

THE SEARCH FOR AN AMERICAN DESIGN AESTHETIC: FROM ART DECO TO STREAMLINING

Nicolas P. Maffei (2003)

Streamlining was not an American invention, but its widespread application in the 1930s to the design of vehicles and stationary consumer goods was America's distinctive contribution to the development of Art Deco. It emerged in the context of serious and often contentious discussions – which raged among American cultural commentators, museum curators, designers and others – concerning the need for an authentic national aesthetic to replace the United States' artistic dependence upon Europe. [...]

[...] By 1929, the exhibitions of European applied art in American department stores and museums had prompted the question 'who are our designers?' This became the central concern of an editorial in *Good Furniture Magazine* that year.¹ Its author wrote that the great department store exhibits had 'ruffle[d] the placid surface of our industrial art'; it was only then that we 'started the search for talent in our own country to compete with the very evident European talent seen in the exhibits'. [...] Referring to the exhibits of modern decorative arts recently shown at department stores and elsewhere, he noted that there:

we have the chance not only to see what American designers have done, but to compare with similar work by European designers. When Eugene Schoen, Joseph Urban, Paul Frankl, Lucian Bernhard, Winold Reiss and Pola Hoffmann appear in these showings of American designers, it should be remembered that,

by years of training, practice and experience, this group is 'American' only in the matter of citizenship.²

This view was not unusual in the climate of nativism that existed in America in the 1920s and favoured the interests of the established inhabitants over those of immigrants. Created by a mixture of First World War propaganda, post-war immigration, labour unrest, political radicalism and the growth of the Ku Klux Klan, this climate resulted in immigration restrictions, 'Americanization' initiatives and deportation drives.

[...]

Whereas writers in *Good Furniture Magazine* in the late 1920s had cautioned their readers against the work of Europeans and European émigrés, [Austrian-American designer] Paul Frankl proclaimed, in his book *Form and Re-Form* (1930), that both European émigré and native-born American designers had contributed to a vigorous modern American design movement. He wrote that 'our country assimilates artists of many countries – Hungarians, Russians, Germans, Viennese, Frenchmen, Japanese. *Je prends mon bien ou je le trouve*.'³ And he presented the work of a number of émigrés alongside that of native-born American designers.⁴ [...] And, in contrast to conservative critics, Frankl claimed that 'extreme ideas in modernism are not all imported from Europe:

artists of American stock are often the most daring radicals of the "left wing". He offered a list of American extremists, including the ceramicist Henry Varnum Poor and the textile designer Ruth Reeves – 'who dares to be "profoundly passionately" herself'.⁵ [...]

[...]

Ruth Reeves – singled out by Frankl for her individuality – is best known today for 'Manhattan', her cubistic textile design depicting an American cityscape. By the early Thirties, however, Reeves's work was increasingly presented as an example of the more moderate approach and referred to as 'agreeable', 'elegant' and 'individual'. Frankl, too, came to recognize the need for a more restful attitude, writing that 'Simple lines are modern. They are restful to the eye and dignified and tend to cover up the complexity of the machine age.'⁶ His designs and those of Kem Weber of the early 1930s for simple, horizontal furniture reflected this belief. A stress on 'charm' became a means of claiming equal status for American design with that of Europe and of countering notions that the former was naturally brash. Thus, in 1932 Walter Dorwin Teague's designs for glass for Steuben were presented as 'casual', 'charming', 'subtle', 'poised and graceful', and of 'equal distinction' to those of Europe. They were described as 'modern' but 'not bizarre', as 'decidedly American as Orrefors is Swedish'.⁷ Increasingly, American decorative arts journals showcased the work of American designers, presenting their work as equal in quality to that of European designers, as well as more appropriate to American tastes.

Nor everyone accepted 'charm' as an essential element in modern American design, however. In an effort to put an end to being 'deceived by the external charms of decoration', an article in the *American Magazine of Art* recommended the elimination of ornament and the reduction of an object to its 'primary form'.⁸ In the following years the promoters of Modernist design would become even more vocal. Yet the notion of charm was

not altogether lost; instead, it was transformed, with the rise of notions of styling. As Norman Bel Geddes, one of the leading stylists, observed, styling addressed the 'psychological' dimension of design to 'appeal to the consumer's vanity and play upon his imagination'.⁹ One of the devices frequently deployed by stylists was streamlining; while offering a symbol of science and rationality, it was also used to appeal to irrational desires and thereby seduce potential customers.

After the 1929 stock market crash the need for mass production and for ways to appeal to the consumer by active salesmanship meant that new approaches to design were vigorously promoted. The example of annual fashion changes in Parisian couture intensified American manufacturers' and retailers' interest in the economic value of stylistic obsolescence. Towards the end of 1930 the *American Magazine of Art* published Earnest Elmo Calkins' plan for jumpstarting the economy. Calkins had founded the Calkins & Holden advertising agency in 1901 with Ralph Holden and had long been an ardent promoter of the cash value of art in industry. His article explained how consumer dissatisfaction could be generated through the styling of products – the 'new merchandising device' known as 'styling the goods'. Goods were to be 'redesigned in the modern spirit ... to make them markedly new, and encourage new buying'. This would result in the displacement of 'still useful' things which are now 'outdated, old-fashioned, obsolete'. The application of 'modern' design allowed products to express abstract qualities that consumers found irresistible and a 'new field', that of the industrial designer, was emerging to facilitate this method of stylistic obsolescence.¹⁰ In 1932 Calkins reiterated his views in Roy Sheldon and Egmont Arens' book, *Consumer Engineering*, stressing the need to manipulate psychologically consumers' 'latent and unsuspected demands and desires' by using styling to raise goods 'from the commonplace to the distinctive'. The book also recommended the use of psychology to reduce friction at the point of sale and thus 'streamline' consumption.¹¹

The adoption of such views by American manufacturers in the early 1930s aided the success of the emergent genre of the 'industrial designer' or 'stylist'. Often decorative, theatrical and advertising artists by background, they included Walter Dorwin Teague, Norman Bel Geddes, Henry Dreyfuss, Harold Van Doren and the French-born Raymond Loewy. This first generation of American industrial designers opened their offices in the late 1920s, often finding clients through advertising agencies and self-promotion. They came to be seen as the logical and mature leaders of the country's indigenous design movement, who had 'grown up' past the need for 'childish effort' in decoration.¹² It was with the promotion and development of their work, spurred on by the increased commercial competition during the Depression, that the self-conscious comparisons of American and European design began to wane. An emphasis on styling to promote mass consumption and mass production came to be seen as the hallmark of American design.

Harold Van Doren, a leading first generation industrial designer, wrote that the term 'streamline' first appeared in print in 1873 in reference to hydrodynamics, and that by 1909 automobile manufacturers were using the term to refer to the 'sweeping lines' of their products.¹³ Although streamlining was eventually widely adopted for the design of consumer goods and services, it made its greatest impact on the public imagination in the area of transportation. By the early 1930s American railroad companies had lost many of their passengers as a result of the Depression and increased competition from automobiles, buses and aeroplanes. Several companies introduced streamlined locomotives and rolling stock to modernize and make more glamorous the image of their services. Streamlined trains, such as the Union Pacific's M-10,000 and the Burlington *Zephyr*, were exhibited at the Chicago World Fair of 1933-4 and helped to popularize both rail travel and the new style. During the second year of the fair these streamliners made extensive tours of American cities where millions clamoured to

see them, further popularizing the style across the nation. The application of contoured lines, smooth surfaces and horizontality was intended not only to decrease the vehicles' air resistance but also to provide a style expressive of modernity, while at the same time suggesting comfort and restfulness. Streamliners proved highly successful during the Depression, sometimes having to turn passengers away – though railroads as a whole were then underused.¹⁴ Streamlining was often applied to the total 'package': exteriors, interiors and accessories. Among product engineers the term 'package' engineering was synonymous with industrial design as early as 1931.¹⁵ Significantly many American industrial designers, including Teague, Van Doren and Dreyfuss, had backgrounds in packaging design, a practice that was particularly applicable to the styling of vehicles.

Although streamlining had been actively explored by product and vehicle designers for some years, Norman Bel Geddes's book *Horizons* (1932), with its spectacular visionary designs of streamlined trains, planes and cars, did much to popularize the style. *Horizons* was widely reviewed, and its striking images of streamlined vehicles were reprinted in the Sunday supplements. Like many other first generation American industrial designers, Bel Geddes had been to Europe in the 1920s; the horizontal lines and rounded corners in his designs for streamlined vehicles have precedents in the expressive architectural sketches made during the First World War by the German architect Erich Mendelsohn.¹⁶ But Bel Geddes's visionary book strikingly encapsulated contemporary American aspirations. Significantly, *Horizons* found its way onto the desks of automotive engineers at Chrysler and General Motors. In 1933 Chrysler's head of engineering, Fred M. Zeder, claimed the book was an inspiration to him and his associates. He made his senior engineers read it and said that *Horizons* gave him the courage to go forward with the first streamlined production car, the Airflow.¹⁷

1934 was a watershed year for streamlining. In addition to the excitement surrounding

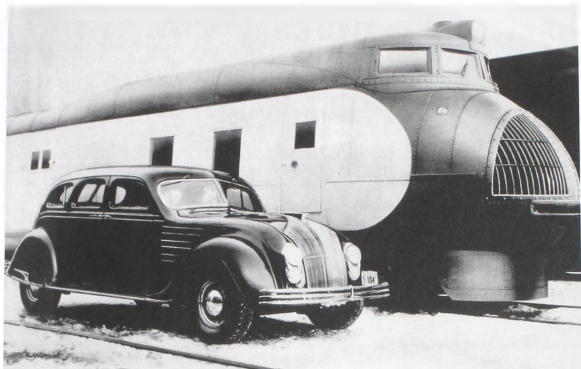


Figure 12. The Chrysler Airflow next to a Union Pacific 'Streamline Express' train, American, 1934. Photo: DaimlerChrysler Corporation.

the streamliners, the 1934 annual meeting of the Society of Automotive Engineers adopted streamlining as a major conference theme. The same year saw the production of the Chrysler Airflow, which was visually, aerodynamically and structurally streamlined [Figure 12]. Its exterior was integrated into a visible whole in order to direct air currents and reduce turbulence, and its chassis and framework were fused to add body strength. In an advertisement for the car Bel Geddes was shown sitting in it, holding an open copy of *Horizons*. The text read: 'Norman Bel Geddes [sic] famous book "Horizons", in which he forecast the Airflow motor cars'.¹⁸ [...]

[...] In 1934, as streamlining developed into a full-blown craze, MOMA's *Machine Art* exhibition presented a display of American machine parts and industrial design whose elementary geometric forms resembled those of Bauhaus Modernism. [...] In his catalogue essay

Philip Johnson, one of the exhibition's organizers, rejected both the "modernistic" French machine-age aesthetic' and American 'principles such as "streamlining"'.¹⁹ [...]

In the wake of MOMA's critique of streamlining, proponents of the style more vigorously defended it, both as *the* expression of the age – representing speed, efficiency and science – and on aesthetic grounds. In their overview of American industrial design, *Art and the Machine* (1936), the historians Sheldon and Martha Cheney defended streamlining in the design of vehicles and stationary products. They wrote, 'we subjectively accept the streamline as valid symbol for the contemporary life flow, and as a badge of design integrity in even smaller mechanisms, when it emerges as form expressiveness'. For them, the essential task of the industrial designer was to express in everyday objects the most vital of contemporary values: 'In its own smaller and often more menial form' an

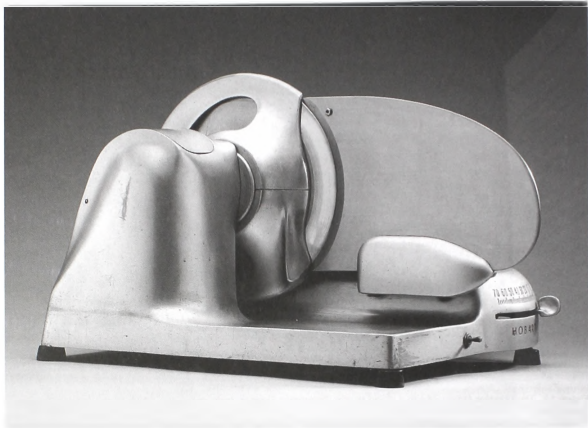


Figure 13. Egmont Arens and Theodore C. Brookhart, 'Streamliner', meat slicer. Aluminium, steel and rubber. American, designed in 1940. Made from 1944 by Hobart Manufacturing Company. Gift of John C. Waddell, 2002. The Metropolitan Museum of Art, New York. The Metropolitan Museum of Art, John C. Waddell Collection. Gift of John C. Waddell, 2000 (2000.600.1). Image © The Metropolitan Museum of Art.

ordinary streamlined product was as 'conspicuous a symbol ... of the age' as the 'symbol of the cross' was to the 'medieval mind' [Figure 13].²⁰

[...]

Harold Van Doren also defended streamlining, claiming that what 'many attacked as a 'faddish style' was actually the 'technological result of high-speed mass production'. He explained that in plastic-moulded and pressed sheet-steel products it was more efficient to employ designs with gentle curves and rounded corners, writing that 'what may thus appear to be a capricious preference for voluptuous curves and bulging forms' in place of a more athletic spareness proves to be

one result of the evolution of fabricating methods and assembly-line techniques'. Additionally, Van Doren defended the style on aesthetic grounds, seeing streamlined form as a visual metaphor for progress, and the egg-shape it often depended on as a more 'dynamic' shape than the 'static' circle and sphere found in classical design.²¹

[...]

By the end of the decade streamlining and geometry shared the same stage at the New York World's Fair of 1939. The show significantly increased the profile of industrial design by associating the new profession with the vision of the future. This was the theme of the fair, developed by Teague,

who served on the Board of Design alongside six architects. 'Focal exhibits' within the major buildings were provided by Teague and other leading industrial designers, including Dreyfuss, Rohde, Russel Wright, Egmont Arens, Donald Deskey, George Sakier and Raymond Loewy. The fair's architecture reflected the popularity of streamlining as well as Teague's own preference for geometric forms. Exemplifying the streamlined style was the hook-shaped General Motors building, designed in association with Norman Bel Geddes and containing his 'Futurama' exhibit, a vast diorama of the world of tomorrow dominated by superhighways, teardrop-shaped automobiles and tower cities.²² [...]

The New York World's Fair is usually seen to mark the end of streamlining. In the years after the Second World War, however, aerodynamic automotive design continued to develop, eventually leading to an orgy of non-functional styling. The 1948 Cadillac Coupe was the first post-war car to show tailfins. Designed by Harley Earl's team at General Motors, it initiated a mad rush among Detroit manufacturers exuberantly to express speed and flight in automobiles. Such design was often derided by critics and designers. Already in 1948 the historian Siegfried Giedion considered streamlining and the Detroit look retrogressive. Since its inception the streamlined style had been presented as alternately restful and an expression of speed, as well as the natural outcome of science. But Giedion noted that all styles, even streamlining, had a history. Rejecting the popular assumption that streamlining was based solely on the image of speed, he suggested instead that it derived from Art Deco products shown at the Paris 1925 Exhibition. [...]

In 1959 Henry Dreyfuss, an innovator of streamlining in the 1930s, was asked if America had a 'heritage of good design'. He answered in the affirmative, claiming that it was rooted in the 'pioneer tradition' of America's European settlers which resulted in designs of great 'simplicity, toughness, efficiency and good workmanship'. Ignoring his previous forays into streamlined

design, he added that American design had devolved into the 'Detroit' look of 'motorized jewellery', which had begun to 'infect other types of products ... [including] refrigerators and washing machines'. Other 'deviations' included 'the many attempts to introduce European styles of lush decoration'.²³ Streamlining was now effectively defined in opposition to 'good design'. But Dreyfuss also emphasized the importance of drama and power, adding that American design expressed 'cleanliness, dramatic shapes, and powerful forms', echoing the expressive values of American design which the Cheneys had appreciated in the streamlined style.

As early as 1935 [the cultural historian] Constance Rourke had argued that early Americans, though restricted by the need for economy, had practised a 'free sense of personal decoration' and valued material goods, such as 'portraits or clocks with glass paintings or delicate china', for the emotional and symbolic meanings they evoked and the 'pleasure' they provided.²⁴ In other words, they enjoyed goods with charm and personality. Rourke's perspective helped to define an American art that was diverse and expressive without denying non-native influences. In this expansive view we can recognize American streamlining, not as a purely American style without a history, but as a complex product of twentieth-century modernity – a product of a transatlantic collaboration that embodied the contradictions of modernity. Both restful and dynamic, streamlining reflected and responded to the fluid changes of a modern world.

NOTES

Extracted from Maffei, N., 'The Search for an American Design Aesthetic: From Art Deco to Streamlining,' in Charlotte Benton, Tim Benton, and Ghislaine Wood (eds), *Art Deco 1910–1939*, London: V&A Publications, 2003, pp. 361–9. Copyright © V & A Publications, 2003. Reprinted with permission.

1. 'Editorial: Designers – European and American', *Good Furniture Magazine*, vol. xxxii, no. 4 (April 1929), pp. 167, 172; quote from p. 167.
2. As note 1.
3. Paul Frankl, *Form and Re-Form: A Practical Handbook for Modern Interiors* (New York, 1930), p. 13.
4. The former including Frederick Kiesler, Kern Weber, Winold Reiss, Ilonka Karasz, Joseph Urban, William Lescaze and Walter Von Nessen; the latter including Frank Lloyd Wright, Donald Deskey, Ruth Reeves, Gilbert Rohde and Eugene Schoen.
5. Frankl (1930), pp. 18–19.
6. See 'Are We Different?', *Arts & Decoration*, vol. xl, no. 11 (December 1933), p. 18. For Frankl's evolving views, see Paul Frankl, *New Dimensions: The Decorative Arts of Today in Words and Pictures* (New York, 1928), pp. 16–17.
7. Elizabeth M. Boykin, 'The Grace of Modern Glass Design', *Arts & Decoration*, vol. xxxvii, no. 5 (September 1932), pp. 15, 59; quotes from pp. 15, 59.
8. Wilhelm Lotz, 'Industrial Art in Germany', *American Magazine of Art*, vol. xxii, no. 2 (February 1931), p. 103–8.
9. Norman Bel Geddes, *Horizons* (Boston, 1932), p. 222.
10. Earnest Elmo Calkins, 'Advertising, Builder of Taste', *American Magazine of Art*, vol. xxi, no. 9 (September 1930), pp. 497–502 (quote from p. 499.)
11. Roy Sheldon and Egmont Arens, *Consumer Engineering: A New Technique for Prosperity* (New York, 1932), p. 2.
12. 'Modern Growing Up?', *Arts & Decoration*, vol. xlii, no. 2 (December 1934), p. 2.
13. Harold Van Doren, *Industrial Design: A Practical Guide to Product Design and Development* (New York, 1940; reprinted New York, 1954), p. 180!
14. This success helped to secure a role for the industrial design profession.
15. 'Consumer Engineering', *Product Engineering*, vol. 2, no. 5 (May 1931), p. 221.
16. Jeffrey L. Meikle, *Twentieth Century Limited: Industrial Design in America, 1925–1939* (Philadelphia, 1979), pp. 48, 36, 49. Bel Geddes had befriended Mendelsohn in 1924.
17. 'AE-79, Chapter 75', autobiography, stamped 1955; memorandum, 26 October 1933, from Norman Bel Geddes to Earl Newsom regarding Chrysler 'Secret Account'; NBG Archive, Harry Ransom Humanities Research Center, University of Texas, Austin. See also Nicolas P. Maffei, 'Designing the Image of the Practical Visionary: Norman Bel Geddes, 1893–1958', unpublished PhD thesis, Royal College of Art, London, 2001.
18. 'I salute Walter P. Chrysler and Fred Zeder FOR BUILDING THIS AUTHENTIC AIRFLOW CAR'; advertisement, *Saturday Evening Post*, 16 December 1933. Chrysler Corporation, Q account, 271, O/S7, advertisement announcing arrival of Airflow. NBG Archive, Harry Ransom Humanities Research Center, University of Texas, Austin.
19. Philip Johnson 'History of Machine Art: Machine Art and Handicraft', Museum of Modern Art, *Machine Art* (New York, 1934; reprints 1969, 1994), n.p.
20. Sheldon Cheney and Martha Candler Cheney, *Art and the Machine: An Account of Industrial Design in 20th-Century America* (New York, 1936), pp. 98, 102.
21. Van Doren (1940/1954), pp. 179, 189, 196, 187.
22. The Futurama emphasized streamlined living, where science, technology and urban planning would make for more efficient travel, increased health and a superior standard of living. In a simulated aeroplane flight the miniature world was viewed from moving seats by 27,500 people a day for nearly two years.
23. 'Does America Have a Design Heritage?', *Product Engineering*, vol. 30, no. 20 (18 May 1959), pp. 36–43; Dreyfuss quotes from pp. 36, 37.
24. Rourke (1935), pp. 390–404; quotes from p. 392.

GUIDE TO FURTHER READING

For more on Pugin and Ruskin's influence on modernists see Clive Wainwright, 'The Legacy of the Nineteenth Century' (1900). Henry Russell Hitchcock and Philip Johnson's 1932 New York Museum of Modern Art exhibition and catalogue *The International Style*, like Pevsner's *Pioneers*, celebrated modern architecture that exalted the machine and repudiated ornament. Loos had argued strongly for this ascetic modernism, as had Le Corbusier in *The Decorative Art of Today* (1925) and *Towards a New Architecture* (1927). Walter Gropius expressed his evolving theories of design in his 'Programme of the Staatliches Bauhaus in Weimar' (1919) and 'Principles of Bauhaus Production' (1926).

The narrow focus by Pevsner and others on innovations in concrete and steel, advanced by science and technology for a clean, orderly, and efficient world exaggerates the role of the Bauhaus, however, and overlooks the dynamic experimentation of the Futurists, Dadaists and Constructivists. Johanna Drucker corrects this bias in her book *The Visible Word: Experimental Typography and Modern Art, 1909–1923* (1994), as does Victor Margolin in *The Struggle for Utopia: Rodchenko, Lissitzky, Moholy-Nagy, 1917–1946* (1997). Terry Smith, *Making the Modern: Industry, Art and Design in America* (1993) and Jeffrey L Meikle, *Design in the USA* (2005), offer engaging readings of the theories and questions first proposed by industrial designers in the first half of the twentieth century, such as Norman Bel Geddes, *Horizons* (1932), Harold van Doren, 'Streamlining: Fad or Function?' (1949), and Raymond Loewy, *Never Leave Well Enough Alone* (1951).

As applied arts institutions began to admit more women to their programmes, new issues surrounding women's professionalization arose. Christine Frederick's scientific analysis of modern kitchen designs, in *The New Housekeeping: Efficiency Studies in Home Management* (1913), applied scientific theory to common-sense principles that would help women save time and labour in more sanitary and efficient work spaces. Like Margarete Schutte-Lihortzky, who introduced the 'Frankfurt kitchen' in Germany, Frederick articulated practical ways to adapt industrial methods and technology to the home. The masculinized concept of industry upheld in some of the most influential histories of design, including Siegfried Giedion's *Mechanization Takes Command* (1948) and Reyner Banham's *Theory and Design in the First Machine Age* (1960), has obscured the complex gender dynamics of the modern movement. Sigrid Wortman Weltge explores the marginalization of female students at the Bauhaus in her book *Bauhaus Textiles: Women Artists and the Weaving Workshops* (1993). See also Nicholas Bullock, 'First the Kitchen, then the Façade', (1988), and Rebecca Houze, 'From "Wiener Kunst im Hause" to the Wiener Werkstätte: Marketing Domesticity with Fashionable Interior Design' (2002). Frederic J. Schwartz, in his book *The Werkbund: Design Theory and Mass Culture before the First World War* (1996), considers the emergence of standardized type-forms as well as corporate trademarks from within a cultural discourse of 'fashion' and 'style', revealing that masculine philosophies of commerce and design were intimately tied to ideas surrounding dress.

The emphasis on industrial manufacture in much of the earlier design history makes it difficult to reconcile varying aesthetic strains and modes within the modern movement, such as the organic

shapes of Scandinavian designs by Alvar Aalto and Eiel Saarinen, the eclectic and surrealist interiors of the 1920s and 1930s, or the futuristic shapes of Art Deco in America. More recent studies that draw attention to these alternate and competing modernisms include Christopher Reed, *Bloomsbury Rooms: Modernism, Subculture, and Domesticity* (2004), and Penny Sparke, *Elsie de Wolfe: The Birth of Modern Interior Decoration* (2005). None of these modernisms of the first half of the twentieth century, however, can be understood without also looking closely issues of national identity and design – see Wendy Kaplan, ed., *Designing Modernity: the Arts of Reform and Persuasion, 1885–1945* (1995) and the political, economic and psychological repercussions of two continents twice traumatized by violent nationalism and world war.