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Popular Science

**ANNUAL
NEW-CAR
ISSUE**

**'64 Cars
in Color**

**In a Sneak Preview
of the
New York World's Fair**

Monthly



Chevy's New-Size Chevelle and Fair's Unisphere

**PS Test Reports on
BOATS—TOOLS—TV**

**New Polaroid 200—Most Affordable Camera Yet
Wernher von Braun Explains Orbiting
How to Make Your Own Plastic Bearings**

The '64 Look



Chevelle and Unisphere

On the cover of this issue of Popular Science you see two big newsmakers for 1964—a new brand of passenger car, and the theme structure of New York's World's Fair.

The car: Chevrolet's smart Chevelle—bigger than Chevy II, smaller than the Impala. The structure in the background: the Fair's Unisphere.

In the following 12 pages, you will see the other new cars—now

chrysalis-fresh in showrooms from Bangor to Los Angeles, Seattle to Key West—plus a dozen of the Fair's buildings as they appeared last summer, during construction.

Then, in succeeding pages you will find descriptions of the cars by Popular Science auto specialists, the men who drove them for you on test tracks months in advance of their introduction.

PHOTOGRAPHED FOR POPULAR SCIENCE
BY BILL MORRIS



Muscular Galaxie struts in new attire

You are looking at an automobile (above) that in the last year has got U.S. motoring all shook up. It's the Galaxie, Ford's top performer, and it has been copping stock-car races from Riverside to Daytona. A 427-inch engine turns out a thundering 425 horsepower in the street version, a lot more on the track. The mint-bright Galaxie has been given a new dress by the stylists. The building pictured in the background is, appropriately, the Ford Motor Co. pavilion at New York's World's Fair. It will feature a glass-enclosed rotunda-like structure 235 feet in diameter and 56 feet high, encased in 65 pylons 100 feet tall.

Olds F-85 grows and grows in size and horsepower

Olds' 1964 "small" car, the F-85, is growing out of its britches. At 203 inches, its overall length is almost 11 inches greater than a year ago, 15 greater than in the 1962 model year. And up goes the horsepower!—from a bustling 215 to a roistering 260 in the Cutlass version. The torque-converter transmission, replacing its Hydra-Matic, is brand-new. So is its outside sheet metal. A shrewd eye will detect similarities between the F-85 and some other General Motors cars in the new crop. Shown in the background is the almost-completed International Business Machines building at the Fair.





Little Tempest begins to resemble its big brothers

If the Olds F-85 is bigger, so is Pontiac's little Tempest. In fact, they're exactly the same length—203 inches. That means the Tempest has grown almost 14 inches since its unveiling in 1960. (The F-85, Tempest, Chevelle, and Buick Special have a lot in common for '64.) Gone is the Tempest's rear-mounted transmission, its 4-cylinder engine. Horsepowers blast up to 280. In new sheet metal, the car has begun to resemble its big brothers in the Pontiac stable. Background: the Fair's Port of New York Authority building, topped by a heliport to provide shuttle service to Manhattan.

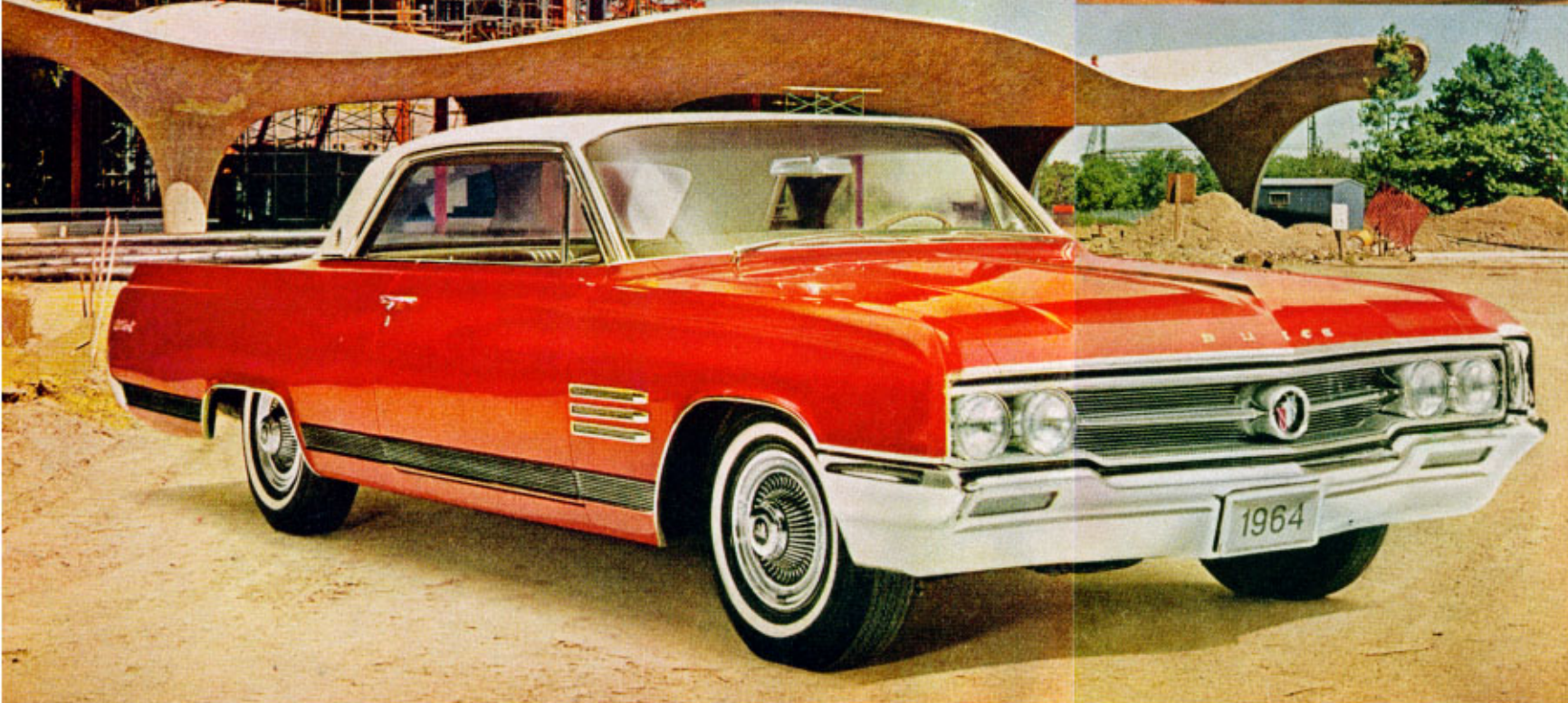
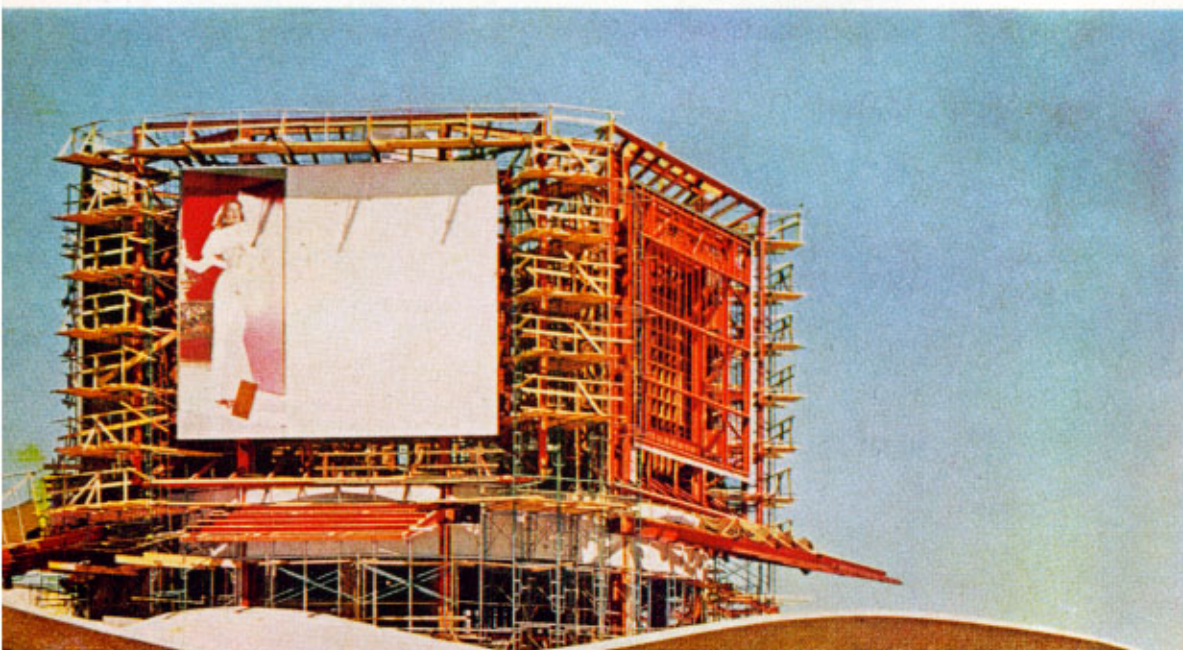
The word for the first new Comet in three years: pulchritudinous

You won't recognize the Comet, Mercury's "compact" (above), shown here in its Caliente model. In completely new attire for the first time since its coming-out party three years ago, the Comet wears spangles. That isn't all. The top horsepower has gone whoosh!—from 164 acquired with a V-8 engine in the middle of the 1963 model year to a whopping 210. There's a new three-speed automatic transmission, an instrument panel with a simulated wood grain on its lower edge, and no less than three dozen different accessories. Ford Motor hasn't yielded to the temptation to stretch the car's length, though. It's about the same size. The backdrop for this portrait is GE's Progressland pavilion. That dome, 200 feet in diameter, will be crowned with 1,000 lights, burning enough juice each night to supply an average household for months.



Buick's Wildcat boasts new gas economy

Buick's sporty Wildcat (below), a LeSabre model sort of toggled out for the country-club set, has a new asset in its milder horsepower versions—of all things, a rather spectacular gas economy. But its optional horsepower race clear up to 360. There's a new transmission. The "portholes" are stacked for '64. The car is pictured in front of Kodak's Tower of Photography exhibit.



Even the Rambler American is longer and splashier

Rambler American, the smallest car made in this country, has caught the expansion fever, too. For 1964 it's four inches longer. And splashier! Geegaws abound. There's an electric tailgate, for example, in the station-wagon version that has quite a bit more cargo room. Both the front and rear suspensions are new for easier riding and cornering. Behind the car, abuilding, is a monument to the fact that human beings spend a third of their lives in bed. It's the Simmons Mattress Co. exhibit at the Fair.





The Plymouth: a bit bigger, a bit roomier

A smidgen longer, with a mite more headroom, Plymouth's Fury appears before the Travelers Insurance exhibit.

Chevy gets some restyling touches

The standard Chevrolet (left) is lightly restyled for '64. In the background: the General Motors building.

Lark incorporates some fresh machinery

Studebaker's Lark, lower and longer, also has come up with mechanical improvements. Background: Bell System exhibit.





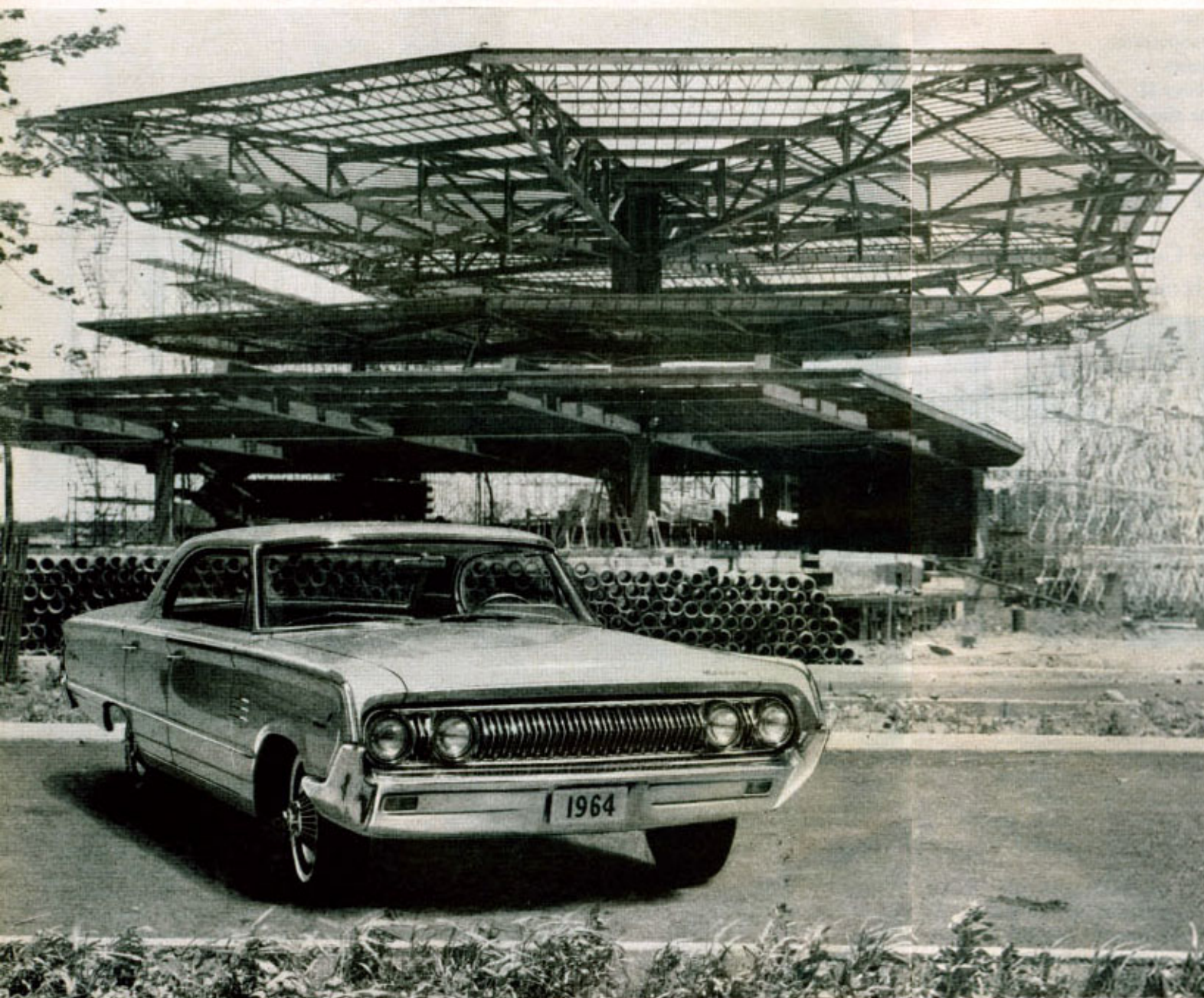


Dapper new Dodge rides popularity wave

Better loved in '63 by U. S. motorists than for several years, the '64 Dodge, shown here in its elegant Polara version, abounds in jaunty touches. One of them: an optional between-seats console with a lever—not pushbuttons—for the automatic transmission. The backdrop you see is the New York State building which will have, when complete, three observation towers, the highest rising 200 feet.

The Thunderbird: new styling and gadgetry

Ford's Thunderbird, at long last, is rid of that front end—which from the side looked like a petulant sea bass. The styling, all new, is nothing short of exquisite. Wheels are an inch bigger, the tires fatter. A flip of a switch opens a rear vent on the package shelf. That structure in the rear is Shea Stadium, the New York Mets' ball park which, when finished, will seat 55,000 fans.



Mercury puts on Sunday best for 25th birthday

The Mercury is celebrating its silver anniversary. So, for '64, it's all dressed up in new duds. Bursting with horsepower in its high-performance models, the car has bigger—and, naturally, more ornate—interiors. Revived: Merc's Montclair line, between the Monterey and the luxury Park Lane. Fair's Gas Industries building, in background of picture, will house, among other things, a carousel.

To see how the Fair buildings will look when they open, turn to page 90.

So much for style ...now for a more critical look

By Devon Francis and Alex Markovich

TRENDS in auto making are like the tides—ponderous, powerful, and predictable. Here are highlights of the trends in this model year:

New car, new looks Chevy's Chevelle is not only a new brand name, it's a new car. In addition, there's a new sporty vehicle by Oldsmobile. Eleven other cars with familiar names are in wholly new attire. The '64 cars are in good taste and handsome, but individually they are without distinction—partly a result of standardization for manufacturing economy. Four of the "compact" cars are compact no more.

The racing image Many horse-powers are up. In a boom year, this was inevitable. Stock-car race results have contributed. Some new engines are appearing.

New transmissions Equally important, the new cars are fitted with transmissions designed for performance. A significant move: For economy, General Motors is beginning to standardize on its automatic drives—which means the end of Hydra-Matic by 1965.

The end of idiocy Despite a proliferation in accessories, the new cars are practical, sturdy, easily maintained. They embody no knee-knocking windshield pillars, tail fins.

Tremendous trifles The bulk of the news for '64 lies in the subtleties of engineering research. Scores of little things improve the ride and handling. Ford finally has moved its starter-ignition key to the right side of the steering column. GM finally has adopted a sensible P-R-N-D-L automatic drive quadrant. And, finally, there's a retractable seat belt.

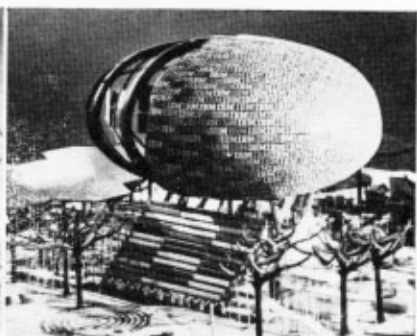
FOR DETAILS, TURN THE PAGE 77

And here's the World's Fair as it will look

Backgrounds of the portraits of the '64 cars that you have seen at the start of the annual POPULAR SCIENCE Auto Section show the New York World's Fair buildings abuilding. Here you see them as they will look when the Fair opens on next April 22. They will be situated in the Transportation and Industrial areas. In all, there will be 60 buildings, more than 200 exhibitors—a billion-dollar fair, served by a new network of highways costing \$129,000,000.



Theme: the world, or Unisphere



International Business Machines



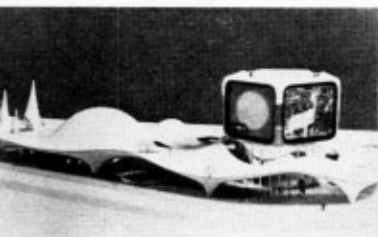
Ford Motor Co.



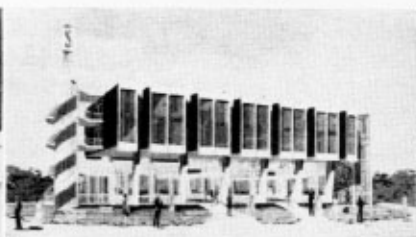
General Electric Co.



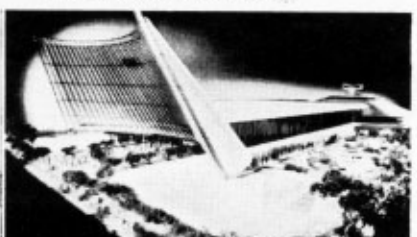
New York Port Authority



Eastman Kodak



Simmons Mattress



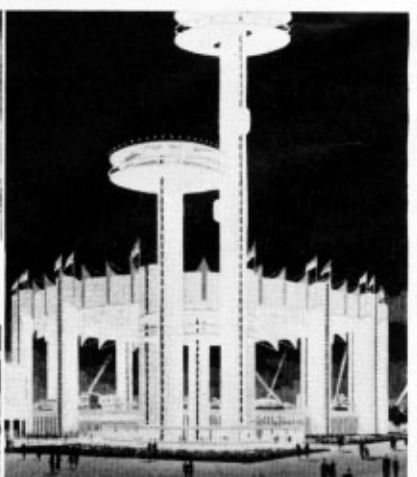
General Motors Corp.



Traveler's Insurance
Shea baseball stadium



Bell System
Gas Industries



New York State

