A Brief Analysis of the Historical Evolution of Design Ethical Thought

Jingbo Zhang[1,a,*]

[1]*University of the Chinese Academy of Sciences, 19 Yuquan Road, Shijingshan District, Beijing, China*

a. zhjbsandy@163.com

*corresponding author

Abstract: Design has evolved over time, continually adapting to changes in societal, economic, and cultural environments. In the 18th century, manufacturers considered the appearance and design of products to meet the expectations of different target groups. Design gradually separated from manufacturing, shifting its focus to the impact of aesthetics and visual appeal, significantly shaping subsequent design philosophy and practices. This paper analyzes the influence of machinery replacing manual labor during the Industrial Revolution and the evolution of American industrial design in consumer culture. After World War II, design became a symbol of international competition. The article concludes by discussing the design ethical thought of Papanek in the 20th century, emphasizing that responsible design should address social issues and sustainable development.

Keywords: Design Ethics, Ethical Thought, Industrial Design, Sustainable Design, Consumer Culture

1.   Introduction

Design is a product of social and technological evolution. Starting in the 18th century, it gradually departed from traditional manufacturing patterns, emphasizing aesthetics and appearances. However, the advent of industrialization altered this landscape, diverging design from manufacturing. This phase wasn't merely a redefinition of functionality but a reflection on the humanistic and societal values within design practices. From the 19th-century Industrial Revolution to 20th-century modernism, design continuously evolved, influencing societal development and individual lifestyles. Post-war, design delved deeper into sustainability, ethics, and social responsibility, initiating discussions on human needs, consumer culture, and social equity.

2.   Reflections on Machinery Replacing Manual Labor

2.1.   Design Serving the Few

The Industrial Revolution replaced traditional handmade production methods with mechanized industries, employing new materials like iron, steel, and cement. Technologies like automatic looms, steam engines, industrial carpentry, and prefabricated building methods altered work processes. Industrialization exacerbated societal negatives, intensifying poverty while introducing mass

industrial housing and industrial zones, triggering environmental changes. Manufacturers introduced new machines and production methods, enabling mass production of low-cost goods. These mass-produced items, due to their affordability, met the needs of the common populace. Mass production triggered profound discussions on product quality and the value of craftsmanship [1].

In the field of design, pioneers John Ruskin and William Morris undertook profound critical analyses of the Industrial Age, emphasizing the intricate relationship between design, industrialization, and art. They opposed superficial ornamentation, advocating instead for utilitarianism and functional design. Influenced by John Stuart Mill's utilitarian philosophy, which posited that the moral quality of human behavior should depend on its usefulness to society, this philosophy had a profound impact in the field of design. It asserted that design should be practical and beneficial to society, a notion that continues to hold significant importance in modern design. Ruskin endeavored to revive medieval handcraft methods to improve the living conditions of workers and resist the social issues and aesthetic impoverishment caused by the Industrial Revolution and mass mechanized production. In 1861, Morris founded the decorative arts company Morris, Marshall, Faulkner & Company, aimed at revitalizing art and craftsmanship to propel social reform and style rejuvenation. He sought to reintegrate design with production, opposing machine aesthetics, but faced setbacks amid the industrial advancements of the latter half of the 19th century. Morris believed that contemporary art was crude, excessive in its ornateness, and vulgar. Both Ruskin and Morris believed that design should encompass not only form and function but also possess moral power and a societal mission. In 1893, Morris republished Ruskin's writings to demonstrate his alignment with Ruskin's ideas. He adhered to the design principles advocated by Ruskin in *Modern Painters*, emphasizing the organic unity between the typography, illustrations, decorations, and structures of books. These eminent thinkers' viewpoints opposed the prevailing Victorian-era compromises and superficial imitations of historical styles. They advocated for design to genuinely reflect aesthetic values and social responsibility rather than merely mechanically imitating historical styles. These ideologies laid the foundation for modern design, providing a solid theoretical basis for 20th-century innovations and experimental developments in design. Morris's contributions inspired deeper explorations into the diversity and complexity of 20th-century design, hence labeling this period as modernism to highlight its distinctive and diverse characteristics [2].

Belgian designer Henry van de Velde advocated for the Arts and Crafts Movement but leaned toward elitism and individualism, differing from Morris's social reform ideals. However, they both sought to revive art and craftsmanship. Other design groups emerged during this period, also somewhat adopting elitist and individualistic design concepts, targeting middle to upper-class consumers. Design at this time hadn't yet permeated the masses but concentrated more on the middle to upper-class and elite consumers.

2.2. Design Moving Towards Popularization

Peter Behrens is considered a key pioneer of modern design, applying design to mass-produced products, emphasizing economics, simplicity, and repairability, laying the foundation for modern industrial design. The Dutch De Stijl group highlighted future-oriented aesthetics and mechanized beauty, proposing simple geometric elements, creating enduring design categories. Russian Constructivists prioritized social aesthetics, emphasizing meeting basic public needs and proposing styles to be replaced by technology [3].

Whether Peter Behrens' contributions or the De Stijl group's mechanized aesthetics, these early design markers were just the initial explorations of modern design. However, democratizing design, popularizing design principles to the masses, was truly catalyzed by the Bauhaus movement. Founded in the early 20th century, led by Walter Gropius, the Bauhaus aimed to combine art and craft, offering practical, aesthetic, and economical products. The Bauhaus advocated using modern materials and

manufacturing techniques, pursuing a concise, functionalist design. Their goal was to fill the gaps in products of the industrial era, providing high-quality design to the masses.

In 1902, Henry van de Velde established a private arts and crafts lecture series in Weimar, later evolving into the famous Weimar National Bauhaus School, led by Gropius. The craft field in the 19th century lost its unity in design and manufacturing due to the impact of large-scale industrial production. From 1919 to 1936, people often sought solutions to economic, technical, functional, aesthetic, and societal issues in planning and architecture. Gropius envisioned merging art and technology, creating a new modern unity.

Bauhaus wasn't just a school but represented a design philosophy where design could enhance life and should permeate all fields, from homes to architecture. This concept emphasized the fusion of art and technology, making design accessible not just for the elite but for everyone. Bauhaus's influence was profound, becoming the cornerstone of modern design, and influencing subsequent design movements and thoughts. Its rise marked a crucial step towards popularizing design.

3. American Industrial Design

3.1. Design and Consumption

American and European designers held differing attitudes towards industrialization, with the U.S. leaning towards quick satisfaction of needs. William Frank Purdy, the chairman of the Art Alliance, emphasized a phenomenon where America tended to import ready-made designs, artists, and craftsmen from Europe instead of developing art and design domestically. This was a more convenient yet expensive approach, reflecting America's development in the industrial art field [4].

Two World Wars propelled innovative strides in American industrial production and mechanization, highlighted by the Brooklyn documentation exhibition "The Machine Age in America 1918-1941." The exhibition showcased the pivotal role of machines in societal and design realms, not just as practical elements but as symbols and ideas. This period witnessed significant societal and design transformations, including changes in urban landscapes, home decor, and transportation.

Architects Louis Sullivan and Frank Lloyd Wright integrated reflections on industrialization and modern technology into their architectural forms. Sullivan's "form follows function" became a core principle of the modern movement, stressing that architecture should shape based on its function, avoiding excessive decoration. Wright's "The Art and Craft of the Machine" reflected his attempt to introduce ethics and aesthetics into modern mechanical production, linking architecture with societal and cultural values. These architects' thoughts were deeply influenced by organicism, focusing on the fusion of nature and art, also influenced by America's inventive spirit and culture of innovation [5].

In mid-20th-century Western society, male wealth was displayed through expenditures made by their wives on household items, clothing, and leisure activities. These luxurious expenses reflected back on men, positioning them as the core figures within the family, while women were perceived as the primary household consumers. The adornment and attire of women communicated their husbands' social status. Thorstein Veblen, an American sociologist, introduced the concept of "conspicuous consumption," highlighting how individuals showcase their societal standing through specific purchases or behaviors, emphasizing their status within social hierarchies. The act of purchasing items was not solely to fulfill needs but also to flaunt economic prowess and status within society [6].

During the early 20th century, amid the Great Depression in the United States and globally, the design industry witnessed an influx of innovative trends, notably the emergence of streamline design. Characterized by smooth lines and rounded contours, this design style infused products and architecture with a sense of dynamism. Streamline design emphasized simplicity, elegance, and modernity, becoming a hallmark feature of early 20th-century design. Concurrently, the rise of the modernist movement emphasized the dominance of machinery, integrating industrialization and

technological progress into design, infusing new vigor into the field. Modernism aimed for functionality and practicality, aiming to discard traditional ornamentation, focusing on simple and efficient designs to meet the needs of modern society. The unique appearance and functionality of streamline design and modernist products attracted widespread consumer interest, enhancing the fashion, practicality, and allure of items like automobiles, furniture, and appliances. This stimulated heightened interest in new products, prompting more frequent purchases and updates of household goods [7].

These innovative design styles also encouraged upgrades in lifestyle. Modernism's emphasis on practicality and functionality urged people to focus more on the quality and efficiency of life. Innovations in home decor, furniture, and appliances made homes more comfortable, convenient, and aesthetically pleasing, driving continuous improvements in living environments. The rise of modernism and streamline design reflected society's optimistic outlook on the future, symbolizing technological and scientific progress. People were confident about the future, willing to invest and consume to enhance their lives. This era's consumer culture propelled economic development and laid the foundation for the formation of modern society, not only transforming the appearance and functionality of products but also shaping people's consumption ideals and lifestyles. They became symbolic of cultural and social transformations in the early 20th century, fostering the rise of a consumption culture and representing an era characterized by confidence in the future.

3.2. Post-World War II Design Reflections

Following World War II, in nations with evident market economies, commercial competition intensified rapidly. In this scenario, design had to adapt to ever-changing conditions. In wartime Britain, practical design primarily aimed to create products for the wartime civilian market, purchasable using ration coupons that were also utilized for food purchases. Faced with scarcity of materials and manufacturing limitations, practical design had to create products that met people's needs, including clothing and furniture, emphasizing not only durability but also simplified practical aesthetics. The impact of practical design lay in influencing public acceptance of simplified aesthetics, reflecting the specific circumstances and constraints of that time when design had to cater to prevailing needs and challenges.

The post-1945 "Cold War" era highly politicized ordinary people's lives. Design became a vital ideological and image tool, reflecting competition among different countries in various ways. Susan Reid's analysis of Khrushchev's kitchen revealed that the Cold War unfolded not only through public debates concerning domestic internal issues but also through events like the space race. She wrote: "'Scientific Communism' was integrated into 'domestic advice, home science education, the rational planning of the kitchen,' or 'scientific management,' as well as through the technological revolution achieved by mechanizing housework" [8]. Design, through the development of new furniture, fashionable designs, and material applications, showcased various countries' technological superiority and lifestyles. This period reflected the complexity of global competition, illustrating the competition and influence among different nations in politics, science, and design fields.

This era marked the onset of environmental concerns triggered by industrialization. In the early 20th century, thinkers like John Ruskin criticized industrialization for disconnecting humanity from nature and wasteful resource practices. A slew of critics, designers, historians, manufacturers, and environmental advocates rekindled attention to the environmental crisis facing the Earth during the industrial process. Rachel Carson's work, "Silent Spring," in 1962 raised concerns about the hazards of chemical pesticides, followed by the banning of DDT, the enactment of clean air legislation, and the establishment of the U.S. Environmental Protection Agency, marking the rise of the American environmental movement. Subsequently, a global rise in environmental awareness ensued, with people focusing on phenomena like depletion of natural resources, species extinction, and global

temperature rise, attributing them as direct consequences of modern industrialized design [9]. Consequently, numerous organizations worldwide emerged, dedicated to rethinking design issues to align with environmental consciousness and forge a sustainable future. This development indicated that the design field actively responded to environmental challenges, aiming to promote sustainable design methodologies and practices.

4.   Introduction of Papaneck's Ethical Design Philosophy

In the 1920s, American pioneering architect and designer R. Buckminster Fuller proposed sustainability theories for Dymaxion houses and cars in his work "Operating Manual for Spaceship Earth" [10]. He likened Earth to a spaceship, an organic sustainer of human life requiring constant care and maintenance to ensure human survival. This reflected Fuller's contemplation of sustainability, ecological awareness, and emphasis on the intricate relationship between humans and the Earth, laying a robust foundation for later ecological design and sustainable development ideologies.

In the book "The Waste Makers," Vance Packard sharply criticized America's culture of excessive waste, unethical manufacturing practices, and abuse of natural resources. He criticized the automobile industry for employing "planned obsolescence" strategies, manipulating consumption cycles by altering appearances. Packard pointed out that in the 1950s, car manufacturers realized that mechanical innovations had reached a plateau, thus shifting focus to superficial changes such as increased color choices, alterations in body shapes, excessive decorative headlights, extensive use of chrome trims, and more extravagant tail fins. These superficial alterations accelerated the depreciation of cars, resembling style changes in women's fashion [11]. Packard's work revealed wasteful tendencies in American consumer culture and unethical practices in manufacturing, urging manufacturers to produce more responsibly, focusing on responsible production rather than promoting sales through unnecessary changes that increased resource waste and environmental impact.

Design theorist Victor Papanek, in his work "Design for the Real World: Human Ecology and Social Change," emphasized his social and humanitarian ideologies, initially raising concerns about the ethical and moral issues within design. His early design works, differing from the Modernist machine aesthetics popularized in the "Good Design" movement promoted by the Museum of Modern Art (MoMA) post-war, predominantly explored themes related to low-cost furniture, indicating his focus on practical, affordable designs [12]. His design approach prioritized addressing societal issues and fulfilling practical needs rather than pursuing artistic or decorative elements.

Papanek's perspectives were influenced by his immigration from Austria to the United States [13]. Throughout this process, he underwent shifts in social class and racial identity, significantly impacting his material life, sensory experiences, and aesthetic awareness. His critical viewpoints and design practices underscored the ethics and social responsibility inherent in design. He believed that design should prioritize human ecological and societal needs over mere commercial profit. His emphasis on sustainability and humanitarian values positioned him as a crucial voice reflecting and propelling design reform. Papanek strongly criticized the design profession for disregarding human needs and the Earth's natural environment. He advocated for design to focus more on addressing the needs of the broadest segments of society, particularly those living in poverty and hardship, rather than catering solely to niche markets. This perspective resonates with Packard's critiques of excessive consumption and ethical strategies, both reflecting profound contemplation regarding design and consumer culture.

Responsible designers should not merely pursue luxury goods and stimulate the desires of the affluent; rather, they should dedicate themselves to addressing the living standards of developing countries and neglected groups, as these populations constitute the majority of the global populace. Papanek supported creative design projects such as simple irrigation pumps made from old tires,

ergonomic children's chairs, and low-cost educational televisions, aiming to enhance people's living conditions, especially those most in need of assistance. Through this approach, he called upon the design field to more actively fulfill social responsibility, focusing on the overall well-being of global society.

5. Conclusion

Responsible design must consider broad segments of society, not just niche markets. This necessitates designers actively confronting social and global challenges, striving to address issues of poverty, human rights, and the environment. Moreover, design extends beyond mere appearances and functionalities; it is a participant in society, reflecting our understanding of and respect for human life. By adhering to ethical and sustainable design practices, we can progress toward a more equitable and sustainable future.

References

[1]   Pevsner, Nikolaus. Pioneers of modern design: From William Morris to Walter Gropius. Palazzo, 2011.
[2]   Burdek, Bernhard E. Design: History, theory and practice of Product Design. Basel etc.: Birkhauser, 2015.
[3]   Lees-Maffei, Grace, and Rebecca Houze. The design history reader. London: Bloomsbury Visual Arts, 2021.
[4]   Meikle, Jeffrey L. Design in the USA. Oxford: Oxford University Press, 2014.
[5]   Wright, Frank Lloyd. The art and craft of the Machine. Chicago: National League of Industrial Art, 1902.
[6]   Veblen, Thorstein, Warren J. Samuels, Marc R. Tool, and Dopfer Kurt. The theory of leisure class: An economic study in the evolution of Institutions. Düsseldorf: Verlag Wirtschaft und Finanzen, 2000.
[7]   Pulos, Arthur J. American design ethic: A history of industrial design to 1940. Cambridge, MA: MIT Press, 1986.
[8]   Reid, Susan Emily, and David Crowley. Style and socialism: Modernity and material culture in post-war Eastern Europe. Oxford: Berg, 2000.
[9]   Briggs, Shirley A., and Rachel Carson. Silent spring: The view from 1987. Chevy Chase, MD: Rachel Carson Council, 1987.
[10] Fuller, R. Buckminster, and Jaime Snyder. Operating manual for Spaceship Earth. Zürich, Switzerland: Lars Müller Publishers, 2021.
[11] Packard, Vance Oakley. The Waste Makers. Brooklyn, NY: Ig Publ., 2011.
[12] Papanek, Victor. Design for the real world. London: Thames & Hudson Ltd., 2022.
[13] Clarke, Alison J. Victor Papanek: Designer for the real world. Cambridge, MA: The MIT Press, 2021.