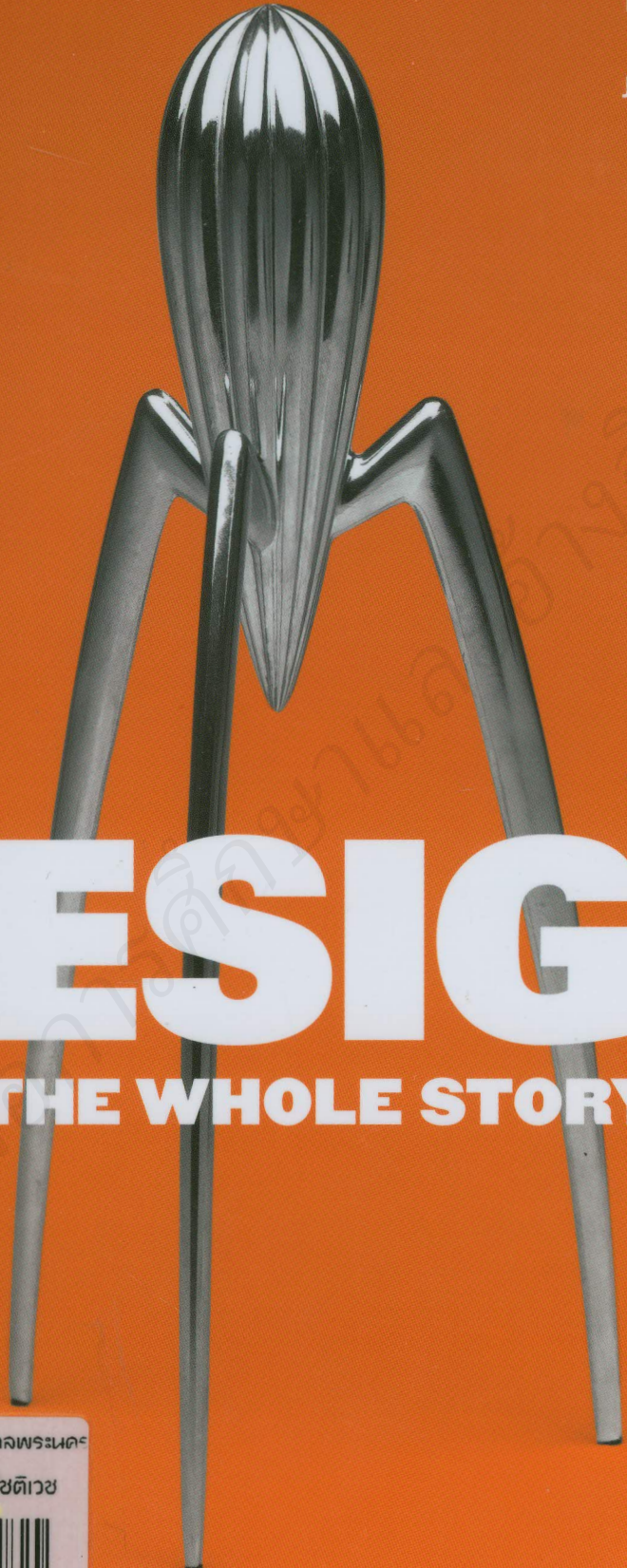


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DESIGN

THE WHOLE STORY

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ห้องสมุดสาขาโชติเวช



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FOREWORD

William Morris, designer, craftsman and garrulous socialist, told a Birmingham audience in 1880: 'If you want a golden rule that will fit everybody, this is it: Have nothing in your houses that you do not know to be useful or believe to be beautiful.' Addressing a gathering in London the following year, he declared: 'Simplicity of life, even the barest, is not a misery, but the very foundation of refinement.'

Taken together, these two hallowed maxims underpin pretty much the entire history of design. That, at least, is the view of those—the Bauhaus, national design councils and historians who have wanted a tidy story to tell—who believe that design has proceeded smoothly on Morris's rails ever since he laid them. Morris's own work was flamboyant and, as far as 20th-century functionalists were concerned, his heart was in the right place. And certainly morality and good design have marched righteously together to create much of the work shown in core sections of this wide-ranging book.

For many decades—ever since, in fact, the Bauhaus, its disciples and other high-minded moralists spread their mantra of 'fitness for purpose'—the history of design has been taken to be a more or less seamless tale of steady progress, with beauty, truth and refinement emerging as logical by-products of rational functionalism. The inessential decorations beloved in the 19th century were stripped away, like barnacles from the hull of a boat, as the design of everything, from teaspoons to trains, became ever more rational.

And yet, as later sections of *Design: The Whole Story* demonstrate, a popular desire for decoration, and also playfulness, texture and colour, has caused design to move almost full circle, back around to lively forms like the expressions of Art Nouveau and Art Deco, for example, that once annoyed Bauhaus professors, iconoclastic historians and puritanical critics alike.

How have Post-modern and digital-era designers turned what seemed to be a logical story on its head? Turning the pages of this book, the answer becomes increasingly clear. Functionalist design reached its zenith when it was in the service of the public sector, or controlled by civic-minded individuals, businesses and corporations. In recent decades, with the triumph of neo-liberal economics and private enterprise, the wishes of individual consumers have been highly influential, and design has been primarily in their dedicated service. Just look at how, as evidenced in the later sections of this book, 'personal' products, such as mobile phones, miniature computers, cars, wallpaper and decorative objects, have taken pride of place.

This makes sense. Design, like architecture, is influenced and guided by artistic, academic, moral and even philosophical ideas, but what perhaps shapes objects most is the political economy. In the communist societies that emerged after the Russian Revolution, for example, consumer design was considered largely unimportant. For society in the early 21st century, whether

it is directed by the state, as in China, or by corporations and professional lobbyists, as in the United States, consumer design leads the way. And, because consumer desires are thought to be both catholic and insatiable, design has adopted a multitude of forms. Discipline, it might be said, has given way to decadence, and design, freed of moral strictures, has been liberated. Perhaps, though, this is a natural state of affairs. After all, design in nature—from the forms of plankton to planets, seahorses to stars, cactuses to constellations—exhibits infinite forms. And as design mutates and flowers in this natural way, so the certainties of strictly functionalist thinking have given way to a new relativism. Can anyone today say with absolute certainty what good design is? 'Ask a toad what is beauty,' teased Voltaire in his *Dictionnaire philosophique* of 1764, and 'He will answer that it is a female with two great round eyes coming out of her little head, a large flat mouth, a yellow belly and a brown back.'

And yet, in a time of ungoverned, haphazard relativism, it is easy to think fondly of eras in which highly purposed design was not only associated with public service but also taken intensely seriously, with enviable results. Think of the intelligent work that has been devoted, over decades, to design in the service of post offices and state-owned railways worldwide, of postage stamps and banknotes, of river ferries and electricity pylons, of school furniture and public information graphics.

That, though, is the subject of a different book. *Design: The Whole Story* shows you, boldly and well, how our modern notion of design came about, and what, in terms of the objects we have in our houses, design has become a quarter of a millennium after the Industrial Revolution.



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INTRODUCTION

Design is hard to define. Most familiarly, as many of the key examples in this book demonstrate, it results in products that can be bought and sold—and eventually, if hallowed by critical approval, placed in museum collections. Yet design may also lead to something as amorphous as the Internet, which shapes every aspect of modern life and communication while remaining intangible. While design often involves problem-solving, it can also anticipate needs that have never been articulated before: in this sense, it is profoundly imaginative. Aesthetic judgement naturally comes into it, yet it is distinct from both art and craft. Similarly, while design can be primarily concerned with function and performance, it cannot be reduced to engineering or technical specification.

If by design we mean intent, then everything that has ever been made by human hands has been designed. In such terms, a pot shaped thousands of years ago and baked in the Mesopotamian sun is a product of design, every bit as much as a concept car or an iPhone. But design as a specialist process, or a practice that is distinct from making, has a much shorter history, and dates back only to the beginnings of the Industrial Revolution (see p.18).

Humans have always been tool makers, but with the dawn of the Industrial Revolution the degree to which human technology could alter the world increased exponentially. The textile industry, which was the first to be mechanized, began the shift that would see the economies of the West transform from largely agricultural ones to those based on manufacturing.

In the late 18th century the drive for profit saw manufacturing rationalized into separate elements or processes; similarly, increased volumes theoretically meant lower unit costs and an opening of the market to a broader range of consumers. It was the concomitant need for planning and standardization over the production cycle that led to the emergence of design as a discipline distinct from making or craft. This constituted a massive shift both in the way work was conceived and the manner in which goods were bought and sold.

Before long, however, the products of the new industrial age, with their often meretricious applied decoration and confused styling, ushered in a crisis of taste. Previously, there had been a broad consensus on what might loosely be termed 'style'. For much of the 18th century, classicism (see p.24), derived from the ancient Greek and Roman orders, informed the design of everyday objects as well as buildings. This underlying point of reference gave a remarkable unity to architecture, interiors and what they contained.

By the second half of the 19th century, consensus was nowhere in evidence. Already, there was nostalgia in certain quarters for a pre-industrial way of working and the period was marked by a series of revivals as critics and designers sought to determine an appropriate visual language for the age, a debate that was often couched in moral terms.

'Shoddy is king,' was the estimation of William Morris (1834–96; see p.52) of the quality of goods pouring out of Britain's factories. The stylistic confusion on display at the Great Exhibition (1851; see p.38) led directly to calls for reform. That Augustus Pugin (1812–52) championed the Gothic as a morally appropriate style had a strong influence on Henry Cole (1808–82), founder of the South Kensington Museum (later the Victoria & Albert Museum). Cole's mission to educate the public in what constituted good and bad taste included a 'chamber of horrors' where the worst stylistic offenders from the Great Exhibition were

▼ A high chest of drawers (c. 1700–20) made in North America from maple, walnut veneer, maple burl veneer and pine. It personifies the high level of craftsmanship that William Morris saw as under threat in the late 19th century.





◀ William Morris created the 'Pimpernel' wallpaper design in 1876 and later chose it to decorate his dining room at Kelmscott House in Hammersmith, London. Its botanical motifs, complex structure and swirling rhythms are typical of his style.

displayed, including a decorative stoat holding an umbrella. Other occupants of the high ground included John Ruskin (1819–1900), who exerted a powerful influence on Morris and his immediate circle.

The Arts and Crafts movement (see p.74), whose practitioners were hugely influenced by Ruskin and by the work of Morris, promoted an idealized notion of rural simplicity and honesty of construction, harking back to the Middle Ages and early craft guilds. At a time when Victorian clutter was at its greatest, the emphasis on unadorned craftwork sponsored a lightening of the interior, if only among an intellectual elite. Although the Arts and Crafts movement was not without its inherent contradictions, it was to have a significant influence on early 20th-century design movements in Europe and North America.

During the same period, mass consumption really began to take hold and it was in the United States that mechanical and electrical goods were first produced for use in the home and the office. Advances in printing technology, such as lithography and the new hot-metal process, aided and abetted the advertisement and marketing of new products, in which design played an important role. The electric light bulb, invented by Thomas Edison (1847–1931), stimulated a demand for the supply of domestic electricity and, by extension,

► Joost Schmidt (1893–1948), a teacher at the Bauhaus, designed this poster to advertise a Bauhaus exhibition in the city of Weimar, Germany, in 1923.



appliances such as vacuum cleaners and washing machines that were powered by it. While branding has much earlier antecedents, it was also at this time that it began to emerge as a means of fostering consumer loyalty.

By the beginning of the new century, a rift was opening up between those who believed that there was room for individual artistic expression in design and those who argued that function should be the defining element. Stylistically, the latter part of the 19th century had been marked by two chief influences: Japonaiserie (see p.82) and Art Nouveau (see p.92). Both were highly decorative and pervasive in graphics and applied ornament. The short-lived Aesthetic Movement (see p.88) had a similarly febrile *fin de siècle* quality.

By 1913, when Henry Ford (1863–1947) devised his moving production line, functionalism had all but triumphed. Mass manufacture, a design process in itself, demanded standardization. While this had been true ever since the beginnings of industrialization, what had changed was the emphasis on 'type-objects', products that proudly proclaimed their manufactured origins.

The machine aesthetic (see p.134), in the hands of masters of modernism such as Ludwig Mies van der Rohe (1886–1969), Marcel Breuer (1902–81), Le Corbusier (1887–1965) and Charlotte Perriand (1903–99), took inspiration from both modern machines such as bicycles and ocean liners and new materials

as tubular steel. Eschewing ornament of any kind, the emphasis was on pure form derived from function. Few early products of modernism were commercially successful in their time, but their legacy of influence has proved immense. Equally lasting were the revolutionary experiments that emerged from a seminal design school, the Bauhaus (see p.126), and from artists and designers furthering the ideals of the Russian Revolution (see p.120). Along with photography, these conceptual departures founded radical approaches in the way information was communicated and design was practised.

In the United States, on the other hand, there was a growing appreciation of design's potential to maximize profits. The streamlined aesthetic, applied to domestic products such as meat slicers as much as cars, was an early example of design as 'styling'. This period also saw the emergence of new design disciplines—graphic design, industrial design and interior design, for example—along with a rise in designers' visibility; Raymond Loewy (1893–1986), one of the first showmen of design, and Russel Wright (1904–76) are cases in point. So, too, was car designer Harley J. Earl (1893–1969), head of General Motors' Styling Division, who ushered in the 'Annual Model Change', where consumers were persuaded to trade in their old models on account of changes in appearance alone. They made no secret of their motivation; nothing, said Loewy, was as beautiful as 'an upwardly rising sales curve'.

But it wasn't always about profit. Serving the greater good has long been an aim of many designers. In the immediate prewar years, design gained

▼ An armchair (c. 1934) in the streamlined style, made from chromium-plated steel, wood and leather by the German furniture and industrial designer, architect, art director and teacher Kem Weber (1889–1963). It is one of his iconic designs.



prominence in the public realm (see p.200) through exercises in corporate identity, such as London Transport's ambitious programme in the early 1930s to integrate signage, station design and route maps, or *The Book of PTT*, created by Piet Zwart (1885–1977) for the Dutch telegraph and telephone service. This was the era, too, of mass-market 'people's cars', such as the Volkswagen Beetle.

World War II (see p.212) saw design pressed into a very different kind of public service—armaments, fighter aircraft and tanks also require design input. Like the American Civil War, generally considered to be the first 'modern' conflict, World War II provided a fast track to innovation across a broad range of disciplines, including materials technology. Developments such as radar and the jet engine came to fruition in the war's aftermath.

For shattered post-war economies, especially those on the losing side, design was to prove a means of both revitalizing production and establishing distinct national identities in a new world order. From this period dates Japan's emergence as a major exporter of goods manufactured under the stringent application of 'quality control'. In Italy, where design was seen as an indivisible part of *la dolce vita*, aesthetics combined with technical innovation created products desirable the world over. Germany's economic miracle rested on

► Rationalist principles clearly inform the look of this Braun television set (1957), designed in association with the Academy of Design at Ulm, Germany. Its form is dictated by its function, and no part of it is extraneous to that consideration.





a strictly rationalist foundation, promoted by the Hochschule für Gestaltung (see p.266) in Ulm, which served as a second Bauhaus. Closely allied was a purist, virtuously neutral Swiss approach to design, best characterized by the 20th century's most successful typeface, Helvetica (see p.276).

On the domestic front, Scandinavian design was a surprise international hit in the post-war period: ceramics, glassware, furniture, lighting and textiles produced in Denmark, Sweden and Finland displayed a marriage of a modernist sensibility with natural materials and organic forms. Similarly, mid-century modern US designers such as Charles Eames (1907–1978) and his wife Ray (1912–1988), George Nelson (1908–86), Isamu Noguchi (1904–88) and Eero Saarinen (1910–61), promoted by progressive manufacturers such as Knoll and Hermann Miller, shared a forward-looking aesthetic, reflecting an optimistic faith in the power of science and technology to deliver lasting material progress. During this period, new materials, such as plastic, introduced a new disposability to the marketplace. At the same time, planned obsolescence became a commercial strategy to maintain production volumes.

As the 20th century progressed, design became ever more mainstream, not merely for an enlightened trend-setting few, but deeply embedded in the contemporary lifestyle. Design became increasingly responsive to, and reflective of, changes in fashion and popular culture, from pop (see p.364) and psychedelia (see p.380) to punk (see p.410) and postmodernism (see p.416).

▲ US designer George Nelson conceived the Comprehensive Storage System with Desk in 1958, and the Herman Miller Furniture Company manufactured it in 1960 from rosewood, plastic, metal and glass. By the mid 20th century, flexibility of use was becoming established as an important design criterion.

► 'This Mortal Coil' (1993) is an innovative bookcase consisting of a single strip of mild steel formed into a spiral by British artist Ron Arad (b.1951). The steel dividers are hinged at both ends so that the coil may be partly collapsed and reduced in size for transportation.



Parallel to the counter-culture movements of the late 1960s, radical 'anti-design' groups sprang up, such as Archizoom, challenging the notions of 'good taste'; meanwhile, the oil crisis of the early 1970s raised the price of petrochemical products and provoked a re-evaluation of the throwaway society.

To a greater extent than ever before, design took up permanent residence on the high street. Pioneering retailers, such as Terence Conran (1931–2020), founder of Habitat, and Ingvar Kamprad (1926–2018), founder of IKEA, brought good design to the ordinary consumer. Design was implicit not only in products created by named designers, but also in time-honoured classics, such as bright enamelled homewares or flatweave Indian rugs: 'designs without designers'.

Design was also increasingly a form of celebrity branding. From the 'designer decades' of the 1980s and 1990s, when profiles of designers soared into the stratosphere, design became the means to create objects of desire, status symbols for knowledgeable consumers well versed in the language of things. Minimalist, maximalist, high tech and retro: styles came and went as design was drawn into the fashion cycle. In today's uncertain world of fragile economies and threatened resources, the scope and role of design has continued to evolve. Concerns such as fair trade, inclusivity and sustainability add new ethical dimensions to design practice. Designers today have to consider not only how their products will be sold and used, but also how their manufacture and eventual disposal will affect the planet and its future.

Yet nothing has had such a profound impact on design's reach across the globe, and the speed with which it connects with its audience, than the arrival

of the digital age. This momentous technological revolution, which has given us apps, desktop publishing, computer-aided design, 3D printing and rapid prototyping, among countless other innovations, has both transformed design practice and given rise to new typologies. For a generation arriving at adulthood today, life before the Internet is virtually unthinkable. Design has always been hard to define, and no more so than today when artificial intelligence is poised to reshape the way we live, work and play.

Design: The Whole Story takes a close look at the key developments, movements and practitioners of design around the world, from the beginnings of industrial manufacturing to the present day. Organized chronologically, the book locates design within its technological, cultural, economic, aesthetic and theoretical contexts. From the high-minded moralists of the 19th century to the radical thinkers of modernism—and from the emergence of showmen such as Loewy in the 1930s to today's superstars such as Philippe Starck (b.1949)—the book provides in-depth coverage of a subject that touches all our lives.

Iconic works that mark significant steps forward or that characterize a particular era or approach are analysed in detail—such as Breuer's Wassily chair (1925; see p.136); corporate identity work by Eliot Noyes (1910–77) for IBM (1950s; see p. 400) and the Verdana typeface (see p. 478), designed to be read on screen, by Matthew Carter (b.1937).

Throughout the history of design, a fundamental tension between stylistic expressiveness and reductionism, between function and form, has been played out time and time again. But design is not simply a vehicle that records shifts in taste. As a way of imagining, it both defines and anticipates our needs, and as such is expressive both of commerce and culture. Intimately bound up with technology, it provides aesthetic solutions in material form. We are all consumers of design, from the cars we drive and the products we buy to the graphics that surround us. *Design: The Whole Story* provides all the information we need to decode the material world.

▼ Industrial designer Samuel N. Bernier used computer-aided design and 3D printing to create customized lids that clip onto empty cans, jars and bottles to give them new uses. Among the upcycled objects below are a citrus juicer, a rain catcher, a paintbrush cleaner, a piggy bank, a lamp, a bird feeder, a long pasta container, an hourglass, a mug, and a dumbbell. The work is an aspect of Project RE_, which examines how communities might take on their own manufacturing.



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" สำหรับเพื่อการศึกษาระดับปริญญาตรีและอ้างอิงเท่านั้น "