



**8**  
*automobiles*



# 8 automobiles

An exhibition concerned with the esthetics of motorcar design, at the Museum of Modern Art, New York, autumn 1951

*This exhibition is made possible through the generosity of the Ford Motor Company, The Studebaker Corporation, Willys-Overland Motors, Inc., and the individuals who have lent automobiles*

## Foreword

*The eight automobiles in this exhibition were chosen primarily for their excellence as works of art, although no automobile was considered for inclusion unless its mechanical performance met the highest technological standards. A second consideration was their relevance to contemporary problems of passenger car design. The older cars, dating back as much as twenty years, were chosen not to show historical progression but to show prototypes of design that are still valid today. Racing cars and limousines, and experimental or unique cars, however beautiful or historically influential, are not the concern of this presentation and therefore have not been included. Such designs are in themselves material for future exhibitions.*



*Mercedes: the classic box on wheels.*

Automobiles are hollow, rolling sculpture. They have interior spaces corresponding to an outer form, like buildings, but the designer's esthetic purpose is to enclose the functioning parts of an automobile, as well as its passengers, in a package suggesting directed movement along the ground. This illusion of movement is inappropriate to architecture, but it is often implied by sculpture. Its successful introduction to automobile design is generally the result of one or two basic approaches. The first of them is the conception of an automobile as a box resting on wheels, and the second approach minimizes the distinction between separate parts by enclosing all of them in a single metal shell.

Reinforcement of the horizontal movement suggested by the box on wheels comes from the parts which must be added to it. But an automobile designed this way has as much to do with building and shelter as with sculpture: a motor at one end and passengers at the other determine the height of the box; the roof is lifted above the passenger compartment and the consequent opening is glazed to provide windows. The chief interest of such designs lies in the way various elements are joined to the box, in their shapes, and in their relation to each other. The Jeep, the Mercedes, and the Bentley illustrate this with different results, the Mercedes being an unusually consistent example of a box with applied parts, while the parts applied to the Bentley are themselves less



*Jeep: a beautiful tool for transportation.*



*Bentley: an elaborate box with curving planes and sharp edges.*





*Cisitalia: a subtly pierced and modeled metal envelope.*

significant than their remarkable intersections, which form the true basis of the design.

The second approach emphasizes the idea of light, unencumbered movement. In its ideal version the type appears to be a single envelope covering passengers and motor as well as accessory parts. Modeling the envelope as though it were sculpture helps to indicate what has been covered. In this way surface undulations are used to describe the wheels (which may no longer be visible) or to provide a setting for lights, these mechanisms often being held within the envelope as an eye is contained in one's head. The contours of the envelope are usually influenced by aerodynamics, and a characteristic of the streamlined automobile is that it can indicate direction and movement without benefit of clarification from added parts. The envelope becomes, in effect, a metal skin on which applied decoration, like tattoo marks on the human body, would be of limited esthetic value.

The chief interest of such designs derives from what tends to contradict them: the openings which must be cut into the envelope. Their relation to each other and to the total shape of the car are indications of the designer's skill in preserving the illusion of a one piece shell. Pinin Farina's Cisitalia is perhaps the most resourceful demonstration of this approach to automobile design.

But the designer may wish to maintain a distinction between separate parts, and yet choose to treat each section as a piece of sculpture. One way to do this is to assemble a set of individually wrapped parts, each one being sharply defined by its own metal envelope. The method draws equally from the maximum articulation of parts characteristic of the Mercedes and the Bentley, and the monolithic sculptural unity of the Cisitalia. For example, the Talbot Lago consists of five distinct shapes—front and rear fenders and the passenger compartment—related to each other by a general similarity of size and contour. Color groupings can sometimes effect a further unification of these shapes, the Talbot in particular lending itself very well to this treatment.

When several independent but similar shapes are assembled in this way, the details which relate them, like openings for grilles and windows, and bumpers or other applied parts, must be evaluated chiefly for their success



*Cord: an American design contrasting a coffin-shaped hood with separate streamlined fenders.*



*Talbot: a composition of five voluptuous shapes.*



*Ford: the neatest of the deck and turret designs.*



*Cadillac 60 Special: a five passenger sedan of restrained design.*



*Muntz Jet: a massive American sports car.*

in relating the larger shapes to each other, and not for their intrinsic appeal. Indifference to this fundamental distinction often leads to those rolling collections of ornamental hardware in which some startling accessory appears to be carrying the car.

The designer may choose a basic box shape for the major part of an automobile, and relate it to shapes of different sculptural character. Such designs may have great variety, and their interest generally lies in the devices, both applied and integral, which the designer may employ to unify dissimilar shapes. The Cord combines balloon-like fenders with a deliberately contrasting squared body. What all the parts have in common are rounded corners to blunt and soften the intersections of planes. This detail alone is almost enough to unify the design.

Whether it is conceived as a box, an envelope, or a collection of variously shaped parts, there is no single, fixed way to design an automobile. Even the most rational and objective program will admit of as many interpretations as there are designers. But each of these cars is characterized by a development of its parts consistent with one basic idea.

It is interesting to look at American automobiles with these ideas in mind, since so many automobiles are produced here. Processed by these tools of appraisal, the most satisfactory of them (shown in the exhibition by photographs but not by actual models) are the 1949 Ford, the 1947 Studebaker, the 1938 Lincoln Zephyr, and the 1939 Cadillac 60 Special.

The Ford treats the hoods of its motor and luggage compartments like broad fore and aft decks of a boat. The passenger compartment is centered on these decks, with its front and back windows skillfully angled to relate it to the rest of the body. Separate fenders have been completely eliminated, so that the wheels are enclosed within a single, box-like shape. Its squareness is tapered and softened to indicate direction, subtly and with restraint. Excellent doors are well related to the size of the car and to its broad lines.

The first successfully designed streamlined car in America was the Lincoln Zephyr. Its passenger and motor compartments, and the front and rear fenders, are distinct shapes



*Lincoln Zephyr: first successful streamlined car in America.*





related to each other by tapering lines and sharp, prow-like leading edges. The Zephyr has an impeccable, studied elegance, enhanced by such small decorative details as the thin, linear grille and simple hub caps.

Like the Lincoln Continental, the 1939 Cadillac is a long, low car with large windows. Its additive style combines similar shapes in a sober, unaffected design. A sharp contrast to it is the more recent Muntz Jet, a fast and powerful sports car. It is a massive automobile made effective by a limited number of details, all of them in appropriate scale, though not all of them contribute equally to the merits of the design.

The Studebaker retains a box-like character though its angular fenders, and the sharply sloping rear line of the passenger compartment, are pronounced sculptural devices for giving the car a forward direction. Its arrangement of large windows is a strikingly original departure from previous models, and makes of the passenger compartment a turret-like observatory. The Studebaker was the first post World War II car to present any serious changes in automobile design.

Willys-Overland's Jeepster, like its predecessor the famous military Jeep, is a sharply rational vehicle. Adaptations for civilian use have introduced consciously stylized details, but the Jeepster remains an extraordinarily clear-sighted demonstration of esthetic appeal derived from a closely reasoned design program.

Even though the American system of mass production does not encourage esthetic speculation, these cars contradict the claim that the American public prefers what is ugly, gross, or even vulgar. Popularity polls which pretend to discover public taste are, in reality, testing only the efficiency of advertising. It is true that the furious productivity of modern factory methods is sustained, in part, by making the automobile a symbol of wealth and social position. The value of the symbol is renewed from year to year by what is known as artificial obsolescence, forcing arbitrary changes in what may be already satisfactory designs. But quite often our automobiles fail to be enhanced by fresh applications of chromium. The dollar grin, as the American grille is known abroad, does not represent our best effort.



*Studebaker: most original post World War II design.*



*Maserati: Farina's style applied to a long, powerful sports car.*



*Jeepster: the military Jeep's principles of construction modified for civilian use.*



*Porsche: rear-engined German car with the taut simplicity of the Cisitalia.*



*Bentley-Farina: a large car by the designer of the Cisitalia.*



*Simca: a Farina-designed popular French car of great elegance.*



*Jaguar Mark VII: a good British design for the American market.*

It is sometimes said that European automobile designers achieve so high a standard because they are preoccupied with relatively simple problems. The expensive and frivolous sports car is supposed to be easier to design than the inexpensive family-sized car. But sobriety no less than frivolity is entitled to the best, and principles of good design which happen to be applied to sports cars can, of course, be applied just as effectively to larger automobiles, whether they are for sports or family use, patiently tapped out by hand or rolled off the assembly line by the thousands.

Many European cars illustrate this. Pinin Farina's Bentley is a family-sized car matching his Cisitalia for subtlety and verve. The Simca is also based on the Cisitalia. It is a less costly sports car designed for large scale production. The Triumph, a popular British car, is a similar adjustment to technical processes, adapting the razor-edge lines of the custom built Bentley to faster, simpler fabrication. The Jaguar Mark VII is a large, five passenger car designed specifically to compete on the American market. It has many features comparable to American designs, and a remarkably well finished interior.

One of the most interesting European cars is the Volkswagen. This small, rear-engined automobile carries four passengers and is noted for its balance and maneuverability. At first sight the Volkswagen presents a somewhat disquieting contour, but the logic of its form encloses the centered passenger compartment and the front and rear hoods under a metal lid like a walnut shell, with a structural corrugation running along the center of both hoods. Fenders and other details have been treated with equal directness, chromium decoration is judiciously applied, and the reasonableness of the whole design is expressed with considerable style.

The technological skill that goes into the creation of an automobile should be accompanied by a more earnest attention to principles of design than most of the public and most professional designers have given them. An automobile is not a shop front or a new dress, however much it may be influenced by fashion, and the automobiles in this exhibition represent some of the most serious thought given in our time to the esthetics of automobile design.—A.D.



*Triumph: the "razor-edge" style in a popular British car.*

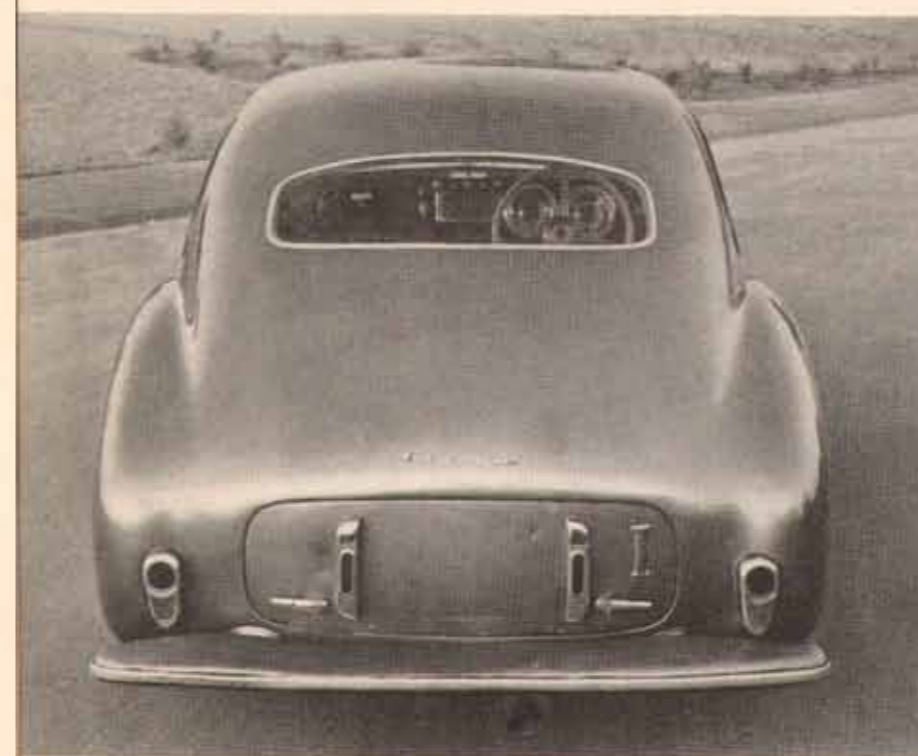
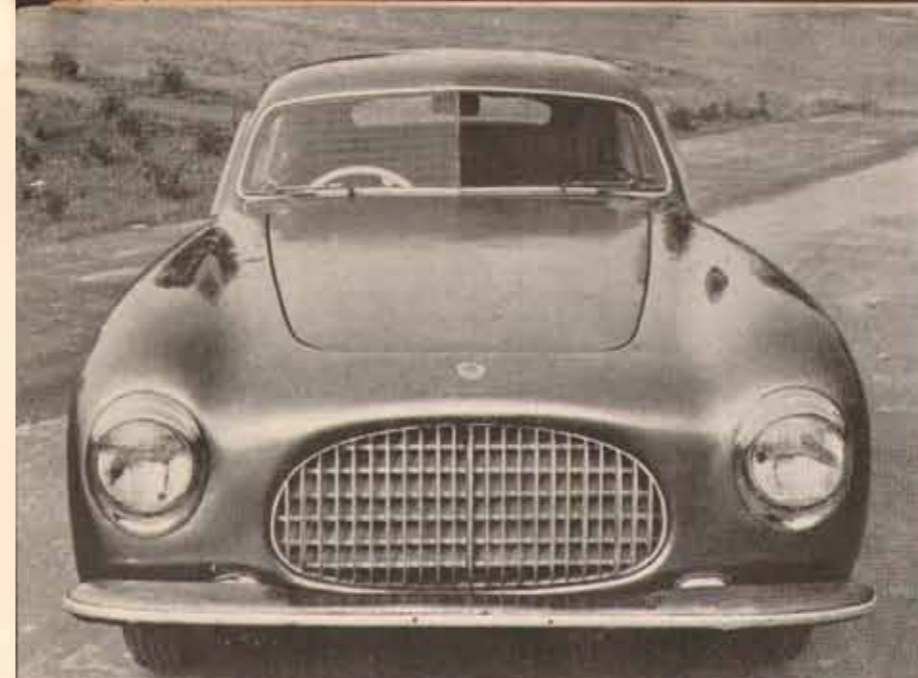


*Volkswagen: Ferdinand Porsche's rear-engined German family car; both ends curved like a walnut shell.*



## 8 automobiles

- 1 Mercedes** Lent by D. Cameron Peck
- 2 Cisitalia** Lent by John Wheelock Freeman
- 3 Bentley** Lent by Briggs S. Cunningham
- 4 Talbot** Lent by Carroll Bagley
- 5 Jeep** Lent by Willys-Overland Motors, Inc.
- 6 Cord** Lent by Charles F. Hewitt
- 7 MG** Lent by Sports and Utility Motors, Mamaroneck
- 8 Lincoln Continental** Lent by Bimel Kehm



**Cisitalia** **2** 1949 (model first produced in 1946). Manufactured by Automobile Cisitalia, Turin, Italy. Coachwork by Pinin, Farina, Turin. Overall length 12 feet 6 inches.

The Cisitalia's body is slipped over its chassis like a dust jacket over a book. Modeled by swellings and depressions, the surface of this seemingly one-piece metal jacket is made to incorporate those elements which, in the Mercedes, are superimposed on the body.

The openings Farina cuts into the jacket provide some of the most skillfully contrived details of automobile design. The grille opening is a modified cross section of the hood, which thus resembles the cut end of a cigar, while the rolled edge of the opening itself helps to suggest that the grille is part of a continuous structural framework beneath the metal surface. Because the sloping hood lies below the two front fenders it suggests low, fast power. This hood treatment has the additional merit of making the wheels seem larger, (an illusion reinforced by the high, tight curves of the openings which skirt them) and because they are dominant elements in the design Farina has made them appear to project outside the body by decorating them with slotted, chromium plated discs, as if they were bright roulette wheels.

To maintain the sculptural unity of the entire shape its surfaces are never joined with sharp edges, but are instead wrapped around and blunted. The door is minimized to prevent it from contradicting the appearance of a taut metal skin. Vertical contrast, necessary for an illusion of length, is supplied instead by the clearly modeled rear fender. The side window is given pronounced forward direction by one sharp corner pointing toward the front wheels, and the roof and window seem to unfurl from this point, flowing back like a pattern of air currents in a slipstream.

Perhaps the most subtle device in the Cisitalia's design is a slight shift in its horizontal axis. The back of the car, particularly the fender, is lifted at an angle rising from the strict horizontal base line which gives stability to the design. Thus both ends of the car gain an extraordinary tension, as though its metal skin did not quite fit over the framework and had to be stretched into place. This accounts, in part, for that quality of animation which makes the Cisitalia seem larger than it is.





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