"The Sun's Only Rival:" General Electric's Mazda Trademark and the Marketing of Electric Light

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Introduction

In 1909, the General Electric Company launched an intense advertising campaign to promote "Mazda," a new trademark for incandescent light bulbs. Rather than identifying an individual product—the corporation did not introduce any new lamps that year—the Mazda name designated a service guarantee spanning the line of lamps produced by GE and its subsidiaries. By the turn of the twentieth century, GE exerted unparalleled control over the electric light bulb market in the United States. However, in contrast to earlier monopolies established through the exclusive access to raw materials, GE's market dominance was built upon innovative research and development. The Mazda mark was an attempt to symbolize the imperceptible research and technological improvements pioneered by GE for the public in a market in which all bulbs essentially looked the same. Significantly, the etymology of the word "Mazda" suggests neither service nor electrical technology. Ahura Mazda is the English name for the god of light in Persian mythology, and GE used fantasies of an idealized, preindustrial past to market Mazda. In doing so, the corporation naturalized the technology of an anonymous mass-produced commodity, the electric light bulb, for an American public attempting to cope with the dislocations of a new, and increasingly urban, industrial society.

Corporate Consolidation and Technical Innovation

Through mergers and acquisitions, national and international patent agreements that promoted the sharing of technological developments and research, and court victories over patent infringement, at the turn of the century, GE was recognized as the most powerful company in the incandescent lamp industry in the United States.[1] Following a series of mergers that began in the late 1880s, by 1892—with the merger of the Edison General Electric Company and the Thomson-Houston Company to form the General Electric Company—ownership of the electrical industry in the United States was concentrated in just two corporations: GE and Westinghouse Electric & Manufacturing Company. And, in 1896, through a patent-sharing agreement, the two titans effectively controlled the market

1 Arthur A. Bright, Jr., *The Electric-Lamp Industry: Technological Change and Economic Development from 1800 to 1947* (New York: The Macmillan Company, 1949), 137.

for electricity.[2] Although the 1896 agreement covered patents for various kinds of electrical equipment, it did not include lamps. This significant omission suggests that GE perceived that its lamps, unlike its other products, were distinct from the lamps of its competitors in the lighting industry. Indeed, it was GE's patents on lamps and related equipment that gave the corporation an unrivaled position among incandescent lamp manufacturers.[3]

Unlike previous monopolies based on the control and processing of raw materials such as oil and lumber, GE's dominance was built upon technological innovation and product development, resources fundamentally new to the marketplace. It was this strength, based on teams of highly skilled technicians, which enabled GE to maintain supremacy in the electric light industry from 1897 to 1912, a time of unprecedented growth and development in the industry worldwide.[4] By 1912, GE controlled 80 percent of the lamp market in the United States and, through patent agreements, licensed the majority of the other 20 percent.[5] The company's emphasis on research and development, moreover, allowed GE to expand into new markets, making it possible for the company to achieve a virtually limitless dominance.[6]

During this time of accelerated growth in the electrical lighting industry, electric light came to be "taken for granted" as a part of everyday life in the United States.[7] People encountered lamps at home, at work, and in the streets. According to the United States Census Bureau, by 1907, 8 percent of all dwelling units had electrical services. By 1912, the number had jumped to 15.9 percent and, by 1917, to 24.3 percent.[8] In the early years of the twentieth century, with production totaling 66.7 million in 1909, the production of electric light bulbs in the U.S. out-paced that of all other electrical products combined.[9] It is no surprise, then, that among GE's varied products including everything from transformers and turbines to trolleys, lamps were, according to one historian, one of the company's "most substantial and most reliable sources of profit."[10]

Not only was lamp use widespread, but light bulbs and their production were made more efficient through the standardization of incandescent lamp design and improvements in manufacturing methods and filaments. By 1909, lamps using tungsten for filaments were replacing the carbon filament lamp. The tungsten filament produced a more cost-efficient, brighter lamp.[11] However, because advancements in lighting such as improved filaments and other improvements that increased the efficiency and life of the bulb occurred at a nearly imperceptible level and did not affect the design of the bulb, they would not be noticed by potential consumers. In the competitive lamp market in which all products essentially looked exactly the same, the challenge for GE, as understood by its executives, was how to effectively communicate the superiority of the company's technology to the public.[12]

2 This agreement was designed to resolve struggles over conflicting patents that arose from the mergers with, and acquisitions of, other companies upon which the two leaders of the electricity industry had been built. And, in fact, during the next fifteen years for which the agreement lasted, there was little patent litigation. See Bright, *The Electric-Lamp Industry,* 102–103.

3 This position was guaranteed through the National Electric Lamp Association or NELA, a coalition of smaller competitors in the incandescent lamp industry set up as a holding company in which GE owned controlling stock. GE established this association, through which it entered a pricing agreement for incandescent lamps with Westinghouse, to fix prices following the intense competition among incandescent lamp manufacturers that resulted, in 1894, in the expiration of the patent for the basic Edison lamp. See Bright, *The Electric-Lamp Industry*, 102-103. With the incorporation of NELA in 1901 as the National Electric Lamp Company, command of 90 percent of the incandescent lamp market in the United States was split between Westinghouse, GE, and National. If agreements struck with producers who had not joined National are taken into account, only a scant 3 percent of the lamp market was not controlled by GE. See Bright, *The Electric-Lamp Industry,* 148. Even a 1911 antitrust ruling did not significantly effect the dominance of General Electric. See Bright, *The Electric-Lamp Industry*, 156–9.

4 Bright, *The Electric-Lamp Industry,* 143.

5 Ibid., 229.

6 David E. Nye, *Image Worlds: Corporate Identities at General Electric, 1890-1930* (Cambridge, MA: The MIT Press, 1985), 1314. Between 1904 and 1909, GE, looking to capitalize on research in incandescent lighting abroad, signed licensing agreements with AEG (Allgemeine Elektrizitäts-Gesellschaft), as well as with the British Thomson-Houston Company, the French Thomson-Houston Company, and the Tokyo Electric Company "in all of which GE held controlling or large minority stock interests." Bright, *The Electric-Lamp Industry*, 155.

A Service Guarantee

Rather than struggle to explain the complex technological innovations of its lamps to consumers, GE instead chose to market the more accessible concept of service excellence. Interestingly, corporate executives and attorneys selected the name "Mazda" after the Persian god of light to symbolize such a guarantee.[13] In his book *Lamps for a Brighter America: A History of the General Electric Lamp Business,* written in 1954 in celebration of the Diamond Jubilee of electric lighting at GE, Paul W. Keating explained that: "In Persian mythology, the god of light was known as Ahura Mazda. To the Persians, light was synonymous with knowledge and goodness, and so was the name Mazda." [14] The name signaled not microscopic and complex technological details, but instead served as a more general guarantee of the research and development, testing, and manufacturing techniques—the "knowledge and goodness"—that stood behind the mark. Nor did the name apply solely to a specific product. In 1909, the year the Mazda logo first appeared, General Electric did not offer any new lamps. Instead, the service guarantee of the brand could be found on any lamp manufactured by GE and its subsidiaries—so long as the product met the standards of excellence established by the Mazda service system. The Mazda assurance thus allowed GE to unify its various companies and brand names under a mark of superior service. The strength of the Mazda brand also allowed GE to set the standard for industry excellence. Through cross-licensing agreements with GE, other companies could use the Mazda trademark, but only if their lamps met the Mazda standards. Even Westinghouse sold Mazda bulbs. As described by Keating: "Not until the Mazda service authorities agreed that the lamp was produced with the benefits of 'the latest and best research and manufacturing techniques' did it receive the Mazda mark."[15] Yet another effect of the Mazda system was the standardization of the production and distribution of lamps. Consequently, Mazda became an extremely powerful mark of excellence throughout the electric light industry.

To understand this shift in marketing focus from the attributes of an individual product to the technological excellence of a particular brand of products, the rapid rate of technological innovation and obsolescence in the lighting industry at this time must be considered. A significant example here is the impact of the invention of ductile tungsten. In 1911, the commercial production of ductile tungsten, a thin, incredibly pliable, and tremendously strong wire, instantly made previous tungsten filaments obsolete. John Winthrop Hammond, author of *Men and Volts: The Story of General Electric,* described it as "a revolution, almost an upheaval, at the Edison Lamp Works" in which the company lost a million dollars as it was forced to junk equipment used for the manufacture of previous kinds of filaments, including jettisoning machines still in the box and writing off losses on reserves of obsolete lamps.[16] Clearly,

7 Bright, *The Electric-Lamp Industry,* 143.

8 United States Department of Commerce, Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1970*, Vol. 2 (White Plains, NY: Kraus International Publications, 1989), 827. Dwelling units include farms, urban, and rural non-farm dwellings.

9 Paul W. Keating, *Lamps for a Brighter America: A History of the General Electric Lamp Business* (New York: McGraw-Hill Book Company, Inc., 1954), 79.

10 Bright, *The Electric-Lamp Industry,* 149.

11 Keating, *Lamps for a Brighter America*, 64–5.

12 Ibid., 75.

13 The name "Mazda" had been proposed at a meeting of top executives and patent attorneys by Frederick P. Fish, a well-known patent lawyer of the day retained by GE. See Keating, *Lamps for a Brighter America*, 75–6. See also Bright, *The Electric-Lamp Industry*, 156 and 295.

14 Keating, *Lamps for a Brighter America*, 75.

15 Ibid., 107. See also Bright, *The Electric-Lamp Industry*, 155.

16 John Winthrop Hammond, *Men and Volts: The Story of General Electric* (Philadelphia: J. B. Lippincott Company, 1941), 338–9.

the same level of devastating obsolescence would occur in advertising and publicity campaigns for individual products. Rather than lose huge sums on advertising with increasingly brief shelf lives, GE shifted its publicity emphasis away from individual lamps and towards its continued commitment to the service excellence of its Mazda brand.

Crucial to such an effort would be to educate a public weary of the rapid rate of industrialization and unfamiliar with technology. In choosing "Mazda" to represent the excellence of its lighting technology, GE associated modern lighting technologies with ancient conceptions of the "knowledge and goodness" of light. Yet, to effectively sell electric light as a desirable and accepted part of peoples' daily lives and to distinguish its Mazda certified lamps from those of its competitors, GE needed more than a trademark. Thus, beyond considering corporate consolidation and rapid technological change in the American lighting industry, it is essential to examine the specific visual languages used to market Mazda to the public.

"The Sun's Only Rival"

At the end of the nineteenth century, as the United States economy shifted from multiple, regional markets to a single, national marketplace, General Electric changed the way its bulbs were marketed. Initially, light bulbs were sold through wholesale dealers to retailers but, by the 1880s, with the emergence of department stores and chains such as Woolworth's, most of the public had access to bulbs.[17] As an increasingly diverse range of these retailers sold bulbs to the public directly, including supermarkets, drugstores, and hardware stores, a network for the mass consumption of electric light was in operation. GE's monopoly helped to establish a vast distribution system for its products to these stores that contributed to a national market for their electrical products.[18] This shift from multiple, local clients to a single, national market concurrently was facilitated by new mass-market magazines such as *McClure's* and *Munsey's* that attempted to appeal to a broad, national audience. For magazines that were sold all over the United States, advertising became a crucial way for anonymous corporations to create the illusion of personal contact with tens of millions of readers on a monthly basis through friendly, identifiable trademarks and logos. The marketing of Mazda was indicative of this trend.

The national campaign to publicize the Mazda trademark was launched in 1910 with "The Sun's Only Rival" advertisement. Towards this end, the ad was featured in popular monthly pictorial magazines of the day including *Harper's Magazine,*the *Saturday Evening Post*, *American,* and *Pictorial Review.* Similar to the Mazda trademark, which draws on the symbolism of a preindustrial Persian god of light to represent excellence in modern lighting technology, the ad works to establish a connection between a seemingly

17 Nye, *Image Worlds*, 115.

18 Ibid., 113.

Figure 1
Cartons No, C-6212 and no. C-6287.
Reproduced by permission of the Schenectady Museum.

timeless, natural and comforting source of light, the sun, and a recently invented source, the Mazda lamp. In the advertisement, electric light is compared to natural light in the form of a personified, masculinized, happy sun suggesting that Mazda lamps are not a new, technological invention, but as "natural" as sunlight. The sun even smiles at the lamp, which is positioned just over New York State, the home of the General Electric Company, a positioning associating North America with advancements in lighting. Looking closely at the bulb, we see the new tungsten filament tagged for us with a Mazda label. Though sun and bulb are pictured equal in luminosity, the sun is positioned to suggest that it is setting behind the earth, while GE's lamp—drawn larger than the sun—rises, implying that electric light is not only "The Sun's Only Rival," but its successor as well, possessing all the reliability and familiarity of sunlight.

It is difficult to evaluate how familiar the general public of the day would have been with Persian mythology and, therefore, difficult to gage how many people would have made a connection between the modern Mazda trademark and its ancient namesake. Without such a connection, "Mazda" may have only served to identify the bulb's technology for consumers. "The Sun's Only Rival" slogan, however, is an attempt to establish a direct connection between the quality of industrial Mazda lamps and that of a

supposedly universal image of light that would have been difficult to miss. Moreover, the use of this image was widespread and diverse. Beyond functioning as an advertisement in magazines, the design could be found on all packaging until 1916, and on promotional items and serially in window displays.[19] The saturation of multiple spaces backed by the repetition of a single image and slogan not only encouraged people to internalize the associations forged by the image of the sun, globe, and GE's Mazda lamp, but made such associations nearly impossible to resist.

As historians of this period of advertising have argued, this strategy of marketing mass-produced, industrial products as a natural part of traditional ways of life was not unique to General Electric, and could be found in a variety of advertising during these years including that for goods as diverse as Quaker Oats—whose religious figure evokes colonial life in America—and Kodak cameras—where, in one ad, the mass-produced picture machine is represented as a natural part of "a Christmas morning" shared by mother and daughter.[20] Yet, it also is important to recognize the sophisticated visual languages at the heart of GE's strategy, as well as the new graphics and advertising professionals who crafted them. A comparison with the first General Electric advertisement for its lamps placed in the *Saturday Evening Post* just ten years before the Mazda campaign is telling.[21] Apart from a crude drawing of a lamp, the ad is dominated by text in a single, serif type emphasizing the function, wattage, and cost of the bulb. This ad could have been composed by a freelance copywriter or job printer, and then placed in a newspaper or magazine by an advertising agent.

By contrast, the design and production of "The Sun's Only Rival" is dramatically different. The dimensions of the ad are much larger than the earlier one, and there is a new emphasis on the visual. The color illustration dominates the design and, while the text has been reduced to a slogan accompanied by product trademark and company logo, the visual qualities of the typeface receive greater emphasis than before. Rather than presenting a realistic representation of a light bulb and a description of its features, as the earlier ad had, the bulb in this ad appears in an imagined arrangement with the earth and sun framed by the dramatic claim of the slogan. On the packaging for the bulbs, there is a new attention to design elements such as borders, spacing, and symbols. These changes, from blocks of text outlining the practical qualities of a product to an awareness of the visual and emotional power of design, mark a new mode of public communication that combines images and text in an emotional appeal. General Electric's Mazda lamps were popularly recognized as "The Sun's Only Rival" then not on the basis of any scientific rational, but because that association was forged by the design of their advertisements.[22]

19 Ibid., 119.

20 See, for example, William Leach, *Land of Desire: Merchants, Power, and the Rise of a New American Culture* (New York: Vintage Books, 1993); Jackson Lears, *Fables of Abundance: A Cultural History of Advertising in America* (New York: Basic Books, 1994); and Richard Ohmann, *Selling Culture: Magazines, Markets, and Class at the Turn of the Century* (New York: Verso, 1996), 29.

21 The advertisement was published in the February 4, 1899 edition of the magazine.

22 Nye makes a similar point when he notes that GE's Mazda lamp rivals the sun through the sheer repetition of its message rather than by a scientific comparison of the two sources of light.

"The Sun's Only Rival" campaign was produced by GE's Publicity Bureau. As a testament to the high level of centralization in the company at the time, in 1897, General Electric combined its advertising, publications, and photography departments into a single, comprehensive, in-house office, the Publicity Bureau.[23] Before the 1890s, advertising developed as a heterogeneous field comprising job printers, publishers, freelance artists, and copywriters. Within this network of enterprises, ad agents only were responsible for the placement of ads. At the end of the nineteenth century, however, as giant corporations with their bureaucracies and specialists emerged from the mergers of owner-managed businesses, advertising changed. Like their clients, agencies such as N.W. Ayer & Son and J. Walter Thomson came to dominate advertising by promoting themselves as experts, offering a complete range of services including design, copywriting, lettering, ad placement, and art direction. This professional status was supported by schools, associations, organizations, and industry publications that codified proper design practice and legitimized certain expert personnel. Though an internal department, GE's Publicity Bureau was as complex and as specialized as those of its independent peers. By 1917, the Bureau had a staff of 242 full-time employees who produced internally-distributed company publications in addition to photographs, slides, films, press releases, pamphlets, advertisements, and promotional materials including posters and calendars to constitute a massive publicity machine filling all available outlets of public communication with messages that sought to train people to be consumers. According to David E. Nye, author of *Image Worlds: Corporate Identities at General Electric, 1890-1930*, the Bureau was tremendously powerful:

> The bureau was something fundamentally new in American life, and the public possessed no countervailing force to deal with its massive publicity.[24]

Orientalism and the Marketing of Desire

Beyond advertising, packaging, and displays, GE's Publicity Bureau also used "The Sun's Only Rival" design as a decorative motif on printed materials including calendars. While drawing allowed designers at GE to represent what photography could not at that time—the image of the sun and the view of the globe, for instance—to fulfill other representational demands, photographs became more important. Unlike other forms of imagery, such as drawings or prints used in early advertisements, this relatively new representational technology produced the illusion of an immediate, indisputable truth. Rather than representing electric light as the inevitable successor of natural sunlight, such promotional items exploited the cultural connotations of the Mazda mark in an attempt to naturalize lamps through photographic fantasies of a preindustrial and mystical Oriental way of life.

23 Nye, *Image Worlds*, 35.

24 Ibid., 36.

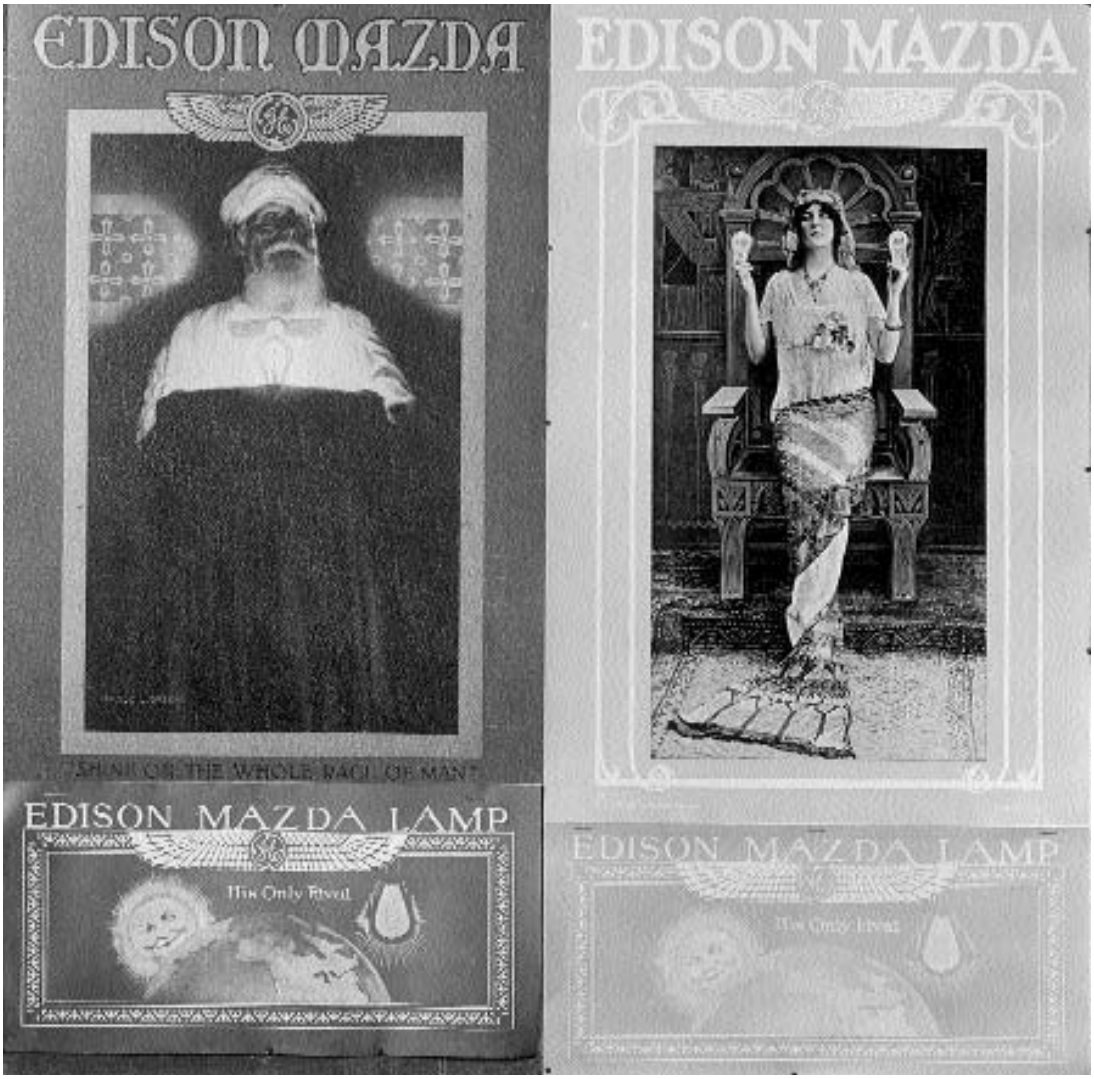

Figure 2
Incandescent Lamp Advertising Calendars No. 112 and no. 113 for year 1913. Reproduced by permission of Schenectady Museum.

In 1913, General Electric published two styles of promotional calendars distinguished by their photographs of exoticized, Orientalist models. In one, a turbaned man stands behind a lectern surrounded by darkness except for a radiant light bulb he holds in front of his chest that dramatically illuminates his torso and face. In the other style, a woman wearing a headdress and wrapped in a light, patterned cloth and seated on an intricately carved, throne-like chair holds a light bulb in each hand. A scriptural font, Egyptian motifs, and decorative border details reinforce the Orientalism of the images. Far from technological, the light bulbs in these photographs are lit through human contact, glowing in the people's hands instead of in sockets, implying a familiarity and comfort with bulbs. The models hold the bulbs as though they are spiritual, ritual objects "in essential harmony with the past." [25] These

25 Ibid., 120.

photographs, produced by GE's Publicity Bureau, appeared in advertisements for the bulbs as well.

Orientalist themes appear again in "The Lamp Seller of Baghdad," a 1922 calendar design by the professionally renowned commercial artist and illustrator Maxfield Parrish. With "The Lamp Seller of Baghdad," Parrish, who illustrated calendars for GE Mazda lamps from 1918 until 1934, uses the story of Aladdin to market Mazda bulbs.[26] In the illustration, a turbaned male lamp merchant is seated on a rug surrounded by his wares, while a woman wearing a turban stands and inspects a lamp. The two figures are in shadow, framed by an Islamic-styled archway. In contrast, the background is filled with turbaned men bathed in acidic light. Above the scene a banner reads, "Edison Mazda," the name separated by the image of a lit Mazda bulb. The illustration also uses many of the same Islamic motifs of the earlier calendars. By associating Mazda bulbs with an Orientalist vision of oil lamps, the illustration attempts to convince consumers that electric light is as magical as the mysterious East it pictures. A popular image, Parrish's illustration was reproduced in many sizes and colors.

The lamps represented in these G.E. calendars are neither a new, functional technology nor the successor of sunlight, as with "The Sun's Only Rival" ad, but part of a romanticized, Oriental culture whose traditions have yet to be affected by the upheavals of industrialization. Within this framework, the specific historical meaning of Mazda is sacrificed to present a generalized Orientalism. The trademark simply becomes one more element through which the fantasy is constructed.

Orientalism has been called "Perhaps the most popular of all merchandising themes in the years before World War I."[27] Thus, GE's turn to Orientalism to market Mazda bulbs was part of a larger advertising trend. In addition to Mazda, brands that were identified through associations with the fantasy of a decadent and luxurious East include Orient Delights candy and Fatima, Mogul, Omar, and Camel cigarettes. The vast commercial application of Orientalism in the United States can be attributed to the demands of commerce and the reach of national distribution networks and marketing. In *Fables of Abundance: A Cultural History of Advertising in America*, Jackson Lears argues that the generation of fantasies of an exotic East was "central to the expansion of the consumer market."[28] Lears suggests that the more industrial the United States became, the more images of the East functioned for the public as a fantasy of a return to life before industrialization.[29]

Though images of an exotic Oriental culture typically were being used to sell mass-produced commodities such as cigarettes and candy, GE's use of Orientalist imagery marks a departure. The marketing of national, mass-produced brands, such as Oriental Delights, worked to mask the decidedly modern character of products behind an aura of the sensual pleasure of a culture whose tradi-

26 Parrish produced other Orientalist illustrations for magazine covers, candy advertisements, and commercial posters based on scenes from the popular novel of the day, *The Garden of Eden* by Robert Hichens. See Leach, *Land of Desire*, 52–5 and 110.

27 Leach, *Land of Desire*, 104. *Noble Dreams, Wicked Pleasures: Orientalism in America, 1870-1930,* edited by Holly Edwards (Princeton, NJ: Princeton University Press, 2000) and John M. MacKenzie, *Orientalism: History, Theory and the Arts* (Manchester and New York: Manchester University Press, 1995), 48 and 89 also discuss the use of Orientalism as a commercial trope in the United States at the turn of the twentieth century.

28 Lears, *Fables of Abundance*, 51.

29 Ibid., 104.

tions have not been affected by industrialization. By contrast, GE's images for Mazda used contradictory appeals: the allure of a preindustrial Oriental culture and the benefits of modernization. On the one hand, the Orientalism of Mazda advertising draws on consumer desire for an imagined, primitive Orient and magical concepts of light to market advancements in lighting technology as though it were the next natural stage in the evolution of lighting. On the other hand, the Mazda brand signaled technological innovation and service excellence to the masses, and that cutting-edge industrial technology is literally tagged in the ads through a Mazda label that identifies the distinctive technology for consumers.

Conclusion

Mazda marked an important and innovative strategy that redefined what a brand could be. By branding the cutting-edge research and development of lighting technology upon which their market dominance was built, GE created a mark that, unlike previous brands, was not bound by the particular characteristics of an individual product. Yet, the development and use of the Mazda trademark was neither simple nor straightforward. GE's Mazda brand was caught up in a complex network of events at a time of dramatic and unsettling change in the United States. Its development was driven by the corporate consolidation of the American lighting industry and the centrality of research and development to General Electric's domination of a national lamp market. As compelling and complex as the changes in the lighting industry in the United States were the concurrent transformations occurring in advertising. The advertising, packaging, calendars, and other promotional materials through which the Mazda brand was marketed were crafted by a new, professional class of imagemakers who utilized dramatically new and complex visual languages to naturalize GE lighting technology. Initially, associations with the sun were used to create the illusion that Mazda lamps were a familiar and accepted part of life. Later, with the rise of Orientalism as a vastly popular and lucrative merchandising theme, electric light was naturalized through fantasies of a preindustrial Orientalist culture in which electric light naturally seemed to belong.