REVIEW

A Drive Down the Highway of History

From tail fins in the prosperous '50s to the pickup trucks of today, cars tell the story of America

BY PAUL INGRASSIA

THE AMC GREMLIN was designed on the back of a Northwest Airlines air-sickness bag and launched on April Fools' Day, 1970. The plug-ugly car perfectly suited the American "crisis of confidence" that President Jimmy Carter declared at the decade's end.

For Americans, cars have always been much more than a way to get around. Since the rise of middle-class prosperity after World War II, cars have been an extraordinarily reliable window into the country's culture and mood. As went our automobiles, so went Americans, through the ups and downs of a tumultuous half-century.

Take the tail fins of the 1950s, powerful totems of America's peacetime prosperity. Ironically, they were inspired by a war machine, the Lockheed P-38 Lightning fighter, whose twin tails each supported a vertical fin. General Motors design chief Harley Earl saw the fighter and decided to put fins on Cadillacs for 1948. They were modest, like the tails on tiny tadpoles, but Mr. Earl had set the stage for Detroit's great tail-fin war.

When the Chrysler design chief Virgil Exner adorned his 1955 models with still-taller tail fins, Chrysler's market share rebounded, and its earnings for the first two months of the year exceeded its profits for all of 1954. Emboldened, Mr. Exner put progressively taller fins on its 1956 and 1957 models. "Suddenly, it's 1960!" proclaimed the company's advertising, which also touted its fins as "graceful Directional Stabilizers" that acted as giant rudders, and thus increased the safety of its cars. In December 1957, Mr. Exner gave an endowed lecture at the Harvard Business School, declaring that tail fins reflected "the growing artistic taste of the American consumer...[and] reflect the spirit and character of our civilization."

By then GM was in panic. Shortly before the 1957 Chryslers went on sale, a young Cadillac designer, Chuck Jordan, sneaked around the back of a Chrysler building near Detroit. He saw tall tail fins jutting above the high grass and dashed back to the GM design center to tell his bosses: "You've got to see what I just saw. You won't believe it." It was too late to change GM's 1957 or 1958 models, but the prospect of getting outfinned prompted a crash effort to redesign the 1959 Cadillacs.

One of Mr. Jordan's first designs had fins that were taller than the roof of the car. So he toned them down, but only a bit. The 1959 Cadillacs had the tallest tail fins ever appended to a vehicle that didn't fly. "I say if you take the fins off a Cadillac, it's like taking the antlers off a deer," said one exultant GM executive. "You got a big rabbit." It was the apogee of an era. Fins got smaller in the succeeding years, and disappeared entirely by 1965.

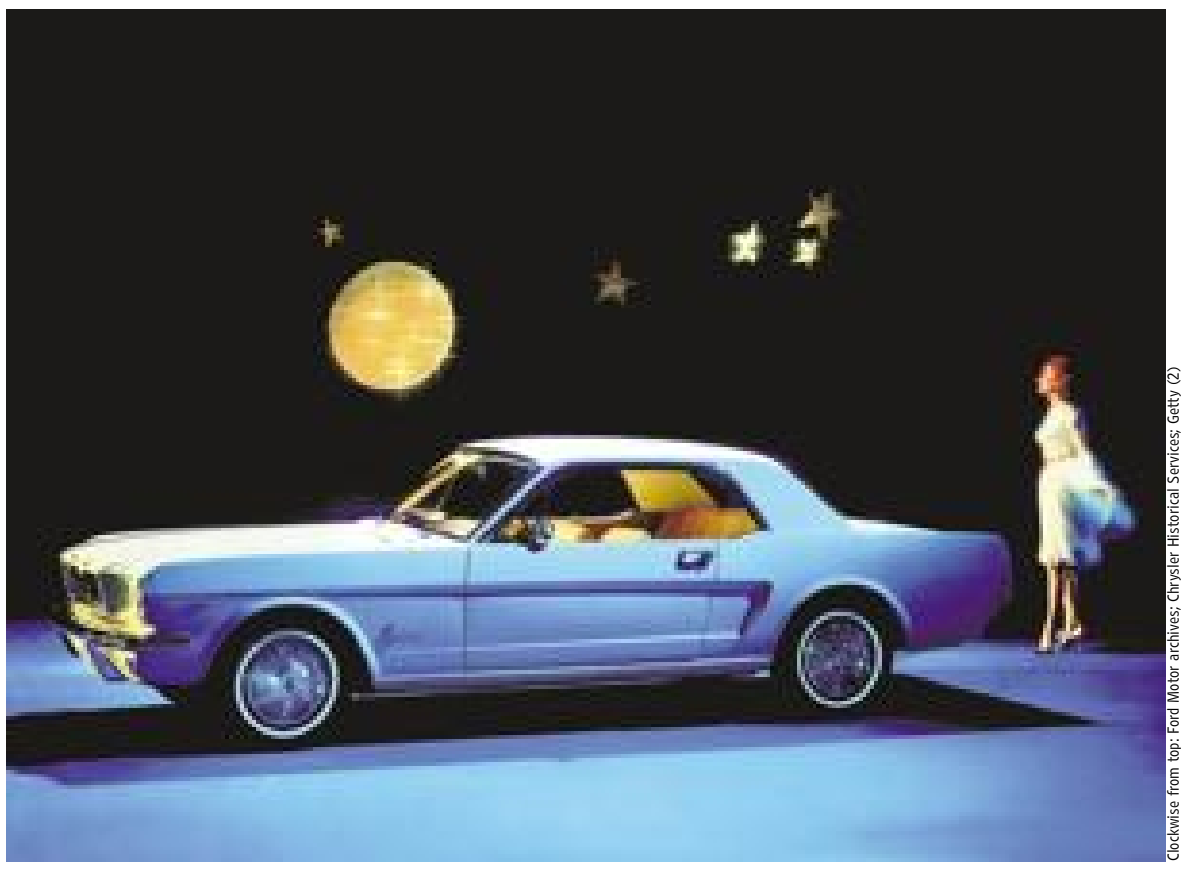
By then, extravagance in car design had spawned a backlash. Volkswagen was selling some 150,000 Beetles a year in the U.S. by the mid-1960s. The Beetle's original name was the Kraft durch Freude Wagen ("Strength through Joy Car"), as decreed by the its original sponsor, Adolph Hitler. It was "a rather unwieldy title," sniffed a British magazine.

But amazingly, Hitler's car became the car of the 1960s counterculture. The hippies especially liked the Microbus, a derivative of the Beetle developed after the war. After the death in 1995 of Jerry Garcia, leader of the Grateful Dead and a prophet of the era, Volkswagen ran a full-page ad showing a Microbus, sparsely sketched in pencil, shedding a tear from a headlight. The caption read: "Jerry Garcia 1942-1995."

It was typical of the hip, irreverent advertising that gave the Beetle its counterculture appeal. One mid-1960s ad featured the 7-foot-1 basketball star Wilt Chamberlain, trying to climb into a Beetle under the headline: "They said it couldn't be done. It couldn't." Another ad showed a couple in the Ozarks who had bought a Beetle to replace their dead mule, explaining: "It was the only thing to do after the mule died."

The Ford Mustang debuted in April 1964, just as America's first baby boomers were coming of age. The car caused a sensation, even though it was built on the chassis of the dull and dowdy Ford Falcon.

"You can take a girl, put her hair in a bun, add horn-rimmed glasses and low-heeled shoes, flatten out her chest and her behind, and you've got a school librarian," Ford executive Seymour Marshak proudly told the Detroit Free Press. "Take the same girl in upswept hair, contact lenses, spike heels, fill out her figure top and bottom—and you've got a sexpot! We did much the same thing with a car." That analogy, safe to say, wouldn't be used today.



Clockwise from top: Ford Motor archives; Chrysler Historical Services; Getty (2)

The counterculture car: Volkswagen's TKTK Beetle

Baby boomers grow up:

Two executives behind the Mustang, Lee Iacocca and Hal Sperlich, later were fired by Ford CEO Henry Ford II and wound up at Chrysler, which in 1980 was saved by America's first automotive bailout. Chrysler used its reprieve well.

Four years later Messrs. Iacocca and Sperlich launched a vehicle that captivated America's baby boomers again, at yet another critical juncture in their lives. By 1984, many boomers who had been wowed by the Mustang 20 years earlier had gone to college, grown up, gotten haircuts, taken showers, found jobs, gotten married and started families. (Not always in that order, of course.) The stage was set for the revolutionary Chrysler minivan, which could hold mom, dad and the kids and still fit inside the family garage. The minivan quickly became the preferred vehicles of "soccer moms," who were becoming a formidable force in America's political landscape, at least according to pundits.

In the 1996 presidential election, newspapers sent reporters to kids' soccer games to interview minivan-driving moms about their collective political clout. One mother told the San Francisco Chronicle, "I have to go home and thaw something for dinner. I spend so much time going to soccer games that I don't think I can really be a political force." Bill Clinton won the election and the soccer-mom vote over Bob Dole, and punditry prevailed.

The minivan's popularity ushered in America's love affair with SUVs and pickup trucks, which became political symbols themselves. In early 2010, Republican Scott Brown won a special election to fill the U.S. Senate seat of the late Ted Kennedy of Massachusetts.

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Mr. Brown had campaigned around the state in his 2005 GMC Canyon pickup.

When President Barack Obama called to congratulate him on election night, Mr. Brown said, "Would you like me to drive the truck down to Washington so you can see it?" That fall, in the midterm congressional elections, a Tennessee candidate for Congress advertised himself as a "truck-driving, shotgun-shooting, Bible-reading, crime-fighting, family-loving country boy." The candidate happened to be a Democrat.

Mr. Ingrassia is deputy editor in chief of Reuters and a Pulitzer Prize-winning former Detroit bureau chief for the Journal. This essay is adapted from "Engines of Change" by Paul Ingrassia, to be published May 1 by Simon & Schuster.

A Celestial Event That Sparked A Revolution

In early June, Venus will cross in front of the sun as it did 250 years ago, helping to create global scientific teamwork

BY ANDREA WULF

ON JUNE 5 AND 6 (depending on where you live), we are likely to be the last people now living on Earth to witness a transit of Venus. If it is a clear day, we will be able to watch the brightest star of the night march for a few short hours as a small black dot across the fiery disc of the sun.

Not only is this one of the rarest astronomical events—the next one will not take place until December 2117—but in the 1760s, this heavenly rendezvous spurred the first international scientific collaboration, laying the foundation of modern science.

Transits of Venus always arrive in pairs, eight years apart. Then they don't recur for more than a century. As the transits of 1761 and 1769 approached, astronomers believed that by recording their exact time and duration they could answer one of the most pressing scientific questions of the age: the distance between Earth and the sun and, by extension, the size of the solar system. But this endeavor would only work if scientists combined the observations from viewing stations in the Northern and Southern Hemispheres. The calculations would be valid only if the astronomers traveled to far-flung corners of the world and then shared their results.

Amid the global Seven Years War, hundreds of astronomers from the belligerent nations joined together to plan expeditions to see the transit from India, the Arctic Circle, Siberia, Tahiti, Newfoundland, Baja California and many other places—all of this when a letter posted in Philadelphia took two to three months to reach London.

The French astronomer Guillaume Le Gentil left first, in 1760, for the French port of Pondicherry in India. Beset by enemy attacks, hurricanes and dysentery, he finally saw the Indian coast at the end of May 1761. With only two weeks until the transit, Le Gentil learned that the British had taken Pondicherry and that he would have to see the transit from the sea, on a rolling boat, making precise observations impossible.

Having failed to find an appropriate perch for the first transit of his era, the stoical Le Gentil decided that nothing would prevent him from observing the second in June 1769. To make sure, he waited for eight years in the region and eventually returned to Pondicherry—again in French hands after the war's end—with plenty of time to get ready and to build an observatory.

David Cortner

THE TRANSIT of Venus (marked by white circle) across the sun in 2004.

After weeks of clear skies, a howling wind woke Le Gentil on the night before the big event. Clouds, sand and dust hid the sun; he could see nothing of the transit. A few hours later, after Venus had passed, and as if the heavens were mocking him, the sun returned. Le Gentil declared himself "doomed." By the time he returned to Paris in 1771, his heirs had declared him dead and divided up his estate.

Another French astronomer, Jean-Baptiste Chappe d'Auteroche, faced freezing temperatures and deep snows when he traveled from Paris to Siberia for the first transit. Eight years later, in Baja California, he measured the second transit from a typhus-infested Jesuit mission. Delirious with fever, he died hours after recording his final data.

Everywhere across the globe astronomers were encountering dangers and obstacles. Britain's Royal Society threatened Charles Mason and Jeremiah Dixon—later famed for the Mason-Dixon Line—with court martial for mutiny when they refused, after a bloody French attack, to continue on their way to Sumatra to record the transit. They resumed their journey but unbeknown to the Royal Society observed the transit in Cape Town.

Benjamin Franklin masterminded the colonists' effort from London, commissioning telescopes and other instruments for his friends at Harvard University and the American Philosophical Society in Philadelphia. On the day of the transit, the Pennsylvanian astronomer David Rittenhouse became so overexcited that he fainted, missing the beginning of the most important scientific event of his life. In Hudson Bay, one observer endured such cold that brandy froze in his glass, while a Swedish astronomer faced armed Russian rebels in a border conflict in Lapland. Russia's Catherine the Great dispatched eight expeditions across her vast empire.

During each of the two transits, around 250 official observers at more than 100 locations recorded data, transcending national boundaries. Once the results were compared, it became obvious that an optical phenomenon called the black-drop effect had distorted the results, and the 1761 calculations of the distance between the Earth and the sun varied widely—by some 20 million miles. The data improved after the 1769 transit, with astronomers putting the distance between 92.9 million and 96.9 million miles—very close to today's measurement of 92,960,000 miles.

The most important result of this effort, however, was the successful collaboration of an international community of scientists—a precedent that has served humankind well. As we look skyward this June to see a planet almost as big as our own dwarfed by the immensity of the sun, we might pause for a moment to remember the hundreds of men who watched the exact same spectacle some 250 years ago.

Ms. Wulf's new book, out May 1, is "Chasing Venus: The Race to Measure the Heavens."