roosevelt administration, despite its disappointment in certain advertising abuses, was not set on dismantling the ad industry for the duration, but instead wished it could be used for "inspiring and instructing the American public in the things that are necessary for the war effort." "Impact of War on Advertising," March 1942, 19.

battling what he considered selfish issues with other New Dealers, not himself of course, and criticized those ad men who "engage[d] in fighting fantasy and abstraction."²⁶ The New Deal, according to Henderson, was not an enemy of advertising, and as soon as the industry recognized that and mobilized their efforts, then they too could work to hasten the day of peace.

Despite Henderson's attempt to inspire ad men to embark on their wartime duty, patriotism did not dominate this meeting. It had not dominated the debate over the ad industry's future despite the fact that many of its clients, with nothing to sell, had resorted to patriotic bragging in their advertising. Members of the ad industry who attended the Hot Springs meeting were interested in how their support for the war effort could also be used to put forth a media campaign, both domestic and international, in their own profession's behalf and in support of the American economic system, on which their livelihoods depended, and which they felt was threatened by what they perceived to be increasingly socialistic New Deal policies, especially regarding state capitalism.

In light of this agenda, James Webb Young, senior executive at the J. Walter Thompson agency, proposed that "'public service' advertising [would provide] the

²⁶Both quotes from: "Advertising's Crisis is Everybody's Crisis," Advertising & Selling December 1941, 100.

cornerstone of a broad public relations campaign on behalf of the advertising industry and its corporate clients."²⁷ Written in response to the debates that surfaced at the Hot Springs meeting prior to Pearl Harbor, Young wrote: "We have within our hands the greatest aggregate means of mass education and persuasion the world has ever seen - namely, the channels of advertising communication. . . . Why do we not use it. . . . to create an atmosphere in which business can hope and plan and dream again. Use it to confound the critics of advertising with the greatest demonstration of its power they have ever seen?"²⁸ The ad industry's propaganda machine entered the business of selling the war, but first needed to consider how it could revitalize its own and business' reputation, and also reeducate the public on the ideology of capitalism through advertising: "[The] [f]uture of advertising depends on our ability to establish a fundamentally different concept of its nature and use."²⁹

Despite the enthusiasm for organizing a council of agencies and advertisers, a tactic endorsed at the Hot Springs meeting, the industry remained in chaos, and panic brought on by Pearl Harbor tended to foster strategies of

²⁷Griffith, "The Selling of America," 390.

²⁸James Webb Young, "How Advertising Can Meet Today's Critical Challenges," Advertising & Selling December 1941, 108.

See also: Fox, Madison Avenue Goes to War, 22.

²⁹Batton, "This, or Silence," 11.

individual survival instead of unity and focus.³⁰

Advertising obviously had a usefulness, but cheerleaders for the industry failed to specify exactly how to go about harnessing its power. H. A. Batton, president of the N. W. Ayer agency, was convinced that "[a]dvertising can be used to help immeasurably in making our nation secure in time of war," but exactly how, this would happen, remained obscure for Batton, and many others.³¹

Ralph Ingersoll, then editor of Marshall Field's daily PM, acknowledged that advertising's unique ability to change public behavior was perfect for the needs of a wartime economy, but warned that its inability to take charge of its destiny was impeding its progress toward an organized front for the war effort, as well as a better postwar reputation:

How is a sense of [wartime] responsibility to be instilled in the American people? Well -who made us feel guilty if we did not brush our teeth? It was the advertising industry - and a good thing it did, too. Now let these miracle men make every American who is not all-out to win the war feel as guilty as they made a maiden who smelled a little under the arms. . . . Unless you solve this problem [of defining a role] for yourselves . . . your industry will be disbanded for the duration of the war - not by Governmental edict but

³⁰Fox, Madison Avenue Goes to War, 49.

³¹Batton, "This, or Silence," 11. For more examples of advertising's cheerleaders in the industry, see "Advertising in Uniform," Business Week 1 August 1942, 67; "An Army Spokesman Outlines Advertising's Job in War," Advertising & Selling January 1942, 25-27, 42.

For ways in which donated advertising time and space was being used to fight the war see: "Copy for Victory," Business Week 9 September 1942, 94; "Advertising's War Record," Advertising & Selling August 1942, 26; "War Ads that Pay," 92, 96.

by the march of history. This will be because you who think and write and draw and produce America's advertising haven't got a real friend. . . . [F]ew people in the Administration in Washington give a damn for you. They look on you as sometimes corrupt, always hacks. . . . And now advertising has a chance to redeem itself . . . to prove it has a right to exist. . . . It is time somebody did something about it.³²

Actual attempts, as opposed to enthusiastic suggestions, to organize the industry into a coordinated effort working closely with the federal government had surfaced more than a full year prior to Pearl Harbor. The American Federation of Advertisers (AFA), for example, had in the spring of 1940, formed a defense committee, whose task it was to solicit war jobs from government agencies that needed publicity done on behalf of wartime government campaigns.³³ The first assignment was given by General Hershey, deputy director of the Selective Service System, to design enlistment posters and cartoons.³⁴ Thus, proving its usefulness in wartime, the AFA's defense committee showed how it could promote other government campaigns by

³²"Impact of the War," May 1942, 19-20.

³³Another attempt to solve some of the confusion was put forward by Advertising Publications, Inc., who produced a book with a collection of war advertising in an attempt "to provide concrete examples of how other successful advertisers have solved the problem [of their war-related advertising]." From: War Advertising: What to Say and How to Say It (New York and Chicago: Advertising Publications, Inc., 1942/1943).

³⁴"A.F.A. Defense Committee Explains Operating Plans," Printers' Ink 4 July 1941, 51-52. According to the article, the A.F.A. worked on this project with defense committees of the Society of Illustrators and the Artists Guild.

See also: Fox, Madison Avenue Goes to War, 47.

harnessing public support through advertising. Despite its triumph, the AFA and the ad industry as a whole remained bogged down by the seemingly insurmountable logistics of mobilizing services, like acquiring ad space in magazines, newspapers, and on radio, and coordinating artwork, layout, and copy writing departments from various agencies.³⁵

Their now admirable intentions notwithstanding, ad men continued to meet with frustration while trying to penetrate the morass of Washington wartime bureaucracy when offering their services.³⁶ Despite their slow start and uneven attempts to secure and define their profession's wartime role, leaders in the ad industry remained undaunted, and, utilizing the competitive strategies of business, saw an opportunity to solve their immediate and future problems by taking advantage of two related circumstances: 1. that open and direct propaganda made Washington nervous because of its association with fascism, and 2. that Washington mandated no specific advertising or war information policy.

³⁵Ibid.

³⁶James W. Young, of the J. Walter Thompson agency, described how the industry's lack of credibility met with indifference and disdain in Washington early in the war:

"In the beginning we advertising men had very little standing anywhere in Washington. At the best we were suspected of being there to sell something, and in many places there was a definite antagonism toward us. The newspaper men who were in charge of information work [the Office of Facts and Figures] in most quarters looked down their noses at us, and wondered how we could suppose we had any capacity for public affairs." From: James W. Young, Advertising Council chairman, "What Advertising Learned from the War," 11 December 1945, 4. Advertising Council Archives.

Consequently, ad men recognized their window of opportunity in Washington's propaganda vacuum and decided to fill it themselves.³⁷

³⁷For the government policies that did finally emerge regarding war advertising and expenditures, see: "New Guides to Wartime Advertising Policy as Set by Government Agencies," Business Week 17 October 1942, 74. See also "Explanation of Treasury Department Attitude on Advertising Expenses," Advertising & Selling September 1942, insert between pages 16 and 17. See also statement by Donald Nelson in "Impact of War," December 1942, 21, which reiterates what types of wartime advertising government smiled upon and allowed as a tax deduction.

II. Government Bungles, Ad Men Unite for a Frontal Attack:
The Rise of the War Advertising Council

The administration's lack of a firm advertising and public information policy added to wartime Washington's atmosphere of confusion and helped institutionalize the rebuff of advertising's extended hand.³⁸ Roosevelt wanted to avoid saturating the country with blatant propaganda, and instead persuade, rather than intimidate Americans, to accept and join the war effort. This attitude created a vacuum in his propaganda policy because he wanted government to remain clear of the process. But his attitude also allowed him to see the role advertising could play --an industry better suited to engineering consent than the government--and thus permitted him to tacitly endorse the use of it toward promoting war campaigns to the public. Furthermore, allowing ad men to sell war bonds, advertise recruitment, salvage drives, and rationing programs, etc., freed the government, not only from the label of propagandists, but also from the cost of advertising its own programs.

Like other government officials sensitive to advertising's plight, Roosevelt was encouraging, but ambiguous. His hands-off approach is evident in a letter he

³⁸"[T]he advertiser . . . is confused in his thinking because Washington, holding all the controls, is also confused in its thinking; and [the advertiser] can't decide where he is going until Washington decides where it is going." From "Impact of Defense," 29.

dispatched to the Advertising Federation of America, which was read at their 1942 annual convention: "For the duration . . . there are many messages which should be given the public through the use of advertising space. . . . If the members of your organization will . . . assist in the war program and continue the splendid spirit . . . which they have shown . . . advertising will have a . . . patriotic place in the nation's total war effort."³⁹ Roosevelt's endorsement of the ad industry's role in the war seemed to contradict the blatant hostility toward it among other New Dealers. Roosevelt, however, understood the role advertising played, as a medium of mass persuasion and economic stimulation in American culture, and how useful it was in conveying pre-packaged ideas to the mass electorate.⁴⁰

Ad men were not inclined to wait until Roosevelt provided an advertising policy more direct than a vague endorsement of their industry. Shouldering the responsibility, leaders in the advertising community envisioned a council that would define and unify the

³⁹Blum, V Was for Victory, 18. Original source: Wall Street Journal 23 June 1942.

⁴⁰He had called upon the industry during the Depression, while governor of New York in 1931, to "help us to interest people in the machinery and the production of government, and to show them what is good and what is bad in the completed result." From: Lears, Fables of Abundance, 243. Original source: Franklin Delano Roosevelt, "You Cannot Robotize Advertising," Printers' Ink 18 July 1931, 44. His address was to the New York Chapter of the AFA.

industry's services in wartime. It would coordinate their efforts on an international level and supply Roosevelt with the ad industry's own version of a national wartime advertising policy, which the administration had failed to fully define.⁴¹ In response to its two-sided crisis, leading members of the ad industry formed the War Advertising Council (WAC) in February 1942, a public message service organization, and offered their expertise in public persuasion to the government for the war effort.

The WAC, first chaired by Chester J. La Roche, chairman of Young & Rubicam's board, and staffed by volunteer ad men, agencies and their media contacts, would help organize essential government campaigns to engage civilian support for the war effort, lending advertising an official war job and a reason for staying in business: "It shall be the purpose of the Advertising Council to provide a means for marshalling the forces of advertising so that they may be of maximum aid in the successful prosecution of the war."⁴² The WAC would exemplify the positive aspects of advertising, and thus provide a beacon of ethics for the industry, pointing the way toward a more respectable future and

⁴¹Fox, Madison Avenue Goes to War, 49.

⁴²War Advertising WAC newsletter, 1 March 1943, 1. Advertising Council Archives.

See also the McGraw-Hill promotional for convincing business to produce war-related advertising. McGraw-Hill also offered booklets with suggestions for "sales appeals": "'Know-How' Advertising is Helping to Win the War!" Business Week 4 April 1942, 39-42.

revitalized reputation in the government and public's eye:

[P]rior to the war, the process of advertising was misunderstood by many people in the Government in Washington. Since the creation of the War Advertising Council and the conversion of advertising to war, there has been a great change in the attitude of these people. Therefore, war advertising has been a splendid public relations measure for advertising and for business. . . . Most of the best of war advertising does not show a soldier or a plane or a war. But what are the good war advertisements really about? They are mostly about the simple necessities and emergencies of ordinary living. . . . Advertising can usually be most profitable if it talks about . . . the very things which are going to bring Victory - those everyday things that in the aggregate furnish the indispensable second line of attack.⁴³

Henry Morgenthau, Secretary of the Treasury, who was charged with finding the money sources to fund America's participation in the global conflict, like Roosevelt,

⁴³John Sterling, Chairman of WAC Sponsorship Committee, "A Look at Successful War Theme Advertising," Address to the ANA, 3 May 1944. See also Need and Effectiveness of War Theme Advertising (n.p.: WAC), 1945. Advertising Council Archives.

Guidelines to advertisers also tried to ensure quality advertising and a consistent war message, see: A War Message in Every Ad (n.p.: Magazine Marketing Service and WAC) no date; War Theme Digest: A Quick Reference Guide to Home Front Information Campaigns Requiring Advertising Support (n.p.: WAC, 1944 and 1945); The Word is Mightier than the Sword (n.p.: WAC, no date); How Industry Can Help the Government's Information Program on Woman Power (n.p.: OWI, WAC, and WMC, 1944); Women in the War . . . For the Final Push to Victory. All the above from Advertising Council Archives.

See also: America At War Needs Women at Work. War Contributions 1941-45, Box 1, J. Walter Thompson Collection, Hartman Center, Duke University.

The WAC also sponsored annual awards for (in its judgement) what passed as advertising that best followed its direction, see issues of Advertising & Selling. See also: A Review of Recent Advertising Aiding the War Effort by The Clients of J. Walter Thompson Company. From: Company Publications 1937-46, Box 9, J. Walter Thompson Collection, Hartman Center, Duke University.

realized the potential of advertising techniques to engage American's financial support of the war. His bond program could be used to sell Americans the idea that they had, not only a role, but a choice in winning the war through their purchase of war bonds.⁴⁴ Duty would be sold as a democratic right, and thus induce patriotism through voluntary action. Morgenthau's embrace of advertising's opinion molding techniques not only satisfied Roosevelt, but also endeared him--to a certain extent--to ad men searching for a way to convert their industry and its experience in public persuasion to the war effort.

Getting a New Deal agency to trust them with an government advertising assignment was only the beginning. The WAC had to face the bureaucratic pitfalls of miscommunication within a sea of federal agencies, some of whose roles overlapped and failed to consolidate with others. Furthermore, determining procedure and ironing out the objectives of each campaign had to be agreed upon among the various chains of command within the WAC and also the government agencies with which they had to cooperate.

An illustration of how the WAC's organization functioned shows the multiple steps taken to coordinate and disseminate a government campaign. [FIGURE 32] The organizational corporate hierarchy of government, which echoed the same "scientific" management approach in big

⁴⁴Blum, V Was For Victory, 16-17.

business, seemed more inefficient than expedient, and, many times, threatened to strangle the entire propaganda effort. Surmounting the links between the WAC, its divisions, and the agencies with which it needed to work, posed only half the battle. What the illustration doesn't show is how the Council members had to overcome prejudice of New Dealers for the ad industry and vice versa.⁴⁵

Part of the bureaucratic problems of agency overlap and lack of consolidation were alleviated in June 1942 when Roosevelt created the Office of War Information (OWI), which would function as a centralized clearing house for disseminating information about the war to the public and the media, including the ad industry. In September 1942, OWI chief, Elmer Davis, simplified the government channels through which the WAC could function, and thus maintain a

⁴⁵Fox, Madison Avenue Goes to War, 51.

James W. Young, chairman of the peacetime Advertising Council in 1945, reminisced about the way in which the WAC, once organized, successfully achieved what all the bureaucrats in Washington had failed to do. But it was primarily in showing how essential it was to the war effort that advertising finally defeated its critics:

"We found that our consumer opinion surveys would tell us what the real problems were when Washington opinion was still confused. We found that a planned program of attack on the real problem brought order out of chaos. We found that advertising techniques for making facts simple, understandable and interesting worked [for the government's home front campaigns] as elsewhere. We found that advertising's ability to repeat these facts until they stuck had a power which made news releases seem like a puff of wind. And we found that what we knew about emotionalizing facts, and about other devices for getting action, would bring results that agencies of government had despaired of achieving. . . . [L]ittle by little government learned it." From: Young, "What Advertising Learned from the War," 4-5.

constructive role for advertising in wartime. Acting on requests for an advertising manager, Davis appointed NBC's former marketing director, Ken R. Dyke, as head of the OWI's Bureau of Campaigns.⁴⁶

The directive, which created the Bureau of Campaigns and Dyke's role as Advertising Manager within OWI, recognized the significance of harnessing the ad industry to the engines of government propoganda, and at the same time, secured for the WAC a prominent position in Washington politics: "Since advertising is an important information medium . . . the Bureau of Campaigns will act as liaison control with the Advertising Council, advertisers, agencies and media cooperating with the government . . . in connection with major information campaigns concerning the war effort. Government agencies requiring such services will advise the [Bureau of Campaigns]."⁴⁷

The constipated bureaucracy of Washington (and its need

⁴⁶Fox, Madison Avenue Goes to War, 51.

A flow-chart designed by David Lloyd Jones in his Ph.D. dissertation, "The U.S. Office of War Information and American Public Opinion During World War II, 1939-1945," shows the OWI's complex chain-of-command between Davis, the OWI Director, followed by Gardner Cowles, Jr., the OWI Domestic Operation Branch Director, followed by the Deputy Directors and the Media Bureaus, such as the News, Radio, Motion Picture, Campaigns and Publications/Graphics Bureaus. See pages 152, 218-19 regarding the Bureau of Campaign's role in OWI.

⁴⁷"Impact of War," September 1942, 19.
For more on OWI, see: Winkler, The Politics of Propaganda.

for those industries that were familiar with overcoming the administrative logistics of disseminating information on a national level) would lead to the downfall of government's involvement in the ad business and the rise of "consumer engineering" profession's clout in Washington. The move to improve wartime communications by appointing marketing and advertising specialists to government posts opened the door for OWI's ultimate take over by the commercial media, a position which would give ad men the leverage to carry out their initial mandate and ulterior motive for getting involved with the WAC-- to save their industry, the perceived heartbeat of the American Way.

Ulterior Motives
Behind the WAC

The WAC sought to untangle the wires of miscommunication between government offices, advertisers, ad agencies, and the media.⁴⁸ In so doing, the WAC not only provided an opportunity for the ad industry to get into the war effort, but also created a much needed platform from which to strike back at the economic reforms of the New Deal

⁴⁸"[T]he government information groups need reorganizing along lines perfected by the advertising industry. It has been indicated that the appropriation and expenditure, along traditional lines, of advertising money would immediately simplify the information problems in Washington. . . . With a U.S. advertising manager in the saddle, well-organized advertising procedure would automatically follow, and there would be less room for overlapping bureaus, for intricate bickering, for red tape and unnecessary complications." From "Who Should Pay for War Advertising," Advertising & Selling June 1942, 14.

by proving its worth as a medium of public service. This ulterior motive shaped the wartime rallying cry for business to sponsor the WAC, and thus join it in its goal to wrest the American Way from New Dealers. Keeping trade names alive and providing public war messages through advertising, apologists for the industry argued, would help keep the foundations of free-enterprise in tact for the duration:

The burden of . . . attack on wartime advertising seems to be based on the assumption that when there is little need to stimulate current consumption, there can be little need for advertising. . . . The really vital reason why every business should continue and if practicable increase its advertising during the war is to help preserve the framework of the American economy. That is what we are fighting for - at least what most of us are fighting for. But the collectivists have other war aims.⁴⁹

Even after the WAC was organized, ad men were still caught up in a whirlwind of issues, which the total conversion had produced: convincing clients to advertise now in order to ensure postwar markets, satisfying both allies and foes in the government, guarding free enterprise in an atmosphere of collectivism, and planting the foundations for a better reputation with the consumer in the postwar world⁵⁰:

⁴⁹"Design for Socialization," Business Week 23 January 1943, 79.

⁵⁰See "Impact of War," March 1942, for examples of ways in which ad men argued that preserving the trade mark of an industry totally converted to the war effort provided a means to enhance that industry's public relations and also engage public support for the war. See also Chapters IV, V, and VI for more on postwar planning.

[A] corporation that has no product to sell, and wants to stay in business, can at least sell itself. The only way it can sell itself is to sell its relationship with the public. . . . [T]he public will only know war producing corporations by how they act; not by what they produce [for the military]. . . . [S]uch corporations [should] turn their attention at this point to . . . 'selling' their own desirability. . . . Thus comes an obligation, and a challenge. For the duration, the brains and talent involved in promotion and intelligent management, might well be turned to improving the [public] acceptance of industries. . . . Out of such an effort could come a rebirth of the democratic system; out of it could come such popular support [for the capitalist free-enterprise system] that crackpots and ism pursuers will find themselves, for the first time in a great many years, without a receptive audience.⁵¹

While building a pro-business climate for the postwar world, such "prosperity insurance," as offered through "good will" advertising, would also renew the business community's reputation with the government and public. The only thing business had to fear, according to ad men, was not to advertise their war contributions, which, they argued, could weaken the corporate/capitalist stronghold in the nation's economy:

But sales are only part of the story [why business should advertise in wartime]. Almost as much as the loss of markets, the astute industrialist fears how the postwar era may alter his way of doing business. Will he have the Government as a permanent competitor? Is some new ism, born out of chaos by desperation, going to sneak up behind him? A few businessmen - all too few [meaning those who are currently buying war advertising] - are convinced that the only thing which will save them from this fate is public opinion. . . . The war offers industry a golden opportunity to regain some of the public good will it lost during the depression. Business, unjustly blamed, didn't tell its story then. . . . The war has changed that. Today

⁵¹"Impact of the War," March 1942, 21.

American industry has the most dramatic story [to tell through advertising] because it is American industry that will win the war.⁵²

Chester La Roche, chairman of the WAC, tried to convince businessmen that investing in wartime advertising would not only reap financial profits in the postwar market, but more importantly also save key institutions of American capitalism-- namely advertising--from collapsing under the stress of a war economy: "[An] important source of advertising may be the advertisers who have no goods to sell the public, but have product names and institutional character to keep alive. . . . It will help reap the greatest profit in the world, a profit far more important than money in the bank; the profit that will come from

⁵²"Business Keeps Its Pennants Flying," Nation's Business June 1942, 22.

This attitude is also expressed in The Advertising Agency in Total War (n.p.: WAC, no date), 4, 25. Advertising Council Archives. Here, Chester La Roche, chairman of the Council, expressed concern for rebuilding advertising's tarnished reputation with the public first before its powers could be used effectively in combatting psychological warfare, i.e., negative attitudes toward total mobilization:

"A vocal minority [in the public] feels that advertising is nothing but a combination of clever stunts, exaggerated arguments, and uncontrolled enthusiasm; and that advertising men are a group of slogan writers. . . . The public would have a new conception of us [if] we have the proper and right conception of ourselves."

See also: Proposed Organization Plan for War Advertising Council, 14:

"The value of any individual industry in the war economy is in direct ratio to the contribution which that industry makes toward winning the war. Inasmuch as advertising represents such an important part of all media, the nature of the advertising carried reflects one way or another on the media, depending on whether it does or does not aid the war effort."

saving institutions that are so important to the American way of life."⁵³

The WAC had been mandated to clean up advertising's act and thus its reputation. Through its war ads, it could also boost business' reputation by associating their commercial interests with the public's interests. Public relations aimed in the right direction would be used, not only to win the war, but also salvage corporate capitalism--the American Way--from the perceived threat of anti-free enterprise New Dealers:

Against the possibility of capitalistic collapse [as a result of the collectivism and tighter controls of government over business in war], American businessmen might well court the public at this point and establish a relationship of mutual confidence so that it can appeal to the public to remove government agents [i.e., New Dealers] who might act for their personal benefit, rather than the benefit of all concerned [including businessmen]. . . . [T]here is little excuse for simply bidding a cheerful adieu to private enterprise and calling it a day. No, the public and business and government are now in the same boat. It is necessary that they work out their salvation together or accept defeat at the hands of Hitler.⁵⁴

Helping business shoulder the responsibility of saving the American Way from meddlesome New Dealers would allow

⁵³La Roche, "The Advertising Agency in Total War," 19.

⁵⁴"Impact of the War," January 1942, 17. See also "Impact of the War," December 1942, 19-21, in which the ad industry calls upon business--its clients--to begin using advertising now to plan and publicize their role in the postwar world in order to counter any New Deal plans the business community may find less than desirable. Such a campaign, according to the article, would win over public opinion to their cause first, before consumers could once again be "brainwashed" by those New Dealers hostile to unregulated capitalism.

advertising to survive so that American commerce could champion free enterprise throughout the world after the war: "[L]et us bear in mind that whatever method of governing the peoples of the world may choose, or may have forced upon them, their methods of doing business can and must be controlled by a greater and more unselfish and more intelligent American business economy than we have ever seen."⁵⁵ Leaders of the WAC argued that a public relations plan of action established now would assure this.

Nash/Kelvinator wartime ads typified the business attempt to link preserving the American Way with victory. The Nash/Kelvinator scenarios put the viewer in the mind of an infantry soldier as he entered a battle, "straight for the doors of hell." The ad copy tended to suggest that all aspects of America must stay intact during the war if the American Way (that is the opportunity to acquire a higher standard of living via free enterprise) is left and untouched and unchanged:

I'm not outguessing madmen with machine guns in their hands for the privilege of being told what to say and when to say it. I'm fighting for freedom! I'm fighting for the things that made America the greatest place in the world to live in . . . that are going to keep America the greatest place in this world to live in! So don't anybody tell me I'll find America changed. . . . Don't anybody tell me there's a ceiling on my opportunity to make a million or be President. . . . That's what took the humanity out of the men I'm up against now. . . . I want to come back to the same America I left behind me . . . where our way of living has always brought us new and better things . . . and

⁵⁵"Impact of the War," December 1942, 20.

always will . . . The America where there's clean, hard work to do . . . where there's freedom, and justice, and opportunity for all . . . That's what I'm fighting for.⁵⁶

While advertising copy and images infused trade and consumer magazines with American Way rhetoric, business leaders attempted to unify their colleagues by playing on their mistrust of the New Deal (a tactic which the National Association of Manufacturers and industrial designers also employed). Gardner Cowles, Jr., Director of OWI's Domestic Operations, with close ties to the WAC, appealed to members of the advertising and business community at the Annual Advertising Awards banquet in 1943 to financially support war advertising. Government's financial support of war advertising would lead to further New Deal controls, thus, not only jeopardizing the industry, but also American democracy:

Some [New Dealers] have suggested plans which call for a high degree of compulsion and regimentation of media and advertising. These plans seem to me un-American. They might bring an immediate solution but with dangerous consequences. . . . Democracy's only chance of survival rests on the processes of democracy. . . . Advertising, coming from thousands of different private companies from coast to coast, supports the information media which make democracy possible. . . . That is why I am so skeptical of the wisdom of a giant federal government advertising fund to be used to help explain the home front problems. I want to see that job

⁵⁶"I'm Not Playing for Marbles . . . [Nash/Kelvinator advertisement]." From: Oversized Box, WWII Contributions (general reference) 1941-45, Ads Recruiting Women for War-Related Jobs Folder, J. Walter Thompson Collection, Hartman Center, Duke University.

See also: "The Road Ahead . . . [Nash/Kelvinator advertisement]," Business Week 9 September 1944, 120.

undertaken voluntarily by hundreds and hundreds of individual advertisers under the leadership of the Advertising Council working with the Office of War Information.⁵⁷

In addition to promoting the American Way, the WAC and the ad industry could secure advertising's role in the war effort and at the same time lash out at its New Deal opponents by criticizing the government for its inefficiency in conducting its war program campaigns. By showing how advertising could (and was) successfully executing campaigns that clogged Washington, bureaucratic channels could not, the WAC demonstrated that it could manage and provide information services to the public more efficiently than government. This demonstration helped polish advertising's tarnished reputation with government and the public; something that would pay off in huge public relations dividends at the end of the war:

[I]f advertising is to put its weight behind the war effort, it will be necessary to circumvent the government - that is to say politics - whenever possible. And thus, in turn, means that advertisers should spend their own money, and operate through their own agencies, to lend a hand in promoting over-all tasks, which the government undertakes. For example, a salvage campaign is a salvage campaign, no matter who runs it; if the government runs it, it can be

⁵⁷Gardner Cowles, Jr., "What Government Wants Advertising to Do," Advertising & Selling June 1942, 18. The AC published parts of his speech in their newsletter, War Advertising, 1 March 1943. Advertising Council Archives.

Associating the saving of the American Way and Democracy through the advertising of consumer products in wartime would resurface again in Cold War advertising as a means to combat the perceived threat of Communism. See dissertation's conclusion.

complicated beyond recognition; if industry runs it, it can do a simple, effectual job - and probably will.⁵⁸

Government Passes the Buck:
Ulterior Motives Behind
Flipping the Bill

But who would pay for the wartime campaigns? Fear of more government interference in the operations of the media led those behind the WAC to call on continued financial support from business and industry, instead of Congress: "[G]overnment support of the press by advertising will impair [the press'] freedom."⁵⁹ However, others in the media (even the ad business) used the same "freedom of the press" issue to argue in favor of government's financial

⁵⁸"Who Will Pay for War Advertising," 14.

See also "Impact of the War on Advertising," May 1942, 18, where Ralph Ingersol champions advertising over governmental appointed intellectuals: "I have always considered the competency of American advertising as one of our civilization's major achievements. . . . Instead of harnessing advertising to the common good . . . Government has chosen to set up rival propaganda organizations manned by newspapermen. . . . They are not salesmen and yet they have a salesman's job to do."

By July 1944, the ad industry's criticisms of government ineptitude had softened, and, the industry even shouldered some of the blame for not being more understanding of the government's failings: "The public was treated in those early days [of the war] to such an onslaught of inconsistencies that the nation was dazed. . . . This . . . was aided . . . by anti-administration forces who let pass no opportunity to remind the public that the Government didn't know what it was doing." From "Impact of the War," July 1944, 52.

⁵⁹La Roche, "The Advertising Agency in Total War," 8. Congress need not appropriate funds for government advertising because ". . . there have been many free channels through which the government could tell its story to the American public." Finding and using these free channels was the job of the WAC and OWI.

support of its war advertising: "[B]ecause a free press is a vital part of American democracy . . . and a cut in advertising revenue [as a result of priorities] - upon which both its freedom and its existence depend - it is set forth that the government should subsidize the press by war advertising."⁶⁰

Many in advertising and business wanted the government to pay for its own advertising, arguing that if government pays for the merchandise from its war contracts, why not its ad space as well?: "[A]dvertising is a commodity and there is no difference between buying advertising and buying tanks and jeeps and submarines. Since the government had never asked the manufacturers to produce these tangible war machines as a contribution to the war effort, neither should the government ask [ad] agencies, media and advertisers to contribute space, time and talent for advertising purposes."⁶¹ Still in hot water with consumerists and New Dealers, many ad men began rethinking this position: "[B]ecause the government getting into the advertising business would inevitably ruin it. . . . Certain incumbents of government jobs are familiar fixtures in the long established war against advertising. Hence, . . . advertising would suffer by becoming too closely affiliated

⁶⁰"Who Should Pay for War Advertising," 13.

⁶¹Ibid., 14.

-appropriation wise- with the government."⁶² Fear of New Deal collectivism led some members of the business community to scorn a government subsidized media, which they believed could lead to "convenient socialization after the war."⁶³

"How to Write a History of World War II," an ad sponsored by the Young & Rubicam agency in 1943, is an example of the publicity by which the WAC attempted to gain business sponsorship of war advertising, and at the same time champion its free press agenda. While it sought to curry financial support by elevating media contribution to the war effort as a document of American history, it also took the opportunity to punch holes in the arguments of its opposition:

One of America's great strengths in this war is our network of mass communication, or public information. . . . Because of their national character and distribution, [magazines, newspapers and radio] are an important force for unity, carrying the same thoughts, information, and appeals for action into every town, city, and crossroads of America. . . . [I]n addition to the patriotic advertising messages business firms have paid for and run, the magazines themselves have donated advertising space. . . . Like their brother media the newspapers and the radio, they have been both a credit to, and a justification of, the good democratic principle of Freedom of the Press.⁶⁴

The WAC, at this point trying to prove its worth to the

⁶²Ibid.

⁶³"Design for Socialization," 79.

⁶⁴Fortune December 1943, 169. Naturally, Young & Rubicam did not see a contradiction between their celebration of the free press and the ability of mass media to mold and unify thoughts and dispel dissention.

ad industry and government, had a huge stake in convincing both sides of the debate that government was ineffective at the job an organized advertising council was best fit to do: "U.S. government advertising would promptly result in a prostitution of the American press." The WAC had to convince industry, business, advertising, and the government that only its organization could conduct a "proper and wholly effective war promotion in a democracy."⁶⁵ If not, then the wartime role of advertising and its future in the postwar, New Deal economy were both doomed:

[W]ar effort advertising is a godsend since it enables [an advertising] firm to keep its name before the very forgetful American public, and at the same time to improve its public relations by obviously tuning its talents to helping in the war effort. . . . [A]dvertising now has its first opportunity to prove itself as an adult medium of communication - not merely a high pressure means of complicating people's lives by unnecessary gadgets and lingering installment accounts. The public needs to be educated [about advertising's public service potential] if advertising is to survive present and future upheavals. . . . [A]dvertising could well afford to chalk up to public education, its efforts on behalf of the war.⁶⁶

Possessing firm control of its wartime destiny by allocating funds for advertising government programs, rather than relying on Congress to willingly channel funds to an industry it largely mistrusted, would allow advertising to stay clear of its enemies and rebuild its reputation at the same time:

⁶⁵Both quotes from "Who Should Pay for War Advertising?," 13.

⁶⁶Ibid., 14, 74.

[I]t is next to impossible to resolve Washington complications - meaning bureaus and bureaucrats - in time to do a good war job. . . . [T]he freedom to do a good job is dependent upon not letting the government control the purse strings and the procedure [in implementing war advertising]. . . . [U]rgency is the greatest single consideration in this war, and the wheels of government, like the mills of the gods, grind slowly. Those who wait for an appropriation face . . . war managers and the information bureaus [who] must be convinced that advertising is essential, and . . . then, assuming this argument has been won, appropriations must still be passed by a Congress which is not likely to jump with glee at the thought of turning loose sixty million dollars - or more - to a comparatively small group of people who have few votes to offer in return. . . . [A]n appropriation of this sort would require considerable educating of the U.S. Congress, and it is questionable whether Congress could be educated before the conclusion of the war, even if it were to last much longer than any war could possibly last.⁶⁷

OWI settled the debate on who was to pay for war advertising: advertisers in magazines and on radio would donate space, while ad men would donate their skills and time.⁶⁸ The government was able to take this firm stand with the industry because ad men needed to cooperate with Washington bureaucracy in order for their industry to survive. Thus, it was easy for the government to shift responsibility of paying for its own publicity and propaganda onto the advertising and business community. Gardner Cowles, Jr., Director of OWI's Domestic Operations, explained why the government ultimately won the debate: "The position of companies after the war, whether high or low,

⁶⁷Ibid., 13, 74.

⁶⁸Fox, Madison Avenue Goes to War, 48.

will depend on their contributions to winning the war."⁶⁹

Using its connections in radio, print and, news media, the WAC would be responsible for retaining free advertising space for war-related messages. The WAC's duty was to locate a sponsor who would cover the advertising costs, and to distribute guides to advertisers and businessmen on how to incorporate official war messages into their ad copy and images, including public service announcements about buying war bonds, abstaining from luxuries, preventing venereal disease, and recruiting women into war service and production.

The "Food Fights for Freedom" campaign of 1944 exemplifies the type of guidance members of the WAC delegated to other advertisers and businessmen. In their brochure, "It's Time for Total War on Food Waste," which introduced the Food Fights campaign, the WAC made suggestions to the food industry and their ad agencies on engaging public participation in food conservation: "Here is an opportunity for everyone of us to help make every morsel of food produced a fighting weapon of war."⁷⁰ The business man, needed only to add his company's name to the ready-made

⁶⁹Cowles, "What Government Wants Advertising to Do," 94. See also newsletter of WAC, War Advertising, 1 March 1943, 2.

⁷⁰It's Time For Total War on Food Waste: How Advertisers can Help the "Food Fights for Freedom" Program During June, July, and August 1944 (Prepared for the War Food Administration) (Washington, D.C.: WAC and OWI, 1944), no page number.

ads the WAC provided in order to reap the benefits of corporate patriotism and also support the war effort.

Despite its prominent role in wartime media, the WAC, had little real power to enforce its policies and procedures, and, as a result, had to sway and cajole businesses to pitch in and cooperate, especially financially.⁷¹ This it did by generating positive publicity about itself to boost interest in its campaigns: "The war appeal has influenced a greater number of advertisements than any other single factor, 40% in the past few months; [and] has won better readership and visibility over current non-war advertisements."⁷² In another strategy to cull financial support, the WAC would assure the industries and agencies who donated money and personnel or technical resources that their investment was being spent on projects that were beneficial to the war effort and also to the sponsor.⁷³ In so doing, the WAC attempted to

⁷¹Fox, Madison Avenue Goes to War, 51.

⁷²T. Mills Shepard, "What the War Theme is Doing to Advertising Readership," Advertising & Selling October 1942, 13.

See also: "American Advertising at War," Art & Industry December 1943, 173-82.

⁷³"According to the Advertising Council, [ad] agencies last year [1943] contributed \$4,000,000. in payroll hours alone to government work and the war effort." From: "War Ads that Pay," 96.

See also: "Major Advertisers Spend Millions on War Themes: AA Study of Top 35 Shows Nearly all Promote Victory," WAC publication reprinted from Advertising & Selling 10 July 1944. Advertising Council Archives.

demonstrate how it was not only better at promoting federal campaigns than the government itself, but also surpassed any fund raising effort in history: "The War Bond drives are backed up by the greatest promotion campaign ever conceived. The advertising donated to the War Bonds in the past year [1944] was worth \$132,000,000. During the Sixth War Loan, reproductions of the \$100 bond will blossom - free - on half the 270,000 billboards in the country. . . . And what does this tremendous selling job cost? Thanks to the millions of unpaid volunteers, to all the free publicity and advertising, the bill during the last fiscal year came to only \$13,000,000."⁷⁴

By determining a self-made yardstick for measuring its own success, the WAC was able to build up its credentials and authority with little opposition as a leader in wartime media and public information:

[The WAC] was . . . called the most ambitious missionary effort in the business history of the United States. It involved harnessing to the same wagon a large number of highly competitive groups, it involved patient and exasperating work in overcoming prejudices and misconceptions toward advertising and an educational job in government and business alike. It

⁷⁴Don Wharton, "The World's Biggest Selling Job," Reader's Digest December 1944, 88-89. See also Wharton's article, "The Story Back of the War Ads," Reader's Digest July 1944, 103:

"In the first year of the war the Council was instrumental in arranging for \$250,000,000 worth of free advertising - 100 times as much as was donated in all of World War I. In its second year, this mighty stream of war-message advertising rose to \$352,000,000. Now the third year's total is swelling toward a \$400,000,000 mark -over a million dollars a day of advertising linked to home-front campaigns." Both articles were reprinted from Advertising & Selling.

isn't so long ago that some intellectuals were trying to wipe advertising out of the national picture. . . . [But that] was on a par with the delusion which . . . led a number of excellent people to wear nightgowns up hills at dawn to see the end of the world. . . . [E]very phase of the war effort was brought before the public . . . until the 135,000,000 of us worked as a team [to win the war]. . . . Thanks to the ad men.⁷⁵

The WAC exuded a successful public personae because its operators published the impression that it was exceeding all expectations. And in so doing, the WAC made a convincing argument for advertisers and media moguls to lend their financial and personnel support to its campaigns and political agenda.

Advertising Goes
On the Offensive:
The OWI's Last Stand

The WAC worked closely with Roosevelt's OWI, so closely that it eventually absorbed it, largely by infiltrating its ranks with ad men and leaders of the media and business communities. Dyke's Bureau of Campaigns was only one example of this infiltration of OWI's ranks with media men because of its direct connection with WAC operations. Gardner Cowles, Jr., a midwestern newspaper publisher, was appointed as director of OWI's domestic branch by Elmer Davis. Cowles's address at the Annual Advertising Awards

⁷⁵John Carlyle, "How Advertising Went to War," Nation's Business November 1944, 76-77.

See also, Cowles, "What Government Wants Advertising to Do," 17: "I want to talk to you . . . about what advertising can do to speed the day when this total war will end in a complete victory for the United Nations." See also "Impact of War," in issues of Advertising & Selling.

Presentation on Feb 5, 1943, promoted the role of advertising as helping speed the day to victory, and also foreshadowed the WAC's takeover of the propaganda role of OWI:

The war can be made shorter by a good job on the home front. Public attitudes on the home front will very largely determine success of the home front program. Advertising men are the experts in public attitudes. They know how to change attitudes. They know how to put a proposition up to the public They know how to persuade the public to act in accordance with determined plans. If that is so, advertising should be playing a decisive role in this war on the home front. . . . [E]ven with the help of all the editorial and news channels open to us in OWI today, we need advertising. Advertising is the only force powerful enough to do the job. It is the only one which can put these government programs before the public in simple, exact terms often enough and with enough power and with enough control to get results. The war on the home front can be won . . . and should be won without giving up the traditional free character of our media and of advertising, provided the media owners, the agencies, and advertisers realize advertising can and should and must be geared to help with war problems on the home front.⁷⁶

Cowles selected former advertising manager of Coca-Cola, Price Gilbert, to head the Bureau of Graphics and Printing, and gave key positions to other media moguls in radio and Hollywood, thus solidifying intimate connections with the mass media and business community.⁷⁷ The more literary-minded intellectuals who had staffed OWI since it was the Office of Facts and Figures under Archibald

⁷⁶Cowles, "What Government Wants Advertising to Do," 17-18.

⁷⁷Blum, V Was for Victory, 39; Fox, Madison Avenue Goes to War, 52.

MacLeish, Librarian of Congress, clashed with the media personnel, and grew increasingly disdainful of the commercial techniques which ad men and business leaders brought to the operation of government campaigns. They especially resented the rejection of artist Ben Shahn's graphic depictions of hard-core Nazism for Norman Rockwell's home-spun, idealized images of American freedoms for use in war posters.⁷⁸

Adding insult to injury, William B. Lewis, formerly a vice-president of CBS and now senior assistant to Cowles, sought to introduce advertising techniques to the OWI's information policies. Liberal writers, many with left-wing leanings, who had been disseminating what they perceived to be "truthful" information about the war through printed pamphlets, were appalled by the vulgarization of their high-minded ideals about the war.⁷⁹

⁷⁸Fox, Madison Avenue Goes to War, 52.

For an example of Ben Shahn's wartime posters issued by the OWI, see "New American War Posters," Art & Industry October 1943, 101. Entitled, "This Is Nazi Brutality," Shahn's poster depicts a man whose head is covered with a cloth and wrists bound in handcuffs. The unknown man faces a firing squad who stands in the position of the viewer. Shahn's slashing strokes, the ominous clouds passing in the sky, and the awkward tilt of the brick wall behind the bound prisoner lends the image a feeling of irrational, nightmarish chaos. In addition, the story of a particular execution of the men belonging to a Czechoslovakian village is fashioned like the print of a telegram message and pasted across the image of the prisoner. The impersonal telegram lettering clashes with the emotionally charged brush strokes and image of the terrified, faceless prisoner.

⁷⁹Blum, V was for Victory, 38-39.

Their resentment was reflected in a New Republic article of 1944, which chastised the ad industry for commercializing patriotism, and using their war participation as a means to help themselves and their clients profit financially and symbolically after the war:

Shouldering the OWI out of the picture paved the way for selling America all over again on an all-important idea that industry is not only winning the war with production, but is more devoted to the public interest than is government. . . . There is . . . little doubt that [war advertising] is, in the minds of most advertisers, not only good patriotism but excellent public relations. . . . By a combination of brag and exclusive patriotism, the groundwork is laid for the sale of political and economic ideas. Industry is cheered and celebrates. . . its exit 'out of the doghouse'. . . . During the last war advertising had quite a different career. . . . Its volume. . . declined month by month. . . . In this war it began with an index of 90, and after declining until May, 1942, rose and has continued to soar to well above the prewar average. The initial spurt in May, 1942, came when advertising was told by Washington that its expenditures, if reasonable, would not be subject to inclusion as profits, and therefore taxed. . . . Devoted no longer to the promotion of products and services which it cannot currently deliver, [advertising] has become instead a primary weapon in the sale of social and economic ideas. To do this, it elbowed the OWI out of the domestic field and took over a function belonging to government."⁸⁰

The intellectual faction of writers and artists accused the commercial interests, whose grip on OWI was tightening, of distorting the "truth", calling them, "high-pressure promoters who prefer slick salesmanship to honest

⁸⁰"Advertising in Wartime," New Republic 21 February 1944, 235-36.

information."⁸¹ The battle over "truth" ended with the resignation of the intelligentsia in April of 1943, as Lewis had intended, and also opened the door for the eventual demise of the domestic branch that year.⁸² The commercial version of "truth" had won.

Republicans and Southern Democrats in Congress had long harbored suspicions about the liberal wing of the Office of Facts and Figures and its successor, the OWI, viewing its actions as a mouthpiece for New Deal propaganda, rather than a channel (ironically) for disseminating "truthful" war information. As a result, Congress voted on June 18, 1943 to abolish funding for OWI's domestic branch, and appropriated only enough funds for the agency to operate into 1944, but not enough to perform its propaganda functions: publishing pamphlets, producing films and radio scripts, etc.⁸³ With the official domestic OWI out of the way, the anti-New Deal faction in Congress had given the WAC and its media contacts "the whole field of domestic propaganda, a field they had monopolized in peacetime, and

⁸¹Sydney Weinberg, "What to Tell America: The Writers' Quarrel in the Office of War Information," Journal of American History 60 (June 1968): 61. Weinberg's article also explains how the OWI was created and how the bureaucracy overlap (typical of wartime Washington) contributed to the animosity that erupted between business leaders and OWI staff.

See also: Fox, Madison Avenue Goes to War, 53.

⁸²Blum, V was for Victory, 39.

⁸³Ibid., 41. The foreign branch of OWI remained in operation.

the government had entered . . . only . . . temporarily."⁸⁴
 OWI's infiltration by commercial interests and its ultimate demise represented a victory, not only for Roosevelt's opponents within his own party, but also, and especially, for business and ad men, a triumph over the New Deal.⁸⁵

With OWI out of the way, the WAC could more fully concentrate on its own mandate: rebuilding advertising's reputation, and also securing a strong position politically in order to combat any opposition from the New Deal administration after the war.⁸⁶ Leaders in the WAC promoted their vision to the business community anxious to avoid a postwar depression and an entrenched New Deal administration: "[E]very type of business activity will continue to need liaison with government, and the Council [formerly the WAC] is in a preferred position to continue as the mechanism which will supply this need to advertising. . . . [A]dvertising is the public face of business, and whatever will enhance its effectiveness, influence and prestige will do the same for business as a whole."⁸⁷

⁸⁴Ibid.

⁸⁵Lears, Fables of Abundance, 249.

⁸⁶Fox, Madison Avenue Goes to War, 51-52.

⁸⁷From War to Peace: The New Challenge to Business and Advertising, (n.p.: WAC, 1945), no page number. Advertising Council Archives.

Advertising's Wartime
Spoils and Postwar Gains

How did the war help the ad industry to profit? In satisfying the wartime needs of government and business, ad men also salvaged their profession and helped repair the authority of American corporate capitalism. They were able to turn **their** product--advertising--from a non-essential frivolity into a principal information artery, which deployed messages about the war--albeit through commercial channels--to the civilian population. Yet, self-preservation, cloaked by the spirit of patriotism and cooperation, had dominated the motives of the WAC and the business community's "job of moving vital information into the minds of the [American] people."⁸⁸ The advertising industry through the WAC provided business with the means to support the war effort and, at the same time, enhanced its reputation with the public by lending advertisements a patriotic veneer. Not only did the ad industry, its media infrastructure and business clientele survive the war, but they prospered--both symbolically and financially⁸⁹--and reversed public opinion on their tarnished reputations by institutionalizing the advertising industry within government circles and using it to champion democracy:

⁸⁸Ibid.

⁸⁹Profits for general advertising in 1945 had exceeded the 1929 peak for the first time in sixteen years. See: Fox, Madison Avenue Goes to War, 93.

Four years ago last month advertising, as a tool of business and as a social asset, was literally on trial for its life. Violent attacks were being made upon it in every branch of government. . . . Publications were founded on the boast of freedom from its pernicious influence. And an anti-advertising 'consumer movement' of sizeable proportions was giving many earnest souls the jitters. . . . In short, four years ago advertising, along with American business as a whole, was in the national dog house. . . . [Since then] [t]wo Presidents of the United States have written into the record their belief that advertising made an essential contribution to the war, on the home front. And the present occupant of that high office [Truman] has [also] expressed the hope that he may continue to receive advertising help on the problems now before him; and has set up official channels for its use after abolishing those for all other domestic means of communication. . . . Administrators of Government, from high to low, from Cabinet members to Bureau chiefs, have learned to use advertising, and to depend on it. . . . And outside of government the picture is the same. Never has advertising received so much favorable publicity as it has in the last two years. . . . [B]usiness had regained a position of leadership from which it should not withdraw.⁹⁰

The World War II conversion process simply magnified big business animosity and its ensuing skirmishes, which had besieged the ad industry during the Depression years. Yet the "consumer engineers" proved able to combat their adversaries, and also contribute to the war effort. While battling the pitfalls of a bad reputation, they warded off the perceived dreaded specter of New Deal collectivism and regulation. By assuming the mantel of crusader for the American Way, thus implying that those in opposition to its

⁹⁰James Young, "What Advertising Learned from the War," 1-2, 8. For presidential endorsement of WAC's continuation after the war see: "Letter to Harold B. Thomas", Chairman, WAC, from Franklin Delano Roosevelt, 7 December 1944, Advertising Council Archives.

industry were un-American, advertising overrode its opponents during the war, and set itself up for a position of glory and power in the postwar world:

The war years demonstrated the weight and power of advertising as never before in America's history. But they demonstrated something else of even greater significance. . . . [a]dvertising helped us to fight our greatest war, yet remain a democracy. . . . The Country, the people, did the job the democratic way, and just one thing made it possible [O]ur great wartime information mechanism enabled this nation to fight through our first global war - with a minimum of compulsion. In a period when the trend toward centralized controls might well have become an irresistible force, this was a service of lasting significance to every business and every citizen. But the battle for the preservation of American democracy did not end on the last day of the war. One crisis ended. Another began. In peace, as in war, the informed and intelligent cooperation of the people is the priceless ingredient of a working democracy. . . . Business assumed the public information job [Business should retain this leadership role in the postwar world] because communism grows fastest in the soil of discontent.⁹¹

The ad industry's role in the war effort went beyond selling bonds and rationing to salvaging their profession and (in its estimation) preserving free enterprise. Advertising's success would lead to developing an image of postwar progress based on the mechanisms of war which, it would propose, not only achieved victory, but had also defended the American Way. In so doing, the industry (along with other factions in the business community) silenced its critics who upheld socialist views of progress and a controlled economy in opposition to forms of progress

⁹¹From War to Peace, no page number.

generated by mass production and fueled by capitalism and consumption.

The battle over who would control the war's subsequent commercial fallout and the postwar economy--business or government?--would be waged in the advertising imagery and promotional articles published in consumer magazines, newspapers, and books, which offered a tantalizing vision of domestic comforts and improvements resulting from the progress of war. Not only were ad agencies and manufacturers cooperating in what could be described as a corporate conspiracy, but manufacturers and the industrial design profession also played a prominent role in showing how visions of the postwar world could be used to the business community's advantage and to the detriment of the New Deal.

The following chapter will show how manufacturers and industrial designers used the concept of the postwar "world of tomorrow," depicted in wartime media, as a weapon to secure the business community's ascendancy over the New Deal and its socialistic agenda--a scheme not unlike what the WAC and members of the ad industry were trying to execute through their promotional strategies. While the main purpose of Chapter IV is to establish how and why visions of the postwar "world of tomorrow" were important for furthering the motives of the business community at large, it will also provide the background for exploring what the

vision of postwar future entailed, which will be examined at length in Chapters V and VI.

CHAPTER 4

THE POLITICS BEHIND DESIGNING THE
POSTWAR "WORLD OF TOMORROW"

One of the perpetrators of the [postwar] dreamworld, of course, was the advertiser who had no current consumer goods to sell, who was forbidden to talk about his war production, and yet was charged with the responsibility of keeping his company's name fresh in the public memory. The adman had a budget beyond his wildest dreams; it was a kind of nightmare in which the adman suddenly found himself running naked in a boundless expanse of white space. **After he had said what there was to say about war bonds many times over, he had nothing to talk about but the future, and in so doing he naturally followed the functional line of his craft - the creation of desire.**¹

Since the beginning of the conflict, speculations about what American living would be like after the war proliferated across the pages of wartime magazines, newspapers, and promotional books. Yet, the sometimes outrageous, futuristic claims notwithstanding, such prophecies about what the postwar "world of tomorrow" would entail, were, for the most part, calculated publicity campaigns, devised by various manufacturers, ad men, and designers.

Promotional literature about the postwar world, similar to other forms of wartime advertising, was intended to raise the public's expectations about the power of American progress to win a global war. In so doing, such visions not

¹"What Happened to the Dreamworld?" Fortune February 1947, 93, (My emphasis)

only sought to cement the wartime consumer's confidence in American industry and the American Way, but also hoped to influence and stimulate consumer spending in the postwar economy.

Upon studying wartime media, it seems that the war in Europe and the Pacific was ancillary to the motives behind manufacturers and the "consumer engineering" professions' postwar schemes. Like product conversion advertising (examined in Chapter I), visions of the postwar world--that is, product reconversion-- were used by the business community (including ad men, designers, and their manufacturing clientele) as a professional arsenal to further its own political and economic agendas.² Thus, the image of postwar progress was controlled and its meanings manipulated not only for reasons of profit, but also, as this chapter will show, to secure a more influential position for corporate authority in shaping and defining the public and private parameters of American life.

As shown earlier, advertisers, whose industries were heavily committed to war production, had only two things to sell--their roles in both the present war and the future peace. The advertising industry and its clientele argued

²For an example of how the business community utilized its "selfless" role in the war for its own propagandistic ends, see: Donald Wilhelm, "Business Rushes to Government's Aid in Preparedness Crisis," Printers' Ink 16 August 1940, 11-14. In the article, Wilhelm shows what a great job business was doing in the Second World War by comparing its ability to expedite the conversion process with that of World War I.

that war advertising was necessary for long-standing companies, as well as new ones, to sustain a competitive edge in the market after victory was achieved. Associating a given product or industry with the "world of tomorrow" theme, ad men and their clients agreed, would keep a trade name alive in the public mind for the duration and recoup business' public reputation by highlighting its corporate patriotism. The dreaded rejection by Mrs. Postwar consumer, as chillingly depicted in the 1944 ad, "How to Kill a Business Without A Word," sparked the struggle to keep trade names alive during the war with visions of domestic paradise that would blossom in stores after victory [FIGURE 33]:

"Are you going to be a stranger to Mrs. Tomorrow? Are you going to wait until peace to let her know about the things you want her to buy? Do you think it's smart to come cold to your biggest market and try to crash it, when competition will be so tough? Mrs. Tomorrow should get to know you today."³

Linking the Allied victory with promises of postwar progress, first of all, helped popularize civilian support for the war by focusing attention on the "new and improved" future in the postwar world. Such a commercial utopia in which every material wish would be fulfilled, according to advertisers and designers, would be built by converting

³"[Advertisement for buying advertising space in Woman's Home Companion]," Advertising & Selling February 1944, 15.

manufacturers' wartime production and consumers' war bond investments into peacetime prosperity.⁴:

Wartime speed-up of electronic research and production is the thing that has set off the dreams of the new world just beyond victory. . . . In countless ways . . . this . . . little [electronic] tube is opening up a new horizon of finer and cheaper products for you after the war. **That's what war-bonds bought today will buy you tomorrow - better products and more of them . . .** One device already upon us, and very good too, is the ultraviolet-ray emitting tube which kills all microbes within range in the air. In your refrigerator and food-storage cellar it'll stop fungus and kill bacteria spoiling food. In your dishwasher it'll sterilize your dishes. **Those war-bonds you're laying away today will buy it, and the refrigerator and dishwasher too.**⁵

War bond advertisements, which capitalized on the "world of tomorrow" theme, turned consumer support for the war into an incentive for planning new purchases after victory was achieved. Hotpoint's bond campaign exemplifies this tendency to popularize the war effort through consumer incentives. [FIGURE 34] In this case, Hotpoint links the coming of victory with the allure of a labor-saving kitchen, complete with automatic appliances and clean, "streamlined" cabinets: "Buy War Bonds Today - Electric Kitchens Tomorrow. . . . Every dollar I spend for War Bonds gives me a great big thrill of satisfaction! I figure I'm not only helping win the war but hastening the day when I'll be able to own

⁴See also: General Electric, "That dream home on BOND STREET will come true [Advertisement]," Colliers 6 March 1943, 43.

⁵Walter Adams, "Mystery Weapon Today - Your Servant Tomorrow," Better Homes & Gardens August 1943, 21, 65, 67. (My emphasis.)

the kitchen I've always dreamed about."⁶

In a similar fashion, General Electric associates a new house (not just a kitchen) as the reward for supporting the war effort with war bond savings: "And this shall be our Victory: In a free nation . . . each home shall be a shrine of freedom." Here, on U.S. Victory Highway #1, war bonds pave an easy path, free of obstacles, to suburban homeownership. [FIGURE 35] In this respect, the democratic values for which the war was supposedly fought are associated with the freedom to make consumer purchases and the liberty to acquire the symbolic trappings of the middle class. General Electric continued its association with financing the war and "winning" a utopian life in suburbia with its 1943 ad, "Hope Chest . . . '43 Style!" in which the plans for a postwar dream house are locked away with war bond receipts like pirated treasure. [FIGURE 36] These images of the future house built with war bonds render the "house of tomorrow" in conventional middle-class architectural cliches, such as pitched roofs, chimneys, and dormer windows, as if to suggest the war would lead to security and continuity in the controlled environment of a

⁶Life 12 October 1942, 9.

For more on the Hotpoint war bonds campaign and how advertisers tied the war effort to an incentive plan for postwar consumer purchases (especially in terms of domestic products), see: H. E. Warren (Manager for Advertising Division of GE), "Take a Kitchen - And Wrap it Well," Advertising & Selling July 1945, 58, 60, 94, 96, 98.

well-manicured suburbia.⁷

Congoleum-Nairn also used the image of a future filled with domestic ease, automatic cleanliness, and suburban leisure in its war bond campaign, which featured a "streamlined" kitchen clad in its DeLuxe Veltone flooring, cabinets, and counters, complete with happy housewife and relaxed husband, just home from the office:

1941. . . . [A]nd there was our dream . . . as big as life! Walls, counter tops - even cabinets - of smooth easy-to-clean linoleum! Nairn inlaid linoleum floor . . . Rounded corners (won't catch dirt!). . . . 1942
 Along came the war! [A]ll we could do was hope and pray - and save - for the home we'd have some day. . . . (To speed that day, Congoleum-Nairn, the people you know best as makers of colorful, durable floors, are also making weather-proofed fabrics, and vital parts for shells and bombs. . . . **VICTORY** [194X]
 Here's the gay, modern kitchen I'd planned for . . . Nairn Inlaid floors and walls . . . wonderful time-saving gadgets all bought out of our War Bond savings!⁸

In this example, Congoleum-Nairn seduces would-be bond buyers with visions of perfect postwar domesticity and flawless family life. Thus, the concept of the dream house and kitchen in the "world of tomorrow" bought with war bonds ironically helped cement conspicuous consumption with

⁷See also the Minneapolis-Honeywell Controls war bonds ad, which also pictures a traditionally styled, single-family suburban house as a symbol of the postwar future. Better Homes & Gardens November 1942, 55. As will be shown in Chapter VI, these images of the future bought with war bonds contrasted with exaggerated forecasts of "revolutionary" postwar "miracle" houses, which were generally rendered in a modernist aesthetic.

⁸Ladies' Home Journal October 1944, 172.

winning the war and securing world-wide democracy in peace.⁹

As they had done in their conversion advertising, manufacturers attempted to shore up the consumer's faith not only in the American war effort, but most significantly in the free-enterprise system by linking the tenets of capitalism to the patriotic purchase of war bonds and images of the postwar world.¹⁰ While the war bond campaign was initiated by the government, and, naturally, purchases of war bonds helped fund the effort, the real benefactor of such advertising was the business community, which hoped to profit symbolically, financially, and politically from its association with the bright postwar future that war bonds savings (and an Allied victory) would ultimately deliver.

As this chapter will show, visions of the postwar "world of tomorrow" were not limited to selling American consumers on the idea that their lives would improve from the experience industry had gained during the war. This chapter will examine what the business community's motives

⁹This issue will be examined more in the next two chapters.

¹⁰"Great success in the marketing of material things have been scored by those firms which have presented persuasively the facts about goods that promised a better life. But advertising fails in its fundamental function if it simply says that a commodity is available or is desirable. It must assist in convincing people that the product is an essential to the good life." From: article: "Selling the Future," Business Week 5 May 1943, 119.

were for promoting visions of postwar progress to the wartime consumer by looking at the plans to undermine the New Deal devised by the National Association of Manufacturers (NAM) and the industrial design profession.

In accordance with these ulterior motives, it seems that the most significant wartime role designers crafted for themselves was an expertise in fabricating the postwar world. They were not entirely focused on "rationalizing" military ordnance. Throughout the war years, and even before the U.S. formally joined the conflict, designers attempted to persuade manufacturers to begin planning for the postwar commercial fallout by hiring design specialists to help them reconvert their war products back into the civilian economy. This chapter will examine certain designers' strategies to scare manufacturers into hiring their "styling" services by painting a perilous picture of a postwar America operated by New Deal liberals under a state-run economy. Thus, designers used their influence in the business community to undermine the New Deal and also generate more work for themselves during the war in their role as postwar planning specialists.

As will be shown in Chapters V and VI, industrial designers not only generated a great deal of hype about the postwar world among manufacturers, but also supplied articles to popular and women's magazines, which depicted a glamorous world of convenience, comfort, and maximum leisure

for consumers on the other side of victory. Consequently, designers (working many times in conjunction with manufacturers and the ad industry) raised the public's expectations about the degree and "revolutionary" nature of the progress that was being generated by the war. Thus, the design profession, probably more than any other industry, helped to resuscitate the public's confidence in capitalism and technological progress by linking the cause of the war with promises of a consumer postwar paradise.

This chapter will examine the wartime public debates, arguments, and fears of designers and their manufacturing clientele, and show how these businessmen used promises of a "better America" renewed through war to secure for themselves a powerful position of commercial influence in the postwar years that followed.

I. Business Strategies for Derailing the New Deal,
The National Association of Manufacturers

What can we do, starting now [1943], to convince the public that, in the postwar period, business can provide America better economic leadership, with better results for the average man, than can be had from politicians and bureaucrats? . . . The threat is that this country . . . will choose or have chosen for it a collectivist economy under which initiative would be stifled under a permanent blanket of government control. . . . [A collectivist economy will win] because the public is led to believe that the job ahead is too big for business - or private initiative - to handle in the future, especially if the image of business which persists is that given it in the last decade. On the other hand. . . . [t]he war has enabled American industry to provide the most dramatic demonstration ever of what it can accomplish, given the chance. . . . and the goods have been delivered by a brilliant application of mass-production 'know-how' which for so many years has been smeared. . . . In other words, if the public believes in the competence of business leadership . . . most of the threats which have concerned us in the past will be on the way to handling themselves. . . . [I]f the public recognizes the desirability of business leadership, it will be far quicker to favor anything that business recommends. [i.e., its vision of the postwar economy.] [W]hat, specifically, is it we want the public to believe? There are few things which could do more to allay fear of a postwar depression - than a steady stream of inspiring announcements regarding postwar prospects. . . . [W]hat should this advertising say and how should it say it? [T]he most interesting headlines and pictures will be those which seem to portray to the public what others are beginning to think. . . . [F]aith in the future -and faith in industry's ability to make a brighter future come true.¹¹

Beneath the optimistic vision of the postwar world lay the business community's animosity toward the New Deal, and its ulterior motive for stimulating consumer interest in the

¹¹Untitled NIIC typescript, NAM #1411, NIIC Box 843, Advertising 1943 Folder, 1, 10, 11, 13, 25, 38I,, 73, 80. National Association of Manufacturers Collection, Hagley Museum and Library. (My emphasis)

"world of tomorrow" as a business by-product of war. The "world of tomorrow" theme provided businessmen with the ammunition to derail the New Deal and diminish its popularity and power before it could, in their estimation, stifle the postwar economy with more regulation, taxes, and plans for state capitalism. The business attempt to deflate the power of the New Deal was therefore be cloaked in messages about postwar progress and "revolutionary" consumer products generated by the war.

The National Association of Manufacturers (NAM), which had been critical of the Roosevelt administration during the 1930s, took up the cause to sway public support in favor of the business "world of tomorrow" as opposed to the New Deal's¹²:

What did emerge [from the NAM's Second War Congress] was a platform calling for removal of elements of regimentation in American life, and preservation of the free private competitive enterprise system. . . . a new business banner: 'A Better America' - a banner heralding a plan of action aimed at creating a prosperous postwar America by individual effort as contrasted with government fiat. This program is the springboard from which the NAM next year will launch a vocal and wide-spread educational program of action to show America why it was that free private competitive enterprise could win the war and why the NAM believes this system is necessary to win the peace.¹³

¹²The NAM also formulated a postwar planning organization in spring 1942, the Committee for Economic Development, which, according to the following article, was supposedly, bi-partisan. See: Roger William Riis, "Industry's Plan for Prosperity," Advertising & Selling May 1943, 15, 16.

¹³"'A Better America' Is Banner of Industry's Postwar Program," Newsweek 20 December 1943, 50. (My emphasis)

Despite all the "good will" advertising generated by the WAC, the real motive behind the "world of tomorrow" theme in ads and articles about the postwar world was to "educate" the public about the contrasts between the economic insecurities and restrictions they would suffer with the New Deal at the helm of the U.S. economy, as opposed to the "democratized" prosperity offered by the free-enterprise system (i.e., the American Way). Accordingly, the NAM strategy included building consumer confidence in business and the future, and simultaneously undermining the New Deal's credibility in the public mind.

The NAM's public relations arm, the National Industrial Information Committee (NIIC), attempted to dismantle the popularity and authority of the New Deal by showing how it was absent from the plan for a prosperous postwar America. If the New Deal stayed "in business," so to speak, according to the NIIC, its bureaucracy would create a "worse America" instead of the "better America," which was promised by the NAM. The NIIC outlined a strategy for its members to incorporate the NAM plan in its postwar advertising in order to mold public opinion in business' favor:

'What can NIIC do, starting now, to show the public that the enterprise and initiative of its individual citizens, not the super-planning of an all-powerful State, offers the key to the better world we are all seeking?' **We come now to the need of defining the part which advertising should play in this undertaking. . . . [I]t needs to sum up, by implication, the impression that the future will be better for all if reliance is placed on the enterprise of individual citizens, than it will under the**

masterminding of an all-powerful State. . . . [Such advertising needs] to put the NAM and business generally in the position of holding forth hope for the future. . . . Accordingly, the advertising phase of your 1944 program should take [this] form.¹⁴

But before the NAM plan could become reality, business had to rebuild its reputation with consumers, just as the WAC had sought to do. According to the NAM, the successful restoration of consumers' trust in big business included casting aspersions upon the public image of the New Deal:

The New Deal believes in 'planned economy.' Free enterprise takes its vitality from the resourcefulness, initiative, imagination and daring of many individuals free to work out solutions and meet challenges in their own way. . . . Such organizations as the NAM can of course provide inspiration and guidance. . . . But it **will be even more difficult to make your answers effective unless the public is more willing to heed and respect your leadership than it has been in the past.** . . . Once business leadership is trusted - once people come to look to you as 'the men who can get things done'- whatever you have to say in future will receive proper credence. For people will feel that these men, given a fair chance, can lift us as a nation to new heights when the war is won.¹⁵

By telling consumers how manufacturers intended to build the postwar "world of tomorrow" with the research and production experience they had learned during the war, the business community sought to demonstrate that they could smoothly and successfully lead American society through the uncertainties of postwar reconversion. Publicizing its

¹⁴"Introductory Material to Ads Recommended by Kudner," (n.p., no date), 1, 2, 4, 5. NAM #1411, NIIC Box 843, Advertising 1943 Folder, NAM Collection, Hagley Museum and Library. (My emphasis)

¹⁵Untitled NIIC typescript, Advertising 1943 Folder, 51B, 51C, 51E, 52. (My emphasis)

plans for the postwar economy through the "world of tomorrow" theme conveyed to the public that business intended to produce progress in peace as it had built the progress which had helped win the war: "Its spectacular achievements in making America the production arsenal for democracy have convinced the public that it has the 'know-how' of full production. Industry's greatest public relations responsibility today is to provide the vision, the leadership, and the program for applying that production 'know-how' to the public's postwar needs."¹⁶

Such a strategy was also expressed in a Rogers Diesel and Aircraft Corporation ad of 1943, provocatively entitled, "Wartime Bigamy, and Legal, Too!" in which the cooperation and consolidation of various industries during the war is depicted as a fruitful wedding of convenience. [FIGURE 37] Here, war production, guided by the tenets of free enterprise, is shown as possessing the unbridled fecundity to conceive postwar jobs: "Electronics, heretofore a

¹⁶James S. Adams, Working Together for Postwar America (New York: National Association of Manufacturers, 1943), 12. NAM #1411, NIIC, Box 843, Series III, Campaign Promotion Folder 1944, NAM Collection, Hagley Museum and Library.

The following advertising copy exemplifies the tendency to equate wartime production with the business plan for postwar prosperity, which offered a tantalizing image of utopian convenience and comfort from the progress once harnessed for war: "For Victory in War, For Progress in Peace. . . . After the victory, all the progress we have made will be converted to the purposes of peace. Super airplanes will destroy only distance, super motor cars will serve only commerce and pleasure." From: "[Houdry Process Corporation Advertisement]," Fortune August 1943, 161.

bachelor, is marrying the Steel industry - and soon after, Plastics, too. Plastics, in turn is mating with Aluminum, then Wood! . . . Every time the wedding bells ring out for a pair of these industrial giants, new jobs are born. . . . Let's plan these 'families' now."¹⁷

Thus, by re-building American confidence in its industry's ability to win the war and galvanize progress in peace, business also laid the framework for recouping its authority and establishing a leadership role in the postwar reconversion process: "[A] receptive audience awaits the plans of any group for solving the post-war unemployment problem. It is a time for management to step in and instill in the public confidence that industry is honestly trying and can solve this problem."¹⁸ Such a strategy showed that government bureaucracy was not only ill-equipped to win a war by itself, but it also was too inept to supply the answer for launching a successful postwar economy. Publicity that demonstrated how big business represented the key to success in war and in peace, instead of big government, encouraged consumers to support the business plan for the postwar world, and rebuff the New Deal state

¹⁷Business Week 17 July 1943, 83.

¹⁸Digest of Findings of Public Opinion Polls on the Subject of Post-war Problems and Planning (New York: Kenyon Research Corporation, 1944), 6. NAM #1411, NIIC, Box 843, NAM Collection, Hagley Museum and Library.

capitalism platform.¹⁹

While corporate patriotism and WAC-sponsored advertising revealed the "unselfish side" of business and built consumer good-will, ads and articles envisioning the postwar world were intended to cement the paternal relationship between the corporate establishment and the average consumer with the promise of a "better America" after victory. Thus, advertising about the postwar world, which revealed what new products and improvements were in store for consumers, was intended to show the public that business had the only "proper," "democratic" strategy for creating jobs and sustaining wartime prosperity after victory.

Accordingly, the NIIC provided the business community, especially manufacturers, with a guide for "selling" the public on the corporate definition of American democracy. Thus, in selling visions of the postwar world, the NIIC suggested to NAM members that they also sell the country's corporate/capitalist infrastructure, which upheld its version of the American Way:

¹⁹"In the midst of a period of its greatest production, this country's manufacturers face the certainty that the war will end eventually and they must plan for that too. . . . In addition they are seriously disturbed about the spread of an anti-free enterprise doctrine throughout the land. So for the first time they have taken a vocal program of direct action to show the American people that the only reason American industry alone has been able to outproduce the Axis war machine was because it thrived and grew in an unregimented and only mildly bureaucratic America." From: "'A Better America' Is Banner of Industry's Postwar Program," 50. (My emphasis)

SELLING THE PEOPLE WHAT THEY WANT. . . . It is NIIC's plan and ambition to take this philosophy of production and this specific program which will stimulate it, and to attempt to sell it to the people of this country. . . . [W]e expect to rely upon individual business concerns and organized groups of businessmen. . . to tell the story for us - each interpreting it in the light of his own business or industry, first to his own associates and then to as many folks in his community he can reach. . . . **Whether you sell a manufactured product [or] a service . . . you sell the producer or the company behind it. Why not, when an opportunity offers, sell also the system under which it operates? Why not join with us in our fight for economic freedom?**²⁰

However, rebuilding the public's trust and acceptance of its plan would require business to show that the promise of postwar progress was more for the public's common good, rather than big business' commercial good. The "world of tomorrow" theme would present a picture of business engaged in the "socially responsible" role of saving American democracy and free enterprise from the perceived meddlesome economic interference of the New Deal in order to clear the way for postwar progress and prosperity:

This dream of utilizing the scientific advances made under the stress of war to streamline and cushion the American home is not merely for the favored few. Industry has in mind the mass market. . . . More than ever before American industrialists want a chance to show that they can provide a steady level of full-time employment at a living wage. . . . All [business] asks from the government is freedom from excessive regulation and taxation. . . . **Business, big and little, now wants to show what it can do in the interest of the common good.** . . . Only the war has set the plants and tractors humming [again]. . . . Despite the NRA [National Recovery Administration]. . . the New Deal has proved quite unequal to finding a solution that will maintain the U.S. economy at a level

²⁰Adams, Working Together for Postwar America, 14.

providing adequate peace-time employment. Now business wants a whack at it. Business wants to be the spearhead of a new drive to set and maintain in motion America's vast productive plant. . . . **For with many American business leaders rugged individualism has been replaced by a new sense of social responsibility.**²¹

Thus, in order for its postwar schemes to be successful, manufacturers had to create an image of themselves as "savior" in the war, as opposed to government as redeemer, which had been the New Deal's image for many economically down-trodden Americans during the Depression. The NAM executed its strategy by getting the business community's plan for postwar America before the public early in the war, while the New Deal administration was busy tackling the Axis and juggling touchy relations with its allies. Such publicity intended to persuade the average consumer that an unfettered free enterprise system could deliver a successful reconversion, and make postwar prosperity a reality-- unlike the New Deal.²² Putting its

²¹"Post-war Life of Riley?" Commonweal 10 September 1943, 506-508. (My emphasis)

²²"How is it that we have accomplished the gigantic job of war production with such breathtaking speed and efficiency? It is not the Government bureaus that have wrought the miracle of conversion, of production of war materials; it has been done by the ingenuity, initiative, and organizing genius of private enterprise. . . . Arms and munitions have been built not by little pieces of paper in Washington; they have been built by men, machines, and management. . . . Behind all of the attacks upon free enterprise there is but one issue: the conflict between individual freedom and the domination of an all-power-full State. . . . If all America submits to bureaucratic domination of the activities of its citizens - no individual industry can hope to salvage much from the wreckage." From: Adams, Working Together for Postwar America, 5-8. (My emphasis)

opinion-molding talents to work, and executing them through advertising about the postwar world, the business community thus sought to garner public support for the corporate-defined American Way as the answer to reconversion, instead of government work programs and a state-planned economy.

Building a "Better America" with
Affordable, Democratized Progress

Accordingly, the "world of tomorrow" theme was not only intended to re-instill public confidence in American industry's ability to win a global war, nor was it solely devised to entice consumers into buying war bonds and how to spend the proceeds. Most significantly, postwar vision schemes were about aligning business and the American Way with the promise of access to affordable higher standards of living: "'Today . . . Production for Victory . . . Tomorrow . . . Opportunity, Jobs, Freedom'. . . . [T]he American system is individualistic-- not collectivist. . . free, private competitive enterprise brought the world's highest standards of living to America and is the only means for still further advancement."²³

The business plan for postwar reconversion was based on a consumption/production equation, which would not only

²³"'A Better America' Is Banner of Industry's Postwar Program," 50.

See also: "We have not built America or our standard of living for the average man either from the hand-out of government or under the direction of the bureaucrat." From: Adams, Working Together for Postwar America, 6. (My emphasis)

provide jobs after the war, and avoid economic depression, but it also could improve domestic life dramatically by offering a "world of tomorrow" even the average, factory laborer could afford. Part of the business community's strategy in building good will with the public, then, was not only advertising its patriotism in war, but revealing that it was willing to democratize progress by stimulating consumption and productivity, which would create jobs and lower costs. Postwar progress, therefore, was not presented as a reality for the wealthy and an unattainable dream for the poor. Instead, it was presented as a realistic possibility for the common, working-class family: "The only way to service our vast [war] debt and measure up to the post-war challenges [of full employment] is to produce wealth on a scale never before envisioned; to produce it at new lows in costs, and to accomplish an abundance and a variety which will call out our total energies."²⁴

What did a "better America" consist of according to business leaders? Not only would this future world constitute jobs, but also household electricity, bathrooms, modern kitchens, and appliances. In the business plan for reconversion, the basic amenities of the middle class would be placed within reach of all, and pre-war conveniences for

²⁴Henry J. Kaiser, "The American Way: Pessimism for Post War Era Assailed." (Delivered before the New York Herald-Tribune Forum, New York City, 16 November 1942.) Vital Speeches of the Day 1 December 1942, 119.

the few would translate into commonplace necessities for the many. [FIGURE 38] A 1942 ad from Armco Sheet Metals, published in American Home, exemplifies how the war was pictured as a battle to achieve higher standards of living through the purchase of mass-produced consumer products: "Yours for Victory!" refers to the "**standard we're all fighting for** - everything we have that stands for America."²⁵ In the ad, a pilot, dashing off to a bombing mission, smiles cavalierly at the viewer, as if to imply that higher standards of American living are indeed the reasons behind his wartime sacrifice and duty. This confirmation is underscored by the cozy image of middle-class comfort and leisure below: a "streamlined" kitchen of Armco steel cabinets and countertops, lined with an electric mixer and other mass-produced conveniences--the version of American democracy, which corporate leaders hoped to affix to the cause of the war and capitalize on after victory.

A "better America," defined as a democratized utopia, according to the business plan also consisted of no hinderance from not only New Deal bureaucrats, but especially disgruntled labor unions. Thus, postwar visions advertising--good public relations for business--were intended as bad press for the New Deal and its most ardent

²⁵American Home May 1942, 27. (My emphasis) The copy also refers to the wartime use of Armco Steel as a product proving ground. This issue will be examined at length in the next chapter.

supporters. Business would attempt to derail the New Deal by associating it with a failed "world of tomorrow," lower living standards, no jobs, and thus a bad deal for labor. By aligning the New Deal with the lack of progress and the corporate plan with an accelerated economy, the business community sought to not only resuscitate the public's faith (including labor's) in industry and the free-enterprise system, but also lend more power to corporate America's authority by "manufacturing" the perception that it could indeed deliver on its promises of a "better" (more affordable) America in the postwar world. Securing the American Way (i.e., corporate capitalism) would create this "better America," according to business leaders, because it was only through an unrestricted (and obviously more efficient) free-enterprise system that postwar visions of higher standards of living would blossom into a reality:

[T]hose who favor bureaucratic control over our economy will hesitate at nothing. Already we can see that the bureaucrats are claiming credit for the war production job. . . . We can anticipate that they will propose a huge spending program as their plan for increasing production in the postwar world. . . . **If American business does not like the bureaucrat's plan for increasing production, it must provide a program of its own.** . . . So NIIC [National Industrial Information Committee, the publicity arm of the NAM]. . . . is determined to show the people that there is another way - and a **better way** - to full productivity. The public is looking for leadership. . . . **If business falters in its responsibility, the public reluctantly will accept the bureaucratic approach of threat, regimentation, and the bribery of deficit spending.** . . . But business, knowing that incentive rather than regimentation is the greatest stimulant to free men, can propose a better program, if it will. . . . But above all, if we are to continue America's 150-year-old record of a rising

standard of living. . . through constantly lowered unit costs, with resulting constantly lower prices relative to the consumer's income, we must maintain the efficiency which comes only through free enterprise.²⁶

The idea that corporate authority could create a "better America," and thus a better world, after victory, came through its association with the progress that it showed, through conversion advertising, was indeed winning the war: "[T]oday business management has a tremendous backlog of public good will and appreciation which stems primarily from its war production achievements. . . . Thus, management finds itself today with a public much more inclined to recognize the achievements of business and to accept the leadership of business than was true as recently as two years ago."²⁷

If business could make a more feasible promise for delivering the goods in peace, as it had delivered the goods for war, then it could offset the growing collectivism in the country by focusing labor's attention on the easier acquisition of middle-class status, especially in the form of the private "house of tomorrow," outfitted with the latest appliances and postwar "miracle" products. Corporate-sponsored studies had shown that the public sought

²⁶Adams, Working Together for Postwar America, 5-8, 11-12. (My emphasis)

²⁷What the Public Thinks About You (New York: Association of National Advertisers, 1944), 6, 7, 8. NAM #1411, NIIC Box 843. Advertising Subject File, NAM Collection, Hagley Museum and Library.

higher standards of living and associated the end of the war with achieving them: "All Americans hope for advances in our standards of living, security and economic justice when the war is over."²⁸

According to its plan, the business community's vision of postwar America would derail New Deal collectivism because it would associate the American Way with victory at war and victory, in terms of revolutionizing standards of living, in the postwar world. Consequently, the business plan was linked with the promises of middle-class homeownership and modern conveniences, while the government's platform was aligned with the growing "dangers of bureaucracy," which, according to businessmen, would lead to economic and domestic stagnation after the war.²⁹

In accordance with this strategy, Bror Dahlberg, president of Celotex and chairman of the board of Certain-teed roofing products, championed the postwar reconversion of wartime housing techniques in prefabrication and standardization, which would give the working-class access to the middle-class suburban dream: an affordable, detached, single-family house. However, he made a distinction between the prefab units constructed by the government for war

²⁸"Conference on the subject: 'What Can Industry Contribute to a Better America After the War,'" 1944. NAM #1411, Series III NIIC, Box 843, NAM Collection, Hagley Museum and Library.

²⁹Ibid.

workers (a collectivist trend) and the single family dwellings targeted for middle-class suburbia (which signaled a return to individualism). Such a distinction was intended to undermine the New Deal by associating its prefabs with regimentation and socialism. Conversely, commercial standardization, intended for private households by private enterprise, received glowing praise. Government standardized housing was tagged as substandard and overcrowded, echoing conditions of urban slums and the social unrest which they presumably tended to breed. Such an association would stigmatize, and thus halt any plans the government had for getting into the housing business after the war:

Millions of war workers, now living under crowded and unsatisfactory conditions in the areas about the great war factories . . . will be scattering into more desirable locations, and they will want homes. . . . [T]wo-thirds of the nation's people are now living in quarters that are inadequate, out-of-date, in need of remodeling or complete replacement. . . . **[T]he building industry has . . . learned more about building houses in the past two years than we learned in the preceding two decades. . . . All this wealth of development will be ready to apply to the building of private homes when the war is over. . . . What we are building now in the housing projects surrounding our war plants should not be taken as the complete pattern for the future.** When you have to build a thousand dwellings in the greatest possible haste, the only way to get them done is to use a standard design. But when homes are built **individually** and with less need of haste, they can be as different as the people who occupy them. . . . Already the architects and designers are developing hundreds of **new designs for private homes, using exactly the same materials that are going into regimented housing projects,** but turning out as many different plans as there are designers. A

'machine house' need not be a standardized house.³⁰

Despite all the promises of democratized progress and affordable access to middle-class standards of living, there was a catch to the business postwar plan: no handouts--free enterprise and unrestricted business did not mean a free and unfettered joy-ride into middle-class social standing. Similar to business' platform for recovery during the Depression,³¹ postwar prosperity would be delivered only if the public (and especially labor) transferred its endorsement of government to solve social problems over to management, the corporation, and industry. Thus, the business plan emphasized that postwar prosperity and democratized progress depended not only on a compliant labor force, but also on a commercial commitment from the average consumer to unfreeze his war bond savings and spend.

Just as business had sought to resuscitate the public's faith in its ability to win a global war, so too would consumer confidence in spending have to be rebuilt, and the idea instilled in the public mind that a higher standard of living in the postwar world could be had by all if Americans would only accept the business equation for a successful reconversion--consumption plus production equals American

³⁰"Post-War Homes," Architect & Engineer May 1943, 47. (My emphasis) Needless to say, that Dahlberg failed to recognize those workers whose living conditions prior to their stay in war worker housing had been worse.

³¹See: Ewen, PR!, 288-336.

democracy:

One reason behind the preference for government leadership in post-war planning is the lack of faith in the ability of private industry to employ the majority of workers. This lack of confidence is of prime importance to industry for it is obvious that if full employment is to be realized after the war people are going to have to 'unfreeze' their savings. **Spending is a function of confidence. It is industry's job to instill that confidence by presenting to the public now the story of what they are doing to solve the unemployment problem after the war. . . . Unless given this [economic and leadership] confidence, however, the public will, in all probability turn to public works, relief, etc. with its inherent high taxes and governmental controls.**³²

In sum, the NAM encouraged advertisers to promote a vision of the postwar world demonstrating how consensual consumption, upheld by the corporate infrastructure, would solve economic problems, as well as labor discord, and universally raise standards of living, which, in its

³²Digest of Findings of Public Opinion Polls on the Subject of Post-war Problems and Planning, 6, 10, 21, 25. From: NAM #1411, NIIC, Box 843, NAM Collection, Hagley Museum and Library. (My emphasis)

For more on the issue of convincing the public to unfreeze its war bond savings to help stimulate postwar progress, see: Leo Cherne (Executive Secretary, The Research Institute of America), "We Can Buy Postwar Prosperity," Science Digest February 1945, 1-5.

The NIIC's guide for advertisers showed how this plan would be devised:

"ALTERNATIVE APPROACHES TO ADVERTISING SERIES. . . . Copy to develop idea that during the war, the consumers' purchases of War Bonds bought guns. But in peace, they provide employment. Develop theme that there must be a market before there is production, and recall idea that production is the key to jobs. So every purchase the housewife makes helps build a job for someone." From: "Alternative Approaches to Advertising Series," National Industrial Information Committee, 2 December 1943. NAM #1411, NIIC Box 843, Advertising 1943 Folder, NAM Collection, Hagley Museum and Library. (My emphasis)

estimation, government could not and had failed to do.³³ A postwar depression, disgruntled labor, and a stronger New Deal could be avoided if consumers were convinced that a commercially strong, and thus a "better America," awaited them in the postwar era. Consequently, corporate America and its consumer products were equated with democracy and freedom, while government social programs were stigmatized as signs of communistic control and economic stagnation.

War Plants and Reconversion

The "world of tomorrow" theme in postwar visions advertisements and articles also represented a reaction to wartime government commercial holdings and the vast national debt, which had helped finance the war. Although government financial support and federal borrowing had helped speed victory, business leaders agreed that it was in the best interest of the free-enterprise system and a successful postwar reconversion to show that government spending and business holdings only led to disaster for American

³³For more on the issue of consumption fostering postwar prosperity and jobs, see: Mordecai Ezekiel, "The Road to Postwar Prosperity," Science Digest September 1943, 37-42.

See also: "We have made Americans want more and better things - enough so that they work harder and more intelligently in order to buy those things about which we have so persuasively told them. This acts like a steady dosage of vitamins in stimulating ambition and activity in our economy. . . . Our real progress in using advertising to promote doctrines and ideas through informative messages has had its greatest impetus since Pearl Harbor." From: What the Public Thinks About You, p. 1.

democracy.³⁴

Due to the necessary haste of wartime conversion, the government had sponsored the financing of much of the wartime industrial development, and, consequently, the U.S. government owned most of the war production facilities. Washington bureaucrats were considered unreliable at best in commercial matters of free enterprise, and their state ownership of war-related industries was ominous to anti-New Dealers and business leaders.³⁵ Business advocates argued that government control of production facilities and machinery after the war would hasten not only the demise of free-enterprise, but also contradict all the claims for postwar progress that advertisers had been touting throughout the war years:

³⁴"We have become the supplier of all the materials of war . . . for the nations which fight the aggressors. . . . This gigantic task has been accomplished largely on borrowed money. . . . **We cannot build an enduring peace, nor engage in a promising reconstruction, nor hope for full employment in peace time by the continuation of war methods of financing.** . . . There are those who proclaim a fanciful post-war utopia in which the state will give every man a house, a car, a refrigerator and a radio. The authors [of these postwar visions] think in terms of distribution of bounty, rather than of man's innate need to produce for himself and to be the source of his own security. From: Kaiser, "The American Way: Pessimism for Post War Era Assailed," 119. (My emphasis)

³⁵"We may be sure the government will not step down and say to business: 'You carry on from here.' On the contrary, government not only is studying its wartime moves for their effects upon present and future conditions, but is actively planning now for a transfer from a war to a commercial economy. . . . [T]he time [for business] to plan is now." From: S. Ward Seeley, "Planning Now for the Business of Peace," Advertising & Selling January 1943, 44.

Post-war prosperity and the future of all American enterprise depends on the Government's handling of war contracts after peace is declared. . . . Unless that job is done, and done well, the better life [promised] will fade away into the sky where [post-war] planners now see it. . . . It is America's post-war problem No.1- and until it is done there can be no great surge into post-war markets. Instead, there may be deep depression; or possibly a new kind of government that would quiet the spirit that has made America great. . . . Present government trend indicates that government terms would include rigid lines of control. If that takes place, Government will have stepped into 'partnership' with business, and free enterprise will become something of the past.³⁶

In accordance with their policies for derailing the New Deal through promotionals about the postwar world, business leaders and manufacturers attempted to discredit Washington, and the Roosevelt administration in particular, by charging it with impeding the reconversion process to the detriment of national interest. Business feared that free enterprise would be a casualty of the reconversion process to a peacetime economy if government did not remove itself immediately from industry as soon as victory was in sight. NAM officials argued that labor and consumer interests had sided with the business plan for the postwar economy, but that constipated government bureaucracy in dealing with reconversion threatened the vast progress that lay on the other side of victory. Government's quick and decisive action for reconversion--complying with corporate priorities-- held the key for stimulating consumer

³⁶A. H. Sypher, "Post-War Problem No. 1," Nation's Business May 1943, 21-22, 58.

confidence, which would lead to big postwar sales, high productivity, and jobs for returning veterans immediately after victory. Government, as part or full owner of production facilities, would compete financially with big business--a policy which smacked of communist and socialist tendencies:

UNCLE SAM today owns one-third of America's productive facilities. After the war, everyone's job, everyone's future, will be affected by what the Government decides to do with its tremendous industrial holdings. . . . **[T]here is serious doubt that the traditional system of private companies engaged in free enterprise could long exist in competition with a Government in business** on such a scale and scope, and with regulatory powers over all other business. . . . Most of the privately-owned companies now operating Government-owned war plants will have legal right to buy them after the war, if they choose to do so and can finance the purchase. . . . Delay in deciding whether Government is to continue to operate its present plants after the war can lead to the idleness of privately owned plants which will fear government competition.³⁷

In its attempt to get the New Deal out of its postwar visions equation, business contrasted its postwar promise of

³⁷A. H. Sypher, "Postwar Problem No.3," Nation's Business July 1943, 38, 40. (My emphasis)

See also: "If we have thoroughly sound policy and speedy policy by government on [postwar reconversion] - and if we get our contract termination money quickly - it will help restore confidence on the part of the people who have pent-up purchasing power. . . . To increase wealth you have got to increase production and from that comes everything that we want - a higher standard of living, job security, and everything else. . . . Let's get rid of red tape and all the clutter of stuff that has gathered around us during the war, and let us free America." From: Jobs in Peacetime: A Panel Discussion [Second War Congress of American Industry, 8 December 1944], (New York: National Association of Manufacturers, 1944), 6, 7, 17. Stapled in: "Conference on the Subject: 'What Can Industry Contribute to a Better America After the War.'" (My emphasis)

higher standards of living (resulting from high production and consumption) with a frightening vision of American decline and socialism resulting from (the corporate perception of) New Deal bureaucratic incompetence and pathological control. By revealing how much industrial production government actually controlled, business leaders were able to argue that the New Deal's wartime holdings set a disturbing precedent and represented a precursor to communist rule, thus foreshadowing the demise of the American Way and "democratized" progress for all. Such suggestions built support for business' postwar plans and demonstrated to consumers that if the government held on to its war plants, the "world of tomorrow" may never materialize after the victory.

II. Styling Corporate Plans for the Postwar World, Industrial Design

[I]ndustrial design very definitely means more, and means something else than decoration. . . . **Design means deliberate, organized planning.** . . . It aims at better products at lower costs, achieved through the means of efficient planning. It aims at higher standards in appearance values through means of imaginative planning. . . . and it bases such planning upon the findings of modern science and technology. . . . Efficient, imaginative, creative planning - **does it sound like something that has no place in time of war?**³⁸

On the eve of World War II, the industrial design profession enjoyed a reputation that was linked to rational planning, and was thus perceived to be wedded to science and logic, unlike its bedfellow, the advertising industry, whose reputation was still scarred by the charlatanism, which marked its earlier history.³⁹

³⁸Antonin Heythum, "Industrial Design in Wartime," Architect & Engineer September 1940, 24. (My emphasis)

See also: Miracles Ahead!, 4, where Carlisle and Latham credit designers, along with scientists and engineers (ad men were not included) as "front-line heroes without whom the war could not have been prosecuted- though the risks they assumed involved too many sleepless nights and days and too many cups of black coffee rather than bullets and shrapnel. The day-and-night thinking and planning that went on in the designing rooms and laboratories during this zero hour made possible the war-production miracles we are witnessing today."

³⁹Industrial design, like advertising, also promoted itself as a purveyor of progress and a stimulant to the desire for ever higher standards of living. While nineteenth century industrially produced objects for sale had been "designed," the concept and process of "styling" (changing the appearance of mass-produced goods for the purpose of stimulating consumption) had not been widely adopted and put into practice by the business community until the 1920s - at about the same time when advertising began relying on psychological manipulation to perpetuate consumer dissatisfaction and

Although Egmont Arens's idea for a "streamlined" battleship, called the "Floating Pillbox," was not publicized during the war (and not accepted by the Navy), the language from his following proposal exemplifies how designers capitalized on the perception of their profession as engineering efficiency, instead of fabricating decorative art: "During the past few years, the Industrial Designer has built up a new profession by challenging outworn methods of production and applying new materials, new processes, newly discovered engineering principles to all manner of industrial products. The same type of thinking applied to armament would no doubt hasten the day of building a truly

thereby increase sales. Prior to World War II, industrial design emerged as an established profession of "styling" specialists, who advertised services geared toward "efficiency engineering" and "rational planning."

Although "styling" had connotations of surface decoration, industrial designers emphasized that they put a high priority on adapting style to functional utility, for example: "Industrial Design is more than a mere 'dolling up' operation, or mere styling. Industrial Design. . . . balanc[es] . . . function, materials, manufacturing operations, costs, markets, distribution, and attributes of visual design." From: Dohner, "Preparing for Industrial Design," 8.

For more on the rise of the industrial design profession prior to World War II, see: Meikle, Twentieth Century Limited, 39-67.

For more on the history of how the business community commercialized art and wedded it to the corporate rhetoric of mass-production, see Ewen, Captains of Consciousness, 61-67.

For more on the intersection between art, industry, and business prior to World War II, see: Smith, Making the Modern; Rydell, World of Fairs.

modern battleship."⁴⁰

The conversion of furniture designers is especially telling of how "stylists" were able to adapt their design techniques and materials knowledge for maximizing the efficiency of the Allies' "Taylorized" war machine. Charles and Ray Eames's work in molded plywood furniture and their study of organic forms made them especially useful to the Navy, who needed a more comfortable and hygienic solution to its metal leg splints. In addition to the molded plywood splints and stretchers for the Navy, the Eameses and their colleagues produced glider nose cones, aircraft stabilizers, and pilot seats.⁴¹ [FIGURE 39] [FIGURE 40]

As a result of their adaptability to wartime production, designers did not find themselves in the ad

⁴⁰Battleship Folder, Box 13, Arens Collection, Syracuse University.

⁴¹Kirkham, Charles and Ray Eames, 212-14. The Eameses' wartime design team included Harry Bertoia, Herbert Matter, and architect Gregory Ain. See also: Reed and Friedel's essays in World War II and the American Dream, 32, 34-37, 59; John Neuhart, et al., Connections: The Work of Charles and Ray Eames (Los Angeles: Frederick S. Wight Art Gallery, University of California, 1976), 23.

Regarding conversion, see; "Furniture's War," Business Week 13 June 1942, 62.

The wartime need for molded plywood and plastic resins in aircraft (and in other products requiring substitute materials for metal as well as some prefabricated house construction) would bring production costs for these materials down, and allow architects and furniture designers to popularize plywood furniture in the postwar market. See: "A New Trend in Modern Design: Aircraft Idea in Furniture," Science Illustrated June 1948, 98.

For more on postwar reconversion of plywood materials, see: "Are You Learning the Language of Tomorrow?" House Beautiful March 1943, 21, 75-76.

men's desperate quandary of finding a "legitimate" or "useful" wartime role upon America's entry into World War II. Despite the fact that ad men also relied heavily on the "science" of behavioral engineering, and had woven the language of Taylorism (scientific management) into their ad copy, the design profession did not have to defend itself like the ad industry because "efficiency design" (a sometimes "scientific" label for "styling") was perceived as necessary for the war effort, and also imperative to secure a prosperous postwar economy.⁴²

Consequently, in the architectural and "consumer engineering" trade publications, industrial designers did not spend a good part of the war years engaged in rebuilding

⁴²Furniture designer, Don Wallance, received a commission with the Office of the Quartermaster General's Research and Development Branch, for which he designed "army equipment ranging from portable tent shelters to funerary caskettes." His close observation of the requirements of efficient army life led to the development of standardized furniture for the army in the postwar, which he later tried to convert to civilian use. See: Don Wallance Collection, Cooper-Hewitt Museum.

Hans Knoll, whose company's minimalist furniture designs became the hallmark of a corporate efficiency aesthetic after the war, recruited Florence Schust, his future wife and business partner, to design an office for Henry Stimson, Secretary of War. See: Eric Larrabee and Massimo Vignelli, Knoll Design (New York: Harry N. Abrams, 1981), 19.

Raymond Spilman, between 1942 and 1946, designed a waterproof flashlight, portable field telephone, and signal flash gun for the U.S. Army Signal Corps. See: Box 5, Armed Forces Equipment Folder, Spilman Collection, Syracuse University.

Among Lurrelle Guild's papers at Syracuse is a letter to the Office of Defense Transportation (June 4, 1942) in which Guild offers his services. See: Federal Housing Authority Folder, Box 7.

their profession's reputation with government and the public as the ad industry was forced to do.⁴³

With their wartime role well established, the industrial design profession embarked on two major objectives for profiting (both symbolically and financially) from the war effort--while at the same time applying their principles of "efficiency engineering" to improve the products the military required for winning the war.

First, designers, as part of the business community at large, felt threatened by the state capitalism proposed by the New Deal, just as their colleagues in advertising and industry did. As this section will show, they joined their cause with the National Association of Manufacturers in campaigns to use the war effort as a way to resuscitate the public's faith in free enterprise and thereby salvage the American Way. Thus, designers were part of the wider business community's attempts to restore public confidence in American progress and the capitalist institutions that

⁴³The absence of any controversy and bickering over the issue in the trade press supports this interpretation. In only rare moments did I find mention of a possible controversy regarding the design profession's role in the war or its past reputation, for example:

"Mistakes have been made in the name and under the title of Industrial Design which have highly discredited it in the eyes of critical experts and laymen alike. Superficial styling went to an extreme until the confusion which it brought into our visual surroundings began to irritate even the general public. . . The war brought a sudden and most welcome halt to the race for super-chromium jeweled cars. . . . [W]e hope the war will teach us all, that there is beauty in simplicity and straightforwardness." From: Antonin Heythum, "Industrial Design in Wartime," 26.

ran it.⁴⁴

Like ad men, industrial designers were not immune to the business community's struggle for a successful reconversion. Their clients' factories, tooled for war production, represented the postwar industrial infrastructure on which the much heralded "world of tomorrow" would be built. How the government responded to the war plant reconversion problem was crucial to whether or not designers and their clients would be able to see their blueprints for the "world of tomorrow" manufactured into profitable postwar realities. Accordingly, it was in the best business interest of designers to follow suit with the dominant corporate plan for reconversion and help derail the New Deal by removing it from the business postwar vision

⁴⁴Donald Dohner, head of the Industrial Design department at Pratt Institute, revealed how designers and the NAM worked together to mold public opinion to accept the business agenda for the postwar economy, and how the NAM, referred to here as the Committee for Economic Development (which was the postwar planning organization of the NAM) recognized the significance of industrial design's role in assuring that the postwar reconversion would be funded by consumer spending and not New Deal social programs:

"American manufacturing industry faces a vital two-fold problem today--that of planning for a speedy reconversion of production facilities after the war, and the development of new post-war products. . . . The Committee for Economic Development [CED] recognizes the importance of product development and places it first on its agenda. To say that the American Designers' Institute [ADI] is supporting the C.E.D. program is putting it mildly. The A.D.I. is closely cooperating with C.E.D. in helping Industry . . . in their post-war product development. Both of these organizations are very anxious to have every capable designer available for they realize that only the **right** products will be of any value to the problem of full-time production and employment." From: Dohner, "Preparing for Industrial Design," 9. (His emphasis)

equation. As a result, the design community's plans for successful reconversion and a prosperous postwar world, like that of the NAM's, came with a caveat: no progress with the New Deal at the helm.

Consequently, the corporate precepts of planned obsolescence, on which designers depended and thrived, were woven into the business plan to weaken and dismantle the New Deal. In so doing, the design community used postwar planning schemes (which were a form of planned obsolescence) as part of its frontal attack on wartime liberal and collectivist tenets that posed an unwelcome threat to the consumption-driven economy, which designers needed to survive. Thus, similar to sentiments expressed by his manufacturing clientele, designer Raymond Loewy espoused an anti-New Deal platform and expressed fears of the collapse of traditional business practices, which would negatively impact on design, as a result of the collectivism practiced for the benefit of winning the war. But by laying plans now for product reconversion, Loewy claimed, manufacturers could offset this dangerous scenario lurking on the horizon:

An economic revolution impends that will involve the whole world. . . . Foreseeing this, the designer is at present engaged in mapping out a programme for design at long range. Emergency has upset, temporarily, the tempo of normal activity; a year-to-year plan is no longer adequate. . . . Another trend which is affecting design through business is the increasing danger - to the large manufacturing corporations - of Government operation. In order for private industry to avoid such an eventuality it must demonstrate clearly to the public that no other set-up [than private industry] could possibly do a better job. **Distinctive design at**

minimum cost, reflecting imagination and taste, is the best, single advantage that private industry has over Government-manufactured products. By designing now for days of peace the designer is preparing with industry for the immediate economical conversion of plant activities into peace-time efforts.⁴⁵

Likewise, Walter Dorwin Teague proposed that the New Deal, and any socialist governments that may emerge anew after the war, could be undermined through corporate postwar product planning, which would resuscitate consumption and stimulate the postwar reconversion in the direction of a capitalist-driven prosperity. In Teague's estimation, "styling" was the answer to battling regimented, over-bureaucratized government (which he equated with fascism and communism) in the future because human nature craved the consumption of attractive and efficient products. Therefore, according to Teague, design could function as propaganda for American free enterprise and corporate postwar interests by associating freedom of product choice and variety with democracy:

Above all else, [we should] see that . . . good things are accomplished through the will of the people. . . . and that they are not handed down from above by the fiat of a wise, beneficent Government which knows what is best for the little people. . . . Reform by regimentation won't work anyhow, because people are naturally cussed and bitterly resent being forced to accept what they don't choose for themselves. . . . [H]uman progress is not accomplished through benefits conferred by force, but through the growing and spreading desire for better things with the means at hand to satisfy that desire. **You think that isn't a design problem? But it is.** It is the job of creative

⁴⁵Raymond Loewy, "Selling Through Design," Art & Industry February 1942, 37, 38. (My emphasis)

design to make the good things so attractive, so useful, so desirable that the wanting of them will grow irresistibly in every mind. . . . Above all, it is the designers' business to open more and more eyes to the vision of the fair and orderly world that we shall have [after victory].⁴⁶

Although stimulating public interest in the postwar "world of tomorrow" could build good will with consumers during the war, what about after victory? Designers argued that manufacturers would be forced to deliver the progress they had held out as an incentive for supporting the business plan for the postwar world as opposed to the New Deal's. After all, business had shown how the New Deal plan represented a failed "world of tomorrow" even before the war ended. The renewed consumer faith in business, which had been building during the war may collapse if no new products were available soon after victory. But planning now would salvage business' reputation and help it sustain the authority it had re-structured for itself during the war.

Utilizing distopian scenarios, designers, like Leo Rich of Teague's office, pushed their services to anxious businessmen and industrialists, compelling them to plan realizable products during the war for the postwar economy by hiring experts in "consumer engineering" and product "styling":

[I]t's one thing to resume production with old models because of factors beyond one's control, and quite another to resume production with old models because

⁴⁶Walter Dorwin Teague, "Design for Peace," Studio International April 1943, 156. (My emphasis)

the producer expects a seller's market in which anything goes. There may be considerable resistance to these old models if the public [primed for progress] feels the manufacturer is holding back. . . . Instead of a wild scramble, the public will exercise its freedom of choice when it has time to spend its wartime savings. . . . Preparing the regular products of a company for the postwar market is just as important as the development of new products. . . . The industrial designer can offer invaluable assistance in shaping postwar products to postwar markets.⁴⁷

⁴⁷Leo H. Rich (Walter Dorwin Teague Associate), "The Public Expects Progress," Advertising & Selling July 1944, 36, 150-51.

See also: "To meet his post-war problem the producer should be engaged upon industrial design research at the earliest possible moment. . . He should . . . engage the best industrial designer he can find to style his product accordingly. . . . Only industrial design properly understood and applied can revive our trade [after the war]. . . . Scientific research is now regarded as an essential of big business. Industrial design research should be similarly regarded, and an adequate sum set aside for its development." From: "The Future of Industrial Design," Art & Industry August 1943, 33-35.

See also: "NEED FOR PLANNING . . . Industry's postwar future depends on intelligent planning right now, and those companies with no plans at all should lose no time in carving their niche in the postwar pattern." From: Parker James, "Products for Postwar: New and Substitute Materials that will be Advertised after the War." Advertising & Selling March 1943, 15.

See also: Donald Dailey, of Harold Van Doren and Associates, who encouraged business to adapt for new postwar consumer markets. According to his industry's (somewhat biased) advice, changing the appearance of a pre-war product would prove the big factor in cashing in on the postwar market. See: Dailey, "What Will the Postwar Consumer Want?" Advertising & Selling June 1943, 54, 56.

For a glowing report of the necessity of the industrial designer as a business asset, and how the war supposedly increased the awareness of his value, see: "It is significant that [industrial designers] to-day are fully employed in the design of secret work connected with the war effort of America. . . . The whole world has come to realize through the effects of war that something more is needed in connection with its daily purchases than mere utility. . . . Good design is vital to the health of the community." From: "The Industrial Design Consultant," Art & Industry March 1944, 69, 78-79.

Thus, designers painted a picture of a perilous postwar world riddled with economic failure and government controls for those industries that failed to begin planning right away-- especially in the form of re-styling their old products (or fabricating new ones) for a postwar market.⁴⁸ According to Teague, providing an incentive for consumption with jobs and new postwar products would put business in the reconversion driver's seat, not the New Deal, and thereby stave off the demise of the American Way:

When it comes time to go back to consumer production [after victory]. . . . on the rightness or wrongness of the [postwar planning] decisions hang stakes that are just about the biggest that can be imagined: not merely the prosperity of individual businesses, or even national prosperity - **but the continued existence of our system of free enterprise, and the preservation of our democratic way of life.** . . . The responsibility is squarely up to industrial management. . . . [T]he government can't do it - under our system. The alternative is for industry to do it, and prove that our system is as good as we think it is - or run the risk of another system being tried. . . . [If we can accomplish full employment after the war,] the people employed will have the means to consume the goods they produce. [The energizing forces of private enterprise and consumer confidence] have already given us the highest standard of living in the world. If stimulated after V-Day, they will raise that standard of living immeasurably higher. . . . If industry can make the American public understand and appreciate its program, the atmosphere necessary to a successful trial will be induced. If it can show that it is on the way to solving the problem of full employment and high

⁴⁸See also: "[T]he most destructive of wars is also the most fruitful and promising for those who can adapt themselves to and capitalize upon changed conditions. . . . [W]ar-stimulated creative efforts bring about spectacular advances in the most diverse fields." From: Seeley, "Planning Now for the Business of Peace, 44.

productivity within the frame of our own system of free enterprise, the reasons for government domination and revolutionary change will be removed.⁴⁹

Laying plans for the postwar world by fabricating new products and new models would not only resuscitate the economy, according to Leo Rich, but head it in the direction of unhampered, free enterprise, and instill consumer confidence in the American Way, tactics which would ultimately lead to the dismantling of the New Deal and its perceived stringent government controls: "The desire of the people for better things is symbolic of their hope for a better world. Will it be necessary for them to secure these things through governmental authority or will we in industry be able to get more and better goods into the hands of a greater number of people, thereby maintaining employment and raising the standard of living?"⁵⁰ Thus, the corporate vision of postwar America, which the "consumer engineering" professions helped to shape and disseminate, attempted to abolish New Deal collectivism by associating the American Way with victory on two fronts: the battlefield and the postwar economy.⁵¹

⁴⁹Walter Dorwin Teague, "Industry Plans the Future," Advertising & Selling February 1943, 109-10, 156, 158.

⁵⁰Rich, "The Public Expects Progress," 152.

⁵¹According to some postwar forecasters, reconversion of the "revolutionary" developments from war to domestic use would have more of an impact on postwar society than the arguments between capitalists and certain New Dealers:

"While discussions on the pros and cons of collectivism and individualism have been under way during recent years, our

As "consumer engineers" and "stylists," the entire livelihood of the design profession was dependent on consumer confidence in spending and less government interference in business. Although designers had found a ready and welcome niche for their expertise in the war effort, they recognized that uninhibited, private enterprise and a consumption-driven economy, stimulated by perpetually new styles and products, provided the salient and--in their estimation--only remedy to their profession's survival after the war. Thus, while the advertising trade scrambled to endure and override the criticisms lobbed at its industry's credibility in a wartime economy, designers used the commercial obfuscation of the war years to plot their strategies for helping their clients fashion a postwar world dominated by the corporate ethics of mass production and consumption.⁵² By equating democracy and freedom--the causes for which the war was supposedly fought--with a utopian postwar world of unprecedented consumer choices and access to affordable higher standards of living, the

engineers and inventors have been busy with blueprints for new machines and devices more certain to change the course of our destiny than all of the conversations of the past one hundred years." From: Carlisle and Latham, Miracles Ahead!, 9.

⁵²In looking through various designers' client files from collections at Syracuse University, Cooper-Hewitt Museum of Design, and University of Texas, Austin, (which holds Norman Bel Geddes's papers) there are references to many projects that designers worked on during the war that were not geared for military ordnance, suggesting that designers' pronouncements about planning for the postwar economy during the war must have been readily heeded.

business community as a whole, with the assistance of industrial designers, was able to ensure that the free-enterprise system and a consumer-oriented society would prevail over wartime collectivism and New Deal regulations.

But were the corporate visions of the "world of tomorrow" realistic and did they come to fruition? In this respect, the business plan for postwar reconversion was based on the implication that better and cheaper goods, as well as jobs and single-family houses, would form the core of the "better America" that industry claimed to be building as a result of the war. Unlike many suggestions behind postwar visions ads, the "world of tomorrow" was for sale, not gratis, and in fact, it relied primarily on consumers reinvesting their war bond savings in the peacetime economy, that would fund the retooling of industry for production in peace. In an attempt to jump-start the postwar economy and put it on the road to prosperity, consumers were encouraged by the business plan to put their faith in prewar models, construction methods, materials, and products, even though businessmen had held out the incentive of a "new and improved America" to sell war bonds and rebuild public support for the American Way.

Thus, blueprints for postwar America and the "world of tomorrow" theme functioned as a multi-purpose myth and a double-edged propaganda sword, which could be used by any faction (i.e., manufacturers, designers, or government) to

further its own agenda. Consequently, when the war ended and reconversion got under way, the hype surrounding the visions evaporated, leaving in their wake only the great expectations and the uncertain hope that a "better America" had indeed emerged from the war.

CHAPTER 5

OUT OF THE CRUCIBLE OF WAR:
FORECASTING THE POSTWAR COMMERCIAL FALLOUT

[T]he coming year [1943] will be filled with violent conflict - yet with high promise of better things. . . . Our forward progress in this war has depended upon our progress on the production front. . . . I think the arsenal of democracy is making good. . . . [I]t would, indeed, be sacrilegious if this nation and the world did not attain some real, lasting good out of all these efforts and sufferings and bloodshed and death. . . . Two years ago I spoke in my annual message of four freedoms. The blessings of two of them - freedom of speech and freedom of religion. . . . [T]he third freedom - freedom from want. . . . means that when [the men and women overseas] are mustered out, when war production is converted to the economy of peace, they will have the right to expect full employment. . . . They do not want a post-war America which suffers from undernourishment or slums - or the dole. They want no get-rich-quick era of bogus 'prosperity' which will end for them in selling apples on a street corner. . . . In this war of survival we must keep before our minds not only the evil things we fight against but the good things we are fighting for. We fight to retain a great past - and we fight to gain a greater future. . . . Victory in this war is the first and greatest goal before us. Victory in the peace is the next.¹

What did Roosevelt mean when he said that the war would yield the "promise of better things?" What was the "lasting good" expected to emerge from the conflict and what were the "good things" for which Americans were fighting? Here,

¹Franklin Delano Roosevelt, "Post-War Goals: America's Ability to Produce," (President's Annual Message to Congress, Washington, D.C., 7 January 1943) Vital Speeches of the Day 15 January 1943, 194-97. (My emphasis)

The "Four Freedoms" were first articulated in: Roosevelt, "Message to Congress: The State of the Union." (Delivered to the 77th Congress, January 6, 1941) Vital Speeches of the Day 15 January 1941, 197-200.

Roosevelt, in his speech made early in 1943, hints at the "revolutionary" effect war production promised to have on postwar standards of living. His image of the "better America" that would evolve from the war, like those of other visionaries and postwar planners, was concentrated in the technological progress that would be presumably transferred from the battlefield into American households. The outward signs of poverty (such as substandard housing, unbalanced diets, unsanitary conditions, and the perceived social diseases they accompanied) would be eradicated because the "miracle" of war production, it was believed, would democratize the amenities of a middle-class standard of living. Faith in the future was dependent on the event "when war production [was] converted to the economy of peace," and would begin churning out not only the "new and improved," but also more affordable, refrigerators, washing machines, automobiles, dish washers, garbage disposals, plastics, synthetic fabrics, and prefabricated houses at an unprecedented rate.

Roosevelt's image of a "better America," renewed through reconversion, echoed a popular sentiment also expressed in ads and articles disseminated by anxious manufacturers who sought to capitalize on their wartime contributions by aligning their trade names with victory at war and victory, in terms of "revolutionary" consumer

products, in the postwar peace.² In essence, wartime media encouraged Americans to believe that they were fighting for a utopian, fantasy life and the social "good" they were convinced it would automatically generate. Postwar visionaries and commercial planners argued that if war production were harnessed for peace, it could solve the material inequities (recounted by Roosevelt above), and secure a more orderly world free of irrational drudgery, filth, "unscientific" housing, and social decay. Thus, the ideals behind why Americans should support and fight in the war were cemented in the patriotic pursuit to achieve a "better America," made more efficient, ordered, and clean, through the material progress that they were told would win the war and generate a prosperous peace.

As explored in Chapter IV, designers encouraged their manufacturing clients and businessmen as a whole to publicize the progress they were planning for postwar consumption. Designers, like Walter Dorwin Teague and

²As shown in Chapter IV, advertising that specifically highlighted the purchasing of war bonds typically promoted the war as a means to achieve a personal "better America." See for example, the war bond ad in: WWII Contributions (general reference) 1941-1945, Folder War Bonds, J. Walter Thompson Collection, Hartman Center, Duke University. In Box 1: ad sponsored by Ballantine Ale, which depicts two glamorous female defense plant workers collecting their pay checks and investing in war bonds: "How American it is . . . to want something better! . . . Sure this war-plant worker looks forward to 'something better.' . . . That's why she's putting a healthy part of her earnings into war bonds and stamps - to speed the return of peace and all the other things which help make this 'the land of something better.'"

Raymond Loewy, in attempts to stimulate business for their own firms, wrote articles for the manufacturing trade to convince potential clients that they needed to plan for the postwar world well before the war ended in order to secure a competitive niche in the postwar market. Therefore, the industrial design profession helped stimulate corporate visions of the postwar world by seducing (sometimes intimidating) manufacturers into publicizing unrealizable plans for reconversion, and thus, in turn helped raise the public's expectations for postwar progress with images of an unrealistic, fantastic future.³

In this study, we have been tracing how the progress of war became synonymous with the progress of domesticity. In Chapters I and II, we saw how the "home," the professional housewife, her appliances, utensils, and other domestic products were converted to the battlefield and the cause of victory. In this chapter, we will examine the anticipated reversal of that process: dreams of reconverting progress from the battlefield and into the home. As a result, this chapter seeks to show how the concept of domestic progress became equated with the lessons of war by exploring the

³The reconversion process, as mentioned in Chapters III and IV, posed trickier problems than its conversion counterpart because war contracts and excess profits taxes had entangled business and industry in the grip of their nemesis: government red tape. The "miraculous" consumer products, which were to emerge from the reconversion process, would only be possible (according to business men) if manufacturers could harness war production for peace without exorbitant taxes and regulation.

promises of reconversion conveyed through visions of not only the "miracles" of wartime industry, but also the promotion of postwar domestic products utilizing wartime advances in plastics, electronics, synthetics, metal alloys, automation, etc.

This chapter will focus on the direct connection made between war and domestic progress by examining ads and articles from the business and general consumer press (and a popular science book) which credited war production, research, and product development with the promise of increasing consumer purchasing power as well as raising standards of living in the postwar world. The imagined postwar world was essentially the "world of tomorrow" exhibited at world's fairs and predicted in magazines throughout the 1930s. However, according to postwar visionaries, higher standards in health, leisure, and labor saved were no longer realities of the distant future, but rather, as a result of accelerated production for war, these benefits were waiting just around the corner. Unlike earlier plans for a utopian domesticity, the promises of a better life in the postwar world were attributed to advances in industrial production developed for military ordnance, and thus made possible due to the progress derived from war. Throughout the war years, such progress was endowed with the potential to elevate all deserving members of society by providing what seemed to be a virtually limitless supply of

jobs. For many low-income families, the postwar promise of regular employment and higher standards of living were already becoming a reality even before victory was achieved. Wartime production, and its economic fallout, had increased disposal income, and thus generated an unprecedented number of consumers--a mass market--with money to spend.

Ad men and designers, who helped craft visions of the postwar world, turned to science and manufacturing trade magazines for ideas about how they could help their clients utilize wartime technological and scientific developments in their own products for the postwar market. Furthermore, many of these same designers and ad men wrote articles and designed ads for trade, women's, and general purpose magazines, circulating their ideas and their images of postwar progress to a variety of audiences. As a result, forecasts about the postwar world found in business trade publications were not dissimilar to those also printed in women's magazines as well as the popular science press.⁴

While the hype surrounding the promises of a "revolutionized" domesticity and democratized progress may have been overblown, what resulted from visions of reconversion and the postwar world was the association between products for the home, higher standards of living, and the progress of war.

⁴The reader will note that the examples discussed in the following chapter are drawn from these diverse, but certainly not antithetical, sources.

I. Wartime Industrial Conversion:
Great Expectations

The public, aware of **the magnificent record of industry during the war** wants prompt advantage of the recent advances in techniques and skills and the many new materials. It . . . certainly **expects progress.**⁵

As designer Leo Rich observed in 1944, wartime consumers were primed for postwar progress. It is little wonder that consumers expected no less than a revolutionary miracle in factory mass production upon completion of the war. Enterprising designers and businessmen had begun publicizing their postwar industrial forecasts and utopian visions of consumer plenty before the U.S. directly entered the conflict late in 1941.⁶ Throughout the war years, promotional literature, which prophesied a radically "new and improved" mass-produced world for the postwar era, would litter the pages of books and newspapers as well as news, trade, women's, and popular science/technology magazines: "Almost all American manufacturers are dreaming [up] new products or new improvements, and . . . they are planning

⁵Rich, "The Public Expects Progress," 36. (My emphasis)

⁶Walter Dorwin Teague, "Planning the World of Tomorrow," Popular Mechanics December 1940, 808-810, 158A-159A, 161A, 163A; "Good May Come Out of War By New Scientific Discoveries," Science News Letter 22 February 1941, 123; Norman Bel Geddes, "For Us the Living . . . Better Homes," (advertisement for Revere Copper and Brass) Time 15 September 1941, 31; "What! A house with no kitchen! [advertisement for Revere Copper and Brass and the Hamby kitchen]," Saturday Evening Post 22 November 1941, 85,

how and what to produce tomorrow. . . . Not only do manufacturers expect to introduce new products as quickly as possible when peace comes, but they expect to continue to introduce them for **an unending parade of progress.**"⁷

Besides the propaganda calling for wartime confidence and patriotism, what images and messages fueled the belief that war production would inspire a "better America?" How is it that the "good" generated by the conversion process meant revolutionizing American industry, which would in turn improve standards of living? How is it that mass-production was considered the key to relieving not only domestic drudgery with ready-made products, but also solving social ailments, as Roosevelt suggested, that supposedly resulted in stultified progress, inadequate standards, and dependence on the dole?

The concept of a utopian industrial "world of tomorrow," was already established in popular thinking as a panacea for society's ills well before the war. As noted earlier, the "Machine Age," the "rational" assembly line, the mechanized, "scientific" kitchen, and mass-produced consumer goods helped shape and define the dominant image of

⁷Peacetime Plans of Industrial Companies (n.p.: NAM, April 1943), 14-15. NAM #1411, Box 860, Series III, Postwar Publications Folder 1942-43, NAM Collection, Hagley Museum and Library. (My emphasis) The bulk of wartime promotional literature about the postwar world was in the form of advertisements and articles, but science writers and corporations published their own forecasts in books and softcover booklets, like the one cited here.

industrial progress during the 1920s, and despite the Depression, advertisers had continued to push this perception throughout the 1930s as well.

In 1940, the vision of renewed consumer plenty and an industrialized utopia, according to designer Walter Dorwin Teague, lay far in the future for his generation. While the designs and plans of a utopian world cured through mass-production had been drawn, the manufacturing processes, standards, and new materials needed to realize it, made its production costs astronomical, and put the "world of tomorrow" well out of reach of those it was meant to liberate:

Our better world may be expected to make equally available for everybody such rare things as . . . emancipation from drudgery and a gracious setting for daily life . . . bodily well-being and mental equanimity. But since even such simple conveniences as modern kitchens and bathrooms have not yet become general in America, attainment of these more difficult objectives by a majority of our people is **far in the future.**⁸

Teague's prediction reveals that uneven standards of living, substandard housing, and the other social ailments associated with poverty, formed the core issues not only plaguing American society, but also frustrating the design and housing professions of the 1930s, as they had Progressive domestic reformers around the turn of the century. Consequently, "revolutionizing" standards of

⁸Teague, "Planning the World of Tomorrow," 808-09. (My emphasis)

living by democratizing progress through mass production also dominated the wartime debate about what "good" would result from the conflict.

But why, shortly after Teague's pessimistic forecast for when the "world of tomorrow" would arrive, did many Americans, from the expert to the average person, accept a common belief that a utopian future lay within reach on the other side of victory? American production was concentrated on winning a war on foreign soil, rather than solving poverty, substandard living conditions, and the housing shortage on the home front. Why, then, did blueprints for the far distant mass-produced "world of tomorrow," and the higher living standards it promised to bring, suddenly begin to seem realistic and attainable in the near future?

The answer resided in how the record of American industry's conversion to war production was publicized and perceived. Wartime media gave the general impression that the conversion process had "unnaturally" spurred the growth of industry and this news raised expectations and intensified speculations not only about the presumed "miracles," but also the prosperity and jobs, that war production could yield after victory.

Evans Products, for example, in its ad from 1944, explains how the hastened necessity of wartime emergency had accelerated the development of chemical research and production processes from which new industries seemingly

sprang up overnight: "[O]ut of the crucible of war will come many great new industries, with products that are destined to provide mankind with a new freedom, a new joy in living."⁹ [FIGURE 41] In support of its claim, Evans Products's ad illustrates American industry's recent renaissance as a newborn universe, fashioned by the hands of a nude, allegorical figure like a cosmic vision of William Blake's. From such images it is easy to see how wartime manufacturers were able to stimulate speculations and predictions about the presumed miraculous wonders in store for the postwar world.

The demands of the emergency had accelerated experimentation and expedited into production new materials and methods that would have been too costly to fully implement prior to Pearl Harbor due to the uncertain economy of the Depression. Thus, according to wartime visionaries and forecasters (like advertisers, designers, and even science writers), utopian industrialization, once only seen as a small point on the distant horizon and as the futuristic spectacle of world's fairs, was speeding toward the present as a result of American industry's conversion to wartime use. Designers and manufacturing advertisers did not hesitate to tell their potential customers in the business community and the public at large that the "good" waiting for them on the other side of victory would consist

⁹Business Week 29 July 1944, 47.

of harnessing the lessons of war production for facilitating an expanded economy, and thereby a "better America," in peace:

The pressing need for the production of the machines of war has launched new industries, stimulated new skills, created new products and ways of producing them. . . . [T]he foreshadowed changes would have come anyway, but the time element has been telescoped. . . . New inventions, discoveries, and procedures that had been introduced years earlier . . . had been set aside during the depression years. Producers had been unable to embark on new ventures in the face of an uncertain market. . . . Technological advances had been brought almost to a standstill as compared with the progress made in normal time. . . . In this fact lies the clue to the amazing peacetime developments on the horizon. . . . Procedures that no one in his right mind would have been contemplated in peacetime were grimly tackled and made to work. Radically new materials were employed for uses that seemed, at first thought, utterly preposterous. . . . Traditional methods of assembly were swept aside for new ones. . . . The fantastic achievements of industry during the past thirty months mean significant developments in the postwar era. . . . [W]e will emerge from this war with new resources of greater potential value than any we possessed previously.¹⁰

¹⁰Carlisle and Latham, Miracles Ahead!, 1-5.

Carlisle's and Latham's book is quoted extensively in this chapter because it so succinctly articulates the conversion/reconversion arguments and corporate platitudes about postwar progress. Why it does so is significant for this study because the predictions in Miracles Ahead! were based on the contemporary ads, articles, and booklets published by corporations, architects, and designers about their forecasts for the postwar progress generated by war production and their strategies for implementing it. Consequently, Carlisle and Latham used many of the types of sources I also used. There is no biography for Carlisle and Latham in Miracles Ahead!. However, both were writers for Scholastic and both wrote on job opportunities available during the war and the postwar era. Carlisle also wrote on aviation, chemistry, and engineering for the duration.

For another contemporary source on the postwar house, see: George Nelson and Henry Wright, Tomorrow's House (New York: Simon and Schuster, 1945.) Nelson and Wright's book is not like the Miracles Ahead! forecast. Rather it offers rational planning advice in anticipation for the postwar house

Retooling factories for war production had required scrapping old machinery and redesigning entire production lines. As a result, the war and the conversion process were perceived as a rejuvenating stimulus to American industry, increasing its efficiency to produce by modernizing its production methods and standards. This "rebirth" of American industry through the process of retooling for war consequently stimulated great expectations for a "better America" and higher standards in the postwar world:

A large part of the industry of the United States and other nations has been stopped and its equipment scrapped or scattered. . . . [M]illions of dollar's worth of tools and dies have been destroyed or set out in open fields to rust. Simultaneously new industries have been rising, newly equipped and newly manned.

construction boom.

See also: "For the past three-and-one-half years [since 1942] we have been enjoying a strange, inverted prosperity. We have been producing, for purposes of death and destruction, at an unheard-of rate. Obviously, if we can continue to produce for civilian use at this high level now that the war is over, we shall have an abundance of peacetime goods and services such as the world has never known." From: A Primer for Postwar Prosperity (New York: J. Walter Thompson Company, 1945), 3. Box 9, Company Publications 1937-46, J. Walter Thompson Collection, Hartman Center, Duke University.

See also: "Many changes in methods and processes within industry are taking place under the forced draft of war. . . . Short cuts and improved methods being worked out now to meet the demands for war can and will be carried over into peacetime production." From: Peacetime Plans of Industrial Companies, 12-13.

See also: "American industry while it devotes all its plant and manpower to turning out the weapons of this war, is boiling with plans for what it will do when it can get back to its regular job. The result will be amazing both in their quantity and their promptitude. I wouldn't bank on anything being just the same after the war as it was before." From: Walter Dorwin Teague, "What of the Post-War World?" New York Times Magazine 26 September 1943, 34.

What will happen when the war ends? Shall our factories return to making the same sort of goods they made before? Or will there be a revolution in manufacturing, as our factories take advantage of this fresh start to make radical changes in the forms of their goods? Meanwhile there has been accumulating a huge stock pile of unused inventions, ideas for new forms, and ideas which have been rejected as impractical, not because they are intrinsically unsound, but because their introduction would lead to the junking of existing industries. Now the industries - many of them - are being in large degree junked by the war. An unprecedented opportunity for change - for altering forms which have already become in large degree obsolete - is coming.¹¹

Expectations for access to higher incomes, regular employment, and better standards of living in the postwar era were also fueled by the accelerated rate of wartime employment. Although the middle-class acquisition of higher standards of living had been put on hold for the duration, the conversion of mass-produced progress was achieving victory not only on the battlefield, but also in the pocketbooks of the lower classes. Employment and basic necessities, which had been hard if not impossible for many poor Americans to attain during the Depression, were now increasingly available because of the desperate need for

¹¹John Perry, "New Products for Postwar America? The Challenge to Engineers and Business Men," Harpers Magazine February 1943, 330-31.

See also: "[T]here is certainly a bright industrial side to the grim business of preparing for national defense; the lessons learned by industry as a whole are leading rapidly toward more efficient use of available materials and the development of alternate materials to bolster or place those of our national resources." From: "Industry Learns from Defense," Scientific American January 1942, 16.

labor in war production facilities.¹² The promise of wartime production was already delivering the "better America" for millions of workers and their families who had been living below standard:

Even our President has forecast 'lower standards of living' for Americans for the duration. . . . [W]e are constantly being warned to expect lower standards of living. . . . Yet there are millions now who are earning more than they have in years, enjoying relative prosperity, saving through War Bonds as added security for the future. The warning is that there will be enough of the necessities, we are assured, but not more, and the luxuries will disappear. Yet I believe there will be, and already is, a 'higher standard of living' in America.¹³

War production, which had absorbed the Depression's great masses of jobless and underemployed, had also produced

¹²For more on the improved standard of living for the rural poor and working class who acquired defense jobs, see: Hartmann, The Home Front and Beyond, 309-10, 322-23.

See also: Crawford, "Daily Life on the Home Front," 105, where she says that for many war workers, migrating from the south and rural areas, government-sponsored housing near shipyards and war plants, while flawed, "was the best they had ever had."

Crawford's statement is supported by the following wartime report regarding conversion: "New refrigerators and stoves are frozen [for general consumption] and will be released only for [new] houses in war production centers." From: "Uncle Sam's Housekeeping Job," 423.

¹³Kenneth K. Stowell (Editor-in-Chief), "Higher Standards of Living," [Design for Democracy section] Architectural Record November 1942, 31.

See also: "Rural and small-town workers who have not previously worked in factories are now employed in new war plants in their own localities, developing industrial skill, and becoming familiar with higher standards of living than were previously possible for them. . . . Furthermore, more electric power and transportation facilities will be more readily available outside old industrial centers after the war than they were before." From: Peacetime Plans of Industrial Companies, 11.

a higher yield of consumers by raising wage levels, and thus altering the consumption habits of low-income families.¹⁴

Potential buyers of the "world of tomorrow" now extended beyond the parameters of the middle-class, and this realization of a new mass market roused the business community's expectations for high profits in the postwar era:

Consumers have formed habits, eaten foods, worn clothes, seen places, met people, used conveniences, and bought products, all entirely new to them. The varying effects of rationing, shortages, substitutions, taxes, and shifts in income have cut down consumption by previous high-income groups and have increased and broadened consumption by people in the previous low-income classes.¹⁵

Refinements and acceleration in the production

¹⁴While the wartime diet, regulated by rationing, kept a cap on the amount civilians could consume, government control of inflation kept the cost of rationed food products down. As a result, low-income families, especially in the rural South, were able to afford a better diet. Not only were they introduced to higher nutritional standards than previously, but they also enjoyed the luxury of commercially canned and frozen convenience foods: See: "War Changes Buying Habits," Science Digest February 1945, 34.

¹⁵Ibid., 33.

See also: "During the war several low-income families - wage earners' families rather than salaried workers - increased their incomes by \$1,000, \$2,000 or more, per year means that the group constituting the great mass market has more money than ever before for the purchase of consumer goods." From: Rich, "The Public Expects Progress," 36, 150.

See also: "Millions today are looking forward to the enjoyment of more and better things. . . . Before The War: 1940 U.S. national production [totalled] \$100 billion [while the] 1940 U.S. median family income [was] \$25 a week. . . . During The War [national production increased to] \$200 billion [and the] U.S. median family income [doubled to] \$50 a week [by 1944]." From: A Primer for Postwar Prosperity, 20, 25, 30-31.

processes, according to wartime visionaries, would transform luxuries into commonplace conveniences in the postwar world by generating new consumer demands, and thus higher incomes, consequently putting affordable efficiency, comfort, and leisure in the hands of more consumers than ever before.¹⁶

The higher the rate of productivity, the more average working Americans would benefit:

After peace has come, we, as consumers, will reap the benefits of these speed-ups of production. The American standard of living has been raised to its high level by mass production, with its slogan of 'better, faster, cheaper.' Many of us can remember back far enough to compare the prices of the first automobiles, radios, and electric refrigerators with those of today. Time was when only the town's richest man had any one of them, and when he got it the neighbors gathered to view his treasure. But the slogan of 'better, faster, cheaper' has put them all within the reach of the average man.¹⁷

Designer, Walter Dorwin Teague explained that years of economic depression, stagnant industry, and material want had also primed Americans' high hopes for wartime progress. New markets for mass-produced, household conveniences were just waiting to be tapped once victory was achieved and the reconversion process begun:

In addition to the backlog of needs created by the war, there is a far greater backlog accumulated through the years of depression, and one still greater created by

¹⁶"[T]he necessity of maintaining high employment levels after the war may bring about the mass production of many household appliances and devices that we now regard as luxuries. In this case we shall be able to purchase for modest sums many important aids to better living." From: Carlisle and Latham, Miracles Ahead!, 29.

¹⁷Ibid., 131.

the inability of a large part of our population ever to attain what we like to think of as the American standard of living. . . . [M]uch more than half of our population has permanently gone without many of the things we think of as necessities. . . . The market for goods in America is far greater than we have yet realized.¹⁸

Thus, by 1943, with American war production in full swing, Teague's realization forced him to revise his forecast for when the "world of tomorrow" would arrive. Progress developed from wartime industrial methods and standards, and high productivity, would undoubtedly make the pre-war visions of mass-produced prosperity, social harmony, and domestic utopia attainable:

We're discovering and perfecting new arts and new techniques every day, and when they have served to blast our enemies off the face of the earth they can be used to make the earth blossom again. . . . We shall end this war with our hands full of means for the building of a new world beyond anything we ever dreamed of in our most exalted moments. . . . [T]his war is the end of an old world and the beginning of another. The words are as true of the world of creative arts. Never again will we make things in the way we made them before Hitler marched into Poland.¹⁹

Along with promotional literature about the wartime

¹⁸Teague, "Industry Plans the Future," 110, 156.

See also: "[C]ountless men and women in America, England and in the British Dominions, are for the first time in their lives enjoying the opportunity to work and to save. To put it broadly, war alone has thus far accomplished full employment. . . . And unless we can devise conditions of peace that will give men the opportunity to work, to create and to enjoy the fruits of their efforts, there will be no peace." From: Kaiser, "The American Way: Pessimism for Post War Era Assailed," 119.

¹⁹Teague, "Design for Peace," 154-55.

renaissance in American industry, the technology experienced by women in modern production facilities generated expectations of greater comforts and conveniences for postwar domesticity. Factory automation and the modern industrial work environment encouraged war workers to expect domestic versions of the machinery responsible for the "miracles" of war production: "'Why can't our homes be as comfortable as the dustless, draftless, air-conditioned, soundproofed, and almost perfectly lighted war plants now in operation?' some of us [housewives] have been wondering."²⁰

Wartime visionaries, many of whom were "consumer engineers," believed that war production and the conversion process had transformed the female consumer into a "Machine Age" efficiency expert, whose war-won knowledge about progress, it was believed, would keep designers and manufacturers continually scrambling to implement improvements in labor-saving devices and convenience products for the postwar housewife: "Some gain in women's

²⁰Carlisle and Latham, Miracles Ahead!, 29.

Business recognized that war plants were educating consumers about the level of progress they could demand for their postwar homes: "Wartime impacts will reshape the desires and reactions of postwar individuals, too. Time spent in working in air-conditioned, fluorescent-lighted war plants, for instance, will create new acceptance for the same conveniences at home." From: "War Changes Buying Habits," 33.

See also: "You will get . . . extra light [in your postwar home] from new fluorescent tubes which not only give more and better light, but do so for less money. You can be sure that war workers who have become accustomed to good lighting in modern plants will expect this better lighting in their homes." J. D. Ratcliff, "Your Home Tomorrow," Woman's Home Companion July 1943, 34.

mechanical-mindedness as a result of war-plant experience, plus wartime lessons gained from keeping a job and home going simultaneously, assure greater demand for automatic, time-saving, labor-saving equipment."²¹

In sum, manufacturers, designers, and other postwar enthusiasts helped fuel expectations by linking wartime industrial refinements and growth with visions of "revolutionary" productivity in the postwar world. However, the higher levels of convenience, health, and comfort that home front labor, especially the poor, were already experiencing provided additional incentives for consumers to believe the wartime visionaries' claims.²² Changes in wartime consumption, higher wages, and consistent employment, as well as automated, convenience facilities in

²¹"War Changes Buying Habits," 33.

War work, whether at home or in the factory, according to designers had risen feminine consumers' expectations about the level of comfort and convenience they would insist on for their postwar homes:

"Mollie the machinist and her friends in the war plants will know whether a vacuum cleaner is well made and looks right. Mrs. Housewife, who hasn't had a maid since the war began, will look for labor-saving features - although she'd prefer the maid. . . . [H]er experiences with unsatisfactory victory models, have made her critical." From: Rich, "The Public Expects Progress," 36.

²²See also: "Throughout the United States, **women from every income group** are anxiously waiting for the new refrigerators, the new stoves, the new pressure cookers, the new washing machines, the new irons, and countless others of the promised new appliances." From: Arnold E. Baragar (Former Product Standards Division, Office of Price Administration), "Postwar Equipment," Journal of Home Economics January 1946, 11.

modern defense plants, seemed to confirm the forecasts and enthusiastic messages that wartime designers, ad men, and manufacturers were disseminating. Glimpses into a "better America," brimming with the promises of wartime production, not only instilled the public's confidence in the future, but also helped galvanize patriotic support for the war effort, which throughout the war had become increasingly tied to the public image of corporate America and its industrial power.

Accordingly, raising the public's expectations about the extent to which wartime production would improve their future job security, and thereby enhance their standards of living, was part of the business community's over-all plan for corporate ascendancy and capitalist dominance in the postwar economy. Thus, manufacturing advertisers and designers sought to ensure that high expectations about American industry would translate into purchases in the postwar world, and provide the financial underpinnings for a successful reconversion to a peacetime economy steered by the free enterprise doctrine espoused by corporate capitalism, as opposed to the controlled economy proposed by the New Deal.²³

²³For more on the attitude that high levels of consumption would justify manufacturers' gearing for high production, and thus jump-start a successful reconversion process, see: "What is it that the American people want in the postwar world? . . . They include productive jobs for all, higher standards of living, economic security, economic opportunity, and individual freedom. And full production is the only method of

II. War as Product Proving Ground

The future needn't be one big bowl of Lucite - but it had better be good. It had better be studded with many of the much-heralded improvements or there will be a disillusioned buying public. . . . **The consumer['s] . . . appreciation has been captured by industrial accomplishments during this war.** If his dollars are to be captured, products that honestly represent the best creative thinking should be offered as soon after the peace as possible.²⁴

Like Roosevelt, ad men, manufacturers, and industrial designers were convinced that "good" could be realistically extracted from war production and corporate America's participation in it. Naturally, persuading the public to buy into this "good" was motivated by profit, and required advertisers to sustain consumer interest not only in wartime conversion and production, but especially in the postwar reconversion process.

As examined earlier, the conversion process had been publicized as an industrial "miracle" because in a short span of time, American industry had surpassed its former production record, and thus was perceived as a powerful means of launching the peacetime economy on the road to unprecedented productivity and prosperity. Consequently,

attaining them. . . . Higher standards of living come only from production. . . . [L]et us examine what the incentives for production are. . . . [C]onsumers must have an incentive to buy. New products and better products must be developed. Advertising must be used extensively to stimulate public desire for them." From: Adams, Working Together for Postwar America, 5-8, 11-12.

²⁴Dailey, "What will the Postwar Consumer Want?" 54, 56. (My emphasis)

wartime publicity about the reversal of the conversion process followed much the same pattern. The wartime improvements in the efficiency of mass production techniques, as well as refinements to old products and the development of new ones, was heralded by corporate cheerleaders as "miracles" of American industrial acumen. If such "miracles" could achieve victory in war, then their application to stimulating progress in peace could be nothing short of revolutionary.²⁵

Why was it so imperative for the business community to promote the potential consumer benefits derived from wartime industry? While promotional literature about conversion had set the stage for convincing consumers that American production facilities could achieve victory, advertising the reconversion of wartime products, generated by that aforementioned manufacturing "miracle," was even more imperative because it provided a way for the business community to lay the foundation for a successful transition to not just a capitalist-oriented postwar economy, but one driven by unbridled consumer spending.

Free enterprise and consumerism were not just at stake

²⁵"Industry is helping win the war . . . industry must help build a peacetime world." From: "[International Nickel Company, Inc. advertisement]", Business Week 28 August 1943, 69.

See also: "[Household Appliance] Equipment of the Future. . . . Naturally change may be expected in both mechanical and electrical performance partly due to improvements achieved during the production of war equipment." From: Baragar, "Postwar Equipment," 13.

in this struggle for which faction (i.e., business or the New Deal) would control the reconversion to a peacetime economy. Rather, the survival of American industry depended on being able to transfer, with little expense, the progress that manufacturers had developed for war over to civilian use, and make the peacetime consumer willing to shoulder the responsibility of flipping the reconversion bill by unfreezing his war bonds and spending unprecedented sums of money on the products that had ironically been "improved" by their use in war.

As shown earlier, many industrialists, who had retooled their factories for war production, had been engaged in manufacturing products totally new to their business, augmenting old ones, or developing more efficient substitutions to replace scarce natural resources.²⁶ Therefore, reconversion meant not only a change-over of industry's concentration on war to that of peace, but also harnessing existing war production facilities and military ordnance to fabricate the much acclaimed wartime "miracle"

²⁶"War is a tremendous boon to the inventive genius and manufacturing ingenuity of American industry. . . . As [a] result, progress has been nothing short of sensational. . . . **Companies in their war work are having interesting experiences with new materials, and are wondering if their new capacities can be adapted to the postwar needs of consumers.**" From: James, "Products for Postwar," 13, 14. (My emphasis)

products for postwar civilian consumers after victory²⁷:

[T]he most destructive of wars is also the most fruitful and promising for those who can adapt themselves to and capitalize upon changed conditions. . . . Hundreds of companies that formerly made everything from ash trays to vacuum cleaners now are working on war contracts for electronic parts or devices. How many such companies should and how many will capitalize upon their new skills and knowledge to the peacetime manufacture of an electronic line that six months ago they knew nothing about?²⁸

Thus, the postwar "world of tomorrow" was actually created and set in motion well before the war ended. Its success would be measured by how well manufacturers could convince the public (through vague accolades about a "better

²⁷"Some production centers now fully occupied with wartime jobs are calling on **industrial designers** to work on projects involving problems which will arise from the later shifting from war production back to civilian production. For example, the fact that furniture factories are now converted to the manufacture of airplane parts will undoubtedly influence future furniture construction and form, and **the industrial designer is asked to prepare plans for the manufacture of products for civilian needs on the basis of experience gained during the time of specialized wartime production, with the purpose in mind of making use of the new materials, new machinery and working processes.**" From: Heythum, "Industrial Design in Wartime," 23. (My emphasis)

²⁸Seeley, "Planning Now for the Business of Peace," 44, 46. (My emphasis)

See also: **"Today myriad manufacturers with immense plants, swollen surpluses and staggering wartime payrolls are looking to distant fields as more profitable outlets for postwar energy than a return to the prosaic routine of their prewar activities. They scan the horizon of postwar consumer demand with the feverish anticipation of wayfarers who are confident that Shangri-La looms dead ahead. . . . But distant fields must be examined closely. . . . A firm's eminence as a zipper manufacturer, for instance, does not indicate that the same organization has any qualifications for stepping out and revolutionizing the locomotive building field."** From: Gordon Simmons, "Postwar Daydreams," Advertising & Selling June 1944, 27. (My emphasis)

America") that the materiel of war could launch a consumer paradise in peace. The idea that Americans could do nothing but benefit from the product lessons of the war was a vision contrived by manufacturers and industrial designers initially contracted to produce military ordnance. As a result, creating a vision of future consumer bounty during the war provided a corporate means to secure a foothold in future postwar markets for industries and brand names that had dropped from the public eye because of their conversion to war production.

The Military Endorsement

As they laid plans for the postwar world, ad men and designers conceded that those products and materials, which had stood the test of war, would lend an excellent selling point to future consumers because they promised to transfer the efficiency and convenience of military ordnance from the battlefield to the home.²⁹ Consequently, wartime

²⁹"[T]he great mobility of combat units and their spread over incredible distances have required extensive developments in all fields of communication. Consequently, the effects of the war will be more obvious in the future of this industry than in any other. . . . [T]he 'walkie-talkie' or portable receiver and transmitter - will have direct postwar applications. . . . Another major development in war communications is the plane detector. . . . [T]he plane detector is essentially a television device. . . . [A]n improved television will be one of the earliest postwar industries." From: "The United States in a New World- III: The Domestic Economy, Appendix, Technology and Postwar Life," Fortune sup., December 1942, 19-20.

See also Carlisle and Latham, Miracles Ahead!, 132-48, for more on television before the war and how its military

experience was touted as not only a product proving ground, but also a successful sales pitch:

Wartime life has brought a new sense of values to the people, and in postwar, inferior won't stand a ghost of a chance of survival. The advent of war provided an acid test of quality for big-name products, and copy that stresses the 'quality' of some products in postwar won't be worth a thing. **A product which has stood up during wartime has earned its right to postwar popularity.**³⁰

No matter how unrealistic some of the visions of reconversion would prove to be, products shown to be favored by the armed forces were considered sure ways of heightening the wartime consumer's expectations about postwar progress. If a given design or material had received the endorsement of military use and could be shown as facilitating victory, advertisers promoted it as a convenient and efficient product that possessed unprecedented powers to "revolutionize" civilian comforts at home, as it had revolutionized warfare abroad.³¹

application was predicted as facilitating its widespread use.

³⁰James, "Products for Postwar," 14. (My emphasis)

³¹"[I]n tomorrow's world nearly everything we touch, see, and use will have been profoundly altered by the new light, powerful metals developed in recent months for war use. . . . A glance at the war picture will reveal why some of them were developed. . . . North American P-52 Mustangs roar across France, blazing away at Nazi ground defenses and freight trains. At least 75 per cent of the weight of these warplanes is aluminum, light but strong metal of many uses. . . . The lightweight metals - aluminum and magnesium - new alloy steels . . . [and] the new plastics. . . . **all of these materials will revolutionize living in the postwar world.**" From: Carlisle and Latham, Miracles Ahead!, 172-73. (My emphasis)

See also for example, "Soon You Will Disinfect . . . This Easy Army Way!" an ad for the cleansing product, Mikroklene,

For example, in its 1945 ad, "From Submarines . . . to suburbs," United States Rubber shows how progress, left over from ocean battles, promises to maximize comfort and convenience for commuters between the city and their quaint suburban houses. [FIGURE 42] Here, war is depicted as a proving ground for suburban living. Like many ads from this era, the juxtaposition of the weapons of war with pictures of normal middle-class family life that would result after victory were not perceived as antithetical, but rather complementary.

Firestone, likewise, in its 1945 ad, stresses that war production offered an accessible avenue toward higher standards of living in peace. [FIGURE 43] In this double page ad, a soldier with bayoneted rifle stands guard above the "war front," which consists of tanks, jeeps, and other army transport vehicles presumably headed in the direction of victory. His postwar counterpart, an attractive housewife, strides above the "home front"--a suburb, complete with child's bike and a "streamlined" car motoring into the future on a smooth, clean highway. Above these settings float the progress of war and its by-products in peace like a constellation of stars in the night sky. Firestone claims that its wartime work will "set new standards of quality, durability, comfort and economy," and

in which the war is depicted as a sanitation testing ground, where germs, like the enemy, are effectively annihilated. Hygeia October 1945, 781.

suggests that the progress of war leads to better girdles, brassieres, ranges, tires, washing machines, and other improvements for the home front. Here, "producing for war [and] preparing for peace" are shown not as opposing forces, but rather two interrelated sides of the same coin. Such ads suggested that the utopian "world of tomorrow" was dependent not only on victory, but also the successful reconversion of military ordnance for use in peace.

Following this trend, Cooper-Bessemer, a manufacturing concern that compressed synthetic rubber for various military needs, sought to capitalize on its army contract to produce parts for the General Purpose vehicle. [FIGURE 44] In its 1943 ad, "Paging the Jeep's Nephew," the boxy military jeep, unsightly, but cheap and efficient, is depicted in a tiny frame below its perfected postwar progeny, "a tear-drop car of the future," complete with "streamlined" bubble top and speedlines, encircling a rounded chassis. As in the ads for Firestone and U.S. Rubber, military proficiency is infused into the middle-class family (in this case its automobile), and lends frictionless efficiency to suburban living and commuting.

In a similar fashion, General Electric in one of its wartime ads uses the battlefield as verification for the superiority of its radio, which has been installed in a tank. [FIGURE 45] The viewer is supplied with a safe bird's-eye perspective from which to witness the

invincibility of the GE radio as it plunges through the heat of battle, perhaps with a better survival rate than the men firing from the back of the besieged tank. Thus, wartime visionaries publicized the modern battlefield essentially as a laboratory testing zone from which "new and improved" postwar products would result. In its reconversion ad from 1943, Western Brass compares its wartime contribution-- a torpedo, which heads straight for an enemy ship in the background--with the postwar application of its metal casings: a gleaming, "streamlined" toaster, which has just perfectly browned a slice of bread. [FIGURE 46] Here, the comparison between toaster and torpedo is also concentrated on the quality of each one's performance, suggesting that efficient torpedoes will lead to higher standards of household "service--utility--convenience--beauty--and comfort."³²

While similar messages and images about reconversion were promoted in women's magazines and other media targeted to the general public, these advertisements (illustrated above) were published in the business press, and consequently reveal the issues about postwar reconversion central to manufacturers and their industrial clientele. The ads' focus on household appliances (and other consumer goods) as icons of wartime progress and Allied victory confirms that business perceived a successful reconversion

³²Business Week 16 September 1944, 93.

in terms of a mass domestic market, possessing higher levels of disposable income, i.e., purchasing power. The expanding wartime economy, consumer bond savings, and the "renaissance" of American industry encouraged manufacturers to plan their product reconversion strategies with this growing multitude of potential customers in mind.³³

In their anticipation of the profits to be gleaned from the perceived wealth of this expanding domestic market, advertisers, ad men, and designers also sought to use the soldier's military experience as a trial for postwar sales, and argued that those products and materials, which had withstood the stress of war would raise soldiers' anticipations about the improvements and conveniences they

³³According to Tobey in Technology as Freedom, during the 1920s and early 1930s, electric utility companies had traditionally viewed the domestic market, that is single family houses, as less profitable than commercial clients (as previously noted), and thus not worth the investment in standardization it would take to make electricity more widely available to more people. As a result, manufacturers, especially those tied to the appliance industry, concentrated on their more profitable commercial clients, like hotels, factories and large stores (that needed customized appliances and automation), and less on the domestic market. A mass domestic market for appliances (which targeted more than just the wealthy or middle class) was not cultivated until later in the 1930s.

For more on contemporary income levels and attitudes toward expanding middle-class consumption to encompass a broader mass market, see descriptions of the Production and Distribution focal exhibit at the 1939 New York World's Fair, designed by Egmont Arens in: Joseph P. Cusker, "The World of Tomorrow: Science, Culture, and Community at the New York World's Fair," in Helen A. Harrison, ed., Dawn of a New Day: The New York World's Fair, 1939/40 (New York: New York University Press and The Queen's Museum, 1980), 10.

would find upon returning to civilian life.³⁴ According to designer Leo Rich, soldiers would expect to be able to acquire the same efficiency and standards that they had become accustomed to while in the service. Thus, the savvy manufacturer who reconverted his ordnance contracts to civilian production would automatically find a large pool of ready-made consumers familiar with his efficient, military-tested products in the postwar economy:

[T]he 10,800,000 men in the armed services, handling the latest and most efficient equipment, cannot help but have a pronounced effect on our post-war progress. Fellows who were soda jerkers, truck drives, salesmen and students before the war, today are experts in radar, aviation, or ordnance. The young pilot handling a flying fortress will not be satisfied with inefficient office equipment or farm machinery. The soldier familiar with the walkie-talkie will want the latest in radio. The G.I., wearing clothing and shoes, in every climate, which fit him as well as his job, will expect the same comfort after the war. . . . [T]he armed services offered a chance to sample and test new things. Imagine what this mechanical and scientific

³⁴The editors of House Beautiful decided to measure postwar expectations by soliciting opinions about what soldiers wanted in their postwar houses through the European edition of Stars and Stripes. Soon-to-be postwar consumers, many soldiers responded with technical suggestions, inspired by their military service, about what conveniences and levels of comfort they would demand as civilians:

"[W]hen we return to civilian life we will carry back a respect for and a faith in the designer who makes a house increasingly functional - a living house.'" From: "What the 'GI' Wants in His Postwar House," House Beautiful August 1944, 33.

Soldiers were getting accustomed to higher health and cleanliness standards too. See: "War Changes Buying Habits," 33-34.

war will do to our post war products and markets.³⁵

In an attempt to salvage their investments in aircraft production facilities and technologies, manufacturers and designers in the aeronautics field likewise sought to create a postwar market for personal air transport by stimulating consumer demand first among soon-to-be former pilots and airforce personnel. For example, designer Henry Dreyfuss and aircraft manufacturer, Consolidated Vultee, attempted to capitalize on wartime production experience with the postwar Convair Car, presumably the answer to the anticipated horrendous traffic congestion of the future. Test flown in 1947, the Convair was essentially an airplane mounted to the top of a small, tear-drop shaped car.³⁶

According to postwar forecasters, airforce pilots, mustered out of the service, would launch widespread demand for personal commuter aircraft. The anticipated avalanche of airplane and helicopter sales would eventually make the automobile market obsolete. [FIGURE 47] Visions of the

³⁵Rich, "The Public Expects Progress," 36. (My emphasis) See also: "[M]illions of men using electron tubes will carry that familiarity and knowledge back into civilian life." From: Charles E. Wilson (President, General Electric and Formerly Executive Vice-Chairman, War Production Board), "We Will Get Something Back," Saturday Evening Post 5 May 1945, 22.

³⁶While the Convair's mass production never got off the ground, the idea spoke to the need and desire for extracting from the war "revolutionary" improvements in every day life. For an illustration of Dryfuss's Convair Car, see: Albrecht, World War II and the American Dream, p.xxxix.

postwar skies, concocted by publicists for aircraft manufacturers and their related industries, were littered with small, lightweight aluminum and plexiglass airplanes and whirligigs, buzzing from offices and shopping centers in the city to their roof-top hangars in the suburbs:

"Aluminum, magnesium, plastics and plywood have proved their mettle and superiority in the planes of war and will be readily adapted in the construction of the personal plane that will be required by the thousands of war-trained pilots returning to private life."³⁷

Postwar rush hour would take to the air and presumably alleviate earth-bound traffic bottle ups in crowded cities and congested highways. The possibilities of air traffic congestion notwithstanding, personal aeronautics, offered a utopian vision of comfortable order and smooth-running efficiency, which its advertisers claimed, would emerge from the industrial products of the war.³⁸

³⁷James, "Products for Postwar," 15.

³⁸See also: "All [the] things Aviation and Alcoa did in times of peace have made them a great force for Defense: the things they are doing now in Defense will enable your sons and daughters to become the pilots of Aluminized America." From: Alcoa, Aluminum Newsletter December 1941, back page. Warshaw Collection, Archives Center, National Museum of American History.

The dream of personal aviation in suburbia was not new to wartime visionaries although the means to fulfill such forecasts through reconversion wartime progress was. William Lescage, George Keck, and Buckminster Fuller, for example, had all conceived of houses with hangars or roof-top heliports prior to the war. See: Joseph Corn and Brian Horrigan, Yesterday's Tomorrows: Past Visions of the American Future (1984; Washington, D.C.: Smithsonian Institution; Baltimore:

Harnessing wartime aviation for the benefit of individual, domestic consumption represented an archetypal model of usually unsound postwar visions thinking. Following this short-sighted trend, industrial designer J. Gordon Lippincott put forward his seemingly rational, yet myopic, vision of postwar living, improved by use of personal aviation:

To meet the demands of the postwar civilian market helicopters must not only be safe - they must appear safe. . . . The durability, water and weather resistant qualities and easy-to-clean features of interior upholstery and seat covers woven from flame-resistant vinylidene-chloride fibers will be a strong selling point with potential customers. . . . For the sake of safety, helicopters should have 'round-the-clock' visibility which will, in all probability, be provided by transparent acrylic resin enclosures similar to bomber noses. . . . Leading aircraft producers are making strides toward the development of helicopters that will be as trim . . . as the modern automobile.³⁹

Because all American industries had made moderate to substantial investments in their conversion to war production, it behooved them to contrive an image of the postwar reconversion in which the products of war would "revolutionize" not only domestic standards in peace, but also maximize convenience, efficiency, comfort, and leisure. Thus, those manufacturers with industries heavily committed to the war effort would attempt to secure postwar sales by

Johns Hopkins University Press, 1986.)

³⁹J. Gordon Lippincott, "As the Crow Flies," Modern Plastics April 1945, 98-99.

See also: "Is the 'Whirligig' for You?" Nation's Business April 1947, 49.

showing the wartime consumer how military use had improved or developed a given product, and that corporate benevolence would channel war-proved products into the postwar task of elevating the average consumer's lifestyle beyond twenty-first century standards.

Alchemical Transformations

Similar to how they had contrived the public image of conversion and wartime production, manufacturing advertisers, designers, and science writers infused the image of the postwar product reconversion with a magic aura that had long been attached to scientific discovery and technological progress.⁴⁰ For example, an International Minerals and Chemicals ad from 1942 depicts the postwar product reconversion process as the offspring of test tubes, and darkened, secret laboratories. [FIGURE 48] In "Treading on the Heels of Tomorrow" a futuristic, cylindrical refrigerator (with speedlines), personal whirligig, and "streamlined" car (rendered in an aircraft motif) float upward in a haze emanating from beakers, under the gaze of a Clark Gable-like scientist. World War II scientists (and their corporate sponsors) were bestowed with a Hollywood aura, evoking connotations with the mystique of science-

⁴⁰See for example: Spencer R. Weart, Nuclear Fear: A History of Images (London and Cambridge, Mass.: Harvard University Press, 1988). Weart chronicles public perception toward the mystique of science and radioactivity from the turn of the century to 1986.

fiction wizardry, rather than derided as "merchants of death" as Du Pont had been in the 1930s for its role in the first world war.⁴¹

Although science and technology had indeed shaped warfare before,⁴² forecasters emphasized the role that World War II scientific research played in modernizing old materials and developing new products for military use, a process which would translate into higher standards for civilians in peace: "Twenty years ago many of the things that are commonplace in our world today would have seemed fantastic. Science and creative genius have transformed the fantastic into the real. As we look ahead into the post-war world, it is increasingly evident that even more startling developments are soon to come."⁴³

By emphasizing the military application of science and

⁴¹For more on this issue, see: Meikle, American Plastic, 133-35.

For other uses of the scientist in his lab as an image of the postwar alchemical transformation, see: "Accept this Ringside Ticket to the World of Tomorrow [U.S. Testing Company, Inc., Advertisement]," Fortune December 1943, 287. Here, a male scientist, whose image has been lit from below in order to heighten his mystique and the mystery of the chemicals bubbling in the beakers set before him, holds out a slip of paper to the viewer as an invitation to the "miracles" he is secretly concocting in his lab.

⁴²See: Mumford, Technics and Civilization.

⁴³Du Pont Cellophane, Glimpses into the Wonderful World of Tomorrow (Wilmington, DE: E.I. du Pont de Nemours & Company, 1943), no page number. Plastic- Misc. Folder, Warshaw Collection, Archives Center, National Museum of American History. (Also available at the Hagley Museum and Library.)

technology, wartime visionaries launched a new set of commercial images that linked consumer progress to the mysteries and miracles of American warfare technologies. [FIGURE 49] Science and technology, visionaries claimed, would deliver the allied victory of World War II and ensure the unfettered advance of progress through the postwar consumer products of tomorrow: "For the American home a great new future is waiting . . . a future that will swiftly become the present as soon as Victory is ours. Newly developed materials, processes and machinery will combine to give to Americans even finer home appliances than they enjoyed before the war."⁴⁴ Delco Appliance underscores the idea of reconversion as laboratory alchemy in its 1943 ad. Here, a jeep, tank, and an airplane boil in a test tube under a scientist's gaze, transforming from weapons of war into "New Wonders" for the postwar household.

According to science writers, ad men, and designers (many of whom were employed under the aegis of corporate-sponsored science) those domestic products and raw

⁴⁴Better Homes & Gardens March 1943, 62.

See also: "There was considerable thought as to reconversion of science and technology to the postwar world while uninterrupted research for the fighting forces continued. . . . Within secret laboratories scientists and engineers continued to work on new inventions, devices and processes for war and victory." From: "Science Speeds Victory," Science News Letter 23 December 1944, 405.

See also: Waldemar Kaemffert, "War Brings Peace-Time Gains." Science Digest July 1942, 15-18; "Ingenious New World," Newsweek 28 May 1945, 70.

materials, which had been converted to military ordnance, had undergone an alchemical transformation in their absence from the civilian market. Consequently, their reconversion back to civilian use would deliver more than just the pre-war vision of the "world of tomorrow." Visionaries claimed that the scientific "miracles" of wartime research would engender a "new and improved" world in which war-developed products would address every need and eradicate every hurdle to maximum comfort, convenience, and leisure-oriented pleasure:

We will enjoy the benefits of new processes that can now transform the bark of trees into warm wool cloth, paper into weatherproof panels for the walls of houses, glass so resilient that it can support the weight of an elephant, electric light that will also destroy bacteria, and even a process that will transform sawdust into raw sugar. . . . The mass-production techniques now being employed for gargantuan quantities of war material will later be used to turn out, by the thousands, new cars that are lighter and swifter than any we have seen to date and that will be a third lower in price than the cheapest prewar car; prefabricated homes equipped with modern lighting, plumbing, and air-conditioning units (homes fit for kings); helicopters and small easy-to-maneuver planes for civilian use to be sold at the price of a good car; new tools, appliances, and machines of every type and description.⁴⁵

Significantly, however, the success of reconversion, and the visions of the postwar world it inspired, relied heavily on heightening consumers' imaginations about the "revolutionary" potential behind the new "miracle" products "discovered" before the conflict, but not developed until

⁴⁵Carlisle and Latham, Miracles Ahead!, 5-6.

the war, when they were rushed into production for military use. Consequently, publicists for corporate-sponsored science perpetuated the laboratory mystique surrounding developments in synthetics, magnesium, aluminum alloys, and electronics (etc.) by emphasizing these products' "miracle" features of increased durability, expanded efficiency, and expeditious ease of use. But more importantly, visionaries contended that war-improved "miracle" products, spun from laboratory secrets, would facilitate a worry-free postwar world, in which the consumer's control over his environment would increase while his work-load and worries would diminish:

[T]he changes that will come in our lives after the War is over are going to be greater than our minds are now able to grasp. . . . Do you know where these new products and sciences will alter your life, you home, how they will serve you? . . . CHEMIGUM- [synthetic rubber] better than natural rubber . . . [A]fter the war, we'll have synthetic rubber mats, shower curtains, tires, refrigerator gaskets that will not rot. . . . ELECTRONICS- The new science of . . . automatic control. . . . Today [radio] tubes are indispensable for gun fire control, plane spotting, submarine detection. But tomorrow they will bring you better radio reception, automatic home light controls, [and] perfect television. . . . GUARDSMAN FINISH- A hard, smooth, durable wood finish. . . . This means furniture [in the future] that needs only an occasional waxing or soap and water cleaning. . . . MAGNESIUM- [T]his amazing new material is lighter than aluminum, lighter than many plastics. . . . Right now it is 100 per cent on war duty. . . . Magnesium will [reduce the weight of] our household equipment [which] will be more readily portable. . . . PLEXIGLAS- Our fighter pilots and bombardiers sight through Plexiglas turrets. This is the same type of plastic as Lucite, except that it is cast in flat sheet form. . . . [W]e are going to find it used in a myriad of applications in the homes of the future . . . light in weight, unbreakable, and

will be low in cost.⁴⁶

Consequently, visions of a postwar domesticity undergoing an alchemical metamorphosis, cloaked in secrecy, were, ironically, part of the overall business plan to help re-gain the public's trust in corporate authority. By enveloping wartime science in a shroud of mystery, business hoped to establish its role as guardian and "wizard" of progress, and thereby garner public support for its reconversion plans, although the exact role and extent of corporate-sponsored science would remain purposefully vague and hidden from public view. As a result, companies, which claimed that they had "improved" their civilian products through "secret" military research and development, could capitalize on the mystique of the laboratory and claim that they held the key to "miracles" on the other side of victory.

⁴⁶"Are You Learning The Language of Tomorrow?" 21, 75-76.

See also: "We have learned how to tap the ocean for minerals needed for the manufacture of cheap, powerful lightweight metals superior to any before the war. . . . The science of electronics has been advanced to a point where its value is now comparable to . . . one hundred million new skilled workmen. We have developed plastics and new processes for treating wood, paper, and glass that are almost equal in value to the discovery of new elements. These facts alone mean a great abundance of beautiful, durable articles for everyday use at a fraction of the cost of prewar merchandise. But there are many more new inventions and processes of almost equal importance now being employed for war production. . . that will later mean greater comfort and convenience than we have ever dreamed possible." From: Carlisle and Latham, Miracles Ahead!, 26.

Textile
Proving Ground

Like other manufactures whose industries had been converted to military ordnance, textile manufacturers claimed that wartime developments in synthetic fabrics had helped battle fascism abroad and consequently could rid the postwar consumer of bothersome clothing inconveniences in peace. [FIGURE 50] For example, Textron's "fighting fabrics," help land a dress-makers mannequin commando-style at the front line, suggesting that synthetic textiles, proving their mettle on the battlefields of today, will usher in a new world of durable, lasting beauty for the wardrobe of tomorrow.⁴⁷

Likewise, Hercules Powder Company in its ad from 1945 shows how its rayon will easily transfer from combat duty to postwar bedroom, thus revealing how military-tested rayon, in the form of parachutes and jeep tires, will provide plush, delicate, comfortable fabrics in peace. [FIGURE 51] In this respect, Hercules suggests that its rayon products are equally at home at the front line, or on a woman's body.

Not only was maximized comfort and convenience part of the forecast for the postwar world, but showing how ultimate cleanliness and optimum levels of sanitation could be won

⁴⁷This argument was similar to that used by Velon in its 1945 ad: "Stands out in beauty, stands up in wear. . . . Velon is so durable that . . . it has withstood over three years of wartime use without showing the slightest signs of wear." From: Modern Plastics September 1945, 53.

from the progress of war was also a popular device used to secure a future clientele for products once intended for military use. Thus, according to textile advertisers, miraculous, war-developed synthetic fabrics promised to facilitate unprecedented domestic convenience and leisure by resisting dirt, and thus eliminating the need for constant cleaning and laundering:

Discoveries which today are aiding the Allies will make our lives more enjoyable after the war. . . . Germans are said to be wearing glass clothes now and all of us may be wearing glass fiber textiles in a post-war world. Glass fiber is an important war material, appearing in camouflage nets and insulation alike. . . . We may even come to the day when we can have new fresh clothes whenever we wish to change such synthetic 'linen' or send a suit to be reclaimed. Present laundries might give way to clothing factories that have speedy production lines for stamping out by the millions such expendable outfits.⁴⁸

According to wartime visionaries in the textile field, the convenience associated with a fabric that required less maintenance ultimately would lead to unparalleled efficiency through the popularization of disposable clothing and the obsolescence of the laundromat. Attributing the power to make other industries obsolete was typical of advertisers' attempts to create a future demand for their wartime product developments. Publicists for the textile industry claimed that "miracle" fabrics (both natural and "man made" ones), which had proven their superiority in war, possessed an indestructible power over most forms of decay and dirt, and

⁴⁸"Post-War Promises," Science News Letter 10 July 1943, 26.

therefore made wash day a drudgery of the past:

Rayon and nylon are the pioneers of a great number of synthetic textiles which will compete strongly with natural fibers in coming years. Your clothes will be made from coal, air, and water, and from peanuts, soybeans, tree bark, milk, and wood chips. And these chemically treated clothes will be creaseproof, waterproof, fireproof, verminproof, and even stainproof. Farewell to moths and cleaning bills! . . . Rayon fibers now are used in heavy-duty tires, self-sealing gasoline tanks, and many other war products. . . . The use of melamine resins and other plastics may give us paper shirts and other articles that will be attractive but so cheap that we can throw them away when soiled.⁴⁹

Not only would wartime synthetics make the drycleaner and laundromat into mere memories, but they also possessed the power to make certain household tasks unnecessary, thus fulfilling their promise of improving convenience and facilitating comfortable leisure in postwar life:

[Designers] Russel and Mary Wright are confident that 'increased experience with synthetic fibers will produce simplification of the labor-wasting system of bedmaking. Imagine a buttonless mattress to which is attached a permanent blanket containing a highly efficient insulating material - both mattress and blanket covered by a new scrubbable fabric, leaving only the sheets and pillow cases to be washed,' they explain.⁵⁰

Plastic World In the Making

Similar to publicity generated by the textile industry, the promotional literature disseminated by plastics manufacturers tried to advance the idea that wartime

⁴⁹Carlisle and Latham, Miracles Ahead!, 169-170.

⁵⁰Ibid., 36.

substitute materials in plastic performed better than the scarce wooden or metal products they were replacing for the duration:

New manufacturing techniques and materials are fighting their own war on our home front, moving up in every business sector to replace scarce minerals and products needed for the nation's direct war efforts. . . . And in many cases [home front consumers] are going to make the pleasant discovery that these are not merely substitutes or stopgaps for the old products, but that they are actually superior - lighter, stronger, handier, or better looking. . . . [I]t is a safe bet that many of the old ways and materials won't have much chance of making a comeback after the war.⁵¹

However, many wartime consumers were discovering that plastics' superior reputation was flawed. Despite all the positive wartime public relations about plastics, many synthetic substitutes cracked, melted, and discolored, thus exposing their manufacturers' overblown claims, and laying the groundwork for postwar consumer rejection⁵² Plastics manufacturers were also anxious to win the favorable appreciation of designers and other industrialists who were responsible for adapting plastics to various product applications for postwar domestic and manufacturing markets.

⁵¹Arthur C. Miller, "Necessity Creates Our Inventions: New Methods and Materials Dictated by Wartime Needs Prove Better Than the Old," Popular Science December 1942, 64-68. The article also discusses some examples of presumed superior substitutes in plywood, plastic paints and tubing.

See also: "Bright Plastics Go to Bat for Metal in the Home," Popular Mechanics June 1942, 16.

⁵²For more on the disparity between the claims behind plastics publicity and the material's uneven performance, see: Meikle, American Plastic, 155, 165-66.

As a result, publicists for the plastics field were compelled to counter the first-hand, negative experiences of many wartime consumers, for whom the word "plastics" and "synthetics" had become synonymous with "lemon."⁵³ Thus, plastic manufacturers and the industrial designers they hired (especially packaging engineers) sought to protect their wartime investments by aligning plastics with winning the war and facilitating, presumably singlehandedly, a "revolutionary" postwar utopia, despite home front evidence to the contrary.⁵⁴ For example, a 1943 ad for Dow Chemical announces the debut of Saran Film, "a revolutionary advance in packaging materials." [FIGURE 52] Dow magnifies its new product's contribution to progress by juxtaposing its application to both war and peace. A machine gun

⁵³See Meikle, American Plastics, 166, for example of the plastics manufacturer who changed his product's name to "flexible synthetic" in response to negative consumer feedback about shoddy wartime substitutes in plastics.

In an attempt to reverse consumer opinion, publicists for the plastics industry tried to refurbish plastics' tarnished public image: "No longer will the word 'synthetic' mean 'substitute.' Wartime experience is fast turning it into a term of positive merit when applied to materials and products, with equally positive effect on buyer's attitudes and product development and merchandising." From: "War Changes Buying Habits," 33.

⁵⁴"The plastics industry will come out of the war a mass-production industry, which it was not before. . . . [T]ransparent plastics [are] now being used in the nose and turrets of bombers and the bombing plastics used in. . . . plywood [airplane parts]. Transparent plastics and plywood will find many post-war uses, including furniture, interior decoration. . . . and light construction." From: "The United States in a New World--III: Domestic Economy, Appendix, Technology and Postwar Life," 18.

wrapped in Saran symbolizes the wartime present, while a giant head of iceberg lettuce (also packaged in Saran) heralds the postwar of tomorrow. This "before and after" message is further reinforced by an image of a woman proudly holding a bag of fresh Saran-wrapped groceries beneath a soldier firing his machine gun, which has stayed dry and clean, like the groceries, thanks to the "miracle" wrap of Saran.⁵⁵ In this respect, Dow shows how its plastic packaging has increased the efficiency of the Allies' war machine and promises to expedite equal effectiveness for preserving groceries in the postwar home.

By providing their products with military endorsements and bestowing them with the aura of scientific "miracle," plastic manufacturers and designers, like those in the textile field, attempted to persuade consumers (and their business clientele) that their war-proved material could exact the same beneficial changes in their lives at home that they had achieved on the battlefield in pursuit of Allied victory⁵⁶:

⁵⁵Prior to the use of Saran film for weapons packaging, guns were transported from U. S. factories to the war front in wads of grease, which required extra labor to clean up before the weaponry could be issued to soldiers in the field.

⁵⁶"Interesting to every plastic-minded manufacturer is the fact that [Hercules] Ethyl Cellulose was the plastic coating which could meet the Army's stringent tests. . . . It is the plastic of important present usefulness and enormous post-war promise." From: "Here They Come! [Hercules Ethyl Cellulose advertisement clipping]." Box 49, Fighting with Colors Folder, Egmont Arens Collection, Syracuse University.

[P]rior to the outbreak of war the plastics industry had concerned itself mainly with the production of such everyday things as electrical appliances, radios, parts for automobiles, decorative buttons, and hundreds of similar items designed for eye appeal and general civilian well-being. Yet when the armed forces outlined their needs, plastics were quickly put to work to replace both scarce metal and rubber in war equipment. Plastics are used for pistol grips and bayonet handles. . . . Plastic linings also are used in combat helmets, and for goggles to protect soldier's eyes against the glare of desert sands or Arctic snows. . . . [E]ach of our new battleships incorporates well over 1,000 different plastic applications. The wide use of these materials in our aircraft is already pretty generally recognized, ranging all the way from the plastic bomber nose of high optical and aerodynamic qualities to the plastic bonded plywood fuselages and wings used on glider, trainer and freight-carrying planes. . . . One of the most critical of the plastic materials is jewel-like methyl methacrylate, which is probably best known for its application in bomber noses, navigator domes, and cockpit enclosures. . . . [T]he new alloys, plastics and chemicals that are giving the United States the world's greatest fighting machine will make this nation a better place to live in when the Axis has been put out of business.⁵⁷

By preparing consumers for a miracle "world of

⁵⁷Carlisle and Latham, Miracles Ahead!, 149-151.

See also: "The glass-fiber melamine resin panel board that is now being used by the Navy for instrument panels and bulkheads may well be used in the post-war [automobile] as a cowl, dashboard and instrument panel." From: Carl W. Sundberg (industrial designer), "The Realities of the Future," Modern Plastics May 1945, 107. See same article for more about war plastics application to postwar cars.

See also: "[P]lastics came of age just before World War II. After Pearl Harbor they got in the fight and learned new skills and performed tasks that amazed the public. . . . Now, with honorable discharges, some 20 basic plastics are back in civvies. . . . The Army and Navy, most lavish users of plastics in history, chose plastics over other materials for thousands of uses. . . . There were 750 plastic parts on fighter planes and 50,000 on a single battleship. . . . [The] practical uses [of plastics for postwar civilians] include refrigerator parts, telephone sets . . . materials for housing projects . . . fabrics . . . and [non-rust] window screening." From: Wayne Whittaker, "Plastic World in the Making," Popular Mechanics September 1946, 145-47.

tomorrow" made entirely of plastics, manufacturers and designers sought to generate a mass postwar demand for their recently developed plastic products and inspire consumer confidence in an industry that (at least on the home front) had not lived up to its claims.

Like other producers of military ordnance, attempting to profit from the postwar commercial fallout, plastics manufacturers painted a picture of a "new and improved" postwar era in which sterilized artificiality (supposedly proven superior to the natural world during the war) would rule. Similar to the persuasions used by the makers of synthetic fabrics, the postwar world of plastics would be cleaner, neater, and more sanitary than ever before. Publicists for the plastics industry promised that their war-tested product would make it easier for households to stay clean and easier for the housewife to not only maintain, but surpass current middle-class standards of sanitation. Thus, the materiel of war, especially in the form of plastics, was publicized as a proven means to "revolutionize" standards of cleanliness and personal hygiene.

Significantly, however, war production and development had lowered the cost of "miracle" materials, like plastics, and as such would put the means of achieving higher standards of cleanliness within reach of more Americans after the war:

Not long after our men began fighting in the Pacific area they discovered that they were facing not one enemy but two. The second equally vicious peril was tropical disease- much of it insect-carried. . . . [A] screen cloth was needed which would withstand the rigors of tropical climate and yet have strength and durability. . . . The answer . . . was finally found in a plastic insect cloth which has become an important weapon of war in many U.S. outposts. . . . The use of this cloth . . . as insole for jungle boots was developed . . . to afford the maximum of ventilation. . . . [T]he plastic insole lends itself to easy sterilization. . . . Anticipated increased efficiency in the manufacture of this plastic screening . . . is expected to bring down the price so that the material is within reach of the average home-owner's pocketbook. . . . In developing this screen for domestic use after the war, it is believed [that] its [light] weight . . . flexibility . . . smooth surface [which does not collect dirt easily, and . . . can be quickly washed off with ordinary soap and water [will prove a strong selling asset to the postwar consumer].⁵⁸

The sanitary and durability features of plastics, according to their makers, promised to create a "world of tomorrow" free of the hazards, ugliness, and imperfections wrought by non-plastic products. For example, Columbia Plastics in its ad from 1945, "After Mars . . . A Rendezvous with Venus," promises to "revolutionize" glamour and beauty with its war-won knowledge in the plastics field. [FIGURE 53] Unlike other wartime ads, which juxtapose the battlefield with the postwar future, Columbia depicts only

⁵⁸Carl C. Austin, Jr., "War As A Proving Ground," Modern Plastics October 1944, no page number. Reprint from: Dow Chemical Corporation, Post Street Archives. (My emphasis)

See also: B. M. Sternberg, "New Opportunities in Postwar Markets," Modern Plastics April 1945, 103. Provides examples of plastic adaptations, especially products earmarked for the personal hygiene industry.

For more on plastic uses in wartime and their sanitary features, see also: "Plastics in Review," Modern Plastics February 1944, 114-15.

the postwar results of its wartime research. Here, an outstretched hand offers a perfect world of sterilized, unblemished beauty (the hygienic spoils of victory) to a seductive, glamour goddess, who seems to look at her colorful postwar trophies with aloof interest. Like other wartime ads about the postwar world, woman's body is depicted as the lucky recipient of the products that were tested in war, and which promised to maximize and perfect femininity.⁵⁹

The wartime image of a plastic postwar world echoed desires for not only clean, durable beauty, but also social order and control, which would arise from a universal application of wartime "miracle" products to the improvement of life in peace. For example, Goodyear in its ad from 1944, attempts to emphasize the superiority of Pliofoam, a featherweight insulating material, by showing the benign side of the product it has developed for use in war.

[FIGURE 54] Here, the plastic "world of tomorrow" not only offers affordable single-family suburban houses with the technology used to win the war, but also, as Goodyear suggests, is easily controlled. In Goodyear's plastic postwar utopia, the building blocks of the future are not only safe and clean, but also so easy to use that even a

⁵⁹See also the Columbia Plastics ad, "Glamour . . . for sale," which also depicts the perfect postwar world as a well-groomed goddess receiving the spoils of war from an outstretched hand. Modern Plastics May 1945, 23.

child can handle them.

In a similar fashion, a 1945 ad from Shellmar predicts the postwar uses of Lucite by juxtaposing its wartime use in aircraft with its postwar potential. [FIGURE 55]

Shellmar's version of the postwar future focuses on the perfected transportation that would ensue from the product lessons learned with Lucite during the war. Here, little drawings of "streamlined" vehicles fashioned with rounded, plastic tops (like their wartime predecessor shown flying above them) suggest a smooth flowing future rendered in an efficiency aesthetic, thanks to the universal application of Lucite. Like other ads for wartime plastics, Lucite's traits were also endowed with the perceived means to evoke "revolutionary" changes in society at large: "[T]his Lucite enclosure [meaning the bubble top] eliminates blind spots and permits full vision in all directions." In this respect, descriptions of the benefits derived from smooth, clear plastic surfaces echo hopes of finding social clarity and foresight after the clouded, confusion of war.

Such images of the future argued that if clean, convenient products, like plastics, were used to instill higher standards in design and efficiency, then a safe and lasting ordered world would ensue. The frictionless, sterilized surfaces of plastics would automatically engender an efficient and smooth-running household and society:

Imagine a dweller in the 'Plastic Age' that is already upon us. . . . 'Plastic Man,' will [be born] into a

world of color and bright and shining surfaces . . . no sharp edges . . . [and] **no crevices to harbor dirt or germs**. His parents will see to it that **he is surrounded on every side by tough, safe, clean material**. . . . He sits in a new kind of school room . . . at a moulded desk, **warm and smooth and clean to the touch**. . . . The windows of this school, curtained with plastic-faced cloth **entirely grease- and dirt-proof, are unbreakable**. . . . Like his home, too, **the plastic floors are silent and dustless**. . . . Back in his home he still finds the **universal plastic environment**. Once again the walls of his rooms are built with panels and plastic doors. . . . The bathroom will be all plastic: no ceramic tiles now to crake [*sic*] or flake or enamel bath to do likewise. . . . In all the living-rooms and bedrooms every kind of furniture is built up of moulded plastic sections. . . . in every conceivable color, **warm, pliable and clean**. . . . **Outside the home, the same universal rule of plastics holds**. . . . In industry it will be the same story. In the office, where standardization is more acceptable than in the home, the whole interior surfacing and all the fittings . . . will be plastic . . . because of its durability, surface attractiveness and eminent **suitability for clean smooth design**. . . . [I]n how much brighter and **cleaner a world he** has lived than that which preceded the plastics age.⁶⁰

Plastics were invested not only with the power to "revolutionize" the household, office and factory, but also to liberate the world from rivalries over natural resources, which led to conflict, tension, and war. According to visionaries, the universal application of plastics would raise the standard of order and civilization throughout the entire world:

[The world of 'Plastic Man'] is a world free from moth and rust and full of color, a world largely built up of synthetic materials made from the most universally distributed substances, a world in which nations are more and more **independent** of localized national

⁶⁰V. E. Yarsley and E. G. Couzens, "The Expanding Age of Plastics," Science Digest December 1942, 57-59. (My emphasis)

resources. . . . When the dust and smoke of the present conflict have blown away. . . . we shall see growing up around us a new, brighter, cleaner and more beautiful world, an environment not subject to the haphazard distribution of nations' resources but built to order; **the perfect expression of scientific control, the Plastics Age.**⁶¹

Similar to the sentiments expressed by science writers Yarsley and Couzens above, Dow Chemical, in another wartime ad for Saran, also suggests that its plastic wrap is endowed with the "revolutionary" abilities to save the world from global chaos, just as it promises to safely deliver the machines engineering the Allied victory. [FIGURE 56] In this case, the earth and a machine gun, encased in clear plastic wrap, are shown as enduring and surviving (thanks to Dow) the stress of a frightening torrential downpour, presumably a metaphor for the battlefield and the apocalyptic nature of war. Here, Dow's ad conveys the idea that the universal application of protective Saran Wrap, like other plastics proven in war, will dispel confusion and chaos by extracting order, clarity, security, and durability from the progress developed for war.

Likewise, DuPont in a 1945 ad for its Cellophane, highlights the benefits of a sterile, plastic-wrapped world, in which goods are shielded from the natural process of

⁶¹Yarsley and Couzens, "The Expanding Age of Plastics," 59-60. (My emphasis)

For various designers' visions of future products made of plastics, like Dave Chapman's electric typewriter and Donald Deskey's push-button telephone, see: E. F. Lougee (Former Editor of Modern Plastics), "Plastics Post-War," Art & Industry August 1944, 34-40.

spoilage and decay. [FIGURE 57] The ad is directed to packaging engineers and other businessmen with the intention of forcing them to consider the postwar housewife as an exacting, efficient super-consumer who will demand pristine clarity from a product's package: "How does the Post-War shopper fit into your package? . . . she will want to make certain just what she is getting . . . what color, what size, what quality."

While the copy argues that the female consumer holds the destiny of future postwar sales with her critical eye and finicky pocketbook, the image suggests otherwise. Here, DuPont shows how its manufacturing clients can control the wily, overly critical female shopper by packaging her, as well as her groceries, in Cellophane. As in other wartime promotional for a "better America" in the postwar world, plastics were perceived as part of the orderly pipelines of modern efficiency management, whether on the battlefield, in the grocery store, or at home.

Wartime advertising and promotional literature, circulating through the business, women's, pop science, and general public press, painted a picture of American expectations about how the country stood to profit from the war. In so doing, these images and messages revealed what issues were central to the business community and how it planned to salvage its wartime investments by tapping into America's new war-won purchasing power, and thus creating a

mass demand for products that had presumably
"revolutionized" war.

Secret Weapon Today:
Your Servant Tomorrow

According to advertisers, harnessing wartime plastics for peace promised to generate universal order, cleanliness, and efficiency automatically. In a similar fashion, the electronics industry promised to infuse the postwar house with the power to regulate its own order by monitoring its level of cleanliness and maintaining itself with little to no exertion required from the housewife. According to electronics manufacturers, who like other businessmen sought to protect their wartime investments, the "servant problem" of the war years (made so because domestics had found better jobs in war plants) would be solved with war-tested and developed electronic "servants," making all drudgery obsolete in the postwar future:

The science of electronics is the open-sesame to the doors of a miracle world. . . . **In the home there will be more than a dozen swift, silent electronic 'maids' at the beck and call of the homemaker, freeing her from the drudgery of housekeeping. . . .** The war . . . has given a tremendous acceleration to the development of all things electronic. . . . **Housed within [the R.C.A. Radio-Electronic Laboratories] are one hundred and fifty laboratories where the secret weapons of today are being developed to win the war, and where new electronic wonders will become handmaidens of tomorrow's miracle world.**⁶²

⁶²Carlisle and Latham, Miracles Ahead!, 115-16. (My emphasis)

See also: Walter Adams, "Mystery Weapon Today - Your Servant Tomorrow," Better Homes & Gardens August 1943, 20-21,

Like plastics and synthetic fabrics, electronics would generate access to maximum sanitary living, thereby raising the national standard of cleanliness, but at the same time, promising that achieving it would require less work.⁶³

Similar to the claims made by other industrialists, optimum comfort with minimal effort characterized many of the wartime electronic advances prophesied for postwar living.⁶⁴ For example, IT&T, claimed that its electronic radio transmission developments, which helped the Allies win

64-67.

⁶³A maintenance free home would also manufacture its own clean air:

"In the future your air-conditioning unit will also include a Precipitron to eliminate dust from your home. This device [is] for 'laundering' the air. . . . The curtains in [the] Precipitron-equipped home stay clean for eight or ten weeks. . . . Walls that had to be washed every spring now stay clean for three years or more. . . . [T]he performance of [the] 'aire landry' in Pittsburgh's famous smog (smoke plus fog) proves that it is more than just another interesting gadget. After the war it is possible that Precipitrons may cost little if any more than electric refrigerators." From: Carlisle and Latham, Miracles Ahead!, 30-31.

The Preciptiron was the invention of Westinghouse employee, Gaylord W. Penney in 1934, who installed and tested the device in his Pittsburgh home.

⁶⁴Other wartime improvements in domestic technologies promised a care-free, climate control system for the postwar home:

"Engineers tell us that radiant heating will chase the radiators or hot-air vents out of the home of the future. Radiant heating warms the walls, or floor and ceiling, by means of concealed hot-air or hot-water pipes. The temperature in a radiant-heated room might be 65 degrees or less, but you could sit around in your shirt sleeves and feel comfortable. Sounds like 'black magic.' But it isn't." From: Carlisle and Latham, Miracles Ahead!, 33.

the Battle of the Atlantic, would promise a leisurely postwar life secured from threats of domestic drudgery and old-fashion hard labor. [FIGURE 58] In its ad, "Now the Secret of 'Huff-Duff' Can Be Told," a neat, trim middle-class housewife is shown innocently asking how military "secret weapons" can benefit her life after victory, while above her image the life-saving results of "Huff-Duff" are pictured in action and displayed in a newspaper format as if to lend IT&T's claims more credibility. In response to her query, IT&T answers:

Maybe it seems like a far cry from U-Boats and sea rescues to the security and comfort of your own home. But . . . the inventiveness that won a war is the greatest promise of better living in peace. . . . For the 'know-how' of the same scientists who created 'Huff-Duff' [a high-frequency radio direction-finder] and many others of the war's great inventions is now turned to the development of new and finer electrical marvels for your home.⁶⁵

Again, women and their households are represented as the fortunate heirs of military power, domesticated and reconverted for civilian use.

This sentiment is also expressed in a 1943 ad for the Utah Radio Products Company, "Utah Engineers Stay Up Nights Thinking About Her," which anticipates the postwar commercial fallout and the female shopping frenzy that manufacturers, ad men, and designers were convinced would

⁶⁵Fortune April 1946, 54.

ensue⁶⁶: "Today our boss is Uncle Sam - tomorrow the American housewife." [FIGURE 59] In this example, a Utah engineer (wrapped in an atom, a symbol of his scientific mystique) is pictured with his fantasy: a contented, yet stereotypical, Mrs. Postwar Housewife, who sighs in optimum domestic bliss from the "streamlined" electronic kitchen, complete with appliances built into the walls and cabinetry (shown to the left), which she has gained (presumably) from the progress developed during the war.

What is interesting to note about this ad is the way in which it suggests, through the designer's rendering of the "streamlined" kitchen, that orderly, sanitary living will be a fulfilling, effortless pursuit in the postwar world. Here, rational design rules in a sterilized domestic space where neither appliances nor cords litter the countertops; glass-door cabinets reveal only regimented stacks of plates; and no burners or deep crevices exist that could possibly trap dirt. Not only is complete cleanliness underscored,

⁶⁶The business trade press expressed its great expectations for unbridled female spending in several ads encouraging manufacturers and designers to start focusing their wartime attention on satisfying Mrs. Postwar Middle-class Consumer. Consequently, many ads with this message depicted female figures as shopping queens and business men as their subjects.

See for example: "She's piling up the money. . . . And when the war's end opens the dam, the buying power she's storing up will burst forth in an irresistible torrent that will carry many a new brand name to glory - and many a well-known one to oblivion." From: Advertising & Selling June 1944, 149. See a similar ad in Advertising & Selling July 1944, 112.

but so is maximum control and automation. Presumably the focus of the Utah engineer's research is a control console with levers, push buttons and a timer: the postwar version of the domestic servant and the source for middle-class women's liberation from the illogical tyranny of unscientific kitchens and unreasonable, improper filth.

Along with the eradication of fascism, according to visionaries, one of the most widely heralded achievements of the war was the increased ability to annihilate germs and dangerous bacteria: the unseen scourge of even the cleanest, pre-war middle-class house. Just as the threat of germs was given added attention during the war, (see Chapter II) so the promise of their demise in the postwar house was a welcome feature. According to advocates for the electronics industry, the future house would not only be maintenance-free, but new wartime developments in the electronics field would also liberate the postwar family from the menace of unwanted bacteria and poor health⁶⁷: "Some of the greatest developments which will safeguard health tomorrow will be preventive measures. Electronic controls will make possible

⁶⁷"[E]lectronics . . . magic secret weapons of war now, a new wonderland for you at war's end . . . untold wonders of ingenuity and comfort, convenience and entertainment . . . cook a roast in six seconds . . . heat your house electrically . . . phone your wife while flying over China . . . the electron promises to 'change the whole aspect of our lives.' . . . [Electronic tubes] can . . . filter hay-fever pollens and even bacteria from the air." From: Adams, "Mystery Weapon Today - Your Servant Tomorrow," 21.

germ-free air, to guard against disease; electronic devices will preserve food, guarding against contamination.

Electronic irradiation of food will store more and more sunshine into what we eat."⁶⁸

Wartime developments, which had been implemented for Allied victory, would be harnessed to rid domestic tasks of the onus of labor, and infuse it with the aura of leisure. Significantly, features of electronics products not only promised to replace drudgery with comfort, but remove the stigma of rotten garbage and grime which housekeeping, especially kitchen work, entailed. Wartime promises about postwar living offered to make it possible for middle-class housewives to perform the menial, filthy chores of scullery maids because electronic automation would perform the unsanitary, dirty work for them:

Admiral Corporation is turning out its Dual Temp refrigerator equipped with. . . a Sterilamp, the ultra-violet-ray device that retards the growth of mold and bacteria. . . . Westinghouse, General Electric and Edison General Electric (Hotpoint) - will bring out new models [of dishwashers] that will spray, wash, rinse and dry the dishes with one push of the button. . . . Perhaps the nearest thing to a dream appliance . . . is the electric waste disposal unit that fits in the kitchen sink, and **does away for good and all with the ancient nuisance of scraping dishes and emptying garbage pails.**⁶⁹

⁶⁸Carlisle and Latham, Miracles Ahead!, 131.

"[T]he fluorescent lamp . . . gives off powerful germ-killing ultraviolet rays which will keep your home free of harmful bacteria." From: *Ibid.*, 30.

⁶⁹Mary Roche, "Awaiting the New Kitchen," New York Times Magazine 14 October 1945, 34. (My emphasis)

Since such revolutionary improvements for domesticity could not materialize until well after the war, manufacturing advertisers, designers, and science writers offset this disappointment by assuring consumers that when the "miracles" were made available, they would also be affordable. Therefore, wartime developments in electronics, transferred from military ordnance to the improvement of domesticity, would offer a "revolution" in the lowered cost of comfortable, efficient sanitary living. Consequently, consumers' expectations for postwar progress were not only elevated through prophesies of miraculous visions of effortless domesticity, but also through the knowledge that wartime progress would put postwar wonders within their price range:

You must be thrilled by the comfort-making labor-saving devices planned for your home of tomorrow, just waiting the war's end to move in. . . . [T]he good-bye to the drudgery of dusting, while an air cleaner does it automatically; the end of cold draughty houses as electron tubes warm your family, even with all windows open. But you ask . . . 'Won't all these scientific miracles be prohibitively expensive?'. . . . [T]he answer [is] decidedly no. . . . [because of] the tremendous productive capacity America has built, and is building, for the war effort. . . . Take for example two of the largest manufacturers of electrical goods. The biggest volume of their business today is making electronic devices for the armed services. Tomorrow they won't want to junk their machines, skills and knowledge. They will make these war-born devices your peacetime servants.⁷⁰

In sum, manufacturers devoted to wartime production, in industries like synthetic textiles, electronics, and

⁷⁰Ratcliff, "Your Home Tomorrow," 34, 54. (My emphasis)

plastics (as well as a host of others), contrived an image of the postwar world that would generate not only a "better America," but also a cleaner, more affordable one, with the use of wartime products reconverted to mass civilian use in peace. The main argument behind such utopian images of the postwar world was that the "miracles," credited with winning the war, had freed Asia and Europe and thus could easily liberate domesticity and democratize middle-class standards as well.

Thus, images of the postwar world, which were contrived by publicists and designers for industries contracted to manufacture ordnance, wove their "fairy tales" about the benefits of their wartime products around a middle-class domestic paradigm. Such postwar forecasters, as examined here, capitalized on the middle-class moral aversion to low household standards and dirt. The promise of hygienic housework, transformed through corporate-sponsored, military science and product engineering, represented the ultimate wartime benefit because it addressed conventional middle-class aspirations toward sterilized, sanitary living.

The promotional literature devoted to raising expectations about reconversion all used similar seduction tactics to convince consumers that American industry was more than capable of winning a global war because it could simultaneously plan for "revolutionizing" domesticity after victory was achieved. Businessmen hoped to capitalize on

consumer confidence in the war effort by aligning the "miracle" products developed for military use with promises of a more efficient, convenient, comfortable, and cleaner America in peace. As previously noted, the motives behind reconversion promotionals (as well as conversion advertising) were multi-faceted, but at heart, visions of the postwar world were contrived in order to tempt consumers into unfreezing their war bond savings and igniting (virtually by themselves) the postwar productivity and prosperity, which manufacturers, ad men, and designers had promised themselves to fulfill.

As will be shown in the next chapter, members of the housing field also sparked the flood of wartime faith in America's industrial progress and attached it to the quest to simultaneously secure conventional concepts of "home" while liberating domesticity. Chapter VI will examine how the industrial design and construction professions sought to convince consumers to ignite a housing "revolution," and pour their wartime savings into the postwar economy, by offering tempting visions of the automated, prefabricated, postwar miracle "house of tomorrow," and promoting it as the ultimate "container" for accessing "revolutionary" domestic progress as well as shoring up conventional middle-class values about family cleanliness and proper femininity.

CHAPTER 6

FROM SUBMARINES TO SUBURBS:
CONSTRUCTING THE "HOUSE OF TOMORROW"

[Near Sacramento an inspector reported on 17 September 1939:] 'Entire families, men, women, and children, are crowded into hovels, cooking and eating in the same room. The majority of the shacks have no sinks or cesspools for the disposal of kitchen drainage, and this, together with garbage and other refuse, is thrown on the surface of the ground.' . . . [M]any families were found that did not have even a semblance of tents or shelters. They were cooking and sleeping on the ground in the open and one water tap at an adjoining industrial plant was found to be the source of the domestic water supply for the camp.¹

The 1939 federal survey on migrant farmer housing quoted above paints a dismal picture of the squalid living conditions to which the American poor and working class were exposed, especially during the Depression. Indeed, Roosevelt's exclamation in 1937 that he saw "one third of a nation ill-housed, ill-clad and ill-nourished" turned out to be off by ten percent--the scarcity of progress was actually much worse.² To understand what kind of perfect "world of

¹Quoted from a report given to Congress by investigator Carey McWilliams about a 1939 federal survey on migrant farmer housing in California, which tabulated American squalid standards of living. United States Congress, Hearings, 1941, House Select Committee to Investigate the Interstate Migration of Destitute Citizens (Washington, D.C., 1941), 2543-44. Found in Gregory, Modern America, 401-402.

²The statement was made in Roosevelt's second inaugural address: "A Changed Moral Climate in America," Vital Speeches of the Day 1 February 1937, 227.

When the Treasury Department's U. S. Public Health Service reported its 1935-36 National Health Survey in 1938,

tomorrow" that wartime visionaries were hoping would evolve after victory, one need only turn to the antithesis of progress, which gave rise to the 1930s appellation, the "poverty decade." Images of the Depression's unsanitary shanty towns, looming like industrial plagues on vacant lots, demonstrate why the war was perceived as a messianic vehicle for assuring widespread, abundant, democratized progress in peace. From even a brief look at reports and photographs that document Depression Era poverty, it is easy to see why so much hope was invested in wartime industry, military "miracle" products, and the mythic postwar "house of tomorrow," an archetype of wartime progress, which will be the subject of this chapter.

Although, of course, extreme poverty, slums, unemployment, bank runs, farm foreclosures, and substandard conditions had existed in America prior to the 1930s economic depression, photo journalists working for the New Deal's Resettlement Administration (RA) and its successor the Farm Security Administration (FSA), disseminated images exposing the lack of progress across geographic boundaries

it was revealed that 40%, not 30%, of the nation lived in substandard housing.

See also: "It is not particularly heartening to learn that the now-famous 'one-third of the nation,' which among other tragedies is 'ill-housed,' is just the most conservative sort of an estimate." From: "40% of the Nation is Ill-Housed, Federal Health Survey Ups the President's Ratio," Architectural Forum June 1938, 34.

and over class lines.³ Photo journalists collected the pictorial evidence of the American Way's failure to live up to expectations, and their images of shanty towns, urban squalor, and rural blight confirmed suspicions that the American Way had neither lived up to its industrial potential nor democratized progress as the country's founding fathers had planned, and which advertisers had promised.⁴

In "No Rent-No Taxes-No Work," for example, vestiges of progress peak through the squalor in a shanty town of makeshift wooden shacks, built with the debris cast-off from Manhattan's west side.⁵ [FIGURE 60] Here, stove pipes,

³See: Fleischhauer and Brannan, Documenting America, 1935-1943; Ewen, PR!, 233-336.

The photographic section of the RA and FSA operated under the direction of Roy Stryker between 1935 and 1943.

The RA/FSA photographs were able to command a wide audience (especially targeted to the middle class) because Stryker funnelled copies directly into the public domain where they appeared in national magazines like Life, Look, and The Saturday Evening Post.

⁴See: Ewen, PR!, p. 275-76, for a discussion of how the avoidance of color in the publication of the RA/FSA photos purposely clashed with the commercialized, colorized view of American prosperity. Such stark, black and white imagery underscored the disparity between commerce and the lives that commercial progress had left behind. The RA/FSA photos presented an image of America not previously publicized and not readily introduced to the middle class. Consequently, these images challenged a conventional way of understanding not only the poor, but also the paradox of industrial progress.

⁵This image of a "Hooverville" pre-dates the Roosevelt's administration and the inception of the Resettlement Administration and its photography section. Nevertheless, it

protruding from unstable walls, lend a pretense of comfort. Electric wires, criss-crossing above the wooden shacks, and water towers, casting a cold shadow over the town, are intended, ironically, to bring convenience and cleanliness to the less destitute citizenry who could afford it. The "mayor" of the dismal community in his tidy, three-piece suit makes a stark contrast with the haphazard sheds.

Likewise, Dorothea Lange's picture of an Okie mother and her two children underscores the disparity between middle-class pretensions and the squalid living arrangements of the migrant poor. [FIGURE 61] Unlike other examples of Lange's work, this woman was allowed to clean herself and children up a bit before posing for Lange's camera. The juxtaposition between vain attempts at social propriety and the dilapidated family shack in the background expose the fragility and shallowness of middle-class material affectations.

RA and FSA photographs of destitution spoke of the failed image of "Machine Age" progress, and were part of a calculated publicity campaign launched by the Roosevelt administration in order to visually justify the existence and expense of its social programs and plans for the

fits the RA/FSA genre popular at the time.

American economy.⁶ However, the RA/FSA photographers were also instructed to document when certain New Deal programs succeeded in order to visually demonstrate how public moneys could help reverse dire poverty. Lange and other RA/FSA photographers visited not only make-shift shanty towns, but also toured government operated work camps for migrants, which offered clean and orderly places of refuge with bathing and laundering facilities. Both the "before" and "after" images documented by the RA and FSA, which were widely publicized, showed how government could resuscitate progress through tax dollars and centralized bureaucratic power.⁷

⁶Roosevelt's New Deal administration struggled to engineer a constitutionally sound policy for expanding the economy and increasing consumer purchasing power. In 1935, the Supreme Court had found his New Deal's Industrial Recovery Act unconstitutional.

During Roosevelt's first term, the economy had grown at an annual rate of 10%. Nevertheless, this climb still left 14% of the workforce unemployed because the 1929 crash had set production back so low that any increase, even a spry 10% growth, failed to lead the country out of economic depression and eradicate the vestiges of abject poverty and social decline. In 1937, a recession set the economy back and escalated the already high unemployment rate up to 19%. Even government-sponsored work relief projects only benefited 40% of the unemployed. The unemployment rate would remain throughout the rest of the 1930s at over 10%, until 1941 when the U. S. began mobilizing for war production. See: Anthony J. Badger, The New Deal: The Depression Years, 1933-1940 (New York: Hill and Wang, 1989), 66-67, 299-300

⁷Fleischhauer and Brannan in Documenting America show photographs taken by Arthur Rothstein of an FSA operated migratory labor camp in California. The agency ran several camps for migrants from Oklahoma and Arkansas in the West. While the shelters provided in the camps were small, temporary structures, the camps were intended to provide an arena for building a permanent community. Rothstein's images include

In response to the perceived threats from Roosevelt's programs and its power to mold public opinion, business leaders inaugurated a campaign to revive consumer faith in their commercial plans for the future--an approach, which we saw in Chapters III and IV, they continued to pursue throughout World War II.⁸ Examples of the business community's attempts in the 1930s to restore faith in the American Way arose not only on roadside billboards and in the advertisements of magazines and newspapers, as they

photos of organized recreation, cooperative store meetings, and cooperative laundry facilities and health care. Significantly, however, none of the photos from this particular series show any evidence of social isolation or economic despair, as in Dorothea Lange's infamous 1930s icon, "Migrant Mother," and the other image of a migrant woman with her children shown above. These two images, in contrast to the Rothstein photos of the FSA camps, would have been used as visual arguments in support of the federal government's intervention in the country's economic and social woes.

⁸Although many New Dealers were anti-business and used their party's power to rally against capitalism, Roosevelt was not interested in antagonizing the business community. However, the increasing infiltration of government into everyday life, and the socialist-like proposals behind certain New Deal programs were hard for stalwart capitalists to swallow and as a result, Roosevelt and the New Deal as a whole were not always perceived as being on the side of business and the American Way.

Even though Roosevelt's primary plan for pulling the country out of the Depression was to revive consumer spending, the government's participation in the economy by trying to establish a controlled business environment in which consumerism could prosper was many times denounced as anti-American and accused of going against the tenets of free enterprise.

For more on Roosevelt's relationship with the business community, see: Steve Fraser and Gary Gerstle, The Rise and Fall of the New Deal Order (Princeton: Princeton University Press, 1989); Ewen, PR!, 233-336; Tobey, Technology as Freedom, 92-177.

would during the war, but also in a world's fair. Planners of the fair, which was set to open in New York in 1939, devised the theme, "Building the World of Tomorrow," as a way to resuscitate the public's confidence in business, free-enterprise, and commercial progress. In the 1939 World's Fair (NYWF) business would offer to solve social problems with a superficial, commercial outlook, a tactic which was not something generally done in earlier fairs that were mainly about displaying goods.⁹ Consequently, the fair as an image of the future and commercialized progress became part of the business community's arsenal to counteract the social publicity machine of the New Deal.¹⁰

Corporate fair exhibitions attempted to frame and

⁹Ewen, PR!, 324.

See also the chapter, "Future Perfect," in Rydell, World of Fairs, 115-136.

¹⁰"The New York World's Fair offer[s] an ideal opportunity for business to seek a way out of the dire straits into which it has been precipitated in the last few years. **Other fairs have been chiefly concerned with selling products;** this one will be chiefly concerned with selling ideas. . . . [T]he New York World's Fair of 1939 is going to be the greatest single public relations program in industrial history." From: Bernard Lichtenberg, "Business Backs New York World Fair to Meet the New Deal Propaganda," Public Opinion Quarterly 2 (April 1938): 314-15.

And: "We believe that the program of the Fair must have an **underlying social objective.** It must demonstrate the betterment of our future American life. **It must stress the vastly increased opportunity and the already developed mechanical means which this twentieth century has brought to the masses for better living and accompanying happiness.**" From: John Deventer, "Jobs in the World of Tomorrow And . . . A Job for the 'World of Tomorrow,'" The Iron Age (February 9, 1939), no page number. Both sources found in Ewen, PR!, 325. (My emphasis)

redirect the average consumer's opinion by inspiring hope in the future through escapist fantasies about science, technology, and efficiency designs.¹¹ Thus, fair exhibits of the future "world of tomorrow" provided the business community with a vehicle for popularizing its commercial vision of progress and a better America improved through science and technology controlled by captains of industry, sentiments which would dominate during the war years and

¹¹For more on how the New York World's Fair was planned as a blueprint for building the ultimate American Way of life, which would be predicated on corporate visions and consumer products, see: Joseph P. Cusker, "The World of Tomorrow: Science, Culture, and Community at the New York World's Fair," in Dawn of a New Day, 13-15. According to Cusker, domestic utopia was used as a way to demonstrate the benevolent side of the "Machine Age" and counter the anti-automation sentiments of organized labor.

Warren Susman, "The People's Fair: Cultural Contradictions of a Consumer Society," in Dawn of a New Day, 22, explains how certain corporate exhibits were intended to show how a given company or industry had recently raised standards of living, which pointed to the possibility of higher standards for more consumers in the future.

See also Francis V. O'Connor, "The Usable Future: The Role of Fantasy in the Promotion of a Consumer Society for Art," in Dawn of a New Day, 57, for how visions of technology were intended to imply that it could raise standards for all and how the New York fair as a whole was meant to project this idea.

See Gerald Wendt (Director, Department of Science, NYWF), Science for the World of Tomorrow (New York: W. W. Norton, 1939), 41-42, 151-52, for the official fair planners' rationalization as to why mechanization was advancing at the expense of human labor and how that would ultimately facilitate progress. In his book, Wendt glorifies the mechanization process that, as he explains it, puts labor temporarily out of work. The "Machine Age" should be praised, not criticized, according to Wendt, because it had raised standards across the board and thus made luxuries and common necessities affordable to more people.

become fused with ideals about the postwar world.¹²

For example, General Motors's "Highways and Horizons"

¹²Ewen in PR!, 322-36, (building on Susman's argument in Dawn of a New Day) says that the New York World's Fair planners (who included Walter Dorwin Teague) publicized their project as a "People's Fair" and thus capitalized on the New Deal's social and egalitarian symbolism, which also permeated the latter's RA/FSA publicity. Consequently, fair planners tried to downplay the disparity and tensions between corporate hegemony and a New Deal liberal/collectivist bias by using the democratic rhetoric of New Deal propaganda in order to resuscitate the public's faith in corporate authority and store-bought technology. This duplicity is exemplified in the fair planners' attempt to silence the critics of big business by controlling the way its opposition would be displayed at the fair. In response to its superficial mimicking of New Deal social responsibility, fair planners chose to build their own Consumer Building and create an Advisory Committee on Consumer Interests, which would include a mix of members from the business community and the consumer movement; however, the latter would eventually resign, leaving business to sponsor "consumer protection" under the aegis of corporate interest. The fair planners' pastiche of the New Deal agenda and liberal concerns is also exemplified by the inclusion of social commentator Lewis Mumford, who wrote the script for the film, "The City," shown at the Science and Education Building. See: Richard Wurts, The New York World's Fair 1939/1940 (New York: Dover, 1977), 89.

Despite the fair planners' accolades about a "People's Fair," corporate "social progress," and technology for the "common good," exhibitors were supposed to provide their own financing for their displays. As such, large corporations were able to command the best spaces and the most impressive displays, overshadowing non-commercial exhibitors, such as members of "the cooperative movement, the granges and farmers' groups [and other] social organizations." (Ewen, PR!, 324.)

Not unlike the business community, Roosevelt also saw the fair as a way to mold public understanding about the New Deal and its plan for the future, which relied on the cooperation between business and government. Roosevelt had headed the U.S. government's National Exposition Commission in 1915 and knew full well the influential power of corporate-sponsored science and technology displays to instill consumer confidence in the American Way and the future. For the 1933 and 1939 fairs, Roosevelt hoped to find support for his New Deal programs by, ironically, riding the wave of consumer enthusiasm stimulated by the business community at the fairs. Rydell, World of Fairs, 118, 146-156.

exhibit, which featured designer, Norman Bel Geddes's "Futurama," offered another urban/suburban diorama of the "City of 1960," where clean, wide-open spaces and integrated highway arteries were intended to facilitate physical and social well-being.¹³ [FIGURE 62] In Geddes and GM's utopian conception of the future, broad, roomy avenues have cleared a clean, direct path through the, presumably, once slum-ridden city for the private automobile. In Geddes's plan, evenly-spaced model cars suggest a lack of stress in a future, organized world where the automobile industry would dominate and rule the external environment. The General Motors's exhibit highlighted the social benefits of the automobile, and the frictionless public spaces that highway planning would presumably facilitate. Such a harmonious image was ironic in light of the violent labor conflicts (and a massacre) that had plagued the auto industry during the Depression. Thus, the General Motors's exhibit constructed an ideological and economic agenda, like other corporate-sponsored exhibits, that masked past discord with futuristic fantasies about the omnipotence of the machine and the social benevolence of capitalism, which would presumably democratize progress for all.

¹³Norman Bel Geddes, Magic Motorways (New York: Random House, 1940). See also: "City 1960," Architectural Forum July 1937, 57-62.

Other corporate displays included the U.S. Steel pavilion, National Cash Register's giant cash register, and Underwood's larger-than-life typewriter.

Such predictions about the future also revealed concerns about the present¹⁴, yet packaged them in images of perfected, sterilized progress, closing the gap between rich and poor and between labor and capital, by suggesting that a classless, harmonious, slum-free society would be sustained by ever advancing developments in commercialized science and technology, which would automatically universalize standards in health, cleanliness and sanitary living without compromising free-enterprise.

Consequently, images of both dire poverty and technological salvation, which characterized the historical record of the Depression years, were never far out of mind when wartime visionaries crafted the concept of postwar progress and its anticipated commercial fallout. The 1930s dual image of technological hope and defeat--the promise of corporate authority and consumer-bought progress to solve all social problems automatically--would surface throughout the war years, and influence plans for the postwar version of the future house and the "world of tomorrow" on the other side of victory.¹⁵

¹⁴Visionary housing plans of the 1930s, especially at the fairs, were many times rooted in aristocratic ideals which clung to the past. See: Bletter, "The World of Tomorrow."

¹⁵While other world's fairs, and even the NYWF, "Building the World of Tomorrow," had utilized the "house of tomorrow" concept and domestic fantasies as a way to capture consumer attention, such exhibits were usually not intended to be affordable to the average person, even members of the middle class. As will be shown in this chapter, the mythic postwar

This chapter will examine the publicity about the postwar house, and show how it was not just conceived as a design or a physical structure, but was also promoted as a vehicle for extracting order out of chaos and salvaging middle-class values that ascribed a harmonious society to "good" design and controlled planning.

Postwar housing proposals, like wartime shelter designs, would be dependent on models which had been on the drawing board or implemented as construction experiments before the war.¹⁶ However, the dominant picture of the future house would be influenced by the publicity surrounding the "new and improved" materials and prefabricated construction techniques developed during the war. Not coincidentally, postwar plans for improving the house's efficiency with mechanical cores and laboratory-like kitchens, rationalizing it with movable panels, lowering construction costs with prefabrication, obliterating domestic inconveniences with built-ins, and subsequently

house of tomorrow differed from this convention in that various designers and industries emphasized, for all its futuristic gizmos, that the postwar house would be available in a middle to low income price range. Consequently, the future shown in wartime advertising and articles about the postwar world was intended to spark fantasies about realistically acquiring a postwar "miracle" house - despite how fantastic and impractical many of the designs would prove to be.

¹⁶For more on pre-war innovations that were adopted to wartime defense housing models as well prototypes for the postwar "house of tomorrow," see: Blueprints for Modern Living, 83-104.

raising standards of living, represented the residue of established debates which had been bandied about by architects, designers, and even Progressive era visionaries, well before the war. Basing their arguments on the popular perception of war-related progress and corporate patriotism, wartime forecasters would offer maximized cleanliness, convenience, comfort, and leisure at an attainable price, putting the promise of a suburban middle-class lifestyle within reach of millions, even the working-class. Thus, the publicity generated by postwar housing forecasters would argue (rightly or wrongly) that wartime developments would make it possible to realize pre-war dreams in "scientific" housing, which sought to rationalize domesticity and liberate Americans from the blight of uncontrollable filth, improper domestic standards, and their perceived accompanying ailments: social decay and strife.

I. Reconversion: Advertising the Postwar House

Despite our twentieth-century realism and scientific advances, the average home possesses few comforts. Suffocatingly hot in summer, drafty and unevenly heated in winter, badly lighted in all seasons, cluttered with too much furniture and equipped with old-fashioned appliances that function poorly or not at all, **our homes reflect few of the engineering and designing achievements of our generation.**¹⁷

As noted by postwar forecasters, Carlisle and Latham, the much lamented shortage of sufficient housing had never been adequately solved before the outbreak of the war.¹⁸ Rational domesticity and proper shelter, for many low-income urban and rural Americans, had remained out of reach, even though convenient power sources and mass-production had lowered costs and ushered new mechanized comforts into a middle-class price range during the 1920s and 1930s. In 1941, as the U.S. stood at the brink of war, inadequate living standards still plagued many Americans: eleven million houses lacked running water, fifteen million were deprived of private indoor flush toilets, and seventeen

¹⁷Carlisle and Latham, Miracles Ahead!, 29. (My emphasis)

¹⁸The political response to the media's portrayal of shanty towns and Hoovervilles burgeoned into the New Deal's housing legislation, which included the inception of the Federal Housing Administration and the Public Work's Administration's Housing Division. For more on the New Deal and housing in the 1930s, see: Jackson, Crabgrass Frontier, 193-226.

See also: Joseph Arnold, The New Deal in the Suburbs: A History of the Greenbelt Program, 1935-1954 (Columbus: Ohio State University Press, 1971).

million houses were wanting in private baths.¹⁹ With little construction implemented during the 1930s and wartime building limited to war worker and military housing in the early 1940s, the growing crisis of an expanding shortage of affordable, adequate shelter in the "world of tomorrow" loomed ominously on the postwar horizon.²⁰

If the worse housing shortage scenarios were to be avoided and consumer incentives for postwar spending were to be realized, then, according to business experts, plans for confronting and solving the housing crisis had to be drawn up during the war. As previously mentioned, the war bond campaigns had intricately tied consumer participation in the war effort with saving for a new house or extensive household modernization. Much of the war bond advertising had sought to help build public confidence in the war effort by showing how the average consumer's war bond investment would build not just a bridge to victory or a "better America," but also an expressway to higher personal domestic standards and an easy-access ramp to single-family home-

¹⁹"The House We Live In," Ebony January 1946, 20. According to Ebony, statistics were retained from the U.S. Housing Census of 1940, reported in 1941.

²⁰For more on the wartime housing dilemma, see: "Building for Defense . . . Headway and Headaches," and Edith Elmer Wood, "Building for Defense . . . Emergency Housing Proposals," Architectural Forum April 1941, 10, 12, 14, 18, 98, 102, 106.

For more on the anticipated postwar housing crisis, see: "Construction Potentials: Postwar Prospects and Problems, A Basis for Action," Architectural Record December 1943, 1-32.

ownership. Experts in the housing and design professions realized that if plans for overturning the postwar housing shortage were not publicized during the war, and consumers became disillusioned about the much heralded promises made for the postwar world, then the industrial reconversion process might be compromised before its financial rewards could be universally felt. Furthermore, the public trust that business had been building during the war with its accolades about corporate patriotism and public service would be crushed. And its attempts to undermine the power of the New Deal and expand corporate authority would be for naught.

Consequently, many companies who wished to tap into the postwar domestic market sought to stimulate consumer confidence in business and the free-enterprise system with fantasies about the affordable postwar miracle "house of tomorrow." Thus, extensive publicity campaigns were undertaken in both the business and consumer press, picturing the war effort as a catalyst for domestic improvements by aligning the technological progress of war to the promise of higher standards in house construction, design, and function.

While their profit and political motives may have meshed, most advertisers and designers did not agree on the extent to which the progress of war would "revolutionize" and transform the appearance of the postwar house.

Generally, the business press' "house of tomorrow" followed more in the trend of popular science magazine predictions, world's fairs exhibits, and modernist demonstration prototypes, in which fantasy and experimentation overruled what was possible, practical, or even desirable to the public.²¹ For example, Firestone presented a 1945 fantasy of a postwar suburban neighborhood, in which white, middle-class families live in flat-roofed, eclectic modernist dwellings with curved walls, cantilevered awnings, and terraces anchored by a central mass chimney--not unlike Frank Lloyd Wright's "Falling Water." [FIGURE 63] Firestone's horizontal series of windows are also reminiscent of Richard Neutra's "Health House" for Dr. Richard Lovell of 1927-29. Across the street, a family greets its guests from a balcony enclosed by tubular railings that echo the ocean-liner sundeck motif found in George Keck's 1933 "House of Tomorrow." The visiting family alights from their helicopter with protruding fins, "streamline" detailing, and, of course, Firestone tires.

In a similar fashion, Bohn Aluminum's 1943 "new design for living" offers a radical, "streamlined" abode with modernist features of glass walls, cantilevered roof, and internalized carport. [FIGURE 64] This single-family house

²¹A modernist idiom was frequently used in prototypes, but not necessarily in actual building. See: Bletter, "World of Tomorrow," 86-90, for more on American responses to modernist architecture and the International Style.

of the future appears so aerodynamic that it is about to fly off its suburban lawn. Likewise, Bohn's fantasy city of the future recalls fair models like Futurama and Democracity, and presents a "streamlined" "world of tomorrow," new and improved with the progress in metal alloys developed for the war. [FIGURE 65] Such images were not intended to solve the anticipated postwar housing crisis, but rather to align company brand names with the presumed technological "miracles" that were winning the war.

In women's magazines and the general public press, postwar predictions tended to be couched in traditional, middle-class architectural idioms, and not wild, modernistic ones, like Firestone and Bohn's, which were published in the business press. For example, Walter Dorwin Teague, in his 1943 article, "A Sane Prediction," offered a conservative estimate about the "house of tomorrow's" appearance.

[FIGURE 66] The image of suburbia Teague forecasts for the future postwar world shows that traditional architectural idioms and eclecticism would overshadow modernist references, and no futuristic fantasies would prevail. In Teague's future suburbia, stately single-family houses (clearly intended for a middle to upper-middle-class price range) encircle a tree-line cul-de-sac. The central house that dominates the sketch sports a huge stone chimney and a Regency-style roof. All but one of the houses on the cul-de-sac are cast in pitched-roof, conservative modes, and the

sole flat-roofed model (with its California-like terrace for "out-door" living) is nearly squeezed out of the picture.

However, the text of the article paints a picture of prefabricated future with built-ins and mechanical service cores.²² While the exteriors of Teague's future suburban houses echo tradition and established middle-class affectations, its interior conveniences (resulting from wartime advances) are not dissimilar from Buckminster Fuller's proposal for a mechanical utility unit, which he had planned for his glass-walled, geometric Dymaxion model house of 1927.

Trimming the "house of tomorrow" with conventional, quaint architectural features was a common technique used in war bond advertising that sought to link consumer support for the war effort with strengthened family security and middle-class values in the future.²³ For example, in a 1942 ad sponsored by thermostat manufacture Minneapolis-Honeywell Controls, featured in Better Homes & Gardens, a war bond is pictured as the foundation on which a suburban dream home has been built. Despite the claims in the ad's

²²"The heart of the house will be its service section. In the lowest cost brackets, this will be a compact [kitchen and bathroom] unit. . . . All bathroom fixtures, sink, and plumbing will be molded of lightweight synthetic materials." From: Walter Dorwin Teague, "A Sane Prediction about the House You'll Live in After the War," House Beautiful August 1943, 48.

²³This issue was raised in Chapter IV. See corresponding illustrations in that chapter.

copy that the "house of tomorrow" will be advanced with wartime innovations, the postwar house that war bonds will buy (which also carries a Federal Housing Administration endorsement) sports quaint, rustic cliches, including a chimney, dormer windows, steep, pitched roofs, and a roughened, stone facade.

Consequently, traditionally-styled postwar "houses of tomorrow" were more common in magazines geared for average consumers than modernist fantasies. Naturally, there were exceptions to this rule, such as the airport of tomorrow depicted in designer John Tjaarda's article, "Your Home, Your Clothes, Your Car Tomorrow," in which tear-drop cars possess detachable airplane wings.²⁴

Predictions about standardized, prefabricated or mass-produced housing were equally varied, as the following sections will show. In response to the prefabricated housing industry's not so stellar reputation, which had plagued the industry prior to the war, prefabricators, hoping to cash in on their war-time experience, packaged their innovative housing materials and construction techniques in a conventional format and borrow from traditional designs--not radically modernist ones--that

²⁴American Magazine May 1943, 44-45. In certain cases, depictions of a modernist, flat-roofed suburbia were intended as parodies about the "miracles" forecast for postwar living. See: David O. Woodbury, "Your Life Tomorrow," Colliers 8 May 1943, 40. This issue, and some of the wartime parodies of the postwar world, are examined in Chapter VII.

appealed to the dominant conservative taste of the middle-class and those aspiring to be in it. New styles or construction techniques (even those proven in war) would pose a tough sell to potential postwar home-buyers, despite all the hype about the "miracles" of household comfort, convenience, and affordable leisure that postwar forecasters claimed would be available after victory. Consequently, prefab companies capitalized on conventions and expectations established in the past, prior to the conflict, while they tried to forge innovative paths in shelter construction.²⁵

Prefabricating the
"House of Tomorrow"

Like many other obstacles to victory, the problems arising from quartering soldiers and war workers harbored

²⁵The Case Study House Program, sponsored by Arts & Architecture, and launched in January 1945, represented one of the many avenues of this era by which postwar architects and designers tried to popularize their modernist house plans to a wider public, and thereby, perhaps, become realized after victory. John Entenza, the magazine's editor and founder of the program, had hoped that wartime aviation, industrial developments, and prefabricated architectural projects would stimulate innovations in postwar housing in which an industrial aesthetic would dominate.

Entenza commissioned architects (many just emerging from their wartime defense commissions) to build and furnish prototypes for the Case Study program as a means to offer architects, builders, and the public ideal models of simplified, modern architecture (supposedly free of all historical and traditional trappings and able to be mass-produced to a certain extent), which would perhaps influence the designs adapted for the postwar housing market. See: Blueprints for Modern Living; World War II and the American Dream, 22-23, 27, 84, 141-43, 171, 199.

potential threats to the Allied cause.²⁶ Providing adequate shelter for thousands of American soldiers bivouacked in climates ranging from African deserts to South Pacific jungles, and building low-budget houses for war workers pouring into small, overcrowded towns with new booming production facilities, presented an unprecedented housing emergency which needed to be addressed quickly and efficiently without jeopardizing the health and well-being of the military and defense labor force.

But the need for reserving critical materials, like iron and steel, for ships, tanks, and weaponry strained the wartime housing crisis. As a result, architects, designers, and builders were encouraged to plumb the depths of their imaginations for innovative shelter solutions and substitute building materials.²⁷ In response to the housing

²⁶My intention in this section is not to provide a history of the prefabricated housing industry during the war, but rather, to show how wartime prefabricators attempted to capitalize on their contributions by promoting the success of their industry in the hopes that they could make prefabrication an established and significant facet of the construction industry after the war.

For more details about the role of the prefabricated housing industry during World War II, see Albrecht, World War II and the American Dream; and Kevin Starr and Dolores Hayden's essays in Blueprints for Modern Living, 131-211.

²⁷See also: "With national defense came the initial and somewhat overworked Government demand for temporary housing to serve the industrial, military and naval centers. . . . Backed up with millions of defense housing dollars, this demand has prompted many a private enterpriser to scratch his head and solve the problem with anything from steel, igloo-like buildings to plywood panel houses put together with double-headed nails."

From: "Building for Defense . . . Prefabrication Takes

emergency, architect Wallace Neff devised a quickly constructed "Bubble House" out of concrete, which was sprayed onto an inflated balloon covered with a reinforcing mesh: "Buildings are blown up, not constructed in the ordinary sense, by Wallace Neff [of] Los Angeles. . . . A balloon is inflated . . . so that concrete and insulating materials can be shot over the form by air pressure. When they harden, [the] form is removed."²⁸ Neff attempted to align his concrete domes with all the comforts of conventional "normalcy" and "home." Despite their igloo appearance, the interior picture of the "Bubble House" shows how conventional fireplaces trimmed with neo-classical molding and pianos with fluted legs fit snugly in arched rooms of concrete. Yet, their "cozy" trappings fail to erase the stark contrast between staid middle-class conventions and cheap, mass-produced solutions--even during a war.

Similar to other wartime industries, housing professionals and related manufacturers saw in the war a way to not just contribute to victory, but also acquire wartime contracts, and thus financial backing, for implementing the

New Shape," Architectural Forum April 1941, 20.

²⁸"Blown-Up House," Popular Mechanics April 1945, 48.

Like Fuller's wartime Dymaxion Deployment Unit, Neff's concrete Bubble house failed to sustain popularity either with the military or the public.

innovations they had worked on prior to the conflict. For the struggling prefabricated housing industry, the critical wartime need for expediting inexpensive construction with as little skilled labor as possible and with non-priority materials appeared to be the most promising means from which to launch a successful, and profitable, housing "revolution:" "National defense may do for Prefabrication what World War I did for the aircraft industry - raise it from infancy to adolescence in no time."²⁹

During the 1930s, innovators in the prefabrication field had made many claims, sometimes exaggerated, for the infallibility of their factory-assembled and standardized

²⁹"Old Newspapers to New Houses," Architectural Forum December 1940, 531.

Although Sears Roebuck had sold "ready-cut, stock plan" houses for several years prior to the Depression, some prefabricated or mass-produced housing experiments, companies, and enterprises succeeded more so than others, but by the late 1930s, several companies had gone under.

Housing visionaries of the 1930s were hampered by several obstacles in their attempts to launch their prefabrication projects into production, and were stymied for a variety of reasons, mostly their impracticality in light of the dire economic situation of the time, and the size of the U. S., which made national distribution of complete, ready-made houses impossible. Huge amounts of capital would be necessary to retool industry for mass-producing new forms of housing and built-in appliances--a reality which economic uncertainties of the Depression made unfeasible.

Such "paper tigers" of the 1930s mass-produced "house of tomorrow" craze included: Richard Neutra's "Diatom One + Two" (1933), William Van Allen's "steel-shell" house for National Homes, Inc. (1935), and Frank Lloyd Wright's "Usonian Houses" (1934) which were intended for his futuristic, "Broadacre City." See: Brian Horrigan, "The Home of Tomorrow," in Imagining Tomorrow: History, Technology and the American Future ed. Joseph J. Corn (Cambridge, Mass. and London: MIT Press, 1986), 148-54.

products.³⁰ Yet, in many cases, houses labeled "prefabricated" failed to live up to their manufacturers' promises to dispel the mass-produced shelter's low-class, low-quality stigma.³¹ Despite their standardization, their

³⁰For a critique of the fears, myths, and the logistic and economic problems raised by mass-producing houses after the manner of Henry Ford, see: Douglas Haskell, "Houses Like Fords," Harper's February 1934, 286-98; "Housing and Prefabrication: Some Reasons Why the Factory Will Not Soon Supplant the Architect," Pencil Points June 1936, 303-304, 306, 308, 310, 312; Lewis Mumford, "Mass-Production and the Modern House," Architectural Record January 1930, 13-20.

³¹In an Architectural Record issue (January 1934) highlighting prefabrication trends, several companies attempted to erase the stigma attached to prefabricated housing by displaying their houses in suburban settings. For example, the Buell System (the name of which evokes a detached, machine-like efficiency) is depicted in action. Trucks (which appear to have been custom designed to haul Buell houses) roll one by one in assembly-line fashion into a suburban setting, where they pass a Buell System already erected on its lot of manicured grass, surrounding by trim shrubbery. The Buell System owners attempt to show how cheap, boxy, prefabricated houses could fill the desire for single-family homeownership and also fit snugly in a middle-class setting.

The same prefabrication issue of Architectural Record featured Stran-Steel and Good Housekeeping's "house of tomorrow," which had been exhibited at the 1933 Century of Progress fair. Like its contemporaries, Stran-Steel also attempted to downplay the unconventional nature of its house (which needed neither plaster nor water to be built) by trimming it with middle-class domestic idioms such as a bay window and fireplace. Other Stran-Steel model houses were offered in more traditional period styles, such as the "English Gable Type Home," which it listed along with its "Contemporary Flat Roof Type" in a pamphlet made available at the fair. (See: Bletter, "The World of Tomorrow," 91.) Despite the fact that it appeared in the prefabrication issue, Stran-Steel stressed that its products were not mass-produced units, but rather its innovation was simply a redefinition of house construction.

American Houses, Inc., begun in 1932, offered dwelling units that were also not entirely mass-produced, but attempted to capitalize on the popular fantasy that houses could roll

prefab "houses of tomorrow" were usually still beyond the price range of the most desperately needy, and members of the middle class eschewed prefabricated parts and assembly for traditional construction methods and period-style designs³²:

No practical art has made less progress through the ages than home building. We still use the same brick hand unit employed in building the walls of Jericho. . . . There have been attempts in experimentation and research by some individual manufacturers. . . . **The general purpose of these experiments has been to reduce costs, but to my knowledge few, if any, have accomplished this purpose.** . . . Those who are experimenting with pre-fabricated houses are, in most cases, departing from the conventional designs, but the home buyers are not ready to depart materially from the conventional. They still want a brick exterior, in an English, a Colonial, or some other current design.³³

Furthermore, the FHA's disapproval for mortgage insurance on prefabricated houses did little to alleviate

off assembly lines as easily and inexpensively as cars by including a built-in mechanical service core, dubbed the "moto-unit." (Ibid., 91-92.)

³²Stran-Steel's units sold for the relatively high cost of \$9,000 each, while American Houses offered an array of prices between \$1,975 to \$15,000. See the prefabrication issue of Architectural Record January 1934.

The median monetary income in 1939 of male farm laborers was \$373 per year. Craftsmen that year received \$1,309, while male managers (middle-class professionals) earned \$2,136. Female managers made about half that in 1939, grossing \$1,107, and women clerical workers received \$966. White male workers in 1939 earned an average pay of \$1,112, while their black counterparts fared much worse with \$460 that year. From: Ross Gregory, Modern America, 124.

³³"Demand for Better and Cheaper Homes [highlights of the proceedings of the Home Building Conference]," Architect & Engineer May 1934, 32. (My emphasis)

the public's skepticism and thus discouraged prefabricators from launching large-scale housing developments, which might have lent them the experience to prove their claims.³⁴

Thus, on the eve of America's involvement in the war, prefabricators were still saddled with a rather shoddy public image, which they needed to reverse if wartime contracts, and postwar profits, were to come their way:

On the other hand, [national defense needs] may disprove Prefabrication's long and loudly voiced claim that it alone holds the answer to many a U.S. housing problem. With well padded, undocumented production

³⁴Some prefabricators did manage to get a handful of their model houses on the market by the mid to late 1930s, but the restrictive economic situation, polarized political views in the housing industry, and in government, the houses' not so low-income cost, and the social stigma of mass-produced housing projects hampered their wide-spread construction. For examples of those prefabricators who managed to put some of their prefabrication into commercial practice, see:

J. F. Higgins, "Introducing the Pre-Fabricated House [re: American Houses, Inc.]," House & Garden March 1935, 36-37, 76; "News of Planning and Construction [re: Schindler-Shelters]," American Architect May 1935, 69; "New Demountable Cottages Developed by the Tennessee Valley Authority," Pencil Points June 1941, 397, 400.

In Architectural Forum, see: "Sears Roebuck Boards the Prefabrication Band-Wagon with Plywood Houses," October 1935, 452; "Home Building Goes Indoors," May 1939, 374-76, sup. 36, 38; "A Product of General Houses," July 1932, 65-66, 69, 71-72; "House by the Celotex Corporation," October 1939, 285; Irving H. Bowman (re: Bowman Brothers, Architects), "An Industrial Approach to Housing," July 1932, 73-75, 78-79.

In Architectural Record, see: "National Houses, Inc., Begins Production," July 1936, 71-73; "Plywood Prefabrication," February 1937, 42-44.

In support of prefabrication and housing, see: "The Standardized House," Architectural Forum September 1938, 188-96.

For a contemporary assessment of Howard Fisher and his General Houses, Inc. as well as Buckminster Fuller and their place in the 1930's prefabrication debate, see also: "Housing VI: Solutions," Fortune July 1932, 61, 69, 104-108.

figures, prefabricators have boasted their ability to beat conventional house builders in speed, volume, cost, quality and a host of other factors. A few leaders have actually fulfilled a few of these boasts in a few isolated projects [including American Houses, Inc. at Dundalk, Maryland, and Gunnison Housing Corp. at New Albany, Indiana], but the unconvincing accomplishments of the industry as a whole have prompted many observers to rhyme prefabrication with prevarication.³⁵

The makers of Homasote, pressed wall panels made with the pulp of old newspapers and weatherproofing materials, however, were undaunted by the prefabrication industry's universal bad press. Corporate leaders of the Homasote Company, who launched their firm in 1909, perceived the war as a profitable means by which to merchandise their product. According to the company's Vice-President, F. Vaux Wilson, Jr., the success of prefabricated housing would not lie in its potential practicality, but rather in its public image: "Neither technological improvement, nor lower cost solves the housing problem - proper merchandising will."³⁶

Following this corporate maxim, Homasote launched a two-prong attack on their industry's tarnished public relations. Part of their plan to expand the marketability, and thus the acceptance, of their product included promoting a four-hundred page book, geared for architects, contractors, and lumber dealers, called, Tomorrow's Homes, which provided details about their materials research and

³⁵"Old Newspapers to New Houses," 531.

³⁶Ibid., sup. 36.

prefabrication method, called Precision-Building.³⁷ The other half of their plan involved tapping into the \$250 million defense housing budget set aside by the federal government. In 1940, they invited members of the federal government's defense housing administration to witness a demonstration of their company's solutions to wartime shelter needs:

Homasote . . . completely erected during [Government officials'] one-day visit the first Precision-Built Jr. house. By nightfall the untutored labor had laid the last shingle, had cemented the last concrete block. . . . And, two days later, true to predictions, the house was ready for occupancy. . . . Total cost - everything but the lot: \$2,137. . . . As interesting to Government national defenders as the house's light, tight construction, its low cost and its trim appearance, were three other facts: 1) The bolt and screw assembly makes the house readily demountable, almost 100 per cent salvageable and, therefore, admirably suited to the solution of temporary defense housing problems. 2) Unlike the supply of plywood with which most prefabricators' houses are built, the supply of this house's principal ingredient is ample: Homasote draws on the waste newspaper markets of only a few large Eastern cities.³⁸

³⁷Out of a total printing of 4,000, only 800 remained as of December 1940. See: *Ibid.*, 534.

See also the promotional article on prefabrication highlighting Modulok, "a wartime system of prefabrication with a big postwar potential." From: Architectural Forum September 1943, 65-67.

³⁸"Old Newspapers to New Houses," sup. 35-36.

Homasote received its contracts and also directed its prefabricated solutions to the military's ordnance needs: "A collapsible one-room house [of undecorated wall panels with windows] that can be taken out of a 'suitcase' and set up in three minutes has been developed as a portable unit for use by our armed forces. . . . William B. Stout, noted designer, has provided walls that fold open and shut like an accordion. . . . made [of] Homasote and noncritical lumber. . . . [T]he Army uses [them] as kitchens, shops, offices and first-aid stations." From: "Suitcase Houses for the Army," Popular

In designing soldiers' quarters and war-worker housing, several manufacturers, designers, and architects saw a way in which to expand their wartime contributions beyond their military use and develop a demand for prefabrication by publicizing how it could solve both the anticipated postwar housing crisis and universalize higher standards of living. The following quote from Carlisle and Latham's Miracles Ahead! of 1944, which was compiled from wartime publicity about the postwar world, reveals the ways in which prefabrication was not only linked with victory, but also touted as a means to affect universal access to the standards of living enjoyed by the middle class:

More than fifty companies are now engaged in the manufacture of prefabricated houses. Some of these houses are being shipped to the war fronts to be used for hospital units, executive quarters, and barracks. Some are being rushed to our own crowded industrial centers where the housing shortage for war workers grows daily more acute. . . . You will get the benefits of this manufacturing experience . . . you will also get the use of the marvelous new lightweight, resilient, powerful materials, developed for building planes, tanks, and battleships, that will later be adapted to peacetime uses. . . . **Warborn advances in building materials and construction methods will make possible a prefabricated home priced within reach of the average family.**³⁹

Science February 1944, 69.

Architect William W. Wurster of San Francisco designed several wartime federal houses out of Homasote in Vallejo, California. See Albrecht, World War II and The American Dream, 1.

³⁹Carlisle and Latham, Miracles Ahead!, 13-14, 16, 26. (My emphasis)

For more examples of how architects and designers sought to capitalize on their wartime experience by trying to jump-

Planning for the postwar building boom, Homasote advertised how its "Precision-Built" housing would not only secure profits for its construction clientele, but also eradicate social ills associated with urban decay: "prefabrication will bring quality homes within reach of new millions of people."⁴⁰ [FIGURE 67] In its 1942 ad, Homasote depicts a run-down urban block of dark, wooden row houses--a neighborhood overrun with young, latch-key hooligans, fighting and playing in the streets. Suggesting prefabrication could offer a solution to such squalid environs and the "improper" habits they presumably bred, the urban blight is shown as transformed into single-family suburban houses made of Homasote. In Homasote's affordable suburbia, white, prefabricated houses with pitched roofs and quaint shutters, encircle a grassy park with swings and a see-saw, where children play in an orderly fashion, and

start a postwar prefabricated housing industry based on the lessons of recent industrial production, see: Blueprints for Modern Living, 161-63, which highlights some of these attempts, as well as World War II and the American Dream, 20, 27-28.

For example, Henry Dreyfuss, Edward Larrabee Barnes, and a contingent of aircraft engineers from Consolidated Vultee built a prefabricated, modular prototype out of aluminum aircraft panels in 1947 called "House in a Factory," which proved unsuccessful. Walter Gropius and Konrad Wachsmann created a prefab company called General Panel Corporation in 1942, which was housed in a former aircraft factory. Their Packaged House was constructed of plywood panels and connected with Wachsmann's patented metal wedges, but the company closed in 1952 after only producing between 150 and 200 modernist, prefab houses.

⁴⁰Business Week 11 April 1942, 79.

where social calamity is dissolved.

Likewise, in an attempt to dispel the stigma of ugliness attached to standardization and wartime housing projects, Revere Copper and Brass announced that postwar prefabricated dwellings would offer the consumer unprecedented low-cost luxuries and harmonious beauty: "Talented architects and engineers have been developing new designs, new materials, new building techniques for today's housing emergency. Afterward, these can be available to build homes for all. . . . [I]t is certain that more people than ever before can have real comfort, beauty and convenience in their homes."⁴¹

Following this trend, the Stran-Steel Corporation (that exhibited its prefabricated house at the 1933 "A Century of Progress Exposition") sought to carve out a substantial postwar market niche for itself with the durable, non-corrosive steel arch-rib framing it had provided for the popular defense structure known as the Quonset Hut.⁴² Easily stocked, transported, erected with minimal skill,

⁴¹"What! A house with no kitchen!" 85. (My emphasis)

⁴²First designed in 1941 at the Quonset Point Naval Air Station in Rhode Island, the Quonset Hut offered an efficient, standardized, prefabricated, and demountable solution to the military's diverse ordnance needs. One hundred seventy thousand were erected by 1946. Their adaptability added to their wartime popularity. From the standard Quonset Hut form, eighty-six different interior layouts could be devised. See Albrecht, World War II and The American Dream, p. xxx, 25, 27.

like the Homasote house, the Quonset Hut made with Stran-Steel was even more adaptable to several shelter requirements:

Today, Stran-Steel, in war-front barracks, hangars, hospitals, shops - in arctic blizzards and steaming jungles - has set an amazing new standard of building efficiency. Easy to ship, stock and handle, and speedily erected with ordinary carpenter tools, its economy is obvious. And its use in famous Quonset Huts all over the world attests its remarkable resistance to deterioration. . . . It's a 'world of tomorrow' development, here today - extensively tested conclusively proved - an answer . . . to better building and reduced construction and maintenance cost.⁴³

Attempting to capitalize on the anticipated postwar shelter needs, Stran-Steel launched a campaign to promote the Quonset Hut's prefabricated, quickly constructed arch-rib framing as, presumably, an efficient, low-cost key to suburban, single-family homeownership: "Stran-Steel Homes establish entirely new standards of beauty, durability and comfort in the field of low-cost housing. Never before has the home owner been able to enjoy such modern styling, such spaciousness and distinction for so small an investment!"

Despite its low-cost and obvious efficiency, which made prefabricated structures attractive for military use, the Quonset Hut's public image as a temporary remedy for emergency shelter needed to be reversed: its wartime reputation was a detriment to the Quonset's adaptability to civilian domesticity in peace. In an attempt to erase the

⁴³Business Week 30 December 1944, 72.

Quonset Hut's stigma as tract housing for military personnel, Stran-Steel "rebuilt" the Quonset as a conventional structure and suburban middle-class house, a device similar to what Neff was doing when he put pianos and fireplaces in his Bubble House. [FIGURE 68] In its ad from 1944, Stran-Steel shows Uncle Sam (a metaphor for the wartime use of Stran-Steel's products) symbolically removing the military shell from the structures that promise to be the Quonset's civilian counterparts. The postwar house in this case--a former Quonset-- looks nothing like the modernistic fantasies of Firestone and Bohn. Rather, Stran-Steel suggests--metaphorically--that when the Quonset loses its military drab, a bright and better solution to postwar construction will emerge and be fit for middle-class suburbia.

In a 1947 ad directed to the postwar newly wed market, Stran-Steel represents the Quonset as a unique "smartly styled," architecturally designed house by trimming it with middle-class idioms like a bride and groom (as opposed to bachelor soldiers), curtained picture windows, and individualized suburban landscaping. [FIGURE 69] Furthermore, by renaming the Quonset "The Brighton" model, an echo of romantic English estates, Stran-Steel, like other housing developers, sought to lend some class to its mass-produced "\$35. a month" solution, which was targeted to

working-class consumers aspiring to enter the middle class.⁴⁴

Many wartime housing experts espoused the idea that mass-production techniques and standardization would democratize effortless living and thus elevate the masses by according them access to scientifically planned housing. Buckminster Fuller (his attitude toward what he publicly professed as the selfish corruption of big business notwithstanding)⁴⁵ professed his ability to solve future housing and employment shortages by reconverting the wartime aviation business into a postwar prefabricated housing industry with his Dymaxion House, first exhibited in 1927:

Fuller's four room, two bath unit is made of plane materials by plane mechanics. . . . According to Richard Buckminster Fuller's raciest prediction, it would have taken two decades to see his industrialized house in production. But back in 1927 he could not foresee the war, its technological progress and its aftermath. . . . With the end of the war in sight Fuller decided that the time had come to act on behalf

⁴⁴Albrecht, World War II and the American Dream, xxxix. Despite claims to the contrary, four to six thousand dollars for a house was not dirt cheap at the time.

⁴⁵For example: "[The commercial interests] of a small body of predatory men. . . . has been the extraction of profit from all human inter-service rather than the development of natural forces as progressively revealed by the fraternity of scientific minded. . . . The desperate yet futile plagiarisms, pseudo-scientific wonders, and garish advertising-mania architecture of the '33 World's Fair, [were] designed to restimulate 'business' for the 'good olds,' rather than serving as a copyable composition for the current generations." From: Buckminster Fuller, "Profit-Control and the Pseudo-Scientific," Architectural Forum July 1933, 27.

of his house.⁴⁶

Thanks to financing and advances in war production, his postwar Dymaxion House could, he claimed, be conceivably implemented at low cost for the postwar home-buyer with preexisting aircraft parts and assembly methods. By adapting his pre-war ideas about "scientific" housing to the production techniques and materials derived from the war, Fuller's postwar "house of tomorrow" would not only be economically feasible and expedient to produce, but affordable to the masses:

Beech Aircraft Corporation is under contract to turn out some 200 houses per day early next year. . . . Fuller's primary concept is that the shelter industry must be truly industrialized by making full use of advanced mass-production, distribution and servicing methods. . . . Fastenings are of two kinds: bolts and 'blind' rivets as used in aircraft construction. . . . Assembly takes only 160 man hours.⁴⁷

Despite his attempts to capitalize on the wartime mystique of science and aircraft technology, Fuller's solution to the postwar housing crisis never really left the ground, so to speak. The Wichita, Kansas, promotional model was the only Dymaxion to be built.⁴⁸

⁴⁶"The 8,000 Lb. House," Architectural Forum April 1946, 129.

Fuller's postwar Dymaxion and its mechanical core will be examined further in the following section.

Wartime publicity for the postwar Dymaxion is referred to in Carlisle and Latham, Miracles Ahead, 16-17.

⁴⁷"Industrializing Shelter The Fuller House," Architectural Record May 1946, 118-120, 134.

⁴⁸"What Has Become of Yesterday's Inventions?" Business Week March 8, 1952, 88-89.

Similar to other manufacturers' promises to deliver war-proved efficiency to the postwar consumer, prefabrication innovators publicly labeled and defined their version of progress as a beneficial byproduct of war.⁴⁹ And yet this public perception was not an automatic result of the fact of war, but rather the product of calculated publicity geared for building consumer confidence in mass-produced houses. Those companies, architects, and designers with the war-proved experience that promised to not only ease the cost of acquiring a house, but also erase the stigma attached to prefabrication, possessed the best chance for financial success in the anticipated frenetic postwar economy.

Effortless Living and Automatic Cleanliness:
Pre-fab Panels, Built-ins, and
Sanitary Mechanical Cores

Domestic "scientists" and Progressive era reformers (as noted earlier) had sought to "rationalize" the household by restructuring domestic space and chores around the perceived

⁴⁹For other designers and architects' visions of how wartime experience would alter traditional house design in the postwar future, see Miracles Ahead!, 15, 17-21, for Walter Dorwin Teague's comparison between auto assembly-line construction adopted to house assembly, which he estimated would lead to postwar prefabs, and substantially lowered production costs; Cass Gilbert, Jr.'s prophecy of a future suburbia of rented land where demountable and mobile houses, like his Plank Panel House, can be enlarged by bolting rods and panels to the existing structure; and George Fred Keck's vision for the house as an extended family unit, which can be altered with the needs of the family through the use of sliding walls.

logic and order of the factory assembly line. Consequently, the kitchen and bathroom had received much of the focus of their attention because it was in these rooms that higher standards in design and efficiency and lowered costs would automatically result in democratizing progress, as well as middle-class standards and sanitation values, for all.⁵⁰

Such goals could only be achieved by redesigning the house around its power and sanitation sources. Exposed plumbing and wiring, which plagued the nineteenth century house hooked up to twentieth century conveniences, were the scourge of many designers who sought to eradicate the perceived aesthetic blights of the past and start anew with houses fashioned around a "scientific," single-unit "mechanical core." Accordingly, affordable electricity and running water would enter the bathroom and kitchen facilities through a factory-assembled, utility service unit.

⁵⁰This trend continued throughout the 1930s as well. Many articles published during the Depression about household modernization offered ways that the family of moderate income could raise their house's "proper" efficiency level through economical rational planning. From American Home, see: "The Magic Kitchen," January 1938, 39, 58; "Streamlined for \$9.92!" March 1941, 123.

See also: "Trends in Sanitation," Architectural Record November 1939, 66-73. The article shows pictures of the hazards experienced from lack of sanitary running water and waste disposal systems from the eighteenth to the twentieth century. Coupled with these images of unhygienic doom are the pinnacle of scientific achievements in bathroom and kitchen utility design, including Fuller's machine-stamped bathroom unit, which will be discussed in this section.

In 1927, Buckminster Fuller published a 50,000-word broadside, 4-D, introducing a building type (the Dymaxion) and service core plan, which dominated the 1930s image of the curative "house of tomorrow" and its promise to remedy the negative by-products of industrialization, including cyclical poverty, irrational design, inefficient drudgery, filth, disease, and over-crowded slums. Fuller's solution to narrowing the progress gap between the poor and upper classes consisted of standardized, built-in appliances, like a machine-stamped, central engineering facility, which was to power the climate-control, lighting, sanitation, water supply, etc.⁵¹

The idea of pre-packaged kitchen/bathroom utility units in the form of mechanical cores, as Fuller proposed, as well as built-in appliances (which were flush with cabinet surfaces), uninterrupted built-in furniture modules, and movable panel walls had been absorbed into the housing lexicon by not only modern architects and designers, but also kitchen equipment, flooring, and cabinetry companies

⁵¹Fuller had initially called his house the 4-D Utility Unit, referring to the fourth dimension. "Dymaxion," a more scientific sounding title, was coined by publicists for Marshall Field's department store in Chicago, where a small model was first exhibited in April 1929.

Fuller's Dymaxion would, he claimed, also eliminate dependence on public utilities and solve the problem of their absence in rural areas by providing each unit with its own power generator and water recycling system. Because this utility core would be factory-made and easily transported, Fuller claimed, it would also be inexpensive, and available to urban and rural poor alike. Brian Horrigan, "The Home of Tomorrow," 139-41, 160.

throughout the 1930s.⁵² Such companies promoted these simplified modern design features as the ultimate "scientific" solution for household planning because they seemed to lack irrational ornamentation, which was considered wasteful because it absorbed too much time and motion on cleaning dust-collecting nooks and crannies that

⁵²On the state of these trends in 1939, see: "Equipment for the Modern House," Architectural Record November 1939, 77-81. (The article discusses electrical heating panels, the mechanical core, built-ins, and trends toward utility unit prefabrication and standardization.)

Fuller also devised a mobile, "trailer" version of his "scientific" house plan, which would ensure that maximum personal cleanliness and domestic efficiency could be transported anywhere: "The Mechanical Wing," Architectural Forum October 1940, 273, sup. 92.

Companies that sold kitchen equipment, flooring, and cabinetry sponsored experimental houses and kitchens at worlds fair's, and also held contests and public expositions to promote both their products and rational planning services.

See: "All Clear [re: Glass Container Association experimental all-glass kitchen]," House Beautiful October 1938, 68, 117; "Kitchens of Today, Built for Tomorrow [re: all-gas kitchen of American Gas Association, and all-electric one of GE]," House & Garden August 1935, 22-23, 72; and "Houses With All the Comforts of Home [re: GE Architectural Competition]," Good Housekeeping September 1935, 84-85, 165.

On magazine sponsorship of experimental kitchens and housing displays, see: "The Institute Presents the Kitchen and Laundry at the Good Housekeeping - Stran-Steel House, A Century of Progress, Chicago," Good Housekeeping August 1933, 88-89, 124; "Homewood Kitchen at the New York World's Fair [planned by the Good Housekeeping Institute for Gas Exhibits]," Good Housekeeping July 1939, 138-39; "House Beautiful's Ivory Washable House at Rockefeller Home Center, New York," House Beautiful November 1940, 59-62.

See: Jackson, Crabgrass Frontier, 187, where the commercial intentions behind the 1930s corporate-sponsored model house is briefly discussed. Companies like General Electric, for example, in 1935 and Ladies' Home Journal sponsored "house of tomorrow" competitions, but the model houses' main attractions were the array of gadgets and their primary goals were to stimulate sales, not offer solutions to democratizing higher standards of living.

were perceived as unnecessary to "proper" modern living.⁵³

A 1939 cartoon, entitled, "We Hope You'll Be Gone With the Slums," echoes Fuller's (and earlier reformers') belief that rational design and scientifically planned housing would automatically chase poverty, squalor, and their perceived resulting social ills away. [FIGURE 70] Such sentiments that equated what was believed to be the messianic qualities of "scientific" design with a slum-free, well-mannered utopian society would surface throughout the war years and be associated with those products, materials, and building techniques which had proven their (assumed) superiority in war.

Efficient housing design and rational planning were no mere necessities, for Walter Dorwin Teague, but rather harbored moral overtones in which "proper" housing reflected

⁵³On pre-war rational planning, flush-surface, built-in appliances and cabinetry, and the "scientific" kitchen, see: Eleanor Raymond (architect), "A Model Kitchen: Designed for the Woman who Does her Own Work," House Beautiful June 1933, 269-71, 289; "What is Happening to the Kitchen," Good Housekeeping January 1933, 84-85; "Kitchens in Logical Order," Better Homes & Gardens October 1934, 18-19, 100; "Unit Kitchen [re: the Brooklyn Union Gas Kitchen Compact built-in, kitchen unit]," Business Week 10 June 1933, 12-13.

From House & Garden, see: "Six Experts Design Our Ideal House," July 1935, 21-23, 64, 66, 69-70, 72; "Planning the Service Unit," April 1937, 56.

From: American Home, see: "Now We Buy Kitchens by the Package," November 1936, 32, 100; "New Structural Materials for Your Kitchen," June 1938, 31-32, 54.

civilized order and control over chaos.⁵⁴ If the war was being fought to rid the world of fascism, then the lessons of wartime housing design and construction made designers and architects morally obligated to transform their wartime work into a vehicle for eradicating the most perceived visible, and socially debilitating, blight of poverty and the lack of "proper" progress--substandard housing. According to Teague's "Sane Prediction," prefabricated, synthetic, movable wall panels would especially make mass-produced shelters a feasible and affordable alternative for housing the working poor, which would democratize the (presumably) ideal standards upheld by the middle class:

I believe that the successful [prefab construction] system will reduce the house to a small assortment of moderate-size panels which can be quickly assembled into hundreds of different plans. . . . [T]he principle materials used [in construction of the postwar home] will be synthetic [and] can give the low-cost, prefab house an aesthetic range and richness which only the wealthy have been able to enjoy in the past. . . . [T]he dynamic trend will be toward better and better houses at lower and lower costs, until we reach a balance between income and the price of shelter. . . . If a house is dilapidated, ramshackle, not equipped properly according to modern standards of living, it will be obliterated ruthlessly as we now illuminate any other plague spot. We shall insist that human dignity and the racial welfare require decent and

⁵⁴Such ideas which associated access to decent housing with social responsibility were not uncommon among wartime visionaries. According to Carlisle and Latham, future wars and social unrest could be avoided if a higher standard of living could be democratized and disseminated to all peoples throughout the world. Freedom and democracy would be delivered and perpetual peace assured if everyone throughout the world had access to the American consumer products that had won the war and which promised to "revolutionize" domesticity in the postwar era of peace. Miracles Ahead!, 10.

adequate shelter for everybody, on the same grounds that we insist with growing firmness on proper education, diet and health service for everybody. . . . [A]t last the means will be available for maintaining such a standard.⁵⁵

Manufacturers and designers tied to the domestic equipment trades intensified the pre-war hype about "rationalizing" the household by associating a "revolution" in postwar kitchen and bathroom conveniences with the perceived benefits to be gleaned from the war⁵⁶:

Wartime dreams become peacetime realities in the postwar house that Fritz B. Burns has built in Los Angeles. . . . [Features include:] Supersanitation - Mechanical core . . . ties heating and ventilating equipment into one package. Air is sucked through duct, Precipitron (removes dust). . . . Laboratory, tub, and toilet were hand-molded to illustrate Burns' belief that they could be stamped out as a unit in quantity. . . . Bathrooms rival the kitchen in gadgetry. . . . Circline lamp, electric toothbrush and shaver, over head sun lamp, hair dryer, and . . . shower with

⁵⁵Teague, "A Sane Prediction," 58, 73, 75.

As previously shown in his other wartime writings, Teague's ideas about the postwar world may have conveyed certain moral overtones, reflecting ideals espoused by earlier Progressive era reformers, but his accolades about progress usually cloaked his ulterior political and economic agenda.

⁵⁶Gilbert Rohde, who had designed promotional exhibits for plexi-glass manufacturer Rohm and Hass, exposed the overblown postwar predictions for the "miracle" house of tomorrow, but conceded that the proposals made by many wartime forecasters may generate some household improvements: "After the war . . . we may expect to reach a heretofore inconceivable level of bliss, for industry is even now preparing for conversion of war-expanded production facilities, which will veritably inundate us with more and better gadgets. . . . In addition to the solution of many imaginary problems devised for the sake of solving them cleverly and keeping overplanted industry occupied, we may expect some real solutions that will have both economic and comfort value. From: Gilbert Rohde, "Gadgets for 194X," Architectural Forum September 1942, 112-13.

circular sliding Plexiglas partition.⁵⁷

Following this trend, John Tjaarda promoted his vision of the postwar house, which would be fabricated with light-weight, insulated walls; rooms would be devised with movable panels and the entire house would be powered by a central service core. Similar to claims made by domestic equipment companies (even before the war), Tjaarda assured his audience that his postwar house's increased mechanization and efficient materials (derived from the progress of war) would not require paid domestic help, but rather would allow the housewife to perform all household chores effortlessly by herself:

When the war is over, our spoils will be found in our own backyard. . . . [Upon] [e]xamining the structural units of the [postwar] house more closely, we see that they are hollow, prefabrication sections of steel and plastic. . . . The outer steel surface has factory inbuilt insulation, and the inner plastic surface has a decorative design. . . . There are no radiators and no unsightly plumbing visible anywhere. . . . Only the sections are prefabricated. . . . [T]he circulation of

⁵⁷"Tomorrow's House - and Gadgetry," Business Week 9 March 1946, 18. (My emphasis)

For other visions of how wartime experience would alter traditional furniture, appliance, house design in the postwar future, see Miracles Ahead!, 15-26: Paul Nelson's plan for the postwar house as a shell fitted with prefabricated room units, which could be traded in like used cars; Elizabeth Coit's visions of the apartment house of the future in which the efficiency of bedrooms would be maximized with built-in furniture, which would also eliminate a chore because dust would not collect under them; and Walter B. Sanders's apartment of the future, in which tenants would purchase standardized units of movable panels with a trade-in value and plug them into loft buildings consisting of just the rentable floor and ceiling space.

hot and cold air in the walls is managed [by] a **central control room** [which] rises from the base of house to the ceiling. . . . A central control room is the powerhouse of the home. . . . Thermostatic controls make the whole thing automatic. . . . Partitions of the house may be changed. One room may be made into two, or two into one, with very little effort. . . . This new house is nearly as adaptable as an automobile. . . . What plastics and light metals do for the house, they do in as interesting a fashion for the furnishings. Heavy, overstuffed lounging chairs that now weight [sic] 50 pounds won't weigh over 10. A davenport that requires the combined efforts of the lady and the maid to move for cleaning will be a one-handed job for the frailest woman. . . . Best of all, the whole thing may be cleaned, even to ink spots and spatters of paint, with a sponge dipped in plain hot water.⁵⁸

Publicity forecasting the postwar "revolution" in housing not only resembled the domestic reforms and design innovations exhibited prior to the war, but was also dependent on entrenched attitudes toward cleanliness as a moral barometer reflecting class status. As a result, wartime advertisers and designers tied the products generated by the progress of war to conventional middle-class values associated with being and staying clean.⁵⁹

⁵⁸Tjaarda, "Your Home, Your Clothes, Your Car Tomorrow," 44-45, 115. (My emphasis)

⁵⁹The quote from Tjaarda's article also exhibits this bias.

See also: "I'm convinced we'll have the opportunity to turn over a new leaf in our methods of homemaking after the war. . . . With domestic help out of the question. . . these wartime months have given me ample time to ponder the precious hours wasted doing routine household chores. . . . [Despite improvements since the turn of the century] we're still battling the age-old problem of dirt, disorder and inconvenience. Now, through application of many wartime discoveries to peacetime living, we homemakers will be able to purge our lives of clutter and useless routine." From: "I'm Fed Up!" Better Homes & Gardens July 1944, 22-23. (My emphasis)

The market, for whom the standardized, mechanized "house of tomorrow" was intended, had to be convinced that wartime innovations reconverted to the domestic market would fulfill not only their basic necessities, but their aspirations to appear middle class. Thus, standardized built-ins, plastic prefabricated parts, and factory-stamped mechanical cores were shown to uphold middle-class values of neatness, cleanliness, tasteful design, and orderly control. Publicists for the housing industry were speaking to this audience of middle-class pretenders and the working poor, and as a result, the solutions they offered had to realistically fit not only into this market's ambitions, but also its price range⁶⁰: "The central feature of the [postwar] house will be a mechanical unit, or 'power unit,'

⁶⁰Stuart Ewen says that much war advertising (especially that which was influenced by the NAM agenda) spoke to the working class in order to raise their expectations for progress and possible entry into the middle class. Doing so, it was believed, would make them complacent and would quell labor discontent. Ewen, PR!, 343-45.

In the Case Study example, John Entenza was not interested in addressing the needs or realities of the poor and the working class. In her essay, Dolores Hayden notes that the Case Study architects, although they were attracted to industrial materials developed during the war, like plastics, plywoods, and lightweight metal alloys, they were more attracted to them for aesthetic purposes, than for their potential to lower building costs. Hayden stresses that for the most part, (she does not provide names of the exceptions) the Case Study architects were not concerned with the social and economic implications of factory production for low-cost housing. Hayden says that the Case Study architects' individual, expensive projects were designed to look mass produced. See: Blueprints for Modern Living, 203, 208-209.

. . . and will serve directly the kitchen and bathrooms. . .
 . [Such units] will **effect a large economy** in plumbing and wiring and will permit 'every modern convenience' **in even the modest home.**"⁶¹

Buckminster Fuller's postwar Wichita Dymaxion model house offered a, presumably, rational and affordable means by which low-income families could enter the symbolic realm of middle-class identity and even surpass its cleanliness standards. [FIGURE 71] Fuller's postwar plan, like his earlier version, organized low-cost, single-family living around a centralized household unit: "Electricity, heat, light, water and air services are centrally placed in a controlled system offering the shortest radial distance to each of the rooms thus providing the most economic use of energy sources. . . . Based on planned production of at least 50,000 units per year, the house will sell for no more than \$6500."⁶²

⁶¹"The United States in a New World; III: The Domestic Economy, Appendix, Technology and Postwar Life," 20. (My emphasis)

⁶²"Industrializing Shelter The Fuller House," 119-120, 134. (My emphasis)

Fuller's \$6,500 price tag would not have included the price of the lot, but would have still been affordable to many average consumers possessing modest, but steadily rising, incomes after the war. (Of course for the poor, \$6,500 would have been out of the question.)

According to Architectural Record, although the average cost of the postwar house would be more expensive than newly built pre-war houses, the construction potentials for postwar building would be high because more Americans would have money to spend on better houses and a higher standard of living:

"There will be much greater demand, proportionally, for

Fuller claimed that his "scientific" plans made it easier to stay cleaner and neater through household designs and machines that rejected dirt and disorder, as he demonstrated in diagrams showing the convenience of 'ovolving' shelves and the ventilation system, which would suck "healthy" air in and flush "bad" air out. The Dymaxion's excessive amounts of mechanization would result in an automatic tidy appearance and sanitary household without the need for paid servants or much of the housewife's labor: "Photographs taken in the Fuller House . . . show why housewives are enchanted. Note domed ceiling, continuous drapery valance, plastic-covered accordion doors. . . . [the] switch-operated 'ovolving' shelves [and] compact bath units. . . . The ventilator draws air from the house changing the air inside every six minutes if desired and **carrying away dust, odors, and germs.**"⁶³ [FIGURE 72]

house so cost (with land) over \$6,000 than in the 1930 decade, not only because there will be some surpluses of lower-priced houses directly after V-day, but also because higher national income means more families moving into higher income brackets and demanding better houses than they lived in before." From: "Construction Potentials," 31.

⁶³"Industrializing Shelter The Fuller House," 120, 134.

Also regarding Fuller's sensitivity to household pests, inconveniences, and dust, see: "New floor coverings will curve slightly at the walls, to eliminate inaccessible dust collection." From: "Dwelling Machines," Architectural Record April 1945, 122.

And: "A water- and bug-tight sectional steel floor is bolted to the lower rim of the wall." From: Carlisle and Latham, Miracles Ahead, 17.

Publicity about the Dymaxion tried to downplay its industrial appearance and origin in an airplane factory by adding the ornaments of middle-class affection, such as shrubbery, a rustic stone sidewalk, fireplace, baby-grand piano, and conventional furniture with dust ruffles, which would have been presumably obsolete in a house with an air cleansing system that automatically dusted itself.⁶⁴

Thus, supporters of prefabricated housing, in an effort to establish a receptive postwar market, attempted to make the pre-packaged, factory-made, standardized, automatic "house of tomorrow" appeal to not only desires for higher domestic standards, but also a higher status of class. By effortlessly eliminating the stigma of household labor as well as dirt, dust, odors, and germs, the prefab "house of tomorrow," with built-ins, movable walls, and a mechanical core, promised the working-class housewife the appearance of professional, "scientific" cleanliness.

The rejuvenated American industries, newly developed materials and processes derived from the war made it possible for architects, designers, and household equipment manufacturers to, presumably, implement their ideal "world of tomorrow." While they painted a picture of a utopian

⁶⁴The Architectural Forum April 1946 publicity article on the Dymaxion illustrates photographs of a well-dressed, middle-class couple (he wears a suit and tie, she wears a netted pill-box hat and a high-neck blouse with a Victorian ruffle) being shown around the Wichita Dymaxion by a dapper realtor.

America in which few would suffer from the inadequacies of unsanitary living conditions and faulty housing, they told their prospective consumers that this utopia was not offered for free. Comfort, convenience, and "scientific" sanitary living could be democratized by fully developing the housing lessons of the war for domestic use in peace, but only for a price. This version of "democracy" was actually a process of homogenization to make all classes, religions, ethnicities, and races (and the diverse values they upheld) over into the Americanized image of the protestant, Anglo-Saxon middle class.

Following this bias, Walter Dorwin Teague espoused a vision of a sterilized postwar world in which the inner city would be cleansed of its "unscientific" inefficiency and transformed into a sanitized arena for the business transactions of the professional class (thus dismantling factories and old buildings and evicting many of the working poor and minorities who populated them). In Teague's planned utopia (which echoes the emphasis on social control through a perfected environment prevalent in the Democracy and Futurama exhibits of the 1939 World's Fair) every body and every space would be made to conform in an orderly fashion to the "proper" standards and, thereby the cultural ethics, venerated by the middle class:

We shall live in a mechanized world. . . . We shall have so many machines it will be hard to know what to do with them. . . . Here are some of the things we shall have to do: Rebuild our cities for

airborne and automotive transport . . . [and drain] most of the residential population out of them and [transform] them into spacious, **cleanly marts** where people come together for the transaction of business. . . . Provide for all the people housing that shall be as efficient, as attractive, as cheap, as easily acquired, and as readily renewable as the cars they ride in now. . . . It means the replacement, largely, of our old-fashioned building craft by a scientifically directed factory craft. [i.e., scientifically managed prefabrication and assembly-line production.] See that every house in the country has a modern bathroom, a . . . modern kitchen, and those appliances that take the drudgery out of housework. . . . [T]he **full-time, thrilling, sweaty job of the future will be in the . . . putting of bathrooms and central heating and electrical washers and cleanliness and colour in every home, the creation of order and the elimination of ugliness throughout the land.**⁶⁵

Thus, for Teague, erasing the traces of, what he defined as, past failures in city planning and shelter design would purge humanity and set it on a "proper" course for the future. But, the stigma of conformity attached to "scientifically" managed prefabrication was hard to erase. In an attempt to convince potential postwar home buyers that wartime prefab techniques and synthetic materials enhanced individuality and the American Way, Teague described how low-cost standardization offered the most humanized and

⁶⁵Teague, "Design for Peace," 154-56. (My emphasis)

Teague's democratization of comfort and convenience was no socialist or New Deal collectivist doctrine. On the contrary, in Teague's estimation, modern housing design, which promised to raise standards of living for everyone, offered a means to save free enterprise. The postwar promise of effortless living, for Teague, represented the very essence of the American Way because it would instill in the consumer the desire for higher standards of living, and make him work competitively for it. But democratizing that progress by creating inexpensive prefabricated, efficient housing would transform those desires into affordable realities.

flexible approach to housing. Factory-assembled houses with interchangeable appliances, furniture, and plastic panels, in his estimation, symbolized liberty and democracy because they lowered costs and gave everyone access to middle-class identity, while the perceived inflexible starkness and boxy rigidity of the International Style, which borrowed a factory-assembled aesthetic, bordered on fascism:

It's my belief that too many modern houses are designed as demonstrations of the designer's perfect taste. . . . Most of our designers of the aggressively modern school have devised their houses like mathematical equations, so rigidly planned . . . that if you move an ashtray or turn a chair . . . the whole composition is spoiled. . . . [T]he postwar house will be something mellower than the rectangular and aseptic offerings of the International School. It will preserve the functional approach . . . [b]ut it will be humanized. . . . The most drastic change in postwar housing will be, in my opinion, the fact that a very large part of it will be factory built. . . . Only so can the cost of dwellings be brought in line with the costs of other products [like] automobiles, refrigerators [and] washing machines.⁶⁶

Consequently, if one reads between the lines of wartime housing propaganda, one notices that prefabricated, mass-produced housing was actually a double-edged sword. Promoters of mass-produced housing and mechanical cores, like Teague, tried to convince the public that their prefabricated, standardized future was a symbol of democratic consumer choice, and not, ironically, fascistic

⁶⁶Teague, "A Sane Prediction," 58.

regimentation.⁶⁷ Access into the middle class through prefabrication and mechanized housing was defined as a mark of civilized progress, not cultural homogenization.⁶⁸ Publicists for the housing field tried to dispel fears of conformity by affixing metaphors of not only expansiveness, but also social mobility to the features of the prefabricated "house of tomorrow." Paradoxically, postwar standardization was touted as an open door to variety, originality, and individualized choices, while at the same

⁶⁷See also: "[A]n assembly line can be set up for each type of panel and great numbers produced at low cost. . . . **The number and arrangement of the rooms . . . can be largely up to your own individual preference. . . . Your prefabricated houses can have far less standardization than you see in speculator-built sections of our cities and suburbs today. . . .** These panels can be assembled in a few hours, and they can be taken apart easily and without damage." From: Teague, "A Sane Prediction," 58, 73. (My emphasis)

⁶⁸Advocates for prefabricated housing, which had long been stigmatized as anti-individual, bordering on the communistic, sought to turn this image around by showing potential postwar homeowners that buying a factory-assembled house would be no different, and therefore no less individualistic and American, than purchasing an automobile in a dealer's showroom. If postwar prefab houses were to be made affordable to the masses as promised, then they not only needed to be assembled like cars, but also sold like them: "You will be able to call at your dealer's showroom and from a number of models pick out the complete kitchen and bathroom you want, just as you picked out your car. . . . [and] ready to be connected to the services in an hour's time." From: Teague, "A Sane Prediction," 73.

See also: "Assume that we are Mr. and Mrs. Post-War America. We have served the war effort under makeshift living arrangements. Now we want a home of our own. . . . [I]nstead of hunting up an architect and builder, we go in to the city to the home dealer, just as we would go to an automobile dealer if we wanted a car." From: Tjaarda, "Your Home, Your Clothes, Your Car Tomorrow." 44-45.

time its advocates denied that it also could breed slavish obedience to conventional standards.

In Norman Bel Geddes and Revere's ad from 1941, the picture of sameness is cloaked in the rhetoric of variety. [FIGURE 73] The "pros" of standardization are defined as a universal level of quality and the sense of individuality combined:

[I]n this great emergency, new standards are being created. Industry is experimenting with new processes. . . . Architects are inventing new methods of building. . . . [W]e who are planning these homes [of tomorrow] know that Americans do not want standardized designs. So the basic parts of this [prefabricated] house are made so that they can be assembled in various ways to form no less than 11 distinct homes - all different. . . . Here is a place for a healthy, happy family to grow up.⁶⁹

The language of individuality contrasts with the images of assembly-line sameness in the ad. The only "variety" that can be detected from the ad is in the faces of the neighbors standing in front of three of Geddes's mass-produced, flat-roofed, houses with large, glass picture windows, none of which appear that different from the others.⁷⁰

As in the Geddes ad, movable panel walls were described

⁶⁹"For Us the Living . . . Better Homes," 31. Geddes's models also sported mechanical service cores.

⁷⁰See also from the 1947 Stran-Steel advertisement (targeted to newly weds) examined above: "Several designs, the work of nationally known architects, are pictured [in the Stran-Steel brochure]. An almost unlimited number of additional designs can be created by your own architect." From: World War II and the American Dream, xxxix.

many times by advertisers and designers as an affordable means to express individual taste and a way to conveniently re-design the house's layout in order to fit a growing family's future needs. Furthermore, standardized furniture modules, which could be easily replaced, were defined as assurances that even the most modest houses would never become stylistically obsolete.⁷¹ And tempting images of the highest standards of living and scientific housekeeping, were used to argue that the benefits of prefabricated mechanical cores were obviously more rational, cheaper, and efficient than their counterparts: hand-assembled wooden cabinets and free-standing, nonstandardized appliances designed at different heights.

Not coincidentally, while they masked the limitations of prefabrication by espousing its features as the key to "revolutionary" freedoms, advertisers and designers in the housing field also denied the fact that the higher standards of household efficiency and cleanliness, which promised to

⁷¹"The housing needs of the Army and of war industries have already resulted in 73,362 [as of fall 1942] units of prefabricated housing. . . . Undoubtedly some form of prefabrication will be used in the postwar effort to provide [housing]. . . . Prefabrication, using standardized, interchangeable parts, gives . . . interior flexibility. . . . [T]he [prefabricated] house can be cheaply and easily altered from year to year to fit the changing needs of the family. All its parts are constructed on standard modules, and can be easily put together and replaced by others in a different design or in a different special arrangement. Thus the interior will not be built to deteriorate through several generations of misuse."
From: "The United States in a New World; III: The Domestic Economy, Appendix, Technology and Postwar Life," 20.

liberate the housewife from irrational drudgery, were actually harnessing more of her attention on household chores, not less, and (as shown in the next section) were boxing her into conventional female roles.

II. Empowering Postwar Domesticity with
the Standardized, "Kitchenless" House:

[The modern housewife] anticipates that all the developments which create fighting weapons today will tomorrow furnish the power to drive her household forces.⁷²

If standardized units and synthetic materials, influenced by the progress of war, were designed to facilitate automatic neatness, domestic order, and cleanliness, then the built-in postwar kitchen represented the ultimate expression of how maximized efficiency would "revolutionize" the household and "women's work" as it had previously rationalized the factory and contributed to Allied victory.

According to forecasters, advances in wartime housing and mechanization would radically alter the traditional space and work involved in cooking, disposing of garbage, storing food, and cleaning dishes. So effortless and automatic would these tasks become that the conventional concept of the kitchen in the postwar "house of tomorrow" would be rendered obsolete. And, yet, designers and advertisers only managed to alter the way kitchen work would be performed by presumably making it easier to execute. Despite their inferences, they did not dispel it completely.

Like other commercial propagandists who attempted to shore-up conventional expectations about femininity and

⁷²"Kitchen Prototype--Designed for Plastics," 97.

women's "proper" roles during the war, advertisers and designers in the housing field defined the future "kitchenless" house in terms of traditional assumptions about gender. As shown in Chapter II, wartime media sent mixed messages to women, encouraging them to take on new roles temporarily, while maintaining the stereotypical image of femininity, which women's unconventional work for the war effort was undermining. Postwar planners and their "kitchenless" houses complemented these other double-standard, wartime messages by showing how the benefits of war-proved progress would "revolutionize" domesticity, but at the same time, keep women in their "proper" place.

The Hamby "kitchenless" plan exemplifies how images of the postwar house were intended to both liberate housewives from one form of slavery and entrap them in another. Before the U.S. officially entered the war, architect William Hamby published his vision of the kitchenless "house of tomorrow," pushing ideas he had envisioned in the 1930s.⁷³

In his 1941 ad, sponsored by Revere Copper and Brass, Hamby emphasizes the unconventional nature of his anti-kitchen by rendering his continuous cabinets and built-in appliances suspended in the air. [FIGURE 74] The mystique of his anti-kitchen's automation is heightened with his

⁷³Hamby, who started his own firm in 1933, was also an architectural consultant for McCall's. For more on his pre-war ideas about rational kitchen design, see: "Kitchen and Utensils," Architectural Forum October 1940, 269.

inclusion of a turkey, cooking under a built-in, glass-covered oven, which resembles a machine gunner's turret on a Liberty Bomber or Flying Fortress.

According to Hamby's plan, women who did their own cooking would be made more efficient by a kitchen designed around the recipes, which would be "built-in" to the kitchen's interior plan. The housewife's cooking preparations would follow logically in an assembly-line manner because all tools, appliances, and ingredients would be placed within reach from one position. By following this plan, her cooking, serving, and dish washing would become effortless and virtually extinct:

What! A house with no kitchen? If by kitchen, you mean that place where a woman wears herself out stooping and stretching to get things out of cupboards, where it's hard to be quick or tidy, where she works early and late washing and scouring - then this house I've designed has no kitchen. . . . **The way to make [the home] better is to improve it for the one who has the most to do - the woman. So I conceived the house of tomorrow as a place to increase the entire family's enjoyment by lightening a woman's work. . . .** [The kitchen] would be planned around recipes [your family likes], with everything you need right at your fingertips, with plenty of elbow and table room, with refrigeration, cooking and storage arrangements all in straight, handy rows. . . . There would be a long horizontal arrangement of counter, sink and cupboard space, in which the staples and heavy utensils are just below shoulder height. . . . Everything would be grouped so that an entire recipe could be prepared, from start to piping hot finish, from one spot without stooping or stretching. There would be no range - you would both cook and serve in electric utensils, each located according to recipe. Dish washing would be cut almost in half. . . . **So I have gone on to visualize such a house, planned to make housework fun instead of drudgery. . . .** [S]uch a house could be built . . . for little more than \$3,000. . . . In this way we can easily have homes tomorrow that will provide better

living for millions.⁷⁴

Unlike earlier Progressive feminist versions of the "kitchenless" house, as previously noted, the Hamby "kitchenless" "house of tomorrow" suggested that the implied absence of this room dissolved the work that was done in it. Earlier Progressive feminists, like Charlotte Perkins Gilman and Jane Addams, had intended their "kitchenless" dwellings to liberate women from domestic responsibilities and allow them the freedom to carve a professional niche in the world of men. However, Hamby's anti-kitchen was not intended for this form of liberation. In conjunction with his contemporaries who espoused the conveniences of the postwar mechanical core, Hamby labeled his rationalization of meal preparation as "kitchenless" because it was, presumably, drudgery free, not free of the need for women's labor. This idea is underscored by the apron worn by his model housewife in his 1941 Revere ad (illustrated above).

Hamby followed more in the tradition of anti-feminists Lillian Gilbreth and Christine Fredericks, who had adopted techniques of corporate planning, time/motion studies, and assembly-line "scientific management" and incorporated them into the kitchen's standardized design in order to,

⁷⁴"What! A house with no kitchen!" 85. (My emphasis)
 For more on the scientifically planned postwar kitchen, and the standardized housewife, see: Mary Kelly Heiner, "Where Research is Needed," Journal of Home Economics January 1945, 10-11. Includes diagrams with housewife motion studies.
 See also: Helen E. McCullough, "The Kitchen of Tomorrow," Journal of Home Economics January 1945, 8-10.

presumably, facilitate a more efficient domestic employment of (and therefore "proper" arena for) women's time.⁷⁵

Furthermore, in the tradition of Frederick Taylor, Hamby arranged his kitchen to fit the standardized proportions of the assumed "average" woman's body, so that any strain or stretch for a utensil or jar of spice would not interrupt the flow, and thus the efficiency, of her work.

But contrary to corporate Taylorism, Hamby avoided the fact that the entire kitchen "assembly-line" would require extensive "retooling" if any recipes were added or changed. While certain drudgery elements of housework would be reduced by the utopian "kitchenless" plan, constantly adapting recipes and work in accordance with Hamby's strict format would require more busy work and better domestic management skills.

⁷⁵Hamby's adaptation of "scientific management" did not stop with the arrangements of the cupboards and recipes, but also went as far as to refashion the shape of the kitchen appliances. A popular aspect of the postwar "kitchenless" house, was the built-in refrigerator comprised of drawers, in which different types of foods could be scientifically stored according to proper temperature and humidity levels:

"The whole length of the [Hamby] kitchen counter is designed for food storage, with compartments to hold each food at its own ideal temperature and humidity." From: Carlisle and Latham, Miracles Ahead!, 38-39.

Not far off from Hamby's prediction, Teague envisioned that "The [postwar] refrigerator . . . will be a series of built-in drawers. . . . Built-in washing machines dish washers, and garbage disposal units will be available." From: Teague, "A Sane Prediction," 73.

See Norman Bel Geddes's idea for a machine-stamped kitchen in his 1941 ad for Revere Copper and Brass, cited above.

Thus, the housewife in Hamby's anti-kitchen would be transformed into a mechanical extension of the family's meal-time assembly-line. As a result, his rational plan would, presumably, make it easier, and therefore less burdensome, for the isolated, suburban housewife to perform all the kitchen chores by herself, and thus his anti-kitchen made a convincing argument, supported by kitchen equipment companies, for buying a new fully automated suburban, single-family house. As a result, the "revolution" in postwar domesticity would have nothing to do with altering the nuclear family and the middle-class ideal of the private family household, and everything to do with the profits of kitchen equipment companies and the housing field.⁷⁶ This dichotomy is underscored in the Hamby/Revere

⁷⁶Lewis Mumford in 1930 pointed out this discrepancy in Fuller's Dymaxion Dwelling Unit, first displayed in 1927:

"[F]or though Mr. Fuller . . . believes that he has swept aside all traditional tags in dealing with the house, and has faced its design with inexorable rigor, he has kept, with charming unconsciousness, the most traditional and sentimental tag of all, namely, the free-standing individual house." From: "Mass-Production and the Modern House," 20.

Basically, the Progressive era's feminist ideals of socialized domestic labor and kitchenless, collective apartments failed to overtake and alter the male-dominated, profit-motivated housing industry, even though the latter was able to sustain itself throughout the Depression by offering the similar promises of female freedom from domestic drudgery that turn-of-the-century feminist reformers espoused. However, shared labor and shared living spaces (advocated by certain reformers) meant that fewer houses would need to be built. Similarly, cooperative housekeeping and kitchenless households meant that fewer appliances would be purchased by individual families. A collective living arrangement assumed that one washing machine, for example, would be shared by many families. Thus, collectivism was not readily supported by the domestic housing industry and appliance manufacturers. Not

ad of 1941. Despite his "kitchenless" claims, Hamby's countertops are lined with individual electric appliances and in a close-up view, the model housewife takes a large Revere pot out of a cupboard--a utensil which one assumes would have been rendered obsolete by Hamby's built-in appliances in which cooking and serving he claimed would be done in the same glass dish.⁷⁷

Similar to the arguments made by advocates for

only was retaining the ideal of the single-family house more profitable for these businesses, but it also entrenched traditional ideals about women and the family, and simultaneously secured nationalist ideals about the "American Way" and free-enterprise system in response to the desire for isolation from Europe's current social upheavals and the suspicion harbored toward Soviet Communism.

For more on Progressive era kitchenless households and communities, communal dining clubs, and cooked food delivery services, which were intended to render the conventional private, single-family kitchen (and thus also the work involved in it) obsolete, see: Hayden, Grand Domestic Revolution, 206-65.

See also Jackson, Crabgrass Frontier, for more on the historical roots of the detached, single-family, suburban house and its rise in the growing American middle-class, automobile culture before and after World War II.

⁷⁷Electric cooking in the form of light-weight portable appliances would also increase the housewife's efficiency by making perfectly cooked meals, like a perfectly clean house, automatic every time. But, as Dr. Rosemarie Bletter has pointed out, Hamby assumes that such appliances do not require extensive cleaning:

"[In the Hamby Kitchen] [y]ou can prepare an entire recipe at one spot, without stooping, stretching, or hunting for things. Suppose you take a chicken from one of the kitchen-counter compartments. . . . You serve it in the same utensil it was cooked in, for it is a bright, clean electric utensil that plugs in along the kitchen counter. . . . By this time you've also noted that the kitchen needs no stove. That's another place where cleaning and scouring would be abolished." From: Carlisle and Latham, Miracles Ahead!, 39.

prefabrication, Hamby's plan promised to make it easier to adopt an appearance of leisurely, antiseptic housework and thereby automatically acquire the domestic trappings of the middle class. According to Hamby's plan, not only would her chores and excess movements be diminished by the postwar kitchen's scientifically controlled arrangement, but the housewife's personal hygiene, and thus also her social pretensions, would never be compromised because built-in, automatic appliances would handle waste elimination for her:

You get another pleasant surprise when you examine the sink [in the Hamby "kitchenless" house]. Instead of bothersome hand faucets, there are knee-operated valves that leave both hands free. And a waterproof paper bag, in a compartment built into the sink, **does away with the unattractive garbage pail**. At one end of the kitchen counter you discover another device to eliminate 'Monday-morning blues' - it's a modern automatic laundry.⁷⁸

Mass-production and standardization in the kitchen equipment industries would lower the cost of the "kitchenless" house, allowing families of modest means to acquire a comfortable, efficient single-family shelter, and affect the appearance of being middle class: "[T]he simplification of mechanical parts so they can be mass-produced, should make Hamby's house cost no more than thirty-five hundred dollars complete with all its improvements."⁷⁹

⁷⁸Carlisle and Latham, Miracles Ahead!, 39-40. (My emphasis)

⁷⁹Ibid. The price of Hamby's postwar house would be less than Fuller's Dymaxion at \$6500. See earlier section.

According to forecasters for the housing field, the postwar house represented the pinnacle of scientific and industrial development. Not far off from Hamby's idea, according to Los Angeles builder, Fritz Burns, the postwar kitchen would be the housewife's headquarters of domestic power. Like Hamby's anti-kitchen, Burns's push-button command center was less like a domestic space and more like a factory because it promised to transform the postwar kitchen into the housewife's personal automated assembly line. Similar to earlier advocates of domestic "scientific management" like Frederick and Gilbreth, Burns's household automation system would allow the postwar housewife to perform virtually all chores from one position and with only one motion by herself. No energy would be spent on perceived unnecessary activities that push-button automation could handle from a distance instead:

Fritz B. Burns, a Los Angeles builder, [has built an experimental dream house with] **an electronic dust eliminator**, a household intercommunication system . . . five remote-control loudspeakers, dozens of push buttons . . . **germicide lamps** . . . [and] **toilets which flush automatically**. . . . The kitchen of the Burns house is a big, highly **mechanized household factory**. Scientifically lighted, artificially ventilated and sound absorbent, it is equipped with 2,000 pounds of machinery to make cooking and housework easy. . . . [T]he clean-up area [is] equipped with a garbage-disposal unit and hydraulic dishwasher. Next to this is a waist-high drawer-type refrigerator. . . . Near the middle of the room is the household nerve center. It is the hub of the inter-communication system from which a person can talk to [nearly any other room in the house by remote radio control]. **From this point, too, electric controls switch on lights, tune in the various radios, open and close doors and turn on the lawn sprinklers**. . . . Beneath Sink are

garbage disposal . . . and hydraulic dishwasher. . . .
 Outside Back Door sunken receptacles [opened by foot
 pedals] receive waste. **Garbage is taken care of by
 disposal unit.**⁸⁰

The forecast postwar domestic "revolution" was invented by designers and architects to help launch a successful economic reconversion. Thus, they emphasized how buying a new house with a "kitchen of tomorrow" would offer a means to not only make it less burdensome to be cleaner, but also easier to appear middle class. However, this perceived household "liberation" was geared to make what little work there was to perform, more efficient and exacting. What would be erased from postwar housekeeping by Burns's excessive reliance on automation and Hamby's anti-kitchen would be the hands-on "dirty work," but not the housework itself.

Hamby's scientifically planned anti-kitchen and Burns's push-button household were not isolated incidents. Rather, such rationalization and sterilization of housework had been widely embraced by the steel, linoleum, glass, carpentry,

⁸⁰"Dream House: Los Angeles Builder Gives Preview of All Things Americans May Someday Have in Their Homes," Life 6 May 1946, 83- 84. (My emphasis)

Also regarding Burns's automated house, see: "[H]ousewife's desk . . . with controls at hand for Pop-Up lawn sprinkler, garage doors, radio, phonograph, intercommunication system, [and] telephone." From: "Tomorrow's House - and Gadgetry," 18.

On Burns's military construction work, see: Fritz Burns, "We're the Suicide Troops for the War Building Industry," American Builder & Building Age December 1942. Found in: Albrecht, World War II and the American Dream, 255.

and electric appliance industries, which also offered their versions of a postwar factory or laboratory-like kitchen to the wartime consumer. Like other industries with war-proved or war-developed technologies, kitchen equipment and domestic supply companies recognized the opportunities that the war had created and sought to profit by them as well.

[FIGURE 75]

As previously mentioned, years of economic depression had not only stifled attempts to sufficiently shelter the pre-war estimated forty percent of the nation ill-housed, but the conversion of priorities to the war effort, which had relied heavily on the construction materials and equipment utilized by the housing and domestic appliance industries, had deferred the middle-class acquisition of higher standards of household progress. Furthermore, war bond savings and war plant work had generated an unprecedented number of consumers with money to spend. Consequently, the housing industry (and related companies) capitalized on this situation by attempting to convince consumers to channel their wartime financial prosperity toward modernizing an older house or building a new one instead⁸¹: "If you are building a new home or completely

⁸¹The war, and its postwar commercial fallout, would be promoted as providing the means to liberate domesticity and secure the Fifth Freedom, as it were, Freedom from Household Drudgery: "Drudgery is to be virtually eliminated from the American home of the future, if we are to believe the flow of 'ads' urging us to invest in war bonds now so that we can some day buy the latest gadgets." From: "Post-war Life of

transforming an old kitchen, your equipment list undoubtedly includes a gleaming line-up of the scientifically planned kitchen cabinets that almost all of the electric equipment companies are planning to turn out sooner or later."⁸²

Thus, according to conventional corporate "wisdom," the "kitchen of tomorrow" (and the laundry too) would finally be fully rationalized with the progress derived from the war. Companies tied to domestic equipment industries would render their postwar plans in an efficiency aesthetic, which they linked with the materials, which (they claimed) had proven their superiority in war. For example, Mallory, in its 1944 ad (illustrated above) shows how the progress of war (symbolized here by the airplanes) will translate into the new "laundry of tomorrow," a rectangular, self-contained, fully-automated washer, which will fit squarely into a corner or under a continuous countertop, unlike the round, pre-war model with exterior ringer, now rendered obsolete.

Likewise, Bundy in its ad from 1944, touts its ability to keep the machines of war running with its advances in metal tubing, and equates its wartime contribution with its version of the "streamlined" kitchen of tomorrow. [FIGURE 76] Here, a compact appliance unit, rendered in a pre-war efficiency aesthetic, is intended to promote the idea that Bundy Tubing would "revolutionize" postwar domesticity as a

Riley?" 506.

⁸²Roche, "Awaiting the New Kitchen," 34.

result of its company's role in the war. As would be typical of such companies' publicity, the "kitchen of tomorrow" would appear in its most "streamlined," laboratory-like form. Thus, clean-looking, continuous, countertop surfaces with flush fronts and built-in automatic appliances would be used as icons of victory and revolutionary progress--both on the battlefield and in the image of the future postwar house.

Similar to Hamby's devices, the Blackstone company, makers of irons, washing machines, and driers, equated the arrival of victory with their version of the "laundry-less" house. In their ad from 1944, they claimed that upon the arrival of victory, a new combination laundry utility unit (so revolutionary they do not even picture it) will offer the presumably bedraggled wartime housewife a "peace-time triumph" for her own home: "Imagine depositing your dry, soiled clothes in a compact unit laundry, and - with less effort than making a bed - having them washed and finish-dried. No heavy baskets to carry to back yard or attic. . . . If you plan to build or remodel, 'save' a space of about forty-eight cubic feet . . . for a Blackstone unit."⁸³ The ad shows a housewife measuring a rectangular space, waist-high, along a wall for her postwar laundry appliance, which, presumably, will be manufactured in a continuous surface, assembly-line aesthetic, much like the Bundy kitchen unit.

⁸³Woman's Home Companion August 1944, 93.

Unlike Progressive era feminists, who also recognized that communal public laundry facilities were more cost-effective and time efficient than private domestic ones, Blackstone argues that the proper middle-class place for the family laundry is in its own household. Although the housewife would still have to monitor the Blackstone utility unit, which would "wash, dry and iron" the family's laundry automatically, the sanitary benefits of having the laundry done at home would outweigh the conveniences of turning the entire job over to a commercial establishment presumably run by strangers. And having a complete washer/dry set would diminish the sanitary hazards of hanging the clothes outdoors to dry: "[With the Blackstone compact unit you'll have] no windblown dirt, soot or showers to worry about - clean clothes dried with sanitary, filtered air under the healthful rays of an artificial sun that always shines."⁸⁴

However, the postwar kitchen or laundry of tomorrow was not publicized solely for the benefit of the housewife. Rather, industries that supplied the structural materials for kitchen utilities advertised their version of the "kitchen of tomorrow" to potential business clients in the housing field, like contractors, architects, and designers.

For example, in their Business Week ad from 1943 entitled, "A Dream Comes True Tomorrow," Republic Electric Furnace Steel attempted to show how the "better America" in

⁸⁴Ibid.

the postwar world would come to fruition for those clients who would utilize their war-proved, "aircraft quality" steels and electric-powered foundry. [FIGURE 77] In the ad, a "better world" looms on the horizon, realized through hermetically sealed, sterilized steel, built-in appliances and cabinets with smooth, uninterrupted flush fronts. Here, the problem of the irrational refrigerator, which seems to never fit perfectly in standard kitchen design, is solved by Republic, which designs it as a circular unit with sliding doors and presses it into the corner.

Like the image of domestic perfection displayed by its rival company, Superior Steel [FIGURE 78], Republic's vision of the postwar world takes place in an antiseptic middle-class household and, according to the ad, assures its clients that its product will effectively address middle-class sensitivities to unsanitary stains and improper smells: "[Republic's] ENDURO Stainless Steel . . . a material with the high strength of steel and cleanliness of glass. Because it is inert to fruit, vegetable, meat and dairy products, it neither affects nor is affected by foods. Its hard smooth surface is sanitary and remarkably easy to clean. . . . A mere wiping . . . usually restores al its beautiful silvery lustre."⁸⁵

Just as steel companies tried to seduce potential industrial clients with their utopian fantasies about

⁸⁵Business Week 17 July 1943, 99.

postwar domesticity, glass manufacturer Libbey-Owens-Ford also attempted to stake its claim in the postwar housing market. The 1943-44 Libbey-Owens-Ford (L-O-F) "Kitchen of Tomorrow," designed by H. Creston Doner, was featured not only in magazines and newspapers across the country, but also mass-marketed in a Paramount film short. [FIGURE 79] More than 1.6 million visitors experienced the fantasy in person at one of the three models traveling around the country.

L-O-F's 1944 interior layout looks much like that of Superior Steel's 1945 model, whose designers have ironically tried to capitalize on the L-O-F's popularity in its use of glass-front storage cabinets, a feature not displayed in the Republic Steel kitchen.⁸⁶ The L-O-F kitchen sports a built-in, glass-covered oven (which seems to float unsupported like Hamby's design), a built-in drawer refrigerator (also like Hamby and Burns and copied by Superior Steel) as well as vertical, glass refrigerator space, and "scientifically" calculated countertops built lower than usual and curved inward to accommodate the presumed "average-sized" housewife as she sits comfortably

⁸⁶For another kitchen model which appears to follow the L-O-F format, see Peter Müller-Munk's plastic "kitchen of tomorrow" for Dow Chemical. In Müller-Munk's plan, cabinet and refrigerator doors would be made in easy-to-clean, see-through plastic, as opposed to glass. See: "Kitchen Prototype--Designed for Plastics," 97-101.

on a stool, preparing the family meal.⁸⁷ In the tradition of the assembly-line aesthetic, the L-O-F kitchen sink and stove top have been designed with hinged tops so that they can be easily closed off, allowing for a truly uninterrupted countertop surface.⁸⁸ Appliances, like a waffle iron and an electric mixer have also been built into the countertop, where they could entirely disappear into the cabinetry when not in use, making the L-O-F model more "kitchenless" than Hamby's plan because the space could be quickly converted into a family sitting room.

While the "Kitchen of Tomorrow," as envisioned by

⁸⁷"Mrs. H. Creston Doner is the kind of woman who is all thumbs in a kitchen. . . . Her husband, an industrial designer. . . . studied the kitchen she worked in. . . and concluded that the fault lay not with his wife, but the kitchen. . . . Bending and stooping are reduced to a minimum because counters and utensils are at proper working level. Generous use of glass enables the housewife to see through the oven door and cook pots, into icebox and cupboards. Fronts of counters and drawers beneath working surfaces are slanted in so that housewife has knee room when she sits at her work. . . . [Among the features are: Sliding glass cabinet doors,] Electric garbage unit. . . . Water [from sink] is controlled by foot pedals. . . . Waffle iron [as well as the toaster, mixer, and glass cooking units are] built in." From: "Kitchens of Tomorrow May Look Like This," Life 9 August 1943, 53-54, 56.

⁸⁸"Items planned for general postwar distribution [include]: A pre-fabricated glass kitchen (by Libbey-Owens-Ford) with glass oven, refrigerator, cabinets, etc. . . . Most revolutionary feature: a refrigerator with separate drawers [and] revolving shelves, sterilizing lamps to kill bacteria. . . . An electric garbage disposer which grinds the garbage up, flushes it away. A hydraulic dishwasher which also dries the dishes. An electronic device, called the Precipitron, which removes all dust and smoke . . . where dirt particles are given a positive electric charge and deposited on a negatively charged plate. . . . Push-button machinery to open & close windows." From: "Kitchen Front," Time 28 August 1944, 84, 86.

Republic, Superior Steel, and L-O-F, promised to raise standards of living and cleanliness with the progress generated during the war, the future kitchen's role as a middle-class status symbol resided in its ability to award sanitary comfort and hygienic leisure through effortless, antiseptic housework. Devised from pre-war designs and wartime experience, the stainless steel, plastic, or all-glass kitchen, like those promoted by household equipment companies and designers, claimed to purge domesticity by removing not only the filth, but, especially, the stigma of hands-on labor. Electric, hermetically-sealed built-in appliances and sterilized structural materials, which facilitated a cleaner kitchen by design, offered to take the "dirty work" behind household maintenance out of the housewife's hands, and replace it with an aura of progress and the appearance of luxurious leisure.

The "kitchen of tomorrow," like other corporate-sponsored postwar product fantasies, fulfilled a need for domestic order and family and social stability. As a result, these aims were communicated through advertising and promotionals that attacked household drudgery, waste, bacteria, and garbage which constantly assailed the housewife, her family, and its home. If dirt, filth, and germs were metaphors for the dangerous, chaotic world outside the home, then scientifically planned laboratory-like kitchens and prefabricated, standardized houses of

tomorrow were the solution.

Manufacturers and corporate-sponsored designers offered the housewife a means with which she could effectively, yet effortlessly, command and combat the "enemies" which threatened her home as well as her family's clean, middle-class appearance.

As a result, this postwar image of progress, epitomized by the kitchen and house of tomorrow, promised wartime women, not only a future life of sanitary living, but also one of power. Thus, postwar products, utopian kitchens, and their hygienic features, came to be defined as markers of feminine strength and domestic power on a par with the masculine scientific miracles and technological wonders that promised to achieve American victory. Consequently, when the postwar world finally arrived, the progress experienced in peace would never be without the reminders of the progress developed for the war.

And since the revolutionary achievements in "materials and machines, in processes and products"⁸⁹ derived from the war were focused on improving women's lives, it would not be uncommon for advertisers and designers to continue after victory to enhance women's household products with features that mimicked the power of American military authority.

And yet, in their attempts to galvanize postwar

⁸⁹"Producing for War, Preparing for Peace [Firestone advertisement]," Business Week 4 August 1945, 110. Illustrated in Chapter V.

consumer confidence by offering fantasies of affordable domestic "revolutions," corporate promoters for the "world of tomorrow," assumed that women's postwar role in society and the home would remain unchanged. Consequently, labor-saving kitchens, prefabricated "streamlined" houses, and the promise of sanitary living with war-proved miracle products did not challenge traditional feminine stereotypes, but rather, like other media images of wartime femininity, limited the perception of what women could accomplish to that of consumer, housewife, and mother.⁹⁰

However, the link between the culture of war and the progress of domesticity (no matter how seemingly contradictory it appears) was forged and the problem of instilling consumer confidence in American industry had been solved. Because it had proved to be such a successful marketing tool during the conflict, the wedding of war and domesticity would find renewed popularity as tensions between the U.S. and the Soviets ignited into Cold War hostilities. In the 1950s, the seemingly effortless labor of middle-class American women, empowered by "miracle"

⁹⁰For a postwar example of this trend, see William W. Wurster and Theodore Bernardi's plans for their postwar Case Study house in which the kitchen is considered a workshop area for both genders, but in the architectural renderings "mother's" activities are limited to ironing, while "father" enjoys relaxing with his hobbies. Dolores Hayden discusses Wurster and Bernardi, as well as other Case Study architects who designed the modern, industrial house prototype with the traditional family (and its conventional gender stereotypes) in mind, in Blueprints for Modern Living, 205-207.

products and appliances, would be perceived and promoted as evidence for the moral superiority of capitalism over its military rival, Soviet Communism.

This latter issue will be more thoroughly assessed in the dissertation's conclusion. But before we explore how American domesticity was aligned with Cold War militarism, we must inquire what happened to the magic, postwar dreamworld once victory was achieved? Did it materialize as promised or were the predicted "revolutions" so tied to accepted conventions and the desire for stability and domestic order that little change could really be affected? The following chapter will examine critiques made during the war about visions of the postwar world and will also assess the disparity between the corporate apologists, who claimed that the promised postwar future had arrived, and their dissenting critics who believed otherwise. Did the prefabricated, "kitchenless" house of tomorrow solve the social problems and shore up the nuclear family as promised? If not, what did result from the progress of war, which was intended to improve civilian domesticity in peace? The next chapter will also expose more of the myths behind the postwar forecasters' claims; it will assess whose version of the "better America" came to fruition and why the wartime promise of democratized progress did not entirely succeed.

CHAPTER 7

POSTWAR PROGRESS: MYTH OR REALITY?

What Happened to the Dreamworld? . . . To That Thermoplastic, Aerodynamic, Supersonic, Electronic, Gadgetonic World the Admen Promised During the War? . . . The American, in the postwar, was going to live in a house built of glass, plastic, and maybe a slab or two of steel or aluminum, which was bought in a department store, delivered in a van, and erected in a few hours. It was radiant-heated, this house: it stayed warm in sub-zero winter with the windows wide open, and in the summer, by the switch of a button, it was cooled with equal effectiveness. It was a fluorescent-lighted domicile that was sound-proof, dustproof, termiteproof, and germproof (by ultraviolet lamps). . . . [I]ts interior could be thoroughly cleansed with a damp cloth. . . . It had a kitchen equipped with automatic dishwasher, automatic laundry, and ultra-short-wave diathermic cooking controls. . . . The man of this house was to commute to his office in a modest four-place helicopter. . . . It was to be a world in which stockings never ran, fabrics never had to be washed. . . . [T]he implications was that effort, pain, and death were to be eliminated from this earth - or at least from the U.S.A. . . . [However] the postwar dreamworld seems to hover in the same relative position between yesterday and tomorrow as it did in wartime.¹

Were the postwar forecasts realistic? Would order and efficiency emerge from a world in chaos? Prophecies of the postwar "world of tomorrow," for the most part, represented romantic desires for escape from economic uncertainties and erasure of the social unrest bred by the plague of poverty and lack of jobs. Because wartime progress promised to construct a new world and a certain future out of death and

¹"What Happened to the Dreamworld?" 91, 216. (My emphasis)

destruction, the postwar "world of tomorrow" dream offered a means of accounting for the seemingly arbitrary mess of the past and present, and accordingly prescribed a utopian antidote for it. In wartime America, the quest for peace had become equated with the desire for not only a "revolution" in automatic comfort, ease, and convenience, but also a regression back to nostalgic longings for both national and family security as well as conventional concepts of mother, wife, and "home."

Likewise, the fight for freedom had been equated with the democratization of progress, and the higher standards of living and leisure it would accord to all. A germ-free, dust-free, stain-free world of a well-plumbed postwar future upheld a moral authority against the tyranny and domestic fascism associated with unnecessary drudgery, poverty, poor housing, and social decay. Affordable effortlessness and automatic control stood as symbols of democracy's supposed conquest over class disparities and international inequities. The American middle-class standard of living, as depicted in wartime publicity about the postwar world, had been fashioned as a beacon of justice, a light in the harbor drawing the lost ships of a war-torn world to the seemingly magical shores of capitalism, where a parade of experts anticipated every need with science and technology for sale. [FIGURE 80] A 1946 ad from the Chrysler Corporation, echoes such sentiments, and suggests that the

business wartime quest for recapturing the consumer's trust in corporate omnipotence and its "benevolent" technology eventually paid off. Here, two consumers (a white, middle-class couple) have metaphorically turned total control over not only to the corporate expert, but also mechanization in their pursuit of "scientific" comfort, efficient leisure, and ultimate, automatic convenience.

While postwar visions harbored the pre-war ideals about the promise of technological progress implicit in the "world of tomorrow" theme, certain realities about the present world had not caught up with the vision. In this chapter, we will explore the criticisms launched at the perceived unfeasible vision of the "better America" ideal presumably built on war-inspired "miracle" products. What were the paradoxes of the wartime vision of postwar progress and were the promises really fulfilled? In the eyes of some critics, the vision never materialized into a concrete reality, and while expectations for a "better America" remained, disappointments about its slow arrival were many.

The two major postwar issues that this chapter will examine are the myths of freedom gained and labor saved through technological progress. According to a few household magazine columnists, the new "miracle" products and "house of tomorrow" would create more housework, not less. However, mainstream, middle-class housewives would not be the only dissatisfied customers in the much trumpeted

"world of tomorrow." Black Americans would voice disappointment in the postwar reality because they recognized their omission from its promise as an indication that democratized progress and freedom of opportunity had not appeared as predicted.

Were any of the promises met at all? Indeed, in certain cases, the Levitt brothers' postwar suburban developments seemed to answer the wartime promise of democratized progress for at least the white working-class.² In building on their wartime construction experience, the Levitts were able to offer an affordable venue to middle-class status through assembly-line homeownership, but, as this chapter will inquire, did the prefab tract houses of postwar suburbia in any way resemble the wartime (or even pre-war) predictions about the revolutionary "house of tomorrow?" Did the mass-produced

²Abraham Levitt and his sons, William and Alfred, had initially started their business in 1929, focusing on the upper-middle-class market. Throughout the 1930s they would build for this market, pricing their homes between \$9,100 and \$18,500.

The Levitt and Sons' experience in quickly-constructed, low-cost housing did not come until 1941 when the company received its first wartime contract, which required them to build 1,600 war worker houses in Norfolk, Virginia. Later this figure was increased to 2,350, and the speed with which they were forced to work taught them the expeditious value of pre-assembled, standardized parts and building houses on an assembly-line basis.

William Levitt's experience as a Navy Seabee (the naval construction crew corps) between 1943 to 1945 would also prove useful for the accelerated construction methods the Levitt company adopted after the war. From: Jackson, Crabgrass Frontier, 234.

"house of tomorrow" lend itself to individuality and nonconformity as promised and did it succeed in establishing a sense of order in a chaotic, unpredictable world?

Generally, wartime visions and promises of a "better America" in the postwar era were not only unrealized by the lack of realistic planning or over-ambitiousness on the part of their creators, but the utopian visions as they had been predicted were doomed before they could be launched, as this chapter will also show, because of the new global realities, civil defense concerns, and economic demands of the emerging Cold War crisis.

I. Wartime Skeptics of the Promised Postwar World

A good part of the current [wartime] paper shortage might be laid to the ads and articles describing the marvels in houses and household equipment waiting only for Victory, and to other ads and articles demonstrating that there aren't going to be any marvels at all.³

Supporters of the postwar "world of tomorrow" were not in consensus; nor could detractors agree about the degree of progress available for civilian consumption after the war. Ad men, manufacturing advertisers, designers, architects, and other experts argued over what progress would be gleaned from wartime industry and product development. Messages to the wartime consumer about the imagined postwar world were conflicting to say the least.

Well before V-J Day, critics of postwar forecasters and publicists had voiced some skepticism about the ambivalent motives behind inventors and manufacturing advertisers who released unsubstantiated hints about the war-born "miracle" products they were planning for the peacetime economy: "[T]oo many advertisers have avoided the challenge, have put self-interest ahead, if not of patriotism, at least of reality."⁴ The impracticality of visionary designs had been overlooked by their promoters in the excitement

³Miles L. Colean (Former Assistant Federal Housing Administrator), "The Miracle House Myth," House Beautiful December 1944, 78.

⁴Eric Sevareid, "Super-Dupering the War: A Report on the Battle of the Adjectives," Saturday Review of Literature February 12, 1944, 9.

generated by the progress American industry had accelerated for the war: "Post-war planners, aglow with anticipation, are envisioning a bright new world with a better kind of living for all the earth's people. . . . This lustrous life is guaranteed, these planners point out, by the tremendous production capacity that has been organized for war, particularly that capacity within the United States."⁵

Wartime designers, advertisers, architects, and ad men accused each other of misleading the public into anticipating a revolution in domestic progress, which would flood into stores as soon as victory was announced. Postwar visions, according to critics, suggested the wild misconception that liberating the world from fascism would automatically free it from the tyranny of substandard housing and inefficient design:

Advertisements which predict revolutionary improvements, both domestic and industrial, are getting some pointed criticism from advertising men. They say that the impression given is that the war has only to be won and immediately afterwards the world will become an easier place to live in through the benefits of plastics, electronics, air travel and television. Advertisers are warned of the harm that this undue optimism may do to trade in general and to their businesses in particular.⁶

Even as early as 1943, skeptics perceived the unrestrained hype about the postwar "world of tomorrow" as a

⁵Sypher, "Post-War Problem No. 1," 21.

⁶W.B.B. Fergusson (Managing Director of Masius and Fergusson Ltd.), "American Advertising at War," Art & Industry December 1943, 181.

reckless rollercoaster careening out of control, which could ultimately plunge the entire business community into disaster. Critics feared that if the inflated consumer expectations for postwar progress went unfulfilled, and the wartime vision failed to live up to the postwar reality, the wartime honeymoon between the consumer and business would be over and resentment would be visited upon manufacturers and salesmen. Designer, Raymond Loewy, in a futile attempt to curb the unbridled imaginations of certain forecasters, argued that visions of a miraculous "world of tomorrow" may be detrimental to postwar sales, rather than stimulating, as initially, but erroneously, intended:

To the scrap heap of discredit but once popular theories . . . please add another, the immediate Post-war Dream World. . . . Lately it has become apparent that the public is being misinformed systematically about the wonders that await them in [the postwar world]. . . . Unwittingly, perhaps, these same designers, salesmen and manufacturers may have contributed to the myth that wonderful new things may be forthcoming in the salesrooms of the country. . . . With American industry in the war effort 100 per cent, it became necessary to talk of the future. . . . Manufactured items that will affect shelter, clothing, food, health, travel, recreation, would seem to be trembling upon new thresholds of improvement. . . . [T]he American of today sees a better product, a better home, a better appliance, just one model after the war - our current barrier [to the future]. . . . The man who expects to turn his war bonds into a packaged home may have to wait longer than he now supposes. . . . If this customer isn't forewarned it may take years to knock that chip off his shoulder.⁷

On a similar note, car body designer, Carl Sundberg, a

⁷Raymond Loewy, "What of the Promised Post-War World," New York Times Magazine 26 September 1943, 14, 27.

harsh critic of over-imaginative postwar forecasters-- including himself, made a public plea for forgiveness, proclaiming that zealous visionaries and eager members of his profession were guilty of being tempted by romantic fantasies about plastics and letting their imaginations run amuck. Despite their guilty lust for progress, Sundberg felt that he and his fellow sinners were not wholly to blame, for they had been seduced by the "Eves" of a wartime technological Paradise--the molded plastics used in Flying Fortresses and Liberator Bombers:

As rumors and reports of amazing advances in all industry have filtered through the screen of military secrecy, they have been pounced upon by the postwar prophets and translated into promises of every type of super-super product. . . . We designers are guilty too-guilty of each new development announced by the plastics industry up to and beyond the fullest limits of its possibilities. Always casting about for new ideas, we have sometimes given in to the temptations offered by plastics - particularly some of those mysterious things war production has been doing with various materials and about which we know a little but not enough. Because the pictures we have drawn are sensational and good to look at, they have been published and have contributed to the misleading of the public. . . . Transparent noses, gun turrets and blisters on war aircraft have also proved too great a temptation to many prophets.⁸

In searching for the "good" to emerge from the war, forecasters of postwar progress had been too eager to attribute miraculous powers to war production, despite its achievements. Although the war was an inconvenience for

⁸Carl W. Sundberg (Sundberg-Ferar, Industrial Designers), "The Realities of the Future," Modern Plastics May 1945, 105, 106.

some and a death knell for many, nevertheless, it had been credited with not only pulling Americans out of economic depression, but also pulling them together as a nation. If together, all classes, races, religions, and ethnicities could identify with a national cause and produce a progress to defeat two of the greatest war machines in history, then surely this social power, according to the visionaries, could be harnessed to create order, democratize abundance, and secure permanent peace. Thus, wartime visions of the postwar "world of tomorrow" carried with them the hope and utopian aura of social harmony, but because they were largely rooted in ideals about improving the world artificially through consumer spending, "revolutionary" housing techniques, and "miracle" domestic products, the execution of such plans were doomed to fall far short of existing commercial, manufacturing, and construction realities. As the skeptics had anticipated, the dream never lived up to the reality.

II. Wartime Deconstruction of
the Mythic Postwar "House of Tomorrow"

It is a far cry from working up a bright picture of what Mrs. Joe Doakes' postwar kitchen will look like to actually creating all the fancy gadgets she has been promised in plastic and glass. One main difficulty is the problem of fabrication on the grand scale predicted in some of the advertisements. . . . **Many of the illustrations present designs which are impossible from present standards - and may remain so for many years - because their execution would far exceed known manufacturing and material limitations.** In the race to publicize the future this basic fact of material limitations has been either overlooked or ignored.⁹

Since wartime visionaries had invested most of their imagined postwar progress in the "house of tomorrow," their revolutionary claims about effortless domesticity, liberated from the tyranny of an antiquated housing industry, began to receive the brunt of the skeptics' flak well before the war ended and new postwar private housing starts got underway. Like Loewy and Sundberg, Walter Dorwin Teague (ironically) voiced disdain for the unmitigated gall exhibited by those misleading forecasters who made outrageous predictions about postwar domesticity: "The 'house of the future' is the spoiled darling of the editorial and ad writers these days. Magazines bristle with projections about the house of 194X. Each tries to be more startling than the other, in a race to be different."¹⁰

⁹H. A. Smith, "Don't Promise The Public Too Much - Too Soon," Advertising & Selling June 1944, 28. (My emphasis)

¹⁰Teague, "A Sane Prediction," 48. Despite his indignation, Teague published a variety of his own predictions during the war, as previously noted.

Wartime opinion polls indicated that many consumers were not entirely seduced by blueprints for the postwar "miracle" house or a Hamby anti-kitchen. In their 1943 "Kitchen of Tomorrow" contest, McCall's contrasted a "modern" kitchen of "established design" with a "revolutionary" one, the experimental, fully automated, glass and open-plan kitchen sponsored by Libbey-Owens-Ford (L-O-F). Although many entries recognized favorable convenience features in each kitchen model, 62.6% of 11,887 contestants selected the "Tried-and-True" kitchen of pre-war design over L-O-F's "Day-after-Tomorrow" design. Those consumers who rejected L-O-F's more technocentric features were attracted to the nostalgia appeal of the pre-war model: "Some of the erstwhile traditionalists imagined this kitchen as 'a place for building memories like my grandmother's kitchen.'" ¹¹

Despite the vast amount of "world of tomorrow" and "miracle product" publicity flooding newspapers and magazines since before American involvement in the war (and even throughout the 1930s), symbols of traditional, steadfast home life, which had been disrupted for the duration, remained viable contenders to new-fangled Dymaxions and mass-produced mechanical cores. And contrary

¹¹Mary Davis Gillies (Director of Contests and Interiors and Architectural Editor), What Women Want in their Kitchens of Tomorrow: A Report of the Kitchen of Tomorrow Contest (New York: McCall Corporation, 1944), 30.

to certain wartime forecasters' criticisms of conventional building types and their obvious limitations, such familiar forms represented psychological anchors to order and stability in a world thrown into chaos:

The contestants who choose the traditional living room regard it as a symbol of a comforting, sheltered mode of life. It seems to them secure and lived-in. Family ties are represented by heirlooms, hand-me-downs, presents and souvenirs, many of which are retained as memorabilia. . . . The traditionalists are far more anxious to protect their families against violent postwar changes. They . . . feel that continuity of a decorating trend will be a stabilizing force for postwar America.¹²

Cautious postwar forecasts for mass-produced housing showed that prefabrication contractors would be responding to this popular trend. Such estimates revealed that the postwar house would in actuality remain fairly close to the

¹²Gillies, What Women Want in their Living Rooms of Tomorrow: A Report of the Living Room of Tomorrow Contest (New York: McCall Corporation, 1944), 26.

McCall's also offered contests regarding the bedroom and dining room of tomorrow. Women entered these contests in order to win war bonds, which they could put toward the postwar house of their dreams. However, such research was published for manufacturers of domestic products, furniture, and appliances. The McCall's surveys also included demographic statistics, indicating that the majority of the women entering the contest came from working-class backgrounds with husbands who worked in skilled labor vocations.

For other wartime surveys and market research articles, see: Arthur P. Hirose (Director of Market Research & Promotion, McCall Corporation), "Attention Manufacturers! 115 Suggestions for Postwar Product and Home Improvements," Advertising & Selling September 1943, 15-16, 77, 80; Hirose, "What Postwar Products Do Women Want? A Check-List For Manufacturers of Foods and Cosmetics," Advertising & Selling January 1944, 29-30, 106. Margaret H. Gammon, "The Consumer Viewpoint: What Women Want in Postwar Merchandise," Advertising & Selling February 1944, 29, 124, 126, 128.

conventional prewar version: "Don't count on a spectacular, out-of-this-world house of tomorrow. Instead, get acquainted with the best prewar planning practices."¹³ Granted, techniques of wartime prefabrication, slowly implemented, would make improvements in building methods, but the "house of tomorrow," would not materialize, as predicted, on the day after victory. Higher incomes and increased savings, as a result of accelerated wartime industry and sales of war bonds, would represent the "revolutionary" changes to emerge from the war, not the "miracle" house of tomorrow:

It is reasonable to expect that the vast war construction program, with its stringent requirements of speed, of economy in use of materials . . . will have contributed improvements of lasting value to the construction industry. . . . [But] [t]hey will not change the fundamental functions of buildings; nor are they likely, I believe, to come to the front so fast as to render all past procedures and existing buildings obsolete overnight. . . . I think we may expect continued progress in the development of mill and factory prefabrication sub-assemblies. I do not think the future of the complete standard house fully prefabricated in the factory is nearly as clear. I have seen no proof that the prefabricated war houses are better or cheaper than those built by more conventional methods. . . . The prefabricated house found a place for itself in the war housing program, its first opportunity for a large-scale demonstration. . . . There may be in the postwar period somewhat less emphasis on houses of the lowest cost-classification than there was in the poverty decade. . . . If, as is

¹³Colean, "The Miracle House Myth," 78-79.

For more postwar punning, see: David L. Cohn, "What We Are Fighting For, Ahem," Saturday Review of Literature January 1944, 16-18. Cohn wrote a fake speech delivered to a fake audience, which made fun of not only Washington bureaucrats and postwar planning, but also advertisers' and designers' visions.

generally expected, national income continues in the postwar period at much higher levels than in the poverty decade, the number of families able to buy or occupy houses in the middle price ranges will be vastly larger than in the 1930's.¹⁴

Conservative members of the architectural field assessed how prefabricators would apply their lessons from wartime construction to domestic housing, and concluded that they would base their mass-produced designs on historical, hand-crafted structures, presumably just what their buyers also wanted. Pitched roofs, pilasters, and period-style ornamentation would make up the much heralded postwar inroads in low-cost prefabrication, rather than plastic walls, removable panels, and roof-top heliports:

Surveys [on what the wartime consumer wants in his

¹⁴Thomas S. Holden (President, F. W. Dodge Corporation), "Postwar Realism vs. Romance," Architectural Record April 1943, 60, 84.

See also: "Origins of Fallacious Thinking [among prefabricators and supporters of mass-produced housing] - Fallacies regarding the prefabricated house and the supposed early possibility of turning the housing business into a mass-production industry have arisen from lack of appreciation of the following facts: . . . that the house, a multi-purpose space enclosure with many functions, is in many respects different from the customary products of mass-production, practically all of which are single-purpose commodities (radios, automobiles, vacuum cleaners, bathtubs, etc.) **That prefabrication of sub-assemblies and of complete buildings is not particularly new, i.e., factory and mill assembled window and door frames, ready-cut houses and other ready-cut buildings. That recent successes of prefabricated houses have been due almost entirely to the sudden appearance of lone large wholesale buyer (the government) in the market; no proof now exists that other quantity buyers will appear in large numbers in peacetime. That no proof exists that prefabricated houses are better or cheaper than builder-built houses. That substantial progress has been made in the past ten years by regular builders in producing better houses for less money.**" From: "Construction Potentials," 12.

postwar house] have been conducted and their findings distributed. The results seem to indicate certain conservative desires, in spite of 'miracle house' publicity. They seem to indicate a sentimental rather than an intellectual approach, on the part of prospective home builders, aside from the insistence on creature comforts. The evidence of this is further seen in the activities of most of the prefabricators who are preparing to merchandise new homes to meet the public demand. Their designs, for the most part, are hardly revolutionary. The fact is, they stem largely from Colonial-with-variations, and the home buyer can select such 'architecture' as pilasters, quoins, shutters, and 'Dutch hoods' from the catalog at so much above the base price. And the operative builders, with sales uppermost in their minds, are working with the designs that sold best before the war, [embellished] with new gadgets . . . of course.¹⁵

A 1944 Alan Dunn cartoon parodied the fantastic visions promoted by wartime housing visionaries and publicists. In Dunn's version of the future, the prefabricated "house of tomorrow," delivered to suburbia from the showroom (just as the experts said), looks suspiciously like the conventional, old-fashioned counterpart it was supposed to supplant.

[FIGURE 81] Similar to skepticism voiced by the conservative wing of the housing industry, Dunn suggests that the prefabricated, "miracle" postwar world was more hype than substance.

But were nostalgic attachments to conventional building

¹⁵Kenneth K. Stowell (Editor-in-Chief), "There's No Place Like Home," Architectural Record December 1943, 41.

See also: "With almost surprising unanimity these experts [who seek to debunk the postwar house myth] agree that future development of housing design will be evolutionary as in the past, that radical innovations are not expected, and that the postwar house will, like the postwar automobile, be to all intents and purposes a 1942 model." From: "Construction Potentials," 11.

types and plans at odds with the long-awaited "scientific," sanitary living also promised by postwar visionaries? Like McCall's, House Beautiful conducted studies about what standards of living the wartime female consumer would demand for her postwar house, and discovered that utility, efficiency, and cleanability were the high-ranking ambitions:

House Beautiful asked its readers what they thought ought to be made to produce a better world after the war. . . . [T]hey do expect an evolution. . . . [T]hey want things to work better, last longer, be more cleanable [and] INCREASED UTILITY, above all other things when they spend their money after the war. . . . Greater cleanability ranks high on the wanted list. . . . Rounded corners instead of square corners were mentioned again and again [in terms of cleanability]. . . Durability. . . . [I]ntelligent use of space. . . . They want bathroom lavatories . . . scientifically planned. . . . People want to throw away extremely dirty things. . . . The expression of distaste for handling very dirty objects was a pattern running through all the letters.¹⁶

Both "traditional" decor (albeit via prefabricated moldings) and higher standards of efficient, "scientific" cleanliness symbolized esteemed social hallmarks of middle-class identity. Thus, while the two different household features--functional utility and maximized sanitation versus decorative vestiges of the past--seemed incompatible (to many modernist architects they were) or even unrelated, wartime improvements in prefabrication and mass-produced,

¹⁶"What the People Say They Want: House Beautiful's Postwar Primer for Manufacturers," House Beautiful July 1944, 21-3.

"miracle" products promised to bring them within the price range of the working classes, and offered rational design and a higher standard of living at low-income costs. The desire for status (via prefabricated period styles) as well as higher standards of household efficiency and cleanliness represented different patterns cut from the same fabric, but both were intended to garnish their wearer with the appearance of being middle class.

Thus, even before the war ended, astute postwar forecasters had realized that a mixture of the past and the future would distinguish the postwar "world of tomorrow," not only because of consumer taste, but also, as designer Raymond Loewy claimed, the prophesied domestic "revolution" would be too costly to undertake as planned. As early as 1943 (the war year with the highest productivity rate and also the most postwar vision promotionals) Loewy predicted that financial realities would outweigh even the strongest urge for making the utopian "world of tomorrow" materialize after the war. Under the duress of war, no expense had been spared to facilitate progress. The same rash desperation would not apply in peace, despite promises attached to the visionary "house of tomorrow," which offered to not only democratize progress, but also cure all social ills:

War, we know, has compressed much research into an abnormally concentrated period. Miraculous progress has been made in producing the instruments of war, and sparks have been thrown off in the process which have been bound to kindle the imagination. Many techniques have been improved and production facilities have been

expanded tremendously. . . . By a process of rationalization it has been said that all these benefits, the by-products of war effort, can be extended to peacetime production. It is not so simple. . . . War is costly. Since there is no alternative, methods are permitted that would be unthinkable if a civilian buyer were loser by the deal. Therefore, the matter of economy, no issue in wartime, rears its familiar head [in peace].¹⁷

But even if the much demanded postwar housing "revolution" could be launched as planned, would consumers whole-heartedly embrace the radical "new and improved" intrusions into the "sacred" spaces of their private family homes? As the McCall's survey had found, the "house of tomorrow" was perceived by the majority of wartime American consumers as a means to express and establish order, control, and stability. While the Dymaxion or the postwar "kitchenless" house could satisfy middle-class concerns about universalizing higher standards of sanitation, would these "revolutionary" housing forms answer the pressing psychological needs for securing a traditional haven in the wake of unprecedented global destruction and irreversible social change?

To some wartime critics, the world of the present-- despite all its domestic flaws, discomforts, and inconveniences--appeared much more inviting than the visionaries' future postwar world of plastic order and artificial leisure. [FIGURE 82] In another wartime parody

¹⁷Raymond Loewy, "What of the Promised Post-War World," 14, 27.

of the postwar house, the much publicized "miracle" future includes butlers and hostesses born aloft by miniature whirligigs and assisted by a domestic escalator. Outdoor living is taken quite literally where every flat, horizontal surface of the house offers an opportunity for roof-top leisure, including multiple terraces, a heliport, and a pool. Even the barbecue has supplanted the indoor kitchen. Next door to the postwar "house of tomorrow" the neighbors have erected a Dymaxion-like dwelling with curved walls and horizontal bands of windows. A bewildered homeowner pokes his head outside of his dwelling contraption, perhaps to gain some control over a roof-top "mechanical core," which appears to have generated more work than saved it.

Assuming that the "house of tomorrow" did manage to become a reality after the war, one critic asked his audience if maximum comfort and lack of effort, as promised by postwar forecasters, would pose a difficult, psychological adjustment that would best be avoided: "Let's examine this super-electronic, radio-activated, solar-energized miracle house of tomorrow. Nobody works here . . . not even the servants. All that stuff is done by electric eyes and levers and things. . . . Meals cooked by polarized atoms roll right out to you in a mobile kitchen. . . . [C]ould you stand it?"¹⁸

Apparently, some could not. The promise of postwar

¹⁸Colean, "The Miracle House Myth," 78-79.

domestic emancipation, as will be examined in the following section, also carried with it more limitations and tended to compromise personal freedoms rather than save them.

The Myth of Labor Saved

Well before the war ended, design flaws within the "house of tomorrow" bubbled to the surfaced, and were pounced on by avid critics who noted that the postwar forecasters' emphasis on saving substantial amounts of household labor through "kitchenless" houses and war-proved "miracle" products was nothing more than a well-garnished myth. Despite the claim that the design, structural materials, and gadgets of the postwar house would automatically facilitate a cleaner lifestyle and thus a more leisurely existence for the homemaker, advertisers and designers had failed to consider the extra attention their postwar styles and mechanical devices would require. Even with a "kitchenless" house, the family would still need to eat and clothes would not load themselves into compact "miracle" laundry units; knobs and buttons on built-in appliances would still catch grimy dirt; and wall panels and refrigerators made of glass or shiny stainless steel would add additional cleaning chores to the housewife's routine. According to wartime skeptics, most schemes for "improving" postwar domestic progress would facilitate more housework, not less:

I like the [modern] glass [house with glass brick windows], but first they've got to find a way for me to keep it clean. Modern to me doesn't mean planning a structure around 3 serving maids and a full-time window washer. . . . When I say modern I mean more comfort, less work, and, until they invent a gadget to make window washing easy, an all glass house is not my idea of a house for the little woman to keep clean singlehanded. . . . [T]he cleverest washing machine of 194x doesn't mention that it will launder pinch pleats! And all these wonderful gadgets I read about that will do everything but diaper the baby - could I please just have a room where electric light cords aren't snaked in and around furniture? [T]hese modern designers give us built-ins all right, but usually they're attached to something else. . . . You can't make the beds with out losing limb and nails [S]omebody ought to tell them that too much compactness makes for more work, not less. . . . [P]ostwar planners have gone frenzied over the wonders of our postwar kitchens. . . . But . . . who's going to keep 'em clean? [I]magine one day's finger marks on those all-glass [refrigerator] front.¹⁹

Skeptical home economists and some housing magazine columnists realized that no matter how much scientific planning and labor saving gadgets and materials comprised the postwar house, someone, mainly the overtaxed housewife, would still have to clean it. Household technology may have promised to eradicate the burden of domestic labor, but in reality it could do no more than alleviate some of the hassles of drudgery, and in many cases it would increase it:

Will streamlined housing and mechanical inventions eliminate the postwar need for servants? I doubt it. Granted architects can design houses as functional as flour mills, [but] who'd want to live in one? With too many gadgets you soon reach a point of diminishing returns where the time spent in taking them out of cupboards, plus cleaning and replacing them after use, often outbalances any increase in efficiency

¹⁹Jean Austin, "Postbaloney," American Home September 1944, 20-21.

over doing the job the old-fashioned way. . . . Even the home of tomorrow is going to demand constant attention to keep it decently clean.²⁰

Alan Dunn's 1944 postwar house parody also exposed the myth of "miracle" labor saving devices forecast for consumers after victory. [FIGURE 83] Here, the postwar housewife, wearing a frown and clad in work coveralls as if she is back at the war plant, drives around her house on a mobile vacuum cleaner unit. Contrary to some of the outlandish postwar visionaries' claims, the "house of the future" would not be immune from dust, grime, and the need for household labor.

In the technocentric "world of tomorrow," one critic suspected that domestic power and control would be lost to machines, not gained by them. Not only would the maid and nanny be replaced by new electronic gadgets, but the housewife would lose her professional edge. In order to maintain all the "house of tomorrow" electronic gadgetry, the postwar housewife would require not more education, but rather a team of experts, necessary to help her utilize the progress that would obviously elude her understanding:

Whether the unspeakable present, for all its horrors . . . may not be preferable to the brave new world of the future as it is painted in forecast by scientific writers and institutional advertising copy writers is . . . something for the individual to determine. . . . To maintain the household of the future . . . one will retain not a staff of domestics but a trained group of

²⁰Davis, "Household Servants Are Gone Forever," 89-90.

radar technicians.²¹

Wild forecasts for "revolutionary" domestic progress outnumbered the insightful criticisms, primarily because there was more financial incentive to raise the wartime consumer's expectations about the postwar world than there was to be realistic. And it appears that the demands and fears of the war years themselves inspired fantasy more so than practicality when it came to talking about remodeling or buying a house. This point becomes very clear when one compares articles and advertising from household magazines of the 1930s with that of the war years. (At the risk of inviting criticism from passing a value judgment, I have found that the imagery and ideas published prior to the war about "revolutionizing" domesticity are much duller.)

Consequently, visions of the postwar world received less flak than what perhaps they normally would in peacetime because they were published for a variety of reasons and to uphold certain agendas. As mentioned earlier, inviting consumers to plan for the future by investing their money in war bonds helped fund the war effort and also ensure manufacturers that after the war a ready pool of consumers would be available with not only great expectations, but with money to spend. Furthermore, manufacturers who wanted to keep their trade names before the public during the war

²¹Lucius Beebe, "Horrors of Progress," American Mercury January 1944, 95-96.

could attach their visions of future utopian kitchens and houses with advertising for war bonds. Such a scheme allowed them to channel their excess war profits into advertising for their own benefit rather than turning it all over to the government in the form of taxes. Lastly, postwar visions about the house and world of tomorrow functioned less as a means to get the consumer active in the war effort, and more as an educational tool to get them to enthusiastically support corporate capitalism and reject any government plans for future collectivism and a state-run economy after the war.

As such, the business community on the whole had more incentive to generate unrealizable blueprints for a postwar utopia than to systematically criticize or forbid them. Furthermore, despite some of their outrageous claims for the unprecedented degree of automatic, effortless living in the postwar world, the most widely publicized visions were not radically different from the conventional middle-class conception of the suburban single-family house, and as a result, such visions fit well with popular wartime desires for stability and family unity just as they shored-up (instead of dismantled) traditional assumptions about women's roles and work in the home.

The Myth of Democratized
Progress and Housing Parity

The promise of postwar visions and democratized progress was held out to all in theory, but not in practice. The main utopian promises espoused by forecasters of the "house of tomorrow" remained still well out of reach, and far from the reality of the primitive living conditions in which many urban and rural poor Americans resided. The discrepancies experienced between the promises and the harsh realities were especially felt by minorities.

In one of the first issues of the new black magazine, Ebony, launched shortly after the war ended, the editorial page denounced the mainstream image of progress by recounting how most black Americans, who had also contributed to and sacrificed for the war effort, were still subjected to substandard housing because of racial discrimination. Barred from higher paying jobs and thus also economic opportunities, most black Americans found higher priced houses, bank loans, and household improvements placed outside their reach. War production turned into peacetime promises should have democratized progress for all, as the ads and forecasters had predicted, but the black postwar reality fell far short of the vision. Ebony editors called for the true democratization of the postwar "world of tomorrow," which they predicted, if it did not come to pass, then more disparity and unrest was bound to ensue:

Huddled in tenements, shacks and kitchenettes, jammed

into ghettos and slums, the Negro has been living in hand-out homes. . . . In this new year of 1946 America has suddenly awakened to find that the housing problem has no color or complexion. The housing headache that has been the Negro's up to now has become everybody's headache. . . . And because it's white Americans, and not blacks, who are looking [for housing] scowling government brain trusters and breast-beating politicians are excited. . . . It's good that America is finally alarmed about housing even if it took a white home shortage to do it. . . . Are these men and women [living in substandard housing] perpetually to live in homes without plumbing, in a nation which judges other nations by their plumbing? Or is this third of the nation [ill-housed], which gave its blood and its sons to defend democracy, to get a taste of that democracy here at home? . . . If America could mobilize overnight to arm itself against the Japanese enemy, it can today with four years of experience in speedy construction do as much to arm our returning heroes against the rigors of reconversion. . . . Unless this shadow [of the black ghetto disappears it will hover ominously over the future foretelling new and more terrible housing shortages . . . and wars incited by the hate of man for man, of peoples against peoples.]²²

Also in 1945 Ebony published a photograph of black women (one the mistress and one the maid) experiencing the middle-class benefits of a "streamlined" kitchen--an image of progress never publicized in the white, mainstream press. [FIGURE 84] Here Ebony's earlier portrayal of inequity and progress denied contrasts with this photo-spread of the Hollywood home of black entertainer, Eddie Anderson, known as the servant "Rochester" on the Jack Benny radio show. In his black, middle-class household, with all the modern amenities, however, he is the master: an ironic image of progress hidden from the mainstream view.

²²"The House We Live In," 20.

Another image of black progress, which would not have been readily seen (or accepted) by established white society, was the work of black architect Paul Williams, who designed stately mansions for Hollywood celebrities. Black styling of the "house of tomorrow" would also have been excluded from the white vision of postwar progress publicized in the mainstream press, despite the fact that Williams had successful design offices in Los Angeles, Washington, D.C., and Bogata, South America. The irony of Williams's building for Hollywood elites, and the fact that other members of his race would have perhaps only lived as the "hired help" in such neighborhoods, was not lost on Ebony's editors: "In a nation where Negroes live in architectural atrocities of slums and shanties, a Negro has become one of the foremost designers of vast, stately country houses and estates. . . . Paul Williams, one of America's most successful architects. . . . In a luxury field where prejudice is at its peak [Paul Williams] has cracked all color barriers."²³

Unlike consumer magazines targeted to a white, middle-class audience, the business press represented the only mainstream media to publish postwar visions advertising that depicted blacks as recipients of the progress generated by

²³"Designer for Living," Ebony February 1946, 25. Williams also designed low-priced houses, and had written a best seller, The Small House of Tomorrow, but Ebony editors emphasized that his specialty was Beaux Art estates.

the war. [FIGURE 85] Wartime black magazines did not publish the superfluous postwar vision advertising of mainstream magazines targeted to a middle-class, white audience.²⁴ In an ad promoting the "Negro Market," from Advertising & Selling, their presence and participation in the postwar world is described as an untapped market for postwar sales, and yet as participants in progress, their image in mainstream advertising was never included. The copy of the ad shows that while the black community had also experienced a rising standard of living during the war, their role in the postwar vision remained on the margins: "The Negro Market . . . is many times richer today than at any time in its history. . . . And its a SPENDING market NOW, with War Bonds providing the spending power for tomorrow."²⁵

The black consumer's absence from the mainstream vision

²⁴According to a study on the black Pittsburgh paper, the Courier, advertisements sponsored by large corporations were virtually non-existent in the black press. During the war, however, the excess profits tax did encourage business to pour an unprecedented amount of advertising dollars into the black business press, especially newspapers. However, these advertisements, according to the study's findings, were mostly for low-budget necessities, like personal grooming supplies or food, as well as alcohol, gum, cigarettes, travel, and health care. None of the main categories listed in the study consisted of expensive durables, like appliances or kitchen remodeling, like the white magazines. The growth in advertising sales in black magazines declined after the war. See: Mary Alice Sentman and Patrick S. Washburn, "How Excess Profits Tax Brought Ads to Black Newspaper in World War II," Journalism Quarterly 64 (1987): 769-74.

²⁵Advertising & Selling February 1944, 126.

of postwar progress raises questions about the racial prerogative of progress at this time. Not only were they assumed ancillary to the war effort (black women in war plants were last hired, first fired and received less pay; and black men in the military were generally relegated to segregated domestic service corps²⁶), but their role as consumers in fueling the industrial and commercial engines of the postwar reconversion process was ignored and, despite the ad from Advertising & Selling, their participation in postwar prosperity was dismissed and discouraged. This is particularly evident in view of the policies enforced by the Federal Housing Administration (FHA) which helped further institutionalize racist practices in the postwar housing industry by channeling resources into the suburbs, which, not coincidentally, were closed off to blacks.²⁷ Black progress, like black poverty, was not revealed in postwar pictures and promises of democratized prosperity for all.²⁸ Such images, ignored by white society at the time, exposed capitalism's contradictory and self-serving assumption that consumerism and free enterprise represented the ultimate expression of American liberty and freedom.

²⁶See: Crawford, "Daily Life on the Home Front," 90-143.

²⁷More on this issue in the next section.

²⁸This is not to deny that poor white families also existed on the margins of American prosperity, but their race would not have excluded them from the mainstream images of American progress, as it did blacks.

Pre-War Models Masked
in Postwar Rhetoric

What were the realities of the so-called postwar product revolution? In what forms did the wartime promises actually materialize after the war? According to the Consumer's Union in 1946, disappointments and business as usual outweighed the "revolutions" in the postwar market:

During the war, industry diverted many millions of dollars of excess profits to the task of telling consumers what marvelous electrical and mechanical products were in store for them when peace came. [After one year of peace] many of the promised goods have passed through the laboratories of Consumer's Union [CU]. [And we have found that] the expensive promises have not been kept, [and] with few exceptions the new products are 'postwar' by virtue only of the date of their manufacture, not of improved materials or design. . . . How easily the promises rolled out of the dream world of the advertising agencies. . . . The promised advancements [in the radio industry] resulting from wartime research simply have not appeared. . . . Similarly, CU's first report on postwar refrigerators noted that: 'None of them shows anything sensational, or startling'. . . . Tests of washing machines . . . again show no revolutionary developments.²⁹

Thus, postwar progress, according to the Consumer's Union, was just a return to pre-war modes, despite the hype. [FIGURE 86] A Maytag ad from October 1945 unwittingly supports the Consumer Union findings. Maytag boasts of its "handsome" postwar model, with "gyrafoam action . . . damp action . . . fingertip control . . . sediment zone [which] traps dirt [and] New quality, efficiency and ruggedness." But the washer pictured in the ad--the supposed postwar

²⁹Arthur Kallet (Director of Consumers' Union), "How Good Are Postwar Goods?" New Republic 4 November 1946, 582-84.

prototype--is only a pre-war wringer model. Such superfluous labels were tacked on to pre-war models, like fancy packaging, and used to excite consumers about products they still could have bought just after Pearl Harbor. Ironically, wartime ads, like Mallory and Blackstone's (illustrated in Chapter VI), had forecast that the wringer washer would soon become obsolete once victory was achieved.

Critics of the postwar world were also disappointed with the lack of "revolution" that had been targeted for the kitchen and bathroom utilities in the form of the mechanical core:

The 'utility unit' - kitchen, bathroom, and heating unit, all machine-stamped in one piece like an automobile body - is basically a conception that is tied in with the mass-produced, standardized home. . . . [I]n the [utility] units that are actually available there is little that is revolutionary; it is rather a matter of combining, the basic equipment that has been on the market for some years.³⁰

As late as 1947, critics were still admonishing visionaries for raising expectations and making outrageous promises that could never materialize. According to one commentary published in Fortune, much of what had been touted as war-born "miracle" products had been available to a certain extent prior to the war, but their scientific mystique had intensified as a result of their exaggerated wartime contributions. The only "new" product, whose technology was developed after and as a result of the war,

³⁰"What Happened to the Dreamworld?" 92.

according to Fortune, and entitled to the label "postwar product," was the humble ball-bearing ink pen:

The unvarnished truth is that there is practically no consumer product of any kind on today's market, or on the production line of any manufacturer, that can claim clear title to a postwar birthright. A lot that is touted as such is actually prewar - synthetic fibers, for example, out of which we are now getting new uses. But a thorough search for genuine postwar creations in the consumer-goods field yields only the ball-bearing pen. . . . So far as is known, the principle was not present in any pen marketed before the war. . . . [S]uspicion grows that the wonderful postwar world is not all that it was blown up to be back in the days when our troops stormed Anzio.³¹

Housing visionaries had been right to suspect that the lessons of war applied to peacetime construction would launch the prefab house industry, but many postwar forecasters had not anticipated the political fallout resulting from the reconversion to a peacetime economy:

[P]refabricated housing on a sizable scale is still ten or twenty years away from making a real impact on American living. At first it seemed that the war had definitely and finally released prefabricated housing from its imprisonment in the dreamworld. Between Pearl Harbor and Hiroshima almost 120,000 such houses came off the U.S. assembly lines - one-fourth of all the houses built during the war. . . . [T]here was good reason to believe that an actual revolution in the housing field had been set in motion. . . . [S]trong forces - political, economic, and emotional . . . obstruct the progress of industrialized housing in this country. If we write off the industrialized house on an important scale for another few years, we must write off along with it much in the way of low-cost, complete service core that has been extensively promoted in dreamworld literature.³²

³¹Ibid., 91.

³²Ibid., 92.

More on the economic and political fallout after the war in following section and Conclusion.

Corporate leaders had sought to implement a successful, and frugal, reconversion using the tools and labor skills already in place. According to the conservative business argument, which the NAM had defined and directed during the war, if postwar attention could be focused on producing 1942 models instead of retooling for radically new 1946 designs, then the manufacturing of familiar products could offset a postwar depression and put returning soldiers to work in private industry immediately. With jobs secured, the public's confidence in the economy would grow, and consumers would be more likely to unfreeze war bond savings even if the 1946 products failed to live up to the wartime predictions. An easy return to pre-war civilian production, which would result in job security and consumer spending, would jump-start postwar prosperity, and business could derail any government plans for "fixing" a postwar economy with work projects fueled by corporate tax dollars. As a result, the conservative business establishment poured its industrial investment into the last models designed before U.S. involvement in the war; "miracle" products and improvements would have to wait indefinitely.

III. What DID Happen to the Dreamworld?
Realities of the Postwar Commercial Fallout

You have a date with PLASTICS. . . . It's a big and important date that America has with plastics. . . . Styron and other plastics produced by Dow promise new luxury, new comfort, new scope- to everyday life and to 'dress-up' occasions. They'll be within reach of everybody's pocketbook, too. And that's Dow's aim in striving for better plastics and hundreds of other useful products of chemistry.³³

In the Dow Chemical ad from 1945 quoted above [FIGURE 87], the postwar female consumer is pictured at her toilette (which conveniently descends toward her from the heavens), primping herself for a romantic rendezvous with Prince Charming--the plastics industry--which, in courting her dollars, made all sorts of promises about everlasting beauty and easier living after the war. According to critics of postwar visions advertising, Miss Postwar America's date stood her up.

Was the wartime promise of postwar "sanitary living" and "effortless labor" a lie? Did any "good" emerge from the war if the postwar prophecies had been inaccurate? Corporate apologists, even after the war ended, continued to claim that the "miracles" extracted from war's destruction had arrived and were busy revolutionizing domesticity, escorting it to higher standards of cleanliness and leisure, despite criticisms to the contrary, which suggested that the female consumer had been jilted at the postwar altar:

³³Dow Chemical Corporation, Post Street Archives.

Plastics are here [now in the postwar era] to free you from drudgery. . . . They are proving themselves on the testing ground you know best - the housekeeping arena, where the traditional battle with dust, grime, stains, scratches, and shabbiness has made the housewife's profession synonymous with slavery. They are responsible for the three greatest words in the history of housekeeping - damp-cloth cleaning. . . . Plastics give you home furnishings that are constitutionally averse to staining, scuffing, and deterioration[:]. . . . a shower curtain which is inherently so moisture-proof that mildew can't even begin to exist on it. . . . wallpaper [which] is impregnated with resins that anticipate almost every conceivable type of household staining. . . . [and a] lampshade [which] simply cannot be permanently grayed by dust because its plastic surface is naturally so smooth and unporous that dust cannot become imbedded in it. . . . And when you have a chair upholstered . . . in a material that refuses to absorb stains, in a color that won't fade . . . upkeep problems are solved before they begin.³⁴

In an attempt to ignite prosperity, postwar advertisers claimed that the long-anticipated shopping orgy had begun. [FIGURE 88] Following this trend in its 1946 ad, Texaco tries to boost confidence in its manufacturing clients by depicting the postwar market as an ocean of frenzied buyers, already flooding stores with an unprecedented deluge of dollars. Shoring up its clientele, Texaco claims that the postwar commercial fallout, which it refers to as the

³⁴"This New Era of Easy Upkeep," House Beautiful October 1947, 122-24.

See also, Kenneth Young, "It Doesn't Look All Plastic, But It Is," House Beautiful October 1947, 140-41; Elizabeth Gordon, "What's Wrong With Plastics?" House Beautiful (same issue), 166; Laura Tanner, "Not Only a New Look But a Look That Stays New," House Beautiful September 1947, 162-63; Marion Gough, "What Do They Mean When They Say It's Plastic?" (same issue), 142-43, 237-39.

"counter attack," can be easily met head-on by American industry that had proven its superior ability to out-produce its enemies in war: "No one questions America's pent-up, product-hungry eagerness to buy. Nor can we question U.S. Industry's ability, in view of its colossal war record, to meet these peace-time demands."³⁵

Despite postwar cheerleaders' claims of "revolutionary" miracles coming to fruition, the vision of the postwar era created during the war, and the reality that occurred when it ended, failed to mesh because the high degree of effortless leisure, which wartime progress had promised, was not possible to meet. While the trend for prefabricated housing and built-ins endured after the war, and "miracle" plastic products and push-button electric appliances continued to spin off production lines, the housewife still found herself stuck with the dirty work: "Men of today [1958] are busily creating gadgets that will relieve the women of tomorrow of virtually every household chore but the diaper-switch."³⁶

³⁵Fortune April 1946, 12.

³⁶Hyman Goldberg, "Push-Button Future," Cosmopolitan January 1958, 67.

Claims that the progress set in motion by the war had put domesticity on an unstoppable trajectory to even greater household improvements and conveniences did not stop with the arrival of victory. The pages of postwar magazines would be littered with testimonials asserting the "fact" that the domestic "revolution" had indeed arrived and would never be stopped again. See for example: "A Freezer Revolutionized Our Marketing and Eating," House Beautiful April 1946, 88-91, 166-68.

To what extent was progress democratized, and did it emerge for free or did its perceived benefits harbor a hidden cost?³⁷ While housing entrepreneurs, like the Levitts, showed how the lessons of war could be reconverted to low-cost "luxuries" in peace, the great dream (established well before the war) of solving social ailments through affordable housing and universalizing standards of the middle class remained unrealizable.

In the article, architect Cliff May describes the benefits from his family's walk-in cooler for stockpiling provisions in bulk. Such "hoarding" would not have been feasible during the Depression and was disallowed during the war. As a result, flaunting the ability to shop for more food than what was immediately necessary revealed the extent to which the postwar "world of tomorrow" had arrived - at least on the pages of magazines. Furthermore, as previously mentioned, the business community had sought to evoke postwar prosperity by igniting a consumer spending spree. Refrigerators that could hold months worth of food for one family would encourage consumers to spend more money at one time than necessary and consequently fill corporate coffers. See Conclusion for more references to large-capacity, domestic refrigerators of the 1950s.

³⁷Kenneth Jackson provides an insightful account about how the Levitts turned their war experience into postwar profits. He attributes the speed of their construction, which (at their peak) allowed them to put up about thirty houses in one day, to new power hand tools and construction crews that trained to specialize in performing only one job. Whenever possible, each part of the house was pre-assembled before it reached the site. But a great deal of their success was attributed to the fact that their company made its own concrete, grew its own timber, and cut the lumber itself. Furthermore, they undercut the housing unions by hiring nonunion labor and ignoring union rules. Crabgrass Frontier, 234-35.

See also Dolores Hayden's essay in Blueprints for Modern Living, 208-10.

For a contemporary perception of how the Levitts "revolutionized" the housing industry through lowered costs, see: "Levitt's Progress," Fortune October 1952, 154, 156, 158, 160, 163, 164, 168.

Postwar resources and plans poured into suburbia, transforming old farm fields into tract house developments, and ignoring the needs and aspirations of urban (especially black) communities, whose only housing alternative consisted of substandard slums. The FHA, and even non-federal housing organizations (like real-estate associations) helped to institutionalize racial segregation because of the perceived need for maintaining "social harmony" by closing black and minority access to all-white housing developments on the outskirts of the city.

This attitude was supported by the loan-granting and federal funding policies themselves. Federal housing programs favored detached, single-family housing starts, which, according to housing entrepreneurs, were more easily and profitably executed in cheap empty farm fields, rather than inner cities where space was expensive and new housing required old slums to be torn down. Consequently, federal dollars for road, school, sewer, and highway development, as well as business investments, followed the middle and working-class families migrating to the suburbs. The inner city, loosing a substantial chunk of its tax base, and ineligible for FHA new housing government-insured loans, sank into worse decline.³⁸ Government intervention made it

³⁸Jackson, Crabgrass Frontier, 244-45.

The Housing Act of 1949 did encourage contractors to invest in urban redevelopment projects. As a result, the federal government promised to cover two thirds of the cost of overhauling run-down and dilapidate inner city neighborhoods.

more profitable for contractors, banks, and investors to build large, monotonous tract house developments in the suburbs rather than rebuild inner-city neighborhoods.

Thus, the federal government (assisted by the powerful real estate lobby) helped influence access to postwar progress more so than the war-proved "miracle" products and perceived "revolution" in prefabricated housing.³⁹

Progress was democratized for certain members of the working class as a result of government policies and at the expense of the inner city.

Furthermore, the act favored large, single-family, residential developments, most of which were executed in suburbs, not inner cities.

But the 1949 Housing Act and the 1954 Urban Renewal Act did not necessarily benefit the poor and correct their substandard housing situation. The Acts allowed contractors and municipalities the opportunity to clear slums and erect luxury apartments and office buildings instead of quality, low-cost housing. Urban minorities, who had no power to agitate against the demands of wealthy contractors, were evicted from their homes (albeit slums), and channelled into the controlled communities of high-rise, housing projects, especially in order to make room for highways that would breeze suburban commuters into city business districts and speed them past the problems of the inner city poor. Wright, Building the Dream, 232, 234, 236.

Gwendolyn Wright, like Kenneth Jackson, outlines other discriminatory practices encouraged by the FHA and other federal housing programs, which institutionalized the middle-class suburban ideal single-family house at the expense of minority city dwellers.

³⁹The real-estate lobby, like the federal government, helped shape access and distribution of postwar progress. For example, realtors adamantly opposed reconverting temporary wartime defense housing for use in peace, and as a result, affected the outcome of postwar housing and contributed to the favoritism bestowed on new housing starts for conventionally-styled, single-family houses in the suburbs. See: Jackson, Crabgrass Frontier, 232.

But what form of "progress" did postwar housing legislation, in combination with wartime developments in prefabrication, offer to the white working class? Although their suburban Levittown houses did not necessarily resemble or live up to the fully-automated promises of the wartime "miracle" house of tomorrow, the Levitts's prefabricated tract housing and simplified purchasing process provided an easier step up to a higher standard of living from what the working-class had been experiencing or had had access to before the war.⁴⁰ Furthermore, while the first Levittown mechanical amenities were 1942 models, most buyers of the Levittown dream had never had their own washing machines before, and so although certain skeptics and architectural

⁴⁰The Levitts simplified the home-buying paperwork; they required no down payments and demanded no closing costs. *Ibid.*, 236.

Levittown housing and other suburban tract house developments not only were a step up the social ladder for many Americans, but they were also the first home for many families who had been doubling up with relatives in single-family shelters or apartments for years. The non-existent private consumer housing starts during the war had exacerbated a shortage begun before the Depression. In 1947, six million families were sharing domiciles with their relatives, while an additional 500,000 were living in defense housing, like Quonset Huts, reconverted to emergency, temporary, peacetime shelter.

Attempting to alleviate the housing stress, the federal government offered to underwrite billions of more dollars worth of mortgage insurance under the FHA. Consequently, this form of federal support help spur the postwar suburban housing boom, which began to take off as soon as servicemen returned from overseas and started taking advantage of the government's special endorsement of GI home loans, which was part of the Servicemen's Readjustment Act of 1944. As a result, single-family housing starts jumped from 114,000 in 1944 to 937,000 in 1946 to 1,183,000 in 1948 to 1,692,000 in 1950. *Ibid.*, 232-33; Wright, Building the Dream, 242.

critics were dismayed about the degree of domestic progress that had failed to materialize after victory, many working-class families were finally able to afford access to not only greater comforts, but also the social trappings of the middle class. The popular Cape Cod Cottage and ranch-style house were set alongside curving streets meant to evoke upper-class garden communities, and essentially transformed farm fields dotted with mass-produced tract houses into veritable, but cheap, English estates.⁴¹

Despite the emphasis on providing inexpensive versions of elite social trappings, Levittown houses, and the other suburban ranch-style developments that followed the Levitts's lead, were actually divested of many nineteenth-century trappings of aristocratic wealth; formal parlors, halls, grand staircases, and porches were replaced with open-plan interiors, attached garages, and informal patios. [FIGURE 89] But the pretentious ornamentation and historical references that did remain, like fireplaces and aluminum-painted "clapboards," were mass-produced and resurrected from the past in modern construction

⁴¹However, the wartime promises that mass-produced housing would not lead to conformity and regimentation were not entirely met, at least in the Levitt developments. Repeated models of monotonous, identical houses populated developments in which fenced-in yards and outdoor clothes drying on anything but the Levitts' pre-approved racks was forbidden. Jackson, Crabgrass Frontier, 236-37.

materials.⁴² Although the Levitts's period-style models, such as the Cape Cod (a take-off on the antiquated New England salt box) were a far cry from the circular, "scientific" Dymaxion and the Hamby "kitchenless" house of tomorrow, they incorporated modern radiant-heated concrete slabs, double-glazed sliding windows, aluminum frame doors, outdoor patios, and open-plan interiors--features that many

⁴²The Case-Study House program, launched by Arts & Architecture, attempted to provide a "proper" aesthetic model for single-family suburban houses on which postwar suburban developers could draw their inspiration. (See: Blueprints for Modern Living for details.) Unfortunately for the Case-Study architects, and other modernists, the FHA perceived the modern mass-produced, severe appearance of their buildings - flat roofs, steel frames, and plain, sometimes glass, facades - as a temporary fad, and tended to reject loans for housing developments of this nature, and instead favored contractors who mass-produced houses in period styles, like Cape Cod Cottages and Colonial Revival models, which were perceived as safer investments.

The basic suburban ranch style model had been adapted from Frank Lloyd Wright's earlier Prairie Houses, but, ironically, Wright's postwar housing proposals were rejected by the FHA. Nonetheless, builders of the typical middle-class ranch house borrowed Wright's Prairie style idioms: its low-pitched roof, deep eaves, and horizontal lines, but combined them with more conventional, period-style props. See: Wright, Building the Dream, 248-51.

Even prefabricators, whose mass-produced houses were adapted to an industrial aesthetic, like Henry Dreyfuss's Vultee House (fabricated with aluminum walls) were not mass marketed primarily because of revised mortgage-lending policies after the war. See: World War II and the American Dream, 29.

The association between glass walls, flat roofs, steel frames, and European International Style designs also undermined alternative modern aesthetics after the war because they were not perceived as "American." See: Blueprints for Modern Living, 142, 207.

wartime forecasters had ascribed to the postwar house.⁴³

The Postwar Dreamworld
Confronts Cold War Realities⁴⁴

What geo-political factors shaped how the wartime promises evolved (or rather mutated) in the postwar world? After the Soviets exploded their first atomic bomb in September 1949, brinkmanship and containment fueled both national arrogance and technological progress. The continual threat of nuclear war and the spread of Communism directed attention and resources toward military build-up and super-power rivalry. Instead of channelling all military ordnance and production into the "good" that had been expected to evolve from war, concentrating on the

⁴³The majority of post-World War II houses also sported central heating, indoor plumbing, telephone connection, and automatic appliances (sometimes "built-in"). The Levitts initially sold their Cape Cod Cottages for \$6,990, then for \$7,990. Ranches sold at \$9,500. Jackson, Crabgrass Frontier, 236, 240, 243. See also, Wright, Building the Dream, 244, 253, where she discusses the prefabrication techniques and materials adopted to tract house developments after the war. Besides the Levitts, other prefabrication companies included Lustron, National Homes, and U.S. Steel. Wright argues that the prefabrication business wasn't always an acclaimed success and was not able to solve the postwar housing shortage overnight, contrary to what publicity surrounding prefabrication would have the public believe.

⁴⁴Portions of this section appear in my essays published in the following publications, for which I hold the copyright: "Commercial Fallout: The Image of Progress and the Feminine Consumer from World War II to the Atomic Age," in The Writing on the Cloud: Conference Proceedings of "The Atomic Age Opens: American Culture Confronts the Atomic Bomb" (Lanham, Md.: University Press of America, 1997); "Atomic Age and Children," in The Encyclopedia of Childhood eds. Barbara Katz Rothman and Donna Lee King (New York: Henry Holt, 1998).

progress of war during a cold peace absorbed the resources which could have built the prophesied "world of tomorrow" and elevated American society, not only to higher domestic standards, but a higher sense of order and social responsibility.

Thus, the Cold War, nuclear weapons, rocket technology, and intensified mistrust of Soviet Communism--all by-products of World War II--contributed to reshaping the American concept of progress, and altered the circumstances under which the wartime vision of the "world of tomorrow" could evolve and exist. Despite the desire for rational, and well-ordered houses, which promised to rid the world of chaos as they would rid domesticity of drudgery and the equally perilous threat of germs, the postwar political world failed to live up to the wartime domestic dream. The reality of global politics had shifted, and a new Cold War version of the atomic "shelter of tomorrow," sensitive to protecting the nuclear family from international hostilities, emerged. [FIGURE 90]

In response to atomic age threats, New York industrial designers, Jacques Martial and Robert C. Skull devised two versions of their "Atom Bomb House." Combining earlier domestic fantasies with atomic age realities, the designers incorporated the bomb shelter idiom of civil defense into the new "house of tomorrow's" design. Here, the conventional picket fence is abandoned for a concrete slab,

which encircles the dwellings like a rampart, suggesting that fortification is a necessary element in designing the Cold War house. Ironically, the slanted bulwark is well-suited to the modernistic, "streamlined" styling of the "Atom Bomb Houses." The bulwark's "functional" appearance not only (presumably) lends some protection from an atomic blast, but also privacy in an expanding postwar suburbia:

[In the Atom Bomb House] the inner walls are lined with a layer of compound of asbestos and lead to prevent the harmful effects of heat and the gamma ray. . . . All openings can be shut tight by concrete shutters of the venetian blind type. The sunken opening around the home is used for a driveway to the sunken garage which is isolated from the house. . . . Below this level is an air-tight cellar which has another compartment for emergencies. It includes sleeping quarters, wash-room and toilet. . . . each individual in the house should be provided with an asbestos suit lined with a lead compound.⁴⁵

While the World War II home front had been equated with the European and Pacific theaters of warfare, American houses in the states had remained untouched by the ravages of war. After peace had been achieved, international harmony quickly evaporated and the tables were turned. The postwar "house of tomorrow" became the Cold War's front line, and as a result, visions of the future were punctuated with ultimate destruction instead of optimum social order: "Your own back yard may be tomorrow's front line. . . . If the bombs from enemy planes ever fell on your city, they would not fall on a plan, or an organization, or a system of

⁴⁵"Atom Bomb House," Architects' Journal 28 February 1946, 176.

government. They would fall on you and your family and friends."⁴⁶

In an attempt to give advice on "how to be safe from atomic dust," Science Digest, unlike the creators of the "Atom Bomb House," pictures a doomsday scenario for the postwar "house of tomorrow" blasted with Cold War realities. [FIGURE 91] Here, the conventional nuclear family huddles in the basement of its pitched-roof, suburban ranch-style house, seeking futile shelter from a "world of tomorrow" gone wrong in a structure that ultimately could do little to save them.

In a Cold War world increasingly defined by energies and menacing war machines, seemingly too complex for the average person to grasp, the federal civil defense program (like postwar promises) offered a key to coping with the uncertainties and demands of the postwar, atomic age. Because of the fear generated by the threat of atomic assaults on American soil, social chaos and panic in the civilian population were believed to be more lethal than the effects of the Bomb.⁴⁷ Through civil defense programs, the

⁴⁶Federal Civil Defense Administration (FCDA), This is Civil Defense (Washington, D.C.: Government Printing Office, May 1951), 4, 10. Civil defense literature tended to picture the American household as the new battleground of modern push-button warfare.

⁴⁷For a thorough study of the FCDA and its policies, see Guy Oakes, The Imaginary War: Civil Defense and American Cold War Culture (New York and Oxford: Oxford University Press, 1994).

federal government tried to curb the hazards of potential panic by assuring civilians that a nuclear Armageddon could be survived, as long as they practiced and followed the directions: "The eight home-protection exercises described in this booklet [Home Protection Exercises] are the foundation for a home defense action program. . . . Keep practicing until you can conscientiously score the family performance as 'excellent.' Then review and refresh your preparations and practice at least once every 3 months."⁴⁸

Thus, civil defense drills were not only intended to shore-up the public's confidence in the future, but were especially geared to sustain social order by regimenting domestic life, and training civilians to deploy their household skills and products in the battle to survive the blast and fallout of a possible nuclear assault⁴⁹: "[C]ivil

⁴⁸FCDA, Home Protection Exercises: A Family Action Program, 2nd ed. (Washington, D.C.: Government Printing Office, 1956), 31.

The checklist for survival encouraged civilians to practice a routine they would deploy when they heard the air raid signals: prepare a shelter, safe-guard the home against fire started by bombs, store safe food and water, and learn nursing, rescue and fire-fighting techniques.

⁴⁹Domesticity turned civil defense, it was believed, would ensure a stable home-life for workers in munitions plants. If productivity could be maintained amid the bombs and chaos of the anticipated World War III, then American democracy stood a fighting chance:

"One of the chief aims of civil defense is to help you to stay at work no matter what may come. Unless all of us kept at our jobs in the face of attack, the enemy would win the war. . . . Your aim would be to keep working and to give our armed forces the things they need to beat the enemy." From: This is Civil Defense, 4.

defense . . . makes[s] the best use of your own special ability and skill in an emergency."⁵⁰

In order to make the civil defense program fit within the conventional middle-class paradigm, and thus encourage the public to follow its rules, the mobilization of the American household, especially in suburbia, was described as another routine household chore, and nuclear fallout, just high-tech household dust, easily eliminated with old-fashioned domestic skills and family unity: "You can also use a vacuum cleaner to pick up contaminated dust."⁵¹ Thus, civil defense literature stressed the importance of cleanliness and purity in a nuclear attack, concepts that the American public, especially the middle class, already valued: "Even a cellophane wrapper may protect food from [radioactive] contamination if the wrapper itself remains unbroken. . . . After an atomic attack, wash or wipe clean any food or water container before opening it."⁵²

⁵⁰Ibid., 10.

Civil defense planners also recommended using water from a hot-water heater if no other clean source of liquid was available, thus converting a conventional household appliance into part of the family's "survival kit" for a nuclear attack. Home Protection Exercises, 11.

⁵¹FCDA, What You Should Know about Radioactive Fallout (Washington, D.C.: Government Printing Office, 1955), 26.

⁵²Home Protection Exercises, 25.

See also: "Make some temporary toilet provisions for members of your family. . . . A covered pail, a large cooking

Because it was assumed that women would be at home when the Russians launched their anticipated nuclear assault, the domestic responsibilities peculiar to the housewife's role were channeled into civil defense duties. Similar to World War II propaganda, the Cold War housewife's "natural" domestic and consumer abilities were re-enlisted to prepare her household and suburban neighborhood for defense against the likelihood of a nuclear attack:

Women, and especially housewives, play an important part in the [neighborhood] warden service. Most women are at their home posts day and night. Usually they know their own neighborhoods better than men can ever know them. . . . Women are especially urged to interest themselves in the health service as part of the civil defense program. Even if your only skill is the ability to wash laboratory glassware or mop floors, the health service will have a place for you.⁵³

World War II advertising had imbued feminine domestic

vessel, or a small kitchen garbage can with a foot-operated lid can be put to bathroom use in an emergency. . . . 1. Gather your family together and discuss the dangers of dirt and disease which can bring illness or death following a disaster. 2. Make sure you know what you are going to do about household sanitation if an emergency occurs, and see that you have on hand the supplies you would need to protect your family health." From: Ibid.

Middle-class nutritional concerns were also considered part of civil defense, encouraging mothers to maintain "A Well-Balanced Emergency Supply of Food," despite the rigors of nuclear war. Home Protection Exercises provided a shopping list for the shelter, which included groceries that were convenient and quick to prepare either in an emergency or just the everyday fast pace of modern life: "Instantaneous drinks, Canned meat and fish, Baby food, Raisins and chocolate, Packaged cereals and dried foods." From: Ibid., 10.

⁵³This is Civil Defense, 22, 25.

skills and household products with patriotic value by associating them with the home front's weapons of war. In a similar fashion, civil defense drafted the home, its members and consumer products in saving suburbia, the American family, conventional gender stereotypes, and capitalist way of life.⁵⁴ Consequently, the scarcity of order in the Cold War era was dealt with through the futile pretenses at regimenting the conventional family unit and sheltering it and its middle-class values from the destructive potential of nuclear war.

Cold War chaos, and the attempt to control its consequences, infiltrated and redefined the conventional concept of "home" in the postwar era through more ways than only civil defense propaganda.⁵⁵ Just as the nation and

⁵⁴Following traditional, yet limited, social assumptions about gender, civil defense literature tended to dispense home protection duties into conventional male and female roles. The cover of the Federal Civil Defense Administration's Home Protection Exercises, for example, shows each family member dutifully carrying out "women's work" or a "man's job" as a prescribed civil defense chore. Mother carries home the groceries, father holds a ladder and fire extinguisher, Junior carries a radio, flashlight, and shovel, Grandma sweeps, and Sister reads a nursing manual.

⁵⁵See: Allen Smith, "Democracy and the Politics of Information: The St. Louis Committee for Nuclear Information, " Gateway Heritage (publication of the Missouri Historical Society) 17 (Summer 1996): 2-13. Smith shows before and after pictures of "Survival City," a model of a suburban neighborhood (complete with middle-class looking mannequins and household appliances) built in the Nevada desert in 1955, which was used to test the rate of destruction a modern postwar house and family could expect to experience in a nuclear holocaust. The "after" pictures of broken mannequins, shattered glass, and a destroyed middle-class neighborhood

politicians were engaged in rivalry with the Soviets, so too were suburban neighbors in rivalry with each other over the amount of progress and leisure they could consume.⁵⁶

Individualism and conspicuous consumption had eclipsed thrift and collectivism (as business leaders had hoped), and this trend was epitomized in the consumer "race" to personally stockpile the commercial accoutrements which lent the appearance of being middle class. Domestic Cold Warriors and their consumer skills were not only be valued as armaments of middle-class civilian defense, but prized as symbolic testimonies to the moral authority of capitalism and the consumer way of life. Similarly, containment abroad was echoed in the containment of traditional gender roles in the secluded suburban household, where the family unit sought isolation, stability, and convention away from the chaos of the city, geo-politics and society as a whole.⁵⁷

Consequently, as will be briefly explored in the following concluding chapter, global disharmony and the threat of violence dominated visions of domestic progress during the Cold War. And, as a result, universal order and

undermined civil defense planning because it attested to the futility of finding a "safe" structural haven in the atomic age.

⁵⁶On commentary about suburbia during this era, see: John Keats, The Crack in the Picture Window, (Boston: Houghton Mifflin Company, 1959).

⁵⁷For more on these issues, see: May, Homeward Bound, which was referred to in the dissertation's Introduction.

domestic peace would still be promised through low-cost rational housing, antiseptic housework, and democratized sanitary living as it had been pictured in magazine articles, advertisements, and commercial booklets during the Second World War.

CONCLUSION

COLD WAR HOUSEWORK and THE POSTWAR COMMERCIAL FALLOUT

When the classic work on the history of women comes to be written, the biggest force for change in their lives will turn out to have been war.¹

The Controls Company of America's advertisement from 1959 appears to corroborate, in a commercial sense, Max Lerner's 1945 axiom, quoted above. [FIGURE 92] In the ad, Cold War "push-button" technology is shown as the "revolutionary" ingredient for propelling the arms race as well as easing the housewife's perpetual domestic burdens, suggesting that those innovations, which changed the nature of war in the 1950s, were also responsible for ushering in improvements for the middle-class laundry. Here, a waist-high, square, fully-automated washer/dryer set, which fits neatly against the wall, has finally relegated the round, wringer version and the clothes line to obsolescence.

Although wartime critics of the "world of tomorrow" forecasts refused to endorse the war's inevitable commercial

¹Max Lerner, Public Journal (New York, 1945), 19. Found in: Eleanor Straub, "United States Government Policy Toward Civilian Women During World War II," Prologue (Winter 1973): 240. (My emphasis).

Portions of this chapter's text also appear as essays in the following publications, for which I hold the copyright: "Commercial Fallout: The Image of Progress and the Feminine Consumer from World War II to the Atomic Age;" "Atomic Age and Children." (Cited earlier)

fallout, ad men, advertisers, and designers remained undeterred, and, in fact, their claims for possessing the technological miracles that could revolutionize the home and "woman's work" after the war grew exponentially after victory, as shown in the Controls Company advertisement.² Even as late as 1961, visionaries were still celebrating the material progress extracted from World War II, which they credited with launching the U.S. on the road to prosperity:

September 1946. . . . A war-born depression was dead ahead and with it serious crisis for the nation. It had happened in 1921 and 1922, hadn't it? What, then, could prevent it from happening again? Well, it didn't happen. Reconversion didn't bring ruin. Employment didn't drop. Instead, the nation was launched on its greatest period of growth, discovery, production, prosperity, and social and geographic upheaval. Rare was the man with the acumen to see that by 1960 the nation would have gone almost as far as in the entire 169 years that preceded 1945.³

If the wartime visions of the postwar world did not emerge into the market exactly as promised, which their critics claimed, what **did** they contribute to American

²For an example of the antithesis of postwar critics' dismissal of wartime promises, see the following article on reconversion, which came out in 1948:

"The military need for new offensive and defensive weapons resulted in a flood of new materials, new products, new techniques. Now most of these are being turned to peacetime use. . . . Industry has been able to capitalize on the huge federal sums spent to insure adequate weapons for victory. . . . With war, too, industry got the research benefit of government money, [and] was drawn into many new fields that in peace would have been economically unsound." [Reconversion examples follow in the article.] From: "Reconverting War Research," Business Week 10 January 1948, 56.

³"The Fabulous Fifteen Years Ahead," Changing Times January 1961, 7.

consumer culture after the war? Did their glorification of wartime production leave behind any legacy at all?

Undoubtedly, they did.

Indeed, it can be argued that the wartime image of progress was not just a passing footnote in American history. As such, the military themes and technological mystique of modern warfare found in World War II advertising remained an important ingredient in the sale of progress as Cold War tensions developed. Advertising and propaganda, which showed how mobilized women and their household products helped win the war, established a commercial home front theme that never entirely disappeared after V-J Day because the specter of war was never fully eclipsed by peace again.

Cold War advertising imagery, like Revlon's pictured here, answered the wartime promise to transfer military research and development into postwar consumer benefits.⁴

⁴Many Cold War ads and articles credited military research and development with ushering in a new era of progress into civilian domestic life:

"We breached an industrial frontier after World War II, with breakthroughs in electronics, metallurgy, petrochemistry, plastics, molecular physics. . . . [which were] put to work for the civilian economy. . . . This second industrial revolution is not over." From: "The Fabulous Fifteen Years Ahead," 9-10.

See also articles about specific product reconversion:

"'Black Light' Examines Kitchen Pots and Pans [using ultraviolet radiation to detect microbes]," Science Digest October 1950, 95;

"Microwave Cooking," Good Housekeeping May 1957, 263-64;

"Washing with Sound Waves," Popular Science October 1946, 74;

"New Saran Film Makes Its Debut," Brinewell (Dow Chemical

[FIGURE 93] In the years following World War II, the promised new world on the other side of victory optimistically proliferated across the pages of magazines, picturing glamorous, antiseptic lives more fantastically efficient, convenient, and comfortable than ever before imagined, thanks to manufacturers who had "ingeniously" reconverted their byproducts of war.

Was this "new and improved" version of the "world of tomorrow" at odds with Cold War brinkmanship and containment policies? Were its promises of optimum domestic freedom contrary to the restriction of liberties implicit in McCarthyism and the civil defense program? No, the wartime version of domesticity fueled by military progress fit well within the aegis of the Cold War, which would subsume civilian life in a permanent culture of home front defense. Thus, war-theme advertising and militarized domesticity found a welcome haven in the global complexities, political uncertainties, and ideological contradictions of the Cold War years.

However, this new postwar world, proclaimed throughout the pages of magazine articles and advertisements, was

house organ) 1 April 1947, 1; "New Peacetime Uses Discovered for Styrofoam," Brinewell 24 June 1947, 2. Dow Chemical, Post Street Archives.

Regarding wartime housing reconversion, see: "Quonsets Converted to Peace," Popular Mechanics April 1947, 114; "Home is a Quonset," Woman's Home Companion December 1946, 64-65; "Some facts about . . . the RAF 'Mosquito' Fighter-Bomber [advertisement for plywood reconversion, Atlas Panels and Doors]," American Home April 1952, 149.

perceived not only as a symbol of Allied victory and wartime achievements, but was also heralded as the axiomatic bedrock of capitalism.⁵ Advertising images of postwar utopian dreams-come-true showed that the free enterprise system had survived the governmental impositions and collectivist tendencies of the war years, and was ready to battle the oppressive tides of Communism, sweeping over Asia and Eastern Europe. Accordingly, the super-powered domesticity that emerged on the pages of postwar magazines was matched and complemented by the technological superiority of a super-powered nation, which had been catapulted from the depths of economic depression to the status of global authority thanks to a few short years of war. Thus,

⁵For a statistical comparison of the changing consumption patterns of Americans between 1940 and 1951, see: "U.S. Life is Different - Sales Figures Prove It," U.S. News & World Report 13 February 1953, 69-70, 72.

The article shows that those products, improved or introduced as a result of the war, were outselling old stand-bys. For example, synthetic fibers, excluding rayon, were up 40.5%, while sales for silk were down 15.8%. And certain "luxury" appliances, which had only been available for the wealthy few prior to the war, were increasing their sales as well: Television set sales had increased 113.2%, clothes driers were up 70.9%, waste-disposal units were up 35.3%, dishwashers were up 21.4%, and room air-conditioners were up 42.5%.

For more on the commercial publicity about the "revolutionary" progress of postwar America, see also: "The shopping list you couldn't have written 10 years ago [Time Inc., Advertisement]," Life 28 April 1956, 85. Some of the items included were frozen soup, brownie mix, instant rice, liquid detergent, aluminum freezer wrap, and antibiotics.

For more on how the commercial fallout of war production catapulted many working class Americans to middle-class status, and thus a higher standard of living, see: "Worker Loses His Class Identity," Business Week 11 July 1959, 90-92, 96, 98.

references in advertising to the miraculous power of the American military, also celebrated the successful ascendancy of capitalist democracy and free enterprise despite economic depression, New Deal regulations, and the Cold War's encroaching Communist threat.

Corningware's publicity exemplifies the continuation of the militarized home front theme, which became the hallmark of the wedding between capitalism and American Cold War ideology. In its 1959 ad, Corningware takes credit for "revolutionizing" mealtime and also closing the missile gap with Pyroceram. [FIGURE 94] The documentary-style photograph of the rocket at the top of the ad contrasts with the pink, homey picture of middle-class domesticity below, and yet, Corningware suggests that the two are not at odds, but rather, in the "daily life" of the Cold War, they share a symbiotic mission in the U.S. quest against communism.

Likewise, in an Armco Steel ad from 1958 an intercontinental ballistic missile soars alongside a stainless steel place setting. [FIGURE 95] A fork, knife, and spoon are aimed in the same direction as the ICBM, suggesting that they share a similar power, if not military and ideological objective. [FIGURE 96] In its 1956 advertisement, which echoes World War II rhetoric, Armco links the progress of the Cold War with a higher standard of living for believers in the American Way. Similar to wartime ads, Armco builds patriotic esteem in the public eye

by promoting its ability to procure civilian benefits from defense research and development: "Greater security for America [will translate into] Better living for America's families." Here, Armco suggests that its product strengthens family unity and middle-class values as it upholds "America's first line of defense."⁶

Armco's association of its "rockets" with its "tableware," and military might with "better living," exemplifies the paradoxical threat and promise of Cold War science and technology, which helped sustain America's super-power status and ignite its economy on a trajectory, which appeared to be an unstoppable prosperity. [FIGURE 97] Just as the promises of wartime production offered a "better America" by reconverting the machines of war, so too was Cold War progress as destructive as it was beneficial.⁷ As Convair's 1959 advertisement visually asserts, postwar economic ascendancy and the protection of American interests became dependent on civilian industries permanently geared for defense: "The B-58 . . . is a product of Convair and more than 4,700 participating suppliers and subcontractors. . . . In this, the American Way [of business and defense cooperation] Convair . . . has taken leadership--for

⁶Series 2, Box 42, Folder 3, N. W. Ayer Collection, National Museum of American History, Archives Center, Smithsonian Institution.

⁷See also: "Paradise or Doomsday?" Woman's Home Companion May 1948, 32-33, 74-75.

nationwide employment, for prosperity, and for peace."⁸

Industries initially designed to primarily produce consumer goods competed for a piece of the financial spoils from the U.S.'s Cold War rivalry with the Soviets. Research and development for domestic consumer products would thus be fueled by funding derived from defense contracts. Consequently, the democratization of progress and "revolutionary" domesticity would be contingent on the progress generated by a Cold War military-industrial complex.⁹ An article featured in Business Week explained how Westinghouse, a household appliance manufacturer, sought to reinforce its niche in the domestic market by signing up for Cold War service:

Back in 1957 Westinghouse Electric Corp. decided to go seriously into the defense business. . . . [T]he company didn't really have much choice. Electrical manufacturing is an industry firmly based on research, and in the U.S. these days much of the most advanced research is involved with defense. . . . [I]f it

⁸Time 10 August 1959, back cover.

See also the Reynolds Aluminum advertisement, "Light, Strong Links in the Chain of Command." The ad depicts boxes of Reynolds Wrap, which have been upgraded with aircraft wings and jet engines, speeding toward victory in Korea. From: Business Week 23 February 1952, inside front cover.

⁹For more on the historical development of the U.S.'s Cold War military-industrial complex, see: Charles J. Hitch and Roland N. McKean, The Economics of Defense in the Nuclear Age (Cambridge, Mass.: Harvard University Press, 1960); Paul A. C. Koistinen, The Military-Industrial Complex: A Historical Perspective (New York: Praeger, 1980); Stuart W. Leslie, The Cold War and American Science: The Military-Industrial-Academic Complex at MIT and Stanford (New York: Columbia University Press, 1993).

Mowry in The Urban Nation, 196-201, discusses the relationship between Cold War defense and postwar prosperity.

weren't deep into advanced study and development, it probably couldn't keep pace with the best technology in its field.¹⁰

Westinghouse showcased its new Cold War "product" line--atomic reactors--in a 1959 Time ad. [FIGURE 98] As if to emphasize the mystique of its association with U.S. military technology, and engage in some corporate muscle flexing, Westinghouse features its new product powering a nuclear submarine, which rises ominously on an ocean horizon.

Advertising imagery, which proclaimed that the perfect postwar world had arrived, masked the dire realities and threats of ultimate destruction by concentrating on the postwar defense economy's commercial consequences and potential for civilian sales. [FIGURES 99, 100, 101] Defense-theme ads, like those of Westinghouse, Bendix, Kawneer, and Bridgeport Brass, pictured here, were not necessarily intended for the average consumer's view, but rather targeted to manufacturers of civilian products

¹⁰"How to Build Defense Business," Business Week 10 October 1959, 95.

For more on this issue, see: "The Biggest Most Baffled Business," Business Week 10 October 1959, 71-72, 77-78, 83-84, 88, 90.

"The Defense Dept. accounts for about one-third of the nation's total outlay for research and development and, some say, fully half of all basic research in the U.S. Government spending in these fields has already jumped from an average \$245-million a year during World War II to \$1.5-billion this year [1957]. And it's going higher. [T]he military-supported research program is to meet the needs of highly complex weapons systems and worldwide defense, but it also helps industry too." From: "Defense Dept.: Leading Patron of the Sciences," Business Week 12 January 1957, 96. (My emphasis)

holding Cold War defense contracts. Such juxtapositions between the military role and domestic application of a given defense product revealed a company's manufacturing diversity to other businessmen. The "war-tested" theme, once again, promised to increase the sales potential of any household product whose superiority was proven by its active role in the arms race.¹¹ Enlisting "new and improved"

¹¹Many corporations with military contracts produced ordnance for Cold War defense that was not dissimilar, and even sometimes equivalent, to what they were producing for civilians. Thus, showing how their product met the demanding needs of the military and postwar consumer provided a way to demonstrate their superiority and patriotism--a similar tactic used by these same corporations in World War II.

See also: "**Missile by Martin, Rocket by Olds** [AC Sparkplug Advertisement]," Life 28 April 1958, 115.

"**Waste King**. . . [from] Food Waste Disposers for the Home [to] Technical Products for Military and Industry [Advertisement]," Life 23 November 1959, 171.

"**Trial for Combat** [Bell Telephone Advertisement]," Series 2, Box 32, Folder 2, N. W. Ayer Collection, National Museum of American History, Archives Center, Smithsonian Institution.

"**From jet age research** . . . safer tires for you [U.S. Rubber, U.S. Royal Tires Advertisement]," Life 30 September 1957, 16.

"**From beans to battleships** - the industry that wraps up progress [Bankers Trust Advertisement]," Business Week 29 December 1956, 3.

"**Reconnaissance television** moves GHQ directly over any target zone [Philco Corporation, makers of civilian electrical and electronic appliances, Advertisement]," Business Week 8 September 1956, 65.

"The properties of PYROCERAM have made it useful for such **widely diverse applications as missile nose cones and smartly styled percolators** [Corning Glass Works Advertisement]," Business Week 28 November 1959, 16.

"Where do **guided missiles** get their 'Brains?' [Bell Telephone Advertisement]," Fortune August 1959, 202.

"**Ford Motor Company** announces a new division-Aeronutronic **specializing in products for the space age** [advertisement for Ford's weapons, atomic missile range systems, computer and space technology operations]," Time 13 July 1959, 60-61.

"**GE Chemical Progress**. . . . New furniture polishes a

sciences and technologies in Cold War civilian products promised to accelerate the trajectory of higher standards of living, and also propel the U.S. ahead of the rival Soviets.

And yet, such seemingly contradictory images, which paired domesticity and Cold War defense, were not always at odds because much of the advertising specifically targeted to civilian consumers, like Oldsmobile illustrated here, also employed military rhetoric and imagery in order to underscore the "new and improved" power behind postwar domesticity.¹² [FIGURE 102] Here, enthralled consumers gasp with awe and pleasure as a rocket zips through the air,

shining example of how G-E silicones improve products. . . . G-E chemical facilities help speed **defense production** [General Electric Silicones Advertisement]," Box 61, Folder GE 1951 Trade Magazines, Darcy, Masius, Benton, and Bowles Collection, Hartman Center, Duke University. (My emphasis throughout)

¹²Cold War magazine articles offering household advice also employed military terminology or defense references in order to underscore their ability to empower the housewife:

American Home magazine, for example, had a regular feature on homemaking tips called, "**Household Scuttlebutt**," see October 1951, 100.

And: "**My 30 Day's War** [re: selling a house]," House Beautiful June 1952, 18, 76.;

"**The Detergents Strike Back** [re: the invasion of synthetic suds]," Fortune June 1956, 102;

"**This Kitchen Took Cover** [re: remodeling]," American Home March 1954, 80, 82.

"**How to Win the Chore War**," House & Garden April 1953, 118-19. This article shows two housewives (one equipped with a rifle the other a sling shot) taking aim at their domestic enemies: cobwebs, garbage, outmoded appliances, and dirty footprints.

For another example of this duality, see: "**Deadly New Missile Doubles as Earring**," Popular Science June 1954, 154. (My emphasis throughout)

as if to demonstrate the potential behind the Oldsmobile 88's new "rocket-powered" engine.

Accordingly, advertisers, designers, and businessmen capitalized on the institutionalization of civil defense and Cold War ideology.¹³ Similar to the U.S.'s Cold War dilemma, advertisers and advice columnists pictured the American housewife as embattled in skirmishes with household filth and germs, which threatened her family's middle-class standard of living, but, which she also always won.¹⁴ As

¹³Like manufacturers, industrial designers became involved in "streamlining" the military-industrial complex with their defense contracts to improve the U.S. military's efficiency through design.

See for example Henry Dreyfuss's Nike missile launching platform and missile control console in his firm's public relations booklet, Industrial Design: A Progress Report, 1929-1952 (New York: Henry Dreyfuss, 1952), no page number. Dreyfuss' hand-held geiger counter is illustrated in Industrial Design: A Pictorial Accounting, 1929-1957 (New York: Henry Dreyfuss, 1957), no page number.

See also Walter Dorwin Teague's plans for the U.S. Air Force Academy's Colorado Springs complex built in the late 1950s, available in the Teague Collection, Syracuse University.

¹⁴"Wizard Deodorizer ATTACKS GERMS IN AIR as it sprays away household odors. . . . **Science declares war on germs in the home.** . . . And here is science's modern household weapon against many of the dangerous, airborne germs. Germ-fighting action has been added to the famous Wizard Spray Deodorizer. . . . fortified with germ-fighting TD4. This new ingredient vaporizes in the air, attacks many invisible germs and viruses. . . . [G]ive your loved ones the added protection of **Wizard's hygienic, sanitizing action.**" From: Wizard Deodorizer advertisement, Box 20 1958, Folder H240 1958, Deodorizers, Competitive Ads, J. Walter Thompson Collection, Hartman Center, Duke University.

See also: "The Germ's Last Stand?" Newsweek 24 November 1958, 99-100.

Like their assault on germs, articles about cures for the common cold utilized the language of the arms race: John D. Hillary, "Cold War on the Common Cold," Science Digest

such, feminine products, cleaning supplies, and domestic appliances were equipped with the language of military technology in the never-ending war against household drudgery, sordid stains, and wasted time.¹⁵

For example, Hoover's new vacuum cleaner, the "Constellation," has been re-designed in the spherical shape of a satellite, in order to more efficiently conquer the toils of domestic labor. [FIGURE 103] According to Hoover's ad, it's vacuum's "telescoping wand" will reach unsightly

February 1954, 10-14; "Cold War Strategy," Newsweek 24 December 1951, 62; "Common Cold War," Newsweek 10 November 1947, 47.

¹⁵For more examples of Cold War rhetoric applied to civilian advertisements for domestic products, see also: "**Reserve Coldpower** [Hotpoint refrigerator advertisement]," Life 27 April 1959, 118-19.

Many advertisers emphasized the "double duty features" of their appliances, a tactic left over from World War II advertising and magazine articles directed toward women performing double roles on the home front: "For **double duty** in your kitchen [Amana refrigerator advertisement]." (citation below)

Both the postwar supermarket, with its wide array of goods, and the enlarged storing capacity of new refrigerators and freezers encouraged the Cold War housewife to "stockpile" groceries in her suburban outpost. (Credit goes to Dennis Henthorn for this insight.)

Many of these types of ads echoed the civil defense planner's advice and the imagery in civil defense literature which suggested that consumers store up (or rather, hoard) a large supply of canned goods, bottled water, and tranquilizers in the event of nuclear attack while they were at home.

See: "Crosley 'Fresh and Frozen Food Centers' [refrigerator/freezer combo] specially designed for Supermarket Shoppers. . . . **Stock up** on months of frozen meals, **store away bushels** of fresh things."

Both Amana and Crosley advertisements from: Box 22 1956, Folder 1956 H211 Refrigerator & Freezer, number 2 of 3, Competitive Ads, J. Walter Thompson Collection, Hartman Center, Duke University. (My emphasis throughout)

dust in unseen places, while its "airlift" feature will propel the cleaner automatically on its own "airstream."¹⁶

[FIGURE 104] Likewise, Coleman offers to rescue the Cold War housewife from domestic inconveniences that assail her family's "proper" level of personal cleanliness with its domestic "Jet Recovery" system, which "means hot water aplenty whenever you want it for sparkling clean dishes."¹⁷

In a similar fashion, Tide laundry detergent promises reinforcements in the war against ground in dirt with its "Reserve Cleaning Power." In a series of ads about the "new" Tide featured in 1958, cheerful, housewives stand at the edge of a cliff and smile at the viewer, while fresh ocean breezes (instead of an automatic, electric dryer) gently fluff their families' laundry: "[W]onderful extra cleaning power to get your whole wash clean and fresh as an ocean breeze. . . . Yes, the cleanest clean possible is new Tide clean!"¹⁸ Hotpoint, like other manufacturers, in its 1959 ad campaign, envisions housework in the terms of war. [FIGURE 105] Here, a housewife stands poised to launch her

¹⁶See also the advertisement for the Formfit bra, which states, "**Undercover Strategy** begins with 'New Romance' by Formfit." In the ad, a seductive model holds up a red apple, evoking a "Garden of Eden" motif. Formfit associates the romance and intrigue of the Cold War spy with its scientifically calculated "Equalift Support" brassiere. *Life* 17 March 1958, 188.

¹⁷*American Home* July 1951, 102.

¹⁸*Better Homes & Gardens*, May 1958, back cover.

laundry, while a regiment of filthy clothes lie prone at attention, awaiting her command.

Thus, in response to potential attacks launched at middle-class propriety by enemy inconveniences, dirt, and grime, Cold War appliances and cleaning products were imbued with militaristic powers, which echoed the headlines of news stories about the civil defense initiative, the Communist menace, as well as the new technologies developed for the arms race.¹⁹ Inefficiency and vilified dirt threatened the course of Cold War domestic progress, just as untrained civilians or Communist bombs endangered the home not safeguarded by civil defense.²⁰

Civil defense literature had pictured the home as the field of battle in the Cold War's Atomic Age, claiming that

¹⁹Cold War magazines, perhaps unwittingly, juxtaposed news stories and photographs documenting the elements of destruction with utopian advertising on the facing pages.

²⁰Jet technology promised to improve everything from coffee to household appliances, see for example: "**New Jet Process Explodes Pure Coffee Into Tiny Gems of Nescafe** [advertisement]," *Life* 17 May 1954, 135.

From Competitive Ads, J. Walter Thompson Collection, Hartman Center, Duke University, see: "[T]he Oster **Airjet Hair Dryer**. . . . **with super power** that dries clean curls in minutes [advertisement]," Box 3 1959 Folder 1959 H220 misc. 1 of 2;

And "The clothes go round and round - and **the water jets out here**. . . . [C]urrents of hot, super-cleaning, sudsy water . . . flush away all dirt and grime [Frigidaire washer advertisement]," Box 22 1956, Folder 1956 H2124 Refrigerator & Freezer, 2 of 3.

See also advertisement for 1950 Kelvinator Electric Range, which promised to deploy the latest military device for modern cooking: a "**new high-speed Rocket unit**." From: *McCall's* July 1950, inside front cover.

efficient home protection, family preparation, and fallout spring cleaning fulfilled the recipe for survival in a nuclear attack. And yet, similar "defense" images in magazine advertisements only created the illusion of domestic power, just as civil defense literature had created the illusion of security in a nuclear attack.²¹ Drafting the atom also ensured the Cold War housewife a friendly labor-saving device, lending her domestic technologies an unprecedented "new and improved" strength.²² References to the benign atom, or gentle radioactivity, in the home corroborated civil defense messages implying the survivability of a nuclear attack.²³ Vicks VapoRub, for example, offers mothers the comfort of "atom tracer tests"

²¹Language derived from the space race was also employed as a means to empower domestic life. From Competitive Ads, J. Walter Thompson, Hartman Center, Duke University, see:

"New **Starflight Styled** Philco [range advertisement]," Box 22 1956 Folder H212 Electric 1 of 2;

"Own a super automatic **Necchi supernova** ultra . . . with triple impulse action [sewing machine advertisement]," Box 3 1959 Folder H215 misc. Sewing Machines;

"New **space age flavor** in this lamppole designed for the year 2000 by Stiffel [lamp advertisement]," Box 2 1959 Folder H150 Lamps;

"**Motorola Golden Satellite** [with] **Tube Sentry** [TV remote control advertisement]," Box 25 1957 Folder H310 Motorola 2 of 2.

²²"Domestic Atom Puts on Mufti," Business Week 13 October 1956, 30-31.

²³"Atomic Progress: As bombs pile up, nuclear energy finds new, creative applications," Life 1 January 1951, 22-33.

For more on the disparities between what the civil defense planners knew about the **unsurvivability** of an atomic attack and what they told the public, see Oakes, The Imaginary War.

in the battle against the common cold, and thus shows how packaging atomic power in the guise of domestic progress promised to advance the cause of female freedom and ultimate home efficiency.²⁴ [FIGURE 106]

Containing atomic power in the form of the domestic atom neutralized its role as a military weapon of mass destruction, and reinforced its image as an instrument of progress that coincided with the policies of Cold War civil defense.²⁵ Just as civil defense had downplayed the

²⁴Lewis Nordyke, "Atoms in the Home," New York Times Magazine 14 October 1945, 46.

Robert E. Wilson, "Atoms in Homes: How Soon?" U.S. News & World Report 17 December 1954, 116-18.

Darrell Huff, "Atomic Rays Keep Food Fresh," Popular Science April 1956, 102-105, 248.

²⁵Not only did the civil defense planners want to curtail mass public panic and pathological anxiety about a potential Soviet atomic attack, but those corporations with financial interests in the nuclear energy program also felt it necessary to curb public fears about the build up of nuclear reactors near civilian communities. See for example the following 1956 series of Consolidated Edison of New York brochures attempting to educate the public on the safety of nuclear energy and its domestic uses:

Atomic Energy - How?; Atomic Energy - Why?; Atomic Energy Power at Indian Point; Atomic Power and Safety (N.Y.: Consolidated Edison, 1956).

See also: "Atomic Energy in Action," (no date). A public relations exhibition regarding the peaceful uses of the atom, held in the Union Carbide building in Manhattan. Energy Folder #1, Atomic Energy, Warshaw Collection, National Museum of American History, Archives Center, Smithsonian Institution.

For General Electric and Westinghouse's role in domesticating the atom, see for example: "Power by GE," Newsweek 26 October 1953, 82, 85; "Industry's Progress Toward Harnessing the Atom," Newsweek 13 April 1953, 88-90. (The latter includes other companies' involvement in the atomic energy program.)

See also: "The promised land of atom-powered ships, planes, farms and homes is closer than you think." From:

dangers of an atomic invasion, the friendly atom and mushroom cloud curtailed fears of nuclear Armageddon. For example, the destructive potential of nuclear power is denied for its leisure potential by Dow Chemical, which utilizes an atomic cloud as the logo for its new magnesium bowling pin. [FIGURE 107] In this respect, fun in the Cold War means having a "blast" with an atomic bomb.

Belief in the peaceful atom enhanced the fantasy of national security and deterred the social chaos generated by panic from the perils of nuclear war.²⁶ [FIGURE 108] For example, the children's activity booklet for "Atomic Frontier Days" offered an image of tamed atomic power, which assumed that something so useful in the advance of progress

Gordon Dean (Retired Chair of U.S. Atomic Energy Commission), "Atomic Miracles We will See," Look 25 August 1953, 27.

"On the way are new and better foods, improved products for the home, dramatic advances in medicine . . . See for yourself the great changes that atomic energy will make in your life." From: "What the Atom Will Do For You," Changing Times August 1957, 43.

For more on the atomic power industry's history, see: Daniel Ford, The Cult of the Atom: The Secret Papers of the Atomic Energy Commission (New York: Simon and Schuster, 1982); Philip L. Cantelon, ed., et al., The American Atom: A Documentary History of Nuclear Policies from the Discovery of Fission to the Present (1984; reprint, Philadelphia: University of Pennsylvania Press, 1991).

²⁶"Abundant energy released from the hearts of atoms promises a vastly different and better tomorrow for all mankind." From: Allan C. Fisher, Jr., "You and the Obedient Atom," National Geographic September 1958, 303-53.

could not possibly be so hazardous, too.²⁷ Here, an atomic blast on a western desert is rendered like an Albert Bierstadt sunset, and evokes the romantic mythology of the American "pioneer spirit." The theme, "A New Light on the Old Frontier," aligns atomic science with Senator Thomas Hart Benton's quest for American "manifest destiny," masking the destructive side of technological progress, to which the "old" west eventually fell victim in the late nineteenth century.

What other forms of commercial fallout were generated by the war? The business community and the advertising industry had emerged victorious after V-J Day. Their efforts to gain a foothold over New Deal collectivism had won out, and they graduated from their war work with renewed respect from the public due to their seemingly selfless, yet self-promoted, promises to create a "better America" once victory was achieved. While the WAC shed its wartime uniform in the reconversion process, its peacetime counterpart, the Advertising Council (AC), would not lose its militant edge in the struggle to secure America as the stronghold of capitalism and expand the boundaries of the commercially free world. Although New Deal collectivism had been shelved at home, businessmen recognized a more serious threat to the American Way and their commercial interests

²⁷"Atomic Frontier Days" was another public relations device to educate the public, especially children, about the perceived benefits of domesticated nuclear energy.

abroad in the growing Eastern Block.²⁸ The AC in peace offered its services to a government convinced of advertising's usefulness to communicate "appropriate" American ideals in its pitch for consumer products.²⁹ As a result, the AC and consumerism in general became the business community's organized mouthpiece behind democratic commercialism, battling the demons of Communism sprouting within the country and spreading to beleaguered, war-torn nations abroad. The AC's "Miracle of America Thrives on Progress" campaign was typical of business' commercial

²⁸For more on the propaganda war between U.S. business interests and the Soviets, see: "Reds Can't Admit that Communism is Harder to Sell," Saturday Evening Post 26 July 1952, 10.

²⁹"Your Government recognizes that, in order to achieve the objectives of its foreign policy throughout the world, it must have the cooperation of private enterprise and private organizations whose daily relationships with people in foreign lands contribute to the building of international good will. In this great struggle, the interests of American Government and American business abroad are synonymous. . . . **Companies selling products overseas can also sell American and our concept of freedom.**" From: John M. Begg (Director of Private Enterprise Corporation, International Information and Educational Exchange Program), "The American Idea: Package it for Export," United States State Department Bulletin 12 March 1951, 409-10.

See also: "[E]ven technically-minded Poles and other Iron Curtain peoples had never seen a packaging machine in action. . . . Modern packaging clicked on and the aisles [at the 1957 Poznan trade fair] remained jammed. . . . **If we could win friends as simply as this with jet-age industrial design on a larger scale, there might be no more Iron Curtain.**" From: "U.S. Packaging Breaks Through the Iron Curtain." 1964 New York World's Fair, Box 4 General Reference, Folder 4, J. Walter Thompson Collection, Hartman Center, Duke University. (My emphasis throughout)

For more on the AC after World War II, see: John Vianney McGinnis, "The Advertising Council and the Cold War" (Ph.D. diss., Syracuse University, 1991).

propaganda in the Cold War years, which, similar to many World War II ads, depicted consumerism as a patriotic embrace of American democracy and a rejection of Communism. [FIGURE 109] In its advertising samples and media guidelines for the "Miracle of America" campaign, which it disseminated to retailers, the Ad Council demonstrated the American evolution of progress from 1900 to 1950 through a lineage of ever-advancing consumer products. Old-fashion household tools and antiquated modes of transportation are transformed into modern conveniences in the promotional, as they cascade from the past--symbolized by 1900 rendered in a roman font--toward the present--1950. The san-serif typography used for "1950" underscores the chasm between the old and the new. Here, Cold War refrigerators and stoves are not valued for their scrap potential, as they were during World War II, but rather win significance as icons of capitalism and the American Way.

Shipping the doctrine of consumerism overseas was perceived as a means to challenge the strength of Soviet Communism in other East European and Asian countries.³⁰

³⁰"Traveling Salesmen for Two Ways of Life: Eisenhower and Khrushchev are crisscrossing the world - and often each other's tracks--in pursuit of goodwill," New York Times Magazine 13 March 1960, 22.

Communists were also maligned in the U.S. media by showing what failures they were at advertising--the perceived stalwart institution of the American Way. See for example: "Advertising, Russian Style: Soviets Use Capitalistic Campaign to Help their Controlled Economy," Life 2 May 1949, 59-60, 62; "Buy Red or You May Drop Dead," Life 22 June 1962, 27.

Advertising, and the capitalist ideology it preached, was enlisted as "a new weapon in the world-wide fight for freedom," and as it had during World War II, the AC distributed guidelines to foreign investors and American businessmen working over-seas on how to sell the U.S. capitalist ethic abroad.³¹ [FIGURE 110] A 1955 ad from Bankers Trust illustrates metaphorically how consumer products, and the revolution in standards of living they promised, were enlisted as America's Cold War arsenal in defense of capitalism and the American Way. Here, consumerism is shown as an intercontinental ballistic sales counter in the rivalry between democracy and communism.

Thus, the political ramifications behind wartime advertising evolved into the Cold War business community's renewed attempts to wipe out its opposition and educate not

³¹The Advertising Council archives holds several examples of Cold War campaigns that the AC waged on behalf of the American Way both in the U.S. and abroad. Just as its wartime counterpart had done, the AC provided the business community with suggestions on how to weave positive and informative messages about the benefits of free enterprise into its ad copy and art work. See for example:

"Advertising can sell freedom. . . . This newest weapon of democracy can help fight for freedom wherever freedom is being attacked." From: Advertising: A New Weapon in the World-wide Fight for Freedom: A Guide for American Business Firms Adverting in Foreign Countries (n.p.: Advertising Council and the United States Information Service of the Department of State, November 1948), 1.

"A Program of Economic Education for all the People. . . . An Aggressive answer to all the forces trying to undermine America." From: A Campaign to Explain the American Economic System (n.p.: Advertising Council, 1948), front cover.

Both from Advertising Council Archives.

only the American consumer, but the entire world, about the higher standards of living offered by the capitalist system of free-enterprise.³²

Such a strategy represented another legacy left by wartime visions of postwar living: like the wartime "world of tomorrow" motif, the Cold War's militarized home front theme became a useful tool for spreading the gospel of capitalism's superiority and the perceived symbol of its success--"revolutionized" domesticity and democratized progress.³³ Domestic consumer products, especially labor-

³²Consumption itself was wielded as a weapon because it provided a tax base on which to build the military-industrial complex, and fuel the arms race:

"Today, **selling** has a double responsibility. Not only will increased selling stimulate greater production, but it will also provide the increased earnings necessary to finance strong defense. . . . It is within our ability to provide for **BOTH defense AND better living**. . . . We can have \$40 billion for defense and increase our standard of living too." From: Marketing in a Defense Economy (New York: J. Walter Thompson Company, 1951), 11, 14, 15. Box #11, Company Publications 1951-54, J. Walter Thompson Collection, Hartman Center, Duke University. (My emphasis)

³³"**Capitalism today has brought America the highest wage level and the highest standard of living** that any nation has ever enjoyed in all history. The Communists look upon Capitalism as their real adversary. For **the germs of infection** are now regarded as so potent that everyone inside the Communist empire must be immunized against any facts concerning the successes of Capitalism." From: David Lawrence, "The Moral Strength of Capitalism," U.S. News & World Report 11 January 1952, 72.

"America's brand of **People's Capitalism gives us standards beyond anything the Communists have produced** under a 30-year string of 5-Year Plans." From: "Why the Russians fear 'People's Capitalism,'" Better Homes & Gardens September 1957, 66. See page 67 for comparison chart between Soviet and American standards of living. The chart shows how much more the Soviet must labor than his American counterpart to buy the simplest necessities, like soap.

saving devices, were drafted into the business community's arsenal against Communism just as postwar visions had provided the weaponry to derail the collectivist tendencies and regulatory government of the New Deal during World War II.

Trade fairs and commercial exhibitions held abroad became effective agents for wielding the business community's propaganda pitch about the American Way to the beleaguered subjects of Communist countries.³⁴ In this respect, the U.S. projected its perceived superiority (both moral and technological) through images of its prosperity: model houses and automatic appliances, which were touted as the benign by-products of its military-industrial complex and the spoils of its World War II victory over fascism. At the 1959 U.S. Exhibition held in Moscow, American

See also: "Plastic yachts, personal planes, power from the sun, far greater abundance in food, homes, clothing, health, and education . . . **All these can be ours if we preserve our way of life.**" From: Harold G. Moulton, "Americans Can be Eight Times Richer," American Magazine February 1950, 46. (My emphasis throughout)

³⁴For articles on trade fairs and exhibitions throughout the 1950s, see also:

"Shabby Showcase: In Red-weary Leipzig, U.S. Auto Show is Hit of Fair," Life 25 September 1950, 18, 21-24.

"Brussels Fair and Science," Science News Letter 11 January 1958, 26-27; "Our Soft Sell at Brussels," Reporter 29 May 1958, 19-20; "World's Fair - '58: Battle of the 'Best,'" Newsweek 28 April 1958, 41.

"'Do you think anyone like us could ever have a house like that?' a Polish housewife asked her husband as they stood [at the trade fair] in Poznan gazing wistfully at a snug, gadget-filled house typical of middle-income U.S. suburbia." From: "Nylon Wonderland," Time 24 June 1957, 31.

competition with the Soviets was demonstrated with a tempting display of consumer goods, rather than a patriotic parade of military strength. What was significant about this trade fair, compared with earlier ones, was an on-going debate between its main celebrities, Vice-President Richard M. Nixon and Soviet Premier Nikita Khrushchev, and their vocalization of the Cold War's link between national defense and domestic progress.

As they toured the fair's model American house, supposedly fit for a middle-class price range and filled with every conceivable push-button gadget, Nixon and Khrushchev argued over whose economic philosophy was superior:

Khrushchev: 'In another seven years, we shall be on the same level as America. . . . In passing you by, we shall wave. We can stop and say: If you want capitalism you can live that way. . . we feel sorry for you.'

Nixon: 'You may be ahead of us . . . in the thrust of your rockets . . . We may be ahead . . . in our color television.'

Khrushchev: 'No, we are up with you on this too.'

Nixon: (pointing to a panel-controlled washing machine): 'In America, these are designed to make things easier for our women.'

Khrushchev: 'A capitalist attitude. . . . Newly built Russian houses have all this equipment right now. In America, if you don't have a dollar you have the right to [sleep] on the pavement.'

Nixon: (showing the Russian a model American house): 'We hope to show our diversity and our right to choose. . . . Would it not be better to compete in the relative merits of washing machines than in the strength of rockets?'

Khrushchev: 'Yes, that's the kind of competition we

want. But your generals say: Let's compete in rockets.'³⁵

Here, military and political tensions between the U.S. and Russia were couched in a male debate over domesticity. Despite Khrushchev's protestations, Nixon claimed superiority over the Soviets, not by measuring weapon power, but by extolling the hallmark of democracy: consumer power.³⁶ The "kitchen debate" centered around whose household appliances ranked higher. Thus, judging the "winner" of the Cold War on the technological superiority of his country's domestic progress and how much leisure for

³⁵"Encounter," Newsweek 3 August 1959, 17. (My emphasis)
See also Elaine Tyler May's Homeward Bound for another examination of the "kitchen debate" in the context of American Cold War gender values.

³⁶For more on fashion's role at the Moscow fair, see: "Moscow Mission for Guvs and Gals," Life 6 July 1959, 32-33.
For details on the type of consumer products at the fair, see: "What the Russians Will See," Look 21 July 1959, 52-54; Cynthia Kellogg, "American Home in Moscow," New York Times Magazine 5 July 1959, 24-25.

For more on Nixon's visit, see: "The Net Gain," Newsweek 17 August 1959, 100; "Afterthoughts on Nixon and the Exhibition," New Republic 21 September 1959, 6-7; "Nixon Talks about Russia," and "Into the Red Shadowland," Newsweek 27 July 1959, 39-42; "The Vice President in Russia: A Barnstorming Masterpiece," Life 10 August 1959, 22-35; "What Nixon Learned in Russia," U.S. News & World Report 10 August 1959, 37-39; "The New Diplomacy," Time 3 August 1959, 11-16; "When Nixon Took On Khrushchev," and "Setting Russia Straight on Facts about the U.S.," U.S. News & World Report 3 August 1959, 36-39, 70-72; Richard M. Nixon, "Russia as I Saw It," National Geographic December 1959, 715-50; "That Famous Debate in Close-Up Pictures," Life 3 August 1959, 26-28, 31.

For Nixon's public addresses upon arrival in Moscow and for the opening of the fair, see: "Vice President Nixon Opens American Exhibition at Moscow," United States State Department Bulletin 17 August 1959, 227-36; "What Freedom Means to Us," Vital Speeches of the Day 15 August 1959, 677-82.

women it could provide.

The American housewife's role as commander-in-chief of consumption and her stockpile of automatic gadgets were emphasized at the fair because they stressed the disparities in the standard-of-living race between Communism and the American Way, and boldly stated that the capitalists were way ahead.³⁷ Like Nixon, the American media covering the fair implied that the economic system behind such advances in progress for leisure was obviously the more successful. Thus, American reporters highlighted the contrast by focusing on the Russians' lower standards of living, symbolized by the peasant-like Soviet woman and her primitive surroundings:

[Moscow] A city of many aspects -poorly dressed, tired-looking people. . . wide, well-lighted streets . . . jerry-built apartment developments. . . It is a city that boasts of Sputniks, but makes no attempt to conceal its reliance on the primitive abacus as a means of figuring. It is a city of women- hard-working women who show few of the physical charms of women in the West. Most Moscow women seem unconcerned about their looks. . . .[Y]ou see many more young women striding along the streets purposefully, as though marching to a Communist Party meeting.³⁸

This angle of the fair, the "debate," and its media

³⁷For an example of the American woman's role as commander in chief of Capitalist consumption, see: ". . . is she 'capitalism's greatest unsolved problem?' Yes, WOMAN. Sweetheart . . . wife . . . mother . . . But also purchasing agent for practically all of the consumer products going into America's 40 million homes." From: "[McCall's Advertisement]," Fortune October 1952, 66-67.

³⁸"What Nixon Learned in Russia," 39.

coverage, which measured one country's superiority over another by comparing its women and domestic standards of living, represented an established means of reasserting not only the moral authority of capitalism, but also middle-class propriety, which to Americans, the Russians obviously lacked.³⁹ By labeling drudgery and lower standards of cleanliness as obvious signs of totalitarianism, supporters of capitalism were able to congratulate themselves on a system which rerouted technologies designed for war into the home in order to make women's lives more glamorous, less laborious, and democratize the domestic standards of the middle class.

Accordingly, the American household, enhanced by automatic appliances and a housewife burdened with leisure,

³⁹Just as the degree of poverty during the Depression had been measured against the yardstick of middle-class progress and the efficiency of the middle-class housewife, so too were the Russians judged through the lens of postwar American standards of living and middle-class gender roles. Emphasizing the Soviets' lower standards of living was a popular means in the mainstream American media to educate the average reader about the "signs" of fascism and also to applaud the precepts of capitalism. Obviously, the value of cleanliness and personal hygiene was the first of many "freedoms" to go when the Communists took over.

See for example: "Domestic pigs run loose in [the Russian town of] Kazhegi. . . . 'Foods' in display windows of shops are actually cardboard." From: "They Let Us Talk to the Russians," Ladies Home Journal June 1955, 51.

And: "The women of Russia wear men's clothes, are as dirty, grimy and as hard as men. As a result of the forced labor activities of women in the USSR, the family life has been almost completely abolished. . . This means that the so-called home is one room allocated by the government." From: Gene Birkeland, "The Organization Mother," American Mercury June 1960, 140-41.

was hailed as a trophy of progress in the crusade against Communism and its perceived socialist threat.⁴⁰

Continental Can's 1952 advertisement corroborates this popular perception of the American middle-class housewife as an icon of American "superiority" in the battle to destroy communism with the tantalizing visions of middle-class

⁴⁰For examples of the single-family, suburban American house as a metaphor for the moral authority of capitalism and democratic freedoms, see:

"The modern American house . . . stands on its own piece of land for which it was designed. . . . It inspires democratic living by encouraging a personal life. It offers the physical structure for individual growth, so that the son of a tailor might become president of a college, or a haberdasher, president of the United States. . . . For how men build determines how they live - and how they live influences, sometimes determines, how they think and act. . . . [Contrary to the American home] Le Corbusier's International Style has an odour of dictatorship. . . . [T]he International Style school of design, if successful, will end in imposing a design for living that we associate with totalitarianism." From; Elizabeth Gordon (House Beautiful Editor), "Does Design Have Social Significance?" House Beautiful October 1953, 230, 315.

See also: **"[A] freely-operating taste can bring serenity without dogma, unity without sterility. . . . The architectural forms are powerful without being oppressive. . . . [In] 1938: Tradition tyrannized their first house [In] 1952: Free taste has liberated their new home."** From: "The Power of Free Taste," House Beautiful October 1952, 192-94.

And: "Once a year House Beautiful devotes a whole issue to showing a home which is perfect and complete . . . and which represents the best current values. **This one symbolizes what the average American now has, or can reasonably expect to achieve by his own endeavors under the American democratic system.**" From: "Defining the American Way of Life Executed in the New American Style," House Beautiful May 1951, 107.

And: **"[T]his is a door of a house which can tell you more about what Americans value than a stack of sociological treatises."** From: "A House that says Made in America," House Beautiful June 1951, 103.

And: Karla Parker (President, National Congress of Parents and Teachers), "The Image of America Begins in the Home," PTA Magazine June 1961, 2-3. (My emphasis throughout)

leisure and domestic conveniences. [FIGURE 111] Here, the all-mighty U.S. feminine consumer circles the globe like a spy satellite, while canned goods launch themselves into her shopping cart at her command.

These analogies between military competition and domesticity were not out of place in the lexicon of the Cold War, in which the "barriers" between the East and the West were described as parts of a house: the Iron Curtain and the Berlin Wall, and a residential neighborhood: the Eastern Block. Consequently, those elements of the home which lent the nuclear family its privacy and protection became the frigid idioms of ideological demarcation in a rivalry for military and social dominance between Communism and commercialized democracy. Thus, Nixon's references to American middle-class domesticity in his discussion of Cold War politics was nothing out of the ordinary. By 1959 the progress of war, the ideology of the Cold War, and the American concept of "home" were intricately entwined. Like the messages deployed by advertisers and civil defense planners, the "Kitchen Debate" confirmed the American home as a site of Cold War ideology and defense culture, where the battle between democracy's consumerism and Soviet Communism raged.

Yet, beneath this utopian picture of ever-advancing household technology, lies the conventional gendered division of progress, in which progress is defined as the

work of men, creating leisure for women through the products they buy. Conventions surrounding domesticity and femininity, which were woven into the language of the arms race, reinforced the idea that the American women's role in progress was limited to her home and her shopping cart, and isolated in her kitchen.⁴¹ This paradox of progress, which seemed to both "liberate" women and yet deny them a role equal to men in the public world, begs the question: what happened to the image of strong, independent women wielding rifles and welding guns on the World War II home front? If the legacy of Cold War progress and postwar prosperity were rooted in World War II, would it not seem natural for women's domestic and social liberation to evolve at an equally fast pace from this point too? The image of women at war on the home front lent femininity and domesticity a new power and control, which they had not possessed earlier. Despite those ads that emphasized women's consumer role in the postwar "world of tomorrow," much wartime advertising had equated "women's work" and household products with victory, thus elevating them to a new social status and

⁴¹Cold War domestic science and household efficiency-engineering were perceived as the appropriate and "natural" realms of progress for women to enter and excel. See for example the Armco Steel ad, "She's Cooking a Stove That Isn't There," which shows a woman in an Armco kitchen lab, wearing an apron and potholders, doing some experimental cooking with a new Armco aluminum. Heat rays emanate from a hot light, bounce off a sheet of aluminum, and onto a frying pan, which the woman holds. Business Week 24 April 1954, 158.

applauding the "feminine" contribution to the war as if it were equal to the battles won by men.

Recognizing women's strength in wartime and their contribution to victory could have fueled the **real** revolution in domesticity by liberating women from traditional gender stereotypes and their second class status in the American workforce. Yet, female image of "strength" after the war was achieved through the power a woman mustered with the latest detergents and the control she administered with push-button washing machines.⁴²

⁴²See especially the 1959 ad for the Hotpoint washer with "touch command," examined and illustrated earlier.

The push-button offered the aura of control to women compelled to strive for ever higher standards of household efficiency, cleanliness, and order in a world and family unit threatened by uncontrollable chaos and ultimate destruction:

"Everything's Under Control," McCall's December 1958, 133.

"Control Center: The Kitchen," New York Times Magazine 27 March 1960, 78-79.

"Command post . . . For a Housewife," [re: kitchen design] Sunset September 1954, 70.

"The U.S. woman today is surrounded by nine billion dollars' worth of plug-in work savers." From: **"Automatic Housekeeping,"** Look 14 May 1957, 84-86.

"See, with **Zenith Space Command TV** [remote control] I can switch programs from clear across the room! [says Gracie Allen in a Zenith Advertisement]," Newsweek August 12, 1957. Found in: Box 26, Folder 1957 H310 Zenith (1 of 2), Competitive Ads, J. Walter Thompson Collection, Hartman Center, Duke University.

"Yours To Command [Western Electric telephone advertisement]," Time 3 August 1959, 38. (My emphasis throughout)

This sentiment is also expressed in an ad for Robertshaw Controls, experts in automation: "Research helps Mrs. America **keep everything under control.**" Business Week 17 October 1959, 12-13.

The domestic push-button lent household appliances and the homemaker a power which many times was paralleled with the automation used to launch atomic warheads: "New General

Thus, the advertising of World War II set a precedent for depicting powerful and victorious women, but in the Cold War years, this translated into an image of feminine "super power" enhanced by the latest vacuum cleaner, frozen dinner, or self-cleaning oven.⁴³ Consequently, a woman's role in postwar victory, unlike her wartime rank, would be restricted to what she could purchase on the battlefield of the supermarket and how she deployed her appliance arsenal

Electric **Keyboard-Cooking Ranges** make cooking a joy . . . not a job! [GE Advertisement], " Life 17 March 1958, 96.

Household appliances were bestowed with the automatic power to remove the strain of thinking from the homemaker, thus easing her domestic labor all the more. See for example: "New! The first home laundry that's more than automatic . . . it can think! **New Program Computer gives you two custom wash and wear programs. . . . All you do is push one button!** [Westinghouse advertisement]." Box 3, 1959 Folder H214 Washers/Dryers, Competitive Ads, J. Walter Thompson, Hartman Center, Duke University.

And: "**Robots Are a Girl's Best Friend**," House & Garden April 1953, 122-23.

⁴³The continuation and reinforcement of conventional gender stereotypes after the war is revealed in a Good Housekeeping series, "Women and the New War," begun in 1951, which included stories about women's lives as army wives and mothers.

In contrast to the majority of these stories, which usually involved the perils of housekeeping under the duress of army life, is one about three young women who join the Women's Army Corps, and thus attempted to break free from conventional feminine roles. And yet in their quest to make their own decisions and assert control over their own lives, the story reveals that they must overcome traditional assumptions about women's roles and their relationship to men first before they could proceed and succeed along their chosen paths.

to wage a war on dirt, germs, and inefficiency in the home.⁴⁴

This tendency to marginalize women's participation in the male world of commerce, science, and technology by emphasizing her domestic and consumer roles is also reinforced by a 1959 ad for McCall's consumer product testing department, in which a male scientist, complete with clipboard and lab coat, stands unseen behind a one-way mirror, scrutinizing a woman working in a kitchen for ways he can improve the progress she consumes.⁴⁵ The McCall's ad confirms the Cold War's celebration and fetishization of the scientific expert and the promises of female liberation his kitchen technology would "magically" facilitate.

Female access to progress is again portrayed as a domestic pursuit in a 1955 General Electric publicity still for the opening of its first nuclear reactor.⁴⁶ In the picture, a woman complacently cooks "Atom Burgers" on a push-button range powered by atomic energy, while the

⁴⁴See the ad, "Built-in Power for all the Servants You've Dreamed of in Your New Comfort-Conditioned Home." Here, a glamorous housewife, bedecked in pearls and a black evening dress, effortlessly prepares a cake with her electric mixer. She is surrounded by other automatic conveniences, like a stove island and built-in wall oven. Power for the Cold War housewife was limited to the gadgets under her command. Life 17 March 1958, 110.

⁴⁵McCall's July 1959, 18.

⁴⁶The photo is illustrated in: Thomas Hine, Populuxe (New York: Alfred Knopf, 1986), 134.

nuclear plant, which her burgers are promoting, looms dominant and forbidding in the background. The friendly "Atom Burger" appears as the feminine counterpart to the ominous nuclear reactor and the absent, but implied, atomic warheads from which the reactor's science was derived. Despite the promises to revolutionize domesticity, such images of progress implied that advances in atomic energy relied on containing traditional gender roles played in the marketplace and the home.

In a similar fashion, a 1959 ad for Magic Chef sexualizes woman's participation in the male domain of progress. [FIGURE 112] The ad entices the female consumer to "put a touch of magic in her life," while a smiling housewife, overcome with passion for the new Magic Chef, bites down on her index finger. Her other hand grazes her cheek as if she is about to faint in a paroxysm of consumer delight.⁴⁷ The push button reference in "Touch of Magic" is eroticized as the woman reaches for her open mouth, rather than the stove, and in this respect, the distinction

⁴⁷One of the selling points behind domestic automation and the push-button appliance was that the housewife's youth and beauty (assuming she had any to begin with) would be preserved because she would not expend her energy on household drudgery.

See for example: "Proctor helps the bride stay beautiful [Electric Toaster and Iron Advertisement]." Box 3, 1959 Folder H214 Irons, Competitive Ads, J. Walter Thompson Collection, Hartman Center, Duke University.

"My American Kitchen Saves Me 2 Hours a Day to Keep Myself Looking Young! [Advertisement]," American Home August 1951, 67. (My emphasis)

between female sexual pleasure and excitement over new household technologies becomes blurred. Yet, the paradoxical image of the push-button as an instrument of empowerment, either to facilitate war, or feminine sex appeal, remains, albeit ambiguous, but undisturbed.⁴⁸

Likewise, a 1958 promotional ad for Life magazine entitled, "She used to think science was for men only," stressed how the experts at Life could explain nuclear science in a language even a woman could understand. Above the ad's headline, a brunette sex-kitten, donned in a kimono-like bathrobe, lying on a lounge with a black cat, looks seductively out at the viewer, and says:

Just for the boys in the lab coats . . . that's what I used to think. Till Life showed me that science is for gals in housecoats, too. . . . For one thing, Life's pictures ungarble the gobbledygook. . . . I'd probably be calling 'controlled fusion' just plain confusion for short . . . if Life hadn't explained how it would some day turn hydrogen into unlimited power to light our

⁴⁸Automation also promised to help women build their glamour potential by relieving them of the "dirty work" which might compromise their femininity. Garbage disposal advertisers played up this feature of their product:

"1. **you don't see it** . . . 2. **you don't smell it** . . . 3. **you don't touch it!** Eliminate Garbage Automatically! [Waste King Pulverator Advertisement], "American Home October 1951, 96.

"**Darling, you're much too nice to be a garbage collector** [In-Sink-Erator Advertisement]," Vogue 15 April 1959. Found in: Box 3, Folder 1959 H215 Misc. Garbage Disposers, Competitive Ads, J. Walter Thompson Collection, Hartman Center, Duke University.

See also Saniflush advertisements, in which a housewife, usually decked-out in pearls and a party dress, effortlessly pours Saniflush into a toilet for automatic cleanliness without scrubbing: "Glimmer Glamour. . . . **Every home-proud lady of the house loves the gleam of toilet bowl cleanliness,**" American Home February 1949, 16. (My emphasis throughout)

house and keep our toasters ticking.⁴⁹

Like many World War II advertisements which showed how women performing a "man's job" could retain their femininity, Life suggests that the "proper" dosage of scientific knowledge to the female mind, expertly monitored, will not adversely affect feminine glamour and sex appeal.

Thus, trivial products, like the push button and the friendly atom, weakly echoed the power and authority of the masculine military, allowing the feminine consumer to marginally participate in the advanced technologies and Cold War identity that dominated her domestic sphere, but were really beyond her control. Feminine consumers were admitted into the male world of Cold War American progress by what appeared on the surface of products they bought and the artificial promises and empty symbols that were being sold.

⁴⁹Life 24 March 1958, 130-31.

COMMERCIAL FALLOUT:
THE IMAGE OF PROGRESS, THE CULTURE OF WAR,
AND THE FEMININE CONSUMER,
1939-1959

by

CYNTHIA LEE HENTHORN

VOLUME II

A dissertation submitted to the Graduate Faculty in Art
History in partial fulfillment of the requirements for the
degree of Doctor of Philosophy, the City University of New
York

1997

WHY WE MUST DO 'WITHOUT THESE THINGS

Out of our homes and into the battle . . . a picture story of weapons forged from everyday peacetime articles now rationed or discontinued

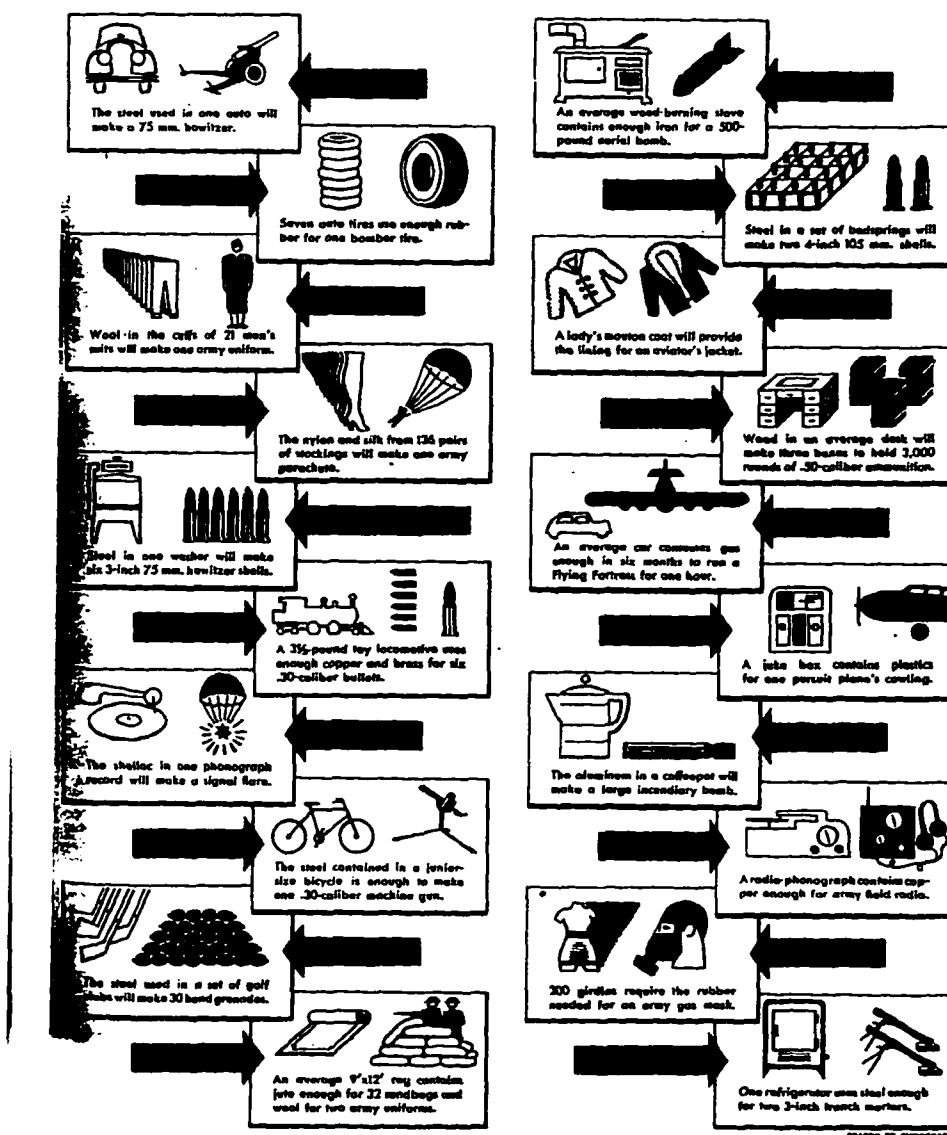


Figure 1



Mrs. Parker's cooking utensils are making it hot for the Japs

Thanks to the kind of planning that wins wars, the finest of everything goes to the fighting forces. So thousands of women whose hearts were set on outfitting their kitchens with Revere Copper-Clad Stainless Steel utensils are now treasuring the pieces they were fortunate enough to get before the war.

Treasuring them but using them—hard. For the same fine materials and manufacturing techniques that are making our military machine so tough have fortified Revere Ware utensils against years of the severe usage enforced by war.

The Revere plant where these "Kitchen Jewels" were made was

able to change over smoothly and quickly to implements of war. Like all other manufacturing plants, it could rely on the Revere Technical Advisory staff for skilled help in methods of processing the unfamiliar copper alloys of wartime.

Every ounce of copper our country produces goes directly into the essentials of warfare. Fortunately, Revere is well equipped, with modern plants, improved machines, and advanced techniques to assume a heavy responsibility in the production of vital copper alloys. And Revere research is continually probing deeper into the secrets of copper to help develop still better, stouter arms for victory.



The Revere Technical Advisory Service functions in (1) developing new and better Revere materials to meet active or anticipated demands; (2) supplying specific and detailed knowledge of the properties of engineering and construction materials; (3) continuously observing developments of science and engineering for their utilization in production methods and equipment; (4) helping industrial executives make use of data thus developed. This service is available to you, free.

REVERE COPPER AND BRASS INCORPORATED

Founded by Paul Revere in 1801

EXECUTIVE OFFICES: 230 PARK AVENUE, NEW YORK

Business Week • October 10, 1942

Figure 2



Mrs. Martin's compact is on the firing line in the Pacific

"I never dreamed a woman's metal vanity case could help win the war, until I went to get the gorgeous new Volupte model I'd set my heart on. Now the jewelry manufacturers like Volupte are making metal cases for the kind of powder that goes 'bang'. So I don't have just the compact I wanted. But I do have the pleasure of knowing there's a kind of personal token from me now on its way to Japan."

Making the grim munitions of war in addition to fine jewelry is a real manufacturing achievement. Yet so efficiently have Volupte and others overcome the new problems, that the jewelry industry is now one of the mainstays of our armed forces. In cooperation with the Revere

Technical Advisory staff, Volupte and others have found the path to munitions made smoother, easier, quicker. This is the type of service, beyond the supplying of sound copper alloys, which Revere brings to industry generally.

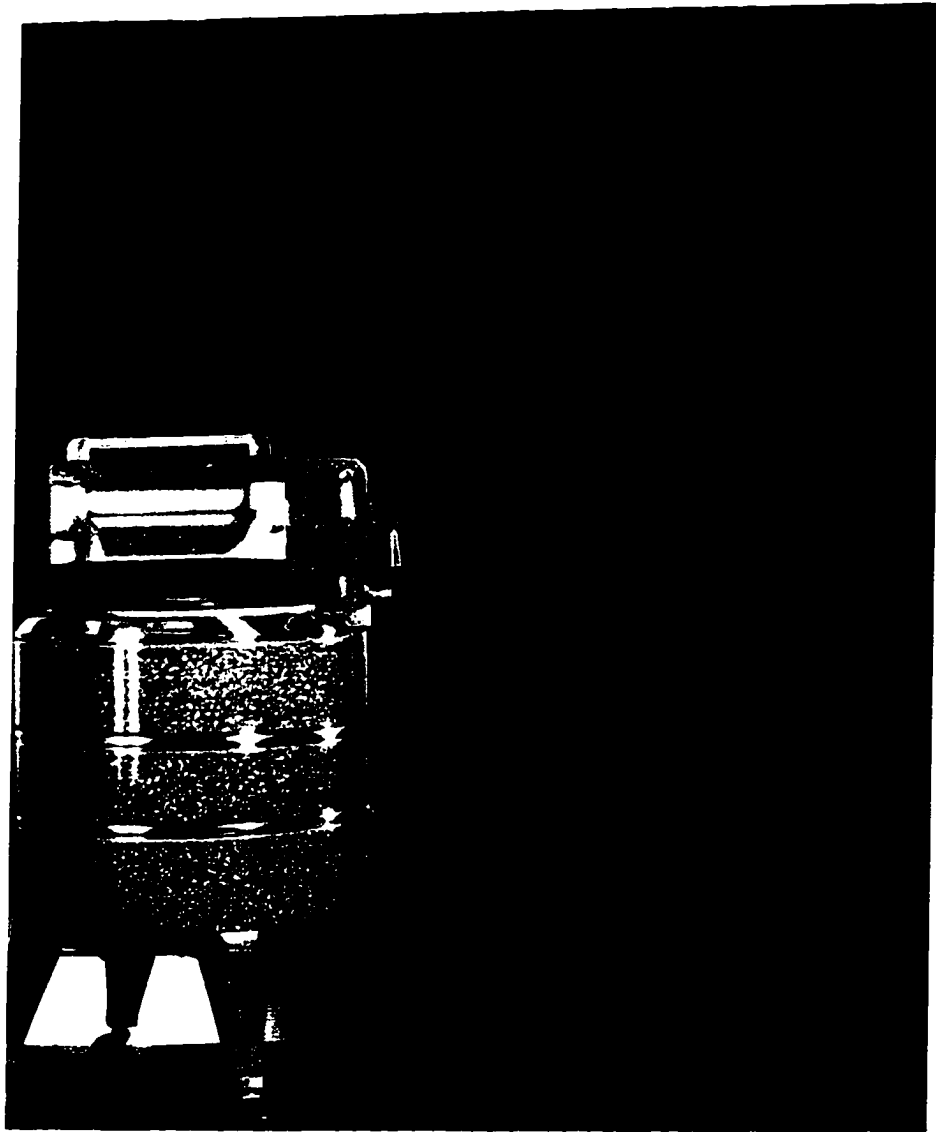
So vital are copper and brass that every ounce goes directly into war materials. Fortunately, in spite of the difficulties of past years, Revere built new plants, installed better equipment, improved processes. This program, begun in 1947, has enabled us to go straight into production of essentials in modern warfare. Yet until the day of victory Revere will never rest. More plants are already being built to serve us all.



The Revere Technical Advisory Service functions in: (1) developing new and better Revere materials to meet active and anticipated demands; (2) supplying specific and detailed knowledge of the properties of engineering and construction materials; (3) continuously observing developments of science and engineering for their utilization in production methods and equipment; (4) helping industrial executives make use of data that developed. This service is available to you, free.

REVERE COPPER AND BRASS INCORPORATED
 EXECUTIVE OFFICES, 230 PARK AVENUE, NEW YORK

Figure 3



The Washing Machine eliminates drudgery, so it must create no drudgery of its own. Sears-Roebuck was the first mail-order house to engage an industrial designer. Their washing machine was a pioneer. The masses promptly appreciated industrial design.

For Sears, Roebuck & Company

Figure 4

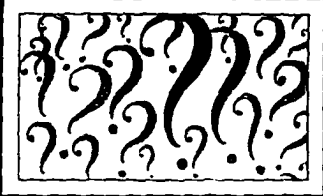
TO all members of women's organizations in America:

THE advertisement below is one of a series now being widely published throughout the country. All thoughtful women realize that a cleaner world would be a better place in which to live; and to them such

a campaign for cleanliness cannot fail to be of interest. Furthermore these messages should prove a powerful reinforcement to the educational work being done by the Cleanliness Institute, in cooperation with social service organizations, departments of health, and schools, and through group leaders everywhere. The Offices of Cleanliness Institute are located at 45 East 17th Street, New York City.



What do the neighbors think of *her* children?



To every mother her own are the ideal children. But what do the neighbors think? Do they smile at happy, grimy faces engaged in wholesome play? For people have a way of associating such an clothes and faces with other questionable characteristics.

Fortunately, however, there's soap and water. "Bright, shining faces" and freshly laundered clothes seem to make children welcome anywhere — and, in addition, to speak volumes concerning their *parents'* personal habits as well.

There's CHARACTER — in SOAP & WATER
PUBLISHED BY THE ASSOCIATION OF AMERICAN SOAP AND GLYCERINE PRODUCERS, INC. TO AID THE WORK OF CLEANLINESS INSTITUTE

Figure 5



FROM GLIDER'S NOSE *to Ladies' Hose*

*The operating subsidiaries of
Air Reduction Company, Inc.,
are:*

AIR REDUCTION SALES COMPANY
MAGNOLIA AIRCO GAS PRODUCTS CO.
Industrial Gases, Welding and
Cutting Equipment

NATIONAL CARBIDE CORPORATION
Calcium Carbide

PURE CARBONIC, INCORPORATED
Carbonic Gas and "Dry-Ice"

THE ONTO CHEMICAL & MFG. CO.
Medical Gases—Anesthesia
Apparatus—Hospital Equipment

WILSON WELDER & METALS CO., INC.
Arc Welding Equipment

AIRCO EXPORT CORPORATION
International Representatives
of the above Companies

That's the amazing range of products made from Calcium Carbide, the material that produces acetylene gas for welding and cutting. Now, through the modern science of chemistry, this versatile product has become a basic material for making a host of new things — plastics, rayon fabrics, cleaning fluid and synthetic rubber — for a thousand different uses.

National Carbide is one of many Air Reduction products that play an increasingly important part in diverse phases of American life . . . from aircraft manufacture to food packaging . . . oxygen therapy to shipbuilding.



AIR REDUCTION

60 East 42nd Street, New York 17, N. Y.

Figure 6



Figure 7



Bombers can begin in the strangest places

ONE OF THE usual sources of materials for bombers is in Alabama, where some aluminum, used in bombers, is mined.

Odd as it seems, materials for bombers have also originated with refrigerators and ranges. For it was a certain insulating material used in refrigerators and ranges that led to a saving of aluminum by the Navy. *Already enough of the material has been used to release enough aluminum to build more than 350 four-engine bombers!*

Here's the story.

In pre-war America, there were hundreds of thousands of ranges and refrigerators equipped with a modern insulation... an insulation of glass in fibrous form called Fiberglas.

This Fiberglas insulation is highly efficient. When used either as springy wool blankets for range insulation or in semi-rigid form for refrigerators, it doesn't settle, even when oven

or refrigerator doors are repeatedly slammed shut. It doesn't leave "holes" through which heat can leak in or out.

Of course, it's fire-safe. And from a manufacturer's point of view, it is easy to install.

In this combination of Fiberglas qualities, the Navy saw several outstanding advantages for warships.

For the Navy demanded a highly efficient, lightweight insulation for living quarters and other important places on its ships. The Navy had to have fire safety, too. And of course it had to have an insulation who wouldn't settle under the vibration of pounding waves or gun fire. Fiberglas would meet all these requirements and was used widely aboard many types of ships.

But of even greater importance was this: The Navy saw how it could eliminate the aluminum formerly needed to keep insulation in place, by using an

adaptation of the semi-rigid type of Fiberglas which needs no metal facing.

This is just another instance of the Navy's imagination and alertness in adapting a peacetime product to a wartime use.

One day, Fiberglas will again be available for household equipment. But till then, round-the-clock plant operation and the skill of our workers are devoted to supplying increasing quantities of Fiberglas for wartime uses where it is the most suitable material for the job. *Owens-Corning Fiberglas Corporation, Toledo, Ohio; In Canada, Fiberglas Canada, Ltd., Oshawa, Ontario.*

OWENS-CORNING

FIBERGLAS

OF M. B. & F. CO., INC.



Business Week • April 17, 1943

Figure 8

The Crackle that Grew to a Roar!



Remember the crackling of the aluminum foil that was used to package and protect so many products in daily use? You don't hear it any more, do you? It's gone . . . until the boys come marching home.

Long before Pearl Harbor, Reynolds—the world's largest aluminum foil producer—foresaw a shortage of aluminum in this country. So we put all of our foil plants on a war basis . . . all of our precision experience in rolling light metal into the war effort. We staked all our resources on Bauxite mines and tremendous new plants to convert the ore into finished aluminum.

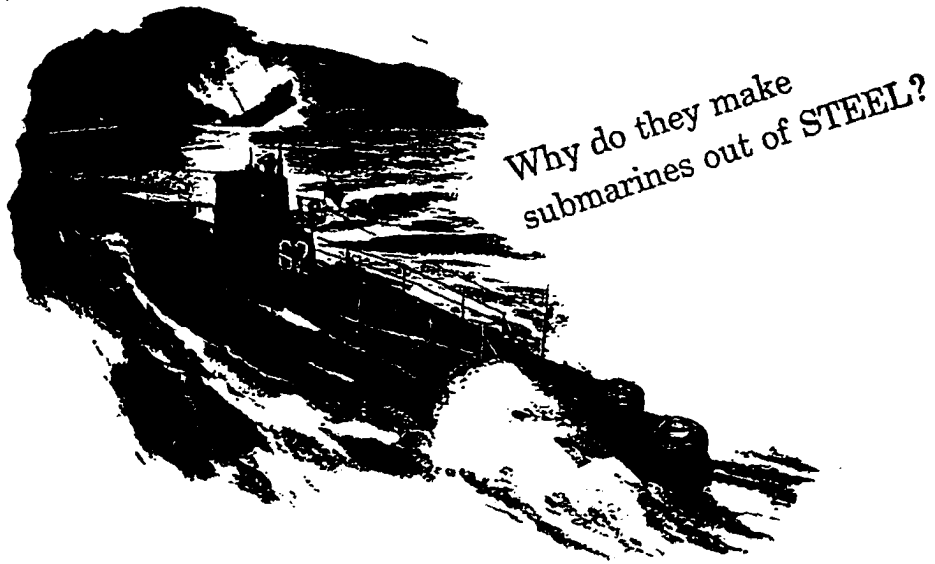
When war came, America had a great new source of aluminum ready and rolling to supply thousands of war plants.

Today, with hundreds of millions of pounds of finished metal already produced, Reynolds Aluminum flies into battle in virtually every American plane now clearing the skies of Nazis and Japs.

Yes, the crackle of Reynolds Aluminum foil has become a roar heard 'round the world—a roar that heralds victory.

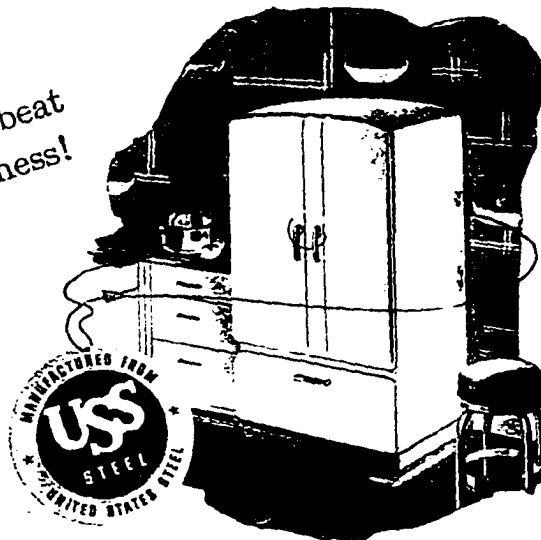
REYNOLDS METALS COMPANY • General Offices, Richmond, Va. • Parts Division, Louisville, Ky. • 37 PLANTS IN 13 STATES

Figure 10



Why do they make
submarines out of STEEL?

Because you can't beat
STEEL for sturdiness!

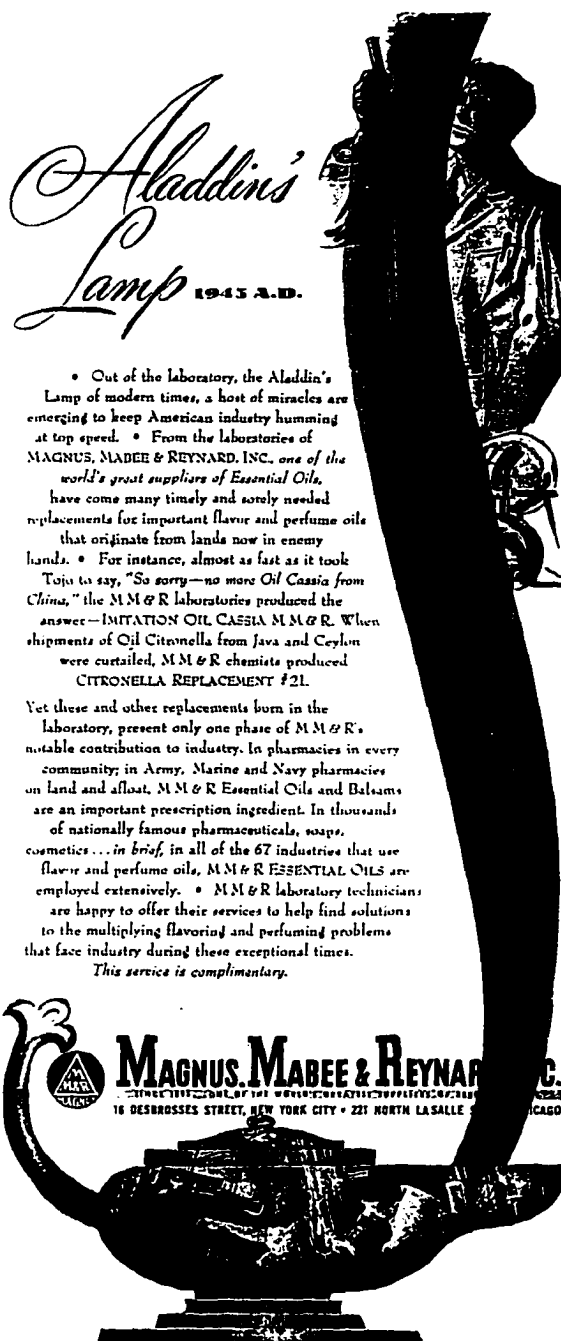


These pictures are worth remembering. Someday you will want to buy something for long use. A refrigerator. A stove. A car. Better steels will be ready then. War has proved them. 174 laboratories of United States Steel stand behind many of these new steels. Products made from them will carry the U-S-S Label you see here. Look for it. It means *quality steel*—war or peace.

UNITED STATES STEEL

• AMERICAN BRIDGE COMPANY • AMERICAN STEEL & WIRE COMPANY •
 CARNEGIE-ILLINOIS STEEL CORPORATION • COLUMBIA STEEL COMPANY
 • CYCLONE FENCE DIVISION • FEDERAL SHIPBUILDING & DRY DOCK
 COMPANY • NATIONAL TUBE COMPANY • OIL WELL SUPPLY COMPANY •
 TENNESSEE COAL, IRON & RAILROAD COMPANY • TUBULAR ALLOY STEEL
 CORPORATION • UNITED STATES STEEL EXPORT COMPANY • UNITED STATES
 STEEL PRODUCTS COMPANY • UNITED STATES STEEL SUPPLY COMPANY
 UNIVERSAL ATLAS CEMENT COMPANY • VIRGINIA BRIDGE COMPANY

Figure 11



*Aladdin's
Lamp* 1945 A.D.

• Out of the Laboratory, the Aladdin's Lamp of modern times, a host of miracles are emerging to keep American industry humming at top speed. • From the laboratories of **MAGNUS, MABEE & REYNARD, INC.**, one of the world's great suppliers of Essential Oils, have come many timely and sorely needed replacements for important flavor and perfume oils that originate from lands now in enemy hands. • For instance, almost as fast as it took Tokyo to say, "So sorry—no more Oil Cassia from China," the M M & R laboratories produced the answer—IMITATION OIL CASSIA M M & R. When shipments of Oil Citronella from Java and Ceylon were curtailed, M M & R chemists produced CITRONELLA REPLACEMENT #2L.

Yet these and other replacements born in the laboratory, present only one phase of M M & R's notable contribution to industry. In pharmacies in every community; in Army, Marine and Navy pharmacies on land and afloat, M M & R Essential Oils and Balsams are an important prescription ingredient. In thousands of nationally famous pharmaceuticals, soaps, cosmetics... *in brief*, in all of the 67 industries that use flavor and perfume oils, M M & R ESSENTIAL OILS are employed extensively. • M M & R laboratory technicians are happy to offer their services to help find solutions to the multiplying flavoring and perfuming problems that face industry during these exceptional times.

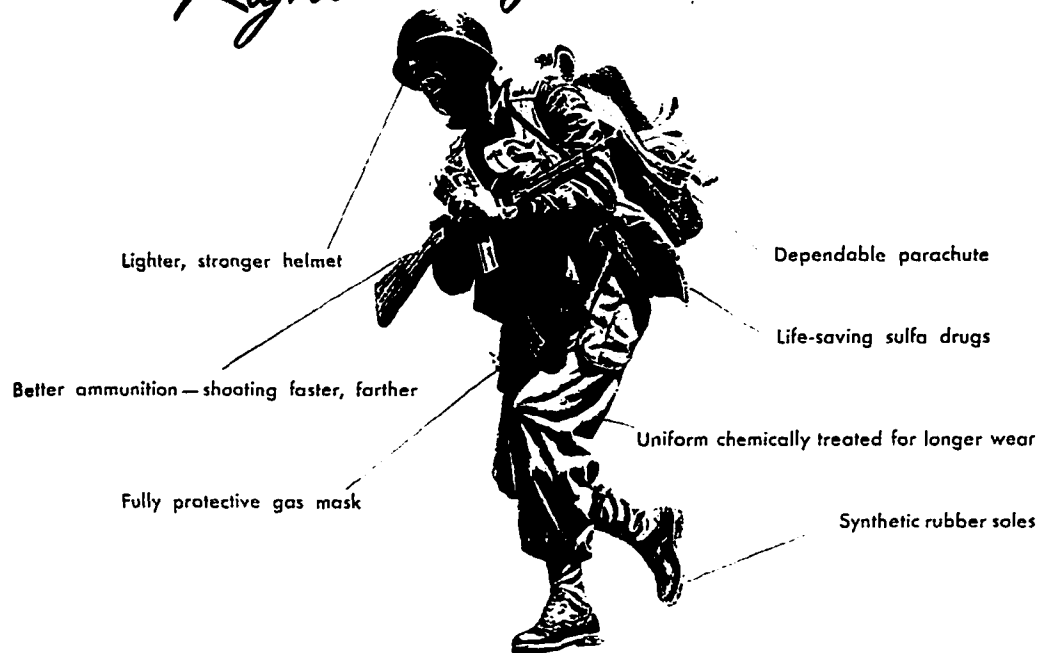
This service is complimentary.

MAGNUS, MABEE & REYNARD, INC.
 16 DESBROSSES STREET, NEW YORK CITY • 221 NORTH LA SALLE STREET, CHICAGO

Figure 12



Right out of a test tube!



Lighter, stronger helmet

Dependable parachute

Better ammunition—shooting faster, farther

Life-saving sulfa drugs

Fully protective gas mask

Uniform chemically treated for longer wear

Synthetic rubber soles

The Chemical Industry helps send our American men to war, the best armed in the world. From the bullet-proof nose of our bombers to the welded hull of our ships, the managers, technicians, and workers of our chemical plants give superiority to American fighting-equipment.

Chemicals are "hard to handle." General American Transportation learned this through years of team-work with the industry. Now, our specialized tank cars carry metal-eating acids, alkalis, and vital chemical compounds—with speed and safety that can mean the margin of victory.



A SYMBOL OF INTEGRITY FOR OVER 40 YEARS

GENERAL AMERICAN TRANSPORTATION CORPORATION

Chicago

BUILDERS AND SUPPLIERS OF RAILROAD FREIGHT CARS

Figure 13

HOW MUCH Chemistry PER SOLDIER?

METALS

Phosphoric acid for rustproofing.
Nitric and sulfuric acids for pickling.
Sulfuric acid for cleaning.
Ferrous for brass parts, buttons.

PLASTICS

Nitrocellulose for lacquers on metal parts and helmet liner.
Fibres for walkie-talkie case and dials, lenses in Polaroid goggles, gas mask parts and eyepieces. Lucron for walkie-talkie insulation and sockets.
Resin for helmet liner and stopper of canteen. Seflex for water-resistant raincoat or poncho.
Nylon for shoe lace tips.

AMMUNITION

Nitric acid, aniline oil, dibutyl phthalate, alcohol, mixed acid for powder and explosives. Ferrous for pickling brass cartridge cases.

RUBBER

Accelerators, antioxidants, softeners, tackifiers for shoe heels and soles, wire insulation, gas mask, elastic, adhesive bandages, sponge cushions in walkie-talkie.

TEXTILES

Tetrasodium pyrophosphate and trisodium phosphate for processing cotton before dyeing. Mucic and sodium bisulfite for bleaching.
Acetic acid, Glauber's salt, acetylic acid, pentachlorophenol, dinitrochlorobenzene, dimethaniline, Santomerse, for dyes.
Aluminum chloride and sulfuric acid for carbonizing woolen cloth.
Ammonium sesque for neutralizing wool after carbonizing.

LEATHER

Santomer-NR, Martanal, sodium bisulfite, sulfuric acid, sodium polysulfide, and sodium sulfide for tanning and bleaching.
Santomer for control of microbiological activity in leather.

MISCELLANEOUS

Santover and Santecel for paint on helmet, eyeglets, books, canteen and for first aid tape and gas mask.
Sulfanilamide for first aid kit.
Cumarin, vanillin, Ethyl vanillin, calcium phosphate and sodium ferric pyrophosphate for field rations. Dopes for cables.
Chlorine and aluminum sulfate for purification of water in canteen.



1916 - Hossensfelder, German consul general in New York, in a letter to von Bethmann-Hollweg, German chancellor, predicted American defeat in World War I because of our dependence then on Germany's chemical industry. "Americans can never establish such an industry," Hossensfelder wrote. "They have the resources but they lack the necessary science and technology. And, besides, the conflicting selfishness of American business renders it impossible."

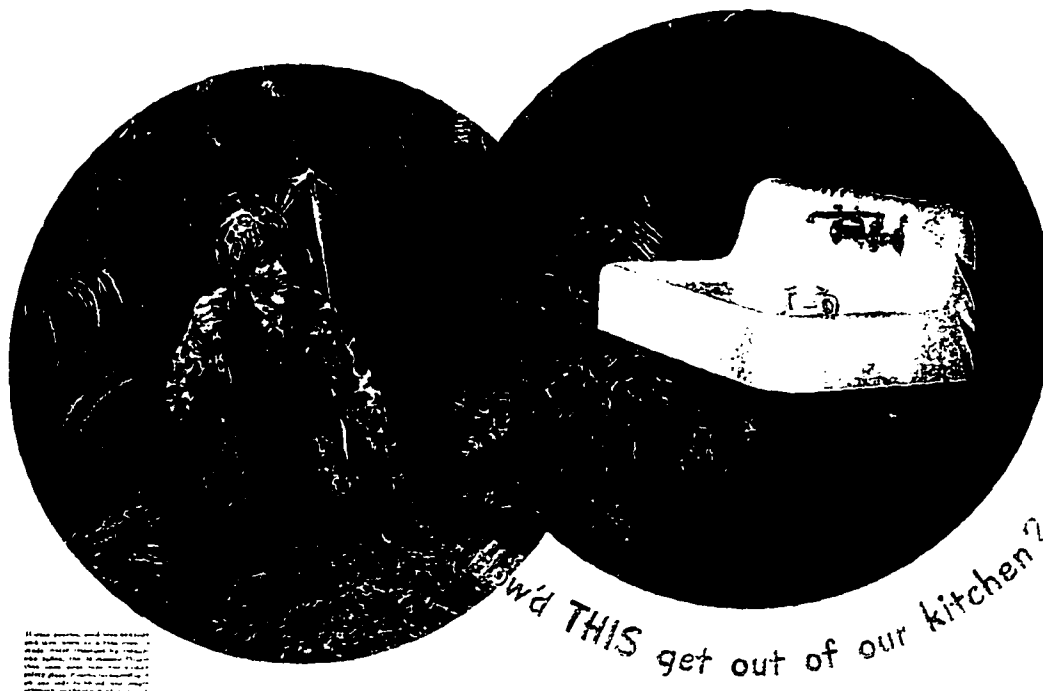
1943 - You see on this page a partial list of "made in America" Monsanto Chemicals used to help outfit the American fighting man in World War II. (This list does not include many chemicals used in winter equipment, nor those used in outfitting other branches of the service, nor any of the many chemicals classed as military secrets.) The American spirit of free competitive enterprise, which a totalitarian mind misinterpreted as "conflicting selfishness," has built a chemical industry that was ready not only to help win this war but is ready for the tomorrow when it will help build a greater peacetime future for free men everywhere.

MONSANTO CHEMICAL COMPANY, St. Louis



SERVING INDUSTRY... WHICH SERVES MANKIND

Figure 14



If water becomes contaminated with bacteria, it can cause illness. In some cases, it can be fatal. That's why it's so important to have clean water. The portable water treatment unit shown here can help you get clean water wherever you are. It's easy to use and it's safe. For more information, contact your nearest Monsanto office.

That's the first step in the process of making sure that even our best troops are getting enough clean, safe water. Army and Navy health engineers are on the job to keep your drinking water safe, even if the tap water from your family kitchen would be terrible to drink.

Long before you started overseas, the Army and Navy health engineers tackled this job. They knew a drop of untreated water from a South Pacific jungle swamp, a tropical lagoon pool or a polluted European stream could be deadly as a bullet.

Yet, they could not filter all the pure water you need, half around the world.

Instead, the Army and Navy set up the first of public health programs and health centers, water treatment plants,

chemical plants, and developed portable plants for chemical purification and scientific filtration of water supplies you found.

These mobile units—compact, efficient, scientific water treatment plants—can now be taken to travel with you right to the battle lines to pump, filter and chemically purify your drinking water.

That's one reason why you and your companions are the world's healthiest soldiers. Another reason, too, why American standards of sanitation, now being carried by you around the globe, will improve health everywhere you roam. At Monsanto, we're proud to contribute to this.

HOW MONSANTO SERVES: Since 1945, Monsanto has been serving the world's healthiest soldiers. We've developed and produced portable water treatment plants for the Army and Navy. We've also developed and produced portable water treatment plants for the Air Force and the Marine Corps. We've also developed and produced portable water treatment plants for the Coast Guard and the Navy.



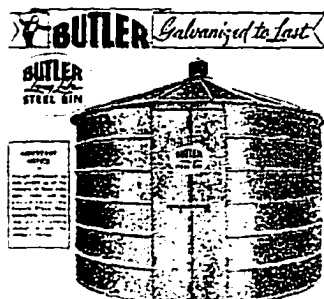
FOR EXCELLENCE

SERVING INDUSTRY AND HOME LIFE AROUND THE WORLD

Figure 15

BUILDING FOR DEFENSE . . . 1,000 HOUSES A DAY AT \$1,200 EACH

promised by biggest sheet steel fabricator. Buckminster Fuller dresses up a grain bin, invents a trim three-room defense house, a six-man steel tent. The "Dymaxion" is totally demountable.



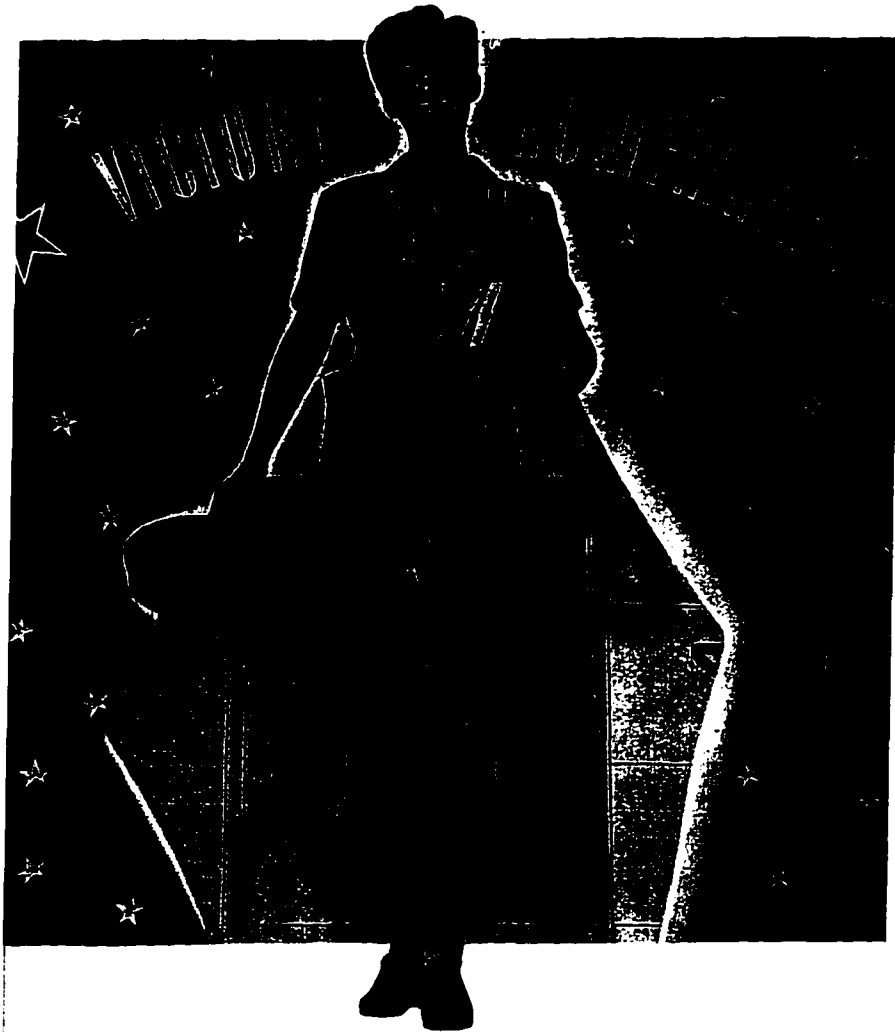
In the More Than 20 Years Successfully Storing All Kinds of Grain on Farms SAFE FROM FIRE, RATS, WEATHER AND WASTE

This spring Federal Works Administrator John M. Carmody, high mogul of defense construction, skeptically asked THE FORM to point to houses in the \$2,000-\$4,000 price range which are demountable (A.W.M. FORM, March 1941, p. 54-56). Herein, THE FORM presents such a house—priced not at \$3,000, but less than half that amount; not 30 or 90 per cent demountable, but completely so.

During the past two years, the Butler Manufacturing Co. sold the Government 36,000 steel grain bins like the one reproduced from a catalogue page above. Today, Butler stands ready to supply up to 1,000 steel houses a day like the one which went up in a Washington, D. C. trailer camp last month (right). A dressed-up adaptation of the lowly grain bin, the cylindrical dwelling is tamed at the de-



Figure 16



EVERY WOMAN is feeling keenly the pressure of increased work these days. It may be in her job, if she is outside the home; it assuredly is in her kitchen and in the daily life of the whole house. And along with this work must be shortened. For that reason, this entire section of the Victory Homemaker is dedicated to suggestions of ways to make housework easier, to short cuts you can use in the kitchen when you are preparing dinner, or getting the dinner pail for its daily journey to factory or office. If you have a special problem, then you won't

want to miss the menus and recipes in the article "You Can Make These in a Few Minutes," or any of the ideas in "Packing the Dinner Pail in Double Time."

Also, if there are ways of making home jobs more comfortable and pleasant, you will want to know about them. The dress shown above is really your Victory Homemaker "dress uniform". You can be both smart and comfortable in it when you are doing your daily tasks; without stopping to change your dress you can run out for a bit of shopping or call on your neighbor and still be well-groomed. You can make this dress yourself in any number of fabric and color variations; the pattern number and descriptions are given in the fashion section. And the smart, springy shoes are

described in the beauty article, along with several other suggestions for the care of the feet.

So as you go about your important daily job of selecting, preparing, and cooking interesting food for your family with one hand, safeguarding its health with the other, meanwhile keeping the budget firmly pocketed, we all hope each one of you will look through these particular pages of the Victory Homemaker carefully. You will all find at least some little thing which will help you with your problems.

Remember always: The Victory Homemaker is your own personal department. When you have a special problem you can tell us about it. Don't forget!

CONDUCTED BY ESTHER KIMMEL, EDITOR OF VICTORY HOMEMAKER

1942

85

Figure 17



Seamstresses of steel....

Every welder knows that the quality of his work depends on the quality of the gases he uses. The most common gases used in welding are oxygen, acetylene, and carbon dioxide. These gases are essential for the proper fusion of the metal. Air Reduction provides the highest quality gases for the welder. Our oxygen is pure and our acetylene is clean. We also have a wide variety of carbon dioxide for use in shielded metal arc welding. All our gases are delivered in convenient, standard sizes. Make your equipment work better by using the best. Buy Air Reduction.

★ BUY UNITED STATES WAR BONDS ★

AIR REDUCTION SALES COMPANY
 MAGNOLIA AIRCO GAS PRODUCTS CO
 NATIONAL CARBIDE CORPORATION
 PURE CARBONIC INCORPORATED
 THE OHIO CHEMICAL & MFG CO
 WILSON WELDER & METALS CO INC



AIR REDUCTION
 60 EAST 42ND STREET NEW YORK 17, N. Y.

OXYGEN, ACETYLENE AND OTHER ATMOSPHERIC GASES • GAS WELDING AND CUTTING APPARATUS • CALCIUM CARBIDE
 ARC WELDING MACHINES AND SUPPLIES • CARBON DIOXIDE • "DRY ICE" • ANAESTHETIC AND THERAPEUTIC GASES AND APPARATUS

Figure 18

This is
Emily Mallia **Speaking . . .**

☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆

My husband, Mike,
is a Corporal in the Army.

He's been gone nearly two years now.

I like to think of him as carrying one of these
.30 Caliber Carbines wherever he goes.

We make them here,
and it's comforting just to know that my hands
helped make a part of what he's fighting with.

I know that when Mike shoots his gun,
the bullet will go straight where he aims it because
practically everyone in the U. E. F. plant here has
his own *personal* reason for putting his heart
and mind into the work.

You see, nearly everyone of us has somebody
in the Armed Forces who's fighting for us.

For us—and for you, too . . .

And for the way Mike and I want to live . . .
in peace and comfort—after the war's won.

So we all say: Speed the guns . . . to speed that day!

EMILY MALLIA—Badge No. 5201

Underwood Elliott Fisher Company
ONE PARK AVENUE, NEW YORK 17, N. Y.

War Products: U. S. Carbines, Caliber .30 M-1—Airplane Instruments—Gun Parts—Ammunition Components—Fuses—Primers—and Miscellaneous Items.

Peacetime Products: Underwood Noiseless, Standard and Portable Typewriters—Accounting Machines—Adding Figuring Machines—Payroll Machines—Ribbons, Carbon Paper and Miscellaneous Supplies.

☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆



Make your dollar
buy War Bonds . . .
to speed the day.

Figure 19

War, Women and Lipstick—



A recent portrait of Constance Luft Huhn
by Marie de Kammerer

by **CONSTANCE LUFT HUHN**
Head of the House of Tangee

For the first time in history woman power is a factor in war. Millions of you are fighting and working side by side with your men.

In fact, you are doing double duty - for you are still carrying on your traditional "woman's" work of cooking, and cleaning, and home making. Yet, somehow, American women are still the loveliest and most spirited in the world. The best dressed, the best informed, the best looking.

It's a reflection of the free democratic way of life that you have succeeded in keeping your femininity - even though you are doing man's work!

If a symbol were needed of this fine, independent spirit - of this courage and strength - I would choose a lipstick. It is one of those mysterious little essentials that have an importance far beyond their size or cost.

A woman's lipstick is an instrument of personal morale that helps her to conceal heartbreak or sorrow; gives her self-confidence when it's badly needed; heightens her loveliness when she wants to look her loveliest.

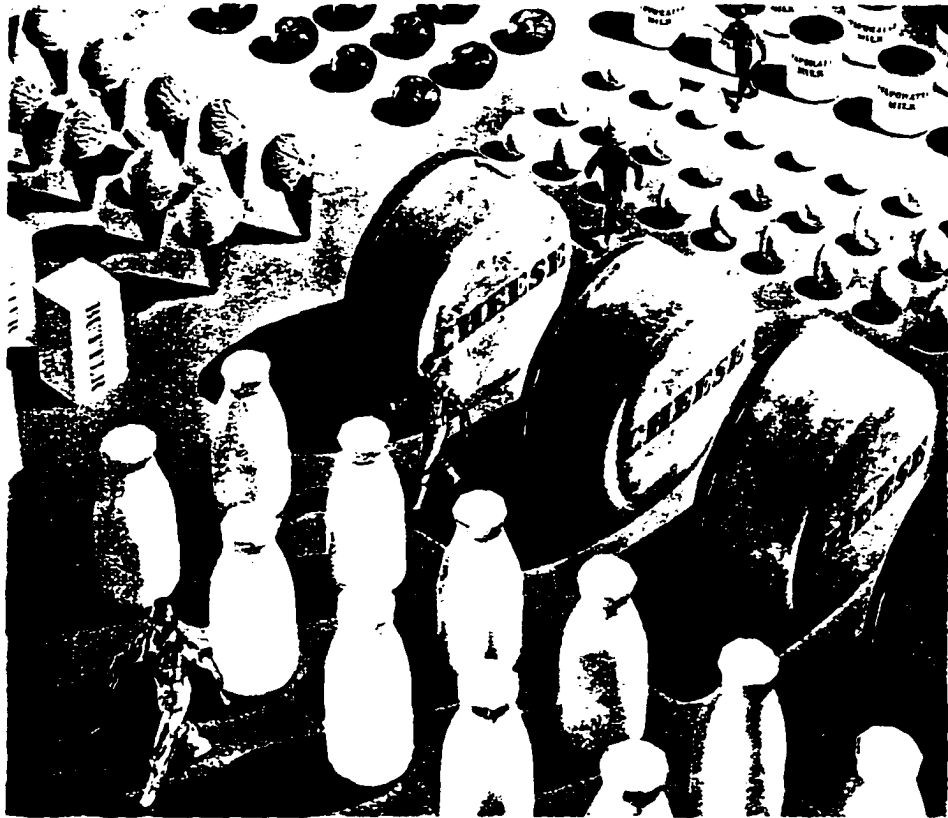
No lipstick - ours or anyone else's - will win the war. But it symbolizes one of the reasons why we are fighting... the precious right of women to be feminine and lovely - under any circumstances.

Beauty Liberty
BUY WAR BONDS AND STAMPS

TANGEE WITH THE NEW SATIN-FINISH
Lipsticks



Figure 20



BUY WAR BONDS AND STAMPS

This army was raised to **ATTACK!**

Maybe you've never thought of food as an aggressive weapon of war — but that's what it is today.

Food fuels the workers who are making tanks, planes and ships to attack the Axis. Food reinforces the soldiers who launch those attacks. And food will turn neutrals into friends, friends into fighters — as each new front opens up!

What's more, service men eat 50% more than they did in civil life. Civilians eat more as they work harder for Victory. And that adds up to a huge order for the folks who raise, process, and distribute food — folks

whose war work is as vital as any welder's. Last year, America's farmers and food processors set new records for production. This year, the need is greater — and the difficulties under which they work are greater, too.

Every patriotic family will have to pitch in and help — by buying wisely and avoiding waste — by gardening and canning — by making the most of basic, balanced foods.

Food is life — food is hope — and America is trustee for much of the world's supply. That's a big responsibility. A share of it falls on us, as processors of nature's most nutritious food — milk — as well as other dairy

and food products. We're glad that our experience and organization equip us to make a real contribution.

Dedicated to the wider use and better understanding of dairy products as human food... as a base for the development of new products and materials... as a source of health and enduring progress on the farms and in the towns and cities of America.

**NATIONAL DAIRY
PRODUCTS CORPORATION**
AND AFFILIATED COMPANIES

Organizers of the Coordinated System of Laboratory Procedures

Figure 21

WONS* in Action!



When that glorious hour of "unconditional surrender" has struck, our gallant fighting men can lay aside their uniforms and enjoy the freedom they have helped to create; the production front can turn to the manufacture of all those items that will make life more pleasant for the great masses of people; but, housewives are the WONS* who will still be wearing their uniform, the kitchen apron, in peace as well as wartime.

Thousands on thousands of WONS* had equipped their kitchen laboratories with YOUNGSTOWN Pressed Steel kitchens before civilian production ceased—and how they have blessed the convenience that has been theirs during these crowded days!

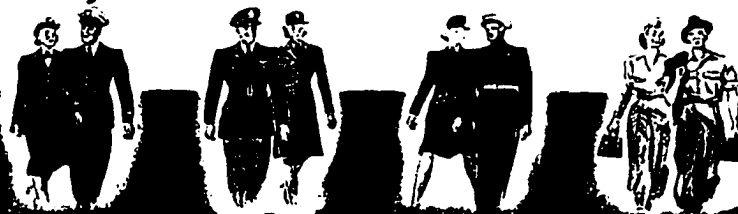
And when War Bonds and Stamps are ready to be converted into peacetime kitchens, YOUNGSTOWN Pressed Steel kitchens will be ready for the WONS* who want the practical convenience they are needing so badly now.

YOUNGSTOWN PRESSED STEEL Division of MULLINS MANUFACTURING CORP.
WARREN, OHIO

Youngstown Kitchens

* Women's Own Nutrition Service supplies the health-giving food that keeps the Nation strong.

IN RECOGNITION OF
A QUALITY PRODUCT



IT'S OUR WAR
LET'S FIGHT IT NOW!

Figure 22



Official WPD and OWI material, prepared under direction of the War Advertising Council, paid for by industry.

Figure 23

A war job only a WOMAN can do!

YOUR WASTE KITCHEN FATS NEEDED FOR EXPLOSIVES!

HOW YOU SHOULD SAVE THEM



Save all your waste fats. Take to your next meal...
 Use a tin can...
 Wash it out...
 Dry it...
 Put it in a safe place...
 Do not use it for anything else...
 Do not let it get dirty...
 Do not let it get wet...
 Do not let it get cold...
 Do not let it get hot...
 Do not let it get old...
 Do not let it get new...
 Do not let it get anything...
 Do not let it get nothing...
 Do not let it get everything...
 Do not let it get anything...
 Do not let it get nothing...
 Do not let it get everything...

Save Waste Fats

to Make Explosives



Figure 24



Of Course, You Can't Pass the Ammunition — But —

You can see that that ammunition gets right up there in prime condition. How? By doing what you possibly can to use less paper and to save wastepaper!

The paper which protects our precious ammunition as it is shipped from the war plant all the way across the ocean to the front line of battle. Yes, paper and cardboard truly keep the powder

dry, keep the ammunition in prime condition for perfect firing.

That's why the Army and the Marines and the Navy—who need paper and paperboard to package more than 700,000 different items shipped overseas — ask your help in protecting our national paper supply, ask you to send all wastepaper to your local salvage headquarters for reprocessing.

It's an easy job but a mighty im-

portant one. All you have to do is use less paper and help your storekeeper to use less paper. Don't ask him to wrap factory-packaged goods, canned goods, bottled goods. Carry your own market bag or basket to save his paper bags. Never use a piece of paper at home unless absolutely necessary. And, again, save every scrap of wastepaper and give it to your local paper salvage collector.

Remember—
**PAPER IS
WAR POWER**



USE LESS PAPER — SAVE ALL WASTEPAPER

This advertisement contributed by this publication and prepared by the War Advertising Council in cooperation with the War Production Board and the Office of War Information.

Figure 25



**Can't
ammunition – But –**

Figure 25A



WILL RUSSIA FIGHT JAPAN?

By ALEXANDER KENDRICK

Also COMPLETE short novels by RITA WEIMAN

1500
 CENTRAL SEV
 GRAND ST
 PLAZA
 17
 BROOKLYN
 112

Figure 26

When is a Tampon right for you?



Now more than ever—when days are so busy and hectic—the wonderful freedom of *internal* sanitary protection makes sense! But there are tampons and tampons. What are the things to look for—when is a tampon *right* for you?

Protection... the right way



For real security a tampon must absorb *quickly, surely!* Meds absorb *faster* because of their exclusive "safety center" feature! Meds are made of finest, pure cotton . . . hold more than 300% of their weight in moisture!

Is it right for comfort?

Meds were scientifically designed by a woman's doctor. So comfortable you hardly know you're wearing them. Meds eliminate bulges—chafing—pins—odor. Easier to use, too, for each Meds comes in an individual one-time-use applicator!

* * *

Meds cost *less* than any other tampons in individual applicators. No more than leading napkins. Get Meds—the *right* tampon—for protection, comfort, and value!


BOX OF 10 — 25¢ • BOX OF 50 — 98¢



The Modess Tampon

88
Figure 27

New **NEET DEODORANT**



FOR UNDER THE ARMS
of a
NATION UNDER ARMS

Whether you're engaged in war work . . . or the important job of being a woman, the sensational new NEET Cream Deodorant will preserve and defend your daintiness.

New NEET Cream Deodorant is a sure way of instantly stopping under-arm odor and perspiration from one to three days! A feather-weight, stainless, greaseless cream that vanishes almost instantly, makes armpits dry and free of odor. Will not irritate the skin, or injure clothing.

Buy new NEET Cream Deodorant in the Blue and White jar today. *Does not dry or cake in jar!* Generous 10¢ and 29¢ sizes plus tax.

KEEP NEAT WITH
New Neet Deodorant
GUARANTEED BY THE MARCHES OF NEET DEPILATORY


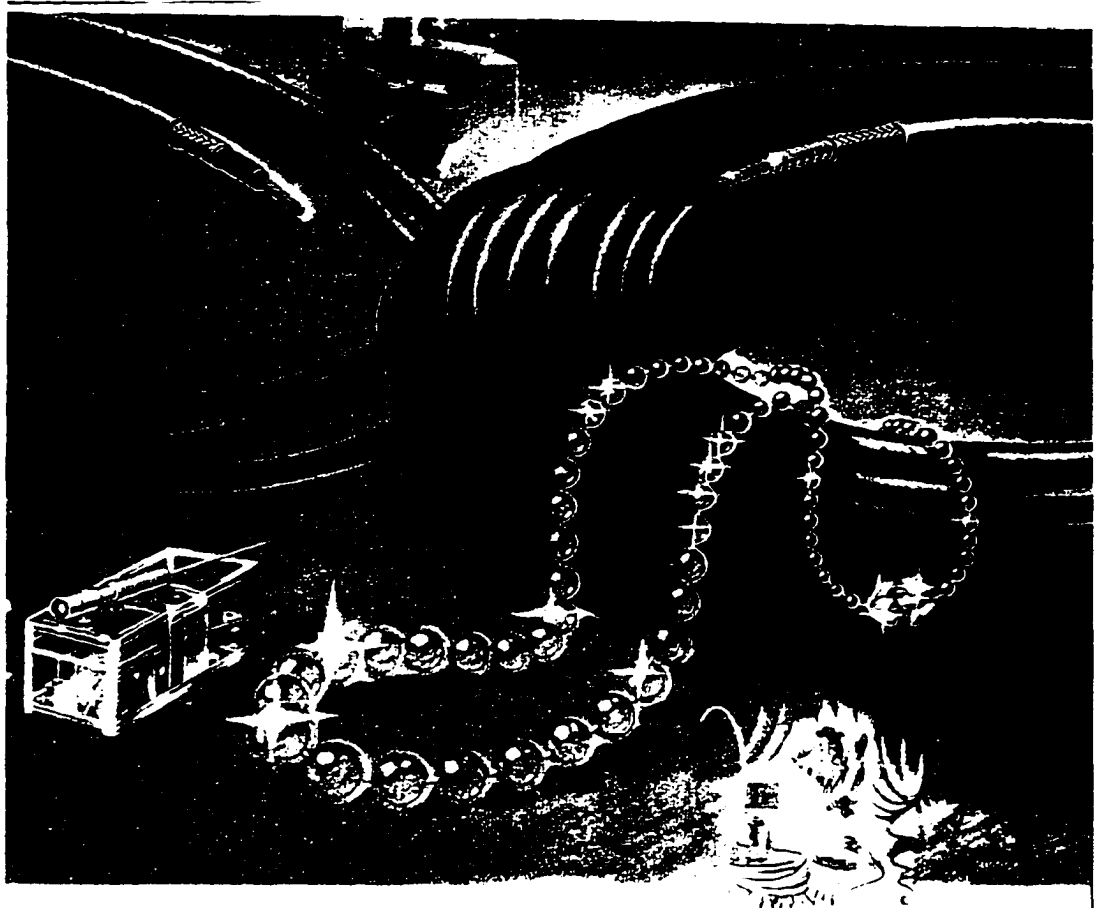


Figure 28



Putting Plastics in their Place When that great day comes... when our personal, household and industrial needs can be met without restriction... many advancements will appear. Today's unending effort to give our fighting forces every technical advantage is uncovering, simultaneously, facts and knowledge that will benefit the coming products of peace. Intensive work in the field of plastics has already established their value in widely divergent fields. Among important Dow plastic developments, styron and products of styrene range in use from being superior insulation for high frequency cable and other electrical applications—to bringing new beauty to costume jewelry and decorative furnishings. It is Dow's privilege to work closely with the design engineers and technicians of innumerable companies, men whose sole concern is to find the best plastic and materials to produce better products. These are the men who are putting plastics in their place.

THE DOW CHEMICAL COMPANY, MIDLAND, MICHIGAN
 1800 North Burdette, Kansas City, Missouri 64104 • 1800 North Central, Houston, Texas 77002 • 1800 North Zeeb Road, Freeport, Texas 77541

STYRON
 (DOW POLYSTYRENE)



Figure 30

HOW WARTIME CONTROLS CHALLENGE MANAGEMENT'S CONTROL

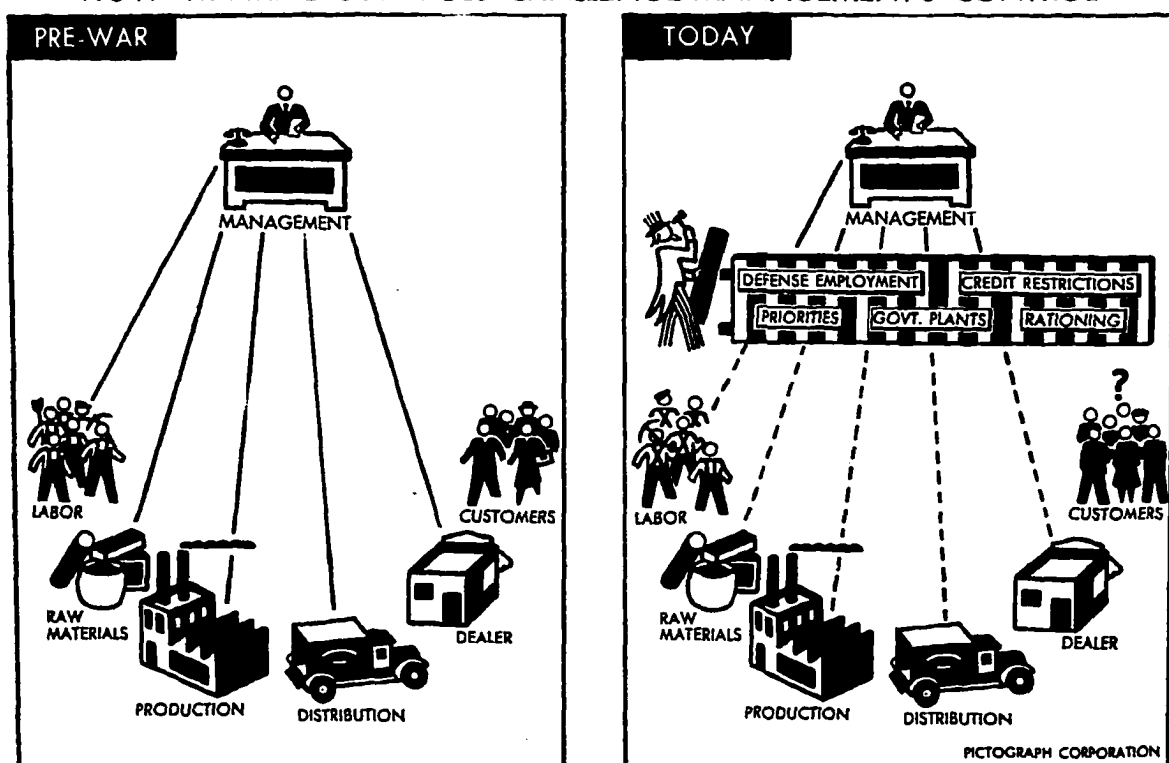


Figure 31

HOW DOES THE COUNCIL WORK ?

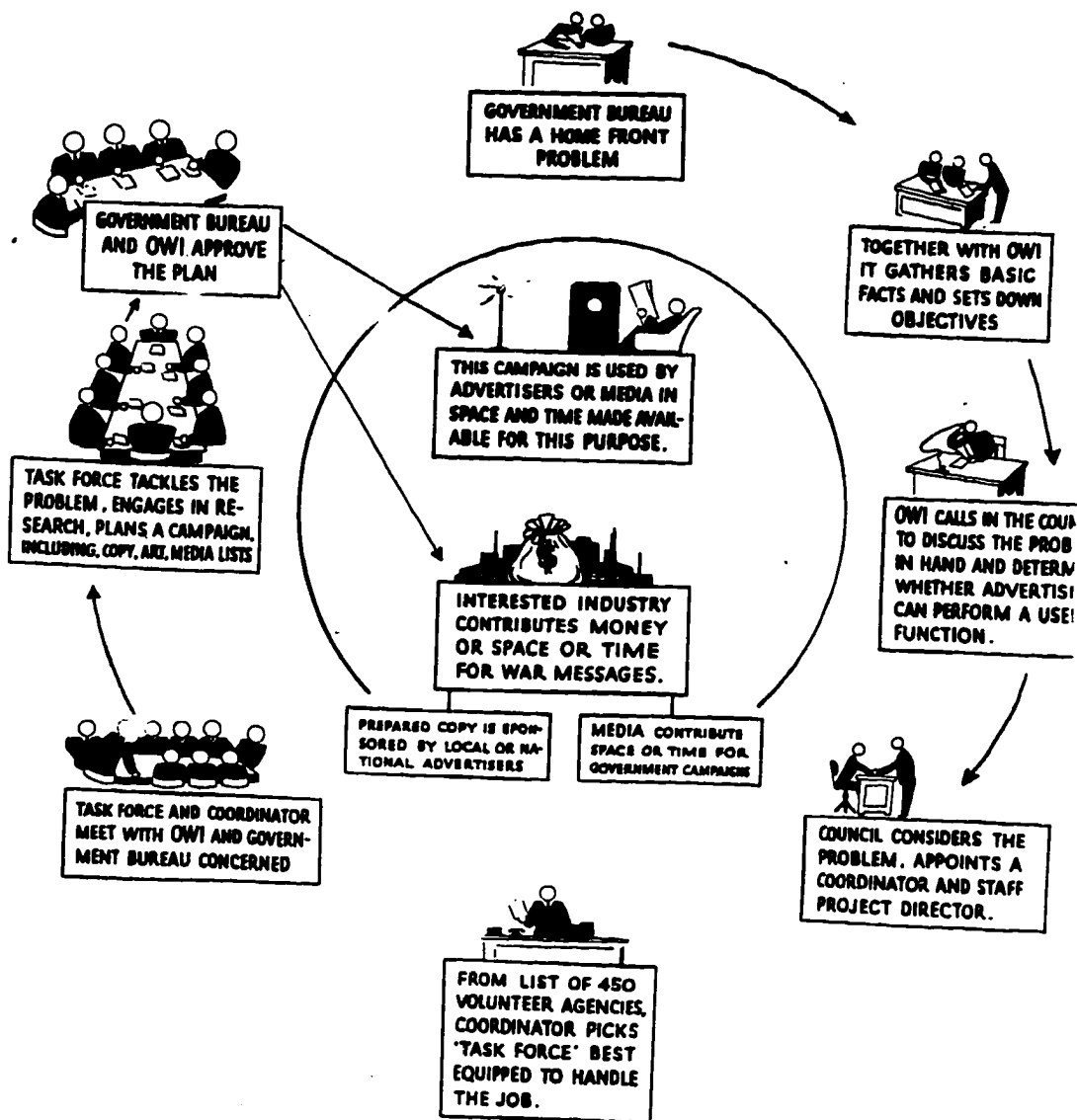
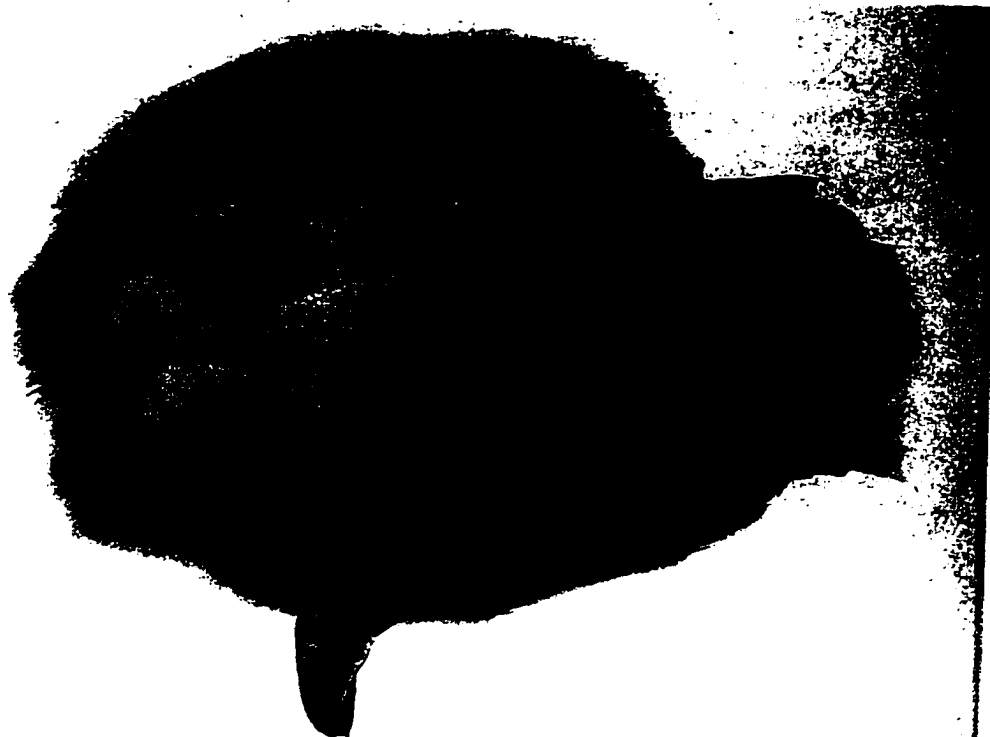


Figure 32



How to kill a business without a word

All this post-war planning talk sounds good to Mrs. Tomorrow. The promise of "miracles" for her home is thrilling.

But when peace does come, and the "miracles" bloom, she will not change her hard-headed habits of buying. She'll demand products she *knows*, the same as always. You had better see that she knows *your* products.

Women don't warm up fast to strangers. Are you going to be a stranger to Mrs. Tomorrow? Are you going to wait until peace to let her know about the things you want her to buy? Do you think it's smart to come cold to your biggest market and try to crash it, when competition will be so tough?

Mrs. Tomorrow should get to know you today. Talk to her in *Woman's Home Companion*. She has looked there, all through the war, for help with her wartime living. She's basing her plans for peacetime on ideas that crowd

its pages. She will *want* — and she'll *get* — tomorrow, the things that interest her today.

Use the *Companion* all you can — as soon as you can. Mrs. Tomorrow reads it today.

A Note For Friends: The *Companion* would be slighting its job if it did not remind American Industry *now* of the seriousness of neglecting this woman's market. We urge you to *remember the woman* in all post-war planning, in spite of the current paper shortage which may make it impossible for some advertisers to do exactly what we recommend. The *idea*, after all, matters most. We are hoping as earnestly as any manufacturer that the day is not far off when an improved paper situation will permit the *Companion* to serve all of you. Meanwhile, we believe, our enforced space rationing does not rob our message of its sense.

*If she's going to say "Yes" tomorrow,
she had better know you today*

WOMAN'S HOME
COMPANION

THE CROWELL COLLIER PUBLISHING COMPANY, PUBLISHERS OF
WOMAN'S HOME COMPANION, COLLIER'S, THE AMERICAN MAGAZINE

MRS. TOMORROW'S BEST FRIEND TODAY

FEBRUARY, 1944

15

Figure 33

Some Day We'll Have The **ELECTRIC KITCHEN** That Bonds I



FOR HOMES COST
\$4,000

Hotpoint Electric Range, Refrigerator, Dishwasher, Sink and Hotpoint Steel Cabinets have been installed in homes costing only \$4,000.

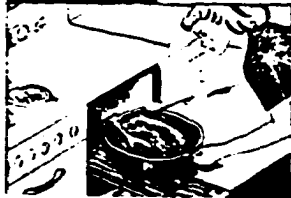
Tomorrow Saving

THERE'S a whale of a deal for you to make every day! For after the war, the appliances that are now in the homes of America will be improved beyond what you can imagine. They will be done by Hotpoint Electric. They will be a miracle-working combination—when the war is over—when the war is over—when the war is over—save when you buy more and more.

FOR HOMES COSTING \$6,000.
The Meadow Lark Kitchen illustrated is designed for homes costing as little as \$6,000 and is completely electric, with Hotpoint Range, Refrigerator, Dishwasher, Sink and Hotpoint Steel Cabinets.



BUY WAR BONDS TODAY—An Electric Kitchen To



HOME PLANNING

PLAN TODAY
electric kitchen
Planning for the future
the ideas for the 12 inch
divisions.
War Bond
dealer can
25 cents in

Figure 34A

We're On The BOND WAGON NOW!



WE'RE rolling down that good old Victory road—full speed ahead! We figure the sooner we put every last cent we can in War Bonds, the quicker this war will be over—and we'll be able to have that new Hotpoint Electric Kitchen we want! That's why Joe and I are stretching the budget to invest even more than ten per cent of his pay in War Bonds. The more money we have in Bonds, the more of that thrifty, time-saving equipment we can buy for our Hotpoint Electric Kitchen when Hotpoint makes home appliances again instead of war materials!

Some Day We'll Have The ELECTRIC KITCHEN That Bonds Bought!



FOR HOMES COSTING AS LITTLE AS \$4,000

Hotpoint Electric Kitchens including Range, Refrigerator, Sink and Wood Cabinets have been installed in numerous homes costing only \$4,000.

Tomorrow Is Worth Saving For

THERE'S a whole lot of incentive for you to make every cent you can today! For after the war—when all the new appliances that are being perfected—the homes of America will be better and more than you can imagine! Cooking will be done by Hotpoint Electric Ranges that require no washing. Electric refrigerators will be improved beyond belief! All these miracle-working conveniences can be yours when the war is won. So speed the day of Victory—and wherever possible, do so by buying more and more War Bonds.

FOR HOMES COSTING \$6,000. The Hotpoint Lark Kitchen illustrated is arranged for homes costing as little as \$6,000 and is complete with Hotpoint Range, electric, with Hotpoint Range Refrigerator, Dishwasher, Sink and Hotpoint Wood Cabinets.

BUY WAR BONDS TODAY—An Electric Kitchen Tomorrow!



Hotpoint Kitchens will be the first appliances you will get after the war. Buy them now. Buy them now. Buy them now.



Hotpoint provides plenty of storage space—and saves loads of space for you, too, with the Hotpoint Electric Refrigerator. Buy it now. Buy it now.



A Hotpoint Automatic Electric Dishwasher will clean your dishes and save you time. Buy it now. Buy it now.

HOME PLANNING FILE

PLAN TODAY FOR TOMORROW'S

Hotpoint Electric Kitchens are the most modern and complete kitchen you can buy. Buy them now. Buy them now.

Fill in General Electric Appliances in the form to receive the latest Home Planning File.

Name: _____

Address: _____

ELECTRIC **Hotpoint** KITCHENS

Figure 34

Hope Chest... '43 Style!

HERE is the "hope chest" of Nancy Jones.

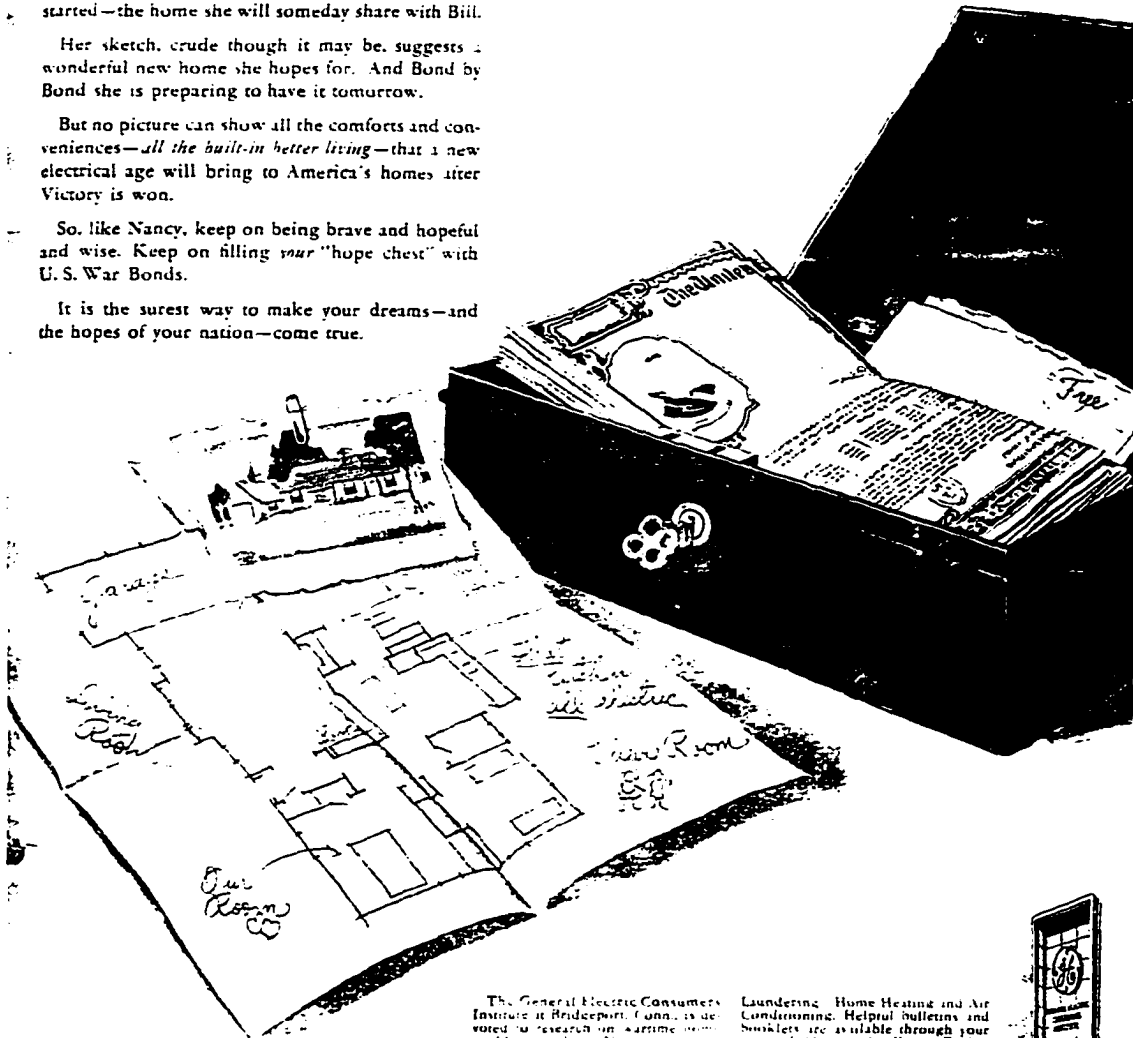
Here Nancy's dreams are taking shape and form and substance. Here her dream-home is already started—the home she will someday share with Bill.

Her sketch, crude though it may be, suggests a wonderful new home she hopes for. And Bond by Bond she is preparing to have it tomorrow.

But no picture can show all the comforts and conveniences—all the built-in better living—that a new electrical age will bring to America's homes after Victory is won.

So, like Nancy, keep on being brave and hopeful and wise. Keep on filling your "hope chest" with U. S. War Bonds.

It is the surest way to make your dreams—and the hopes of your nation—come true.

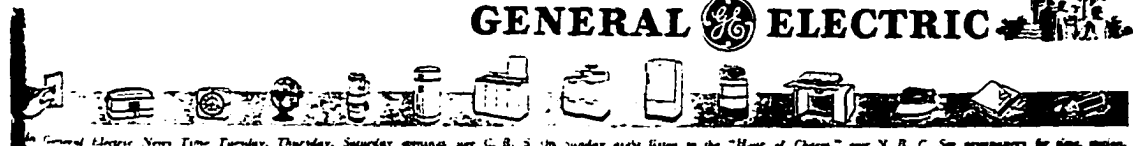


The General Electric Consumers Institute at Bridgeport, Conn., is devoted to research on wartime home problems such as: Nutrition - Food Preparation - Food Preservation - Appliance Care - Appliance Repair -

Laundrying - Home Heating and Air Conditioning. Helpful bulletins and booklets are available through your General Electric Appliance Dealer, or direct from the General Electric Consumers Institute, Dept. BHG6-3.

APPLIANCE AND MERCHANDISE DEPARTMENT, BRIDGEPORT, CONN.

GENERAL  ELECTRIC



General Electric News Time: Tuesday, Thursday, Saturday evenings over C. B. S. On Sunday night listen to the "Hour of Charm," over N. B. C. See newspapers for time, station.

Figure 36



Wartime Bigamy, and Legal, Too!

The children will be post-war jobs for all of us

In a nation where *one wife, one husband* is the law, strange things are going on! Electronics, heretofore a bachelor, is marrying the Steel industry—and soon after, Plastics, too. Plastics, in turn, is mating with Aluminum, then Wood! Magnesium, which used to lighten our household tasks, is lightening bombers, and looking over its shoulder with a glint in its eye.

Every time the wedding bells ring out for a pair of these industrial giants, new jobs are born. Today, these jobs are better ways to lick the Axis. Tomorrow, they'll be jobs for better living.

Take Diesel Power, for instance. War-wedded to Shipbuilding, to power thousands of battle and cargo-

craft of all sizes and types . . . to Electricity, generating light and radio current for Stars-and-Stripes outposts everywhere . . . to Transport, trucking food over mountain passes, railroading freight breakneck across the prairies toward the ports. What will its children be?

If we have our way, the children of the Diesel's war marriages will be welcome friends. Easier farming. Smoother travel. Safer flying. Cheaper building. Countless others . . .

Let's plan these "families" now. Let us tell you what Diesel Power has to offer, as a bridegroom for your industry. Rogers Diesel and Aircraft Corporation, 1120 Leggett Avenue, New York, N.Y. Divisions: Hill Diesel Engine Company, The Edwards Company, Edwards Aircraft Products, Inc., Ideal Power Lawn Mower Company

ROGERS DIESEL AND AIRCRAFT CORPORATION



Diesel Engines, 5 to 2000 h.p. • Gasoline Engines • Generator Sets • Generators • Power Units • Switchboards • Pumping Units • Hydraulic Aircraft Equipment • Recoil Mechanisms • Power Mowers • Power Brushes • Snow Removal Equipment • Streamlined deluxe Railway Motor Trains • Diesel Locomotives

Business Week • July 17, 1943

Figure 37



Yours for Victory!

Courageous, aggressive, resourceful, this determined youth symbolizes the indomitable spirit that has won every war America has had to fight.

To help serve him and his millions of comrades, practically our entire production is going into *special quality* iron and steel sheets for warplanes, ships, combat cars, tanks and jeeps . . . hundreds of vital things to save lives and win victories.

When peace comes the

Armco Stainless Steel in your kitchen sink, in your pots and pans will be stronger and tougher from its battle lessons. Your porcelain enameled range, refrigerator and other sheet metal equipment will be better for wartime research.

It is this standard we're all fighting for — everything we have that stands for America. The American Rolling Mill Company, 1211 Curtis Street, Middletown, Ohio.

A STANDARD OF LIVING
WORTH FIGHTING FOR

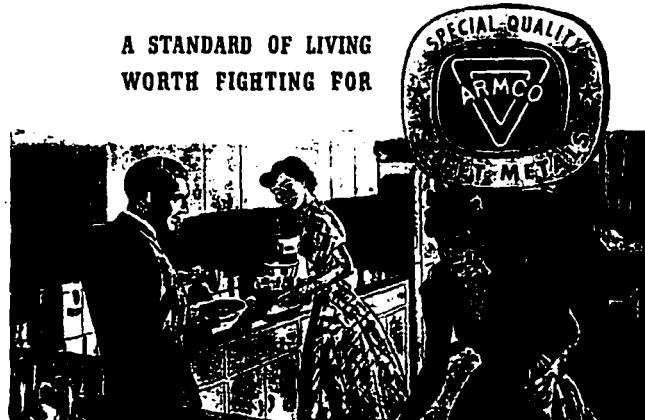


Figure 38



From Prints & Photographs Div., Library of Congress

Figure 39



Figure 40



" Vision to Anticipate the Needs of Tomorrow Creates New Industries Today "

Out of the wealth of experience comes ability to create the new. And out of the crucible of war will come many great new industries, with products that are destined to provide mankind with a new freedom, a new joy in living.

For nearly a quarter century, Evans Products Company has pioneered the development and use of new products, each of which has contributed a new utility, new economy and new benefits to the American public and those basic industries serving it.

In transportation—automotive, aviation, rail and marine; in home building; in wood products and plastics; in domestic appliances—heating and ventilating, in organic

chemistry; Evans Products Company is a producing force, fashioned to serve the needs of tomorrow.

BUT BUY WAR BONDS

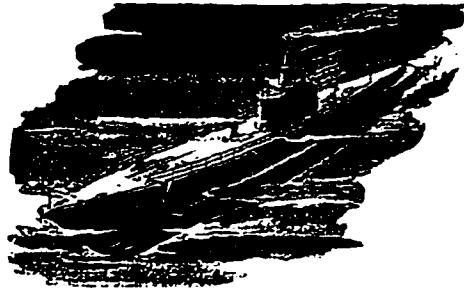
W. E. Evans
PRESIDENT

EVANS PRODUCTS COMPANY
DETROIT

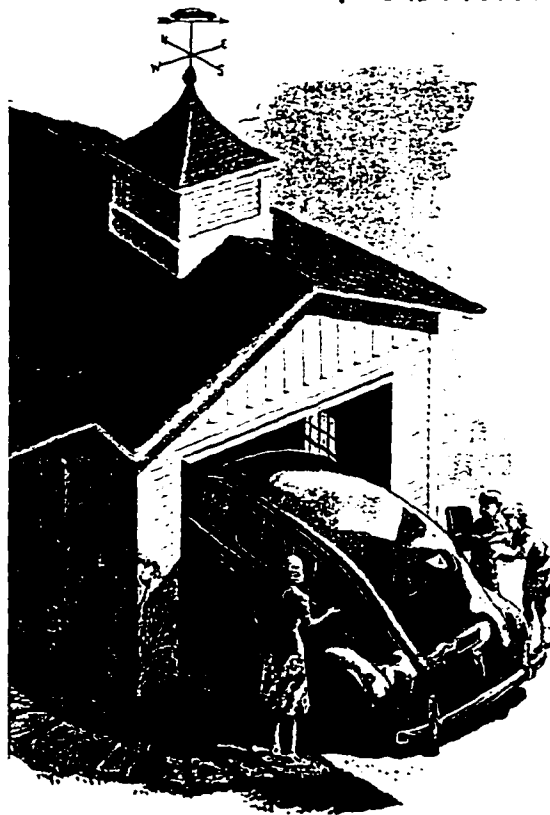
Evans War Products • Machine Tool Motors • Tank and Automotive Heating and Ventilating Equipment • Evaporator Water Heaters • Aircraft Engine Motors • Airplane Landing Gear Brakes • Battery Separators • Prefabricated Homes • Milled Plywood Products • Skiboards • Utility Ladders • Locomotive • Valve-Rails • Auto-Stop • Stamping • Various Domestic Heating Equipment

Figure 41

From submarines...



... to suburbs...



THIN SLICES OF ENGINEERED RUBBER MAKE BATTERIES BETTER

You may never see engineered rubber in your battery.

But you may know when it isn't there . . . when you step into your car, only to find it won't start because the battery went dead.

Well, dead batteries had no place in our wartime submarines. The chief cause of battery failure—the buckling of ordinary separators—had to be eliminated.

It was—with engineered rubber. "U. S." scientists and engineers developed wafer-thin rubber separators, with over 1,000,000 tiny holes per square inch... plus high resistance to abrasion and chemical reaction. What's more, a battery could be charged, drained of water and acid, shipped or stored without losing its life.

This development of the U. S. Rubber Engineer means the end of one of the expensive and annoying battery troubles. It means batteries that last longer—and give sure starting in any kind of weather . . . through engineered rubber.



Serving Through Science

UNITED STATES RUBBER COMPANY

1230 Sixth Avenue, Rockefeller Center, New York 20, N. Y. • In Canada: Dominion Rubber Co., Ltd.

Figure 42



Figure 43



Paging the Jeep's Nephew

THE jeep owes a lot to Cooper-Bessemer compressors. It bounds along on synthetic rubber which starts in a compressor. Compressors aid in refining its fuel. It is equipped with compressor-born plastic parts and accessories.

And to the compressor, the tear drop car of the future—the jeep's nephew—will owe even more. It may have a small but powerful motor hidden under the rear seat, made of magnesium and aluminum alloys, fueled with high octane gasoline. Tires of synthetic rubber will roll up new record mileages. Cushions of synthetic foam-rubber will bring the luxurious riding ease of the airplane. Fixtures, accessories, surface finish will be of jewel-like plastics.

Magnesium, plastics, synthetic rubber, high octane gasoline... all are products of compression.

Today, compressors by Cooper-Bessemer are making these products for a market in steadily increasing volume.

But most of our 110 years have been devoted to building engines for peace. So we shall welcome Victory when we can turn again to building engines and compressors for peacetime necessities, conveniences and luxuries which "The American Way" enables us all to enjoy.

THE
Cooper-Bessemer
CORPORATION
Mt. Vernon, Ohio • Grove City, Pa.

BUILDERS OF DEPENDABLE ENGINES FOR 110 YEARS

Business Week • August 14, 1943

25

Figure 44



The G-E laboratory is of the military radio.

A tank destroyer is plenty rough on radio

One more reason why your post-war G-E electronic radio will be better than ever!

Every time a tank destroyer advances a single foot, its radio parts get the pounding of a lifetime.

But nothing goes wrong! General Electric gave that radio even tougher treatment before it ever saw a tank destroyer.

Your radio, and all military radio, is an assembly of parts—many fragile and delicate. Hardly a single part can fail without the whole radio failing.

General Electric treats that radio for the 2000 hours under the most grueling tests. Parts and materials are ceaselessly inspected before the radio

is assembled. After assembly, there are vibration tests that simulate the roll and toss of a tank destroyer... tests that reproduce the heat and humidity of steaming jungles... vibration tests that hurt worse than a ton of bricks.

A radio has to be good, to stand that punishment!

Your own General Electric radio, after the war, will be finer because of these rigorous wartime standards. Precision methods will be used, high manufacturing standards will be adhered to. And General Electric quality will cost less than ever before!

FREE: The fascinating story of electronics and FM radio is told in a full-color, 32-page book. Write for "Electronics—A New Science for a New World," to Electronics Department, General Electric, Schenectady, New York.

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GENERAL ELECTRIC

Leader in radio, television, and electronic research

Every General Electric radio is an electronic instrument. Radio, like television, is a product of electronic research. This electronic tube, used in the General Electric FM radio, is one kind of radio with amazingly lifelike reproductions, is a control, the same as the electronic tubes that make television possible.

Figure 45



When it's TOASTERS instead of torpedoes

As the pendulum of war swings on toward peace and reconversion, Western brass will again be used in products designed for service, utility, convenience, beauty, and comfort.

Post-war industry will use Western brass—in sheet or strip, drawn or stamped parts

—because it is easy to form, draw, buff and plate, and because it will be "tailored" to

meet exacting specifications

That's the way we like to do the job . . . as we are now doing

it to meet war requirements. Western mills at East Alton, Ill. and New Haven, Conn. are

experienced in producing non-ferrous metals to exactly suit the job. We will welcome the opportunity to demonstrate our

ability to meet your specifications . . . now or post-war.



Western BRASS MILLS

Division of WESTERN CARTRIDGE COMPANY, East Alton, Ill.

Figure 46

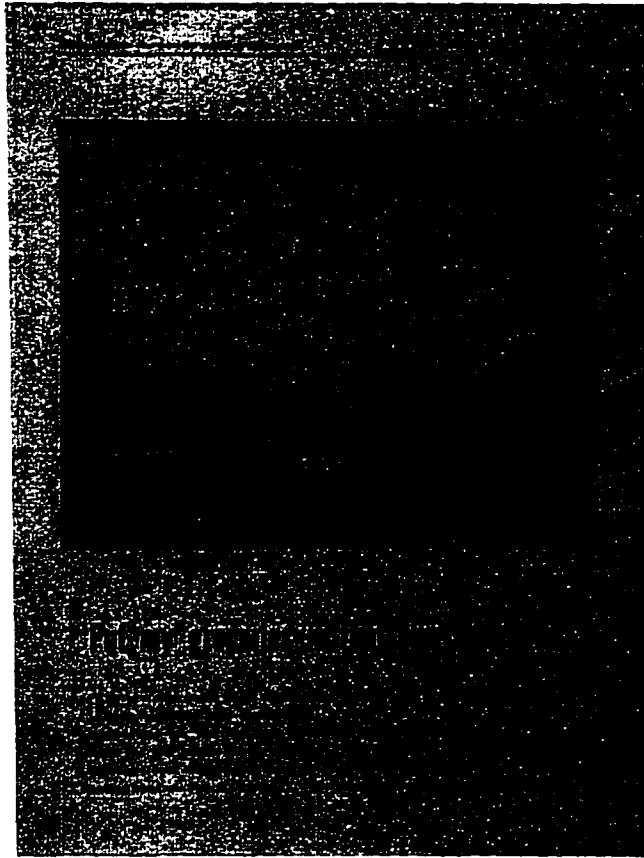


Figure 47



... through International Chemical Research

Conceived by chemical research for the grim purpose of war, new processes and new materials are blue-printing today the pattern of things to come in a world of peace. In its research laboratories at mines and plants throughout America, International has developed essential materials urgently needed by industry and agriculture for a multitude of war-time uses: Magnesium metal for our fighting aircraft. Fertilizers of greater crop producing

power to increase the abundance and quality of our farm yields. Feeds to expand our production of poultry, cattle and swine. Chemicals for munitions and other war purposes. Thus International's chemical research serves you today with new processes and new materials which tomorrow will contribute importantly to your greater comfort, convenience and pleasure. International Minerals & Chemical Corporation, 20 North Wacker Drive, Chicago

International
MINERALS AND CHEMICALS

Mining and Manufacturing

PHOSPHATE • POTASH • FERTILIZER • CHEMICALS

Business Week • May 8, 1943

Figure 48



WAR-INSPIRED RESEARCH
PROMISES *New Wonders*
FOR THE HOME

Today at Delco Appliance, nothing except precision products for our armed forces is being produced. All of the well-known Delco Appliance peace-time products—automatic heat, water systems, light and power plants—have gone to war.

For the American home a great new future is waiting . . . a future that will swiftly become the present as soon as Victory is ours. Newly developed materials, processes and machinery will combine to give to Americans even finer home appliances than they enjoyed before the war.

During the past year, Delco Appliance's mass production of precision war products has reached an all-time high in efficiency. This same skill will bring you the new things of tomorrow, quickly, when peace comes.

Delco Appliances include Automatic Delco-Heat (oil-coal-gas), Delco Water Systems, Delco-Light Power Plants and Delco-Light Tronclad Batteries

DELCO 
APPLIANCE
DIVISION, GENERAL MOTORS
CORPORATION, ROCHESTER, N. Y.
Victory Is Our Business



Figure 49



ON THE HORIZON OF TOMORROW...

"Spending leisure" of today is participation and scientific interest...
 following the steps of Tomorrow are...
 and your...
 of...
 some of...
 the future will be filled and... will be yours.

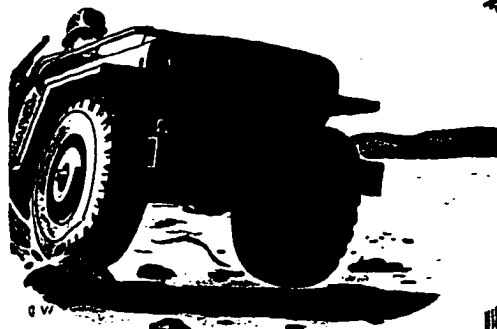
NEARBY

In participation of things to come... the October of your favorite department store...
 you will be able to buy in limited quantities, perfume, beautiful fashion fabrics in...
 New York... glorious lengths of lovely weaves in the most interesting and exciting colors.

Figure 50

Textile Proving Ground

SKY ELEVATORS: For textiles that can "take it" in peace as once in war... look to the newest development in rayon! Today's high tenacity rayon is so tough that parachutes, which sustain loads as heavy as 300 lbs., are made from it—so strong that it may be spun into the sheerest, softest fabrics. This rayon gets its strength from the basic raw material, chemical cotton.



TIRE BACKBONE: High tenacity rayon was the answer when the Army needed a tougher cord for combat tires. Where former cords frequently failed under heat, rayon actually became stronger at higher temperatures. In "combat-condition" tests, rayon cord tires averaged 330% better under the sustained heat of long-distance operation... 93% better on rough cross-country trips involving bruising and cutting.

FASHION FABRIC: Through chemical cotton pulp and special processing, certain types of rayon can be made into filaments even finer than those of silk, with greater strength. Once restricted to essential wartime uses, these and other improved rayons now promise a far greater measure of beauty and durability for wearing apparel and decorative fabrics than was ever possible before.



CHEMICAL MATERIALS FOR INDUSTRY

FOR FURTHER INFORMATION on high tenacity rayon, address your inquiry to rayon manufacturers. For information on chemical cotton pulp in rayon or other products, write Hercules, Department B-95. This application of Hercules chemical cotton is only one example of Hercules research which aids industry in the use of chemical cotton, terpene and resin chemicals, synthetics, explosives, cellulose products, papermakers' chemicals, and other chemical products.

HERCULES POWDER COMPANY, 9th MarLa St., Wilmington, Pa., Del.

SAVE AND KEEP PRICES DOWN — HOLD THOSE WAR BONDS

Figure 51

Dow Announces a Revolutionary Advance in Packaging Materials . . .

SARAN FILM
Keeps Moisture in its place!

... spare parts for aircraft, tank supplies—these and other essential supplies can now be shipped to our fighting battle fronts adequately protected from their common enemy moisture. By developing Saran Film, Dow has made a revolutionary advance in packaging materials.

Saran Film provides a degree of protection hitherto impossible to obtain. It is three times more impervious to moisture than any other comparable material.

Its high resistance to chemicals is important in packaging food and chemical products. Extreme flexibility at low temperatures increases its serviceability. As for moisture, it keeps it in its place—in or out, as the case may be.

Distinguished by these remarkable advantages, an infinite variety of uses—the packaging of fruits, vegetables and many other products—overall Saran Film on the home front when Victory is won.

THE DOW CHEMICAL COMPANY
MIDLAND, MICHIGAN

New York • St. Louis • Chicago • London
San Francisco • Los Angeles • Seattle

Saran Film

DOW

ETHOCEL • STYRON

Figure 52

AFTER MARS... A RENDEZVOUS WITH VENUS

When Columbia turns from war to peacetime, its creative skill and versatile craftsmanship will play its small part in bringing new glamour and ingenuity to molded plastics of tomorrow. For Columbia Plastics combine unexcelled engineering ability, design sense, scientific research, production technique... all made possible by a pioneering organization of vision and unrivalled facilities. In post war days, Columbia will continue to pioneer the road to new perfection in products of molded plastics.

COLUMBIA Plastics

COLUMBIA PROTEKTOSITE CO. INC. NEW CARLISLE, PA.

Figure 53

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It's less than 8 times heavier than air!

ANOTHER REASON FOR GOOD YEAR LEADERSHIP

Meet the new lightweight champion of the insulation world. It's an amazing new plastic called Pliofam. A whole cubic foot of it weighs considerably less than a pound.

Born in the Goodyear Research Laboratory, Pliofam is already at war. For one thing, it is being used as a wing filler in airplanes. It is placed around the bullet-puncture-sealing fuel cells. If enemy bullets rip through these tanks, Pliofam instantly soaks up the few drops of gas that might leak out before the tank seals the bullet-hole.

Photo: G. H. ...

Because of its astonishing light weight — and its proved efficiency as a heat, cold and sound insulator — Pliofam is destined for many important post-war uses. You may be finding it in homes, refrigerators, railroad cars, airplanes, autos, files, buses.

The development of Pliofam is another dramatic demonstration of how Goodyear Research works constantly — in widely diversified fields — to bring Americans — in war or peace — new, more efficient, more economical, more useful products.

A pioneer in rubber, Goodyear for a long time has been a busy worker in many other vital fields—plastics, metals, textiles, chemicals, aircraft... and from the new Goodyear Research Laboratory, "the best is yet to come."

BUY WAR BONDS AND BUY FOR KEEP



THE GREATEST NAME IN RUBBER

Figure 54



VISION...unlimited



The "teardrop" is a typical example of Swedlow research and ingenuity in the field of plastics.

Shaped by a vacuum method, this one-piece Lucite

enclosure eliminates blind spots and permits



full vision in all directions. Today all Swedlow



production is devoted to war, but Swedlow engineers

are already working with manufacturers in many

industries who visualize the unlimited postwar

applications of Swedlow products and methods.



SHELLMAR

PRODUCTS COMPANY

Plastics Division

(Formerly Swedlow Aeroplastics Corp.)

GLENDALE, CALIFORNIA

MAY • 1945 253

Figure 55

A New Dow Product—Packaging Development of the Year . . .



Delivered in Saran Film
Ready for Action

At this moment, men on our fighting fronts throughout the world are gaining first-hand knowledge of a new transparent packaging material. When they unpack a machine gun they find it protected from moisture with Saran Film. There are no coatings of grease to be removed—no time lost. The gun slips out of its Saran Film envelope clean, uncorroded—ready for action!

This Dow product is undoubtedly the packaging development of the year. Imagine a transparent film—tough, flexible and not only strongly resistant to chemicals, but actually possessing three times more moisture resistance than any other comparable material. These are some of the many superior qualities of Saran Film. Such a combination of advantages has far-reaching implications that suggest wide use in our peacetime world.

4000 ...
2000 ...

SARAN

THE DOW CHEMICAL COMPANY
MIDLAND, MICHIGAN

... IN ITS PLACE

Figure 56

How does the Post-War shopper fit into your package?

WARTIME rationing and substitutions will make the shopper in the post-war era more value-conscious than ever before. Will your package do its part to satisfy her exacting requirements?

SHE WILL WANT TO SEE. She will want to make certain just what she is getting . . . what color, what size, what quality. With self-service becoming more prevalent, she will depend on her eyes to provide this assurance. The product packaged in transparent Du Pont Cellophane will permit her to see what she buys.

SHE WILL WANT PROTECTION. The post-war shopper will expect and demand products in their original quality—clean, sanitary, unimpaired by loss of freshness and flavor. The products packaged in moistureproof Du Pont Cellophane will appeal to her because she knows from experience that Cellophane provides superior protection.

YOU WILL WANT LOW PACKAGING COST. Because the post-war housewife will want more for her shopping dollar, your product will have to be priced to appeal. This will mean lower distribution costs and will require attention to packaging economies. In Du Pont Cellophane you get the desirable combination of transparency plus protection at low cost.

Back of every sparkling square inch of Du Pont Cellophane stands Du Pont research, constantly at work to develop and improve types of packaging film for greatest efficiency.

Military demands now limit the civilian supply of Du Pont Cellophane. We hope the day is not far off when again there will be enough Du Pont Cellophane to fill all your needs.

E. I. du Pont de Nemours & Co. (Inc.), Cellophane Division, Wilmington 98, Delaware.



BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY



DuPont Cellophane

Shows what it Protects—at Low Cost

Figure 57

NOW THE SECRET OF "HUFF-DUFF" CAN BE TOLD



"HUFF-DUFF? . . . What does it mean to me?"



MAYBE it seems like a far cry from U-boat-and sea rescues to the security and comfort of your own home.

But curiously enough the inventiveness that won a war is the greatest promise of better living in peace.

Yes, "Huff-Duff" means a lot to your personal design for living.

For the "know-how" of the same scientists who created "Huff-Duff" and many others of the war's great inventions is now turned to

the development of new and finer electrical marvels for your home.

Today more than 1300 scientists of International Telephone and Telegraph Corporation, world-wide leader in electronic research, and its manufacturing associate, Federal Telephone & Radio Corporation, are working to bring you a thrilling new kind of radio and a whole new line of electrical appliances. You will recognize them by the name:

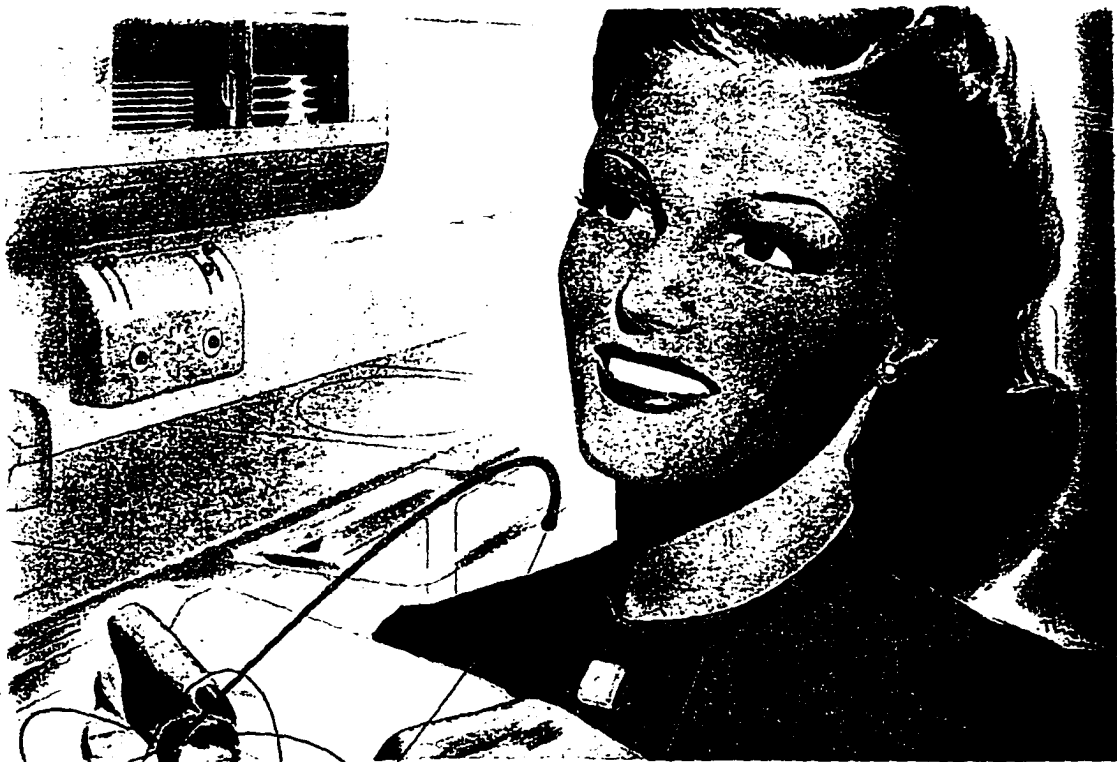
Federal

So remember the name FEDERAL. The name that will stand for the best in research, engineering, precision manufacture and value — the name that will bring you the world's finest radios and home electrical appliances.

I T & T

INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION
67 Broad Street, New York 1, N. Y.
America's World-Wide Leader in Communications, Electronic Research and Precision Manufacture

Figure 58

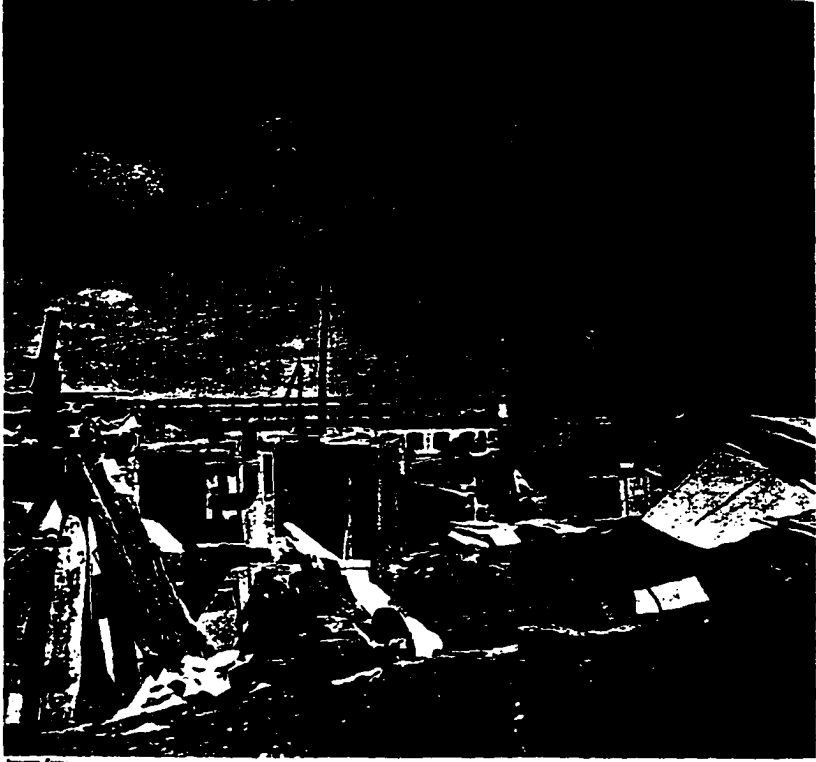


UTAH ENGINEERS STAY UP NIGHTS THINKING ABOUT HER . . .

TODAY Utah's plants are working 100% on electrical and electronic devices for tough hombres winning a high-speed, fast-communications war under even tougher bosses. ¶ When those tough hombres come back from making war they will find a new boss — a pretty one — making peace in a new home, run on new principles in electronic equipment. ¶ Today our boss is Uncle Sam — tomorrow the American housewife. ¶ Since radio broadcasting began, more than half of these American housewives unknowingly listened to their favorite programs through a Utah speaker, whatever the make of their complete sets. Tomorrow they will hear for the first time of Utah in a new and exciting way. ¶ Already Utah's engineers and technicians are working overtime charting the future, preparing the scientific groundwork to supply Mrs. America with new, improved and different products in the electronics field. ¶ Utah was ready to go into a new kind of war production for our high commands, the day Pearl Harbor broke. It will be ready to go into a new kind of peace production for American housewives, the day folks start throwing the ticker-tape to celebrate victory.



Figure 59



Amesbury Photo

NO RENT—NO TAXES—NO WORK



A HOUSING PROJECT of improvised shelter built by and for the unemployed on a vacant lot in New York, at 12th Avenue and 40th Street, known to its tenants and the police as "Shanty Town". At the left the "manager" rings his bell announcing the communal meal. Industrialized housing to produce large-scale, planned communities may contribute to the solution of the problems of both unemployment and housing.

Figure 60



Figure 61



EXRESS BOULEVARDS ARE THE MAIN ARTERIES FOR THROUGH CITY TRAFFIC Futurama Photo by Richard Garrison

Figure 62

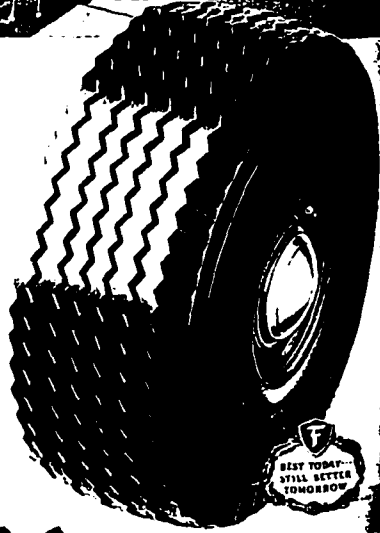


**WILL THE HOME OF TOMORROW
LOOK LIKE THIS?**
Here's one conception of the Home of Tomorrow, in which functional design, economy and comfort are combined with individuality, beauty, efficiency and convenience. Years away? Perhaps! But it illustrates how earnestly people are trying to make this world a better place in which to work and live.

THE TIRE OF TOMORROW IS HERE TODAY

YES, it's true! You can now get tires that will give you extra safety and extra mileage, even at tomorrow's super-highway speeds. Wilbur Shaw proved that when he averaged 100.34 miles an hour for 500 miles at Indianapolis on stock Firestone DeLuxe Champions, just like you can buy at any Firestone dealer store or Firestone store. Firestone DeLuxe Champions stay safer longer because they are built with patented and exclusive features, developed through Firestone Research, such as Safti-Lock Gum-Dipped Cord Body, Gear-Grip Tread, Safti-Sured Construction and Vitamic Rubber. And remember, they are the only synthetic rubber tires made that are safety-proved on the speedway for your protection on the highway.

Listen to the Voice of Firestone every Monday evening over N. B. C. network.
COPYRIGHT, 1945, The Firestone Tire & Rubber Co.



**BEST TODAY...
STILL BETTER
TOMORROW**

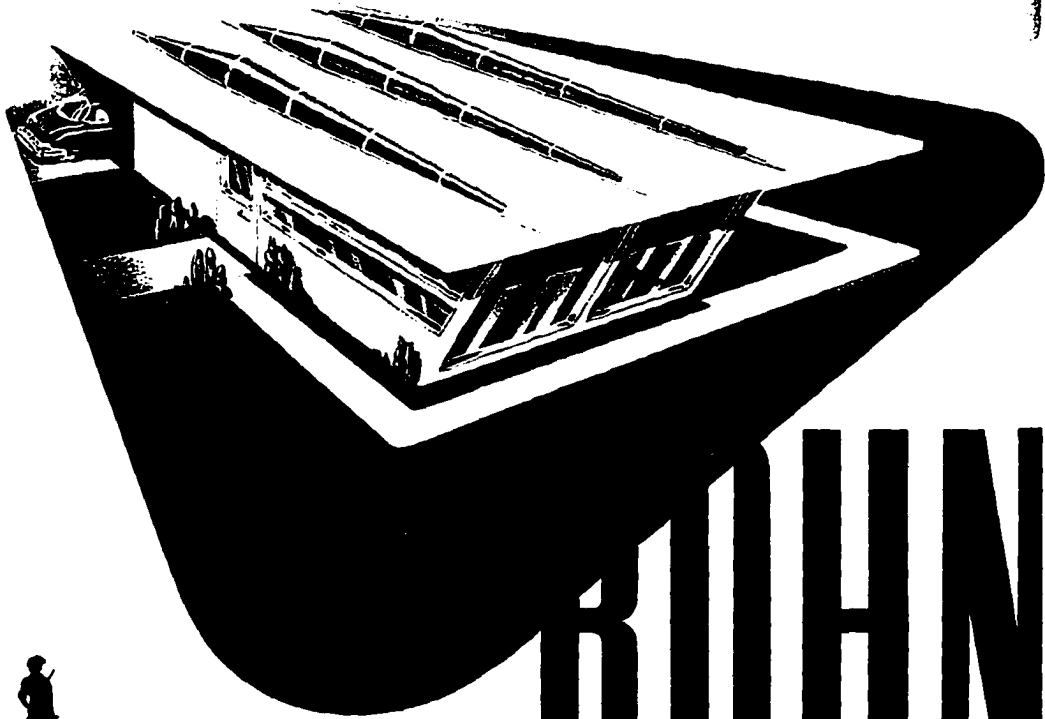
Firestone
DeLuxe **CHAMPION TIRES**

**MANY DEPARTMENTS TO SERVE YOU
AT YOUR NEARBY FIRESTONE DEALER
STORE OR FIRESTONE STORE**
Tire and Tubes • Recapping and Retreading • Battery
Spark Plug • Brake Lining • Auto Supplies
Hardware • Radio Supplies • Household
Leather Goods • Farm, Lawn and Garden Supplies
Toys, Games and Books • Clothing • Druggery
Recreation Supplies • Wheel Goods

Figure 63

A NEW DESIGN FOR LIVING

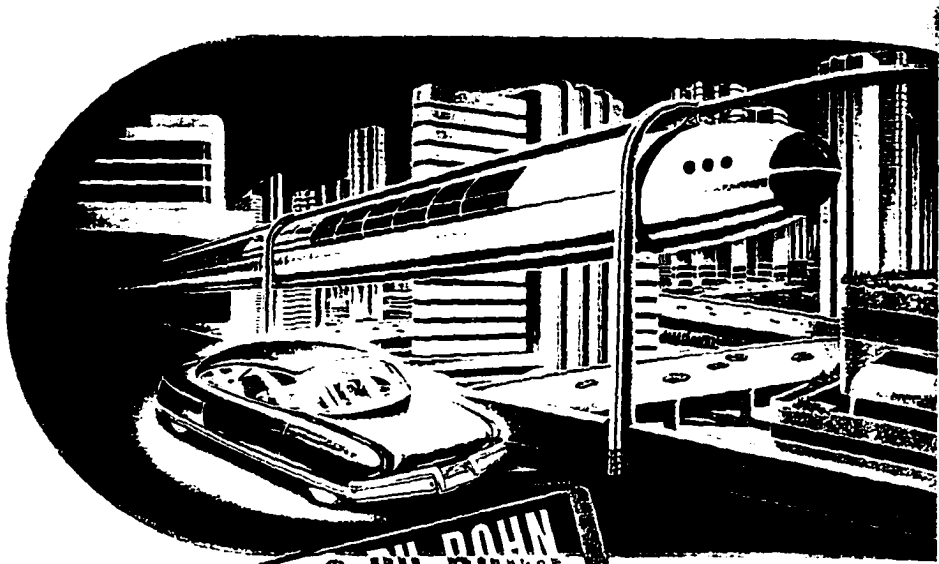
BOHN engineers, engaged entirely on war work, foresee great changes in post-war homes of the future. Wider use of light alloys will make possible greater beauty, simplified architecture, and lowered costs. Girders, pillars, and innumerable beautifying effects made of light alloys produced by Bohn, will mean new designs for more attractive living. Remember the name Bohn—headquarters for light alloys and their many advanced applications.



BUY
WAR
BONDS

BOHN

Figure 64



FORECASTING BY BOHN
E.H.O.

Today America's manufacturing processes are concentrated solidly on war materials for Victory. From this gigantic effort will spring many new developments of vast economic consequence to the entire universe. The City of the future will be born—startling new architectural designs will be an every day occurrence! New alloys—new materials—new applications—designs engineered by Bohn will be an important contributing factor in making possible a world of new products. Remember the name Bohn. Our advanced knowledge will be most helpful to many manufacturers in redesigning their products of tomorrow.

BOHN



BOHN ALUMINUM AND BRASS CORPORATION, DETROIT, MICHIGAN
GENERAL OFFICES—LAFAYETTE BUILDING
Distributors of Aluminum • Magnesium • Brass • Aircraft • etc.

Figure 65

**A SANE
PREDICTION
ABOUT THE HOUSE
YOU'LL LIVE IN
AFTER THE WAR**

A cool, balanced prediction about how the first twenty years after the war will affect houses. It forecasts how houses will look, how they will be sold, how they will be made. How good they will be depends on you, the user, understanding and demanding good living (which means, of course, good planning). Here is a breath of fresh air

By one of America's leading designers

The "house of the future" is the spoiled darling of the editorial and ad writers these days. Margaret Lovell

is the function of a house nothing more than to pro

put in rights when we feel like it. We are sentimental and constant and get attached to things for no good reason and want to keep them around us. We get tired of other things after a while to the point where we can't bear the sight of them, especially if the things are too correct and clean and otherwise perfect. If a standard is set too high, in conduct or in things, we will say in time, "To hell with it," and take something over. We are basically perverse and repeat living patterns evolved on either our public or private lives.

Maybe these characteristics aren't present in all human beings, but they are certainly present in all who are used enough to deserve a perfect machine for living in. And it's my belief that modern architects, by and large, haven't allowed for this clay feet side of human nature in their immaculate conceptions. It's my belief that too many modern houses are designed as demonstrations of the designer's perfect taste, to prove a point, rather than as homes for ordinary mortals whose tastes are fallible and changeable.

Mind you, this isn't a reactionary pronouncement. If

Figure 66



New construction methods tap new markets

Prefabrication has won a major victory — through the sudden, immediate need for housing thousands of war workers. Today, on Defense Housing projects throughout the country, this new method of construction is proving its worth. It is also proving that when the emergency is over, prefabrication will bring *quality* homes within the reach of new millions of people.

The proof is now on record: It is the natural result of the speed and control of construction — made possible by mass production methods.

Homasote Company foresaw this new market when, in 1935, we pioneered with our first Precision-Built Home. Millions of dollars worth of Homasote Homes have been built and countless improvements have been made since that time. We know that we will continue to improve Homasote Homes — and to lower their costs. But the records to date of thousands of machine-perfect, double-insulated homes show that the way has already been found to

tap new housing markets all over the country.

At present, all our facilities are of necessity devoted to Government work. When this picture changes, fabricating plants throughout the country will be ready to supply you with Homasote Homes of any design or size — for employee housing, realty developments, slum clearance and many similar projects. Write today for full details. HOMASOTE COMPANY, Trenton, N. J.



*1000 Homes in Missouri in 20 working days
1000 Homes in California in 25 working days
1000 Homes in Virginia to be built in 6 months*

REALTORS... Write us for complete details on Homasote Precision-Built Homes — *your* best means of converting idle property into profitable homesites.

H O M A S O T E
Precision-Built
H O M E S

Labor and Management • 79

Figure 67



When the needs of war lessen — when the use of Stran-Steel is permitted for home-front construction . . . then, the rugged strength and permanence of quality steel framing will be available within the price range of even the small farm building or industrial warehouse.

Today, Stran-Steel, in war front barracks, hangars, hospitals, shops, in arctic blizzards and steaming jungles —

STRAN-STEEL

has set an amazing new standard of building efficiency. Easy to ship, stock and handle, and speedily erected with ordinary carpenter tools, its economy is obvious. And its use in famous Quonset Huts all over the world attests its remarkable resistance to deterioration.

If saving time and money is important then Stran-Steel is a "must." It's adaptable to almost any style of architecture or type of collateral material. It's a "world of tomorrow" development, here today — extensively tested — conclusively proved — an answer in steel to better building and reduced construction and maintenance costs . . . Keep your eye on Stran-Steel.



GREAT LAKES STEEL CORPORATION

STRAN-STEEL DIVISION, PENNSYLVANIA BLDG., DETROIT 26, MICH.

SOLE NATIONAL STEEL CORPORATION . . .

1-463

Figure 68

Modern, Attractive,
Well-Built Homes that sell for
\$4,000 to \$6,000!

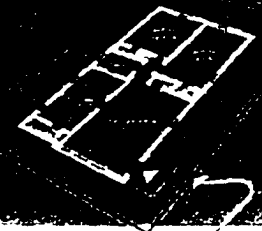



Number 1 THE *Brighton*
30' x 36'

Stran-Steel Homes, establish entirely new standards of beauty, durability and comfort in the field of low-cost housing. Never before has the home owner been able to enjoy such modern styling, such spaciousness and distinction, for so small an investment!

Ease and speed of erection, permanency and economy are achieved through the use of Stran-Steel arch-rib framing. Your local builder furnishes collateral materials and does the construction work.

Several designs, the work of nationally known architects, are pictured on the following pages. An almost unlimited number of additional designs can be created by your own architect.



As little as \$35 a month
PAYS FOR A PERMANENT, SMARTLY STYLED
HOME like this!

ELIGIBLE
STRUCTURALLY
FOR F. H. A.
MORTGAGE
INSURANCE

Figure 69



Figure 70

ARCHITECTURAL
ENGINEERING
TECHNICAL NEWS AND RESEARCH



INDUSTRIALIZING SHELTER THE FULLER HOUSE

The most rational, stimulating, and significant development in the engineering of home building has just burst into the consciousness of the house-hungry public. Almost twenty years after the introduction of his Dymaxion House, 1927 Buckminster Fuller again starts the exam-

pliment to give their children the attention they need so that the children may grow up in a wholesome psychological environment.

3. To provide this kind of living space at such low cost that everyone can afford it.

Fuller's primary concept is that

present a model to a "life approach" but with a House. It ready to a service the mass-prod- craft Corp- to turn out early next unique how and its pe- side publi Wolf, its chairman

governing tures are lightning The Full- tional, im- no excess- constructs thought it- analysis of- mination, a- accomplish- and rescue

Fuller's tional, viz. 1. To p- destructiv- ment, win- intruders.

2. To p- tation, in- 3. To r- keeping at- minimum.

4. To p- ment that- that is, by- who is par-

118

Presenting the whys and wherefores of the mass-produced house, engineered on the principles of maximum performance per pound, metals in tension, and welfare of the family

Why the hemisphere? Among Fuller's reasons for choosing the modified hemispherical form are:

1. Greater floor area per length of enclosing wall. The perimeter of the circular house is 115 ft., enclosing 1017 sq. ft. of floor area. A square of the same perimeter, 28 1/2 ft. square, encloses only 798 sq. ft. of floor. The Fuller House encloses more than 27% more area for the same length of enclosing wall.

2. Greater cubic volume per roof and wall surface by approaching the maximum economy of a sphere, sparseness is achieved with an actual saving in surface material.

3. Exterior aerodynamic advantage. In wind resistance a hemisphere has a 10 to 1 advantage over a cube of similar volume, therefore lighter members can be used. Heat loss is reduced since it is directly proportional to wind drag.

4. Interior aerodynamic advantage. The curved walls and domed roof form gives an unrestricted passage for the circulation of air. Heat, sound is dissipated in an improved acoustic pattern.

5. Centralization of services. Electricity, heat, light, water and air services are centrally placed in a controlled system offering the shortest radial distance to each of the rooms, thus providing the most economic use of energy sources.

6. Efficient employment of sheet metal. Sheet metal can be used structurally without reinforcement or corrugation of curved in an arc.

7. Efficient most support means-lightweight stability. The entire house is hung on a single steel rod, one constructed of 2" diameter steel tube, 11 1/2 ft. high, one diameter over. It will easily support a weight of 10,000 lb. The house itself weighs 7,000 lb., add 100 people and a full load on the roof and the maximum weight the house is required to support is 10,000 lb. The structure is safe at 10,000 lb.

8. Simplicity of articulation, using tension as a structural principle. Fuller explains, "Structural systems represent an equilibrium of tension and compression components which are rendered cohesive by the external forces acting upon them. Chief among the latter are gravity, wind and aerodynamic variables. In the past the materials available to man have favored a compressive emphasis in opposing these basic forces. Even after the introduction of steel, construction persisted along the traditional lines used in stone and wooden buildings. The result is an unnecessary continuation of excessive weight and rectangular design. In addition the contemporary development of high alloyed steel has increased the possible applications of tension principles.

Compression members themselves are inherently limited; they tend to fail because all working loads must be applied at the terminals, resulting in a concentration of stress at one point. The ratio of length to diameter of a column cannot be improved; thus when work loads are increased, the diameter and consequently the weight of material must be increased correspondingly. On the other hand, tensile strength can be increased by alloying. Additional loads can be applied at any point on a tension member with a tendency to contract diameter and actually augment the cohesive strength. The structure is hung from a few secondary web-rod-ers at the top of the mast. The roof, wall and floor are hung as appendages and tend to cluster naturally, since each component sees the same vertical axis (axis) acts to cause cohesion. The house, generally, articulates in a continuous system such that when pressure is applied at any one point the resulting strain is distributed throughout the entire structure.

The structural system, from the top of the mast are hung three

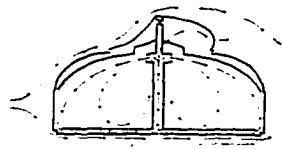
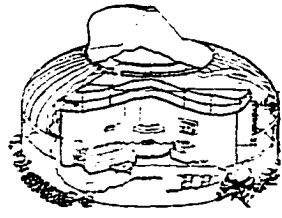
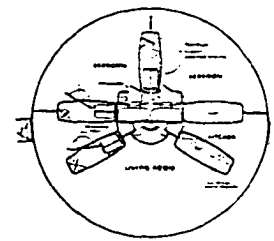
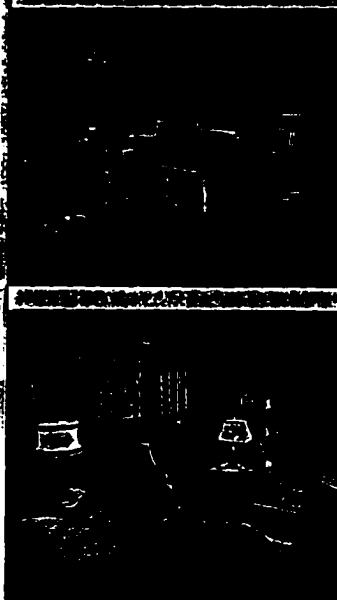


Figure 71

ARCHITECTURAL ENGINEERING

TECHNICAL NEWS AND RESEARCH



Photographs taken in the Fuller House erected at Wichita show why housewives are enchanted. Note domed ceiling, continuous drapery valance, plastic-covered accordion doors. Below, sections show switch-operated "revolving" shelves, compact bath units, and wall with plastic curtain raised to expose plastic-screened ventilating unit below windows.

Circular compression rings connected by tension cables. The rings, of steel tubing, function somewhat like horizontal arches providing rigidity and serving as a framework for the tensed metal skin of the roof. The smallest ring is near the top of the roof—just under the track for the ventilator—the middle ring is halfway down the dome, and the largest or circumferential ring is at the lower edge of the roof where the exterior wall is joined. These are joined by a network of tension cables triangulated downward from the mast and criss-crossed like the spokes of a wire wheel. The cables, after weaving through the successive rings, are brought down to support the floor and are finally connected to 12 steel anchor rods around the house. The walls have no weight-supporting function."

The lower half of the exterior wall is sheet aluminum alloy; the upper half is clear plexiglas window. Below the window area sections of the aluminum may be lowered to reveal a plastic screen built into the wall of the house. A total of 240 sq. ft. of screen surface is provided and 320 sq. ft. of plexiglas window.

The roof is composed of 48 metal sectors, or cowling gores stretched on aluminum ribs. The ribs or carlings (inverted hat shape in cross-section) rest directly on the circular compression rings. The rib is wide enough to support the joint of two roof sheets, serves as a gutter between them, and as a natural expansion joint. Between the outside skin and the cable network are one or more coverings of

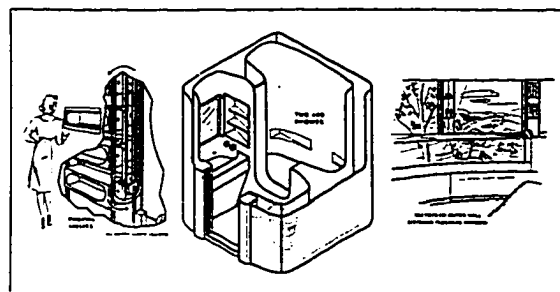
insulating, aluminum foil. Though the roof is a dome it can be packed flat for shipping; the carlings can be nested and the cowlings lie flat when not under tension. Formed structural members are made as Z-frames rather than channels so that nesting is possible without any sacrifice in strength. All holes are gang-punched in manufacture and the numbers of types of fastenings is reduced to a minimum. All holes in parts are colored to identify the proper fastening for the holes. Fastenings are of two kinds: bolts, and "blind" rivets as used in aircraft construction. Cost saving in time is derived by the universal use of $\frac{1}{4}$ in. bolts of varying lengths.

Mechanical Systems. Heating, air conditioning and ventilating units (filtering, cooling, and dehumidifying) designed to operate on gas, oil, or electricity and located in the central facilities column, will be furnished. The hemispherical form and the use of aluminum roof and walls provides extraordinary thermal efficiency. The outer shell reflects about 90 per cent of the solar radiation. Most of the balance is absorbed by the insulation between roof and ceiling and between outer and inner walls. In the winter the aluminum ceiling reflects heat back into the rooms.

Even more important to cold weather comfort are the aerodynamic advantages with respect to heat losses due to wind drag. Any object which offers wind resistance creates a cone-shaped low pressure area in its wake. Research has shown that in the case of a conventional square or rectangular house the low pressure cone is very large and has the effect of drawing warm or high pressured air from the house to fill the low pressure area. The warm air escapes through inadequately sealed windows and through other unsealed holes or cracks in the house. Insulated walls cannot prevent such losses. Windows in the Fuller House are sealed and doors are airtight.

Wind studies and wind tunnel tests led to the design of a large ventilator (18 ft. diam.) which rotates on the top of the house (heading always into the wind) to focus the low pressure area at a point about 45 degrees leeward and upward from the center of the house. The ventilator draws air from the house—changing the air inside.

(Continued on page 134)

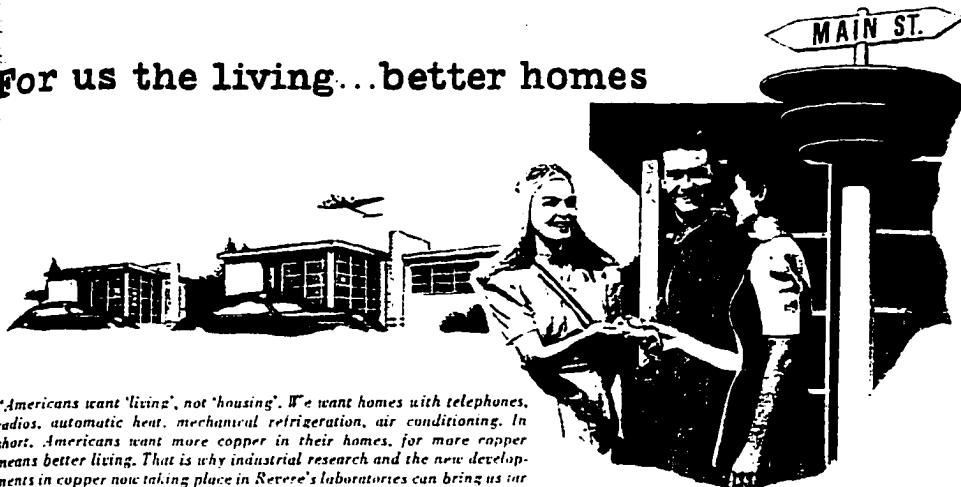


120

ARCHITECTURAL RECORD

Figure 72

For us the living... better homes

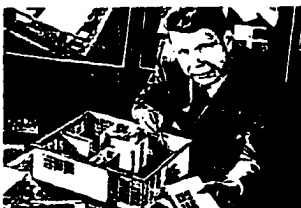


"Americans want 'living', not 'housing'. We want homes with telephones, radios, automatic heat, mechanical refrigeration, air conditioning. In short, Americans want more copper in their homes, for more copper means better living. That is why industrial research and the new developments in copper now taking place in Revere's laboratories can bring us far greater comfort and pleasure in days to come.

"So, no matter what else results from the all-out effort our country is making, one thing seems certain. When it is over, real enjoyment of life in our homes can be greater, can be available to millions more. For in this great emergency, new standards are being created. Industry is experimenting with new processes. Revere is working out new things in copper. Architects are inventing new methods of building.

"Here is one conception by the famous designer, Norman Bel Geddes. It shows the deep comfort, the complete convenience, the dignity of living which American production methods could easily provide."

Donald Dallas
President



NORMAN BEL GEDDES says—"Through our inventive and productive genius, we Americans enjoy more comfort, more freedom, more fun than any other people on earth because these things are built into our homes. That's the secret of our famous standard of living. But we are still back in the dark ages in the way we construct a house. It we got as much house for our money as we do in a modern radio or automobile, even the lowest income could buy living fit for a king.

The way to do it is to build our homes as we build the other good things of life—not just a few at a time, but by the thousands, using our mass production methods.

"Here is a home I have designed which, if built on such a scale, would cost you less than \$2000. It is a home with much more copper in it, because it is full of the new conveniences which copper alone can bring.

"When you once realize how spacious and attractive such a home can be, how luxuriously livable, how free from repairs—and how much individuality in shape and design it offers—I think you and all America will want homes built this way.

"Imagine a house with only 27 basic parts, which can be delivered at your building site in the morning and assembled into a finished home ready for you to move into by dinner time! Here you see the 27 units as they would come off the production line. But we who are planning these homes know that Americans do not want standardized designs. So the basic parts of this house are made so that they can be assembled in various ways to form no less than 11 distinct homes—all different.



"The kitchen, complete with modern range, sink, mechanical refrigerator and steel cabinets, looks just like those you see in the magazines. But what you don't see is that this kitchen is formed in one piece by machine, without costly hand work. On its opposite side is a modern bath, built the same way. And its interior encloses the hot water and heating systems.

"Here is a place for a healthy, happy family to grow up—in spacious rooms flooded with light from large windows. Fresh air is brought in from outdoors, washed, heated in winter, and circulated all year 'round. These are only



a few of the many features in this home which modern production methods can bring within your reach."

NORMAN BEL GEDDES

Largely through copper, the modern house has 200% more living in it than that of a generation ago. For the more copper you get per building dollar, the better the home to own or sell. In this way Revere adds value to houses from roof to cellar. Heating units with Revere Copper cut down service costs. Plumbing with Revere Copper saves on installation and upkeep. Revere Copper guards against wind, damp, cold, insects.

Today, the copper industry is working for Uncle Sam, and copper is restricted for general use. But meanwhile, in Revere's laboratories, research is constantly developing new copper alloys, new uses for copper, new forms for copper. We are working today to be ready for your housing needs tomorrow.

Naturally, it is impossible for Mr. Geddes to give full details about his house in this space. We have prepared an illustrated order describing it fully. We will be glad to send it to you on request. Just write to:



REVERE

COPPER AND BRASS INCORPORATED
Executive Office: 210 Park Avenue, New York

Figure 73

What! A house with no kitchen?"



depends on what you mean by a kitchen. Says the noted architect, Wilbur Smith, in telling about the better homes which tomorrow holds in store: "By a kitchen, you mean that place where a woman wears herself out stretching to get things out where it's hard to be stuck



according to recipe. Dish washing would be cut almost in half. Not only would this kitchen be a work saver, but a pleasure and living center too, because it is really the end-wall of the dining room.

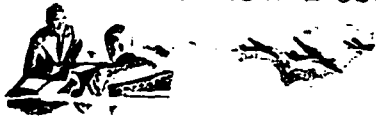
"Of course an arrangement such as this permits a whole new organization of the house. So I have gone on to visualize such a home planned to make housework fun

and convenience in their homes. And in these homes copper is sure to play a vital part.

Already, Revere copper has given our homes protection against wind, rain, snow, termites—has provided us with clean, rust-free water, has helped us heat our homes more comfortably with less fuel, and has cut down both repairs and depreciation. Architects and engineers know that the

Figure 74

This is How Post-War Planning Looks to Us



What the figurative Mrs. Jones has to say about house-keeping problems sound like real post-war planning.

Stripped of vague talk, post-war planning seems to us to be the job of fitting into our lives all the little improvements that have come with the miracles of war production.

Industry is planning for product uses to meet just such domestic problems as confront Mrs. Jones —

Industry is planning ways of building those products to give Mrs. Jones more service for her money than she ever dreamed possible —

Industry is planning methods of distributing those products so that Mrs. Jones (by the millions) can buy the appliances she needs without straining her pocket book — which means — simply greater quality and finer performance for lower costs.

"Now I can plan my day and stop worrying about the help problem."

"What I've learned about these new, automatic controls on household appliances — like those of the home laundry and the electric range — certainly saves me time and my strength in keeping my home in order. I am not afraid of the servant problem."



ORDINARILY, Mrs. Jones might never know that the heart of the time- and strength-saving home laundry is a Mallory precision switch. Probably she would never know — nor care — that from such a precision switch has come outstanding switch performance in war devices that cannot be talked about. But the big idea is that this Mallory switch is a device that gave birth to war products that will help to make peacetime products big factors in better living for all of us.

THE MALLORY business is based on electronics and metallurgy. Essentially, it furnishes precision parts for innumerable products that are part of our daily lives. To its long list of standard products, Mallory is adding new ideas and new techniques available for post-war use. Although we are now engaged wholly in war production, we will be glad to cooperate with any manufacturer in planning the development of technical gains to industrial applications for the consumer's advantage.

P. R. MALLORY & CO., Inc., INDIANAPOLIS 6, INDIANA

MALLORY

SERVES THE AERONAUTICAL, AUTOMOTIVE, ELECTRICAL, GEOPHYSICAL, RADIO AND INDUSTRIAL FIELDS WITH ... RESISTANCE WELDING ELECTRODES ... NON-FERROUS ALLOYS, POWDER METALLURGY AND BI-METALS ... ELECTRICAL CONTACTS ... THE MALLORY® PROCESS-BEARINGS ... SPECIALIZED PRECISION ELECTRONIC PRODUCTS

U.S. PAT. OFF.



Figure 75

FAMOUS LIFE LINES



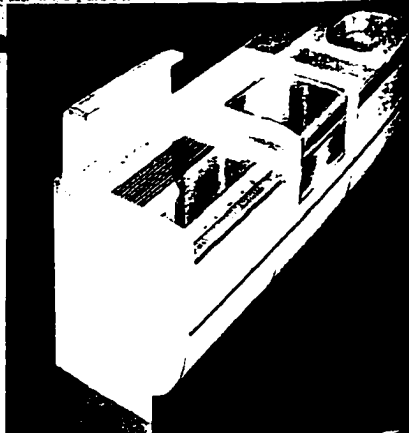
WAR Ship-to-Plane Gasoline Delivery in Sicily—via the General Motors Truck "duck" shown in the background. Fuel, tanks and lubrication "life lines" for tens of thousands of Allied planes, trucks, landing craft and other carriers are made of Bundy Tubing.

Irresistibly, America's might has turned the tide of war toward Victory. And American production will largely determine the kind of world we shall have to live in when peace comes.

On the day of unconditional surrender, another "battle of supply lines" will begin. Again the cry will be for speed—speed of re-conversion, speed of manufacture, speed of transportation to carry needed goods to every corner of the earth.

Bundy, today, is supplying "life lines" of tubing for nearly 10,000 wartime applications. Our production capacity has greatly increased, and hundreds of new tubing uses have been developed for the peace years ahead.

Are you, like Bundy, planning for that time? Have you considered how tubing can be used to improve your post-war products, and cut their cost? Bundy engineers are ready now to help you in your planning. For information, write Bundy Tubing Company, Detroit 13, Mich.



PEACE This sketch by Robert E. Singman, widely known Detroit engineer and industrial designer, gives a hint of the pleasant surprises which housewives may expect in their "gas ranges of tomorrow." Whatever their design, Engineering and Research stand ready to contribute to beauty and efficiency with "life lines" of Bundy Tubing.

BUNDY TUBING



BUNDYWELD Double-walled steel tubing. Hydrogen-bonded, nonpermeated, smooth and outside. From Capillary sizes up to and including 48". See description.



BUNDY ELECTRICWELD steel tubing—single-walled—built under controlled conditions. Available in sizes up to and including 48". See description.



BUNDY "TRIPLE-PURPOSE" Double-walled tubing from two metal supports, welded into a single unit. Available in all sizes. See description.

Figure 76



A Dream Comes True Tomorrow

When a peacetime dawn dispels the dusk of war, the American housewife will find new joy in living in the kitchen of tomorrow. It will be bright, cheerful, efficient—because steel, and especially stainless steel, will make it so.

Designers and engineers already are using their ingenuity in producing plans. And with the coming of peace they will be able to use the fine steels which the greatly increased capacity of Republic's Electric Furnaces makes available to them.

Outstanding among Republic Electric Furnace Steels is ENDURO Stainless Steel—the metal of ten thousand uses—a material with the high strength of steel and the cleanliness of glass.

Because it is inert to fruit, vegetable, meat and dairy products, it neither affects nor is affected by foods. Its hard, smooth surface is sanitary and remarkably easy to clean. A mere wiping with a damp cloth usually restores all its beautiful silvery lustre.

It lasts indefinitely—because it resists rust and corrosion—because it is solid stainless steel all the way through with nothing to wear off.

ENDURO Stainless Steel is only one of the "targeted steels" made possible by electric furnace processing in Republic mills. Others—each made to perform its specific task—are proving in wartime use how precise control in the electric furnace enables them repeatedly to hit exacting marks established by product or fabricating specifications.

Tomorrow holds the prospect of better things to work with and to live with—in the home—in industry—on the farm. Your product may be one of these better things—something that can be designed with enhanced sales appeal and manufactured by economical methods of mass production through the application of Republic Electric Furnace Steels. Republic Steel Corporation, General Offices—Cleveland 1, Ohio. Export Department: Chrysler Building, New York 17, N. Y.

REPUBLIC

ELECTRIC FURNACE STEELS
alloy... stainless... "aircraft quality"

—also open hearth and Bessemer steels—cold drawn steel bars, sheets, strip, plates, tin plate, pipe, tubing, bolts, nuts, rivets, farm



fence materials, wire, nails, shelving, lockers, windows and other steel building items, and many modern fabricated steel products.

Figure 77

IN **NEW-DAY** KITCHENS

NEW EASE OF SPARKLING CLEANLINESS

NEW LONG LIFE FOR CONSTANT SERVICE

WITH
SUPERIOR STAINLESS STRIP STEEL

Stainless steel, employed by the designer for its exceptional utility, durability and appearance, expresses completely the functions of the modern kitchen. Impervious to corrosion, high in strength to resist dents and scratches, bringing peerless luster to moldings and trim, fittings, utensils, flat ware, kitchen electrical appliances and decorative ware, stainless "cleans like a dish" to the joy of every user. These paramount qualities are inherent in SUPERIOR Stainless Strip Steel, plus the great fabricating advantages of long continuous coils in specified widths and thickness . . . uniform compositions and tempers in the various grades . . . precision rolled by strip steel specialists. Consult with us on your coming requirements!

Superior Steel
CORPORATION CARNEGIE, PENNSYLVANIA

Figure 78



Figure 79

IMAGINATION IS THE DIRECTING FORCE AT CHRYSLER CORPORATION

IMAGINATION IN COMFORT

HOW IT BENEFITS YOU



That's you, Mr. and Mrs. Material, across America in the name of the engineer as he studies how springs and location of weight affect riding comfort.

Imagination sees for you with thousands of eyes, rides for you over good roads and bad—in order to make our cars more comfortable for you.

Imagination at Chrysler Corporation has pioneered twenty of the most important improvements in automobile comfort!

These shiny weights and springs help predict how changes in design will affect a car's ride. They make up one of the tools imagination uses to insure the unusual comfort you get in a Plymouth, Dodge, DeSoto or Chrysler.

For imagination at Chrysler Corporation is always developing improvements. It revolutionized automobile design by finding how to match a car's motion to your body's natural comfortable rhythm—so you can drive any one of our cars hundreds of miles a day with minimum fatigue.

The same practical imagination moved front and back seats to the most comfortable locations in the car, redesigned them to give you restful support. It brought you the effortless driving of 2500 Fluid Drive—new ideas in all-weather heating, ventilation and vision.

In our new automobiles—yes, in the very first Chrysler—imagination has supplied the extra values that always set Chrysler Corporation products apart.

Plymouth DODGE DeSoto CHRYSLER

PRODUCTS OF CHRYSLER CORPORATION

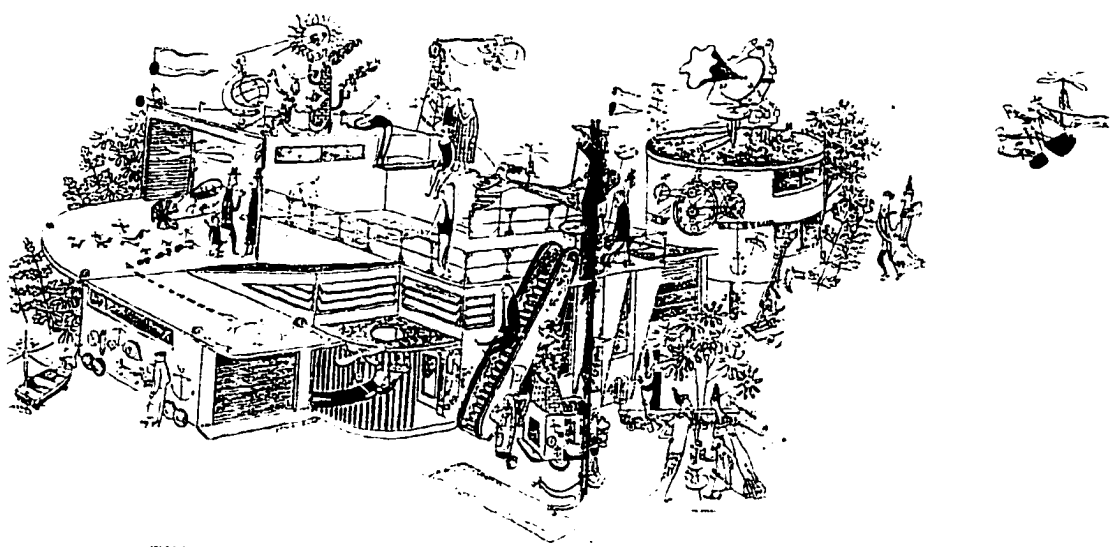
AIRTEMP Heating, Cooling, Dehumidification • CHRYSLER Marine and Industrial Engines • OLITE Powdered Metal Products • MOPAR Parts and Accessories

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Figure 80



Figure 81



THE
MIRACLE HOUSE MYTH

Figure 82

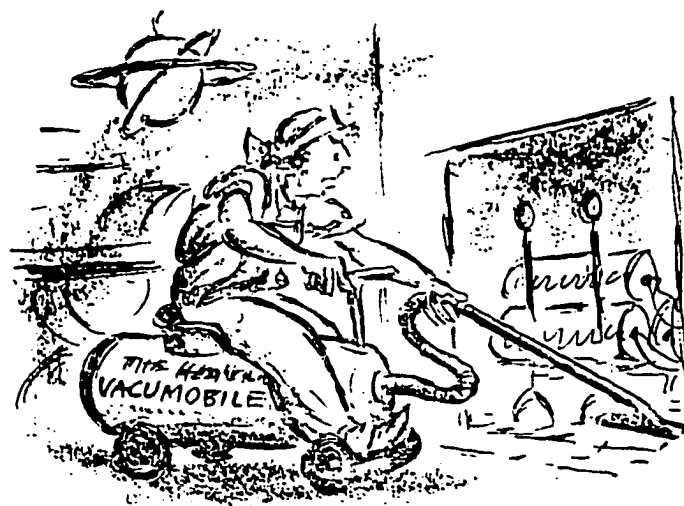
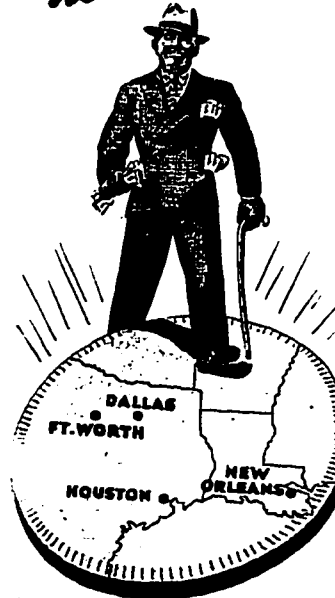


Figure 83



Figure 84

*A market
bulging with
new wealth*



THE NEGRO MARKET of these four INFORMER cities is many times richer today than at any time in its history. Individual and family incomes have reached undreamed-of peaks. And it's a SPENDING market NOW, with War Bonds providing the spending power for tomorrow.

These bulging pockets... and pocket-books, too, are reached by the INFORMER, with the largest Negro circulation in the South. Your message in the INFORMER reaches eager spenders, gets prompt response, establishes tastes and desires that will continue into the future, when sales will be harder to make. Write for free particulars!

THE HOUSTON INFORMER
2418 Leland Houston, Texas

The **INFORMER**
Group
NEW ORLEANS HOUSTON
DALLAS FORT WORTH
Circulation over 38 000
- All at One Low Cost!

Figure 85

MAYTAG'S MAKING WASHERS AGAIN!

But please don't expect to get one right away. Remember, 6,000,000 women are waiting to buy new washers and our production is limited. Remember, too, that a Maytag is worth waiting for!

After all these strenuous years of war production, we're now getting back into our stride making the handsome new Post-War Maytags we promised you, the finest we've ever built.

However, be assured we are bending every effort to get these new Maytags into your dealer's hands as fast as possible.

Even so, you're probably going to have to wait. In the meantime, to make sure you get your new Maytag the very minute it is available, see your Maytag dealer at once.*

The handsome New Maytag "Post-War" models give you:

1. Maytag's *grainite screen*—grate, rotate—saves clothes, saves time.
 2. Maytag's *dump door*—safe, simple, and long step controlled.
 3. Maytag's *gentle spin*—straps lift—saves delicate items.
 4. Maytag's *new power square cast aluminum tub*—big capacity, long life.
 5. New *quality, efficiency, reliability*.
- Plus many important new-day improvements.

*If you don't know your Maytag dealer, write the Maytag Company, Newton, Iowa.

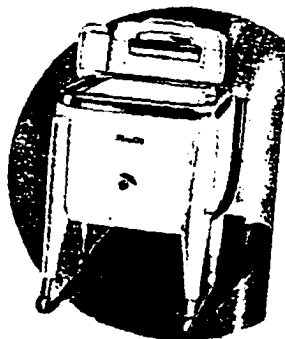
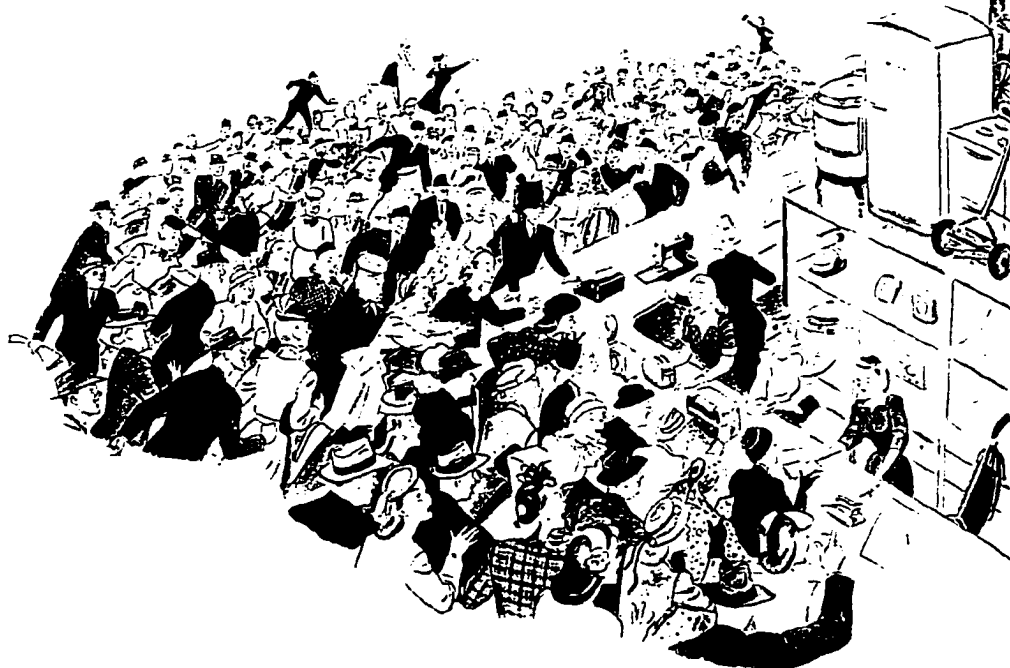


Figure 86

Counter attack!



No one questions America's pent-up, product-hungry eagerness to buy. Nor can we question U. S. Industry's ability, in view of its colossal war record, to meet these peacetime demands.

Texaco too can exceed its own previous output of quality lubricants for peacetime production...

ONE PURCHASE AGREEMENT will serve for all your plants, wherever located, in the 48 states...

INSURING you the benefits of uniform

ity of products and uniformity of performance.

PLUS a convenient source of supply for lubricants and fuels from more than 2,000 Texaco wholesale supply points.

PLUS the services of skilled Texaco Lubrication Engineers, to cooperate in increasing output, reducing costs.

PHONE the nearest of Texaco's more than 2,000 wholesale supply points or write to The Texas Company National Sales Division, 135 East 62nd Street, New York 17, N. Y.

The Texas Company

—in all
48 States



Figure 88

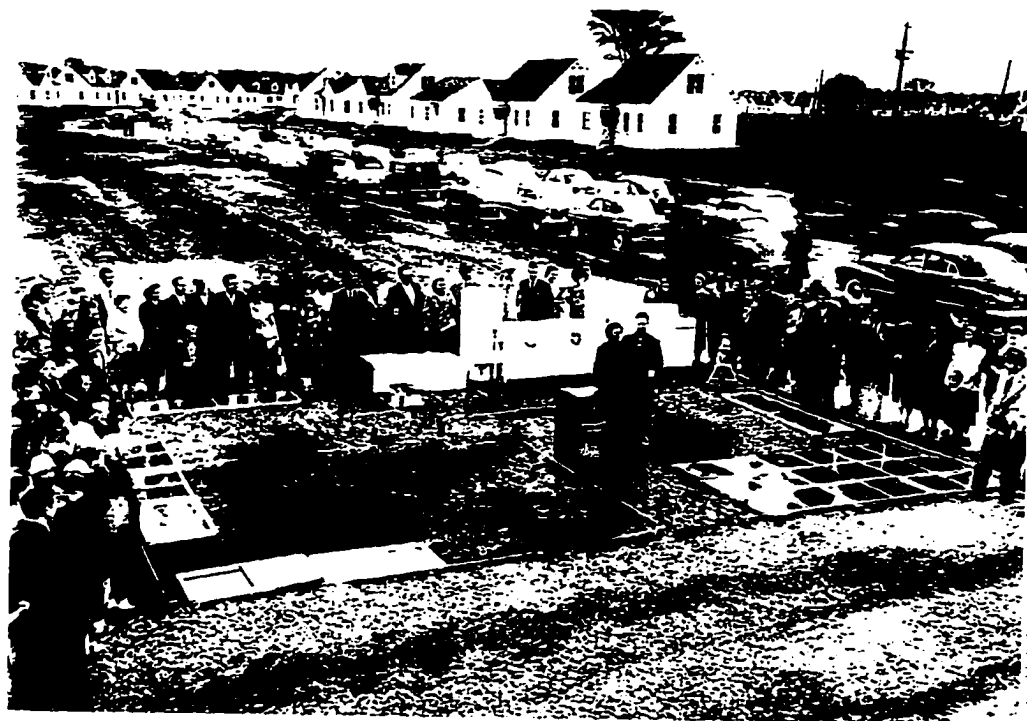


Figure 89

176] THE ARCHITECTS' JOURNAL for February 28, 1946

A T O M B O M B H O U S E

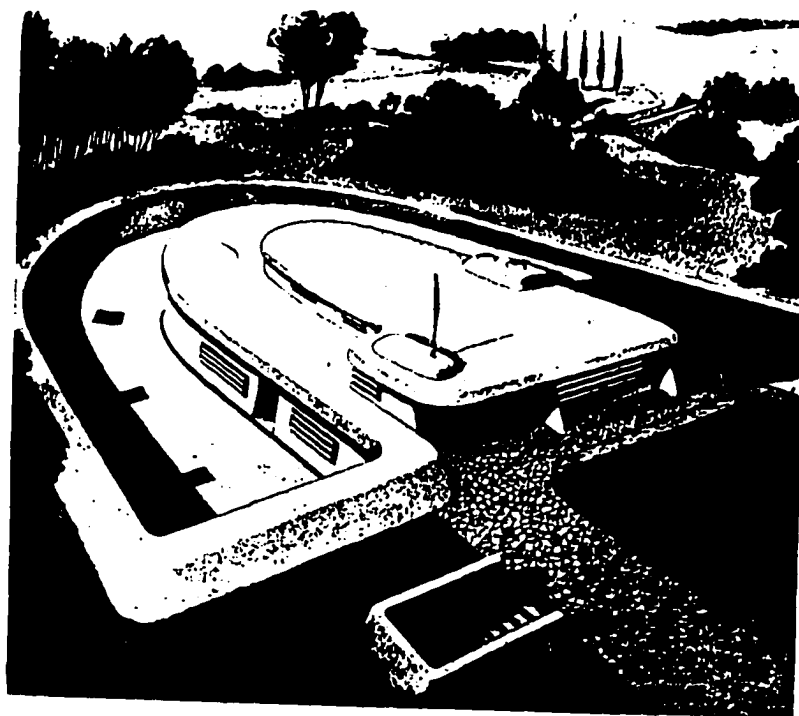
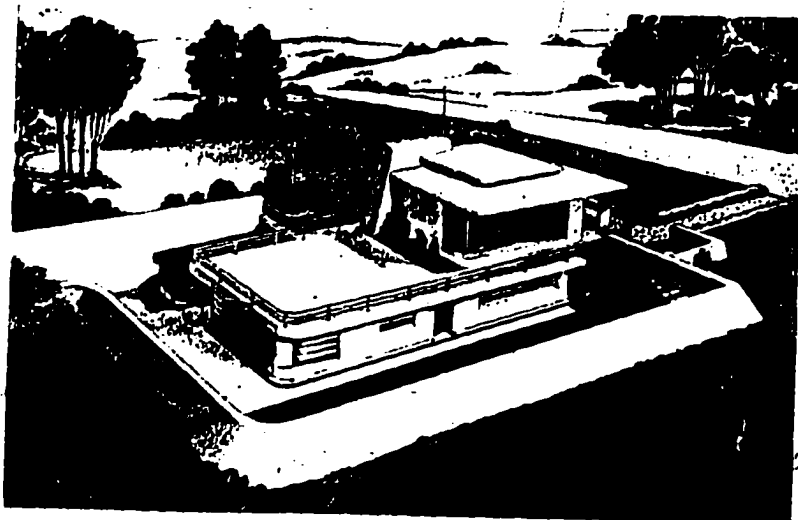
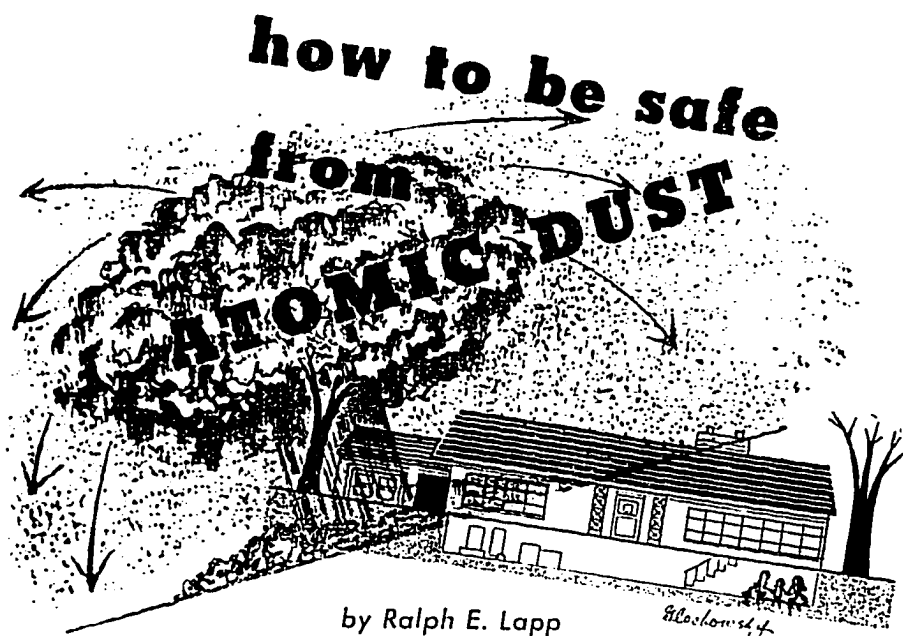


Figure 90



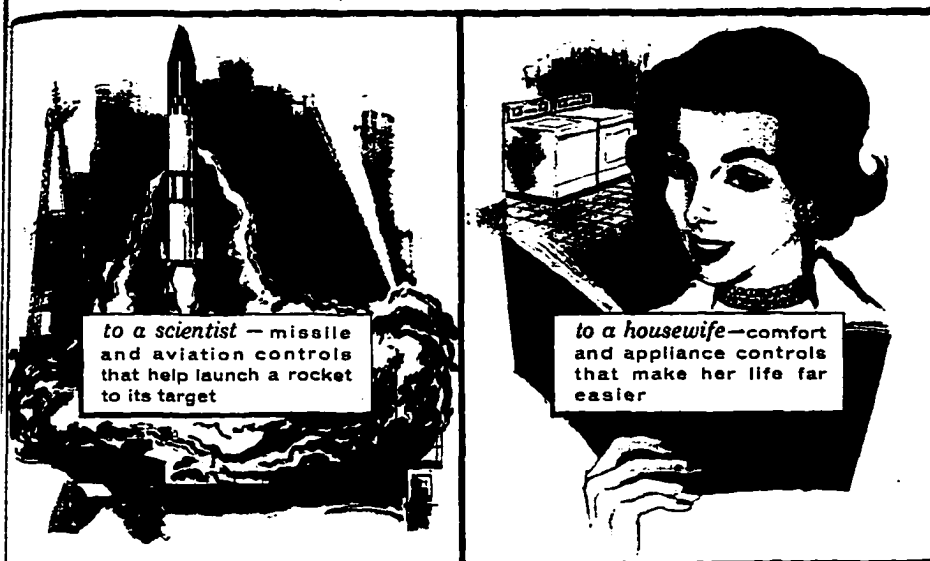
by Ralph E. Lapp

Condensed from *The New Republic*

Figure 91

Controls Company of America

(who are we?)



to a scientist — missile and aviation controls that help launch a rocket to its target

to a housewife — comfort and appliance controls that make her life far easier

how can we work for you?

When it's countdown time for a rocket or missile, it's a precision push-button switch by Controls Company of America that triggers the final shut-off. And both before and after launching, myriad indicator lights (also by CC) flash the vital data that guides it unerringly to its goal.

Closer to home, controls we make put automation to a wide variety of appliances — for heating, air conditioning, refrigeration, laundry and cooking.

Launching rockets or manufacturing household appliances may not be your line. However, creating controls for these and hundreds of other products is the primary concern of Controls Company of America. Yes, CC very likely has a "controlling" interest in your product — only CC offers the total engineering necessary to control all factors... to perfectly mate a system to the product it controls. Write today for further facts on this most comprehensive control service.



If you're looking for a better way to control time, flow, temperature or motion, our creative engineering service may help you find it. We can supply single controls or complete, integrated systems.



Creative Controls for Industry
CONTROLS COMPANY OF AMERICA

EXECUTIVE OFFICES: SCHILLER PARK, ILLINOIS

HEATING AND AIR CONDITIONING CONTROLS DIV. NEWAIRE, WIS. APPLIANCE AND AUTOMOTIVE CONTROLS DIV. SCHILLER PARK, IL. STAMOND COMPANY INC. OMAHA, IOWA NEWAIRE VALVE COMPANY NEWAIRE, WIS. HETHERINGTON, INC. POLSCOFT, PENN. LAKE CITY, INC. CRYSTAL LAKE, IL. CONTROLS COMPANY OF AMERICA (CANADA) LTD. COOKSVILLE, ONTARIO, CANADA INTERNATIONAL SERVICE, SCHILLER PARK, IL., U.S.A. CONTROLS AG, ZUG, SWITZERLAND CONTROLS S.A. (ROMANIA) BUCURESTI, ROMANIA HOLLAND CONTROLS COMPANY OF AMERICA (ARGENTINA) SRL, BUENOS AIRES, ARGENTINA

Figure 92

Your chapped, even cracked hands –
 now *SEE* them heal – *FEEL* them heal
 with new

War-Proved Healing Agent



You can't be proud of hands that are hurt... by detergents, cold weather, cuts, and the millions of invisible wounds that are called "chapping".

Only healthy skin can be beautiful. And only Revlon Aquamarine Lotion contains this active agent that *heals as it softens*. You'll see proof everywhere – elbows grow young and smooth, "pump bumps" melt away. Why not begin today to correct skin that feels old, dry, tight, with this luxury lotion?

* Glysoyl Diarside (pronounced gly-ss-ill dy-you-ee-side) is a colorless, odorless ingredient whose regenerative effectiveness was proved in the war. It stimulates cell growth, forms healthy new skin unbelievably fast. The name is in medical journals – and now, on every bottle of Revlon Aquamarine Lotion.



Only in *Revlon*

AQUAMARINE LOTION

Figure 93



Rocketing into your daily life!

WORLD'S NEWEST COOK-AND-SERVE WARE

CORNING * WARE

made of an astounding new missile material, Pyroceram[®]

-for all its beauty, it can't crack from heat or cold



Figure 94



Armco markets range from rockets to tableware

They're both made of Armco Stainless Steel—but not the *same kind of* stainless steel. The missile is jacketed in a revolutionary new steel that keeps air friction from destroying it. The tableware is made of a stainless steel that holds a soft, lustrous finish.

Each of these products has its own pattern of demand. Yet, they are only two of thousands of uses for *one* family of Armco products.

Other Armco product families have equally broad markets: zinc and aluminum coated steels, special electrical steels, and steel products such as drainage structures and steel buildings.

This broad group of products helps level the hills and valleys of tonnage demand. It keeps Armco sales more evenly distributed throughout the year.

Plant locations near big industrial areas are also strong assets. Armco's major steel producing plants are located near the hub of a heavily concentrated complex of defense plants, automobile stamping plants, appliance plants, and general sheet metal fabrication shops.

This diversification of plants and product lines—and a growing list of new steels—is adding momentum to Armco's sound and steady growth, both at home and throughout the rest of the free world.

ARMCO STEEL

ARMCO STEEL CORPORATION MIDDLETOWN, OHIO



SHEFFIELD DIVISION • LAMINATIONS & METAL PRODUCTS DIV. • THE ARMCO INTERNATIONAL GROUP INC.

© 1964 Armco Steel Corporation. All rights reserved.

Figure 95

Coming—another million tons of Armco Steel ...and here's how you will benefit



Another Armco expansion program under way. To help make sure there's plenty of steel for products you buy or sell, Armco is adding a million tons of steel-making capacity in the next 12 months. Still more is planned for the years that follow.



Greater security for America. Armco Special Steel makes tanks, aircraft, and other equipment stand guard along America's coast lines and borders. And Armco Research is constantly developing new steel alloys to meet the security needs of the nation.



More steel in their future. Four million babies will be born this year. Products of Armco Steel that you make or sell will help give them a better life. Of the car, beds, bicycles, toys, and eventually steel appliances and equipment for their homes.



Better living for America's families. Armco Steel can add to your longer life by making products you make for the nation's homes. Working, porcelain-enameled appliances, add-on units, kitchen standards, fittings, and fixtures—steel, lasting as long as you live.

ARMCO STEEL CORPORATION



PHILADELPHIA, PA.

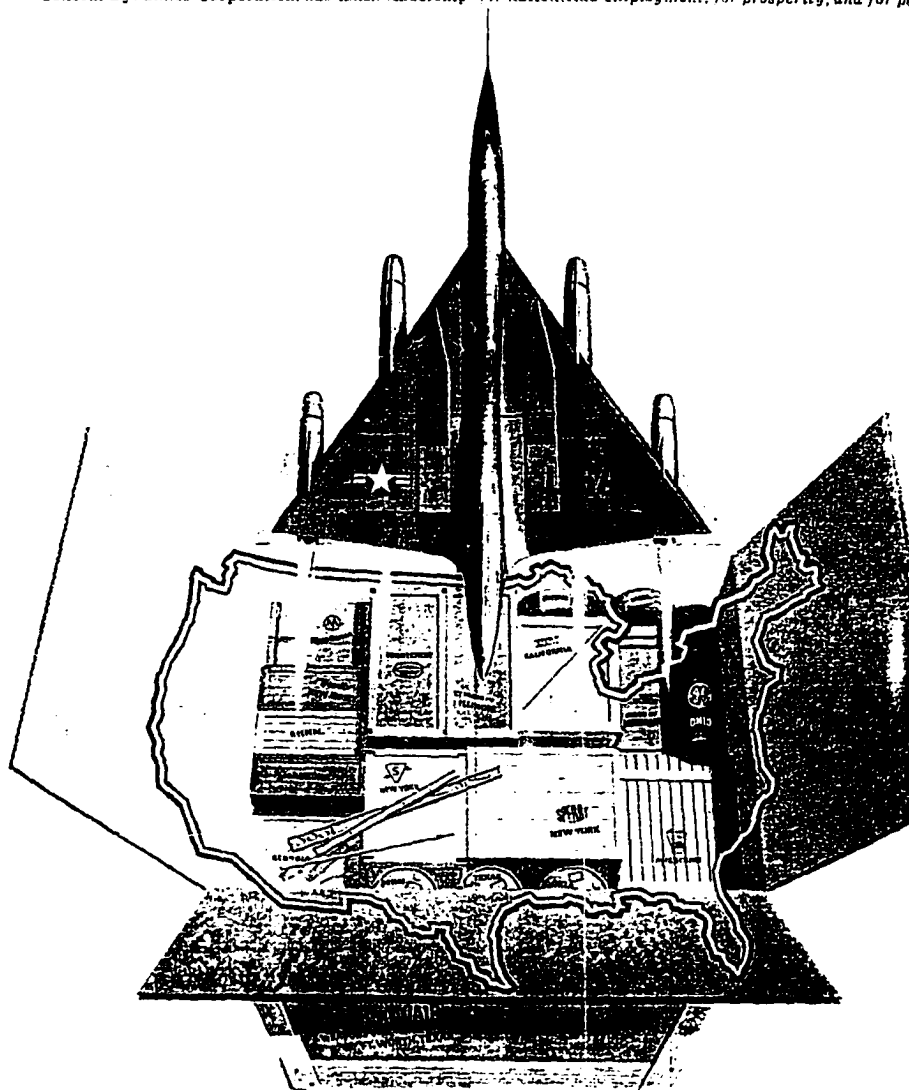
SHEFFIELD STEEL DIVISION, ARMCO CHINA, IRON & METAL CO., LTD., SHEFFIELD, ENGLAND, THE ARMCO COMPANY, PITTSBURGH, PA.

U.S. PATENT OFFICE: U.S. PATENT 2,811,000

Figure 96

From every part of the nation...
come the parts for the B-58!

The B-58, America's first supersonic bomber, is a product of Convair and more than 4,700 participating suppliers and subcontractors located in every part of the nation! This does not include the tens of thousands of companies who receive business from Convair's direct suppliers. At Convair-Fort Worth under the Weapon Systems Management concept, two out of every three dollars spent for the U.S. Air Force on the B-58 are paid to these supporting businesses for material and labor. In this, the American way, Convair, a Division of General Dynamics Corporation, has taken leadership—for nationwide employment, for prosperity, and for peace.



CONVAIR
A DIVISION OF **GENERAL DYNAMICS CORPORATION**

Figure 97

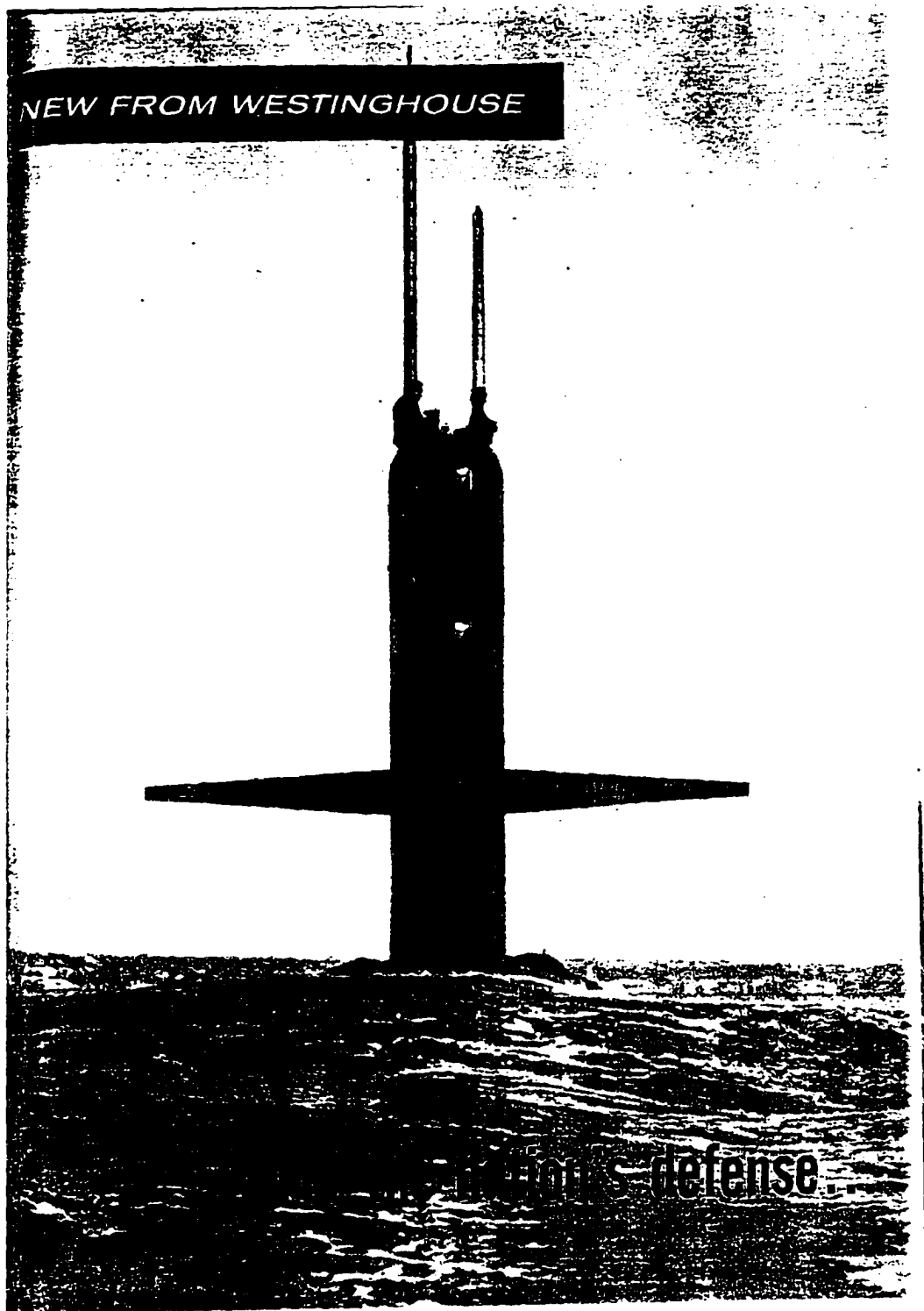


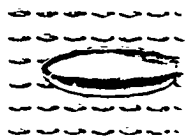
Figure 98



50 States
thrive on
Bridgeport
Metals

BRASS, to brighten a lady's luggage

Sales are **ON** to a Flying Start with lighter, brighter, Summate luggage, America's most popular traveling companion. Beauty, strength and lasting value are important reputation builders in the luggage field - that's why Summate uses Bridgeport's **Five Four Brass** for zippers, locks and handle sockets. This alloy is exceptionally smooth after brushing, forming no drawing and runs by itself in a high heat of heat zone. Brass handles draw a multitude of fine jobs. Its strength, toughness, ease of working and beauty of finish offer outstanding benefits to both industry and consumer.



...ALUMINUM, to take a ton off a tank

Mobile, Fast, and Packed With Fire Power, the **Light** battle tank is one of the most potent armored vehicles in the world. Greatly increased mobility through weight reduction is a factor in its superiority. Nearly a ton of dead weight has been removed in the revolutionary switch from steel to Bridgeport's aluminum wheels - the first used on any tank. Forged, a Bridgeport design which provides the rim and silicon ring, the aluminum wheels are tougher, stronger and lighter.

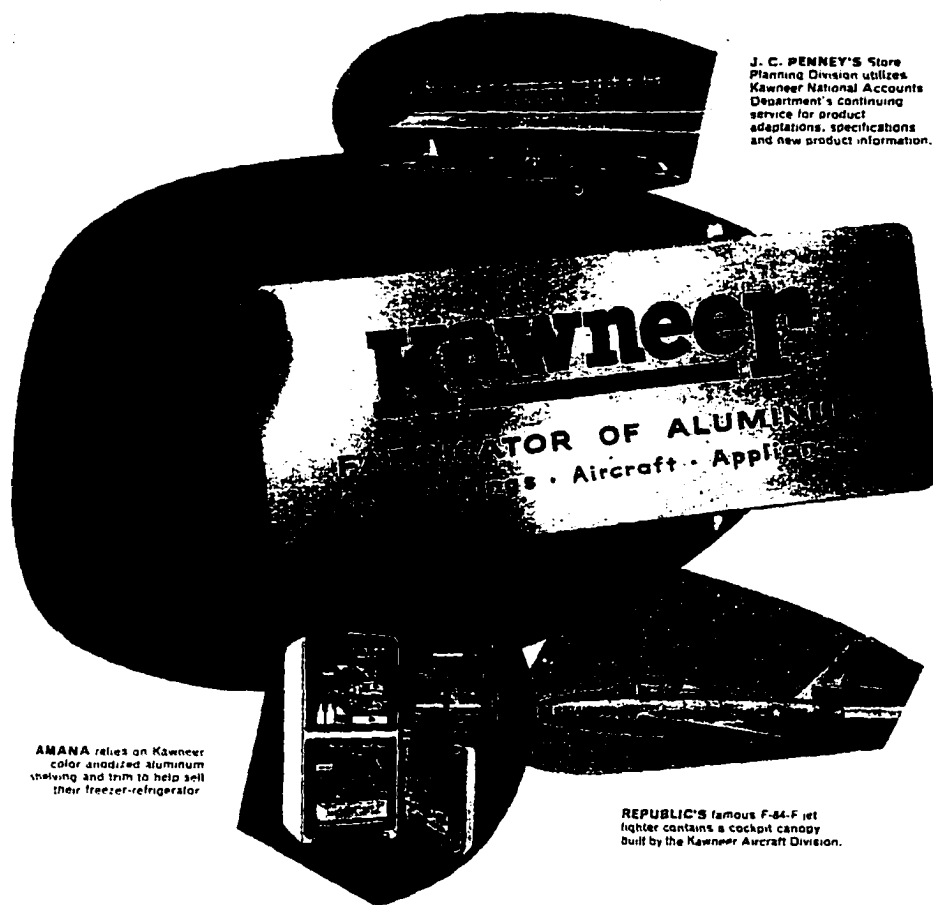


Looking for new wheels in metals? To learn how Bridgeport's wide range of metals can help you make better products faster, call our nearest office or write today. Dept. 2605, Export Brass Company, Bridgeport 2, Conn.

BRIDGEPORT BRASS COMPANY

Specialists in Metals from Aluminum to Zirconium 

Figure 99



J. C. PENNEY'S Store Planning Division utilizes Kawneer National Accounts Department's continuing service for product adaptations, specifications and new product information.

AMANA relies on Kawneer color anodized aluminum shelving and trim to help sell their freezer-refrigerator

REPUBLIC'S famous F-84-F jet fighter contains a cockpit canopy built by the Kawneer Aircraft Division.

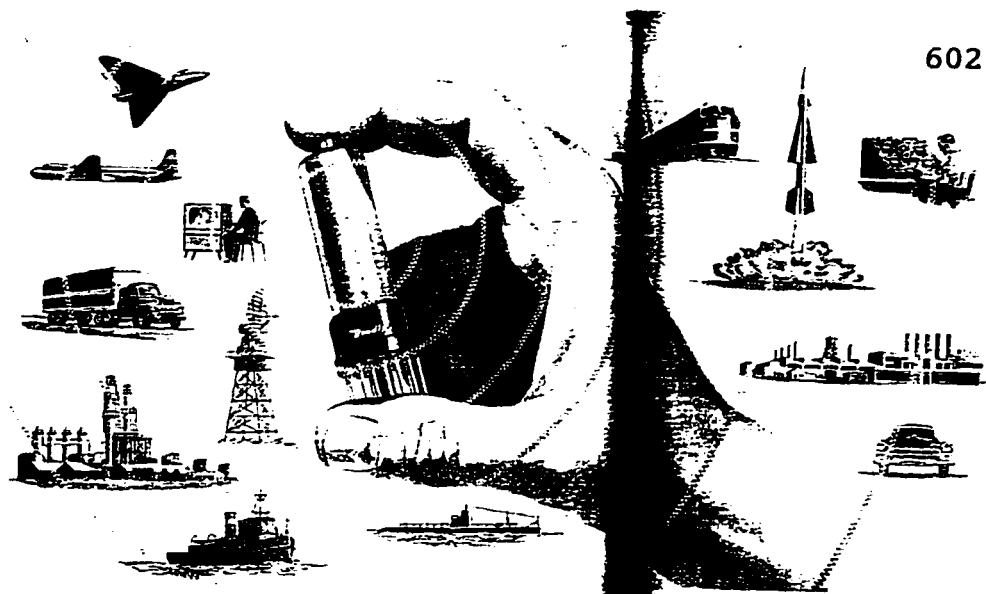
Kawneer's feel for metal working and finishing, developed over 50 years, has resulted in a knack for aluminum fabrication that few others can match.

Accept nothing less than

Kawneer

THE KAWNEER COMPANY CONSISTS OF A NATIONWIDE NETWORK OF STRATEGICALLY LOCATED SALES ENGINEERING OFFICES, FACTORIES AND WAREHOUSES:
 EXECUTIVE OFFICES—Akron, Mich. FACTORIES—Berkeley, Cal., Cynthia, Ky., Laington, Ky., Miles, Mich., St. Charles, Ill., Toronto, Ont.
 WAREHOUSES—Atlanta, Ga., Brooklyn, N. Y., Cambridge, Mass., Chicago, Ill., Dallas, Tex., Los Angeles, Cal.
 SALES ENGINEERING OFFICES: Buffalo, N. Y. Cincinnati, O. Dallas, Tex. Kansas City, Mo. Minneapolis, Minn. Philadelphia, Pa. Pittsburgh, Pa. Sacramento, Cal. Wichita, Kan.
 Albany, N. Y. Berkeley, Cal. Cambridge, Mass. Cleveland, O. Denver, Colo. Los Angeles, Cal. New York, N. Y. Phoenix, Ariz. Richmond, Va. St. Charles, Ill. Toronto, Ont.
 Santa, Ga. Brooklyn, N. Y. Chicago, Ill. Cynthia, Ky. Detroit, Mich. Memphis, Tenn. Oakland, Cal. Portland, Ore. Seattle, Wash. St. Louis, Mo. Havana, Cuba

Figure 100



Bendix Electronic Devices perform hundreds of vital tasks for every basic industry!

Necessity was surely the mother of electronics. Braddy speaking, man's progress in science and mechanics was rapidly outstripping his physical and mental ability to employ his developments efficiently, and to be harnessed the electron and made it do thousands of both mental and extremely vital tasks for him—ranging from calling out line orders on booklets to reporting what goes on in a guided missile in flight.

In the latter case, for example, within the span of a two-minute flight period at speeds of thousands of miles per hour, Bendix electronic telemetering equipment transmits simultaneously over one hundred different categories of information back to the ground. This information would be valuable, of course, if Bendix had

not also developed high speed electronic receiving and recording equipment, as well as digital and analog computers to quickly catalog this fund of knowledge which otherwise might involve months of labor by expert mathematicians.

Relatively speaking, electronics is in its infancy every hour every day it performs new jobs with increasing efficiency. And the future looks particularly bright of its broad, almost universal, application.

We cannot possibly describe in this small space the great variety of Bendix electronic devices. Listed right are some of the electronic products developed and manufactured for the aviation, automobile, railroad, marine, communications, television and

other industries. They are solid evidence that Bendix has a top-ranking position among developers and producers of electronics.

There must be many ways these and others of our thousands of products can improve the efficiency of your operations. The booklet "Bendix and Your Business" offers many suggestions and will be sent on request.

ENGINEERS: Looking for real opportunities? Bendix has a great deal to offer. Write to Director of Engineering at the address at right.



Figure 101

Heads Up! FOR '53...
HERE COMES
OLDSMOBILE!



*Optional at extra cost. See illustration above. Oldsmobile Super "88" Holiday
shown. New United States. Each also now on display at your dealer's.

*...with a new higher power, higher compression,
 higher voltage "Rocket" engine!*



This is the only car... been a fact for... The power... of...
 the... It... the... of... New... Oldsmobile...
 packed with... features than... ever... any...
 automobile! New "Rocket" Engine for dazzling new "Rocket" action!
 (Pride) in... for quicker... stops... You...
 Power... for... other... Power... for...
 ter, easier parking, turning... New... for...
 brilliant... All in all, it's the...
 rare... Oldsmobile... SUPER 88!



New "Rocket" Engine!
 New 160 H.P.
 New 3 to 1 Compression Ratio!
 Plus new 12-Volt Ignition System!

Figure 102

see! the cleaner that walks on air!



Actual photograph of a store demonstration

New kind of cleaner floats on its own airstream... takes the pulling and tugging out of cleaning

Now Hoover turns the job of moving the cleaner over to the cleaner itself. The new Constellation floats along after you under its own air power. It follows you so easily you almost think it can read your mind.

The Constellation's amazing "float" makes cleaning just a matter of guiding the new 4-wheel nozzle... with one hand. And, notice, Hoover's doublestretch hose gives you plenty of extra reach. You reach more dirt and get more... thanks to the powerful suction from Hoover's full-horsepower motor.

See the new Hoover that walks on air at your dealer's now. In a fresh new color scheme that gives you a lift, too. The new Hoover Constellation, Model 35, including tools... \$89.95



New Hoover steam die iron. First with stainless steel soleplate. Outglides all others on any fabric.

HOOVER.
FINE APPLIANCES

...around the house, around the world



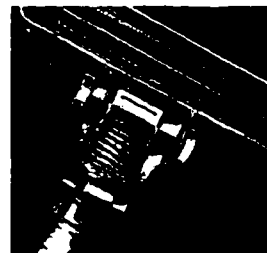
NEW! CARRIES ITS OWN FOOLS. Snap the park on place and let your foot ride zigzag back. Notice the hand's rest holder.



NEW! TELESCOPING WAND. Extends out to twice its own length. New catch locks it securely in place. Can't come apart.



EXCLUSIVE! DOUBLE STRETCH HOSE. Gives you world's longest reach... 16 feet for cleaning anywhere in the house.



EXCLUSIVE! 1-WHEEL NOZZLE. Glides over rugs with one-third the usual effort. Flexible neck lets you reach under low furniture.

Figure 103



Jet Recovery

← means water that's really hot for tub or shower. No more waiting. Always a plentiful supply.



Jet Recovery

← means hot water aplenty whenever you want it for sparkling clean dishes.



Jet Recovery

← means always enough hot water to take care of the biggest wash. There's nothing more dependable than a Coleman Water Heater with Jet Recovery.



Automatic Water Heaters

- Multiple Heat Chamber
- Engineered Insulation
- Automatic Fuel Control
- High Efficiency Burner

All these big value features add up—JET RECOVERY! Assures plenty of hot water for all your hot water needs *instantly!* You'll want to know more about Coleman fast water heating—write today! The Coleman Company, Inc., Wichita 1, Kansas.

America's Leader in Home Heating

THE COLEMAN COMPANY, INC.
 Dept. AH-881-1, Wichita 1, Kansas

Please send me more information on Coleman Water Heaters.

Gas Oil LP-gas

Name _____

Street _____

City _____ Zone _____ State _____

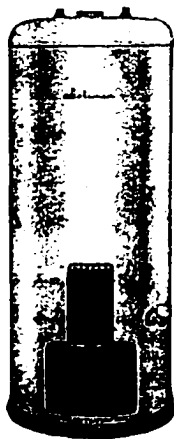
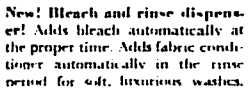
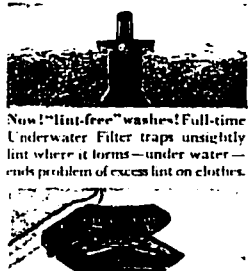


Figure 104

NEW! HOTPOINT WASHER WITH TOUCH COMMAND!

One touch of your finger gives you correct washing method for every known washable.



Now! "Lint-free" washes! Full-time Underwater Filter traps unsightly lint where it forms—under water—ends problem of excess lint on clothes.

Now! Bleach and rinse dispenser! Adds bleach automatically at the proper time. Adds fabric conditioner automatically in the rinse period for soft, luxurious washes.

Your best blanket, your smartest wash and wear, that party tablecloth... makes no difference what it is, if it's washable your new Hotpoint is designed to wash it *beautifully!* It's yours to command—just push a button and you have the right washing method for any kind of fabric. Automatically, with Activated Deep Rinse, you get the right kind of wash—soft, safe and certain. Beautifully clean—

whites so white and colors so bright! And, cold water added during the last minutes of wash-and-rinse cools clothes and discourages wrinkles. Unlike ordinary washers, all Hotpoint Washers are porcelain inside and out—to protect against rust, stains and scratches. The superior mechanism gives you smooth, quiet, long-time service. At your Dealer's now!



Hotpoint

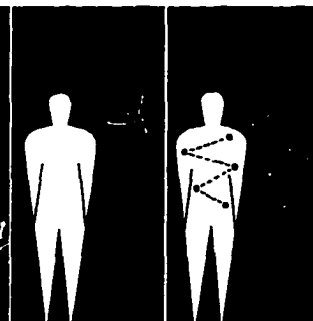
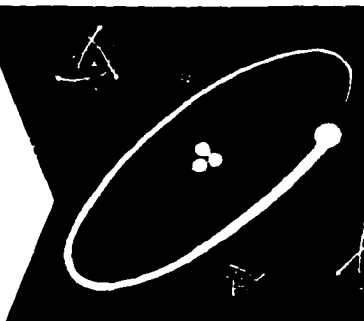
(A Division of General Electric Co., Chicago 44) LOOK FOR THAT HOTPOINT DIFFERENCE.

Figure 105

6

LADIES' HOME JOURNAL

from the laboratories of atomic medicine comes new proof of a more effective way to relieve distress of colds...



This is a peaceful atom working for human health. Its job is to trace how medicines act in the body—where they go, how fast, what they do.

Scientists used this atom in animal laboratory tests on many colds medications—found Vicks VapoRub acts faster, works hours longer!

ATOM TRACER TESTS

PROVE... **VICKS VAPORUB** acts faster, longer than aspirin or any cold tablet

... WITHOUT INTERNAL DOSING



When your child has a cold, rub VapoRub over the area of lungs and heart—throat—back and neck where cold tension is. Acts instantly.



VapoRub penetrates while medicated vapors relieve head, throat, cough, bronchial congestion. Works as long as 10 hours. Your child feels good again fast.

While aspirin and cold tablets are still in your stomach... Vicks VapoRub is already treating nose, throat, bronchial area—keeps bringing relief hours after those tablets have stopped working.

Now—from the laboratories of atomic medicine comes *new proof* of a more effective way you and your family can get relief from miseries of colds.

For scientists have used atom tracer tests to check the action of colds medications—and found that Vicks VapoRub acts faster and longer than aspirin or any cold tablets.

No other type of colds medication treats all 3 cold areas—nose, throat, chest—all at once—for hours—with every breath—without internal dosing.

So it's no wonder that more mothers



rely on Vicks VapoRub than any other medication. Why don't you turn to VapoRub, too? Enjoy the fast relief—the peace of mind—VapoRub can bring.

Vicks VapoRub and Asian Flu

Whether caused by a cold or Asian Flu... VapoRub relieves nose stuffiness, coughs, local bronchial congestion—for symptoms aspirin does not help. If fever, call your doctor.

*"Vicks" and "VapoRub" are registered trademarks of the V.I.C. Chemical Co., Greenburgh, N.Y.

Figure 106

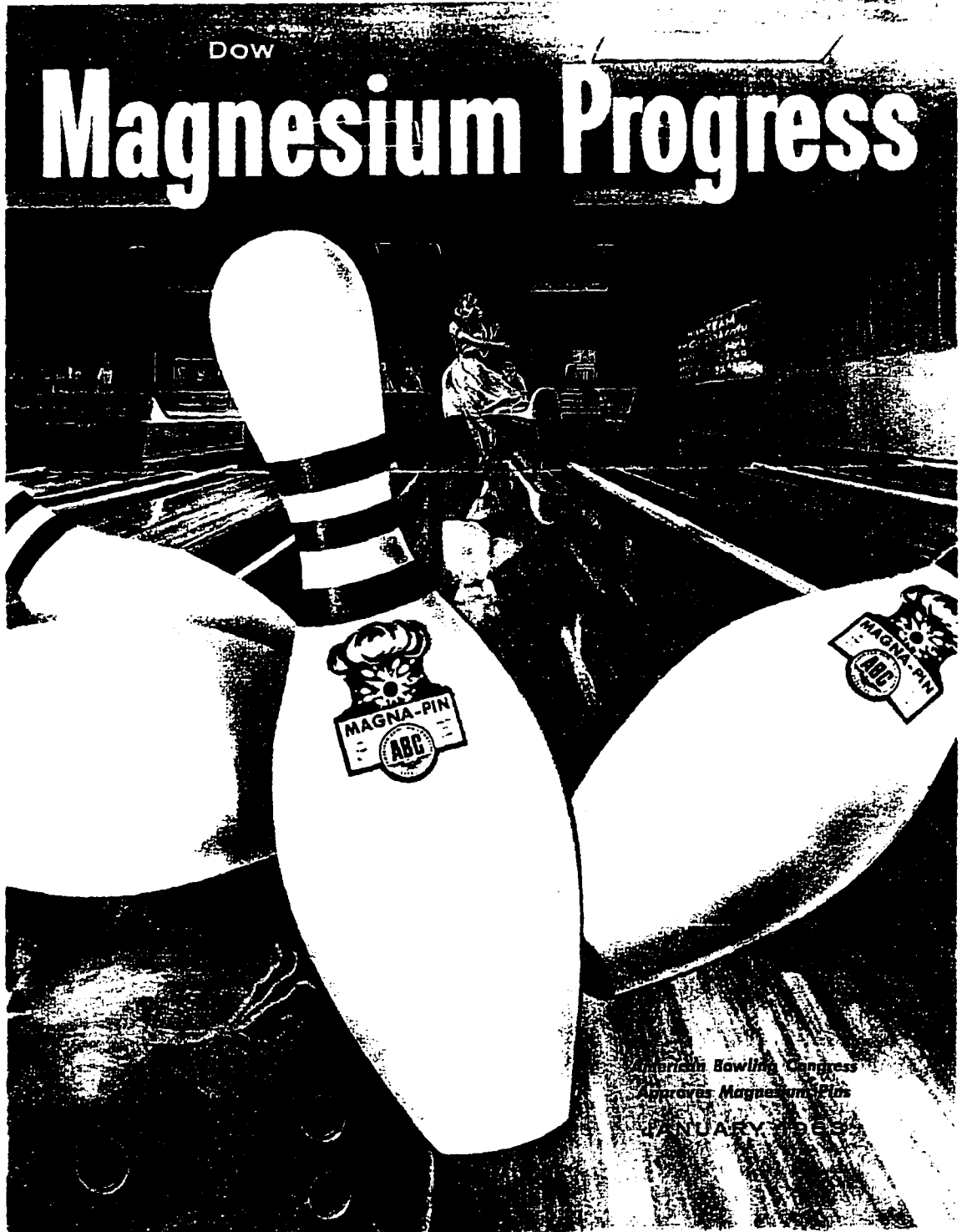


Figure 107

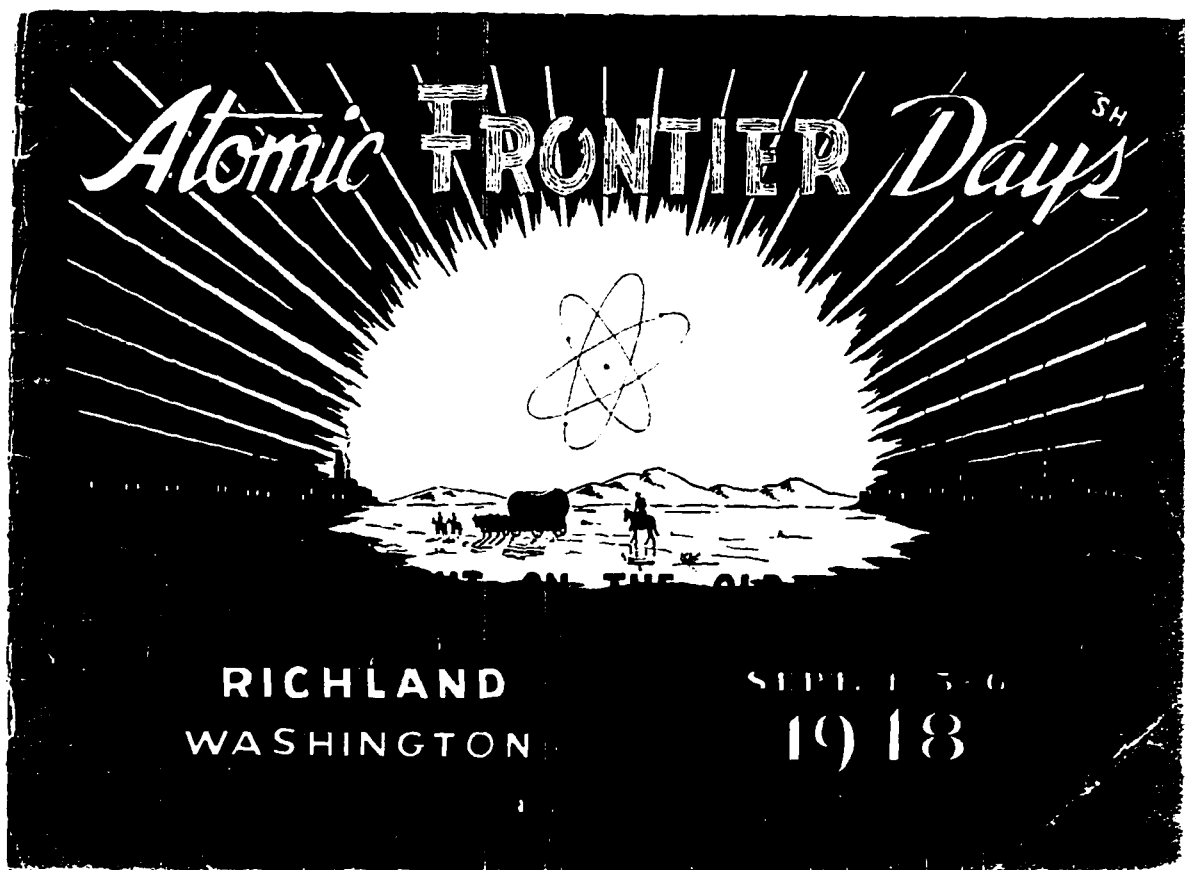


Figure 108

1950



Down the corridors of time during these past fifty years there have poured so many products of American ingenuity, so swiftly, it is fitting that we pause now at the Mid-Century point to examine the unexcelled opportunity for Better Living that is the Miracle of America. . . It is a Miracle inspired by freedoms which reward men for enterprise in relation to their contributions to the well being of all. . . Share in it by appreciating the fact that the better we produce, the better we live. . . Share in it by seeing and acquiring the magic products of our Progress which will help you make your earnings go farther, your time yield more happiness for you and your family.

*THE
MIRACLE
OF
AMERICA
THRIVES ON PROGRESS*



STORE NAME

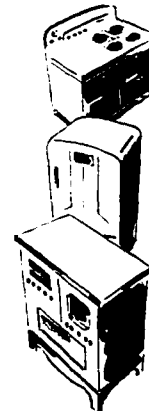
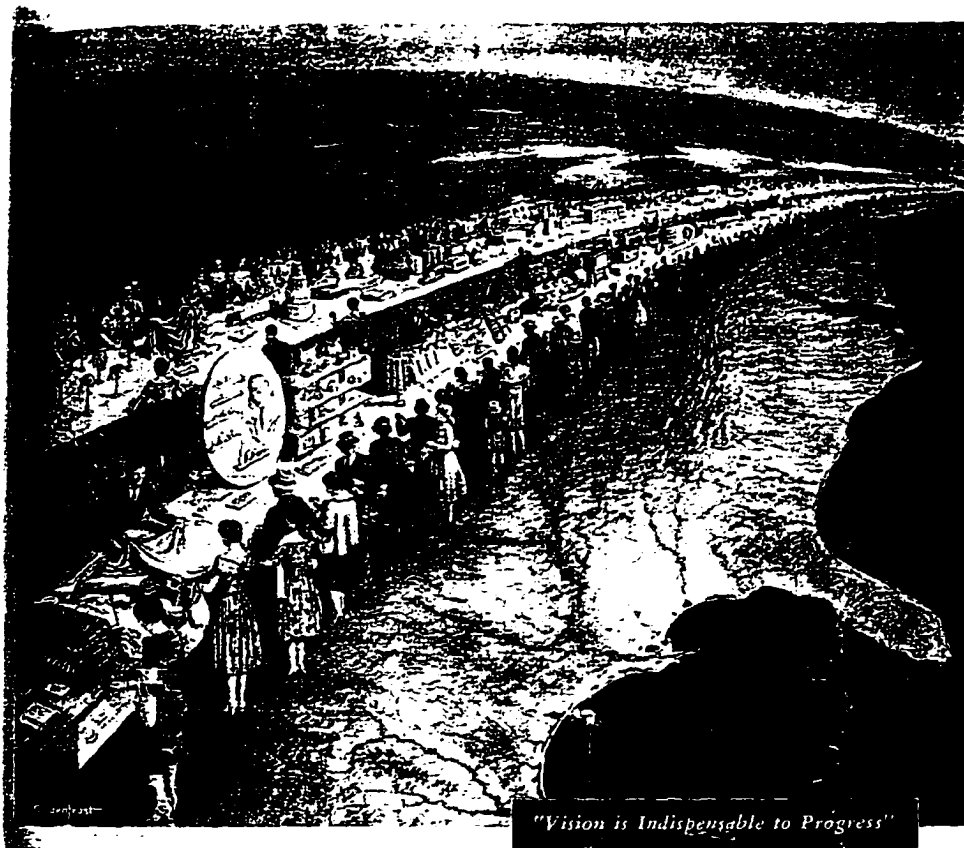


Figure 109



"Vision is Indispensable to Progress"

Cross-country counter—showcase of free enterprise

Free choice in a free market—that's what "just looking" means to more than 20 million Americans shopping in the nation's department stores every weekday. The department store shapes its existence around *you*, the customer—you with your love of home and family, your desire to be well-dressed, your enthusiasm for travel, sports, social life.

Today's popular retail merchant, with an alert eye to competition, applies experience, judgment and imagination to the selection and development of more and more quality merchandise. He presents it in attractive displays and timely pro-

motions. He watches trends in taste. He studies changing patterns in living. He continually improves the appearance, comfort and efficiency of his store. His goal—a growing share in a mounting \$15 billion annual sales volume, won through your confidence in the integrity of his firm name.

At this moment, your favorite department stores are entering into exciting new areas of progress and

service: simplified selling and intensive consumer research; prepackaging; specialized personnel training; functional suburban branches; engineering techniques applied to stock-taking and record-keeping.

With an unlimited variety of goods from many lands placed before them, thanks to the individual initiative of our nation's retailers, the American people enjoy a freedom of choice unmatched throughout the world.

BANKERS TRUST COMPANY

16 WALL STREET, NEW YORK 15, N. Y.

MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION



Figure 110



**PUTTING THE WORLD IN
HER MARKET BASKET**

Did it ever occur to you that when a housewife strolls down the aisles of a modern market she practically takes a trip around the world?

Within her reach are the choicest fruits and vegetables grown in America, meat from a dozen states, fish from the seven seas, coffee from our gaudy neighbors to the south, tea from the Orient and delicacies from both the New and Old Worlds.

These foods travel miles to her market basket, and are available irrespective of season. For example:

Her family can eat tomatoes, peas and sweet corn when snow covers much of the farmland where these crops are grown. They can enjoy spinach, beans and asparagus when the fields are bare and brown. They can even enjoy apples, peaches, pears and cherries when there's not a sign of fruit on the trees.

A big share of this canned food that puts "the world in your market basket" 365 days a year is in Continental containers bearing famous names and brands that are your guarantee of quality. In addition to cans for food, Continental makes more than 300 sizes and styles of containers for products like oil, drugs, cosmetics, household conveniences and paints.

Everybody at Continental realizes that providing a dependable source of cans and other containers is a tremendous responsibility. And we will do our utmost to meet every demand for them in these critical times.

**SERVING INDUSTRY
... SERVING AMERICA**

See our nearest office for Continental Containers in 23 states, 100 cities, 17 foreign countries and 42 other offices.

CONTINENTAL © CAN COMPANY
CONTINENTAL CAN BUILDING 100 F. 43rd ST. NEW YORK 7, N. Y.



Figure 111

put
in your life
with the new MAGIC CHEF for 1960

Enter Magic Chef's Easy Way... go on a shopping spree with Mom and Dad on the fairway. Put the life you like, Magic Chef, on the cooking under control.

It's as easy as this. Simply set the hour you want to serve your roast; then set the dial at its weight. That's it! Your main course is waiting—ready to serve—when you come home.

Come supper time, you and MAGIC CHEF are ready with the delicious homecooked dinner Dad and the children love.

1960 MAGIC CHEF Ranges are at your dealer's now. See them Soon!

Magic Chef
Cleveland, Tennessee

MAGIC CHEF CONTROL CENTER
The 1960 MAGIC CHEF Range features a new Magic Chef Control Center including the new Magic Chef Magic Roasting Control. Oven controls include Over-Cook Control, Magic Meat Monitor for top of the range, and easy cooking and Bake Oven Signal Light.

Put a touch of elegance to your kitchen with the 1960 MAGIC CHEF Range. Sculptured Range, Shining Gold sculptured panels, tapered chrome handles, shimmering all-steel enamel.

Is the 1960 MAGIC CHEF Range the most modern range design?

The 1960 MAGIC CHEF Range has won more than 30 A.G.A. medals and is the GOLD STAR AWARD.

The A.G.A. Award

Figure 112

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Cranbrook Archives, Bloomfield Hills, Michigan. Saarinen Family Papers.

Dow Chemical Corporation, Post Street Archives, Midland, Michigan.

Duke University, Durham, North Carolina, John W. Hartman Center for Sales, Advertising, and Marketing History. J. Walter Thompson and Darcy, Masius, Benton, and Bowles Collections.

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- Brooklyn Public Library, Brooklyn, New York.
- Duke University Libraries, Durham, North Carolina.
- Central Research, New York Public Library, New York, New York.
- Hoyt Public Library, Saginaw, Michigan.
- Michigan State University Library, East Lansing, Michigan.
- Science and Business Library of the New York Public Library, New York, New York.

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American Home
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Architectural Forum
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House Beautiful
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