FRANCE

DOMINIQUE FOREST

PRECEDING PAGE
479. Pierre Paulin (1927–2009)
***577* or *Tongue* chair**, 1967
Made by Artifort (Netherlands)
See plate 543.

OPPOSITE
480. Eileen Gray (1878–1976)
Lounge chair for Villa E 1027 in Roquebrune-Cap-Martin, France, 1926–29
Varnished sycamore, synthetic leather, nickel-plated steel
Musée National d'Art Moderne, Centre Georges Pompidou, Paris

THE INTERWAR YEARS AND RECONSTRUCTION

In France, as in many other European countries, the interwar years were an important period of critical reflection on lifestyle and its artifacts. Furniture design remained predominantly traditional in its approach, although the modernist movement made some inroads. The heritage of fine cabinetmaking, exemplified by the great Jacques-Émile Ruhlmann, endured through the 1930s and '40s with distinguished practitioners including René Arbus, Jacques Adnet, Paul Dupré-Lafon, Jacques Quinet, and Maxime Old. At the same time, the unclassifiable Jean Royère developed the fantastical style that became his trademark. A taste for period furniture also persisted, thanks to a thriving market for antiques and, in Paris, the furniture makers of the Faubourg Saint-Antoine. However, the complacency of this bastion of tradition had been shaken during the 1910s by the independent-minded designer Francis Jourdain, son of Frantz Jourdain, the architect of the Samaritaine department store. In 1912, this committed socialist founded the Ateliers Modernes, where he devoted himself to the study of materials and functions, developing prototypes for furnishings that were simple, interchangeable, and mass-produced. Jourdain was the first to promulgate the theories of the Viennese architect Adolf Loos. In 1913, he published a French translation of Loos's *Ornament and Crime*, originally issued in 1908. Like Loos, Jourdain continued to advocate an ethic of simplicity throughout the 1920s: "Our need for comfort is increasing, and the space available to us is diminishing. We no longer have the right or the resources to waste space for purely decorative purposes. The luxury of large rooms is obsolete. How best to furnish small spaces . . . that is the distinctively modern problem."[1] Jourdain defended rationalism, as did Le Corbusier, who also called for profound intellectual change, questioning the "art" of living and furnishings, referring to the "equipment" of a house, criticizing decoration, and seeking simple, economical forms and materials.

Architecture played an essential role in this surge of fresh ideas. During the decisive decade of the 1920s, a number of newly built structures served as laboratories of modernity, combining architecture and furniture design. They included Le Corbusier's La Roche and Jeanneret villas of 1924, Robert Mallet-Stevens's Villa Noailles of 1928, Eileen Gray's Villa E 1027 of 1926–29 (plate 480), and Pierre Chareau's Maison de Verre of 1928–32. However, the concept of creating architecture, interior design, and furnishings as an ensemble remained the exception, being applied only to a very limited number of prestigious commissions. In order to emerge from the shadows and actively promote their theories, most avant-garde designers associated themselves with the Union des Artistes Modernes (UAM), established in 1929 by a group of architects, decorators, graphic designers, and artists. Whether or not they were among the founding members, almost all the advocates of the avant-garde participated in the UAM's exhibitions, including Jourdain, Le Corbusier, Mallet-Stevens, Gray, Chareau, René Herbst, Charlotte Perriand, and Jean Prouvé. The group supported the industrialization of production methods and endorsed the value of industrial expertise and materials, although their ties with business were nevertheless more tenuous than they would have liked. The iconic chaise longue designed in 1928 by Le Corbusier, Perriand, and Pierre Jeanneret has, it is true, been distributed by Thonet since 1931, but it remains the exception. Many projects remained at the prototype stage, or were produced as one-offs.

The advocates of industrialization heard little but echoes in the years between the wars, but their ideas were better received in the aftermath of World War II. Wartime devastation compelled France to embark on a massive reconstruction program, particularly for housing. The Ministry of Reconstruction and Urban Development was created in 1944, and Eugène Claudius-Petit was named its director in 1948. A close friend of Le

BELOW
481. René Gabriel (1890–1950)
Living room of a model apartment for the Le Havre reconstruction project, in *Le Décor d'aujourd'hui*, November–December 1947

OPPOSITE
482. Marcel Gascoin (1907–1986)
Child's bedroom for the Sotteville-lès-Rouen reconstruction project, presented at the Exposition Internationale de l'Urbanisme et de l'Habitat, Paris, 1947
Bibliothèque des Arts Décoratifs, Paris; Gascoin Archives

Corbusier, he was very open to modernist ideas. At the initiative of the state, the International Exhibition of Urban Development and Housing was held in the Grand Palais in Paris in 1947 to showcase a number of reconstruction projects that brought together architecture and furniture design (plate 482). Having adopted prefabrication techniques to reduce the cost of the structures themselves, the architects of these projects also enlisted designers who had expertise in simplified modes of production. Marcel Gascoin worked with the architect Marcel Lods in Sotteville-lès-Rouen, and Jacques Dumond with Pierre Sorel in Boulogne-sur-Mer. Perriand furnished the minimalist family home designed by Paul Nelson, Roger Gilbert, and Charles Sébillotte, while Le Corbusier offered models and plans of the future Unité d'Habitation in Marseille, which would be completed in 1952.

Of all the projects presented, that for the reconstruction of Le Havre, which had been largely destroyed, was a standout. The highly experienced architect Auguste Perret rose to the challenge of rebuilding an entire city. On the interiors, he collaborated with the designer René Gabriel, then aged fifty-seven, who was well versed in industrial methods of production and had created a very simple collection of furniture in 1944 for those affected by the war. In Le Havre, Gabriel imposed his vision of a highly rationalized home and established the tone of reconstruction furniture: simple, unadorned, and mass-produced (plate 481). For many, the abandonment of an artisanal approach became a vital goal, although the true democratization of modern furniture would await the arrival of new manufacturers and the gradual development of a nationwide distribution network, beginning in the mid-1950s.

Already active before the World War II, Perriand, Prouvé, and Gascoin were among the pioneers who continued, after the war, to crusade for the modern home. Prouvé was one of the few who had his own production facility: the Ateliers Jean Prouvé, which he maintained in Maxéville, a suburb of Nancy, between 1931 and 1954 (plate 486). He abandoned the metal tubing that had been favored by the avant-garde, selecting folded sheet metal as his preferred material (plates 483, 484). Perriand, also an early proponent of metal, soon turned to wood. This choice was consistent with her interest in alpine style furniture and her familiarity with Japanese traditions. When she traveled to Japan in 1940, she embraced the country's approach to housing design, just as Frank Lloyd Wright and Bruno Taut had earlier. "It wasn't a question of folkloric charm. It was a serious analysis of the timeless qualities of these houses

ABOVE, LEFT
483. Jean Prouvé (1901–1984)
***Antony* chair**, 1954
Made by Ateliers Jean Prouvé (France)
Sheet steel, metal tubing, beech plywood
Musée des Arts Décoratifs, Paris

ABOVE, RIGHT
484. Jean Prouvé (1901–1984)
***Standard* chair**, 1951–52
Made by Ateliers Jean Prouvé (France)
Sheet steel, lacquered metal tubing, oak plywood
Musée des Arts Décoratifs, Paris

RIGHT
485. Jean Prouvé (1901–1984)
***Compas* desk**, 1958
Made by Ateliers Jean Prouvé (France)
Distributed by Steph Simon (France)
Lacquered sheet steel, Formica veneer, wood
Musée National d'Art Moderne, Centre Georges Pompidou, Paris

OPPOSITE
486. **Advertisement for furniture by Ateliers Jean Prouvé distributed by Steph Simon**, 1949
Private collection

LES MEUBLES DES ATELIERS JEAN PROUVÉ

Concessionnaire exclusif :
Steph SIMON
52, Av. des Champs-Elysées
Paris-8e / ELY. 46-78

that fascinated me with their modernity. I wanted . . . to prove by example that standardized modules would not inevitably result in monotony, but rather in harmony."[2] When she returned to France, her work was marked by the materials, methods, and low profiles she had observed in Japan (plates 487, 488). Perriand had been Le Corbusier's assistant before the war, and, like Prouvé, she retained close ties with the architectural world. Both were to benefit from the country's massive reconstruction program.

Postwar France needed to make up for its inadequate school and university facilities. Huge building projects were launched in both Paris and the provinces, including the university complex in Antony, inspired by American campuses; fifteen new pavilions in the Cité Internationale in Paris; and the Aix-Marseille school of law. In their furnishings for these projects, Perriand and Prouvé focused on structure, using ordinary industrial materials (laminates, sheet metal) to achieve results at an economical price. The process of bending sheet metal continued to hold Prouvé's attention: "Steel tubes didn't satisfy me. Sheet metal was my inspiration." In his mind, furniture and architecture posed the same problems of construction. His *Compas* desk of 1949 closely reflects his thoughts on materials and structures (plate 485), and also recalls the porticoes that had appeared in his architecture since the 1930s. Widely used as a cafeteria table and office desk in university complexes, the *Compas* employed a cantilevered structure, replacing the conventional perpendicular legs with striking acute angles. This dynamic form became one of the designer's trademarks. Several other famous designs by Perriand and Prouvé originated in these university projects. For the campus in Antony, Prouvé designed conference tables with folded metal bases that evoked airplane wings. For the Maison de la Tunisie, Perriand designed the *Tunisie* bookshelf, in which metallic blocks serve both as supports for the shelves and as storage spaces. Perriand believed that "storage takes precedence," and her research with Pierre Jeanneret focused primarily on "equipping the house."

Gascoin, an early comrade of Prouvé and Perriand, had a similar point of view. Born in Le Havre, he drew inspiration from his meticulous observation of ocean liner fittings to develop a wide range of designs. These included wardrobes with doors incorporating shelves, and wall-mounted desks with bookcases. In 1951, he launched his own firm, ARHEC (Aménagement Rationnel de l'Habitation et des Collectivités), in order to industrialize the production of his "Gascoin storage systems." Gascoin proved to be a great popularizer of rationalism, and in the early postwar era, his workshop became a training ground for the next generation, including Motte, Mortier, Guariche, Richard, Philippon, Lecoq, and Paulin.

OPPOSITE
487. Charlotte Perriand (1903–1999)
***Ombre* stackable chairs, *Air France* stackable table, and built-in bookshelf (with a ceramic sculpture by Fernand Léger)**
Exhibition Proposition d'une synthèse des arts, Tokyo, 1955
Perriand Archives

BELOW
488. Charlotte Perriand (1903–1999)
Double-sided bookshelf for the Maison du Mexique in the Cité Internationale, Paris, 1953
Solid pine, aluminum sheet
Musée d'Art Moderne, Saint-Étienne Métropole

RIGHT
489. Atelier Le Corbusier, based on a plan by Charlotte Perriand (1903–1999)
Kitchen-bar for the Unité d'habitation in Marseille, designed 1950, built 1952
Made by Barberis and/or SITRAB
Solid oak, oak and beech plywood, molded aluminum, ceramic
Musée des Arts Décoratifs, Paris

THE POSTWAR AVANT-GARDE

The period between 1945 and 1975, known in France as *Les Trente Glorieuses*, marked a profound social transformation. From the new novel to the nouvelle vague film, neophilia was on the march, a phenomenon that was gently mocked in Jacques Tati's 1958 film *Mon Oncle*. In the domestic realm, the upheavals were driven by the process of internationalization. While Le Corbusier was revered, a school did not really form around him. Rather, in the postwar period, the younger generation of furniture designers cast a longing look overseas and were just as fascinated by Charles and Ray Eames in the U.S. as they were by Arne Jacobsen in Denmark. Florence Knoll's elegant open-plan workspaces, the Eameses' first fiberglass chairs, and Jacobsen's molded plywood chairs were powerful exemplars. Scandinavia and the U.S. were synonymous with modernity, and their design, films, and way of life exerted a universal fascination. The new magazine *La Maison française*, launched in 1946, prominently featured Scandinavian and American productions (plates 490, 491). Pierre Paulin and Olivier Mourgue traveled to Sweden, and in 1952 the Salon des Arts Ménagers organized the exhibition *Design for Use, USA*, which revealed the enviable "American way of life" to a broad audience. The opening of the first Knoll store in Paris in 1951 was both an artistic and social event, and its charismatic director Yves Vidal was a longtime proponent of American furniture.

Favorable economic conditions prevailed during this period. A newly prosperous France embarked on housing construction, and buyers benefited from an increase in their purchasing power and the development of consumer credit. To optimize the use of space in small city apartments and accommodate a new lifestyle, designers introduced new solutions, including low, armless chairs for the living room, open-space plans, various storage units, multifunctional furniture, and kitchens with appliances and storage integrated into the countertops. This type of functional kitchen, which had been introduced in Germany around 1925, gradually gained popularity in postwar France, particularly in public housing. In the late 1940s, Marcel Gascoin designed the integrated, flexible *Comera* kitchens, and in 1950, for Le Corbusier's Cité Radieuse in Marseille, Charlotte Perriand created a small but very functional kitchen that opened onto the dining room, allowing the lady of the house to converse with her guests (plate 489). During the 1960s, mass-produced versions were introduced. Philippon Lecoq's *Triennale* kitchen and Michel Buffet's *DF2000* for CEI Raymond Loewy were particularly ingenious proposals, the first featuring Formica, and the second, PVCs.

Materials were a factor in the renewal of kitchen design, as in furniture. Laminates met with unprecedented success, particularly the American brand Formica (plate 492). This remarkable material, produced by compressing paper and resin under high heat, had been invented in the early twentieth century. Its durability, color choices, and hygienic qualities strongly appealed to customers. Manufacturers of new materials enthusiastically promoted their products at the Salon des Artistes Décorateurs: Formica in laminates, Uginox in stainless steel, and Glaces de Boussois and Saint-Gobain in glass. Furnishing the raw materials, these companies organized competitions at the salon for young designers seeking to gain recognition. Roger

RIGHT
490. **Cover of *La Maison française***, No. 33, Christmas 1949
Bibliothèque des Arts Décoratifs, Paris

BELOW
491. **Living room with furniture by Alain Richard and André Monpoix**, in *La Maison française*, March 1955
Bibliothèque des Arts Décoratifs, Paris

BELOW
492. **Advertisement for Formica**,
in *Art et Décoration*,
March 1959
Private collection

OPPOSITE, TOP
493. Mathieu Matégot (1910–2001)
***Nagasaki* chair**, 1954
Made by Ateliers Mathieu Matégot (France)
Lacquered steel tubing, perforated sheet metal ("rigitulle")
Galerie Jousse, Paris

OPPOSITE, MIDDLE
494. Antoine Philippon (1930–1995) and Jacqueline Lecoq (b. 1932)
Desk, 1967
Made by E.I.B Minvielle (France)
Glass with Emauglas coating, wood, white laminate, aluminum

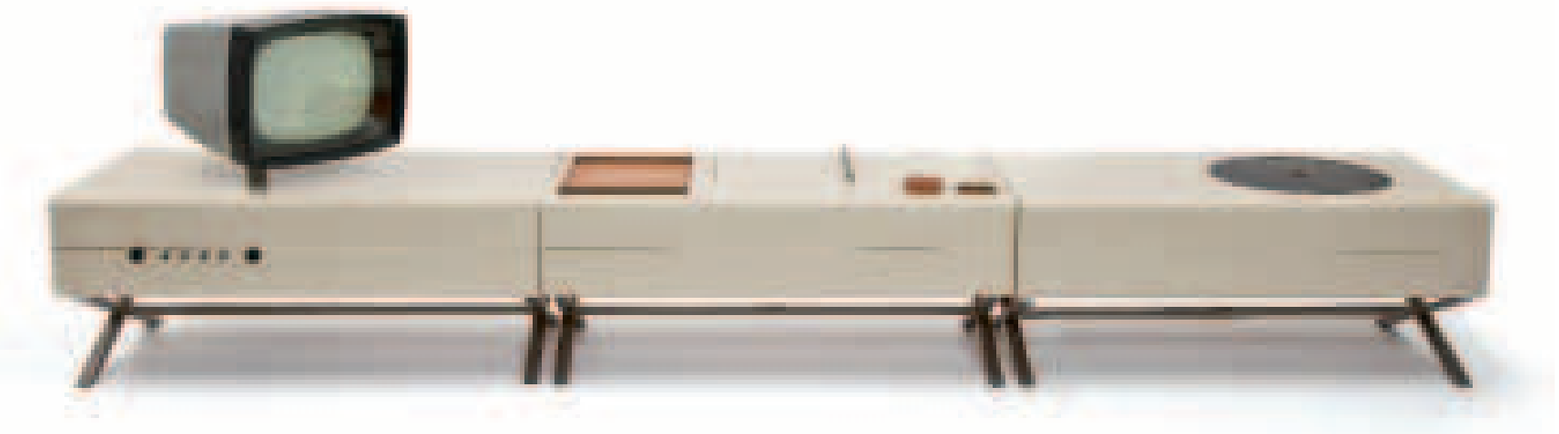
OPPOSITE, BOTTOM
495. Antoine Philippon (1930–1995) and Jacqueline Lecoq (b. 1932)
TV stand/record player with bar, 1958
Prototype
Formica, cherry wood, chrome-plated steel, brass
Musée des Arts Décoratifs, Paris

Fatus, Antoine Philippon, and Jacqueline Lecoq all presented pieces that were outstanding in their rigor and inventiveness, but, unfortunately, they did not find manufacturers. Meanwhile, during the war, Mathieu Matégot had discovered a form of perforated sheet metal that he called "rigitulle," and which he used to develop lightweight, imaginative furnishings and accessories (plate 493).

A number of synthetic materials were also highly successful. In 1949, the Musée des Arts Décoratifs organized a show on "plastic materials in modern life." Plastic was introduced in a variety of mass-market items for the home. Representative of this type of product were Gilac's polyethylene bowls, launched in 1953 with the slogan "Plastique Gilac, plastique miracle." More exclusive but very sensational was the "entirely plastic house" designed by Ionel Schein and René Coulon, with an interior by Alain Richard. Sponsored by the mining companies Charbonnages de France and Houillères du Nord, it was displayed at the Salon des Arts Ménagers in 1956. Despite these important inroads, synthetic materials began to be used in furniture only somewhat later, toward the end of the 1950s.

Inspired by the stimulating atmosphere of the period, the younger generation felt they had a mission to shape public taste and democratize contemporary furniture. About twenty-five years old, mostly recent graduates of the elite École Nationale Supérieure des Arts Décoratifs, these "young wolves"[3] were ready to lead the charge. Well aware that there is strength in unity, Joseph-André Motte, Pierre Guariche, and Michel Mortier established the ARP (Atelier de Recherche Plastique) to work with manufacturers receptive to new forms (plate 497): Disderot for lighting, Huchers-Minvielle for furniture, and Steiner for seating.

The founders of the ARP, along with Antoine Philippon and Jacqueline Lecoq (plates 494, 495), Roger Fatus, René-Jean Caillette, Étienne Fermigier, Alain Richard, Dirk-Jan Rol, and Janine Abraham, invented a new style of furniture that was functional, elegant, and minimal, with simple lines. Intent on creating a new way of life for as large a public as possible, they were concerned with the issue of limited space, and many also worked in the field of interior design. Their ambitions depended, however, on finding manufacturers for their furnishings. The first successes came in the early



OPPOSITE, TOP
496. René-Jean Caillette (1919–2004)
Dining room at the Salon des Arts Ménagers, Paris, Grand Palais, 1961
Diamant chairs made by Steiner; table and buffet made by Charron
Les Arts Décoratifs, Paris; Documentation Center
Photograph by Jean Collas

OPPOSITE, BOTTOM LEFT
497. Joseph-André Motte (1925–2003)
Tripod chair, 1949
Made by Rougier (France)
Woven rattan, painted beech, steel
Musée des Arts Décoratifs, Paris

OPPOSITE, BOTTOM MIDDLE
498. Pierre Guariche (1926–1995)
***Tonneau* chair**, 1953
Made by Steiner (France)
Molded plywood, lacquered steel tubing, foam, imitation leather
Musée des Arts Décoratifs, Paris

OPPOSITE, BOTTOM RIGHT
499. René-Jean Caillette (1919–2004)
***Diamant* chair**, 1957
Made by Steiner (France)
Molded and painted elm plywood, chrome-plated steel tubing
Musée des Arts Décoratifs, Paris

1950s: Steiner distributed Guariche's *Tonneau* chair in molded plywood (plate 498) and Caillette's *Diamant* chair (plates 496, 499); Oscar sold ingenious storage units; and, with its modular pieces, Huchers-Minvielle successfully introduced the concept of kit furniture.

While some producers remained wary of these new approaches, others underwent a spectacular renewal with the help of the younger generation of designers. Meubles TV worked with Paulin and Abraham, and particularly Alain Richard and André Monpoix. Huchers-Minvielle sought advice from the ARP, Philippon and Lecoq, Guariche, and Rol. Georges Charron founded Groupe 4 with Motte, Caillette, Richard, and Geneviève Dangles. Inheritors of a long tradition of upholstered furniture, the great French chair makers, including Steiner and Roset, collaborated with younger designers and modernized their factories. Steiner was among the first to do so, in the early 1950s, enlisting the services of Guariche, Motte, and Mortier, and introducing chairs in molded plywood and polyester reinforced with fiberglass. Somewhat later, in the 1960s, the venerable firm Roset called upon Bernard Govin and Michel Ducaroy.

A number of outstanding new firms were also established at this time. Charles Bernard founded Airborne in 1951, at first using designs by the ARP. In 1959, he distributed a chair in the international style, the *Joker*, by Olivier Mourgue, still a student at the time; this marked the beginning of a remarkable collaboration that would bear its fruit in the 1960s and '70s. Like Mourgue, Pierre Paulin took up the cause of a style far removed from that which would make his reputation in later decades. He worked with Meubles TV on an original armchair, model 273, known as the *Anneau* (Ring), whose form was inspired by a folded strip of paper (plate 501). He also provided Thonet France with numerous designs for chairs and elegant little desks made from laminates and metal tubing (plate 500).

Two major new players emerged in the realm of lighting: Disderot and Biny. Motte, Guariche, Richard, Buffet, and Fatus worked with these companies, focusing on mobility and the reflective properties of light (plates 502, 504). Serge Mouille produced his own fixtures in sheet metal, with novel shapes and articulations (plate 503). In the mid-1950s, several Parisian galleries—Galerie Mai, Stef Simon, and Meubles et Fonction—supported innovative designers, as did a few independent stores in the provinces. Stef Simon backed established names, such as Jean Prouvé, Charlotte Perriand, and Serge Mouille, while Galerie Mai and Meubles et Fonction offered opportunities to younger entrants: Guariche and Paulin showed at Galerie Mai, and Fermigier and Mourgue, at Meubles et Fonction. Despite some successes for modern furnishings, especially outside Paris, the furniture trade was generally averse to change. It was not until the late 1950s that France began to develop a structured distribution network, with Claude Vassal's Meubles Pilotes, the Huchers-Minvielle stores, and later those of Roche Bobois.

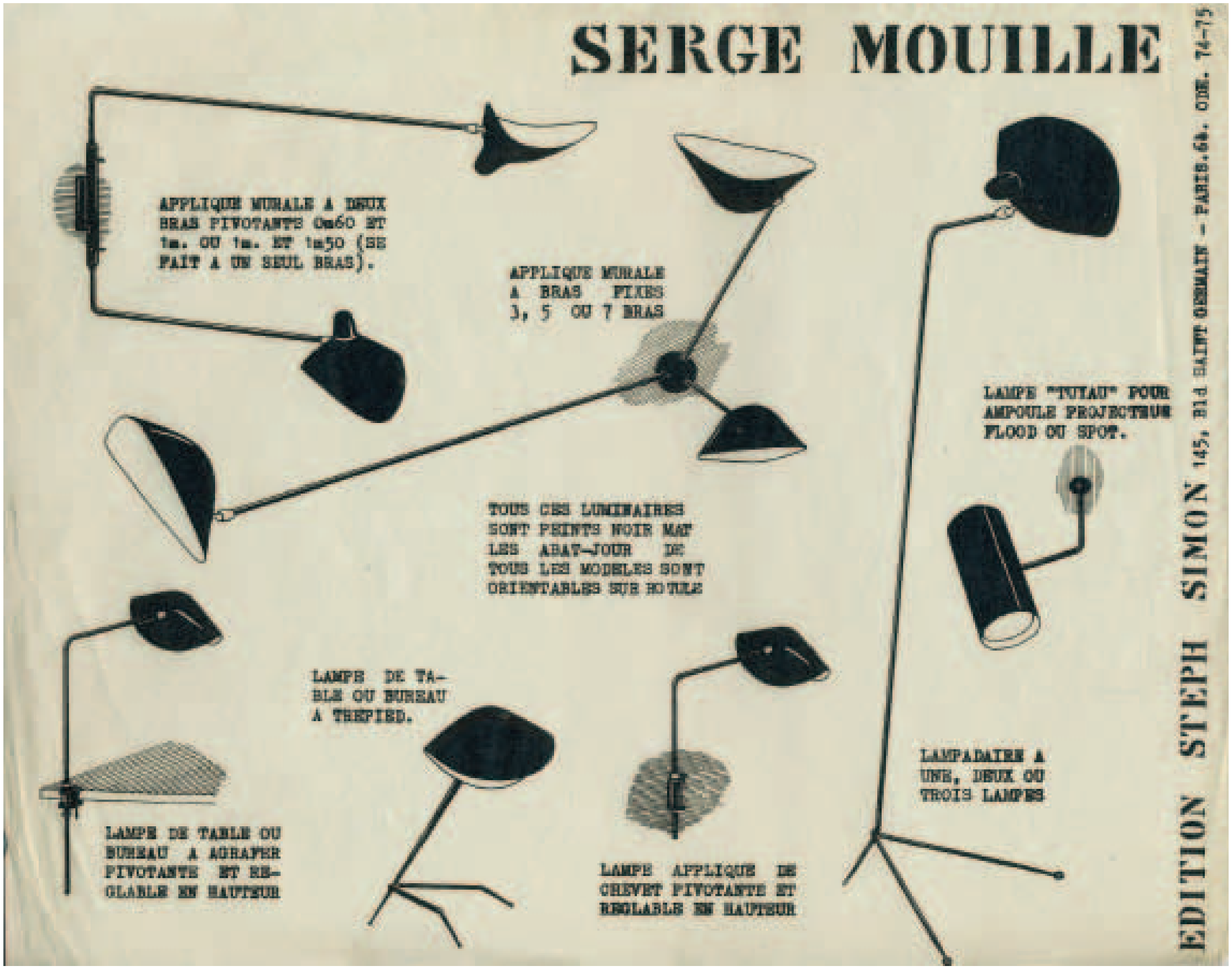
BELOW
500. Pierre Paulin (1927–2009)
***CM 141* desk**, 1954
Made by Thonet (France)
Multi-ply oak, laminate, painted steel sheet and tubing
Fonds National d'Art Contemporain, on loan to the Musée des Arts Décoratifs, Paris

OPPOSITE
501. Pierre Paulin (1927–2009)
Chair *No. 273*, known as the *Anneau*, 1953–54
Made by Meubles TV (France)
Stainless steel, leather
Musée des Arts Décoratifs, Paris

LEFT
502. Pierre Guariche (1926–1995)
***G1/SP* floor lamp**, 1951
Made by Disderot (France)
Lacquered metal, brass, electrical components
Galerie Kreo, Paris

BELOW
503. **Advertisement for lamps by Serge Mouille sold by Steph Simon**, 1956
Galerie Downtown François Laffanour

OPPOSITE
504. Pierre Guariche (1926–1995)
***G24* desk lamp**, 1953
Made by Disderot (France)
Lacquered metal, brass, electrical components
Galerie Pascal Cuisinier, Paris



BELOW
505. **Salon des Arts Ménagers, Paris, Grand Palais**, 1956
Les Arts Décoratifs, Paris; Documentation Center
Photograph by Jean Collas

OPPOSITE
506. Jacques Nathan-Garamond (1910–2001)
Poster for the first *Formes Utiles* exhibition, at the Musée des Arts Décoratifs, Paris, 1949–50
Museum of Modern Art, New York

TOWARD MASS CONSUMPTION

In the early 1950s, everyday consumer goods, even more than costly furniture, became the symbols of comfort and well-being. In 1954, Boris Vian's *La Complainte du progrès* pointed out both the advantages and the limitations of domestic conveniences. High consumer demand was driving strong industrial growth and an economic recovery, bringing problems of design to the fore. Two distinct initiatives arose in response, one led by the "enlightened aesthetes" of Formes Utiles, a subgroup of the UAM, and the other by an individual, Jacques Viénot. Both sought to make manufacturers aware of the importance of "industrial design," a concept already recognized in the U.S. and Great Britain, but not yet in France.

Following the war, the UAM tried to recover its place by staging exhibitions, and the mood was favorable to the ideas it promoted: equipping and rationalizing the home. The architect Georges-Henri Pingusson drafted a new UAM manifesto in 1949 to replace the earlier one of 1934. Also in 1949, the UAM established the Formes Utiles division, which gradually evolved into a kind of association within the association. The architect André Hermant, the movement's theorist, wanted to foster the production of high-quality everyday objects by encouraging contacts between designers and industry, and to attract public attention to the topic by mounting themed exhibitions. The first of these, *Formes Utiles, Objets de Notre Temps*, was organized at the Musée des Arts Décoratifs in 1949 (plate 506), and later shows were held at the Salon des Arts Ménagers (plate 505).

The Formes Utiles exhibitions offered selections of different types of domestic equipment: cleaning products, clothes irons, coffee grinders, and cooking utensils, among others. In contrast to the Salon des Arts Ménagers, these presentations had no commercial aspect: they were simply intended to allow an informed public to explore trends in industrial design. Unfortunately, the pedagogical initiatives of Formes Utiles very rarely resulted in collaborations between designers and industry. Following a period of friction, Formes Utiles split from the UAM in 1957, and Hermant published the definitive work on the group in 1959. The Formes Utiles exhibitions continued beyond the postwar years, until, in 1983, a final show marked the group's activism.

While Formes Utiles engaged the debate on a theoretical level, Viénot was attempting to establish a new profession. Rejecting the English term "industrial design," in 1951 he founded the Institut d'Esthétique Industrielle, which published a review intended to promote a taste for industrial goods and impart an aesthetic value to the creations of the machine age. Viénot wanted the institute to play the same role in fostering contacts between designers and industry as the Council of Industrial Design, established in London in 1944. The very French Institut d'Esthétique Industrielle did

BELOW
507. Jean-Louis Barrault
Hair dryer, c. 1975
Made by Moulinex (France)
ABS plastic, painted aluminum
Jean-Bernard Hebey collection, Paris

OPPOSITE
508. Éric (Castel) (1915–1997)
Poster for *Calor* clothes irons, 1966
Bibliothèque Forney, Paris

at least successfully open the way to the establishment of international organizations in the country. It was thanks to Viénot that the ICSID (International Council of Societies of Industrial Design) gained a foothold in France in 1957.[4]

Viénot's initiative focused on the modernization of household appliances. In industrialized countries, electrification had revolutionized domestic equipment (plate 507) and created a strong demand for appliances both large (stoves, washing machines, vacuum cleaners, and refrigerators) and small (toasters, mixers, coffeemakers, and fans). This burgeoning market had an ideal showcase in Paris: the Salon des Arts Ménagers. Attended by a vast audience from all over France, this salon played a vital role in publicizing new products. First established in 1923 and suspended for the duration of the war, it reopened in the Grand Palais in 1948.[5]

In response to the modernization of contemporary consumer goods, Viénot opened the design consulting firm Technès in 1949, adopting the powerful slogan "We buy with our eyes." Viénot believed that technical progress had to correlate with aesthetic progress. At a time when industry still had little grasp of the importance of design, Technès was the only firm of its kind in France. It was staffed by two outstanding talents, Jean Parthenay and Roger Tallon, and its clients ranged from Calor, a maker of electric appliances, to Poclain, a manufacturer of heavy construction equipment. Others included Japy, a former clockmaker that had converted to producing typewriters, and the toolmaker Peugeot Frères. Switching its focus from heating fixtures and large appliances to small appliances, Calor was one of Technès's first accounts, calling on the firm regularly between 1953 and 1959. Parthenay in particular designed many items for Calor, including an electric razor, as well as the electric iron that became Calor's leading product (plate 508).

Technès was soon joined by other design consultancies specializing in different areas. At a time when the spirit of internationalism was faltering, Raymond

OPPOSITE, TOP
509. CEI Raymond Loewy
Kitchenware, 1959
Made by Le Creuset
Enameled cast iron
Pictured in *Esthétique + Industrie*, 1964

OPPOSITE, BOTTOM
510. CEI Raymond Loewy
***Coquelle* casserole**, 1958
Made by Le Creuset (France)
Enameled cast iron
Musée d'Art Moderne, Saint-Étienne Métropole

BELOW
511. CEI Raymond Loewy
***DF 2000* chest**, 1965
Made by Doubinski Frères (France)
Thermo-molded ABS plastic, lacquered aluminum, white laminate
Fonds National d'Art Contemporain, on loan to the Musée des Arts Décoratifs, Paris

Loewy's firm occupied a unique place between Europe and the U.S. Born in France, Loewy had a brilliant prewar career as an industrial designer in the U.S., working on trains for the Pennsylvania Railroad and cars for Studebaker, as well as on the visual identities of major brands, including Lucky Strike cigarettes and Coca-Cola. His book *Never Leave Well Enough Alone* (1951) was positively received in the U.S. but criticized in France, where it was translated under the title *La laideur se vend mal* (Ugliness Doesn't Sell). André Hermant, in patricular, opined that "ugliness sells very well."

In 1952, when Loewy was at the peak of his success in the U.S., he established an office in France under the name Compagnie Américaine d'Esthétique Industrielle. Under the direction of Harold Barnett, with the assistance of Pierre Gautier-Delaye and Jacques Cooper, it concentrated at first on commercial architecture, creating interiors for the department store BHV. A wave of anti-American sentiment led Loewy to eliminate the word "American" from the venture's name, so that it became the Compagnie d'Esthétique Industrielle, also known as CEI Raymond Loewy.

The inauguration of the Common Market led Loewy to expand the operations of his French office. It had a succession of American directors, often operating jointly. One of them was Evert Endt, a graduate of the Zurich school of graphic arts, who developed the firm's practice in that field. With the arrival of the industrial designer Michel Buffet in 1957, CEI Raymond Loewy operated in three areas: commercial architecture; graphics, branding, and packaging; and product design. It focused particularly on underserved niches, such as store interiors and packaging, and won important contracts with the petroleum company BP, the baking company Lefèvre Utile (Lu), the Newman ready-to-wear label, the sewing machine maker Elna, the kitchen utensil manufacturer Le Creuset, the food group Nestlé, and the cleaning product producer Cotelle et Foucher (Mir, Javel La Croix, etc.).

The contract for Shell's visual identity, awarded at the beginning of the 1970s, marked the apogee of Loewy's reputation in France. The firm developed a comprehensive design for Shell's service stations: uniforms, ancillary products, packaging, and logo. At the

BELOW
512. **Alarm clock**, c. 1970
Made by Jaz (France)
Musée des Arts Décoratifs, Paris

same time, it was also working on the interior of the *Concorde*, the supersonic airplane introduced by the British Airways and Air France consortium in 1973. The *Concorde* commission encompassed employee uniforms and the plane's interior (everything from the seats to the glassware), as well as the airport arrival lounges. While point of sale and visual identities represented a substantial portion of the Loewy agency's business, it also had some achievements in product and furniture design: a porcelain service for Bernardaud, pans for Le Creuset (plates 509, 510), and, most notably, the *DF 2000* range of furniture and kitchens for Doubinski, made from colored ABS plastic (plate 511).

By the 1960s, manufacturers began to appreciate the value added by design consultants and enlisted their services more consistently. Moulinex, founded by Jean Mantelet in 1932, expanded its successful product line to include multifunctional food processors, including the famous *Robot Marie*. In 1962, the designer Jean-Louis Barrault began a fruitful collaboration with Moulinex, imprinting its products with his distinctive angular, interlocking forms. Barrault earned a strong reputation and went on to work for many other manufacturers of heating and cooking devices, including Rozières, De Dietrich, and Chappée.

Terraillon offers an illustration of a bold and successful business transformation. Founded as a small clockmaking operation in 1946, the firm began to produce various kinds of scales in 1956. Between 1968 and 1970, it worked with the Italian design Marco Zanuso to develop the *T111B* bathroom scale and the *BA 2000* compact kitchen scale. The latter scale echoed the two-part form of the portable radio Zanuso had designed for Brionvega in 1964, in collaboration with Richard Sapper. Its cover, symmetrically shaped and easy to handle, can be turned over and used as a receptacle for the ingredients to be weighed (plate 514).

Like Terraillon, the Société d'Emboutissage de Bourgogne (SEB) remade itself to meet the demands of modernity. Originally a producer of household utensils in tinplate, SEB introduced the legendary *Cocotte-Minute* pressure cooker, made from stamped metal, in 1953, and some time later, in the 1960s, entered the field of small electrical appliances. In the 1970s, the company developed a number of innovative products first with Gilles Rozé, when he was employed at Technès, and then with Rozé in partnership with Yves Savinel, when both were at the Sopha agency. Playful and colorful, SEB's toaster and yogurt maker made from ABS plastic broke with the heavier, chrome-plated look of American models (plates 515, 516). Design consultancies multiplied during this period. In the 1970s and '80s, Lonsdale, Alain Carré, Jean-Pierre Vitrac, Georges Patrix, Daniel Maurandy, Jean-Louis Barrault, ENFI Design, and others modeled or remodeled the entire universe of the everyday, from the Mini-tel to the mini-oven.

TOP, LEFT
513. **Salad spinner**, 1967
Made by Moulinex (France)
Polyethylene
Musée d'Art Moderne,
Saint-Étienne Métropole

TOP, RIGHT
514. Marco Zanuso (1916–2001)
Kitchen scale, 1970
Made by Terraillon (France)
ABS plastic, methyl
polyacrylate
Museum of Modern Art,
New York

BOTTOM, LEFT
515. Gilles Rozé (b. 1947)
for Technès
Yogurt maker, 1974
Made by SEB (France)
ABS plastic, polystyrene, glass
Musée d'Art Moderne,
Saint-Étienne Métropole

BOTTOM, RIGHT
516. Gilles Rozé (b. 1947)
for Technès
Toaster, 1974
Made by SEB (France)
Metal, ABS plastic
Musée d'Art Moderne,
Saint-Étienne Métropole

517. Guy Boucher for the Harold Barnett agency
***Saturna* table service**, 1968
Made by Duralex, Saint-Gobain Group (France)
Pressed, molded, and tempered borosilicate glass
Musée des Arts Décoratifs, Paris

BELOW
518. Roger Tallon (1929–2011)
***Portavia 111* portable television**, 1963
Made by Téléavia (France)
Musée des Arts Décoratifs, Paris

OPPOSITE
519. Roger Tallon (1929–2011)
***Wimpy* chair**, 1957
Made by Sentou (France)
Aluminum, molded plywood
Musée des Arts Décoratifs, Paris

INDUSTRY AND DESIGN: ROGER TALLON

Roger Tallon holds a special place in French design. As the designer Marc Berthier has aptly said, "If industrial design, or design at all, exists in France, the credit goes to Tallon. If it got its second wind, that's thanks to Starck."[6] Tallon stood at the intersection of industry and design, and bridged the American and European aesthetics. This "Gallo-Ricain," to use Catherine Millet's term,[7] combined the discipline and rigor of an engineer with the creative dynamism of the U.S., a country he knew well. He worked for two American companies in the early years of his career—the heavy equipment manufacturer Caterpillar and the multinational chemical company Du Pont de Nemours.

But Tallon's adventure truly began in 1953, at the side of another true believer, Jacques Viénot, who hired him at Technès. There Tallon developed small household appliances for Peugeot (the multifunctional appliance *Peugimix*, coffee grinders, whisks, drills, and electric toothbrushes).[8] He also worked on dozens of other projects, including an innovative compact motorbike, *Le Taon*, for Derny, the *Sem Veronic* 8 mm camera with no visible lens, a slide projector for Kodak, a typewriter for Japy, and machine tools for Gambin. Among these undertakings, the *Gallic 16* lathe for the Belgian company La Mondiale was particularly noted for the meticulous care given to the design of an enormous machine tool. But the project that brought Tallon to the attention of a wider public was the *P111* portable television he designed for Téléavia in 1963 (plate 518). With its compact, rounded form and black and white coloring, it was made to be viewed from all angles. It broke with the aesthetic of competing models by integrating the screen, cathode ray tube, and controls into a unified shape.

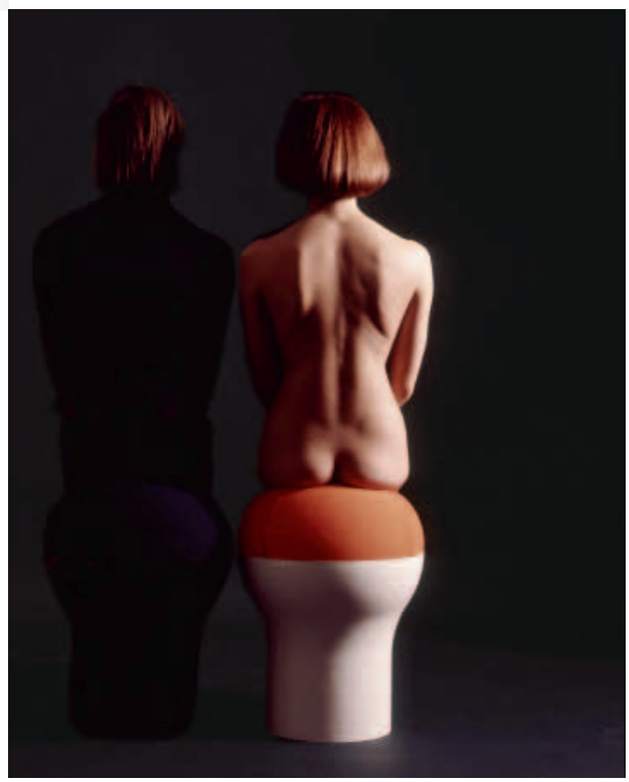
Tallon worked at Technès for twenty years, all the while struggling against the concept of the "industrial aesthetic" so dear to Viénot. Tallon promoted the use of the word "design," eventually with success. A militant advocate for industrial design, Tallon was fiercely opposed to "styling," or mere "artistic window dressing," epitomized in his view by the work of Raymond Loewy. Hostile to the notion of simply camouflaging an object with a modern facade, Tallon insisted, from a very early point in his career, on an overall design concept in which the interior workings would correspond with the outside appearance. "If everything is connected, it will all hold together," was his creed. Given his philosophy, Tallon had little interest in the home. "As far as I'm concerned, design has nothing to do with the private sphere. It's something that concerns the collective interest, on the industrial level."[9]

His *Wimpy* chair, designed for the first French fast-food chain, was intended as an homage to the Eameses (plate 519). It was delivered in pairs, disassembled for easier shipping. He made very little furniture for personal use, although his rare incursions into this field were striking. They included his *TS* chairs (the initials stood for Tallon and Sentou, his distributor) and the *Module 400* series, originally made for a nightclub and later distributed by Galerie Lacloche. This series included a helicoid staircase (plate 520) and chairs padded with convoluted foam, which Tallon had discovered in the sporting goods store Au Vieux Campeur (plate 521). The project allowed him to apply his favorite principles: a comprehensive product line and the use of modules. Not only the *Module 400* series but also the *3T* table service and the *Cryptogamme* furniture line (plate 522) were built around a basic module whose size and function were modified so as to create a very large repertoire of items.

OPPOSITE
520. **Apartment with a helicoid staircase by Roger Tallon**
Photograph by Jean-Pierre Leloir

ABOVE
521. Roger Tallon (1929–2011)
***Module 400* chair**, 1966
Made by Galerie Lacloche (France)
Polished aluminum, Spazmolla foam
Musée National d'Art Moderne, Centre Georges Pompidou, Paris

RIGHT
522. Roger Tallon (1929–2011)
***Cryptogamme* stool**, 1969
Made by Galerie Lacloche (France)
Plastic, wood, polyurethane foam, jersey
Les Arts Décoratifs, Paris; Documentation Center, Roger Tallon Archives



BELOW
523. Roger Tallon (1929–2011)
***Mach 2000* chronograph**, 1976
Made by Lip (France)
Les Arts Décoratifs, Paris;
Documentation Center,
Roger Tallon Archives

OPPOSITE, TOP
524. Roger Tallon (1929–2011)
Interior of the *Corail* train for the SNCF, 1975
Les Arts Décoratifs, Paris;
Documentation Center,
Roger Tallon Archives

OPPOSITE, BOTTOM
525. Roger Tallon (1929–2011)
SNCF *TGV Duplex* on the Paris-Lyon line
Entered service in 1996

Tallon remained with Technès until 1973, when he founded his own agency, Design Programmes. That same year, he also created the *Mach 2000* line of watches and chronometers for the clockmaker Lip (plate 523), which was then embroiled in labor conflicts. With asymmetrically mounted dials and winding mechanisms and bright colors, these timepieces represented a complete break with the traditional styles that dominated watchmaking. Every element, from the dial to the wristband, was designed to maximize visual coherence. In 1984, Tallon joined ADSA, which had been established by Marc Lebailly, Maïa Wodzislawska, and Pierre Paulin.

While Tallon displayed a protean inventiveness throughout his long career, he received the most recognition internationally for his work in transport design: the Mexico City metro in 1967, the first model of the *TGV 001* in 1967, the *Corail* train in 1974–75, the *TGV Atlantique* in 1983, the *TGV Duplex* in 1991, the Montmartre funicular in 1991, the *Météor* metro line in 1991, the Eurostar in 1992, and the plans for a high-speed train in the U.S. (never realized) in 1993. Tallon was the first designer to work for the SNCF, the French national railroad company. Designed in 1971 and put into service in 1974–75, the SNCF's *Corail* train was a tremendous success (plate 524). Envisioning the train as a living space, Tallon abandoned compartments for a unified expanse, reminiscent of the interior of an airplane. Simplicity, coherence, and comfort were the essential concepts underlying the design of the *Corail*. Tallon took a comprehensive approach to planning the space and the fittings (ergonomic seats, fold-down tables in second class, air-conditioning, etc.). He also rethought the signage, devising new pictograms and new renderings of route maps.

The *Corail* was widely appreciated for its comfort and excellent performance, but perhaps most importantly, it anticipated another revolution in train travel, the high-speed *TGV*. Thanks to his charisma and technical know-how, Tallon was able to collaborate closely with the Alstom and SNCF engineers working on this groundbreaking project. While Tallon's original 1967 model for the *TGV 001* was not adopted (Jacques Cooper's design being used instead), he participated in the planning of the *TGV Atlantique* (1983) and the next-generation *TGV Duplex* (1991), for which he designed, in particular, the nose of the locomotive (plate 525). Exceeding the standard even of the *Corail*, Tallon enhanced the *TGV*'s comfort and accommodations by using lighter construction materials, adjustable armrests, and seats upholstered with comfortable and durable velour.

In 1985, Tallon was the first to receive the newly created Grand Prix Nationale de la Création Industrielle. In addition to his personal accomplishments, he established an official place for design in France by organizing courses on the subject at the prestigious École Nationale Supérieure des Arts Décoratifs in 1962.[10] Tallon, who possessed an outgoing personality, built ties with his international counterparts, including Tomás

OVERLEAF
526. **Advertisement for the Renault 4CV**, 1949
Introduced in 1946
National Motor Museum, Beaulieu (U.K.)

PAGE 423
527. **New 4CVs at the Renault factory in Boulogne-Billancourt**, 1951
Photograph by René-Jacques

Maldonado and Massimo Vignelli, and became an active member of the ICSID. He was as much interested in art as in industrial design, and was close to artists such as César and Yves Klein. The gigantic singing heads he exhibited at the 1970 Osaka World's Fair show how this highly rational designer discovered new forms and materials through his artistic contacts. With his highly original and open mind, Tallon changed the widespread perception that French design was primarily focused on furniture and decoration.

THE AUTOMOTIVE INDUSTRY

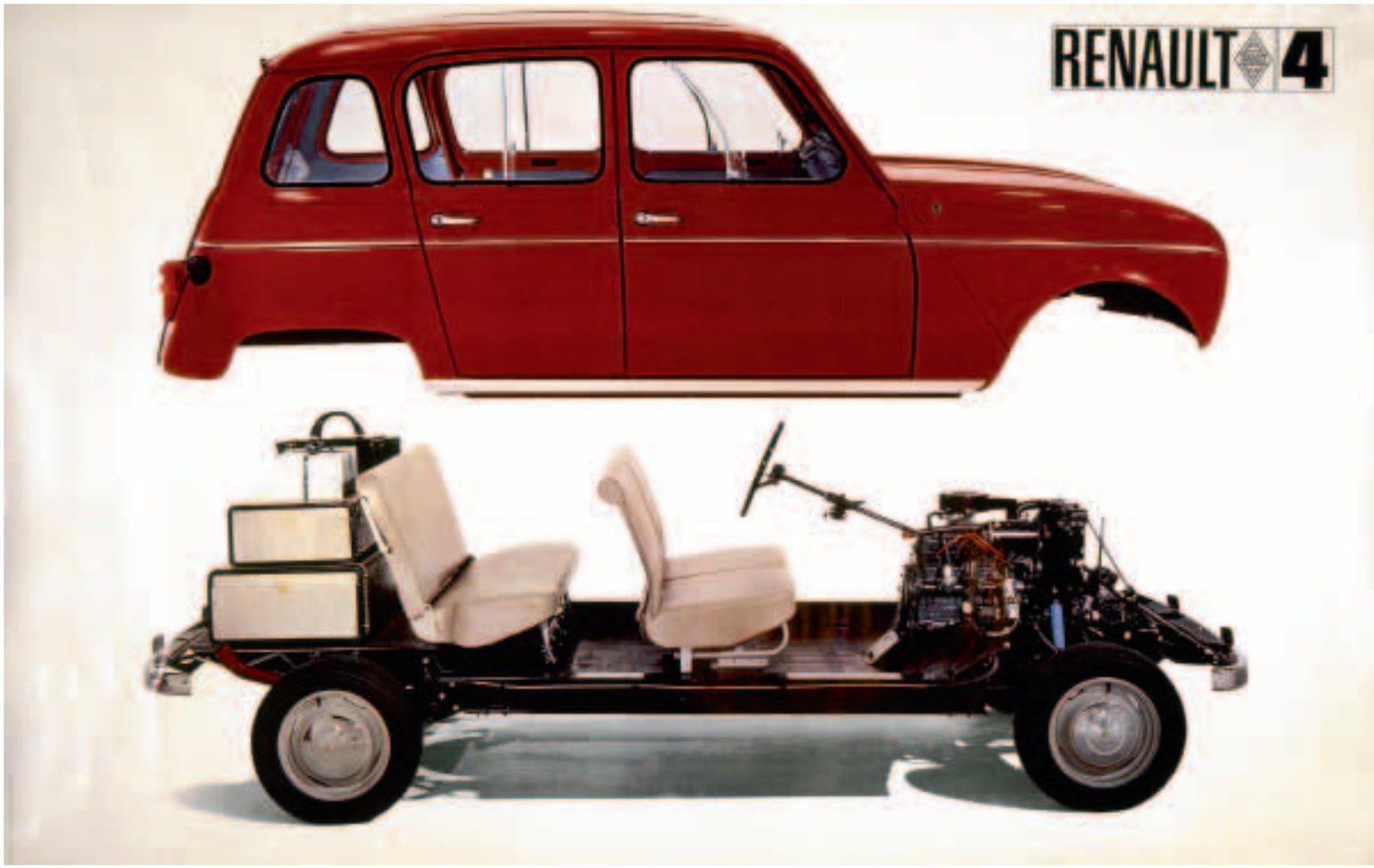
Roger Tallon was fascinated by all aspects of design and left a particularly strong mark on rail transport, but, curiously enough, this connoisseur of automobiles had little involvement with car design. Nevertheless, this field was the focal point of industrial design for the mass market. It is, of course, inseparable from the stories of the great French marques. Many prestigious names (Talbot, Delage, Delahaye) disappeared following the war, leaving France with five principal automakers: Peugeot, Renault, Citroën, Simca, and Panhard. While these firms shared a rapidly expanding market buoyed by a broad-based improvement in the French standard of living, they were confronted by significant industrial challenges. Following five years of war that had stifled innovation, virtually the entire fleet of French automobiles had to be replaced. Almost all the available models had been designed in the 1930s. The most common four- or five-seater was still the Citroën *Traction*, a model introduced in 1934, with an impeccable design by Flaminio Bertoni. Its lines were typical of the prewar era: a tall radiator grille decorated with an impressive chevron, vents along the sides of the hood, a broad front mud guard, a black body, and whitewall tires. Citroën was, in fact, still making the *Traction* in 1955, the year it introduced its new sedan, the *DS*. The *DS*, also designed by Bertoni, in collaboration with Citroën's in-house team, impressed consumers with its original styling and technical innovations. Particularly appreciated was its comfortable ride, a result of the new hydropneumatic self-leveling suspension, which caused a sensation in the automotive world. The bold design of the *DS* was soon immortalized by Roland Barthes, who wrote about it in his *Mythologies*. This vehicle represented a true industrial advance, combining a very contemporary aesthetic with impressive mechanical features (not only the suspension, but also the automatic clutch and pivoting headlights); indeed, the *DS 21* and its less powerful, more modestly equipped variant, the *DS 19*, broke decisively with prewar design

LEFT
528. **Brochure for the Citroën *2CV*, designed by Delpire agency, Paris**, 1963
Musée des Arts Décoratifs, Paris

BELOW
529. **Citroën *2CV***
Introduced in 1948

OPPOSITE, TOP
530. **Renault *4* (or *4L*)**
Introduced in 1961

OPPOSITE, BOTTOM
531. **Advertisement for the Renault *4* (or *4L*)**, c. 1965



(plate 532). The *DS 21* was the first high-tech family car, aerodynamic and well equipped to handle any bumps in the road. Comfort and speed were now within reach in a newly prosperous France: "Don't wait any longer! Drive tomorrow's car today!" exclaimed the advertisements. The DS won first prize for industrial design at the 1957 Triennale di Milano, where it was mounted upright, like a rocket on a launchpad. And at the World's Fair in Brussels the following year, it was displayed outdoors beside *Sputnik* 3, creating a sensation. The *DS* was rapidly embraced by the ruling classes, as well as by a bourgeoisie that was taken with modernity and intent on keeping up appearances.

Other carmakers were also overhauling their range of family cars. Peugeot made an initial break with the past with its *403* of 1955, a compact car with "serious" lines, designed by the famed Turinese "couturier" of automobiles, Pininfarina. But despite its rounded, stylish forms, the *403* retained a slightly heavy, conventional look. It was not until five years that later Peugeot introduced a truly modernized car, the *404* (plate 533). This time, Pininfarina gave the body very structural horizontal lines that terminated in framing elements projecting from the car's front and rear. Pininfarina delivered an even more original design in 1968 with the *504*, whose style and quality kept it in production for a remarkably long time.

Renault targeted the same market for family cars with its *Frégate*, a sedan with fluid, rounded lines, launched in 1951. It was followed by the *R16* of 1965, which featured a very new design: for the first time, the conventional trunk was eliminated and replaced with a hatchback. Simca offered the *Aronde* line of family cars, which were well designed (with fenders incorporated into the body) and very popular. The *Aronde* was updated several times, losing its famous "mustache" grille in its final version, the *P60* (1958). Simca also entered the large-car market in 1954, when it purchased Ford's French plant and took over production of the *Vedette*, which it offered in various trim levels (the *Régence*, the *Versailles*, and the *Trianon*), as an estate car (the *Marly*), and in a later variant with a smaller engine (the *Ariane*). These models borrowed liberally from the conventions of American automotive styling: emphatic radiator grille, fenders, bumpers, and chrome trim; two-tone finish and upholstery; and a plastic dashboard with gold highlights.

In the meantime, Panhard, which produced relatively few models compared to its larger competitors, offered the *Dyna Z* in 1954 (plate 535) and its successor, the *PL 17*, in 1959. These models had a very novel design, with a body (initially) in aluminum set on a modular chassis made from a light alloy. The motor was air-cooled, and the windshield and rear window were made of curved glass, a new feature. The last car produced by Panhard before its acquisition by Citroën was the *24 CT* coupé (plate 534), the work of in-house designer Louis Bionier. Like Panhard's other models, it was recognized as one of the most elegant productions of the French automotive industry.

At the same time as these larger family cars were being developed, rapid economic growth created a demand for small cars among a new category of clients. At the 1946 Salon de l'Automobile, Renault, which had been nationalized, presented a compact car with a rear-mounted engine and a design that was modern, albeit with no outstanding novelties: the *4CV* (plate 526, 527). While Peugeot stayed out of the small-car market for the time being, Citroën began its TPV (Très Petite Voiture, or Very Small Car) project, targeted at a working-class clientele, as early as 1939. This car, conceived by the company's chief executive, Pierre Boulanger, and developed over an extended period by engineers under the supervision of Flaminio Bertoni, finally made its debut at the 1948 Salon de l'Automobile: the legendary *2CV* was born at last! It was an astonishing car from

OPPOSITE
532. **Citroën *DS* 19**
Introduced in 1955

RIGHT, TOP
533. **Peugeot 404**
Introduced in 1960

RIGHT, BOTTOM
534. **Panhard 24 CT**
Introduced in 1963

BELOW
535. **Three Panhard *Dyna* Z sedans**
Introduced in 1954

OPPOSITE
536. **The Renault *Dauphine* on the cover of *Elle* magazine**, April 1956

RIGHT
537. Philippe Petit-Roulet (b. 1953)
Advertising art for Renault's *Twingo Easy*, 1995
Private collection

BELOW
538. **Renault *R5***
Introduced in 1972

an aesthetic point of view: large fenders in front, as in prewar designs; a small, flat windshield; a minimalist dashboard and tubular steering wheel; a canvas top instead of a roof; gray paint; and adjustable seats with a spartan appearance (plates 528, 529). It was powered by a sturdy, air-cooled "flat-twin" engine. The form of the *2CV* was determined entirely by its functional requirements, with every detail calculated to optimize simplicity, durability, and adaptability to any terrain: it was in fact an "anti-design" car. The initial *2CV* was continually enhanced over its very long production run, which extended to 1990. Like its foreign competitors, the *Fiat 500* and the Volkswagen *Beetle* (known as the "Coccinelle," or "Ladybug," in France), it was a first car for millions of households. For decades, these three vehicles symbolized their countries of origin. To replace its outdated *4CV*, and respond to the success of the *2CV*, Renault introduced its functional *R4* model, also known as the *4L*, in 1961 (plates 530, 531). It, too, was very well-received, selling 8,135,000 units over three decades.

Renault and Citroën also began to broaden their range of midsize cars. Citroën created another sensation in 1961 with its *Ami 6*, whose rear window slanted backward, in striking contrast to the norm. The boxy geometric forms introduced by Renault in the *R4* were also featured in its *R8*, as well as in the Simca *1000* and Citroën's *Méhari* (1968), an open utility vehicle with a body in ABS plastic, a novelty for the firm. Taking a very different approach, Renault targeted the urban female customer with its *Dauphine*, an elegant compact (plate 536).

The postwar era of small cars closed with the introduction, in 1972, of the Renault *R5* (plate 538). All the components of this cleanly designed subcompact (including the headlight and handles) were incorporated into its body, which featured two wide doors, a tall hatchback, and very prominent gray plastic bumpers that protected the front, back, and sides. The *R5* was a multipurpose vehicle, suitable for both city and highway driving, as was Peugeot's *205*, which followed ten years later. These models were in fact the forerunners of today's city cars, whose appearance has evolved over the years in order to maximize the interior capacity (as with a slanted windshield) and the size and accessibility of the cargo space (as with a raised back); we may speak of a "water drop" aesthetic. Meanwhile, the desire for better handling, performance, and fuel efficiency, combined with technical progress in measuring and imaging the airflow around the car's body, led manufacturers to give their family sedans long, uninterrupted lines—a style they had long cultivated in their sports cars. Citroën, which had established an early lead in this area with its *DS*, also applied aerodynamic principles to its vehicles of the 1970s and '80s, including the *SM* grand tourer, the *GS* and *BX* sedans, and the *CX* sedan of 1974, whose name is actually the French abbreviation for "drag coefficient."

The 1980s saw the introduction of an entirely new type of vehicle, the minivan. In 1983, Renault and Matra signed an agreement to jointly manufacture the *Espace*, which could hold seven passengers and had removable pivoting seats and a high ceiling. Following the success of this pioneering model, the minivan became a popular midsize vehicle, encroaching on the market for conventional sedans, and even city cars. Renault's *Twingo* (1993) was among the first very small minivans (plate 537). It was also the first vehicle to feature a playfully designed dashboard, with controls and monitors that surprised by their scale and bright colors.

Recent technical innovations in the production of electric cars have also inspired advances in design. In particular, two of Renault's electric models, the *Twizy* minicar and the *Zoé* hatchback, seem to augur a new approach to automotive design that is more free, fluid, and imaginative in its use of space.

BELOW
539. Joseph André Motte (1925–2013)
Molded seats for the Paris Métro, 1973

OPPOSITE
540. Quasar (pseudonym of Nguyen Manh Khanh) (b. 1934)
Poster for Quasar inflatable furniture, 1968
Musée National d'Art Moderne, Centre Georges Pompidou, Paris

THE 1960S: A DECADE OF QUESTIONING

In the 1960s, many designers who had first appeared on the scene in the previous decade focused on major land use projects. The construction of the remarkable building known as the Maison de la Radio in the early '60s gave some of them an opportunity to display their talents. Pierre Paulin, Joseph-André Motte, René-Jean Caillette, Antoine Philippon, and Jacqueline Lecoq all contributed in their own distinctive styles. The colorful novelty of Pierre Paulin's *Globe* chairs responded to the functionalism and efficiency of Motte's work, or Philippon and Lecoq's.

The restructuring of the Parisian metropolitan area that began in 1964 entailed major construction projects, including the building of five new prefectures. Designers competed avidly to work on their interiors: Alain Richard won the commission for Nanterre, Pierre Guariche for Évry, and Motte for Cergy-Pontoise. Major projects were also underway in the provinces. In 1956, workers won the right to a third week of paid vacation, and this leisure time, combined with improved purchasing power, led to the rapid development of major seaside and mountain tourist complexes. Guariche worked on the new winter sports facilities at La Plagne and Isola 2000, and Charlotte Perriand, on those at Arcs. The development of seaside resorts, particularly on the Languedoc coast, had a major impact on the landscape. Keeping pace with these construction projects, the hospitality industry flourished throughout France. New hotel chains included Arcade, which called on the services of Roger Fatus, and PLM, which hired Michel Boyer.

The "culture for all" espoused by French Minister of Culture André Malraux resulted in the construction of spectacular and iconic cultural centers, including André Wogenscky's complex in Grenoble, with interiors by Richard. Le Corbusier's project in Firminy, where the interior design commission went to Guariche, is another example. Motte, one of the most gifted designers of his generation, became the dean of airport development projects in the three prosperous decades known as *Les Trente Glorieuses*. He played a key role in designing the interiors of the large airports built by a new generation of architects—Henri Vicariot (Orly Sud in 1961, Orly Ouest in 1972), Paul Andreu (Roissy 1 in 1975, Roissy 2 in 1981), and Guillaume Gillet (Satolas in 1976)—and also worked on the staions of the Paris Métro (plate 539).

Contemporary design was gaining ground. It was a sign of the times when Mobilier National, that bastion of tradition controlled by the French state, established the Atelier de Recherche et Création du Mobilier National in 1964 to encourage modern design in public spaces. Another sign of the institutionalization of the profession was the appearance, in 1969, of *CREE*, the first French journal truly devoted to the topic of design. In the same year, the CCI (Centre de Création Industrielle) was created at the Musée des Arts Décoratifs. Its

QUASAR

MUSÉE D'ART MODERNE DE PARIS - MUSÉE DU LOUVRE - MUSEUM OF MODERN ART, NEW YORK
VI° TRIENNALE DE MILAN

debut exhibition was aptly titled *Qu'est-ce que le design*? (What is design?). The initial goal of the CCI—to establish contacts between designers and manufacturers—was soon forgotten, however, and the institution itself was subsequently transferred to the Musée National d'Art Moderne, Centre Georges Pompidou.

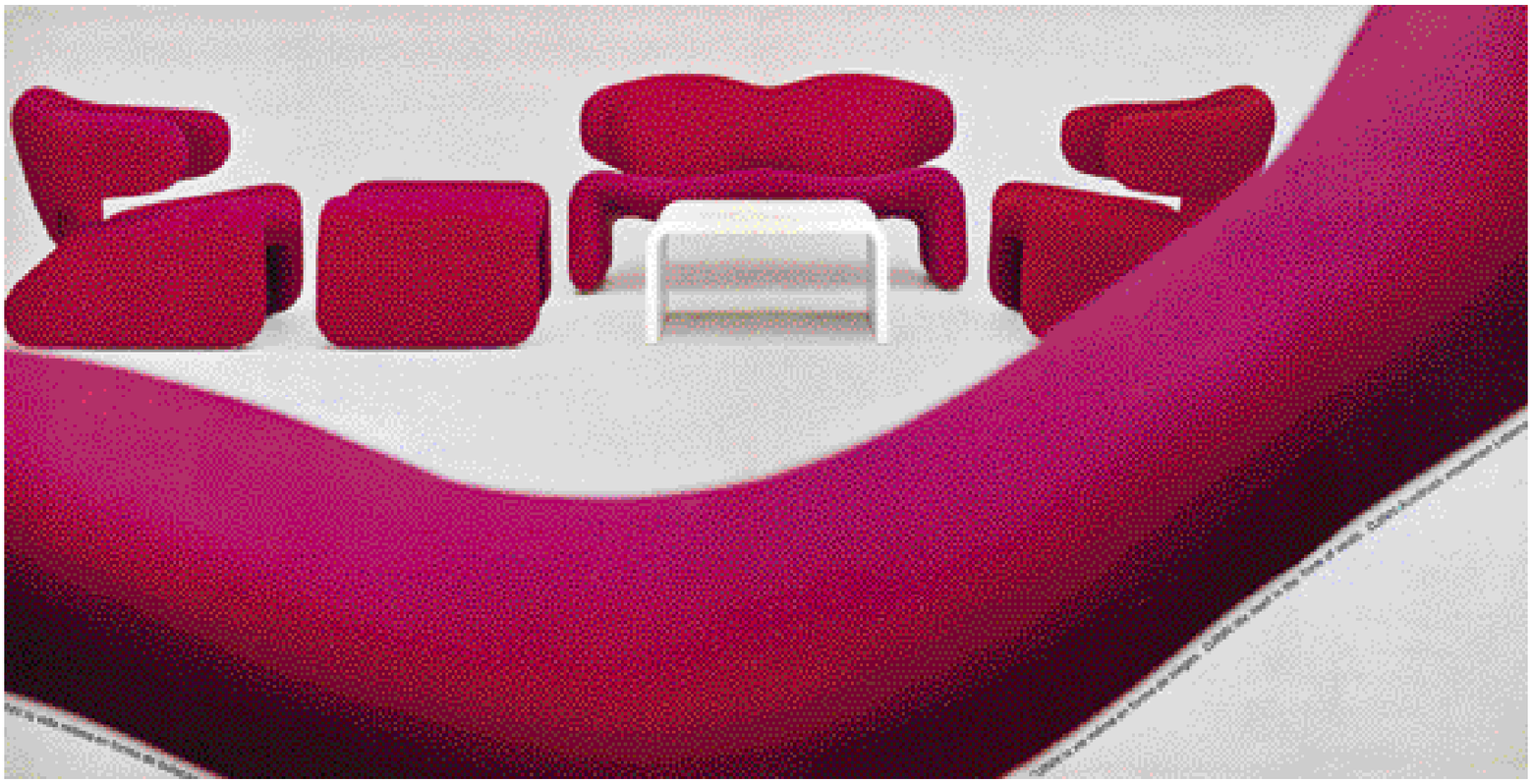
With the advent of these initiatives and projects came a greater recognition of the designers who had begun their careers in the 1950s. They perfected the refined, disciplined style of their earlier creations, while also adapting it to the new spatial challenges presented by large interior commissions. At the same time, a new generation was entering the scene. Considerably younger, they had not absorbed the economizing, functionalist atmosphere of the early postwar period, and they were ready to move beyond the prevailing aesthetic of austerity. Their sources of inspiration and interests were also very different. The French designers of the 1950s, steeped in the spirit of the Bauhaus, looked toward the U.S. and Scandinavia for inspiration. Those who emerged during the 1960s, however, were fascinated by Italy: its way of life, its industries, its iconoclastic films, and its designers, nonconformists like Gaetano Pesce and visionaries like Joe Colombo. The French furniture industry was not as advanced as Italy's, but the new French designers were undaunted, and embraced the radical approach to forms that prevailed across the Alps.

The upheavals of May 1968 made themselves felt throughout society. The revolution in mores was accompanied by one in forms and materials. Furniture became "*fous, mous, doux*" (loosely, "crazy, squishy, spongy"), and the minimalism of the 1950s was forgotten.[11] Magazines prominently featured models sprawled in pillowy chairs, even if actual sales of such furniture were weak. Retailers experimented with pieces that blurred the lines between carpeting, beds, tables, and play areas—for example, Paulin's *Déclive* for Mobilier International, Olivier Mourgue's armchair/carpet for Prisunic, Bernard Govin's *Asmara* chairs for Roset (plate 548), and Hans Hopfer's *Dromadaire* for Roche Bobois. Contemporary seating had to be modular and, above all, comfortable. This focus on comfort inspired Airborne's audacious advertisement of 1968, which pictured fifty bare bottoms above the slogan "It's all here!" Baby boomers saw nothing appealing in their parents' furniture, which seemed ponderous, and burdened with the legacy of past generations. The advent of the inflatable allowed them to purchase "furniture made to last three years," and offered an unprecedented lightness and ease of mobility. Quasar and Aérolande were the champions of inflatable furniture (plate 540). The cardboard designs of Jean-Louis Avril and Claude Courtecuisse served the same objectives.

Disposability kept products current: Bic's 1950 ballpoint pen and Jean-Pierre Vitrac's 1977 *Plack* picnic set, not to mention lighters, razors, and paper tissues, put an end to the notion of the permanent object. This was no minor revolution. Another revolution, this time on paper, occurred when Prisunic mailed out its first catalog in April 1968. "Buy the beautiful for the same price as the ugly" was the slogan of this new venture that sought to democratize nonconformist furniture (plates 541, 542). Inspired by the experience of Terence Conran and his Habitat line in England four years earlier, Prisunic was led by the dynamic duo of Denise Fayolle and Maïmé Arnodin. Francis Bruguière, Yves Cambier, and Michel Cultrutra oversaw the selection of merchandise, and Andrée Putman, succeeded by Janine Roszé, supervised the settings (rugs, fabrics, etc.). The audacious spirit of Prisunic's founders was evident in its offerings, which included Mourgue's armchair-carpet

OPPOSITE
541. Danielle Quarante
(b. 1938)
***Balthazar* chairs**, 1970
Made by Prisunic (France)
Pictured in the October 1971
Prisunic catalog
ABS plastic
Bibliothèque des Arts
Décoratifs, Paris

BELOW
542. **Cover of the Prisunic catalog**, 1969
Bibliothèque des Arts
Décoratifs, Paris



OPPOSITE, TOP
543. Pierre Paulin (1927–2009)
***577* or *Tongue* chair**, 1967
Made by Artifort (Netherlands)
Steel, polyester
Musée National d'Art Moderne, Centre Georges Pompidou, Paris

OPPOSITE, BOTTOM
544. **Airborne catalog illustrating *Djinn* chairs by Olivier Mourgue**, c. 1965
Daniel Bernard collection

BELOW
545. **Advertisement for the *Tongue* chair by Pierre Paulin**, 1967

and Marc Held's low bed molded from a single piece of plastic. Nearly all the avant-garde furniture designers were involved in this popularizing experiment, including Mourgue, Held, Conran, Courtecuisse, Gae Aulenti, and Marc Berthier. Regrettably, it was all too short-lived, and the last catalog was published in 1976.

Two figures stood out as representatives of a new approach to furniture that emphasized comfort and visual appeal. Independent and forceful personalities, Pierre Paulin and Olivier Mourgue are widely recognized as the most inventive French designers of their generation. Both received major accolades in 1971: Mourgue from his peers, when he was invited to succeed Verner Panton and Joe Colombo in creating a model home for the Visiona display at the Cologne furniture fair, and Paulin from the state, when French president Georges Pompidou asked him to redecorate his private apartments in the Élysée Palace. Moreover, both served as the equivalent of creative director to a major retailer: Mourgue worked with Airborne, the formidable company that Charles Bernard had established in Tournus, while Paulin, unable to find a suitable French backer for his work, joined forces with the Dutch company Artifort. For this firm, Paulin developed a series of colorful chairs—including the *Mushroom*, *Tongue*, *Oyster*, and *ABCD* (plates 543, 545)—whose flowing lines and absence of visible structural elements established his reputation. Contrary to popular belief, Mourgue's work for Airborne went far beyond the famous series of *Djinn* chairs selected by Stanley Kubrick to furnish the space station in his 1968 film *2001: A Space Odyssey* (plates 544, 546). Mourgue also designed collections for a broader market, such as *Whist*, and limited-edition chairs, such as *Bouloum* and *Tric-Trac*.

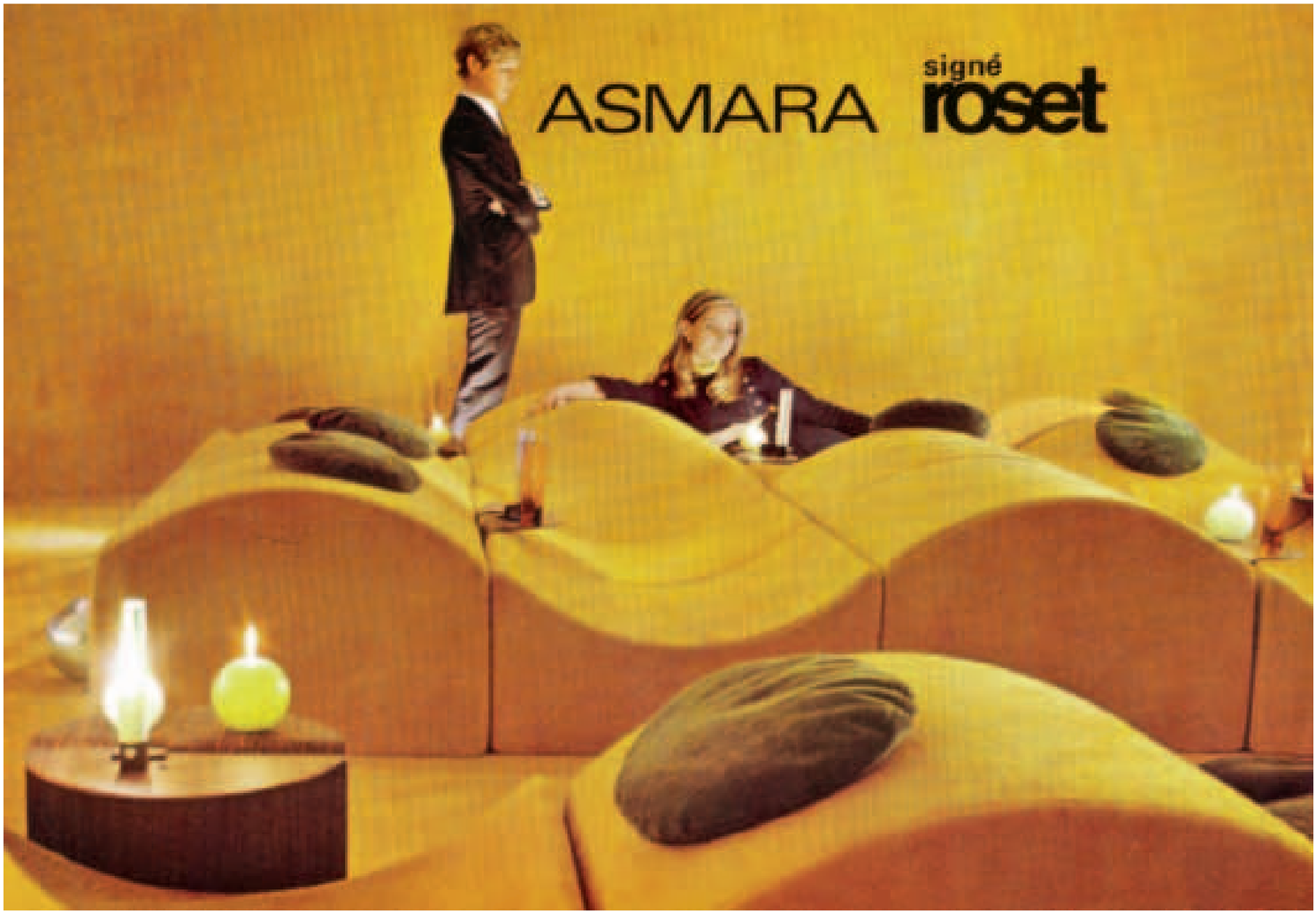
Innovations in the use of foam facilitated many novel furniture designs. Airborne perfected the technique of covering injected foam with a synthetic knit jersey fabric. Roset also found a variety of applications for foam, in particular using cut foam to make lavishly rounded chairs, such as Bernard Govin's *Asmara* and Michel Ducaroy's *Adria*, *Kali*, and *Togo* (plate 549). Roche Bobois, too often thought of as merely a distributor, also produced furniture. The firm's artistic director, Hans Hopfer, played with foam structural elements and modular blocks in his ensembles *Lounge*, *Entr'acte,* and *Dromadaire*, the last being designed as a ring. In its new factory in Noisy-le-Grand, Steiner employed the talented young designers Claude Courtecuisse, Roger Landault, Jacques Famery, and Kwok Hoï Chan to shake up its rather traditional image. Chan, originally from

BELOW
546. Olivier Mourgue (b. 1939)
***Djinn* chair**, 1964–65
Made by Airborne (France)
Bent steel tubing, polyurethane foam, jersey
Musée National d'Art Moderne, Centre Georges Pompidou, Paris

OPPOSITE
547. Marc Held (b. 1932)
***Culbuto* chair**, 1966–67
Made by Knoll International (U.S.)
Polyester reinforced with fiberglass, leather
Musée National d'Art Moderne, Centre Georges Pompidou, Paris

BELOW
548. **Advertisement for Bernard Govin's *Asmara* seating, made by Roset**, 1966
Roset Archives

OPPOSITE
549. Michel Ducaroy (1925–2009)
***Togo* chair and ottoman**, 1973
Made by Roset (France)
Polyester foam, polyester wadding, fabric
Musée des Arts Décoratifs, Paris



Hong Kong, became Steiner's premier designer, establishing a signature style of rounded, generous forms, in contrast to the aesthetic of the firm's earlier reformers, who had belonged to ARP in the early 1950s.

Also increasingly common was plastic and fiberglass furniture, whose method of production encouraged simplified forms without any strong relief. These sleek pieces were designed by the dozens and included Held's *Culbuto* armchair (plate 547), Courtecuisse's *Soleade* chair, Landault's *Unibloc IV,* Christian Daninos's *Bulle* armchair, Christian Germanaz's *Half and Half* chairs, Maurice Calka's *Boomerang* desk, Annie Tribel's cafeteria furniture, and Berthier's *Ozoo* line. Asked by *Le Monde* to characterize the '70s look, the artist and humorist Roland Topor alluded to the "smooth style" and even a "suppository" aesthetic: "From the Place de la Concorde to the Tour Montparnasse, we're caught up in an aerodynamic mental universe. Our clothes irons look like they're made to break the sound barrier, our telephones are low-riders like Porsches, our calculators look like UFOs, and our pens resemble torpedoes. Anything that stands out—that's the enemy. Anything that creates friction—that's the danger. . . . Outside, featureless autoroutes take us faster and faster between one place and another. Inside, we have seats down on the floor, low coffee tables, molded plastic beds, and that blasted wall-to-wall carpeting everywhere."[12]

In furniture, however, the smooth aesthetic was dealt a sudden blow by the oil crisis of 1973. The price of petroleum soared, and so did that of the plastics made from it. Plastic no longer seemed to be the almost magical substance that Raymond Queneau had described in Alain Resnais's short film of 1957, *Le Chant du Styrene*, and it lost its privileged place in design.

BELOW
550. Philippe Starck (b. 1949)
***Max le Chinois* colander**, 1987
Made by Alessi (Italy)
Stainless steel
Museum of Modern Art, New York

OPPOSITE, TOP LEFT
551. Philippe Starck (b. 1949)
***Dr Skud* flyswatters**, 1998
Made by Alessi (Italy)
Thermoplastic resin
Museum of Modern Art, New York

OPPOSITE, TOP RIGHT
552. Philippe Starck (b. 1949)
Toothbrushes, 1989
Made by Fluocaril (France)
Thermoplastic resin
Musée National d'Art Moderne, Centre Georges Pompidou, Paris

OPPOSITE, BOTTOM
553. Philippe Starck (b. 1949)
***Juicy Salif* citrus squeezer**, 1988
Made by Alessi (Italy), 1990
Cast aluminum, thermoplastic rubber
Museum of Modern Art, New York

STARCK: A BREATH OF FRESH AIR

The designers of the 1980s—with Philippe Starck foremost among them—achieved an unprecedented degree of recognition, popularizing a discipline that was still little known among the general public. Starck's preeminence may be attributed not only to his extraordinary energy, his rhetorical skills, and his ability to approach any project, whether for a toothbrush or a motorbike, without preconceived notions, but also to his entrepreneurial passion and technical know-how. His father, an aeronautical engineer, impressed on him the importance of research in all fields of endeavor.[13] The passion for creativity and technology that he inherited from his father would be the foundation for his entire career, which has been marked by very fruitful collaborations with business leaders, primarily Italian: Piero Gandini of Flos, Giulio Castelli and Claudio Luti of Kartell, and Alberto Alessi of Alessi. In France, he developed close contacts with two companies where he later became artistic director: the furniture maker XO and the Thomson electric group. Although he worked for fewer French companies than he might have wished, he consoled himself by thinking on a European scale. In 1983, Starck was aware "of being at the beginning of a style of design. . . . There's a sense of urgency, of the need to rekindle people's interest in their lives, in their homes."[14]

Starck studied at the École Camondo, which specializes in interior design. He first attracted notice with his interiors for two Paris nightclubs: La Main Bleue in 1976 and Les Bains Douches in 1978. However, the two projects that truly made his reputation were his renovation of the private apartments of the president of the French Republic in 1983, and the café near Les Halles that he designed for the Costes brothers in 1984 (plate 556). The Café Costes created a sensation, with its remarkable staircase, narrow at the base, that broadened as it ascended; an enormous clock like one in a railway station; enveloping tripod chairs; and spectacular restrooms. Style and panache were the hallmarks of Starck's interior design.

His furnishings, in contrast, began in a more modest fashion. The earliest, some of which were produced

by Starck Product, the firm he had founded in the late 1970s, were reduced to their essentials. The *Easy Light* portable lamp, designed in 1979 for Electrorama, consisted of a neon tube and two end pieces. His *Dr Bloodmoney* and *Miss Wirth* chairs, designed in the 1980s, are comparably restrained, black with very simple lines. This tendency toward minimalism has persisted in much of Starck's furniture, from the *Richard III* armchair of 1981 (plate 554), which recalls classic club chairs but without the weight of a heavy frame, to the light and transparent *La Marie*, designed for Kartell in 1998. In the 1990s, Starck was still exploring archetypes: the *Miss Sissi* lamp for Flos is a single unit, in a single material; the *Starck 1* bathroom fixtures for Duravit recall barrels and buckets; and the *Bohême* stools for Kartell echo the silhouettes of ceramic vases.

Starck's very distinctive designs are easily recognized by the public. A provocateur, he often gives his works imaginative titles, sometimes employing simple wordplay, sometimes drawing inspiration from historical figures or the novels of Philip K. Dick. Starck enjoys mockery, and does not hesitate to transgress conventional standards of good taste. He called the stool-tables he designed for Kartell *Attila*, *Saint-Esprit*, and *Napoléon*.

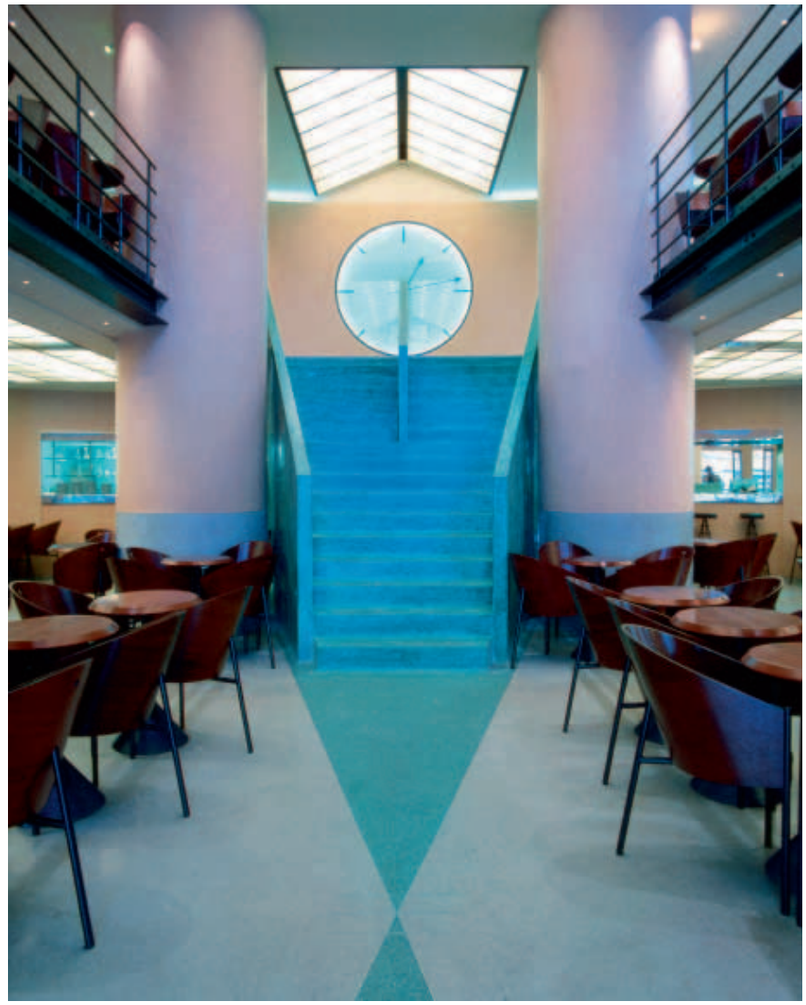
Some of his most iconic objects are virtual UFOs in the universe of design: the *Ara* lamp for Flos, and the *Max le Chinois* strainer (plate 550) and the *Juicy Salif*

BELOW
554. Philippe Starck (b. 1949)
***Richard III* tripod chair**, 1981
Made by Baleri (Italy), 1984
Polyurethane, Dacron, leather
Musée des Arts Décoratifs, Paris

OPPOSITE
555. Philippe Starck (b. 1949)
***Louis Ghost* chair**, 2001
Made by Kartell (Italy), 2002
Polycarbonate
Musée des Arts Décoratifs, Paris

BELOW
556. Philippe Starck (b. 1949)
Interior of the Café Costes, Place des Innocents, Paris, 1984 (closed 1994)

OPPOSITE
557. Philippe Starck (b. 1949)
Interior of the Félix restaurant, Peninsula Hotel, Hong Kong, 1994



citrus squeezer (plate 553) for Alessi. The image of the *Juicy Salif* inevitably appears in every publication about Starck. Indeed, this piece exemplifies the way design has gained an audience by offering a solution that seems remote from the intended purpose. Starck is also fond of oversize versions of daily objects, as can be seen in both *Max le Chinois* and the *Archimoon K* lamp for Flos.

Starck went to Thomson "to try to find a way to get the image and the sound out of that boring gray box" and escape from "the old mandates of the 1960s and '70s that came out of America and Japan." In the mid-1990s, Starck worked on the identity of Thomson's eponymous brand, as well as those of its subsidiaries Telefunken and Saba, totally reconsidering the forms, colors, and controls of their devices. The *Moa Moa* radio assumed the shape of a Brancusi head, the *La-LaLa* radio resembled a little microphone, and the *Jim Nature* portable television was daringly covered with resin-impregnated sawdust as if from a construction site. The influence of the Italian architect and designer Achille Castiglioni, who had introduced Starck to Flos, is very apparent: there is the same humor, the same regard for the everyday. Starck has taken the lesson from Castiglioni's *Snoopy* and *Bip Bip* lamps—and gone even farther. He has constantly advocated for design that is humanized, and objects that are "right before being beautiful." Even if Starck the polemicist is not always entirely convincing, his projects and technological research are intensely relevant.

Working with Kartell, he was particularly enthusiastic about new advances in plastics. Molded in a single piece, his chair *La Marie* (1998) emancipated itself from Kartell's customary rounded forms. This is a case where he obtains "the maximum using the minimum"—with less material, less visual presence due to transparency, and less cost. The *Louis Ghost* chair that followed was also a major success in every market (plate 555). In the *Bubble* series, he borrowed the technique of molded polypropylene from kayak-making, using it to produce colorful, light, sturdy, and reasonably priced furniture. The *Louis XX* chair for Vitra was not only a stylistic reinterpretation but also—and more importantly—the first piece of furniture to be made by the process of blow molding, more often used in the manufacture of water bottles.

Starck takes an interest in all aspects of a product. "All that concerns me at the moment are costs: the price, the value of things, the appropriateness of the price for the object," he asserted in 1994. He also raised the issue of distribution: "We cannot say that a piece of furniture is modern if it is distributed in an archaic manner at an inaccessible price." Following this logic, he worked with the catalog retailer 3 Suisses in the early 1980s. His culminating experiment in this area, again with 3 Suisses, came in 1994, when he sold a prefabricated "House in a Box" by mail order. (It was excoriated by the critics.) The *Good Goods* catalog of 1998, created for La Redoute, featured products designed or recommended by Starck, ranging from champagne to a four-headed teddy bear, while not omitting table settings. In yet another bid for the mass market, he created a line of fifty-one highly utilitarian objects for the American chain store Target in 2002.

Starck is at the forefront of a number of fields: furniture and accessories, industrial design, interior design, and finally architecture, which he began to practice later in his career. In the 1980s, fashionable hoteliers began to commission interiors from well-known designers and architects; for example, Andrée Putman worked on the Morgans Hotel in New York, and Jean Nouvel on the Hôtel Saint James in Bouliac, near Bordeaux. Following a series of discussions, Starck, too, was drawn into projects of this type, and he created a sensation from Miami to Madrid with his stunning hotel interiors. He designed several hotels for Ian Schrager in the U.S. and, in 1988, embarked on a worldwide series of hotel and restaurant commissions: the Saint Martins Lane Hotel in London, the Teatriz restaurant in Madrid, and the restaurant of the Peninsula Hotel in Hong Kong (plate 557). In France as well, projects for boutiques and restaurants followed in succession: the Hugo Boss store, the Jean-Paul Gaultier store, the Baccarat museum and headquarters, the Bon and Kong restaurants, and, more recently, the restaurants in the Meurice and Royal Monceau hotels. In these designs, decorum meets spectacle.

Starck has always advocated for an affective architecture that stimulates, and perhaps even unsettles, the visitor. He accomplished exactly that in Japan, with the Asahi Beer Hall (1990) and the Nani Nani and Le Baron Vert office buildings (1989 and 1992); in the Netherlands, with the Groningen Museum (1993); and in France, with the Laguiole factory (1987). More recently, in Bilbao, he turned away from this formalism, adopting a simple and even slightly severe style for his conversion of the Alhóndiga, a former wine warehouse, into a cultural center (2010).

Resisting the trend toward limited production runs, Starck remains faithful to the idea of accessible design, manufactured in large quantities and affordable for all (plates 551, 552). Prolific in words and deeds, he has succeeded in identifying his name with contemporary design. However, there really is no "Starck style" as such: again and again, his undeniable stature has allowed him to impose his latest vision on manufacturers. Relishing provocation and challenges, he has embarked on more personal ventures in recent years. In 2007, he was named the artistic director of Virgin Galactic, the first private aerospace company, founded by the British entrepreneur Richard Branson. Starck is once again taking up the cause of democratization—this time in space! In 2012, he unveiled the *Venus*, a yacht designed with and for Steve Jobs, in a minimalist style eminently suited to Apple's image.

BELOW
558. Élisabeth Garouste (b. 1949) and Mattia Bonetti (b. 1953)
***Enfer* cabinet**, 1998
Made by Galerie Néotù (France)
Painted cast iron, enameled ceramic
Centre National des Arts Plastiques/Fonds National d'Art Contemporain, on loan to the Musée des Arts Décoratifs, Paris

OPPOSITE
559. Élisabeth Garouste (b. 1949) and Mattia Bonetti (b. 1953)
***Barbare* chair**, 1981
Made by Galerie Néotù (France)
Patinated iron, calfskin, leather thongs
Centre National des Arts Plastiques/Fonds National d'Art Contemporain, on loan to the Musée des Arts Décoratifs, Paris

THE LIBERATION OF DESIGN

Just as functionalism was on the verge of being left behind, it experienced a temporary resurgence, thanks to the decorator Andrée Putman's reissues of classic designs. Reacting against the styles of the moment, she founded Écart International in 1978 to distribute reproductions of furnishings and light fixtures from the 1930s, by Pierre Chareau, Félix Aublet, Robert Mallet-Stevens, and Eileen Gray. In this way, the work of the founders of French functionalism was belatedly revealed to the public at large.

Today, however, functionalism truly is in retreat, to the point that the legibility of design is sometimes obscured by a jumble of references and an insistence on individuality. We may trace the roots of this development to 1966, when the American architect Robert Venturi published *Complexity and Contradiction in Architecture*. To Mies van der Rohe's assertion that "Less is more," Venturi retorted, "More is not less, less is a bore." This postmodernist slogan rings very true. Outside France, the advent of the 1980s marked a turning point. The Italian Gaetano Pesce opined that "the form/function duo" had long since become inadequate, and he added experimentation and differentiation as essential components of design. The establishment of Memphis in Milan in 1981 introduced an entirely new language to the debate. The stature of its founder Ettore Sottsass gave Memphis an aura that obliterated conventional boundaries. A number of French designers, including Martine Bedin and Nathalie du Pasquier, affiliated themselves with the Milanese movement, whose designs were shown in Paris in 1982 by Nestor Perkal. Meanwhile, in Lyons, the designers working with the Totem studio also adopted the Memphis aesthetic.

The new expressive and cultural relations espoused by Memphis unseated the received dogmas of design not only in Italy, but also in France (where, however, the break between form and function may be placed somewhat later in the 1980s). The gradual shift from the "industrial" to the "iconic" product was accompanied by a stronger sense of individualism among designers. The parameters of design were becoming less rigorous, and traditional materials, decorative elements, and smaller production runs were making an appearance in a realm that had formerly abandoned them. Ornament was no longer a crime. A unique piece with an improbable function now had as much claim to the title of design as any icon of mass production. Shaken up, but recognized by a growing public, contemporary design was welcomed into François Mitterrand's refurbished

apartments in the Élysée Palace and Jack Lang's Ministry of Culture, as well as the hotels designed by Andrée Putman, Jean Nouvel, and Philippe Starck.

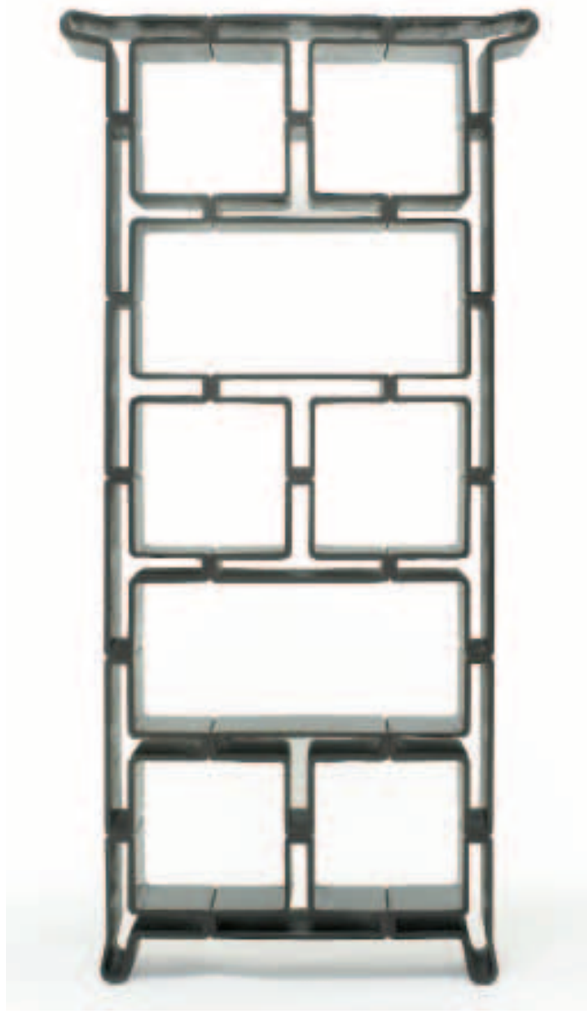
While computer-aided design and manufacturing were regularly used in the development of prototypes, artisanal techniques and traditional materials returned to favor. In 1981, at the Jansen Gallery, Élisabeth Garouste and Mattia Bonetti exhibited their *Barbare* chair (plate 559), which gave its name to an entire style. This reaction against industry was organized by Frédéric de Luca, the representative and spokesman of a small group of sculptors and decorators he called "En Attendant les Barbares" (Waiting for the Barbarians). As two key participants, Garouste & Bonetti, forthrightly acknowledged in 1984, "We are against design."

Garouste & Bonetti expressed their stance particularly through the use of materials that were unusual in furniture design, including bronze, papier-mâché, stone, and animal skins (plate 558). They were, moreover, very cultivated, basing their style on unexpected artistic and literary sources. Journeying through time, they revisited the Oriental dream with the *Topkapi* sofa, and French history with the *Prince imperial* chair. For the headquarters of haute couturier Christian Lacroix, they created one of their most exquisite designs, half Marie Antoinette boudoir, half *Alice in Wonderland*

RIGHT
560. François Bauchet (b. 1948)
***H6 L3* bookcase**, 2001
Made by Winner-Pro (France)
Sold by Galerie Kreo (France)
Polyester resin
Centre National des Arts Plastiques/Fonds National d'Art Contemporain, on loan to the Musée des Arts Décoratifs, Paris

OPPOSITE, TOP
561. Martin Szekely (b. 1956)
***Heroic Carbon Desk Loop* desk**, 2010
Made by Galerie Kreo (France)
Carbon fiber, resin, honeycomb aluminum

OPPOSITE, BOTTOM
562. Sylvain Dubuisson (b. 1946)
***T2/A3* clock**, 1986
Stainless steel, electroluminescent diodes, epoxy composite circuit
Musée National d'Art Moderne, Centre Georges Pompidou, Paris



antechamber. They indulged in a fantastical vision of a magical natural setting that included tree-trunk stools and cabana-like fitting rooms. Several other designers who appeared on the scene in the 1980s also displayed this kind of imaginative flair and handmade look: Olivier Gagnère, Éric Schmitt, Kristian Gavoille, Pucci de Rossi, and André Dubreuil.

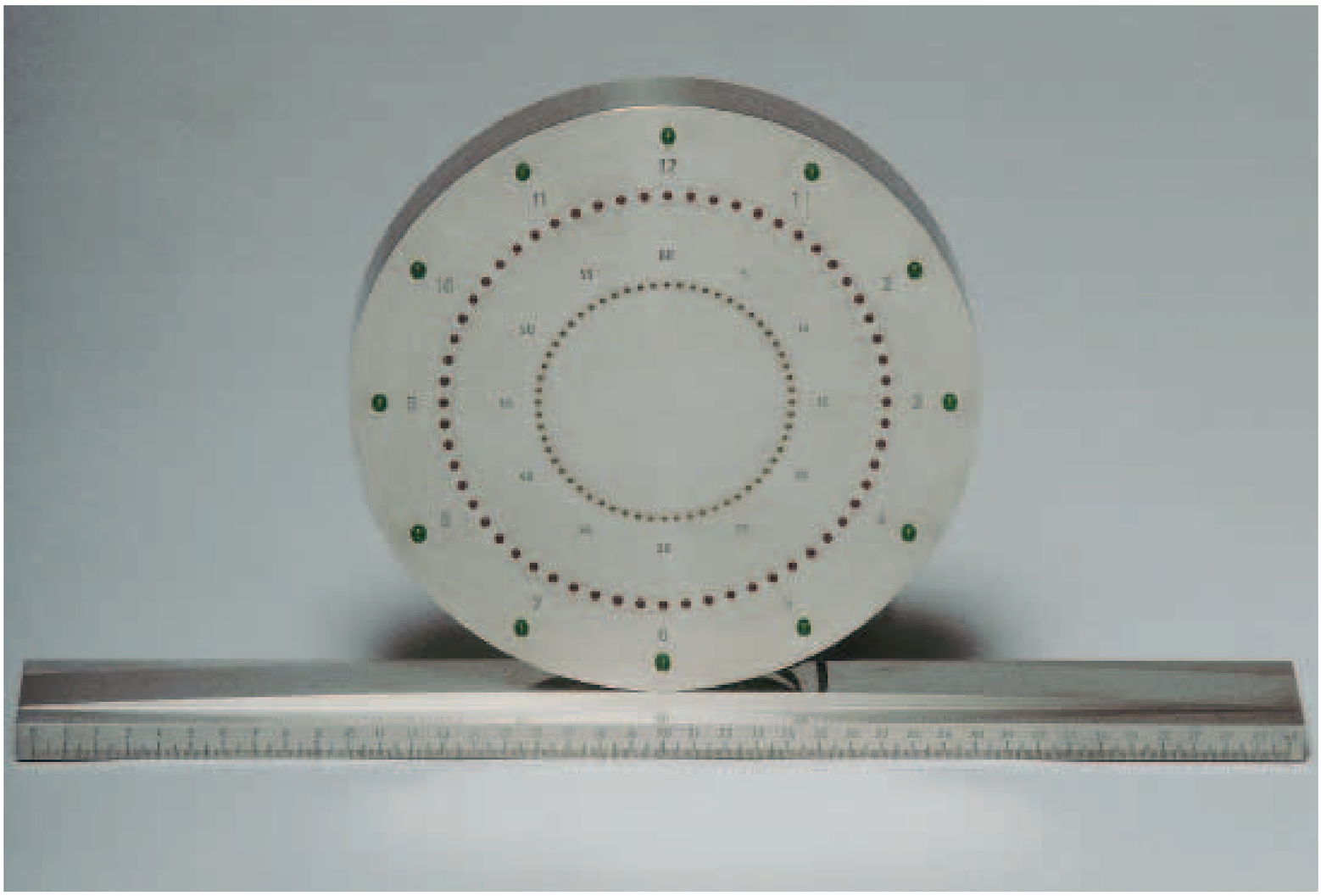
At this time, the art dealer Pierre Staudenmeyer played a key role in helping many young designers launch their careers. An enthusiastic proponent of psychoanalysis who humorously observed that the era was "neo-everything," he opened the Néotù Gallery in 1985 with Gérard Dalmon. They gave an entire new generation the opportunity to express itself without prerequisites, encouraging designers as diverse as Garouste & Bonetti, Gagnère, Schmitt, Gavoille, de Rossi, Martin Szekely, and François Bauchet, as well as foreigners like Jasper Morrison.

The leading participants in French design chose very divergent paths. One atypical and cultivated designer, Sylvain Dubuisson, bases his work on skillful geometric calculations. Resisting the banalization of everyday objects, Dubuisson creates sophisticated, symbolic designs such as the *T2/A3* clock (plate 562) and the *1989* desk that the Minister of Culture Jack Lang used in his office. Martin Szekely searches for universality through the sparest of forms (plate 561), while employing the latest techniques and materials: carbon fiber, Ductal concrete, silicon carbide, and crystal that has been frozen for several months. A perfectionist who claims "not to draw anymore," he strives to eliminate any trace of the extraneous from his pieces. On the other hand, drawing is the guiding principle for two designers trained at the École Nationale des Beaux-Arts: Bauchet, with his stripped-down clarity (plate 560), and Pierre Charpin, with his unifying use of color (plate 567).

Large production runs are no longer the only way for designers to gain visibility and recognition. Artisanal techniques are recovering vitality not only in private companies (the glassmakers Daum and Baccarat, and the porcelain maker Bernardaud, for example) but also through government initiatives (CRAFT, Centre de Recherche sur les Arts du Feu et de la Terre in Limoges; CIRVA, Centre International de Recherche sur le Verre et les Arts, in Marseille; and the national manufactory in Sèvres) and partnerships with towns, such as Vallauris.

At the level of industry, the alliance of design and manufacturing remains a constant. Like the carmakers, many companies have their own team of designers; the sporting goods firm Decathlon, for example, makes designers an essential part of the business. Design also helps differentiate the products of manufacturing giants like Ricard and the SEB Group. The latter enterprise, which became the world's largest manufacturer of household appliances around 2000, encompasses a wide range of brands, including some former German competitors: Moulinex, Tefal, Calor, Rowenta, Krups, and All-Clad, among others. At the initiative of Jacques Alexandre and Frédéric Beuvry, the SEB Group has given a number of French and international designers their first chance to work on industrial products. As SEB's director of design, Beuvry himself defined a strong image for each brand before calling on outside designers.[15]

Many high-tech firms have also worked with independent designers in the last decade. Parrot, a maker of multimedia devices, worked with Starck, and Schneider Electric, an energy management firm, with Normal Studio and Elium Studio. La Cie, an American data storage company with a production site in France, called on Starck, 5.5. Designers, and Constance Guisset, among others. Of course, French designers help define the image of firms in a whole variety of industries, including furniture (Cinna, Roset), mass-market distribution/retail (Carrefour, Decathlon), and fine tableware (Baccarat, Bernardaud).



BELOW, LEFT
563. Matali Crasset (b. 1965)
***Quand Jim monte à Paris* guest bed**, 1998
Made by Domeau & Pérès (France)
Batting and bi-density high resilience foam, cotton inner and outer mattress cover
Centre National des Arts Plastiques / Fonds National d'Art Contemporain, Paris

BELOW, RIGHT
564. Elium Studio
Smart Baby Monitor, 2011
Made by Withings (France)

OPPOSITE
565. Patrick Jouin (b. 1967)
***Solid C2* chair**, 2004
Made by Materialise MGX (Belgium)
Epoxy resin polymerized by stereolithography
Musée National d'Art Moderne, Centre Georges Pompidou, Paris

Around 2000, several galleries (Kreo, Tools, BSL) and numerous smaller distributors (Domeau & Pérès, ENO, Ymer&Malta, Moustache, Petite Friture, and Artuce) appeared on the scene, offering greater visibility to the new generation. A host of young designers are committed to developing an efficient mode of design for the mass market, including Matali Crasset (plate 563), Patrick Jouin (plate 565), Christophe Pillet, Patrick Norguet, Christian Ghion, Christian Biecher, Éric Jourdan, Frédéric Ruyant, Normal Studio, Arik Levy, Jean-Marie Massaud, and Inga Sempé. They have ties to various brands (Pillet with Lacoste, Normal Studio with Tolix, Jourdan with Roset, and Didier Gomez with Cinna), but these are not exclusive relationships. Rather, this cohort of designers engages in various fields of activity and adopts varied approaches: Radi Designers exercises a surrealist bent at the confluence of art and design; Crasset emphasizes graphics; François Azambourg focuses on technological advances; and Guisset and Sempé express a poetic sensibility.

Like all these designers, the brothers Ronan and Erwan Bouroullec are deeply interested in "concrete" design. However, in the early 2000s, they distinguished themselves by rethinking space (plate 570). In contrast to their eminent predecessors Charlotte Perriand, Jean Prouvé, and Roger Tallon, their work refers less to the culture of engineering and more to experimental research and their own generation's way of life. Their experience at Cappellini and later at Vitra marked their introduction to the industrial world and their debut on the international stage, and now companies in both France (Roset, Tectona) and Italy (Kartell, Flos, Magis, Alessi) frequently approach them for advice. Their carefully considered use of partitions and modularity are the most striking aspects of their work, from the *Nuages* and *Algues* modules for Vitra (plate 569), to the *Tuiles* for Kvadrat, and the *Cabane* and *Lit clos* produced in a limited edition by Galerie Kreo. In a more traditional spirit, they focus on comfort in their work for Roset, which includes the graphic *Facett* sofa, with origami-inspired folds, and the voluptuous *Ploum* sofa, upholstered with ultrasoft foam.

If the Bouroullec brothers continue in a certain tradition, the functional transformations in the field of design are increasingly apparent. Three exhibitions—

BELOW
566. Cédric Ragot (b. 1973)
***Hyper Fast* vases**, 2003
Made by Ymer&Malta (France)
Solid surface
Galerie Ymer&Malta, Paris

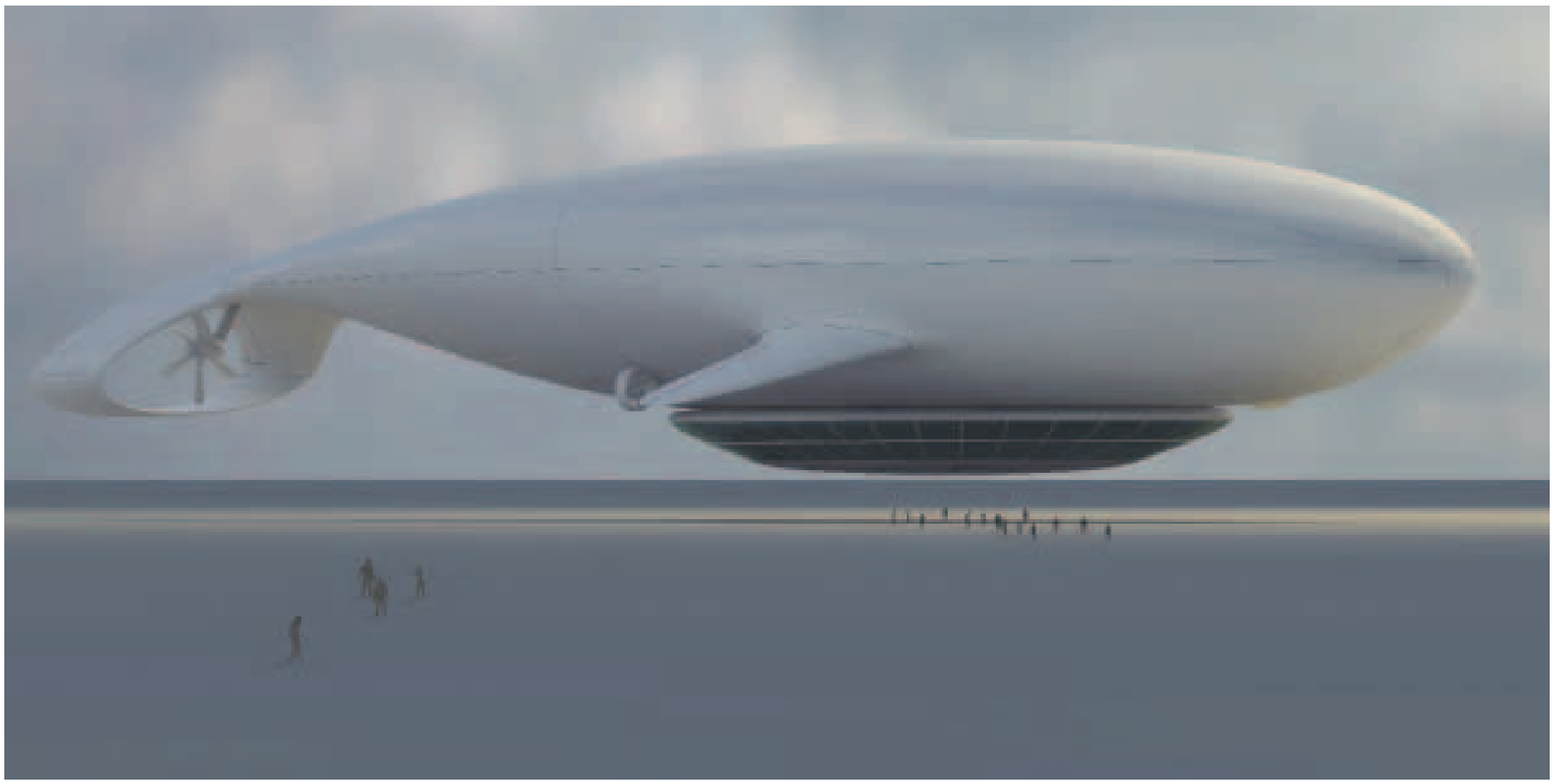
BOTTOM
567. Pierre Charpin (b. 1962)
***Écran* vases**, 2000
Made by CIRVA (France)
Distributed by Galerie Kreo (France), 2005
Blown and molded glass

OPPOSITE
568. Benjamin Graindorge (b. 1980)
***IkebanaMedulla* vase**, 2010
Made by Ymer&Malta (France)
ABS plastic, lacquered polyamide, fiberglass
Galerie Ymer&Malta, Paris

OPPOSITE
569. Ronan Bouroullec
(b. 1971) and Erwan Bouroullec
(b. 1976)
Algues, 2004
Made by Vitra (Switzerland)
Injected polyamide
Museum of Modern Art,
New York

ABOVE
570. **View of the exhibition**
Ronan et Erwan Bouroullec. Momentané, 2013
Musée des Arts Décoratifs,
Paris

571–72. Jean-Marie Massaud
(b. 1966)
Renderings of the *Manned Cloud* dirigible hotel, 2005
Studio Massaud



D Day at Beaubourg in 2005, *Safe* at MoMA that same year, and *Made 4 You/Design für den Wandel/Design for Change* in 2012 at MAK in Vienna—have revealed how the focus of design is shifting from considerations of comfort and visual appeal to a greater concern for ecology and even for survival. In France as elsewhere, the early years of this century have witnessed a desire to "go beyond design." Massaud's project for an airborne hotel in the form of a dirigible to avoid the pollution caused by the hospitality industry is among the boldest proposals (plates 571, 572). Jean-Louis Fréchin specializes in new products and the digital world; Mathieu Lehanneur is interested in medicine and well-being; Cédric Ragot, in the representation of natural forces (plate 566); Olivier Peyricot, in the concept of preservation; and Benjamin Graindorge, in our relationship with nature (plate 568). These designers may be alarmist, utopian, or visionary, but their voices resonate together on the issues confronting our society. Creative and spatial boundaries are now more porous than ever: Paris is attracting world-renowned designers, including the Australian Marc Newson and the Briton Jasper Morrison, who has opened a studio here.

Now more than ever, design is an international phenomenon. And, now more than ever, the concept of design has extended its scope. We may well recall the prescient words of Jean Baudrillard, in his 1968 book *Le Système des objets*: "Should we classify the vast forest of objects like flora or fauna with tropical and arctic species, abrupt mutations, and species in the process of extinction? Our urban civilization will see new generations of products, devices, and gadgets appear in increasingly rapid succession. Compared to these ephemeral objects, humans seem to represent an exceptionally stable species." Forty years later, the proliferation of products described by Baudrillard has only accelerated, and his question remains, now and always, revelant: "Can we hope to classify a world of objects that is changing before our very eyes?"

PRECEDING PAGE
573. Sori Yanagi (b. 1915)
***Butterfly* stool**, 1956
Made by Tendo Mokko (Japan)
See plate 611.

BELOW, LEFT
574. Junzo Sakakura (1901–1969)
Sketch of a bamboo chair for the Low Cost Furniture Design competition sponsored by the Museum of Modern Art, 1950
Museum of Modern Art, New York

BELOW, RIGHT
575. **The Japanese pavilion at the 1937 Exposition Internationale des Arts et Techniques in Paris**
Pictured in *L'Illustration*, May 29, 1937
Private collection

OPPOSITE
576. **Charlotte Perriand with a folding wooden chaise longue, Japan, 1940**
Archives Charlotte Perriand, Paris


Japon. — (Sakakura, archit. ; collaborateur français : Danis, archit.)

Japan has nurtured a distinctive and extraordinarily successful modern design culture since it opened itself to the West at the end of the nineteenth century. Consciously sustaining links with its past, Japan has also used design to bridge the worlds of tradition and technology.

An account of Japan's modern design movement must begin at the moment when the country embraced the challenge of not simply catching up with but actually leapfrogging the technological, social, and economic achievements it was encountering for the first time. Through the 1870s and '80s, Western dress and chairs began to replace the kimono and the practice of sitting on tatami mats. Many of the Japanese manufacturing companies that would drive the post-1950 economic miracle were also created in the late nineteenth century.

One of the strongest reactions to industrialization came in the ideas and achievements of the Japanese mingei, or folk craft, movement, which gathered momentum in the 1920s. The Japanese philosopher and art critic Soetsu Yanagi, together with the potters Shoji Hamada and Kawai Kanjiro, sought a return to traditional Japanese craftwork. The promoters of mingei valued the functionality of craft objects above all else, considering them an integral element of everyday life.

Japanese and Western architects and designers certainly did not work in ignorance of each other. As soon as Japanese art and design became accessible to them, Westerners began to borrow heavily from it. In turn-of-the-century Europe, the French and Belgian art nouveau movement was particularly influenced by Japonisme. Also, along with the numerous Japanese students who went to be educated in the West, young Japanese architects traveled to Europe and the U.S. to work alongside the masters of modernism. Junzo Sakakura and Kunio Maekawa, for example, both spent time in the studio of Le Corbusier (plate 574). Sakakura went on to create a pavilion for the Paris International Exposition of 1937 that combined elements of Eastern and Western architecture (plate 575). In 1933, the German modernist architect Bruno Taut was invited to Japan by the Japan Architects Association and ended up spending three years there. Le Corbusier's collaborator Charlotte Perriand also lived in the country between 1940 and 1943 (plate 576).

AFTER 1950

By 1950, Japan was poised to engage fully with the modern world, both technologically and culturally. For a short period in the early 1950s, it seemed as if tradition might be eclipsed by the large Japanese corporations' desire to mass-produce goods, sell them at the lowest

BELOW, TOP
577. ***TR-55* portable transistor radio**, 1955
Made by Sony (Japan)

BELOW, BOTTOM
578. **Tape recorder**, 1950
Made by Totsuko (Sony) (Japan)

OPPOSITE
579. ***TX8-301* portable television set**, 1959
Made by Sony (Japan)
Museum of Modern Art, New York


SONY
AC
DC
OFF

BELOW
580. **Advertisement for the Seiko *Digital Quartz LC Chronograph***, 1975

OPPOSITE
581. ***Astron* analog quartz watch**, c. 1969
Made by Seiko (Japan)

possible price, and use them as tools for rapid westernization. Within a decade, however, it became clear that this was not to be the way forward: design began to play an important role in bringing technology and culture together and ensuring that, in the rush to modernize, the country's traditions were not completely forgotten.

Several manufacturers that had already been in existence for some decades came to the fore at this time, turning their attention to the production of high-tech consumer goods. The roots of the Seiko watch company (plates 580, 581), for example, went back to the late nineteenth century, as did those of many of the postwar automakers—Toyota, Mazda, and Datsun among them. Founded in 1912 as the Hayakawa Electric Company, the Sharp Corporation evolved into a leading manufacturer of electrical and electronic goods in the postwar years, although its early consumer products were more technically than aesthetically appealing. The same could be said of a number of other goods produced at the same time, like Sony's bulky *G* tape recorder of 1950 (plate 578), which owed much to wartime developments but had not yet been transformed into a desirable consumer product. (Unlike some of the companies mentioned above, the Sony Corporation was established after the war.)

In the 1950s, Japanese manufacturers had to create a home market for their goods before they could address the challenge of overseas sales. To that end, in 1955 Toshiba created an electric rice cooker that rapidly became an essential item on all newlyweds' gift lists. As the number of servants in Japanese homes continued to decline, the demand for electrical and electronic gadgets grew apace. In 1960, Sharp offered Japanese consumers a new color television set, a bulky wooden object with Detroit styling applied to its metal control panel. Two years later, the same company launched another crudely designed product: a domestic microwave oven. The use of advanced technology was enough to engage new consumers with this novel object, and it was not necessary to add any other levels of consumer desire. As Henry Ford had understood when he created the *Model T*, the mere possession of such a technologically innovative object was sufficient to bestow a high status on its owners.

The presence of the U.S. army on Japanese soil stimulated a strong program of Americanization, and many of the first products to be manufactured after the war—transistor radios, automobiles, motorbikes, and tape recorders among them—were indebted to the American idiom of streamlining, which was used as a way of engaging consumers with new, unfamiliar goods. The control panel of Sony's little *TR-55* transistor radio, for example, had a distinctly Detroit look to it (plate 577),


SONY
21 30 40 50 60 69
TRANSISTOR TV

LEFT
583. ***BP 156* portable transistor radio**, c. 1970
Made by Sharp (Japan)
Victoria and Albert Museum, London

BELOW
584. ***R-72* radio wristband**, 1972
Made by Panasonic (Japan)
ABS plastic
Museum of Modern Art, New York

OPPOSITE
582. ***9-306UM* portable television set**, 1975
Made by Sony (Japan)
Musée National d'Art Moderne, Centre Georges Pompidou, Paris

OPPOSITE, TOP
585. ***Sign Pen S 520* felt-tipped pen with acrylic fiber tip**, 1963
Made by Pentel (Japan)

OPPOSITE, MIDDLE
586. ***SL-800* solar-powered calculator**, 1982
Made by Casio (Japan)
Museum of Modern Art, New York

OPPOSITE, BOTTOM
587. **Microcassette recorder**, 1978
Made by Sony (Japan)
Musée National d'Art Moderne, Centre Georges Pompidou, Paris

BELOW
588. ***HDW-700* HD camcorder**, 1997
Made by Sony (Japan)

as did the Toyota *RS Crown* automobile of the same period (plate 589). Tokyo's famous bullet train, introduced in 1964, also had a dynamic streamlined profile (plates 590, 591).

However, Japanese product designers quickly moved beyond the idea of surface styling as a means of making goods appealing, and began to use technology itself as a stimulant for innovative design and a powerful selling tool. Learning from the past—in particular, the Japanese tradition of living efficiently in a small space, using shoji screens to transform the open area as needed and storing futons and other items when not in use—a number of Japanese high-tech manufacturers began to develop sophisticated products characterized by their portability, flexibility, and miniature scale (plates 582–84, 587, 588).

In 1959, Sony developed the world's first solid-state television receiver; it had an eight-inch screen and weighed only thirteen pounds (plate 579). Items like these, which combined technical virtuosity with clever design, began to give Japanese electronics a strong reputation in the international marketplace. Miniaturization became a key strategy of Japanese industry, culminating, by the 1970s, in wafer-thin pocket calculators. Numerous designs, such as that of Casio's little film-card solar calculator of 1982 (model *SL-800*; plate 586), demonstrated Japanese manufacturers' ability to produce seemingly weightless electronic gadgets. Japanese designers also excelled in the creation of other types of miniature item, such as sewing kits and Mitsubishi's *Electric Micro-Shaver* of 1980. Such objects showcased the country's advanced capabilities in molding plastics, and also built on its tradition of careful packaging and effective storage in the domestic sphere.

The concept of miniaturization went far back in Japan's history. It was rooted in a number of phenomena, including the country's limited size and lack of resources. Small things were not only cheaper to make and export but also reflected a unique aesthetic of flexibility, portability, and multifunctionality. In their home life, and particularly in their use of textiles, the Japanese had long been accustomed to activities such as folding, pleating, and stacking, and now they sought to create small products by packing miniature components into tiny shells. The small digital camera of the early twenty-first century was a Japanese innovation, for example, pioneered by Canon, Nikon, and Pentax. In 2000, Canon introduced the neat little *Digital IXUS*, the first in a line of so-called ultracompact cameras (plate 593). Its boxlike shell contained a vast number of components in a very limited space, and by 2004 the company had moved from using CF to SD memory

OPPOSITE
589. ***Toyopet Crown* car**, 1959
Made by Toyota (Japan)

BELOW, TOP
590. **Locomotives of *Shinkansen* trains, Tokyo Station**, 2010

BELOW, BOTTOM
591. ***Shinkansen 700 series* high-speed train**, manufactured 1997–2004, Japan

cards to create even thinner cameras. More recently, the Canon *Digital IXUS 675* camera reveals a commitment not just to compactness but also to elegant body design, manifested in its curved form, its chic metallic finish, and the distinctive black ring around its lens.

In the early 1980s, Sony's *Walkman* showed how miniaturization could be used not only as a marker of technological virtuosity but also to link products to the body and even transform daily life (plate 592). This was an indication that the close historical relationship between material culture and lifestyle in Japan continued to inform the design of high-tech products. As conceived by Japanese designers, such devices were meant to support life, not the other way around. The *Walkman* was to utterly transform daily activities like commuting on the train and going for a jog. It is significant that the *Walkman* project was generated by Sony's marketing department, rather than its engineers. Working with designers, the marketers succeeded in conceptualizing not just a new product but a new set of human behaviors. It was this shift in thinking that would eventually lead Apple to develop its famous range of high-tech lifestyle products, from the *iPod* to the *iPad*.

Miniaturization did not manifest itself only Japan's high-tech products, however. It was also apparent in the careful attention given to the design of small items, such as pens and pencils. Pentel, founded in 1946, excelled in this field, creating a number of iconic, yet very simple and inexpensive, writing instruments that became ubiquitous worldwide. These included the world's first felt-tip pen, the *Sign Pen*, introduced in 1963 and known for being used on a U.S. space mission in 1966 (plate 585). Ten years later, Pentel created its classic green *R50*, the world's first water-based roller pen. Its fine-tipped counterpart was the orange *S570*, manufactured in France. The simple *P200* mechanical pencil, used in design offices worldwide, has also made the Pentel name familiar to millions of people.

As well as embracing American commercial styling, Japanese designers also began to respond to modern European design in the early postwar era. Through the work of critic Masaru Katsumi and others, the ideas developed at the Bauhaus in the interwar years were transplanted to Japanese soil, and a number of new design schools embraced its pedagogy, including the Creative Arts Education Institute (1951), the Kuwasawa

OPPOSITE
592. ***Walkman***, 1979
Made by Sony (Japan)
Musée d'Art Moderne,
Saint-Étienne Métropole

ABOVE
593. ***Powershot S110* digital camera**, 2001
Made by Canon (Japan)
Museum of Modern Art,
New York

Design School (1954), and the Visual Art Education Center (1955). Conscious that it needed to train its own designers to meet the demands of its rapidly developing manufacturing sector, Japan sought to emulate European educational practices and align its design culture with the modernist ideals underpinning them. The Industrial Arts Research Institute also moved into design education in those years, with the furniture and product designer Isamu Kenmochi heading its industrial design department. Although Japan was not ready to participate in the tenth Triennale di Milano in 1954, three years later it felt confident enough to play a part in the eleventh.

The 1950s also witnessed the emergence of such organizations as the Japan Advertising Artists Club (1951); the Japanese Industrial Designers Association, founded by Isamu Kenmochi, Riki Watanabe, and Sori Yanagi (1952); the Japan Design Committee (1953); the Japan Designer-Craftsman Association (1956); the Industrial Design Promotion Council (1957), which introduced the G-Mark prize, modeled on Italy's Compasso d'Oro; and the Japan Interior Designers' Association (1958). Collectively these organizations, which all mirrored Western equivalents, provided a supportive framework for the further development of a modern Japanese design culture.

TRANSPORT DESIGN

One area in which Japan advanced rapidly in the postwar years was transport design. Many of the key companies in this field, including Honda, Toyota, and Nissan, already had long histories. The war with Korea saw developments in the design of military vehicles, and with the end of hostilities these were transferred into a peacetime context. An early success story was Honda's little *Super Cub* motorcycle of 1958. Just as the Italian *Vespa* was designed for the back streets of Milan, the 50cc *Super Cub* was created with Japan's urban alleys and narrow tracks through rice paddies in mind.

Like its high-tech products, Japan's passenger cars of the late 1950s and '60s moved from an American aesthetic to a more European one. This trend was illustrated by the Nissan *Bluebird*, introduced in 1959, and the Toyota *Crown*, introduced in 1955, which owed much to the cars produced by Hillman in Britain. Gradually large sedans were joined by smaller models, and by the late 1960s and '70s Japanese cars were competing in the international marketplace. The Honda *Civic*, launched in 1972, was one of the first Japanese compacts to make a significant impact in the West (plate 595); it was designed with greater attention to visual detail than many other cars of the same period. A decade later followed the Honda *City*, whose dramatically sloped hood and generous headroom represented a breakthrough in Japanese automotive design. One important factor in the rise of Japanese compact cars was the oil crisis of the 1970s.

The success of the Japanese motorcycle industry is also part of this story. In addition to Honda (plate 597), Suzuki, Kawasaki, and Yamaha played important roles (plate 598). Yamaha, which originally produced only musical instruments, diversified into motorcycles after the war, collaborating with Kenji Ekuan's GK Industrial Design Associates on a number of striking models (plates 603, 604).

OPPOSITE
594. **Datsun *2000* roadster**, 1968

BELOW
595. **Honda *Civic***, in production 1972–79 (first generation)

BOTTOM
596. **Toyota *Prius* (gasoline-electric hybrid)**, 2010

ABOVE
597. ***C50* motor scooter**, 1965
Made by Honda (Japan)

OPPOSITE
598. ***Z1* four-cylinder 900cc motorbike**, in production 1973–76
Made by Kawasaki (Japan)

BELOW, LEFT
599. Kenji Ekuan (b. 1929)
Soy sauce dispenser, 1961
Made by Kikkoman Shoyu Corporation (Japan)
Glass, plastic
Museum of Modern Art, New York

BELOW, RIGHT
600. Makio Hasuike (b. 1938)
Toilet brush holder, 1976
Distributed by Gedy S.p.A. (Italy)
ABS plastic, rubber
Museum of Modern Art, New York

CORPORATE DESIGN

While much support was provided by the government, it was the large corporations that were mainly responsible for Japan's progress in modern design. However, unlike American firms, which made a virtue of naming the famous consultant designers they patronized—men like Raymond Loewy, Walter Dorwin Teague, Norman Bel Geddes, and Henry Dreyfuss—Japanese companies did not lionize individuals but depended on anonymous in-house design teams that collaborated with the engineering and marketing departments. In line with Japanese tradition, designers were seen as faithful employees working in a collective; it was the brand name that was important. Still, the corporations did act as training grounds for many of the young designers who, in later years, were to become much more visible internationally and be credited for their individual contributions. For example, Makio Hasuike, who went on to set up his own design agency in Italy in 1968, began his career working, at various times, for Seiko, Mitsubishi, Mazda, and Honda (plate 600), while Naoto Fukasawa, who came to prominence in the 1990s, also spent some time with Seiko, in the 1980s (plates 601, 602). Although Japanese designers remained "humble servants" in the 1960s, they would soon come to be recognized, like their counterparts in the West, as magicians who could transform the nature and meaning of objects with—it appeared to those outside the profession—the mere wave of a wand.

BELOW, LEFT
601. Naoto Fukasawa (b. 1956)
Mobile phone, 2003
Made by KDDI Corporation (Japan)
Museum of Modern Art, New York

BELOW, RIGHT
602. Naoto Fukasawa (b. 1956)
8-inch LCD portable television, 2003
Made by ±0 and IO (Japan)

ABOVE
603. Kenji Ekuan (b. 1929)
YA-1 motorcycle, 1955
Made by Yamaha Motor Co.
(Japan)

OPPOSITE
604. Kenji Ekuan (b. 1929)
***Y125-MOEGI* motorcycle**, 2011
Made by Yamaha Motor Co.
(Japan)

THE PIONEERING GENERATION

Kenji Ekuan was one of those magicians. A founding member of the GK Design agency, he was one of the first Japanese designers to work independently, outside the corporations. Prior to his education as a designer at Tokyo's National University of Fine Arts and Music—where he met the cofounders of GK Design—Ekuan trained as a Buddhist priest. Throughout his long career as a consultant designer, during which he has been responsible for many successful products, including Yamaha motorcycles and the Akita bullet train, he has sought to maintain links between traditional Japanese aesthetics and contemporary design. According to his book *The Aesthetics of the Japanese Lunch Box* (1998), he believes that all objects contain a "spirit of form" and represent an "aesthetic ideal." His simple 1961 design for the Kikkoman soy sauce dispenser—one of Japan's best-known but most commonplace artifacts—demonstrates how that philosophy can be applied to an everyday object (plate 599).

Although many of the designers employed by Japanese corporations in the 1960s and '70s remained anonymous, a handful did succeed in making their individual contributions known. They were all members of a pioneering generation that consolidated the concept of modern Japanese design and opened the door for younger designers to follow after them. Isamu Kenmochi has already been mentioned in connection with the Industrial Arts Research Institute. Having begun his career as a furniture designer under the German architect Bruno Taut, who came to Japan in the 1930s, Kenmochi formed his Design Laboratory in 1955 (plate 605). He is perhaps best known for his collaboration with the Japanese-American sculptor and designer Isamu Noguchi, whom he met in the office of the architect Kenzo Tange in 1950 (plates 608, 609). The pair collaborated on the *Bamboo Basket Chair*, which was to become an international icon of modern Japanese design (plate 606). Although this chair famously employed traditional Japanese bamboo basket weaving, its form reflected the organic aesthetic embraced by Western furniture designers in those years. Because it thus combined Japanese and Western elements, and because the chair itself was still a relatively new object in Japan, Noguchi and Kenmochi's design made a powerful statement about the role and meaning of modern design in that country. The original chair no longer exists, but replicas of it have been produced. A later Kenmochi design, his wooden *Kashiwado* chair of 1961, has also achieved iconic status (plate 607). Most importantly, Kenmochi's extensive travels, during which

BELOW
605. Isamu Kenmochi (1912–1971)
Armchair, 1958
Made by Yamakawa Rattan Company (Japan)
Rattan
Musashino Art University Museum & Library, Tokyo

OPPOSITE, TOP
606. Isamu Noguchi (1904–1988) and Isamu Kenmochi (1912–1971)
Bamboo Basket Chair, 1950
Replica by Kenmochi Design Associates (Japan) in association with Shosaku Kondo and YMK Co, 2007
Bamboo, iron
The Noguchi Museum, Long Island City

OPPOSITE, BOTTOM
607. Isamu Kenmochi (1912–1971)
***Kashiwado* armchair**, 1961
Made by Tendo Mokko (Japan)
Lacquered Japanese cedar
Philadelphia Museum of Art

PAGE 484
608. Isamu Noguchi (1904–1988)
***Akari 1AG* lantern**, 1960
Mulberry paper, lacquered steel wire
Musée des Arts Décoratifs, Paris

PRECEDING PAGE
609. Isamu Noguchi (1904–1988)
***Akari 25N* lantern**, 1960
Mulberry paper, lacquered steel wire
Musée des Arts Décoratifs, Paris

BELOW
610. Sori Yanagi (b. 1915)
***Elephant Stool* stackable stools**, 1954
Made by Kotobuki Company (Japan)
Polyester, fiberglass
Musée des Arts Décoratifs, Paris

OPPOSITE
611. Sori Yanagi (b. 1915)
***Butterfly* stool**, 1956
Made by Tendo Mokko (Japan)
Molded plywood, metal
Museum of Modern Art, New York

he collected many objects and images, helped expose other Japanese designers to modern Western design.

Along with Kenmochi, Sori Yanagi—son of Soetsu Yanagi, the leading promoter of the mingei movement—cofounded the Japanese Industrial Designers Association. Sori Yanagi also played a key role in the early years of the formation of a modern Japanese design movement. Between 1940 and 1942, he had worked in Charlotte Perriand's studio, learning about European modernism at first hand. Originally trained as an artist, he began to study industrial design in 1947, and he opened his own design studio in Tokyo in 1952. Like Kenmochi, Yanagi brought Japanese tradition and modern Western design principles into contact with each other. Nowhere is this more apparent than in his elegant little *Butterfly* stool of 1954, which recalls a Japanese shrine (plate 611). This object combines Japanese aesthetics with molded plywood, an industrial woodworking technique developed by the American designer Charles Eames.

Yanagi worked in both furniture and product design, and in the early 1950s Sony hired him to design its *H* tape recorder; this was among the first instances in which an electronics company collaborated with one of the new Japanese designers who were seeking to realign tradition with innovation. Another iconic Yanagi design was a stackable plastic stool that came to be known as the *Elephant Stool* because of its resemblance to that animal's chunky feet (plate 610). His stools and kitchen pots remain among his most successful pieces.

Yanagi went on to create a wide range of products in the "Japanese modern" style, from ceramics to lamp shades to children's toys to subway stations to cars and motorbikes. In 1964, he designed the torch for Tokyo's Olympic Games, an event that brought the burgeoning Japanese design movement to the eyes of the world. Thirteen years later, he became the director of the Japan Folk Crafts Museum in Tokyo, which his father had helped found four decades earlier. Yanagi's contribution to postwar Japanese design lay in his ability to combine Western ideas (he greatly admired Le Corbusier) with a traditional Japanese approach to artifacts, entailing simplicity, the use of organic forms, and a strong respect for materials.

Kazuhide Takahama and Reiko Tanabe are both members of the generation of Japanese architects and furniture designers who carried on the work initiated by Kenmochi and Yanagi in the 1950s and '60s.

612. Reiko Tanabe (b. 1934)
Stool, 1961
Made by Tendo Mokko (Japan)
Molded plywood
Museum of Modern Art,
New York

Takahama had studied architecture in Tokyo between 1949 and 1953, before working in the studio of Kazuo Fujoka. Like many of his contemporaries, he traveled to Milan in 1957 to see the eleventh Triennale, and there he was recruited by the Italian furniture manufacturer Dino Gavina. Takahama thus became one of the first Japanese designers to stay and work in Italy, producing numerous items for a variety of firms, including a lamp for Sirrah that won the Compasso d'Oro in 1979. His use of stretched fabric, which gave this object the appearance of a rice-paper lantern, spoke to his Japanese origins.

Reiko Tanabe was also trained in architecture and worked in the areas of interior and furniture design. Like Yanagi before her, she employed molded plywood, and her *Murai* stool stands out as perhaps her greatest achievement in that material (plate 612). Also like Yanagi, Tanabe's work straddled the worlds of Japanese tradition and Western modernism, exemplifying the new synthesis that defined Japanese design in the 1960s and '70s.

The best-known Japanese furniture designer in that pioneering generation, however, was Shiro Kuramata. Indeed, it has been said that Kuramata was the first Japanese designer working in the modern style to be recognized and admired outside Japan. His connection with the group of designers described above, who sought to reconcile Japanese tradition with Western modernism, was less obvious, however. While he also built upon traditional Japanese forms, combining them with new materials like metals and plastic, his contribution was more individual. Operating in the gap between design and fine art, Kuramata moved beyond the "tastefulness" of modernist design to embrace a new postmodern approach. He developed a multifarious grouping of forms, materials, and images with which to express his inner thoughts and preoccupations.

Kuramata's background was in woodworking, which he studied in Tokyo, and furniture making, followed by training in interior design that exposed him to many Western principles. He first applied them in his work for the interiors department of the Matsuya department store. After opening his own office in 1965, he created an enormous body of work, eventually including more than 180 pieces of furniture. He also designed a number of store interiors throughout his career, notably boutiques for the fashion designer Issey Miyake in Paris, Tokyo, and New York. Characterized by the use of terrazzo and metal mesh (the latter also employed in the Matsuya department store), these boutiques brought together two hugely talented designers. Regrettably, they were only temporary spaces, although Miyake claimed actually to enjoy the impermanent nature of retail shops.

The preoccupations that Kuramata displayed in his interior work were mirrored in his furniture designs (plate 616). From his wavy chests of drawers of 1970 (plate 613), he went on to create the famous *How High the Moon* armchair, made entirely of steel mesh, in 1986 (plate 614) and the *Miss Blanche* chair in 1988 (plate 615). Inspired by the corsage worn by the main character of Tennessee Williams's play *A Streetcar Named Desire*, the latter chair epitomized Kuramata's skill in combining transparency, spatial articulation, and storytelling in a single piece of furniture. His versatility as a designer allowed him to embrace a wide range of objects, including flower vases and an umbrella stand.

Besides raising the profile of Japanese design generally, Kuramata showed that the country could excel not only in high tech but also in architecture, interior design, and fashion—fields that offered abundant opportunities to combine traditional Japanese aesthetics with the challenges of global modernity. While the design of many Japanese stereos, televisions, and cars was

OPPOSITE
613. Shiro Kuramata (1934–1991)
***Side 2* chests of drawers**, 1970
Made by Fujiko (Japan) and after 1986 by Cappellini (Italy)
Lacquered bentwood ash, brushed steel
Musée National d'Art Moderne, Centre Georges Pompidou, Paris

BELOW
614. Shiro Kuramata (1934–1991)
***How High the Moon* armchair**, 1986
Made by Vitra (Switzerland)
Nickel-plated steel mesh
Victoria and Albert Museum, London

OVERLEAF
615. Shiro Kuramata (1934–1991)
***Miss Blanche* armchair**, 1988
Made by Ishimaru Company (Japan)
Paper flowers, acrylic resin, aluminum
Museum of Modern Art, New York

PAGE 493
616. Shiro Kuramata (1934–1991)
Acrylic Stool with Feathers, 1990
Made by Ishimaru Company (Japan)
Acrylic, aluminum, feathers
Musée des Arts Décoratifs, Paris

LEFT
617. Masayuki Kurokawa (b. 1937)
***GOM* Pen**, 1992
Made by Fuso Gomu Industry Company (Japan)
Synthetic rubber, stainless steel
Museum of Modern Art, New York

BELOW
618. Masayuki Kurokawa (b. 1937)
***GOM* ashtray**, 1973
Made by Fuso Gomu Industry Company (Japan)
Synthetic rubber, stainless steel
Museum of Modern Art, New York

OPPOSITE
619. Arata Isozaki (b. 1931)
***Marilyn* chair**, 1973
Made by Tendo Mokko (Japan)
Varnished wood coated with polyurethane

linked to traditional concepts of portability, flexibility, and the importance of everyday life, the craft-based fields of architecture, interior design, fashion, textiles, and ceramics could be linked directly to a range of other Japanese traditions. This is seen especially in the Zen Buddhist–inspired minimalism that, from the early 1980s, became one of the world's favored styles of interior design. Existing alongside the more decorative and complex forms of postmodernism, this neomodern style has provided a level of stability in a world increasingly characterized by change. Within Japan, both architects and furniture designers embraced the possibilities it offered. One of its foremost practitioners is Takashi Sugimoto, who established Super Potato Design in 1973. Since then, his team has been responsible for many remarkable minimal spaces that emphasize natural materials such as wood and granite; a recent example is the interior of Seoul's Park Hyatt Hotel (2005). Studio 80, founded by Shigeru Uchida in 1981, was also responsible for many stunning minimal interiors, including boutiques for Yohji Yamamoto and Issey Miyake. Drawing on traditional ideas of space, Uchida promoted new ways of tea-drinking and created a number of rooms for that purpose.

The story of modern Japanese architecture paralleled that of design in the years after 1945. It was driven by Kenzo Tange and his students and colleagues—including Kisho Kurokawa, Arata Isozaki, Fumihiko Maki, and Yoshio Taniguchi—as well as by Kazuo Shinohara, Mayumi Miyawaki, Hiroshi Hara, Toyo Ito, and Tadao Ando. In Japan as elsewhere, architecture in fact had a direct impact on design, as many architects also engaged in design projects.

Arata Isozaki, a member of the same heroic generation as Ekuan, Miyake, and Kuramata, is among the best-known of the Japanese architect-designers. In 1973, he created his famous *Marilyn* chair (plate 619), which owes much to one of his heroes, the Scottish architect and designer Charles Rennie Mackintosh. This piece quickly became an icon of modern Japanese furniture, earning Isozaki a strong reputation as a designer as well as an architect.

Masayuki Kurokawa, another architect-designer born in the prewar years, graduated from the Department of Architecture at the Nagoya Institute of Technology and set up his architectural practice in 1967. He has produced some of Japan's most enduring products of

BELOW
620. Mitsuo Maki (b. 1948)
Mechanical pencil and ballpoint pen, 1980
Made by Platinum Pen Company (Japan)
Stainless steel
Museum of Modern Art, New York

OPPOSITE
621. Makoto Komatsu (b. 1943)
***Crinkle Super Bag* vase**, 1974
Made by Ceramic Japan Company (Japan)
Porcelain
Museum of Modern Art, New York

the last four decades, ranging from furniture to clocks to watches to lighting fixtures to drinking glasses to cutlery to jewelry. All his work is deeply indebted to the culture of Kanazawa, a city with one of the oldest continuous craft traditions in Japan. In particular, the set of desk objects in stainless steel and rubber that he created in the mid-1970s—including ashtrays, containers, and a pen—epitomized the minimal approach of traditional Japanese craftspeople (plates 617, 618). Perhaps because of the importance of calligraphy in their culture, the pen is in fact a favorite object of Japanese architects and designers; another noteworthy example was designed by Mitsuo Maki in 1980, for the Platinum Pen company (plate 620).

Through the 1970s and '80s, the boundaries between architecture and interior, product, furniture, fashion, and textile design progressively eroded, extending the idea of the unified designed environment, or *Gesamtkunstwerk*, that had underpinned traditional Japanese craft and design. According to the old Japanese idea that a space is defined by the smallest objects it contains, a pen requires as much attention as, say, a folding screen. It was in this spirit that Kuramata and Uchida worked with Miyake to create many of the stunning retail spaces in which he placed his garments. Collaborations such as these grew more frequent in the 1980s, with architects, interior designers, and industrial designers working together on innovative projects that respected traditions even as they sought to transcend them by engaging with new technologies.

But even as certain types of design began to blend together in Japan, others—such as ceramics—remained more firmly entrenched in their traditional territories. There was still a considerable amount of innovation in those areas, however. The crumpled "paper bags" that Makoto Komatsu began making from porcelain and glass in 1975 reflected a meeting of craft traditions with a Pop sensibility (plate 621). Japan has always embraced the popular and the everyday while also celebrating craft skills, and Komatsu's artifacts have succeeded in extending that alliance into the present. Komatsu, who spent some years with the Swedish porcelain company Gustavsberg, has said that his goal as a ceramist is to make home and social life more comfortable.

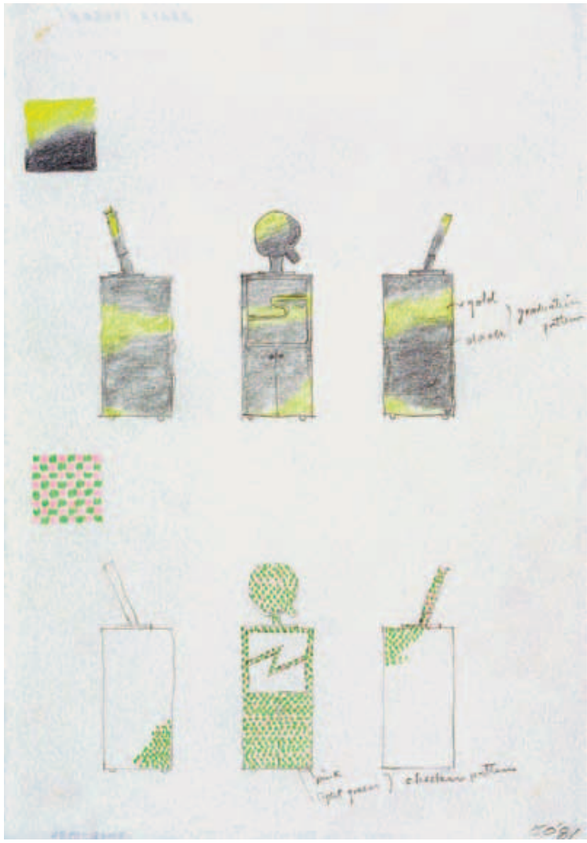
BELOW
622. Toshiyuki Kita (b. 1942)
***Wink* chaise longues**, 1980
Made by Cassina (Italy)
Expanded polyurethane foam, Dacron, steel
Philadelphia Museum of Art

OPPOSITE
623. Toshiyuki Kita (b. 1942)
***Wink* chaise longue**, 1980
Made by Cassina (Italy)
Expanded polyurethane foam, Dacron, steel
Museum of Modern Art, New York

THE 1980S: GLOBALISM AND POSTMODERNISM

By the 1980s, modern Japanese design was fully formed and wielded a growing international influence, as the country's architecture, interiors, high-tech products, crafts, textiles, fashion, and graphics were featured in the design press and in exhibitions. Western designers traveled to Japan to learn about its deeply rooted aesthetic traditions and work in its exciting contemporary design culture, which had warmly embraced the opportunities offered by new technologies. However, the expansion of globalism meant that nothing could be contained within a country's borders any longer, and a fluid movement across boundaries began to encourage the development of a hybrid culture. Where design was concerned, that hybridization provided a backdrop for enhanced creativity and innovation, and as a result, increasing numbers of Japanese designers sought to work outside their own country for a period of time. Many returned at a later date, bringing their knowledge of global culture back with them.

The phenomenon of Japanese designers working abroad was not new, of course. As we have already seen, many of them traveled to France and Germany in the interwar years to learn at the feet of the modernist masters. After 1945, some went to the U.S. and Scandinavia as well, but, increasingly, Italy became the favored destination of Japanese designers. The Triennales in Milan were, as we have seen, the first attraction. The furniture designer Kazuhide Takahama did not return from his visit to the Triennale of 1957. In 1963, he was joined in Italy by Makio Hasuike, who had previously worked for a number of Japanese companies, including Seiko, where he had designed clocks for the 1964 Tokyo Olympics. On moving to Italy, Hasuike spent five years working for a number of other designers, including Rodolfo



Bonetti, before establishing his own consultancy. In the early 1980s, he founded the bag and luggage company MH Way, for which he created, among other products, a popular line of plastic briefcases and the telescoping PVC *Zoom* tube for carrying drawings. The question inevitably arises as to whether or not Hasuike's designs can be described as "Japanese," but they do clearly display aesthetic characteristics—purity, clarity, simplicity, transparency, portability, a love of materials—that owe much to Japanese traditions. Equally his family of desk accessories—pens, pencil cases, and diaries among them—have much in common with the simple everyday objects created by the "no-name" brand Muji, which became a global Japanese success story in the 1990s.

Another highly successful Japanese designer, Toshiyuki Kita, also made his reputation on Italian soil, arriving there in 1975. He had studied at Naniwa Design College and opened his own office in Tokyo in 1967. From 1969 onward, Kita's work took him to Italy as he began to collaborate with a number of manufacturers there. His first "Italian" design of note, the famous *Wink* chair, was launched by Cassina in 1980 (plates 622, 623). Its bright colors and Mickey Mouse ears betray its Pop allegiances, but its flexibility and adjustability can be seen as Japanese in inspiration. After the success of *Wink*, Kita went on to design a series of Japanese-style lamps and, from his base in Italy, initiated a campaign to protect traditional Japanese crafts—including papermaking, lacquerwork, bamboo work, and basket making—from extinction.

The first Memphis show, held in 1981 in Milan, represented a key moment in the story of Japanese

OPPOSITE, LEFT
624. Arata Isozaki (b. 1931)
Sketches for the *Fuji* cabinet, 1981
Victoria and Albert Museum, London

OPPOSITE, RIGHT
625. Arata Isozaki (b. 1931)
***Fuji* cabinet**, 1981
Made by Memphis (Italy)
Wood

BELOW
626. Tomoyuki Sugiyama (b. 1954)
***Bubble Boy* speakers**, 1986
Made by Inax Corporation (Japan)
Ceramic
Museum of Modern Art, New York

designers working in Italy. Led by the veteran Italian designer Ettore Sottsass, the Memphis group sought to renew the language of contemporary design. Sottsass's close friend Arata Isozaki participated in this experiment, as did Kuramata and Masanori Umeda. The Japanese designers' work was among the most innovative on display, demonstrating that their country was no longer following the European avant-garde but running alongside it and arguably even leading it (plates 624, 625).

Japanese design did not have to travel to Milan to become postmodern, however, as the rapid social, cultural, and technological changes that were occurring on its home soil encouraged a new aesthetic. In addition to the more exclusive market for craft-based goods, a new consumer society was emerging that favored products aligned with pop culture. Increasingly, household gadgets became linked with the concept of lifestyle, and pastel shades were introduced to a variety of appliances, from washing machines to television sets, in emulation of American goods of the 1950s. Sharp's *QT50* portable radio-cassette player of 1986 was offered in a variety of soft colors, including pink, which became a marker of goods aimed at young girls and housewives. Even cameras, like Canon's *Snappy* range, sported bright colors, and products that retained more sober hues often took on at least a "cute" shape, like Tomoyuki Sugiyama's *Bubble Boy* speakers (plate 626). In a continuation of the two parallel levels of material culture that had long been in place in Japan, "cheap and cheerful" goods and images designed to fulfill popular requirements (manga, Tamagotchis, Ninja Turtles, and so on) coexisted with other objects and spaces that sustained deeply rooted traditions.

This "postmodern" phase of Japanese design, which lasted through the 1980s brought new design values into the marketplace and created a new consumer culture: products were given evocative names like "Holiday," suggesting that they contributed to a new lifestyle characterized by leisure rather than work. Where postmodern design was concerned, Japan led the way and was emulated by countries in the West. A high level of product differentiation, which allowed designers to cater to diverse and changing tastes, was made possible by the introduction of flexible manufacturing using high-tech machinery.

OPPOSITE
627. ***Game Boy Pocket* transparent gaming console**, 1996
Made by Nintendo (Japan)
Centre National des Arts Plastiques/Fonds National d'Art Contemporain, Paris

BELOW, RIGHT
628. ***AIBO ERS 110* robot dog**, 1999
Made by Sony (Japan)
Height 10½ in. (26.6 cm)

BELOW, LEFT
629. ***SDR-3X* toy android robot**, 2000
Made by Sony (Japan)
Height 19⅝ in. (50 cm)

THE 1990S AND BEYOND

The economic recession of the 1990s was to change the landscape of Japanese manufacturing and design irrevocably, however. With the slowing down of the manufacturing-driven economic miracle that had underpinned the emergence of Japan's postwar design culture, a new sensibility came to the fore. The pendulum swung away from the ephemerality of gadgets and pop culture and back to a more universal, craft-based mode of design. Architecture and interior design took on a new importance and reemphasized their roots in Japanese tradition. The anonymity of the corporate designer was replaced by a more individualized design culture in which, following the Western example, designers came to be revered almost as fine artists, capable of acts of creativity and poetry. A new generation of designers emerged in the 1990s, many of whom had studied and worked with the leading figures of the 1960s and '70s, including Kuramata and Miyake. The collaborations that had taken place a decade or so previously—such as those between Kuramata, Isozaki, and the textile designer Junichi Arai—were inspirational to the new generation. The premature death of Kuramata in 1991 was an occasion for Japan and the rest of the world to reflect on the past and future of Japanese design. Several exhibitions held around this time—both of Kuramata's work and of postwar Japanese design in general—offered ideal opportunities for such an assessment.

The processes of internationalization and globalization that had already been set in motion accelerated after 1990, and designers became increasingly peripatetic. More and more Japanese designers worked outside their homeland—although many later returned—while increasing numbers of Western architects and designers came to Japan, including the Britons Nigel Coates, Jasper Morrison, George Sowden, John Pawson, Norman Foster, and Ron Arad; the Italians Ettore Sottsass, Michele De Lucchi, and Aldo Rossi; the Australian Marc Newson; and the Frenchman Philippe Starck.

One of the strongest fields of Japanese design—product design—took on a new identity in the post-corporate era. Individual designers became prominent, and they increasingly embraced a wide spectrum of goods, from high tech to lighting and furniture. (Some companies, it should be said, continued to work successfully with in-house design teams, including Mazda, Canon, Nintendo, and Sony; plates 627–29.) Following

BELOW
630. Naoto Fukasawa (b. 1956)
***CD-1* CD-ROM reader**, 1999
Made by Muji (Japan)
Centre National des Arts Plastiques/Fonds National d'Art Contemporain, Paris

OPPOSITE
631–32. **Pages from the Muji catalog**, 2008

in the footsteps of craft-based designers like Michio Hanyu, who had created simple metal flatware in the 1960s, many of the new product designers aligned themselves more closely to Japanese craft traditions than to high tech. Among those born in the 1940s were Shun Takaoka, who designed an influential alarm clock in the early 1980s; Hiroyuki Tazawa, whose creations in recycled paper include a rescue board (1998) and a snow grabber (2001); and Kazuo Kawasaki, who has made a significant impact with his socially conscious designs. Kawasaki, originally employed at Toshiba, was injured in a car accident in 1977 and has used a wheelchair ever since. That life-changing event inspired him to focus on design for people with specific needs; he realized, for example, that by designing a wheelchair to meet his own physical requirements, he could create a functional product for others with a similar disability. He founded Kazuo Kawasaki Product Designs in 1979.

Among the product designers born in the 1950s were Hiroaki Kozu, who created an innovative pair of speakers for Yamaha in 1989, and Kosuke Tsumura, who crossed the boundary between fashion and product design. Naoto Fukasawa has undoubtedly been the most successful and influential designer of that generation, however. In 1989, he decided to leave his job at Seiko and move to San Francisco, where he joined the firm that was soon to become IDEO. In 1996, he returned home to set up the Japanese branch of that prestigious agency, with which he remained for the next six years. In 2003, he formed his own company and became one of Japan's leading product designers, taking on a number of roles, among them creative director of Muji. The following year he launched the home product brand ±0 (plusminuszero). The wall-mounted CD player he designed for Muji (plate 630), along with his many other creations—including mobile phones, a humidifier, household appliances, and furniture—have earned him numerous prizes. Fukasawa's philosophy is rooted in the traditional Japanese belief that design should be a part of everyday life, making it both more beautiful and more efficient. He has explained that, in Japan, the relationship between the object and its environment is more important than the object itself, and that his work has become less about making interesting shapes and more about such relationships.

The Muji retail company, whose philosophy is that its goods should be unbranded and unadvertised, was founded in 1980 with a collection of just forty products (plates 631, 632). It has been a huge global success story and has recently diversified its activities into cafés, home furnishings, and housing construction while maintaining its original involvement with stationery, storage items, and clothing. In addition to eschewing the concept of branding, Muji also produces high-quality, low-cost goods, is very environmentally aware, and embraces a simple yet distinctive aesthetic with a minimal color range. The Muji concept was developed by the company's first art director, the graphic designer Ikko Tanaka, together with the interior designer Takashi Sugimoto. Kenya Hara took over as art director in 2001 and has developed the original concept to suit the twenty-first century.

Although Muji presents its goods anonymously, it has collaborated with a number of significant international designers. As noted above, Fukasawa has been closely linked with the company, as has the British designer Jasper Morrison, whose work is in strong sympathy with the simple objects sold by Muji. James Irvine,

オーク材ラウンジアームチェア

7118438 税込40,950円

幅68×奥行61.5×高さ70(座面高41)cm
背面・座面：積層合板、オーク材突板
脚部：オーク積層材・ポリウレタン樹脂塗装

※積み重ねて収納できます。

積み重ね時

オーク材ダイニングアームチェア

7112810 税込30,450円

幅56×奥行50.5×高さ75.5(座面高44.5)cm
背面・座面：積層合板、オーク材突板
脚部：オーク積層材・ポリウレタン樹脂塗装

※積み重ねて収納できます。

積み重ね時

積み重ね時

オーク材ラウンジチェア

6652939 税込27,300円

幅60×奥行62×高さ68.5(座面高41)cm
背面・座面：積層合板、オーク材突板
脚部：オーク積層材・ポリウレタン樹脂塗装

座面が低く、くつろいで座れる一人がけのチェアです。リビングだけでなく、寝室や寝室にもお使いいただけます。

※積み重ねて収納できます。

3

4

オーク材ラウンジチェア用シートクッション

3 6777162 ベージュ 税込6,825円

4 6777199 ブラウン 税込6,825円

幅52.5×奥行52.5×厚さ2cm
【洗濯不可】

オーク材ラウンジチェア専用のクッションです。

積み重ね時

オーク材ダイニングチェア

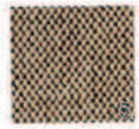
6606475 税込19,950円

幅49×奥行47.5×高さ75.5(座面高44.5)cm
背面・座面：積層合板、オーク材突板
脚部：オーク積層材・ポリウレタン樹脂塗装

脚部に曲げ木を使用し、座面も座ったときに収まりの良い曲線に仕上げています。

※積み重ねて収納できます。

6



5

オーク材ダイニングチェア用シートクッション

5 6777045 ベージュ 税込4,725円

6 6777052 ブラウン 税込4,725円

幅42.5×奥行42.5×厚さ2cm
【洗濯不可】

オーク材ダイニングチェア専用のクッションです。

an English designer based in Milan, and the German designer Konstantin Grcic have also designed products for Muji. Morrison, whose designs for Muji include a 2008 wall clock, has collaborated with a number of other Japanese firms as well, making the *Lightwood* chair for Maruni (2011) and a set of cast-iron cookware for Oigen (2012), in association with japan creative, an organization set up to protect the country's indigenous craft traditions. This cookware is strongly indebted to traditional Japanese aesthetics, especially in its simplicity, dependence on a strong sense of craftsmanship, and attention to detail.

Product designers born in the 1960s and '70s include Kazuhiro Yamanaka, who created a range of lamps in the early 2000s, and Tokujin Yoshioka, one of Japan's most innovative young designers. A graduate of the Kuwasawa Design School, Yoshioka worked with both Kuramata and Miyake, for whom he created a number of store interiors before going freelance in 1992; he made his Milan debut a decade later. Yoshioka is an interdisciplinary practitioner who combines retail, exhibition, and furniture design. He employs technology—especially fiber optics—in a highly creative way, combining it with a sophisticated use of light. He states, "I like something which is surrounded by an aura, something that appeals to one's heart, something that enlightens one's soul, and something that brings an emotional experience." He compares his design philosophy to Japanese cuisine, whose simple appearance conceals the hard work that has gone into preparing it. His work includes interior designs for a number of carmakers, including Toyota, Peugeot, and BMW; furniture for the Italian companies Cassina, Driade, and Kartell; and the *Tofu* lamp for Yamagiwa. His interest in space and light has led him to think of furniture in a new way, less as fixed objects and more as fluid presences (plate 634). A group of optical glass projects included a "chair that disappears in the rain," while the iconic *Honey Pop* chair is made entirely of honeycomb paper (plate 633). His approach also lends itself to installations, of which he has created several, including displays for Lexus, Swarovski, and Moroso at the Milan furniture fair. For an exhibition at 21_21 Design Sight in Tokyo, he showcased an object called *Venus*, which he described as a "natural crystal chair," based on his ideas about applying the laws of nature to design.

The last few years have seen a much greater interest in the role of materials and the concept of lightness and air in Japanese design. In addition to Yoshioka's explorations of these ideas, the architect Junya Ishigami has created installations on the theme of Architecture as Air. On one level, this is a new manifestation of minimalism, trying to link the visual and material world back to the elements from which they came. A significant contribution in this area has also been made by the Nendo group, led by Oki Sato and formed in Tokyo in 2012, in response to a visit to the Milan furniture fair. Its name means "modeling clay," and Sato has said that he wants the group's designs to have that same sense of fluidity. Nendo's output ranges from one-offs to mass-produced items, and it has recently launched a project called 1%, consisting of objects produced in one hundred examples each. One Nendo design, the *Cabbage Chair*, is made from a roll of pleated paper left over from the production of clothes by Issey Miyake (plate 635). That kind of lateral thinking, combined with a

OPPOSITE
633. Tokujin Yoshioka (b. 1967)
***Honey-Pop* armchair**, 2000
Paper
Museum of Modern Art,
New York

BELOW
634. Tokujin Yoshioka (b. 1967)
Pane Chair, 2003
Polyester fiber shaped in
a steam mold
Museum of Modern Art,
New York

635. Oki Sato (b. 1977) for Nendo
Cabbage Chair, 2008
Paper, fabric, resin
Musée des Arts Décoratifs, Paris

commitment to the environment, typifies the group's work. Another example is its *Hanabi* lamp, made from a shape-memory alloy, which opens up like a flower when it is turned on.

Along with product, furniture, and environmental design, Japanese crafts have also gone from strength to strength over the last two decades. In the field of contemporary ceramics, Shigeyoshi Morioka, among others, has shown that the work of the early twentieth-century potters has not been forgotten, and that traditional forms can still make a lasting impact. Indeed, as the twenty-first century advances, it becomes increasingly apparent that Japan's real contribution to modern design lay not in its enthusiastic embrace of new technologies but in the way it brought its traditions to bear on the present.

CONCLUSION

In the early twenty-first century, Japan's economy may continue to lag, but the country is still a serious contender for world leadership in design innovation, having not only absorbed lessons from the West but also taken several extra steps forward on its own. Tokyo now boasts its own design museum—21_21 Design Sight, led by Miyake and Fukasawa—and hosts its own annual design shows on the European model. Indeed, the urban fabric of Tokyo itself, epitomized by the upscale shopping street Omotesando Dori, pays homage to international architecture and design. Young designers from around the world travel to Japan to see the innovative projects on display, while young Japanese designers—including the Tonerico trio, two of whose members emerged from Shigeru Uchida's office, and Rieko Miyata, who makes lamps out of ribbons—exhibit internationally. Other Japanese designers live abroad; Shin and Tomoko Azumi, for example, are based in London. The globalism that began to emerge several decades ago is now a reality, and Japanese design can be found anywhere in the world.

A few Japanese corporations continue to produce world-class designs: the strikingly minimal LCD projector designed for Sony by Takuya Niitsu and the Toyota *Prius* stand out in this context. The latter, one of the first gasoline-electric hybrids, combines environmental awareness with a stylish look (plate 596). For the most part, however, Japanese design is the work of talented individuals who challenge conventions and cross boundaries, while calling upon tradition for a sense of continuity. There can be no doubt that the giants of modern Japanese design—Kuramata, Miyake, and Isozaki in particular—were instrumental in bringing the past to bear on the present. Thanks to them, in the early twenty-first century Japanese design stands on its own two feet, providing a beacon for the future. And while Japan may be a relative newcomer to the international design scene, the fact that it developed its own modern idiom on the basis of its traditional culture has made it, in many ways, a leader in this field—indeed, it may be that the West owes more to Japan than the other way around.