New Life for Old Cars

Part mechanic, part artist, part detective, Paul Russell restores antique automobiles to their original condition—once he has determined what that was

by David C. Holzman

ITALY'S Bugatti family was highly successful in the arts. Carlo, the patriarch, built his reputation on his furniture designs and was also an interior designer and sculptor. One son, Rembrandt, also became a sculptor. The other son, Ettore, went into the automobile business—and in his hands cars became fine art as well. Among the meticulously crafted luxury and racing cars Ettore produced was the Type 57 SC Atlantic, designed in 1936 by his son, Jean, to be the ultimate high-speed grand touring car (it later inspired the Chrysler Atlantic concept car). Only two Bugatti Atlantics survive. One is parked among a small collection of Bugattis at the home of the owner, in Lyme, New Hampshire. The other has been shown at the Montreal Museum of Fine Art and the Cleveland Museum of Art.

The car exhibited in Montreal and Cleveland currently sits in the entryway to Paul Russell and Company, an automobile-restoration firm in Essex, Massachusetts. Customers can't miss it. The roofline and bulbous fenders sweep gracefully aft, as if sketched by Picasso. And yet there is a bold opulence about the big black car. It could have gotten a part in *The Godfather*.

Russell and Co. restored the Atlantic in the late 1980s for its owner, the designer Ralph Lauren. In 1990 the car won Best of Show at Pebble Beach, the leading concours of classic cars, where prizes are routinely won by Russell restorations. Lauren has been bringing antique cars (he has a fleet of fifty) to Russell since 1980. Russell bills $65 an hour—$20 less than my Saturn dealer. But don't bother to get an estimate on the '57 Chevy. For Russell, a forty-nine-year-old family man known for his in-

Bold opulence: the Bugatti Atlantic

Photographs by Furnald/Gray

tegrity, whose mild manners belie his eminence in the world of classic cars, restoration is a time-consuming labor of love. Every last bolt and surface, no matter how well hidden from view, gets attention from the company's crew of five mechanics, three body men, one coachbuilder, and one upholsterer. A job can take two years, and generally costs from $250,000 to $500,000. As Paul Russell tells prospective customers, if their motives are pecuniary, they would be better off selling their cars as is.

Russell's own motives are clearly not pecuniary. The four to six restorations his company completes each year, together with the maintenance it performs on another 175 or so cars and a brokerage and advice service to help clients manage their antique-car collections, gross only about $2 million. Russell cannot afford his own services: his only classic car, a 1958 Lancia Aurelia B20 S, sits in pieces in a corner of the shop, perpetually awaiting restoration.

PAUL Russell's chosen profession would probably surprise those who knew him early on. Although he came of age at a time when the airwaves were saturated with musical paeans to Deuce Coupes, GTOs, 409s, and an elderly but lead-footed lady driver from Pasadena, he was not the least bit smitten with cars. His parents' vehicles—"practical four-door family units," in Russell's description—provided little inspiration. Then one day he drove an Austin Healey Sprite that belonged to a friend's father. "It went around corners like it was on rails," Russell says. "I fell in love."

Russell prizes technological elegance above all else in cars. He loves the imaginative design that allows the engine of a Mercedes-Benz 300 SL to inhale more fuel and air than atmospheric pressure alone could pack into its cylinders, without relying on a turbocharger, or turbine-driven compressor, as some high-performance engines do. Visual elegance means far less to Russell. He is blind to the jaguar in a Jaguar and to the grace of the cougar in the muscular haunches and tapering abdomens of the Ferraris that repose in his shop. His daily driver is an Audi A4, a car that Russell describes as a "Porsche in sedan clothing."

Russell's predilection for technology over style is not surprising. The basement of his childhood was a workshop full of tools, where Russell spent many hours with his father, Frank, taking machines apart, analyzing them, and reassembling them. Frank Russell was a machinist who eventually became the supervisor of engineering at Bolton-Emerson, a company in Lawrence, Massachusetts, that manufactured machinery for pulp-and-paper mills. Although he always regretted his lack of formal education, he took his greatest professional satisfaction in the years he spent as a machinist, because he could hold a job in his hands.

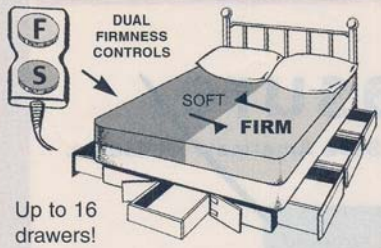
This satisfaction with hands-on work, Paul Russell says, was foremost in his own mind when he decided to drop out of college (Lowell Technological Institute, where he was studying civil engineering) in order to become a mechanic. After working for a few years, first at an independent garage and then at BMW and Mercedes-Benz dealerships, he found himself "frustrated with the low level of quality you were allowed to do working on street cars—get the car in, do something, and get it out." He moved on to more-satisfying work in a restoration-service garage, applying his skills mostly to Mercedes. Over the next five years he struggled with whether to remain a mechanic or go into business, and took courses from the Small Business Administration. In 1978, when the owner of the garage decided to sell, Russell was ready to buy. Over the years, the business evolved into the one he runs today.

At first Russell specialized in the two kinds of Mercedes he knew and loved best: the 300 SL Gullwing (named for its doors, which open upward) and the 300 SL Roadster, a large two-seater sports car built in the late 1950s and early 1960s. He has long since branched out. His clients range from private owners of a single Porsche or Ferrari to Mercedes-Benz USA. His parts department fills orders from as far away as Pakistan.

Ironically, Russell has ended up like his father—supervising instead of working with his hands. But it never occurred to him, he says, to restore cars by himself, as a few of the other seventy or so top-flight car restorers in the United States do. To achieve the quality he wanted, he would need specialists.

"Paul goes about the restoration as a technical systems analysis," says Dick Hanrahan, a longtime friend and customer and a retired systems analyst himself. Russell, who was the captain of his high school gymnastics team, uses a different metaphor: he sees himself as a coach. "When a car comes in, the guys know that we are not going to be finished with it for eighteen to twenty-four months," he says, "so I talk about pacing." He tells them that if they think before they act, they can put time in the bank. But exactly how his employees do their jobs is up to them. The only demand Russell makes is for exceptionally high quality.

For example, stripping the paint off a car, prepping the body, and then repainting it takes the company about 500 hours—nearly ten times as long as the



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average body shop might spend. Imperfections aren't minimized; they are literally rubbed out. "Then," Russell explains, "you do the fussy work of assembling the panels onto the body, making sure the gap between the panel and the body is four millimeters all around. It takes a lot of trial assemblies to make everything fit before you take it apart and paint it and then put it together again."

For many months a 1962 Ferrari 250 GT Short Wheelbase California Spyder sat on jack stands in one bay of the body shop. Russell always tries to salvage as many parts of the original car as possible. But much of this Ferrari was beyond salvaging, because of rust and bad repair work in the past, so the front bumper, the hood, and the door skins were made right here. Johnny Yanakakis, then one of Russell's body men, used a crown wheeling machine—a ten-foot-high cast-iron relic from the 1950s—to fashion the new parts from sheet metal. The machine looks like a giant vise, but instead of grips, two wheels come together to work the metal. One has a flat surface and the other is convex. They squeeze the metal into an ever thinner sheet, spreading it much as a rolling pin spreads dough, while the body man moves the metal back and forth, over and over.

IT is not enough to achieve perfection of form, fit, and finish. For a car that will compete at Pebble Beach, or at Parc de Bagatelle, in Paris, the restoration must be authentic: the car must look exactly as it did on the day of delivery to its first owner. Even knowing what to aim for can be a tall order: a car may have been modified repeatedly in the course of forty or sixty years.

"This was the third Ferrari Barchetta made," Russell says, indicating a red shell sitting in the mechanical shop. Russell needed to know exactly how the Barchetta had been put together. Ferrari's archives were of little help: during its early years the company built only engines and chassis, contracting out the coachwork on its cars. The Carrozzeria Touring company, in Milan, had built the Barchetta's body, in 1949. So Russell flew to Italy to discuss the manufacturing details with Carlo Anderloni, who was the head of Carrozzeria Touring at that time. Russell suspected that the body of the Barchetta had been painted after it was attached to the frame (a reversal of the customary sequence), because he had detected some red paint on the shock absorbers and on parts of the chassis. Anderloni confirmed Russell's suspicions, and Russell planned the restoration accordingly.

Similar sleuthing helped Russell to determine a crucial fact about the original appearance of one of Ralph Lauren's cars, a 1930 Mercedes-Benz SSK known, for its first owner, as the Count Trossi. The car had come to Russell with a removable top that deeply offended his sensibilities, both in its appearance and in the makeshift way it attached to the body. He did not want to restore that top, but he knew he would have to if it had been with the car all along. Again, the answer was not to be found in the company's manufacturing records. As was common in that era, Count Trossi had bought the chassis and drive train but had designed the body himself, commissioning an independent coachbuilder to make it. Russell was unable to find the builder, who may well have died. So he obtained the car's original registration from the Italian motor-vehicle registry. Inquiring about the document's details, he learned that in Italy cars are taxed not according to sale price but according to their equipment. "The documents said '*aperto*,' meaning a car without a top," Russell says. "We were relieved to confirm that this Mickey Mouse–looking top was not original."

Russell learns still more about how various cars were made as his employees disassemble them. Referring to the first pre-war Mercedes he restored, a 1938 540K, he says, "It was tremendous fun watching my upholsterer, Mike Curley, take those seats apart, to see something that hasn't been touched from the time it was new. The horsehair padding is hand-quilted, covered in muslin, stitched to various parts of the seat. . . . They obviously expected this to last a long, long time. I remember seeing Mike shaking his head, saying, 'These guys were crazy.'"

Lauren's Bugatti Atlantic held its own surprises. With flanges as its seams, the car appears to have Mohawks on the roof and fenders. It was designed that way, Russell says, because Bugatti wanted to fashion the body from an alloy of aluminum and magnesium. This was the lightest feasible material, but because magnesium is flammable, it couldn't be welded safely with the equipment available at the time. Using flanges allowed

Bugatti to assemble the body with rivets instead of welds. However, when Russell's workers stripped the paint from the Bugatti, they discovered that the body was not a magnesium-aluminum alloy after all—it was plain aluminum. "I assume that from building the prototype, Bugatti learned just how impractical it was to build a body out of magnesium," Russell says. "But by that time they had become invested, you might say, in this design feature, and in the kind of demonic look it gives the car."

Russell's quest for authenticity extends to preserving imperfections in a design. The original welds on the Ferrari Barchetta's tubular body frame are so messy that it seems no attention at all was paid to their appearance—a fact that clearly pains Russell, even though the joints are hidden. "If I had guys that welded like this, they'd have to find other work," he says. But the welds are in good condition, so Russell will leave them alone. Moreover, he will use obsolete manufacturing techniques if they are needed to re-create the look of the original precisely.

However, Russell is quite willing to use modern methods if they will save his customers money without sacrificing authenticity of appearance. He eschewed the original technique for stamping the Ferrari logo, a prancing horse, into new bolts for the Barchetta, because it would have required building expensive machinery. Instead, he explains, "we made a drawing of the horse and sent it to a company that scanned it, put it on a disc that runs a laser engraver, and had it engraved on the bolts."

THERE is always tension between preserving and consuming an artifact. The perfection of Russell's restorations heightens this tension, especially because he likes to see his clients drive their cars. Russell is enough of a driving enthusiast that he once took a course in vintage-auto racing. One customer asked Russell to drive his Mercedes Gullwing in the 1986 Monterey Historic Races, ten laps around the track at Laguna Seca, California. When Russell tells the story, a touch of regret creeps into his voice. "A good race driver always has the gas pedal or the brake pedal floored," he explains. "I put the equivalent of five thousand miles' worth of wear on the car in just that one race."

ANSWERS TO THE OCTOBER PUZZLER

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Down. 1. SEX + TONS 2. A + X + I + A + L 3. IS + ABEL 4. RE(LEAS)ED 5. E + XTRE + ME (*T. Rex* anag.) 6. MEAD + E 7. RO(AS)T 8. TOUPEES (*two pays* homophone) 13. N + AN + AS 17. E + XETER (*exert* anag.) 19. F(LEX)ED 21. FIXED IDEA (anag.) 22. SMIL(A + X)ES 23. LEEDS (homophone) 25. E(X) + POUND 26. SEN(S)OR 27. DEEPS + IX (rev.) 28. DR + OOL (*loo* rev.) 29. S + PEAR 33. HUG + O